

*In the opinion of Nixon Peabody LLP, Special Tax Counsel, under existing law and assuming compliance with the tax covenants described herein, and the accuracy of certain representations and certifications made by the Authority described herein, interest on the Series 2016 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"). Special Tax Counsel is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Special Tax Counsel is further of the opinion that interest on the Series 2016 Bonds is exempt from personal income taxes of the State of California under present State law. See "TAX MATTERS" herein regarding certain other tax considerations.*



## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

**\$34,280,000**

**Tax-Exempt Subordinate Lien  
Revenue Refunding Bonds, Series 2016A**

**\$556,860,000**

**Tax-Exempt Second Subordinate Lien  
Revenue Refunding Bonds, Series 2016B**

**Dated: Date of Delivery**

**Due: As shown on inside cover page**

The Alameda Corridor Transportation Authority (the "Authority") is issuing its Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A (the "Series 2016A Bonds") and its Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B (the "Series 2016B Bonds") and together with the Series 2016A Bonds, the "Series 2016 Bonds"), among other purposes (i) to refund, and/or to defease to maturity, a portion of the Authority's Tax-Exempt Subordinate Lien Revenue Bonds, Series 2004A (the "Refunded Series 2004A Bonds"); (ii) to fund a deposit to the debt service reserve account for the Series 2016A Bonds and to purchase a debt service reserve fund surety policy for the Series 2016B Bonds; (iii) to purchase a municipal bond insurance policy for a portion of the Series 2016B Bonds; and (iv) to pay costs of issuing the Series 2016 Bonds.

The Series 2016 Bonds are being issued pursuant to the Joint Exercise of Powers Act, California Government Code Sections 6500, *et seq.*, and pursuant to a Master Trust Indenture, as amended and supplemented, between the Authority and U.S. Bank National Association, as trustee. Except as described herein, the Series 2016 Bonds are payable solely from and are secured solely by a pledge of the Trust Estate, which consists primarily of Revenues. In general, Revenues include, among other things, Use Fees and Container Charges to be paid by Union Pacific Railroad Company and BNSF Railway Company (together, the "Railroads") and Shortfall Advances to be paid under certain circumstances by the City of Los Angeles, acting by and through its Board of Harbor Commissioners (the "Port of Los Angeles"), and the City of Long Beach, acting by and through its Board of Harbor Commissioners (the "Port of Long Beach" and together with the Port of Los Angeles, the "Ports"), as described herein. The Railroads and the Ports are obligated only to make certain payments required by the Alameda Corridor Use and Operating Agreement, dated as of October 12, 1998, as amended, among the Authority, the Ports and the Railroads, and are not responsible for paying, and are not guaranteeing the payment of, the principal of, premium, if any, or interest on the Series 2016 Bonds.

The Series 2016 Bonds are being issued as fully registered bonds in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company ("DTC"), New York, New York. Individual purchases and sales of the Series 2016 Bonds may be made in book-entry form only, in denominations of \$5,000 and integral multiples thereof. Purchasers will not receive certificates representing their interests in the Series 2016 Bonds. Interest on the Series 2016 Bonds will be payable on April 1 and October 1, commencing October 1, 2016. So long as the Series 2016 Bonds are held by DTC, the principal of and the interest on the Series 2016 Bonds will be payable to DTC, which in turn will be required to remit such principal and interest to the DTC participants for subsequent disbursement to beneficial owners of the Series 2016 Bonds.

**The Series 2016A Bonds are subject to extraordinary redemption and the Series 2016B Bonds are subject to optional and extraordinary redemption prior to maturity as described herein.**

The scheduled payment of principal of and the interest on the Series 2016B Bonds maturing on October 1, 2034 and bearing interest at 3.00%, October 1, 2035 and bearing interest at 4.00%, October 1, 2035 and bearing interest at 5.00% and yielding 2.71%, October 1, 2036 and bearing interest at 3.125%, October 1, 2036 and bearing interest at 5.00% and yielding 2.75%, October 1, 2037 and bearing interest at 4.00% and October 1, 2037 and bearing interest at 5.00% and yielding 2.77% (collectively, the "Insured Series 2016B Bonds"), when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Insured Series 2016B Bonds by ASSURED GUARANTY MUNICIPAL CORP.



**There are risks associated with the purchase of the Series 2016 Bonds. Potential purchasers are advised to review carefully this entire Official Statement, including the appendices, to obtain information essential to making an informed investment decision.**

THE SERIES 2016 BONDS ARE SPECIAL, LIMITED OBLIGATIONS OF THE AUTHORITY AND, EXCEPT AS DESCRIBED HEREIN, ARE PAYABLE SOLELY FROM AND ARE SECURED SOLELY BY A LIEN ON THE TRUST ESTATE. THE SERIES 2016 BONDS ARE NOT OBLIGATIONS OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA AND ARE NOT OBLIGATIONS OF THE CITY OF LONG BEACH OR THE CITY OF LOS ANGELES (COLLECTIVELY, THE "CITIES"), THE PORTS OR THE RAILROADS. THE PROJECT DESCRIBED IN THIS OFFICIAL STATEMENT IS NOT SECURITY FOR THE SERIES 2016 BONDS, AND THE SERIES 2016 BONDS ARE NOT SECURED BY A LIEN ON ANY PROPERTIES OR IMPROVEMENTS OF THE AUTHORITY, THE CITIES, THE PORTS OR THE RAILROADS OR BY A PLEDGE OF ANY REVENUES OF THE CITIES, THE PORTS OR THE RAILROADS.

*The Series 2016 Bonds are offered when, as and if issued, subject to receipt of the legal opinions of O'Melveny & Myers LLP, Los Angeles, California, Bond Counsel to the Authority, and Nixon Peabody LLP, Special Tax Counsel to the Authority. Certain legal matters will be passed upon for the Authority by one of its Co-General Counsel. Certain legal matters will be passed upon for the Port of Los Angeles by the Office of the Los Angeles City Attorney and for the Port of Long Beach by the Office of the Long Beach City Attorney. Certain legal matters will be passed upon for the Underwriters by their counsel, Orrick, Herrington & Sutcliffe LLP. Polsinelli LLP, Los Angeles, California, serves as Disclosure Counsel to the Authority in connection with certain of the Authority's disclosure matters. See "LEGAL MATTERS." It is expected that delivery of the Series 2016 Bonds will be made through DTC on or about May 24, 2016.*

**BofA Merrill Lynch**

**Barclays**

**Citigroup**

**RBC Capital Markets**

**Stifel**

**\$34,280,000**  
**TAX-EXEMPT SUBORDINATE LIEN REVENUE REFUNDING BONDS**  
**SERIES 2016A**

<b>Maturity Date (October 1)</b>	<b>Principal Amount</b>	<b>Interest Rate</b>	<b>Yield</b>	<b>CUSIP No. (010869)<sup>†</sup></b>
2021	\$5,685,000	4.00%	1.34%	GT6
2022	10,830,000	5.00	1.48	GU3
2023	4,945,000	4.00	1.67	GV1
2024	6,260,000	5.00	1.84	GW9
2025	6,560,000	5.00	1.99	GX7

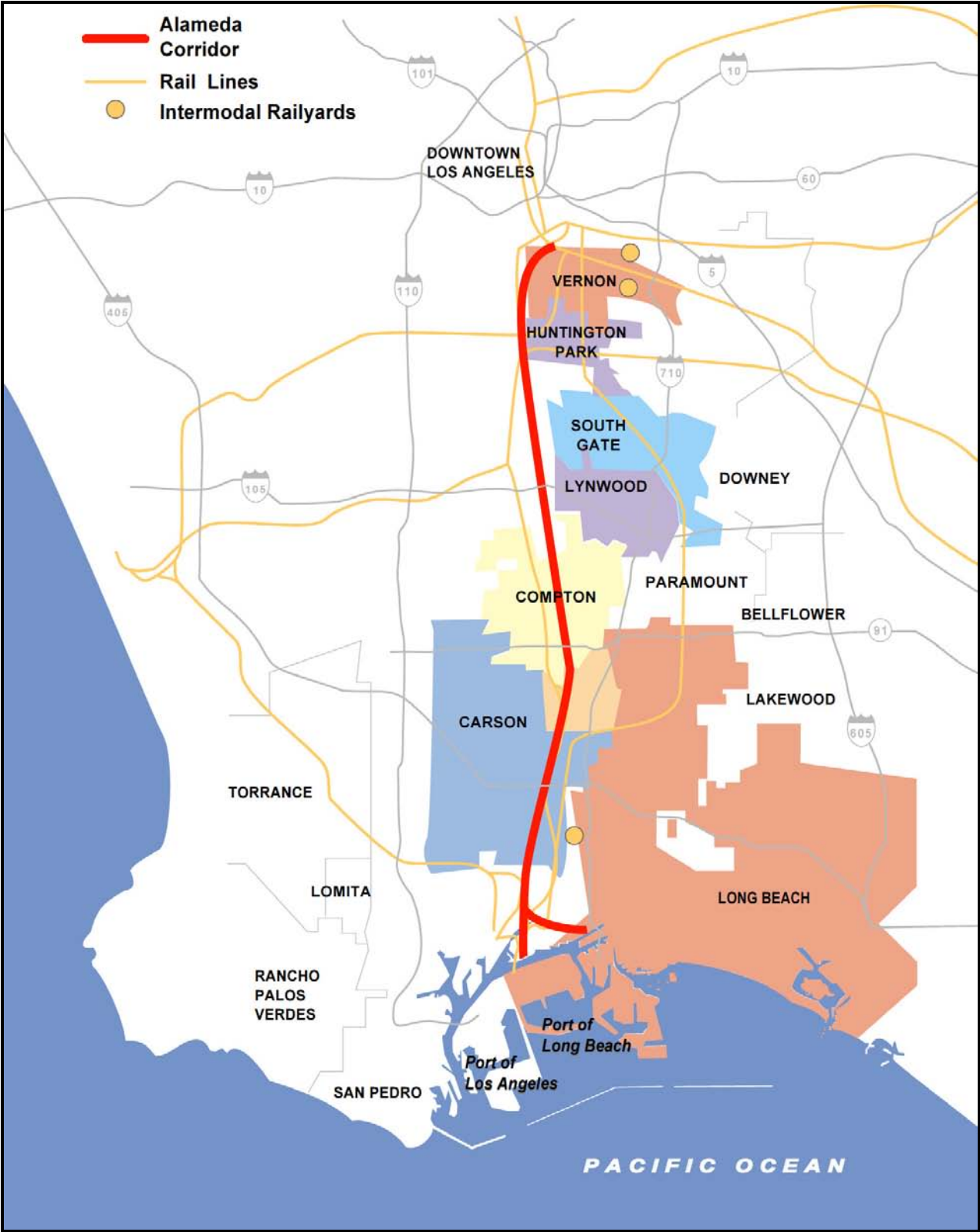
**\$556,860,000**  
**TAX-EXEMPT SECOND SUBORDINATE LIEN REVENUE REFUNDING BONDS**  
**SERIES 2016B**

<b>Maturity Date (October 1)</b>	<b>Principal Amount</b>	<b>Interest Rate</b>	<b>Yield</b>		<b>CUSIP No. (010869)<sup>†</sup></b>
2034	\$99,865,000	5.000%	2.81%	**	GY5
2034*	30,000,000	3.000	3.11		HC2
2035	85,760,000	5.000	2.86	**	GZ2
2035*	25,000,000	4.000	3.01	**	HD0
2035*	25,000,000	5.000	2.71	**	HG3
2036	92,295,000	5.000	2.90	**	HA6
2036*	25,000,000	3.125	3.20		HE8
2036*	25,000,000	5.000	2.75		HH1
2037	98,940,000	5.000	2.92	**	HB4
2037*	35,000,000	4.000	3.07	**	HF5
2037*	15,000,000	5.000	2.77	**	HJ7

\* Series 2016B Insured Bonds.

\*\* Priced to a par call date of October 1, 2026.

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**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

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**INDEPENDENT AUDITOR**

Moss Adams LLP  
Irvine, California



**No dealer, broker, salesperson or any other person has been authorized to give any information or to make any representations, other than the information and representations contained in this Official Statement, in connection with the offering of the Series 2016 Bonds and, if given or made, such information or representations must not be relied upon as having been authorized by the Authority, the Ports, the Railroads or the Underwriters. This Official Statement does not constitute an offer to sell or a solicitation of sale of the Series 2016 Bonds in any jurisdiction in which such offer or sale would be unlawful.**

The information contained in this Official Statement is subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority, the Ports, the Railroads or the Series 2016B Bond Insurer since the date hereof.

The information about the Ports in this Official Statement was provided by the Ports. The Authority makes no representation concerning such information.

The information contained in this Official Statement has not been provided by or reviewed by the Railroads, and the information about the Railroads set forth herein has been obtained from publicly available information filed with the Securities and Exchange Commission. The Authority makes no representation concerning the information about the Railroads. See Appendix D.

The Ports' Independent Consultant prepared for the Ports the Report of the Ports' Independent Consultant, a copy of which is attached to this Official Statement as Appendix J. The Report of the Ports' Independent Consultant was commissioned by the Ports. The Ports provided the Report of the Ports' Independent Consultant to the Authority for use by the Authority in connection with developing its restructuring program and the preparation of this Official Statement. The Authority has not independently confirmed or verified the accuracy or the completeness of the information in the Report of the Ports' Independent Consultant.

It is not possible for the Authority to verify all of the information provided by third parties, including the Ports and the Railroads.

Assured Guaranty Municipal Corp. ("AGM") makes no representation regarding the Series 2016 Bonds or the advisability of investing in the Series 2016 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "THE SERIES 2016B BOND INSURER" and APPENDIX I— "SPECIMEN MUNICIPAL BOND INSURANCE POLICY."

**CERTAIN STATEMENTS CONTAINED IN THIS OFFICIAL STATEMENT ARE NOT INTENDED TO REFLECT HISTORICAL FACTS BUT ARE ESTIMATES AND "FORWARD-LOOKING STATEMENTS." NO ASSURANCE CAN BE GIVEN THAT THE FUTURE RESULTS DISCUSSED HEREIN WILL BE ACHIEVED, AND ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THE EXPECTATIONS AND FORECASTS DESCRIBED HEREIN. IN THIS RESPECT, THE WORDS "ESTIMATE," "PROJECT," "FORECAST," "ANTICIPATE," "EXPECT," "ASSUME," "INTEND," "BELIEVE" AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. ALL PROJECTIONS, FORECASTS, ASSUMPTIONS, EXPRESSIONS OF OPINION, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS ARE EXPRESSLY QUALIFIED IN THEIR ENTIRETY BY THE CAUTIONARY STATEMENTS SET FORTH IN THIS OFFICIAL STATEMENT.**

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

**In connection with this offering, the Underwriters may overallocate or effect transactions that stabilize or maintain the market price of the Series 2016 Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.**

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## OFFICIAL STATEMENT

### Alameda Corridor Transportation Authority

#### **\$34,280,000 Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A**

#### **\$556,860,000 Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B**

### INTRODUCTION

The purpose of this Official Statement, which includes the cover page, inside cover pages, table of contents and appendices, is to provide information concerning the Alameda Corridor Transportation Authority (the “Authority”) and the proposed issuance by the Authority of \$34,280,000 aggregate principal amount of its Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A (the “Series 2016A Bonds”) and \$556,860,000 aggregate principal amount of its Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B (the “Series 2016B Bonds” and together with the Series 2016A Bonds, the “Series 2016 Bonds”).

Proceeds to be received from the sale of the Series 2016 Bonds are to be applied, among other purposes, to refund, and/or defease to maturity, a portion of the Authority’s outstanding Tax-Exempt Subordinate Lien Revenue Bonds, Series 2004A (the “Series 2004A Bonds”). The refunded and/or defeased portions of the Series 2004A Bonds are defined herein as the “Refunded Series 2004A Bonds.” A portion of the proceeds of the Series 2016 Bonds of each series also are to be applied to purchase a debt service reserve fund surety policy and/or to fund a deposit to the debt service reserve account, to purchase a municipal bond insurance policy for a portion of the Series 2016B Bonds and to pay costs of issuing the Series 2016 Bonds. See Tables 2A and 2B under “THE AUTHORITY’S RESTRUCTURING PROGRAM.”

The Series 2016A Bonds, the Authority’s outstanding Subordinate Lien Bonds and any additional Subordinate Lien Bonds issued on a parity therewith are referred to in this Official Statement as “First Subordinate Lien Bonds.” The Series 2016B Bonds will be the initial Second Subordinate Lien Bonds to be issued by the Authority, and the Series 2016B Bonds and any additional Second Subordinate Lien Bonds issued on a parity therewith are referred to in this Official Statement as “Second Subordinate Lien Bonds.” The outstanding Senior Lien Bonds and First Subordinate Lien Bonds, together with the Series 2016 Bonds and any Senior Lien Bonds, First Subordinate Lien Bonds and Second Subordinate Lien Bonds that may be issued in the future, are referred to in this Official Statement as the “Bonds.” See “THE AUTHORITY’S OUTSTANDING BONDS” and “THE AUTHORITY’S RESTRUCTURING PROGRAM.”

As of April 1, 2016, \$1,071,976,664.55 aggregate principal amount or accreted value of Senior Lien Bonds and \$986,930,277.25 aggregate principal amount or accreted value of Subordinate Lien Bonds, including the Series 2004A Bonds, were outstanding. After giving effect to the issuance of the Series 2016 Bonds, and the refunding and defeasance of the Refunded Series 2004A Bonds, the First Subordinate Lien Bonds will be outstanding in the aggregate principal amount or accreted value of \$371,904,327.

The Authority is issuing the Series 2016 Bonds and refunding and defeasing the Refunded Series 2004A Bonds to restructure a portion of its outstanding indebtedness (i) to better align debt service on the Authority’s Bonds with estimated future Revenues and (ii) to potentially reduce the frequency and amount of future Shortfall Advances (as defined herein). **Although this restructuring is designed to potentially reduce the frequency and amount of future Shortfall Advances, as a result of this restructuring debt service will be greater in some years than it is currently, and a portion of the Series 2016 Bonds will mature later than the Refunded Series 2004A Bonds.** See “THE AUTHORITY’S RESTRUCTURING PROGRAM.”

Capitalized terms used in this Official Statement but not otherwise defined herein are defined in the Indenture or in the Operating Agreement described below. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—Definitions” and “—USE AND OPERATING AGREEMENT—Certain Definitions” in Appendix E.

### **Authority for the Series 2016 Bonds**

The Authority’s outstanding Bonds were issued pursuant to the Act described below and pursuant to a Master Trust Indenture, dated as of January 1, 1999, as amended and supplemented (the “Master Indenture”), between the Authority and U.S. Bank National Association, as trustee (the “Trustee”). The Series 2016A Bonds are being issued pursuant to the Act and the Master Indenture, as supplemented and amended by a Tenth Supplemental Trust Indenture, to be dated as of May 1, 2016, by and between the Authority and the Trustee, and the Series 2016B Bonds are being issued pursuant to the Act and the Master Indenture, as supplemented and amended by an Eleventh Supplemental Trust Indenture, to be dated as of May 1, 2016, by and between the Authority and the Trustee. The Master Indenture, as previously amended and supplemented and as supplemented and amended by the Tenth Supplemental Indenture and the Eleventh Supplemental Indenture, is referred to in this Official Statement as the “Indenture.” The issuance of the Series 2016 Bonds, the execution and delivery by the Authority of the Tenth and Eleventh Supplemental Indentures and certain other matters related to the issuance of the Series 2016 Bonds and the refunding and defeasance of the Refunded Series 2004A Bonds were authorized by the Governing Board of the Authority (the “Governing Board”) pursuant to Resolution No. JPA-16-2, adopted by the Governing Board on March 10, 2016, and Resolution No. JPA-16-3, adopted by the Governing Board on April 14, 2016.

### **The Authority**

The Authority is a joint exercise of powers authority created by the City of Long Beach, California and the City of Los Angeles, California (collectively, the “Cities”) pursuant to the Joint Exercise of Powers Act, California Government Code Section 6500 and following (as it may be amended and supplemented, the “Act”), and organized under an Amended and Restated Joint Exercise of Powers Agreement, dated as of December 18, 1996, as amended (the “Joint Powers Agreement”), between the Cities. The Authority was created primarily for the purpose of acquiring, constructing, financing and operating a consolidated transportation corridor, which includes the Rail Corridor described below. See “THE AUTHORITY.”

### **The Ports, the Railroads and the Rail Corridor**

In 1998, the Authority entered into the Alameda Corridor Use and Operating Agreement, dated as of October 12, 1998 (as amended as of July 5, 2006, the “Operating Agreement”), with the City of Los Angeles, acting by and through its Board of Harbor Commissioners (the “Port of Los Angeles” or “POLA”), the City of Long Beach, acting by and through its Board of Harbor Commissioners (the “Port of Long Beach” or “POLB” and together with POLA, the “Ports”), Union Pacific Railroad Company (“Union Pacific”) and BNSF Railway Company, formerly known as The Burlington Northern and Santa Fe Railway Company (“BNSF” and, together with Union Pacific, the “Railroads”). In the Operating Agreement, the Authority agreed to undertake the design and construction of the Rail Corridor, described below, and related improvements and the operation and maintenance thereof at the direction of an Operating Committee. See “THE RAIL CORRIDOR AND RELATED PROJECTS—Maintenance and Operation of the Rail Corridor.” The Operating Agreement also provides for the operation, repair and maintenance of the Rail Corridor and related projects (collectively, the “Project”) and certain other matters. See “—The Railroads” and “THE RAIL CORRIDOR AND RELATED PROJECTS—The Use Permit and the Operating Agreement.”

The Rail Corridor consists of an approximately 20-mile long, multiple-track rail system that links the rail yards and tracks at the Ports’ facilities with the transcontinental rail routes near downtown Los Angeles and includes certain bridges, underpasses, overpasses, roadways and related street improvements. The Rail

Corridor consists of three segments: the South End (the “South End Segment”), the North End (the “North End Segment”) and connecting the North End Segment and the South End Segment, the Mid-Corridor or the “trench” (the “Mid-Corridor Segment”). The Mid-Corridor Segment includes an approximately 10-mile long, 50-foot wide, triple-track segment built approximately 33 feet below street level and parallel to Alameda Street. The Rail Corridor consolidated freight rail traffic from approximately 90 miles of pre-existing rail lines onto an integrated system separated from non-rail traffic. See “THE RAIL CORRIDOR AND RELATED PROJECTS.”

### **Revenues from the Rail Corridor**

Pursuant to the Operating Agreement, the Railroads are required to pay Use Fees and Container Charges in connection with the use of the Rail Corridor and the movement of Waterborne Containers (containers that are loaded onto or discharged from a vessel or barge at the Ports) that originate or terminate at the Ports and are transported by rail into or out of Southern California and in connection with Non-Waterborne Containers that originate or terminate at the Ports. In the event the amount of Use Fees and Container Charges collected is not sufficient to pay certain of the Authority’s obligations, including debt service on the Bonds, the Operating Agreement obligates each Port, severally and not jointly, to pay Shortfall Advances to cover up to 20% of the Annual Amount, which is comprised, among other things, of debt service then due on the Bonds, including the Series 2016 Bonds, certain Financing Fees and deposits to any debt service reserve fund. To date, the Ports have been required to pay Shortfall Advances twice, once in calendar year 2011 and once in calendar year 2012. The Ports’ obligations to pay Shortfall Advances are subordinate to all of the Ports’ other obligations, including the payment of operation and maintenance costs and debt service on the respective Ports’ outstanding debt obligations. See “AUTHORITY REVENUES—Shortfall Advances,” “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS” and “BONDHOLDERS’ RISKS —Shortfall Advances Are Limited Subordinate Obligations of the Ports.”

Service on the Rail Corridor began in April 2002. In early 2003, after several months of operations and revenue collections, the Authority became aware that revenues were less than originally forecast and were being collected on a smaller-than-expected percentage of Port container throughput, approximately 31% of the containers passing through the Ports instead of the expected 50%. Consultants commissioned by the Authority determined that in the years after the original Operating Agreement was signed and the first Bonds were issued, an industry practice known as “transloading” had taken hold. Cargo that formerly would have left the Southern California area by rail in their original containers increasingly was being trucked to distribution centers for consolidation in larger containers before leaving the area. The Authority’s consultants estimated that for every three 20-foot equivalent units (“TEUs,” the standard international measurement for cargo containers) leaving the Southern California area, two were leaving in their original containers (referred to as “intact”) and one was leaving after being transloaded. Since then, the percentage of transloaded containers has grown from approximately 33% to approximately 45%.

The Authority determined that transloading was responsible for most of the reduction in the portion of Port cargo for which the Authority was collecting fees under the Operating Agreement and estimated that if the ratio of intact to transloaded cargo continued, the Authority would lose approximately \$1.5 billion in revenue between 2003 and 2025. The Railroads disputed the Authority’s position that reloaded containers were subject to charges under the Operating Agreement, and between November 2004 and May 2006, negotiations and then formal mediation proceedings ensued to resolve the dispute. In 2006, a settlement was reached and the Operating Agreement was amended to provide for a permanent \$0.90/TEU increase in the Use Fees and Container Charges, an increase in the maximum annual inflation adjustment, a 25-year extension of the term of the Operating Agreement, and an additional fee in the event Shortfall Advances had to be paid. The Operating Agreement permits the Authority to increase the amount of the Use Fees for loaded Waterborne Containers and the amount of Container Charges by a \$1.00/TEU Surcharge (including the annual increase in the amount of the Surcharge in accordance with the annual CPI adjustments) so long as Bonds (including any reimbursement obligations to Bond Insurers) are outstanding and until such

Shortfall Advances, plus interest, are repaid. As of January 1, 2016, the Surcharge was adjusted to \$1.24 per TEU. See “AUTHORITY REVENUES,” “SECURITY AND SOURCE OF PAYMENT FOR THE BONDS—Flow of Funds,” “AUTHORITY REVENUES—Shortfall Advances” and “BONDHOLDERS’ RISKS—Uncertainties of the Shipping Industry.”

Authority revenue increased after the Operating Agreement was amended but, as described below, the recession and the slow economic recovery resulted in reduced cargo transported through the Ports and on the Rail Corridor (non-containerized cargo as well as containerized cargo) and thus in lower revenue from Use Fees and Container Charges. Annual Revenues dropped from approximately \$94.0 million in fiscal year 2008 to approximately \$80.4 million in fiscal year 2010, for example, and although cargo volumes and revenues recovered thereafter (totaling approximately \$93.2 million in fiscal year 2011 and approximately \$97.3 million in fiscal year 2012), the Ports were required to make Shortfall Advances to help the Authority pay debt service on the Bonds in October 2011 and in October 2012. Revenues from Use Fees and Container Charges totaled approximately \$109.0 million in fiscal year 2014 and approximately \$105.5 million in fiscal year 2015. Revenue from Use Fees and Container Charges decreased in fiscal 2015 as a result of congestion and contract issues at both Ports between April 2014 and June 2015. See “AUTHORITY REVENUES—Shortfall Advances” and “—Recent and Budgeted Cargo Throughput and Revenue Collection.”

A substantial portion of the Authority’s Outstanding Bonds are Capital Appreciation Bonds, and the amount of debt service that will become due on the Outstanding Bonds is scheduled to grow significantly as the accreted value of the capital appreciation Bonds grows, particularly over the next 10 years. For the Authority to be able to pay scheduled debt service on its Outstanding Bonds, even with Shortfall Advances, additional growth in cargo volume and revenues will be required. See “AUTHORITY REVENUES—Recent and Budgeted Cargo Throughput and Revenue Collections.” To minimize the need for Shortfall Advances in the future, the Authority instituted a program to reduce costs by reducing or freezing staff costs through the fiscal year ended June 30, 2015, by postponing or cancelling some of its planned capital projects, by implementing a program to reduce debt service by refinancing a portion of its Outstanding Bonds and by applying unexpended bond proceeds and available Revenues to retire portions of the Outstanding Bonds. The Authority issued Senior Lien Bonds in 2012 and 2013 to refund a portion of Bonds issued in 1999. The issuance of the Series 2016 Bonds to refund and/or defease the Refunded Series 2004A Bonds is a continuation of the Authority’s restructuring program. See “THE AUTHORITY’S OUTSTANDING BONDS,” “THE AUTHORITY’S RESTRUCTURING PROGRAM” and “AUTHORITY REVENUES.”

### **Security and Sources of Payment for the Bonds**

**The Bonds, including the Series 2016 Bonds, are special, limited obligations of the Authority and except as described herein are payable solely from and are secured solely by a lien on the Trust Estate, which consists primarily of Revenues. “Revenues” include, among other things, Use Fees, Container Charges and Shortfall Advances. The Bonds are not obligations of the State of California or any political subdivision of the State of California and are not obligations of any of the Cities, the Ports or the Railroads. The Project is not security for the Bonds, and the Bonds are not secured by a lien on any properties or improvements of the Authority, the Cities, the Ports or the Railroads or by a pledge of any revenues of the Cities, the Ports or the Railroads.**

**The Railroads and the Ports are obligated only to make certain payments required by the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations.”**

The Indenture provides that the liens and security interests created thereby are a first and senior priority for the benefit of the owners of the Senior Lien Bonds, a second priority for the benefit of the owners

of the First Subordinate Lien Bonds and a third priority for the benefit of the owners of the Second Subordinate Lien Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS.”

When issued, the Series 2016A Bonds will be secured and payable on a parity with the Authority’s outstanding First Subordinate Lien Bonds and any First Subordinate Lien Bonds that may be issued in the future in accordance with the Indenture. When issued, the Series 2016B Bonds will be the initial Second Subordinate Lien Bonds to be issued under the Indenture and will be secured and payable on a parity with any Second Subordinate Lien Bonds issued in the future.

The Tenth Supplemental Indenture provides that only the Series 2016A Bonds will be secured by and have a lien on the Series 2016A Debt Service Reserve Account within the Subordinate Lien Debt Service Reserve Fund, and the Eleventh Supplemental Indenture provides that only the Series 2016B Bonds will be secured by and have a lien on the Series 2016 Second Subordinate Lien Debt Service Reserve Account within the Second Subordinate Lien Debt Service Reserve Fund. See “THE AUTHORITY’S OUTSTANDING BONDS” and “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Debt Service Reserve Accounts.”

### **Series 2016B Bond Insurance Policy**

The scheduled payment of the principal of and interest on the Series 2016B Bonds maturing on October 1, 2034 and bearing interest at 3.00%, October 1, 2035 and bearing interest at 4.00%, October 1, 2035 and bearing interest at 5.00% and yielding 2.71%, October 1, 2036 and bearing interest at 3.125%, October 1, 2036 and bearing interest at 5.00% and yielding 2.75%, October 1, 2037 and bearing interest at 4.00% and October 1, 2037 and bearing interest at 5.00% and yielding 2.77% (collectively, the “Insured Series 2016B Bonds”) when due will be guaranteed under an insurance policy (the “Series 2016B Bond Insurance Policy”) to be issued by Assured Guaranty Municipal Corp. (as further defined herein, “AGM” or the “Series 2016B Bond Insurer”) simultaneously with the delivery of the Series 2016B Bonds. The Eleventh Supplemental Indenture includes certain covenants with, and rights of, the Series 2016B Bond Insurer.

The Authority is also obtaining from the Series 2016B Bond Insurer a municipal bond debt service reserve insurance policy (as further defined herein, the “Series 2016B Reserve Policy”) to satisfy the debt service reserve requirement for the Series 2016B Bonds.

See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Rights of the Series 2016B Bond Insurer,” “—Debt Service Reserve Fund” and “THE SERIES 2016B BOND INSURER” below and APPENDIX I—“SPECIMEN MUNICIPAL BOND INSURANCE POLICY.”

### **The Railroads**

Union Pacific and BNSF are Class I freight railroads and are the largest railroads in North America. Union Pacific operates across approximately 32,000 route miles serving 23 states in the western two-thirds of the United States and cooperating with other carriers, handles freight to and from the Atlantic Coast, the Pacific Coast, the Southeast, the Southwest, Canada and Mexico. BNSF operates across approximately 32,500 route miles, reaching 28 states and three Canadian provinces. **The information about the Railroads included or referred to in this Official Statement is derived solely from public information filed by BNSF and by Union Pacific Corporation, the parent of Union Pacific, with the Securities and Exchange Commission. It is not possible for the Authority to verify all of the information provided by third parties, including the Railroads.** See “THE RAILROADS” and “BONDHOLDERS’ RISKS” below and “THE RAILROADS” in Appendix D.



The Railroads have agreed to pay Use Fees, Container Charges and M & O Charges in accordance with the Operating Agreement. Although the Use Fees and Container Charges (but not M & O Charges) paid by the Railroads are the primary source of Revenues pledged to the payment of the Bonds, the Railroads are obligated only to make the payments required by the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. Use Fees and Container Charges may be increased only in accordance with the terms of the Operating Agreement; the Authority cannot unilaterally increase Use Fees and Container Charges to address Revenue shortfalls, including to pay debt service on its Bonds. The Bonds and the Railroads' payment obligations under the Operating Agreement are not secured by a lien on any properties or improvements of the Railroads or by a pledge of any revenues of the Railroads. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations" and "AUTHORITY REVENUES." Although other railroad companies may in the future use the Rail Corridor under certain circumstances, the Railroads are currently, and are expected to remain, the sole users of the Rail Corridor.

## **The Ports**

According to statistics compiled by the Journal of Commerce, POLA and POLB, combined, formed the tenth busiest container port complex in the world in calendar year 2014 (the last year for which such information has been reported).

POLA is located in San Pedro Bay, approximately 20 miles south of downtown Los Angeles, California, and comprises approximately 7,500 acres of land and water, approximately 43 miles of waterfront berthing and 27 passenger and cargo terminal facilities. According to the American Association of Port Authorities, during calendar year 2014, POLA was the busiest container port in North America in terms of cargo volume, handling approximately 8.3 million TEUs. POLA handled approximately 8.2 million TEUs during calendar year 2015. POLA is governed by the Los Angeles Board of Harbor Commissioners. See "THE PORTS" below and "THE PORT OF LOS ANGELES" in Appendix B.

POLB, located adjacent to POLA, is a harbor complex that covers approximately 7,600 acres of land and water and includes all of the harbor facilities of the City of Long Beach, California. POLB includes 31.5 miles of waterfront with approximately 65 deep-water cargo berths. According to the American Association of Port Authorities, during calendar year 2014, the Port of Long Beach was the second busiest container port in North America in terms of cargo volume, handling approximately 6.8 million TEUs. POLB handled approximately 7.2 million TEUs during calendar year 2015. POLB is operated and managed by the Harbor Department of the City of Long Beach. Pursuant to the Charter of the City of Long Beach, exclusive control and management of the Harbor Department of the City of Long Beach has been conferred on the Board of Harbor Commissioners of the City of Long Beach. See "THE PORTS" below and "THE PORT OF LONG BEACH" in Appendix C.

The Operating Agreement provides that under certain circumstances, the Ports will be obligated, severally and not jointly, to pay Shortfall Advances, which are part of the Revenues pledged to the payment of the Bonds, including the Series 2016 Bonds. The Ports are obligated only to make the payments required by the Operating Agreement (not to exceed for each Port in any calendar year 20% of the Annual Amount, as defined in the Operating Agreement). The Ports are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, and neither Port is responsible for paying more than 20% of the Annual Amount. In October 2011, the Ports were required to pay Shortfall Advances for the first time, in a total amount of \$5.9 million (\$2.95 million paid by each Port), and in October 2012, the Ports were required to pay additional Shortfall Advances in the total amount of \$5.9 million (\$2.95 million paid by each Port). The payment of Shortfall Advances by the Ports is payable after all of the Ports' other obligations, including operation and maintenance costs, have been paid. The Bonds are not secured by a lien on any properties or improvements of the Ports or by a pledge of any revenues of the

Ports. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations,” “AUTHORITY REVENUES— Shortfall Advances” and “BONDHOLDERS’ RISKS—Shortfall Advances Are Limited Subordinate Obligations of the Ports.”

**The information about the Ports in this Official Statement was provided by the Ports. The Authority makes no representation concerning such information. It is not possible for the Authority to verify all of the information provided by third parties, including the Ports.**

### **San Pedro Bay Cargo Forecasts; Report of the Ports’ Independent Consultant**

Mercator International LLC and Oxford Economics (together, the “Ports’ Independent Consultant” or the “Consultant”) prepared for the Ports a report entitled *San Pedro Bay Long-Term Unconstrained Cargo Forecast* (the “Report of the Ports’ Independent Consultant” or the “Report”), a copy of which is attached hereto as Appendix J. The Report of the Ports’ Independent Consultant, incorporated herein by this reference, is part of this Official Statement and should be read in its entirety.

The Report of the Ports’ Independent Consultant was commissioned by the Ports to assist the Ports in developing their own long-term forecasts of cargo throughput through the Ports. The Report was not commissioned to forecast use of the Rail Corridor or future Authority Revenues. Among other things, the Report of the Ports’ Independent Consultant identifies key macroeconomic drivers and cost considerations that impact competitiveness and cargo throughput decisions and includes forecasts of long-term U.S. and Canada trade levels and competitiveness for containerized cargo and for non-containerized cargo, including dry- and liquid-bulk cargo, break-bulk cargo and vehicles and other roll-on/roll-off cargo. Included in the Report of the Ports’ Independent Consultant is an analysis and forecast of containerized cargo volumes that are moved directly from a Port to an interior destination by rail, without transloading (referred to in the Report of the Ports’ Independent Consultant as “Inland Point Intermodal” or “IPI” cargo). IPI cargo volumes generally are the container volumes that use the Rail Corridor or are trucked around the Rail Corridor, but are eligible for an Authority fee, both of which generate the Authority’s Revenues. See “AUTHORITY REVENUES.”

The Report of the Ports’ Independent Consultant includes three macroeconomic scenarios, with a base and two competitive adjustments applied to each, resulting in a total of nine scenarios. For discussions of the various scenarios and the competitive adjustments, see the Report of the Ports’ Independent Consultant included as Appendix J.

The Ports provided the Report of the Ports’ Independent Consultant to the Authority for use by the Authority in connection with developing its restructuring program and the preparation of this Official Statement. The Ports and the Authority note, however, that any forecast, including the Ports’ Independent Consultant’s forecasts of IPI volumes, is subject to uncertainties. Some or all of the assumptions used to develop the forecasts of cargo volumes, including IPI cargo volumes, and thus the basis of the estimated future Revenues included in this Official Statement, may not be realized, and unanticipated events and circumstances may occur. There will be differences between the forecasts, calculations and actual results, and those differences may be material. None of the Authority, the Ports, the Ports’ Independent Consultant or any other person makes any representation or gives any assurance that the forecasts will reflect actual results. See the Report of the Ports’ Independent Consultant included in Appendix J.

The Ports’ Independent Consultant has consented to the inclusion of its Report in this Official Statement, but notes in its consent that it will not be liable for the contents of its forecast, or for the reliance by the Authority’s creditors on the contents of the Report.

## **Bondholders' Risks**

There are important investment considerations and other risk factors associated with investment in the Series 2016 Bonds. See "BONDHOLDERS' RISKS" for a discussion of some of these considerations and risks. Any one or more of the risks discussed, and others, could lead to a decrease in the market value and/or in the liquidity of the Series 2016 Bonds, notwithstanding the obligations of the Series 2016B Bond Insurer to pay scheduled debt service on the Insured Series 2016B Bonds when due. **Potential purchasers of the Series 2016 Bonds are advised to review this entire Official Statement, including the Report of the Ports' Independent Consultant, carefully.**

## **Continuing Disclosure**

The Authority has covenanted for the benefit of the holders and beneficial owners of the Series 2016 Bonds to provide annually certain financial information and operating data and to provide notice of certain enumerated events. In connection with the Authority's continuing disclosure obligations, each of the Ports has covenanted for the benefit of the holders and beneficial owners of the Series 2016 Bonds to provide the Authority with certain annual financial information and operating data and to provide notice of certain enumerated events relating to the Ports. See "CONTINUING DISCLOSURE" below and the form of the Continuing Disclosure Certificate in Appendix H.

Separately, BNSF has covenanted in a continuing disclosure agreement that if BNSF is no longer subject to the information filing requirements of Section 13 or 15 of the federal Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Union Pacific also has covenanted that if neither Union Pacific nor its parent, Union Pacific Corporation, is subject to the information filing requirements of Section 13 or 15 of the Exchange Act, BNSF or Union Pacific, as applicable, will provide certain financial information and operating data for the benefit of the holders and beneficial owners of the Series 2016 Bonds. See "CONTINUING DISCLOSURE" below and Appendix D.

## **Miscellaneous**

Brief descriptions of the Series 2016 Bonds, the Authority, the Railroads, the Ports, the Railroad Corridor and summaries of the Indenture, the Operating Agreement, the Use Permit and certain other documents are included in this Official Statement. Such summaries do not purport to be comprehensive or definitive. All references herein to such documents and to any other documents, statutes, reports or other instruments described herein are qualified in their entirety by reference to each such document, statute, report or other instrument. Copies of such documents are available from the Authority upon written request. See "MISCELLANEOUS."

The information herein is subject to change without notice, and neither the delivery of this Official Statement nor any sale made with respect hereto shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority, the Ports, the Railroads or the Series 2016B Bond Insurer since the date hereof.

This Official Statement is not to be construed as a contract or agreement between the Authority and purchasers or owners of any of the Series 2016 Bonds.

## **THE AUTHORITY**

The Authority is a joint exercise of powers authority created pursuant to the provisions of the Act and organized under the Joint Powers Agreement between the Cities. The Authority was created primarily for the purpose of acquiring, constructing, financing and operating a consolidated transportation corridor, which includes the Rail Corridor, and is authorized by the terms of the Joint Powers Agreement to conduct

such activities (including issuance of the Series 2016 Bonds). As amended in 2006, the Joint Powers Agreement provides that its term will expire on the earlier of June 30, 2064 and June 30 of the second calendar year following the calendar year in which the Use Fees Termination Date (as defined in the Operating Agreement) occurs. See “AUTHORITY REVENUES—Collection of Use Fees and Container Charges; Revenue Verification System.”

The Authority is administered by a Governing Board of seven representatives, each serving in his or her individual capacity as a Governing Board member and each having a designated alternate. Two representatives are appointed by POLB, with at least one of the two being a member of its Board of Harbor Commissioners. POLA also appoints two representatives – one representative who is a member of its Board of Harbor Commissioners and the Executive Director of the Los Angeles Harbor Department as its second representative. The fifth representative is the elected councilperson representing the harbor district of the City of Los Angeles, and the sixth representative is a councilperson from the City of Long Beach, appointed by the Mayor of Long Beach. The final representative is appointed by the Los Angeles County Metropolitan Transportation Authority. The current representatives serving on the Governing Board are listed on the second page of this Official Statement.

### **Authority Management**

The following individuals serve as officers for the Authority and oversee the day-to-day management of the Authority. In addition, Heather M. McCloskey, Deputy City Attorney of the Los Angeles City Attorney’s office, and Charles Gale, Deputy City Attorney of the City of Long Beach, serve as Co-General Counsel of the Authority.

***John T. Doherty, P.E., Chief Executive Officer.*** Mr. Doherty was appointed Chief Executive Officer of the Authority in July 2003 and is responsible for overseeing all financial, administrative and strategic planning matters of the Authority. As the Authority’s lead engineer, he also supervises all program management, engineering design and construction management firms hired by the Authority.

Mr. Doherty has been affiliated with the Authority in various capacities since 1995. Prior to Mr. Doherty’s appointment as Chief Executive Officer, he served as the Authority’s Director of Construction and Engineering from February 2003 to July 2003. Before that, he was an Associate Principal with DMJM+HARRIS, serving as Deputy Program Manager of Construction for the Alameda Corridor Engineering Team described below. Prior to his service with the Authority, Mr. Doherty performed various engineering and business development consulting roles for several major transportation programs, including the Los Angeles Metrolink Commuter Rail Project, the California High Speed Rail Study and the Honolulu Rapid Transit System. Before consulting, Mr. Doherty served for 24 years with the Long Island Railroad Company, the largest commuter rail operation in the nation. During his tenure with the Long Island Railroad, Mr. Doherty served in a variety of engineering, construction, operations and administrative positions, including Director of Capital Construction, Chief of Staff and Vice President of Operations. Mr. Doherty has a Master of Science degree in Civil Engineering from the Polytechnic Institute of New York and a Bachelor of Civil Engineering from Villanova University. He is registered as professional engineer in the states of California, Hawaii and New York.

***James P. Preusch, Chief Financial Officer.*** Mr. Preusch was appointed Chief Financial Officer for the Authority in August 2004. As CFO, Mr. Preusch is responsible for planning, organizing, directing and coordinating financial and administrative management of the Authority. Under the direction of the Chief Executive Officer, he manages the Authority’s controllership, treasury and administrative functions, overseeing a staff of six.

Before joining the Authority, Mr. Preusch was Principal Consultant, HNTB Management Consulting, and between 1989 and 1999, served as the Authority’s Treasurer and as Chief Financial Officer

of the Port of Los Angeles. He also served as Treasurer of the Port of Los Angeles and before that worked with PepsiCo, Rockwell International, Infra-Trans, LLC and AG Edwards. Mr. Preusch received his undergraduate degree from Clarkson University and was awarded a Master's degree in business administration from Lehigh University. He is a CPA.

**Marla Bleavins, Treasurer.** In January 2016, Ms. Bleavins was appointed as Treasurer of the Authority. In addition to serving as Treasurer of the Authority, Ms. Bleavins serves as the Deputy Executive Director and Chief Financial Officer of the Port of Los Angeles. In these roles, Ms. Bleavins manages POLA's financial affairs, which include accounting, financial management, debt and treasury, risk management, audit, human resources, and contracts and purchasing functions. She previously served as the Assistant General Manager for Finance and Administration at the City of Los Angeles Department of Convention and Tourism Development. Prior to that, she served as a Project Manager and Debt and Treasury manager at Los Angeles World Airports. Ms. Bleavins began her career at the City of Los Angeles as a Budget Analyst and then as a Finance Specialist in the Office of the City Administrative Officer. During her tenure with the City, she managed approximately \$6 billion in bond financings that funded capital projects at Los Angeles International Airport and throughout the City. Ms. Bleavins holds a Bachelor of Arts degree in public policy and political science from Stanford University and a Master's degree in business administration from the Wharton School at the University of Pennsylvania.

## **Staffing**

The Authority has periodically adjusted staff count to meet its needs, as its focus moved from construction to operations, maintenance and financial management. Currently, the Authority has 9.6 full-time-equivalent employees and contracts with the Cities, the Railroads and the Alameda Corridor Engineering Team ("ACET") for additional services. ACET is a joint venture comprising DMJM Harris; Moffatt & Nichol Engineers; Jenkins, Gales and Martinez, Inc.; and TELACU Construction Management, Inc. and provides day-to-day professional services related to management, engineering, construction support, procurement, coordination and administration of the Authority's construction program. ACET provides approximately 7 full-time-support positions, including environmental engineering, contract administration, utility and right-of-way services and engineering support. The annual required scope of ACET services is approved by the Governing Board as part of the Authority's annual budget process. ACET shares office space with the Authority and pays approximately half the rent. Originally a 10-year agreement, the Authority's contract with ACET has been amended periodically, and an extension of its current term to June 30, 2016 was approved by the Governing Board on June 11, 2015. On March 10, 2016, the Governing Board approved extending the term to June 30, 2017. See "THE RAIL CORRIDOR AND RELATED PROJECTS—Maintenance and Operation of the Rail Corridor."

## **THE AUTHORITY'S OUTSTANDING BONDS**

The following table lists the aggregate principal amount of Senior Lien Bonds and First Subordinate Lien Bonds originally issued by the Authority and the aggregate principal amounts or accreted values of Bonds Outstanding under the Indenture (including all of the Outstanding Series 2004A Bonds) as of April 1, 2016. The Series 2016B Bonds will be the Authority's initial issuance of Second Subordinate Lien Bonds.

**TABLE 1**  
**Alameda Corridor Transportation Authority**  
**Outstanding Senior Lien and First Subordinate Lien Bonds**  
(as of April 1, 2016)

<b>Series</b>	<b>Lien</b>	<b>Interest Convention</b>	<b>Tax Status</b>	<b>Final Maturity (October 1)</b>	<b>Original Principal Amount Issued<sup>(1)</sup></b>	<b>Principal/ Accreted Value Outstanding<sup>(2)</sup></b>
1999A	Senior	Capital Appreciation	Tax-Exempt	2037	\$ 50,453,617	\$122,916,291
1999C	Senior	Current Interest	Taxable	2037	430,155,000	405,735,000
1999C	Senior	Capital Appreciation	Taxable	2037	67,298,396	211,290,374
2004A	First Subordinate	Capital Appreciation	Tax-Exempt	2030	200,300,101	283,554,149 <sup>(3)</sup>
2004A	First Subordinate	Current Interest <sup>(4)</sup>	Tax-Exempt	2025	274,992,286	428,390,000 <sup>(3)</sup>
2004B	First Subordinate	Capital Appreciation	Taxable	2033	210,731,703	274,986,128
2012 <sup>(5)</sup>	Senior	Current Interest	Taxable	2035	83,710,000	83,710,000 <sup>(5)</sup>
2013 <sup>(6)</sup>	Senior	Current Interest	Tax-Exempt	2029	248,325,000	248,325,000
<b>Totals</b>					<b>\$1,565,966,103</b>	<b>\$2,058,906,942</b>

<sup>(1)</sup> Capital Appreciation Bonds listed at original principal amount, rounded to the nearest dollar.

<sup>(2)</sup> Capital Appreciation Bonds listed at accreted value as of March 31, 2016, rounded to the nearest dollar.

<sup>(3)</sup> A portion of the Series 2004A Bonds will be refunded and/or defeased with proceeds of the Series 2016 Bonds.

<sup>(4)</sup> This portion of the Series 2004A Bonds was initially issued as Capital Appreciation Bonds and converted to Current Interest Bonds on October 1, 2012.

<sup>(5)</sup> The Series 2012 Senior Lien Bonds are refunding Bonds purchased by the U.S. Department of Transportation, acting through the Federal Railroad Administration. These Bonds refunded a portion of the Authority's Series 1999A current interest Bonds.

<sup>(6)</sup> The Series 2013 Senior Lien Bonds were issued to refund the Authority's remaining Series 1999A Senior Lien Bonds that were current interest bonds.

Source: Alameda Corridor Transportation Authority.

**Outstanding Series 1999 Bonds.** The Authority issued its Tax-Exempt Senior Lien Revenue Bonds, Series 1999A (the "Series 1999A Senior Lien Bonds"), Taxable Senior Lien Revenue Bonds, Series 1999C (collectively with the Series 1999A Senior Lien Bonds, the "Series 1999 Senior Lien Bonds") and Tax-Exempt Subordinate Lien Revenue Bonds, Series 1999B and Taxable Subordinate Lien Bonds, Series 1999D (collectively, the "Series 1999 First Subordinate Lien Bonds" and together with the Series 1999 Senior Lien Bonds, the "Series 1999 Bonds") in February 1999 to pay, together with grants from the Metropolitan Transportation Authority and contributions from both Ports, a portion of the costs of constructing the Rail Corridor. The Authority also borrowed \$400 million from the U.S. Department of Transportation, Federal Highway Administration (the "1999 Federal Loan"), to pay additional Rail Corridor Costs. The Outstanding Series 1999 Bonds are insured by MBIA Insurance Corporation (now reinsured and administered by National Public Finance Guarantee Corporation, the "Series 1999 Bond Insurer"). Moneys deposited to each Debt Service Fund in connection with the outstanding Series 1999 Senior Lien Bonds are invested in the Forward Delivery Agreement described below. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Permitted Investments."

**Outstanding Series 2004 First Subordinate Lien Bonds.** On May 6, 2004, the Authority issued its Series 2004A Bonds and its Taxable Subordinate Lien Revenue Refunding Bonds, Series 2004B (collectively, the "Series 2004 Bonds") to prepay the entire outstanding balance (including accrued interest of \$172.8 million) of the 1999 Federal Loan. The Series 2004 Bonds are insured by AMBAC Assurance Corporation (the "Series 2004 Bond Insurer"). The Refunded Series 2004A Bonds are to be refunded and/or defeased to maturity with proceeds received from the issuance of the Series 2016 Bonds. After giving effect to the issuance of the Series 2016 Bonds, and the refunding and defeasance of the Refunded Series 2004A Bonds, the First Subordinate Lien Bonds will be outstanding in the aggregate principal amount or accreted value of \$371,904,327. The Authority made a number of covenants to the Series 2004 Bond Insurer pursuant to the Sixth Supplemental Indenture. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS."

**Outstanding Series 2012 Senior Lien Bonds.** In June 2012, the Authority issued \$83,710,000 aggregate principal amount of its Taxable Senior Lien Revenue Refunding Bonds, Series 2012 (the “Series 2012 Senior Lien Bonds”) to refund all of the Series 1999A Bonds that were current interest bonds stated to mature on October 1, 2014 through 2018 and a portion of the Series 1999A Bonds that were current interest bonds stated to mature on October 1, 2019. The interest rates on the Series 2012 Senior Lien Bonds are lower and the maturity dates are later than those of the Series 1999A Bonds refunded. The Series 2012 Senior Lien Bonds were purchased by the U.S. Department of Transportation, acting through the Federal Railroad Administration (the “FRA”), pursuant to a Financing Agreement between the FRA and the Authority (the “2012 Financing Agreement”) and pursuant to the Eighth Supplemental Indenture. As the registered owner of the Series 2012 Senior Lien Bonds, the FRA is referred to in this Official Statement as the “Series 2012 Lender.” The Authority made a number of covenants to the Series 2012 Lender pursuant to the 2012 Financing Agreement and the Eighth Supplemental Indenture. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS.”

**Outstanding Series 2013A Senior Lien Bonds.** In February 2013, the Authority issued \$248,325,000 aggregate principal amount of its Senior Lien Revenue Refunding Bonds, Series 2013A (the “Series 2013A Bonds”), all of which are current interest bonds, to refund all of the Authority’s remaining Series 1999A Bonds that were current interest bonds. A portion of the Series 2013A Bonds are insured by Assured Guaranty Municipal Corp. (the “Series 2013A Bond Insurer”). The Authority made a number of covenants to the Series 2013A Bond Insurer pursuant to the Ninth Supplemental Indenture. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS.”

## **THE AUTHORITY’S RESTRUCTURING PROGRAM**

The Authority has developed a plan to restructure a portion of its outstanding debt by, among other things, refinancing a portion of its Outstanding Bonds, (i) to better align debt service on the Authority’s Bonds with estimated future Revenues and (ii) to potentially reduce the frequency and amount of future Shortfall Advances. The issuance of the Series 2016 Bonds and the refunding and/or defeasance of the Refunded Series 2004A Bonds are part of this program. See “—The Restructuring Program.”

### **The Series 2016 Bonds**

The Series 2016 Bonds are being issued by the Authority (i) to refund all or a portion of the 2004A Bonds that are Current Interest Bonds as shown in Table 2A below (the “Refunded Series 2004A Current Interest Bonds”) and/or to defease to maturity portions of the Series 2004A Bonds that are Capital Appreciation Bonds shown in Table 2B below (the “Refunded Series 2004A Capital Appreciation Bonds”), (ii) to make a deposit to the debt service reserve account for the Series 2016A Bonds and to purchase the Series 2016B Reserve Policy to satisfy the Debt Service Reserve Requirement for the Series 2016B Bonds, (iii) to purchase the Series 2016B Bond Insurance Policy for the Insured Series 2016B Bonds, and (iv) to pay costs of issuing the Series 2016 Bonds.



TABLE 2A

## Refunded Series 2004A Current Interest Bonds

Maturity Date (October 1)	Interest Rate	Accreted Value at Conversion <sup>(1)</sup>	2004A		CUSIP Number (010869) <sup>±</sup>
			Redemption Date (October 1)	Redemption Price	
2021	5.25%	\$ 74,660,000	2017	100%	EL5
2022	5.30	81,685,000	2017	100	EM3
2023	5.30	86,015,000	2017	100	EN1
2024	5.40	90,570,000	2017	100	EP6
2025	5.45	95,460,000	2017	100	EQ4
Total		\$428,390,000			

<sup>(1)</sup> Initially issued as capital appreciation bonds and converted to Current Interest Bonds on October 1, 2012.

On the date of delivery of the Series 2016 Bonds, portions of the proceeds of the Series 2016 Bonds are to be irrevocably deposited by the Trustee, in its capacity as trustee and escrow agent (“Escrow Agent”) for the Series 2004A Bonds and held in the Series 2004A Bonds Defeasance Escrow Fund established pursuant to an escrow deposit agreement (the “Escrow Agreement”), and applied to pay interest on the Refunded Series 2004A Current Interest Bonds when due through October 1, 2017 and to redeem on October 1, 2017 (the “2004A Current Interest Redemption Date”) the Refunded Series 2004A Current Interest Bonds, at a redemption price equal to 100% of the principal amount thereof (the “2004A Current Interest Redemption Price”), plus interest accrued to the 2004A Current Interest Redemption Date. The Indenture provides that upon such deposit, the Refunded Series 2004A Current Interest Bonds no longer will be outstanding under the Indenture. Prior to the 2004A Current Interest Redemption Date, moneys on deposit in the Series 2004A Bonds Defeasance Escrow Fund are to be invested in noncallable Government Obligations.

TABLE 2B

## Refunded Series 2004A Capital Appreciation Bonds

Maturity Date (October 1)	Initial Amount	Yield to Maturity	Original Issue Final Compounded Amount	Defeased Portion of Final Compounded Amount	CUSIP Number (010869) <sup>±</sup>
2016	\$18,482,475.10	4.88%	\$33,610,000.00	\$33,610,000.00	DP7
2017	20,916,376.80	4.98	40,440,000.00	32,185,000.00	DQ5
2018	23,428,767.60	5.08	48,255,000.00	36,555,000.00	DR3
2019	25,823,537.60	5.18	56,770,000.00	52,600,000.00	DS1
2020	28,024,253.40	5.27	65,780,000.00	64,445,000.00	DT9
Total	\$116,675,410.50		\$244,855,000.00	\$219,395,000.00	

Portions of the proceeds of the Series 2016 Bonds are to be irrevocably deposited on the date of delivery of the Series 2016 Bonds by the Trustee, in its capacity as trustee and Escrow Agent for the Series 2004A Bonds and held in the Series 2004A Bonds Defeasance Escrow Fund established pursuant to the Escrow Agreement, and applied to pay the Final Compounded Amount of the Refunded Series 2004A Capital Appreciation Bonds when due through their respective maturity dates. The Indenture provides that upon such deposit, the Refunded Series 2004A Capital Appreciation Bonds no longer will be outstanding under the Indenture. Moneys on deposit in the Series 2004A Bonds Defeasance Escrow Fund are to be invested in noncallable Government Obligations.

<sup>±</sup> CUSIP® numbers are provided for convenience of reference only. None of the Authority, the Ports, the Railroads or the Underwriters takes responsibility for the accuracy of such numbers.

See the definition of “Government Obligations” and “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—Defeasance” in Appendix E.

## Verification Report

As required by the Indenture, an independent verification report (the “Verification Report”) will be obtained from Causey Demgen & Moore P.C., a firm of independent public accountants (the “Verification Agent”), indicating that it has verified, in accordance with attestation standards established by the American Institute of Certified Public Accountants, the mathematical accuracy of the mathematical computations of the adequacy of the Escrow Fund Deposits to be held by the Trustee to (i) pay interest on the Current Interest Refunded Bonds when due, (ii) pay the 2004A Current Interest Redemption Price, plus accrued interest to the 2004A Current Interest Redemption Date on the 2004A Current Interest Redemption Date, and (iii) pay the Final Compounded Amount on the Series 2004A Capital Appreciation Defeased Bonds when due on their respective maturity dates. The verification performed by the Verification Agent will be based solely upon data, information and documents provided to the Verification Agent on behalf of the Authority. The Verification Agent will restrict its procedures to recalculating the computations provided to it and has not evaluated or examined the assumptions or information used in the computations.

## Sources and Uses of Funds

The proceeds of the Series 2016 Bonds, together with other available funds, are expected to be applied as follows:

**TABLE 3**  
**Sources and Uses of Funds**

<b>Sources of Funds:</b>	<b>Series 2016A</b>	<b>Series 2016B</b>
Principal amount of Series 2016 Bonds	\$34,280,000	\$556,860,000
Net original issue premium/discount	7,077,784	88,836,827
<b>Total Sources</b>	<b>\$41,357,784</b>	<b>\$645,696,827</b>
<b>Uses of Funds:</b>		
Escrow Fund Deposit	\$37,613,449	\$634,954,122
Deposit to Debt Service Reserve Account	3,428,000	--
Costs of Issuance <sup>(1)</sup>	316,335	10,742,705
<b>Total Uses</b>	<b>\$41,357,784</b>	<b>\$645,696,827</b>

<sup>(1)</sup> Costs of Issuance include, but are not limited to, Trustee, Escrow Agent, Verification Agent and legal fees and expenses; Underwriters’ discount; rating agency fees; printing costs; and the premiums for the Debt Service Reserve Surety Policy for the Series 2016B Bonds and the Series 2016B Bond Insurance Policy.

## The Restructuring Program

Refinancing the 1999 Federal Loan in May 2004 was among the first steps the Authority took to reduce debt service costs. In 2011, the Authority applied approximately \$24.295 million of unexpended Series 1999A Bond Construction Fund proceeds to retire a portion of the outstanding Series 1999A Bonds, and in June 2012, the Authority issued the Series 2012 Senior Lien Bonds to refund \$83.71 million of the outstanding Series 1999A Senior Lien Bonds. In February 2013, the Authority issued the Series 2013A Bonds to refund \$288.95 million of outstanding Series 1999 Senior Lien Bonds.

The issuance of the Series 2016 Bonds is another part of the Authority’s plan (i) to better align debt service on the Bonds with estimated future Revenues and (ii) to potentially reduce the frequency and amount of future Shortfall Advances. Together, the Ports made a total of \$5.9 million of Shortfall Advances in October 2011 and a total of \$5.9 million of Shortfall Advances in October 2012. **Although this**

**restructuring is designed to potentially reduce the frequency and amount of future Shortfall Advances, as a result of this restructuring debt service will be greater in some years than it is currently, and a portion of the Series 2016 Bonds will mature later than the Refunded Series 2004A Bonds.**

As shown in Table 1 above and in Table 4 below, a substantial amount of the Authority's Bonds that will remain outstanding after the issuance of the Series 2016 Bonds are capital appreciation Bonds, and the amount of debt service that will become due on such Bonds will grow as the accreted value of the capital appreciation Bonds grows. The Authority intends to continue monitoring its outstanding Bonds for additional opportunities to better align debt service on the Bonds with estimated future Revenues and to potentially reduce the frequency and amount of future Shortfall Advances, if necessary, through future refundings of Bonds and/or through open market purchases of its Bonds and intends to continue its other efforts to minimize costs.

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**Debt Service Schedule.** Table 4 is a debt service schedule for the Outstanding Bonds, excluding the Refunded Series 2004A Bonds that are expected to be refunded or defeased and including the Series 2016 Bonds.

**TABLE 4**  
**DEBT SERVICE SCHEDULE**

Fiscal Year Ending June 30	Outstanding Senior Lien Bonds	Outstanding First Subordinate Lien Bonds <sup>(1)</sup>	Series 2016A Bonds		Series 2016B Bonds		Total Outstanding Debt Service
			Principal	Interest	Principal	Interest	
2016	\$62,504,216.91	\$11,450,550.00	-	-	-	-	\$73,954,766.91
2017	62,933,625.09	-	-	\$1,371,010.83	-	\$22,320,818.75	86,625,454.67
2018	63,370,233.50	8,255,000.00	-	1,607,700.00	-	26,174,250.00	99,407,183.50
2019	63,804,308.50	11,700,000.00	-	1,607,700.00	-	26,174,250.00	103,286,258.50
2020	75,079,554.41	4,170,000.00	-	1,607,700.00	-	26,174,250.00	107,031,504.41
2021	82,271,825.09	1,335,000.00	-	1,607,700.00	-	26,174,250.00	111,388,775.09
2022	83,109,646.00	-	\$5,685,000.00	1,494,000.00	-	26,174,250.00	116,462,896.00
2023	83,947,146.00	-	10,830,000.00	1,109,550.00	-	26,174,250.00	122,060,946.00
2024	94,081,461.91	-	4,945,000.00	739,900.00	-	26,174,250.00	125,940,611.91
2025	94,024,538.93	-	6,260,000.00	484,500.00	-	26,174,250.00	126,943,288.93
2026	93,968,183.10	-	6,560,000.00	164,000.00	-	26,174,250.00	126,866,433.10
2027	93,959,553.22	100,675,000.00	-	-	-	26,174,250.00	220,808,803.22
2028	93,893,788.75	100,675,000.00	-	-	-	26,174,250.00	220,743,038.75
2029	93,803,951.93	100,670,000.00	-	-	-	26,174,250.00	220,648,201.93
2030	93,719,890.12	100,675,000.00	-	-	-	26,174,250.00	220,569,140.12
2031	101,533,489.55	100,665,000.00	-	-	-	26,174,250.00	228,372,739.55
2032	101,589,172.16	100,670,000.00	-	-	-	26,174,250.00	228,433,422.16
2033	101,632,794.75	100,670,000.00	-	-	-	26,174,250.00	228,477,044.75
2034	101,672,527.34	100,675,000.00	-	-	-	26,174,250.00	228,521,777.34
2035	101,712,671.37	-	-	-	\$129,865,000.00	23,227,625.00	254,805,296.37
2036	99,966,480.04	-	-	-	135,760,000.00	17,012,000.00	252,738,480.04
2037	100,845,000.00	-	-	-	142,295,000.00	10,420,000.00	253,560,000.00
2038	101,855,000.00	-	-	-	148,940,000.00	3,548,500.00	254,343,500.00
Total <sup>(2)</sup>	\$2,045,279,058.66	\$842,285,550.00	\$34,280,000.00	\$11,793,760.83	\$556,860,000.00	\$521,491,193.75	\$4,011,989,563.24

<sup>(1)</sup>Excludes debt service on the Refunded Series 2004A Bonds.

<sup>(2)</sup> Totals may not add up due to rounding.

Source: The Authority.

## DESCRIPTION OF THE SERIES 2016 BONDS

### General

When issued, the Series 2016 Bonds of each Series will be dated the date of their delivery and will bear interest at the rates and will mature, subject to prior redemption, in the principal amounts and on the dates set forth on the inside cover page of this Official Statement. Interest on the Series 2016 Bonds will be payable on April 1 and October 1 of each year, commencing October 1, 2016, and will be calculated on the basis of a 360-day year consisting of twelve 30-day months. The Series 2016 Bonds will be issuable in fully registered form in denominations of \$5,000 and integral multiples thereof. When issued, the Series 2016 Bonds will be registered in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company, New York, New York (“DTC”). DTC will act as securities depository for the Series 2016 Bonds. Individual purchases may be made only in book-entry form. Purchasers will not receive certificates representing their interest in the Series 2016 Bonds purchased. Except as provided in the Tenth Supplemental Indenture in connection with the rights of the Series 2016A Bond Insurer and the Eleventh Supplemental Indenture in connection with the Series 2016B Bonds Bond Insurer and except as described below under “TAX MATTERS,” so long as Cede & Co. is the registered owner of the Series 2016 Bonds, as nominee of DTC, references herein to “Series 2016 Bondholders” or to “registered owners” mean Cede & Co. and not the Beneficial Owners of the Series 2016 Bonds of such Series. In this Official Statement, the term “Beneficial Owner” means the person for whom a DTC Participant acquires an interest in the Series 2016 Bonds.

So long as Cede & Co. (or such other nominee name as an authorized officer of DTC may request) is the registered owner of the Series 2016 Bonds, the principal of, premium, if any, and interest on the Series 2016 Bonds are payable by the Trustee, as paying agent, to Cede & Co., as nominee for DTC which, in turn, is to remit such amounts to the DTC Participants for subsequent disbursement to the Beneficial Owners. See “DTC AND ITS BOOK-ENTRY SYSTEM” in Appendix F.

### Redemption

**Optional Redemption.** The Series 2016A Bonds are not subject to optional redemption prior to their stated maturity dates.

The Series 2016B Bonds are redeemable at the option of the Authority on or after October 1, 2026 in whole or in part at any time, from any moneys that may be provided for such purpose and at a redemption price equal to 100% of the principal amount of Series 2016B Bonds to be redeemed, plus interest accrued to the date fixed for redemption.

**Mandatory Sinking Fund Redemption.** The Series 2016 Bonds are not subject to mandatory sinking fund redemption.

**Extraordinary Redemption.** The Master Indenture provides that the Bonds of each series, including the Series 2016 Bonds, are subject to redemption prior to their stated maturity on any Interest Payment Date in whole or in part from Bond proceeds or Net Proceeds, upon receipt by the Trustee of a Certificate of an Independent Consultant stating that, by virtue of damage or destruction to the Project (as defined in the Indenture and including, among other things, the Rail Corridor and the related improvements), it is not financially feasible to construct, rebuild or replace all or any portion of the Project so as to permit the Project to operate in a financially feasible manner following such destruction or damage, at a redemption price equal to 100% of the principal amount (or accreted value in the case of Bonds that are capital appreciation bonds) of each Series of Bonds to be redeemed, plus accrued interest thereon, on and to the date fixed for redemption and without premium. The Indenture provides that Bonds redeemed pursuant to this provision are to be redeemed in the following order of priority: (i) Senior Lien Bonds, (ii) First Subordinate

Lien Bonds (including the Series 2016A Bonds) and (iii) Second Subordinate Lien Bonds (including the Series 2016B Bonds).

If less than all Outstanding Bonds of a particular level of priority are to be redeemed at any one time pursuant to this provision of the Master Indenture, the Trustee is to select Bonds from each Series of that priority level on a proportionate basis and to select Bonds within each such Series to be redeemed from each maturity on a proportionate basis; provided that within each maturity such Bonds are to be selected by lot.

**Notice of Redemption; Conditional Notice of Optional Redemption; Selection of Series 2016 Bonds for Redemption; Effect of Redemption and Cessation of Interest.** The Indenture provides that Series 2016 Bonds subject to optional redemption by the Authority will be redeemed in such order of maturity as the Authority may direct and by lot, selected in such manner as the Trustee deems appropriate, within a Series and maturity, provided that any Series 2016 Bonds are redeemed only in Authorized Denominations.

The Indenture provides that notice of redemption (which may be conditional in the case of optional redemption) will be given by the Trustee on behalf of the Authority by mailing a copy of such redemption notice by first-class mail at least 30 days (or, so long as the Series 2016 Bonds are held in the book-entry system with DTC, at least 20 days) and not more than 60 days prior to the date fixed for redemption, to each owner of a Series 2016 Bond to be redeemed at such owner's registered address (DTC, so long as the Series 2016 Bonds are held in the book-entry system with DTC). Any notice sent as provided in the Indenture will be conclusively presumed to have been given whether or not actually received by the addressee. Failure to give any required notice of redemption as to any particular Series 2016 Bonds will not affect the validity of the call for redemption of any other Series 2016 Bonds with respect to which such failure did not occur. Notice of redemption having been given, the Series 2016 Bonds or portions of Series 2016 Bonds to be redeemed will, on the date fixed for redemption (provided in the case of optional or extraordinary optional redemption sufficient funds are on deposit with the Trustee or paying agent), become due and payable at the redemption price therein specified. From and after the date fixed for redemption (provided sufficient funds are on deposit with the Trustee or paying agent) interest on such Series 2016 Bonds or portions of Series 2016 Bonds will cease to accrue.

**Preferential Optional Redemption Priorities.** As described below, the Authority agreed with the Series 2004 Bond Insurer and with the Series 2012 Lender that to the extent permitted under the Indenture, the Authority would prepay, redeem, defease, retire or purchase First Subordinate Lien Bonds and then Series 2012 Senior Lien Bonds with Revenues available pursuant to paragraph Seventeenth under the Master Indenture (at the bottom of the flow of funds) before optionally redeeming other Bonds (including the Series 2016 Bonds) with such Revenues. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds— SEVENTEENTH."

**Authority Purchases.** The Authority reserves the right to use available funds to purchase any of the Series 2016 Bonds that are offered to the Authority at any price deemed appropriate by the Authority. Any purchase of Series 2016 Bonds may be made with or without tender of Series 2016 Bonds and at either public or private sale.

## **SECURITY AND SOURCES OF PAYMENT FOR THE BONDS**

### **Limited Obligations**

The Series 2016 Bonds are special, limited obligations of the Authority and are payable solely from, and are secured solely by a lien on, the Trust Estate. The Series 2016A Bonds are First Subordinate Lien Bonds, payable and secured on a parity with the Authority's other First Subordinate Lien Bonds and subordinate to the Senior Lien Bonds. The Series 2016B Bonds are the Authority's initial Second

Subordinate Lien Bonds and are payable and secured on a parity with any Second Subordinate Lien Bonds that may be issued in the future and subordinate to the Senior Lien Bonds and First Subordinate Lien Bonds.

Pursuant to the Indenture, the Authority has assigned, and transferred to the Trustee, without recourse, and pledged and assigned to the Trustee and granted to the Trustee liens on and security interests in, the Trust Estate and all of its rights in the Trust Estate, including rights and remedies against the Ports and the Railroads, provided that the Trustee's exercise of any rights and remedies under the Use and Operating Agreement shall not impair either Railroad's rights to use the Rail Corridor, so long as such Railroad continues to pay Use Fees, Container Charges, M & O Charges and other amounts owed by such Railroad under the Use and Operating Agreement.

As defined in the Indenture, the "Trust Estate" consists of all moneys, assets and rights to which the Authority is entitled, including (a) the Revenues, subject to application as provided in the Indenture, (b) moneys and securities held from time to time by the Trustee or any Paying Agent in certain of the funds and accounts created under the Indenture, (c) earnings on amounts described above, subject to certain limitations, (d) the Authority's rights to payment or otherwise under the Operating Agreement, the Use Permit, the Design-Build Contract and other contracts, agreements, payment or performance bonds and insurance policies relating to the Project or to the construction, use or operation thereof, (e) any liquidated or actual damages or insurance proceeds received by the Authority from any source pursuant to the agreements referred to in clause (d) or otherwise arising from the Project, (f) Net Proceeds, (g) the proceeds of any business interruption insurance or other insurance relating to the Project or to the construction, use or operation thereof, and (h) any and all other funds, assets, rights, properties or interests therein, which may from time to time after the date of the Master Indenture be pledged or assigned to the Trustee as additional security under the Indenture. See "AUTHORITY REVENUES—General" below and "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Granting Clause; Pledge of Revenues" in Appendix E.

The Indenture provides that such liens and security interests are a first and senior priority for the benefit of the owners of the Senior Lien Bonds, a second priority for the benefit of the owners of the First Subordinate Lien Bonds and a third priority for the benefit of the owners of the Second Subordinate Lien Bonds; but funds deposited in the M & O Fund and in the Reserve Account described below under "Eleventh" and in the Rebate Fund and in the Indemnification Fund are not pledged to and do not secure payment of the Bonds. The Indenture also provides that additional security, including any Credit Facility or Debt Service Reserve Surety Policy, provided for specific Bonds or a specific Series of Bonds may, as provided by Supplemental Indenture, secure only such specific Bonds or Series of Bonds and, therefore, will not be included as security for all Bonds under the Indenture. The Indenture further provides that moneys and securities held in trust exclusively for Bonds that have become due and payable and moneys and securities that are held exclusively to pay Bonds that are deemed to have been paid under the Indenture shall be held solely for the payment of such specific Bonds.

The Bonds, including the Series 2016 Bonds, are not obligations of the State of California or any political subdivision of the State of California and are not obligations of any of the Cities, the Ports or the Railroads. The Project, including the Rail Corridor, is not security for the Bonds, and the Bonds are not secured by a lien on any properties or improvements of the Authority, the Cities, the Ports or the Railroads or by a pledge of any revenues of the Cities, the Ports or the Railroads. The Railroads and the Ports are obligated only to make certain payments required by the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds. The Operating Agreement does not provide the Authority the right to unilaterally increase Use Fees and Container Charges to address Revenue shortfalls, including to pay debt service on its Bonds. See "AUTHORITY REVENUES—Shortfall Advances," "BONDHOLDERS' RISKS—Bonds are Limited Obligations of the Authority; Limited Sources of Funds," "—Shortfall Advances are Limited,



Subordinate Obligations of the Ports” below, “THE PORT OF LOS ANGELES” in Appendix B and “THE PORT OF LONG BEACH” in Appendix C.

### **Flow of Funds**

The Operating Agreement generally describes how Revenues are to be collected and disbursed during each year and includes a specific order of priority for allocation and disbursement of Revenues. See “AUTHORITY REVENUES.” As permitted by the Operating Agreement, the Authority modified the order of priority set forth in the Operating Agreement, and described below is the modified order of priority as set forth in the Master Indenture, as amended by the Sixth Supplemental Indenture and the Eighth Supplemental Indenture.

The Indenture provides that Revenues received by the Trustee are to be deposited in the Revenue Fund created under the Indenture and that upon such receipt, such Revenues immediately become subject to the lien and pledge of the Indenture. Moneys in the Revenue Fund are to be set aside and transferred by the Trustee for the uses and in the order required by the Indenture (the “Flow of Funds”) as summarized below. The Series 2016A Bonds are “First Subordinate Lien Bonds” within the Flow of Funds, and the Series 2016B Bonds are “Second Subordinate Lien Bonds” within the Flow of Funds. Under the Master Indenture, “Interest Payment Dates” are April 1 and October 1 for Current Interest Bonds, and “Principal Payment Date” is (a) for Current Interest Bonds, October 1 and (b) for Capital Appreciation Bonds, October 1 of any year in which the Final Compounded Amount of any Capital Appreciation Bond is due. See “AUTHORITY REVENUES—General” and “—Debt Service Schedule” below and “INDENTURE—Definitions” in Appendix E.

- FIRST: Five Business Days prior to the last Business Day of each month, the Trustee is required to set aside and to transfer to the Debt Service Funds for the Senior Lien Bonds from funds deposited in the Revenue Fund amounts equal to the Debt Service Payment Requirement for the Senior Lien Bonds. The “Debt Service Payment Requirement” is a monthly deposit requirement. See “INDENTURE—Definitions” in Appendix E.
- SECOND: Five Business Days prior to the last Business Day of each month, and subject to the transfer described in the paragraph under FIRST above, the Trustee is required to deposit in any Debt Service Reserve Account under a Supplemental Indenture for a Series of Senior Lien Bonds, if there is any deficiency therein, the Debt Service Reserve Fund Replenishment Payment for such Senior Lien Bonds, which includes the amount, if any, required to reimburse any Debt Service Reserve Surety Policy provider and in the case of the Series 2012 Debt Service Reserve Surety Agreement (the “Series 2012 Surety”), the amount required to be deposited into the 2012 Debt Service Reserve Account to reduce the amount of the Series 2012 Surety (the “2012 Annual Cash Deposits”). See “—Debt Service Reserve Fund.”
- THIRD: Five Business Days prior to the last Business Day prior to each October 1, and subject to the transfers required under paragraphs FIRST and SECOND above, and pursuant to Requisitions, the Trustee is to pay the Financing Fees described below for the Senior Lien Bonds for the ensuing Bond Year to the extent the same were not paid out of Costs of Issuance.
- FOURTH: Prior to the issuance of the Series 2004 Subordinate Lien Bonds and the prepayment of the 1999 Federal Loan, semiannual deposits to the Federal Loan Fund were to be deposited to provide for the payment of the amount coming due

on the 1999 Federal Loan. The 1999 Federal Loan was prepaid with proceeds of the Series 2004 Bonds.

- FIFTH: Five Business Days prior to each Interest Payment Date and Principal Payment Date during the time that any First Subordinate Lien Bonds are Outstanding, and subject to the transfers described in paragraphs FIRST through FOURTH above, the Trustee is required to set aside and to transfer to the Debt Service Funds for the First Subordinate Lien Bonds amounts equal to the Final Compounded Amount, or to the principal and/or interest to be due and payable on the First Subordinate Lien Bonds on such Interest Payment Date and Principal Payment Date.
- SIXTH: Five Business Days prior to each Interest Payment Date and Principal Payment Date during the time that any First Subordinate Lien Bonds are Outstanding, and subject to the transfers described in paragraphs FIRST through FIFTH above, the Trustee is required to (i) pay any Debt Service Reserve Surety Repayment Obligation for any First Subordinate Lien Bonds, and after full repayment of all such Debt Service Reserve Surety Repayment Obligations for the First Subordinate Lien Bonds, (ii) deposit in any Debt Service Reserve Account established under a Supplemental Indenture for the First Subordinate Lien Bonds, if there is any deficiency therein, the amount necessary for the funds in such Debt Service Reserve Accounts to be equal to the Debt Service Reserve Requirement for the First Subordinate Lien Bonds.
- SEVENTH: Five Business Days prior to the last Business Day prior to each October 1 and subject to the transfers required under paragraphs entitled FIRST through SIXTH above, and pursuant to Requisitions, the Trustee is required to pay the Financing Fees for the First Subordinate Lien Bonds for the ensuing Bond Year to the extent the same were not paid out of Costs of Issuance.
- EIGHTH: Five Business Days prior to each Interest Payment Date and Principal Payment Date during the time that any Second Subordinate Lien Bonds are Outstanding and subject to the transfers described in paragraphs FIRST through SEVENTH above, the Trustee is required to set aside and transfer to the Debt Service Funds for the Second Subordinate Lien Bonds amounts equal to the Final Compounded Amount, or to the principal and/or interest to be due and payable on the Second Subordinate Lien Bonds on such Interest Payment Date and Principal Payment Date.
- NINTH: Five Business Days prior to each Interest Payment Date and Principal Payment Date during the time that any Second Subordinate Lien Bonds are Outstanding and subject to the transfers described in paragraphs FIRST through EIGHTH above, the Trustee is required to (i) pay any Debt Service Reserve Surety Repayment Obligation for any Second Subordinate Lien Bonds, and after full repayment of all such Debt Service Reserve Surety Repayment Obligations, (ii) deposit in any Debt Service Reserve Account established for any Second Subordinate Lien Bonds, if there is any deficiency therein, any amount necessary for the funds in such Debt Service Reserve Accounts to be equal to the Debt Service Reserve Requirement for the Second Subordinate Lien Bonds.
- TENTH: Five Business Days prior to the last Business Day prior to each October 1 and subject to the transfers described under paragraphs FIRST through NINTH above, and pursuant to Requisitions, the Trustee is required to pay the Financing Fees for

the Second Subordinate Lien Bonds for the ensuing Bond Year to the extent the same were not paid from Costs of Issuance.

- ELEVENTH: Five Business Days prior to the last Business Day prior to each Principal Payment Date following Substantial Completion and subject to the transfers described under paragraphs FIRST through TENTH above, and pursuant to written instructions from an Authorized Authority Representative, on October 1 of each year, the Trustee is required to transfer an amount up to the Reserve Account Target to the Reserve Account pursuant to the Indenture.
- TWELFTH: Five Business Days prior to the last Business Day prior to each October 1 and subject to the transfers described under paragraphs FIRST through ELEVENTH above and pursuant to Requisitions, the Trustee is to pay the Administrative Costs of the Authority in advance for the ensuing Bond Year to the extent the same were not paid from Costs of Issuance.
- THIRTEENTH: Upon completion of the Annual Accounting and subject to meeting the requirements with respect thereto, and further subject to the transfers described under paragraphs FIRST through TWELFTH above and pursuant to written instructions from an Authorized Authority Representative and written approval by the Port Representatives for both Ports, the Trustee is required to pay amounts required to reimburse to the Ports the Benefit Amount (as defined in the Operating Agreement) in accordance with the Operating Agreement.
- FOURTEENTH: Upon completion of the Annual Accounting and subject to meeting the requirements with respect thereto, and also subject to the transfers described under paragraphs FIRST through THIRTEENTH above, and pursuant to written instructions from an Authorized Authority Representative and written approval by the Port Representatives for both Ports, the Trustee is required to make any payments required to reimburse the Ports for their Port Advances in the following order of priority, with each item to be fully reimbursed before any subsequent items are reimbursed through such payment: (i) Net Project Costs (as defined in the Operating Agreement) advanced by POLA or POLB (either directly or through the Authority) prior to Substantial Completion that have not already been reimbursed to POLA or POLB from the proceeds of the financings or grants received by the Authority; (ii) Shortfall Advances, including Subsequent Shortfall Advances (mentioned below), made by either POLA or POLB pursuant to the Operating Agreement, plus interest thereon at the interest rate borne by six-month U.S. Treasury notes; (iii) amounts, if any, voluntarily advanced by POLA or POLB (either directly or through the Authority) in excess of the Shortfall Advances to pay all or a portion of the Annual Amount or any other obligation or liability of the Authority with respect to the Project; (iv) amounts, if any, voluntarily advanced by POLA or POLB after Substantial Completion, in excess of Shortfall Advances to cover the costs of the Authority specified in the Operating Agreement that have not already been reimbursed to POLA or POLB from the proceeds of the financings or grants received by the Authority; and (v) any amounts advanced by either POLA or POLB pursuant to the Operating Agreement. See “AUTHORITY REVENUES— Shortfall Advances.”
- FIFTEENTH: Upon completion of the Annual Accounting and subject to meeting the requirements with respect thereto, and further subject to the transfers described under paragraphs FIRST through FOURTEENTH above, and pursuant to written

instructions from an Authorized Authority Representative and written approval by the Port Representatives for both Ports, the Trustee is required to pay amounts required to reimburse to the Ports the Property Assembly Reimbursement (as defined in the Operating Agreement) in accordance with the provisions in the Operating Agreement.

SIXTEENTH: Upon completion of the Annual Accounting and subject to meeting the requirements with respect thereto, and further, subject to the transfers described under paragraphs FIRST through FIFTEENTH above, and pursuant to written instructions from an Authorized Authority Representative and the Railroads, the Trustee is required to deposit to the Reserve Account any amounts required under the Operating Agreement to reimburse the Railroads any amounts the Railroads previously paid for the costs of any Additional Capital Improvements (as defined in the Operating Agreement). On May 22, 2002, after the third track was added to the Mid-Segment described below, the Railroads waived their respective rights to reimbursement from the Reserve Account for costs incurred in connection with Additional Capital Improvements. See “THE RAIL CORRIDOR AND RELATED PROJECTS—Maintenance and Operation of the Project—Reserve Account.”

SEVENTEENTH: As soon as is practicable after the end of each Bond Year following Substantial Completion and subject to the transfers described under paragraphs FIRST through SIXTEENTH above, and pursuant to written instructions from an Authorized Authority Representative, the Trustee is to apply Revenues in the following order of priority: (i) first, to prepay, redeem, defease, retire or purchase any Outstanding Bonds; provided the Authority is required at all times to maintain Outstanding Bonds in the principal amount of at least \$5,000 until such time as any amounts payable as described under clause (ii) of paragraph SEVENTEENTH are paid in full, and (ii) second, to pay any recovery of monies obtained by the Series 2012 Lender pursuant to the exercise of remedies under the 2012 Financing Agreement following a non-payment event of default under the 2012 Financing Agreement described above. In addition, the Authority covenanted with the Series 2004 Bond Insurer that, unless the Series 2004 Bond Insurer is in default, prepayments from Revenues available as described in this paragraph will be of First Subordinate Bonds before any other Bonds are prepaid, to the extent it is permitted to do so under the Indenture, and the Authority covenanted in the Eighth Supplemental Indenture that the Authority will prepay Series 2012 Senior Lien Bonds after the Subordinate Lien Bonds and before other Outstanding Bonds are prepaid from such Revenues, to the extent it is permitted to do so under the Indenture.

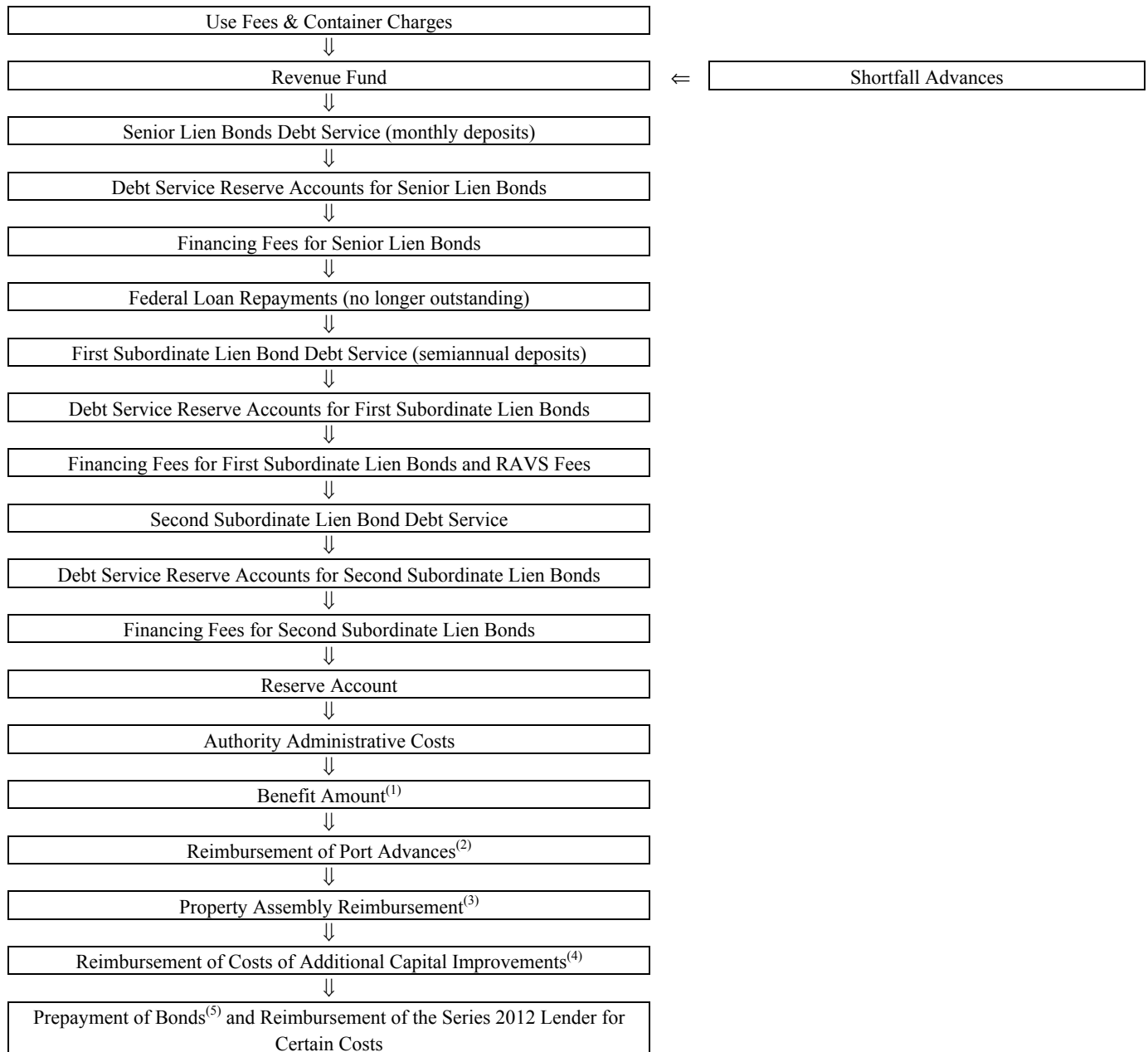
As defined in the Indenture, “Financing Fees” means (a) for the purposes described above under THIRD and TENTH (i) fees and charges of third party trustees, administrators, rating agencies, actuaries, insurance consultants, auditors, consultants, independent engineers, financial advisors, underwriters, attorneys or custodians incurred by the Ports or the Authority in connection with the Senior Lien Bonds and any Second Subordinate Lien Bonds, respectively, but not any Revenue Verification and Monitoring Fees described below and not any Series 2004 Bond Insurer Fees or other Financing Fees payable as described under SEVENTH, (ii) fees and costs incurred to obtain and renew letters of credit, bond insurance and other forms of credit enhancements facilities for such Bonds (including any amounts owed to Credit Providers pursuant to any reimbursement agreement or similar agreement entered into in connection with any Credit Facility) except as payable under SEVENTH, and (iii) any amounts necessary to make any rebate payments to the United States or otherwise comply with the provisions of the Code; and (b) for purposes described

above under SEVENTH (i) fees and charges of third party trustees, administrators, rating agencies, actuaries, insurance consultants, auditors, consultants, independent engineers, financial advisors, underwriters, attorneys or custodians incurred by the Ports or the Authority in connection with the First Subordinate Lien Bonds, (ii) fees and costs incurred to obtain and renew letters of credit, bond insurance and other forms of credit enhancement facilities for the Bonds (including any amounts owed to Credit Providers pursuant to any reimbursement agreement or similar agreement entered into in connection with any Credit Facility) and in the case of the Series 2004 Bonds, the additional 25-basis point annual premium that would become payable to the Series 2004 Bond Insurer if the underlying ratings on the Series 2004 Subordinate Lien Bonds is lower than BBB- in the case of S&P or lower than Baa3 in the case of Moody's, (iii) any amounts necessary to make any rebate payments to the United States or otherwise to comply with the provisions of the Code and (iv) fees and charges incurred by the Authority or a third party to monitor railcars and containers for purposes of verifying, reconciling and collecting Use Fees and Container Charges as provided in the Use and Operating Agreement (the "Revenue Verification and Monitoring Fees"). See "AUTHORITY REVENUES—Collection of Use Fees and Container Charges; Revenue Verification System."

The following table illustrates the Flow of Funds provided under the Indenture. The table is not intended to be definitive and is qualified in its entirety by reference to the provisions of the Indenture.

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## Summary Flow of Funds Under the Indenture



<sup>(1)</sup> The Benefit Amount is defined in the Operating Agreement as an amount equal to 40% of the difference between the present value of the amount that will be paid using tax-exempt financing for a portion of the Project and the amount that would have been paid if taxable financing had been used for such portion of the financing of the Project. The Benefit Amount is allocated by POLA and POLB between themselves. As of January 1, 2016, the accrued liability for the Benefit Amount was \$100,225,762.06. See APPENDIX E—“SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT.”

<sup>(2)</sup> Port Advances include Shortfall Advances and certain other amounts advanced to the Authority by the Ports. As of January 1, 2016, the only outstanding Port Advances to be reimbursed to the Ports are the Shortfall Advances, which were outstanding in the amount of \$11,844,027.12. See APPENDIX E—“SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT.”

<sup>(3)</sup> Property Assembly Reimbursement is the amount to be refunded by the Authority to the Ports as reimbursement for a portion of the amounts expended by the Ports to acquire property and related rights and interests necessary for the Project. As of January 1, 2016, the accrued liability for Property Assembly Reimbursement was \$132,000,000.00. See APPENDIX E—“SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT.”

<sup>(4)</sup> On May 22, 2002, after the third track was added to the Mid-Segment described below, the Railroads waived their respective rights to reimbursement from the Reserve Account for costs incurred in connection with Additional Capital Improvements. See “THE RAIL CORRIDOR AND RELATED PROJECTS—Maintenance and Operation of the Project—Reserve Account.”

<sup>(5)</sup> The Authority has covenanted with the Series 2004 Bond Insurer and with the Series 2012 Lender to prepay, redeem, defease, retire or purchase First Subordinate Lien Bonds and then the Series 2012 Bonds prior to any other Outstanding Bonds as described above, to the extent it is permitted to do so under the Master Indenture. See “Flow of Funds—Seventeenth.”

## **Debt Service Reserve Fund**

The Indenture establishes a Debt Service Reserve Fund for the payment of principal or accreted value of and interest on the Bonds, and provides for a separate debt service reserve account to be created within the Debt Service Reserve Fund for each Series of Bonds. Each Debt Service Reserve Account secures the payment only of the Bonds of that Series. The Indenture requires that for each Debt Service Reserve Account, cash or a Debt Service Reserve Surety Policy be deposited or credited to such Debt Service Reserve Account at the time of issuance of the Bonds of such Series in an amount, as of any date of calculation, equal to the least of (i) Maximum Annual Debt Service for such Series, (ii) 10% of the original principal and Initial Amount of such Series that have been issued, less the amount of original issue discount with respect to any such Bonds if such original issue discount exceeded 2% on such Bonds at the time of its original sale, and (iii) 125% of the average annual Debt Service on Bonds of such Series for each Bond Year in which Bonds of such Series are Outstanding (the “Debt Service Reserve Requirement”). Each Debt Service Reserve Account is to be maintained until there are no longer any Outstanding Bonds of the Series secured by such Debt Service Reserve Account. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Debt Service Reserve Fund” in Appendix E.

The Indenture permits the Authority to satisfy its obligation to fund all or any portion of a Debt Service Reserve Requirement through cash or, subject to certain conditions described below, a Debt Service Reserve Surety Policy. The Debt Service Reserve Surety Policy may be an insurance policy, surety bond or surety agreement or a letter of credit deposited with the Trustee for the credit of a Debt Service Reserve Account within the Debt Service Reserve Fund in lieu of or in substitution for all or a portion of the cash or securities on deposit or to be deposited therein, provided that at the time of such deposit (i) the Debt Service Reserve Surety Policy extends to the final maturity of the related Series of Bonds, or if the Authority has agreed by Supplemental Indenture that it will replace such Debt Service Reserve Surety Policy prior to its expiration with cash or with another Debt Service Reserve Surety Policy which will have no adverse effect on the ratings, if any, then in effect on the applicable Series of Bonds, and (ii) the face amount of the Debt Service Reserve Surety Policy, together with the amount on deposit in the Debt Service Reserve Account, is at least equal to the Debt Service Reserve Requirement for the related Series of Bonds. The Indenture does not require the issuer of a Debt Service Reserve Surety Policy to have or to maintain any particular rating and does not require that a Debt Service Reserve Surety Policy be replaced if the original rating is reduced or withdrawn. The Indenture provides that in the event that a Debt Service Reserve Surety Policy is deposited in a Debt Service Reserve Account in lieu of cash and securities then on deposit in such Debt Service Reserve Account, any amounts in such Debt Service Reserve Account in excess of the Debt Service Reserve Requirement will be transferred to the Debt Service Fund for the Bonds of such series, unless an Event of Default exists under the Indenture, in which event the excess amounts are to be retained in such Debt Service Reserve Account. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Debt Service Reserve Fund” in Appendix E.

In connection with the issuance of the Series 1999 Senior Lien Bonds, the Authority deposited surety bonds issued by the Series 1999 Bond Insurer in the total face amount of \$90.1 million. The Authority must obtain the consent of the Series 1999 Bond Insurer for the deposit of any Debt Service Reserve Surety Policy related to any Series 1999 Senior Lien Bonds that it insures. In connection with the issuance of the Series 2012 Senior Lien Bonds, the Authority deposited a Series 2012 Surety from the Ports in the total amount of \$7.2 million. The Authority has covenanted with the Series 2012 Lender, however, that beginning October 1, 2013, the Trustee will transfer from the Revenue Fund to the Series 2012 Debt Service Reserve Account, as described in “SECOND” under “–Flow of Funds,” an Annual Cash Deposit such that the face amount of the Series 2012 Surety will be reduced by the amounts so deposited and to zero by October 1, 2019.

The Debt Service Reserve Account for the Series 2004 Subordinate Lien Bonds is funded with cash deposits that are invested as described below. The Authority has covenanted with the Series 2004 Bond Insurer that each Debt Service Reserve Account for the Series 2004 Subordinate Lien Bonds will be cash-



funded at all times unless agreed to in writing by the Series 2004 Bond Insurer and that the Authority will not substitute a Debt Service Reserve Surety Policy for the cash and securities in the Series 2004 Debt Service Reserve Accounts without the prior written consent of the Series 2004 Bond Insurer.

The Debt Service Reserve Requirement for the Series 2013A Bonds at the time of their delivery was \$24,832,500 and was satisfied with a Debt Service Reserve Surety Policy issued by Assured Guaranty, the Series 2013A Bond Insurer, purchased with a portion of the proceeds of the Series 2013A Bonds.

The Debt Service Reserve Requirements for the Series 2016A Bonds is \$3,428,000, which is to be satisfied with proceeds of the Series 2016A Bonds.

The Debt Service Reserve Requirement for the Series 2016B Bonds is \$55,686,000, which is to be satisfied with the Series 2016B Reserve Policy to be issued by the Series 2016B Bond Insurer, to be purchased with a portion of the proceeds of the Series 2016B Bonds.

### **Additional Bonds**

The Indenture permits the issuance of additional Bonds, including variable-rate Bonds that may be secured by letters of credit or other credit facilities, payable on a parity with the Senior Lien Bonds or the First Subordinate Lien Bonds and provides that the Authority may also issue Second Subordinate Lien Bonds as described below and in the “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Additional Bonds” in Appendix E.

**Additional Senior Lien Bonds.** In addition to its original covenants in the Master Indenture, the Authority has covenanted with the Series 2012 Lender, the Series 2004 Bond Insurer and the Series 2013A Bond Insurer that the Authority will not issue any Senior Lien Bonds (other than Refunding Bonds) pursuant to the Master Indenture unless the Authority has obtained the prior written consents of the Series 2012 Lender, the Series 2004 Bond Insurer (so long as the Series 2004 Bond Insurer is not in default) and the Series 2013 Bond Insurer (subject to the limitations set forth in the Ninth Supplemental Indenture), respectively. Refunding Bonds that are Senior Lien Bonds may be issued without complying with the tests described below and without the consent of the Series 2012 Lender, the Series 2004 Bond Insurer or the Series 2013A Bond Insurer, provided that the Authority delivers to the Trustee and to the Series 2012 Lender a certificate of an Authorized Authority Representative showing (1) that Maximum Annual Debt Service after the issuance of such Refunding Bonds will not exceed Maximum Annual Debt Service prior to the issuance of such Refunding Bonds and (2) so long as the Series 2012 Senior Lien Bonds are outstanding, that either (A) aggregate Debt Service on all Senior Lien Bonds will not be increased or (B) that Dedicated Revenues (modified as described below) are equal to at least 125% of Debt Service on Senior Lien Bonds in each year in which the Series 2012 Senior Lien Bonds are outstanding. See “—Modified Calculation of Dedicated Revenues for Additional Bond Tests.”

The Authority covenants in the Ninth Supplemental Indenture that, subject to the limitations contained therein, the Authority will not issue any additional Senior Lien Bonds (other than Refunding Bonds) without the consent of the Series 2013A Bond Insurer and that without the consent of the Series 2013A Bond Insurer no Senior Lien Bonds (including Refunding Bonds) will be issued if there exists an Event of Default (except a default that would be cured by the issuance of such refunding Senior Lien Bonds) or if the Series 2013A Debt Service Reserve Account is not fully funded at its Debt Service Reserve Requirement.

The Authority has also covenanted that, as a condition to the issuance of additional Senior Lien Bonds (other than Refunding Bonds), the Authority will deliver to the Trustee, in addition to the consents described above: (i) a certificate prepared by an Authorized Authority Representative showing that the Dedicated Revenues, as calculated by an independent consultant acceptable to the Series 2012 Lender and to

the Series 2004 Bond Insurer and in accordance with the Indenture and generally accepted accounting principles, for any twelve (12) consecutive months out of the eighteen (18) consecutive months immediately preceding the date of issuance of the proposed Series of Senior Lien Bonds were at least equal to 125% of Maximum Annual Debt Service on all Senior Lien Bonds, calculated as if the proposed Series of Senior Lien Bonds were then Outstanding; or (ii) a certificate, dated as of a date between the date of pricing of the Senior Lien Bonds proposed to be issued and the date of delivery of such Senior Lien Bonds, prepared by an Authorized Authority Representative showing that the estimated Dedicated Revenues, as calculated by an independent consultant acceptable to the Series 2012 Lender and to the Series 2004 Bond Insurer in accordance with the Indenture and generally accepted accounting principles, for each Bond Year from the date of issuance of such Senior Lien Bonds through the date of final maturity of all Senior Lien Bonds, will be at least equal to 125% of Debt Service for each Bond Year on all Senior Lien Bonds, calculated as if the proposed Series of Senior Lien Bonds were then Outstanding. The Authority also is required to deliver to the Trustee a certificate prepared by an Authorized Authority Representative showing that the estimated Dedicated Revenues, as calculated by an independent consultant acceptable to the Series 2012 Lender and the Series 2004 Bond Insurer and in accordance with the Indenture and generally accepted accounting principles, for each Bond Year from the date of issuance of such Senior Lien Bonds through the date of final maturity of all Outstanding Bonds, will be at least equal to 110% of Debt Service on all Outstanding Bonds for each Bond Year calculated as if the proposed Series of Senior Lien Bonds were then Outstanding.

**Calculation of Dedicated Revenues for Additional Bond Tests.** As defined in the Master Indenture, “Dedicated Revenues” means the Use Fees and Container Charges, Contingent Port Obligations and the earnings on all funds and accounts held by the Trustee under the Indenture (but not including the Rebate Fund). The Indenture provides, however, that Dedicated Revenues at a particular level of priority shall only include the sum of interest earnings on the Debt Service Accounts and Debt Service Reserve Funds with respect to such level of priority to the extent such earnings are required to be deposited or retained in such Debt Service Accounts and Debt Service Reserve Funds and that Dedicated Revenues shall not include funds to be deposited in or earnings on the moneys held in the Federal Loan Fund, the M & O Fund or the Reserve Account. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—Definitions” in Appendix E.

**Modified Calculation of Dedicated Revenues for Additional Bond Tests.** The Authority has covenanted with the Series 2012 Lender and with the Series 2004 Bond Insurer (so long as the Series 2004 Bond Insurer is not in default) that for purposes of issuing additional Bonds only, an independent consultant acceptable to the Series 2004 Bond Insurer and to the Series 2012 Lender will be required to calculate Dedicated Revenues as follows: (1) in each Bond Year (October 1 - September 30), Contingent Port Obligations shall be 40% of Debt Service on all Outstanding Bonds, calculated as if the proposed Series of Bonds to be issued were Outstanding; and (2) Use Fees and Container Charges shall be the Use Fees and Container Charges that were collected in any twelve (12) consecutive months out of the eighteen (18) consecutive months immediately preceding the date of issuance of the proposed Series of Bonds, increased each January 1 at a rate of 1.5%, or such other minimum rate of fee escalation specified in the Operating Agreement; provided, however, that (i) if the rating of either Port is (A) less than AA- but higher than BBB+ (in the case of S&P) or (B) less than Aa3 but higher than Baa1 (in the case of Moody’s), then “Contingent Port Obligations,” for purposes of this calculation only, is to be deemed to be 20% (instead of 40%) of each year’s Debt Service on all Outstanding Bonds, calculated as if the proposed Series of Bonds to be issued were Outstanding; and (ii) if the rating of either Port is (A) less than A- (in the case of S&P) or (B) less than A3 (in the case of Moody’s), then “Contingent Port Obligations,” for purposes of this calculation only, is to be deemed to be 0% (instead of 40%) of each year’s Debt Service on all Outstanding Bonds, calculated as if the proposed Series of Bonds to be issued were Outstanding.

**Additional First Subordinate Lien Bonds.** The Authority has covenanted with the Series 2012 Lender and the Series 2004 Bond Insurer (so long as the Series 2004 Bond Insurer is not in default) that so long as Series 2012 Bonds and the Series 2004 Bonds, respectively, are outstanding, as a condition to the

issuance of additional First Subordinate Lien Bonds (other than Refunding Bonds) the Authority will be required to deliver to the Trustee: (i) a certificate prepared by an Authorized Authority Representative showing that the Dedicated Revenues, calculated by an independent consultant acceptable to the Series 2012 Lender and the Series 2004 Bond Insurer as described above for any twelve (12) consecutive months out of the eighteen (18) consecutive months immediately preceding the date of issuance of the proposed Series of First Subordinate Lien Bonds were at least equal to 110% of Maximum Annual Debt Service on all Outstanding Bonds calculated as if the proposed Series of First Subordinate Lien Bonds were then Outstanding; or (ii) a certificate, dated as of a date between the date of pricing of the First Subordinate Lien Bonds proposed to be issued and the date of delivery of such First Subordinate Lien Bonds, prepared by an Authorized Authority Representative showing that the estimated Dedicated Revenues, as calculated by an independent consultant calculated as described above for each Bond Year from the date of issuance of such First Subordinate Lien Bonds through the date of final maturity of all First Subordinate Lien Bonds will be at least equal to 110% of Debt Service on all Outstanding Bonds for each Bond Year, calculated as if the proposed Series of First Subordinate Lien Bonds were then Outstanding.

The Indenture requires that in the case of the issuance of refunding First Subordinate Lien Bonds that the Authority deliver to the Trustee a certificate of an Authorized Authority Representative showing that Maximum Annual Debt Service after the issuance of such Refunding Bonds will not exceed Maximum Annual Debt Service prior to the issuance of such Refunding Bonds.

In connection with the issuance of the Series 2016A Bonds, the Authority expects to deliver a certificate to the Trustee to the effect that the Maximum Annual Debt Service after the issuance of the Series 2016A Bonds will not exceed Maximum Annual Debt Service prior to the issuance of the Series 2016A Bonds.

**Additional Second Subordinate Lien Bonds.** The Master Indenture permits the Authority to issue Second Subordinate Lien Bonds initially without meeting any debt service coverage test, provided that such Second Subordinate Lien Bonds contain no provisions for acceleration. The Series 2016B Bonds are the initial Second Subordinate Lien Bonds to be issued.

The Eleventh Supplemental Indenture amends the Master Indenture to set forth conditions the Authority must satisfy before issuing any additional Second Subordinate Lien Bonds after the Series 2016B Bonds are issued. As so amended, the Master Indenture permits the issuance of additional Second Subordinate Lien Bonds to refund Bonds previously issued under the Indenture or to pay Costs of the Project, provided that prior to or simultaneously with the delivery of such additional Second Subordinate Lien Bonds of each Series the Authority delivers to the Trustee a certificate prepared by an Authorized Authority Representative showing either (1) that estimated Dedicated Revenues, calculated in accordance with the Master Indenture and generally accepted accounting principles, for each Bond Year through the date of final maturity of all Second Subordinate Lien Bonds will be at least equal to 105% of Debt Service on all Outstanding Bonds; or (2) that Maximum Annual Debt Service on all Outstanding Second Subordinate Lien Bonds after the issuance of the additional Second Subordinate Lien Bonds will not exceed Maximum Annual Debt Service prior to the issuance of such additional Second Subordinate Lien Bonds. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—Supplemental Indentures—Amendments to the Master Indenture” in Appendix E.

### **Permitted Investments**

Moneys held by the Trustee in the funds and accounts established pursuant to the Indenture are to be invested and reinvested as directed by the Authority in Permitted Investments, subject to any additional restrictions set forth in a Supplemental Indenture. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Investments” and “—Debt Service Reserve Fund” in Appendix E. The Authority has retained Chandler Asset Management, Inc. as the Authority’s investment

consultant in connection with the Authority's direction of the investment and reinvestment of moneys held by the Trustee under the Indenture. The investment consultant is responsible for selecting investments based upon the requirements of the Indenture and the Authority's investment policy.

**The Series 1999 Forward Delivery Agreement.** Moneys held by the Trustee in each Debt Service Fund with respect to the Series 1999 Senior Lien Bonds and the Series 2012 Bonds are invested pursuant to a Forward Delivery Agreement dated as of July 12, 2000 (as amended, the "Forward Delivery Agreement"), by and among the Authority, the Trustee and Bank of America, N.A. (the "Provider"). The Provider is an affiliate of Merrill Lynch, Pierce, Fenner & Smith Incorporated, one of the Underwriters. The Forward Delivery Agreement, which has been amended three times since 2000, is a Permitted Investment under the Indenture. Pursuant to the Forward Delivery Agreement, the Trustee is required to purchase, and the Provider is required to deliver to the Trustee as custodian, certain qualified U.S. government securities (the "Qualified Securities"), at a price (the "Purchase Price") that produces an annual 6.7% rate of return on such securities for the period from and including the date of their delivery to (but excluding) their maturity date. The Provider may transfer its rights and obligations under the Forward Delivery Agreement (i) without the consent of the Authority or the Trustee to any subsidiary or affiliate of the Provider, or (ii) with the Authority's prior written consent and upon notice to the Trustee. Unless terminated earlier, the Forward Delivery Agreement expires on the later of (i) October 1, 2023 and (ii) the date on which the Provider, the Authority and the Trustee have satisfied all of their obligations thereunder.

The Authority may, by giving the Provider at least 30 days' prior written notice, redeem, defease, repurchase or refund the Series 1999 Senior Lien Bonds as provided in the Indenture. The Forward Delivery Agreement provides that in the event of such redemption, defeasance, repurchase or refunding, the Forward Delivery Agreement will automatically terminate but that in the event the Series 1999 Senior Lien Bonds are being refunded by a new issuance of bonds, the Provider, at the request of the Authority, will not terminate the Forward Delivery Agreement if certain conditions thereunder are satisfied. The conditions were satisfied when a portion of the Series 1999A Bonds were refunded with proceeds of the Series 2012 Bonds and again in connection with the issuance of the Series 2013A Bonds. In each case, the Provider made a settlement payment to the Authority in connection with the amendment to the Forward Delivery Agreement related to the refunding of the Series 1999A Current Interest Bonds.

The Provider has the right to terminate the Forward Delivery Agreement upon the occurrence of any of the following events (each, an "Issuer Event of Default"): (i) the Authority fails to deposit funds in the Debt Service Fund with respect to the Series 1999 Senior Lien Bonds in accordance with the terms of the applicable Indenture or the Trustee for any other reason fails to purchase the Qualified Securities at the Purchase Price; (ii) the Authority defaults in the performance of any covenant or obligation under the Forward Delivery Agreement and fails to timely cure such defaults; (iii) the Authority fails to comply with its material covenants or agreements under the Indenture, and such failure has an adverse impact on the Provider's rights and/or obligations under the Forward Delivery Agreement; (iv) any representation or warranty of the Authority contained in the Forward Delivery Agreement proves to have been incorrect in any material aspect as of the date on which it was made; (v) the Authority is at any time insolvent; (vi) the interest and principal outstanding for the Series 1999 Senior Lien Bonds are declared due and payable at any time prior to the scheduled maturity thereof; (vii) there is an investment of amounts in the Debt Service Funds with respect to the Series 1999 Senior Lien Bonds that is not expressly permitted under the Forward Delivery Agreement; or (viii) the Authority defaults in its obligations in respect of borrowed money which, in the aggregate, exceed \$10 million, and fails to timely cure such defaults.

In the event that the Forward Delivery Agreement is terminated pursuant to a redemption, defeasance, repurchase or refunding of the applicable Series 1999 Senior Lien Bonds or pursuant to an Issuer Event of Default, a Trustee Event of Default or a Provider Event of Default, depending on then-current market conditions, the Authority may be required to pay a substantial termination payment to the Provider. In the event that the Provider's long-term unsecured credit rating is downgraded below certain levels as set

forth in the Forward Delivery Agreement, the Authority may, at its option, terminate the Forward Delivery Agreement and, depending on market conditions at the time of such termination, may collect from the Provider, or be required to pay to the Provider, a termination payment. In 2012, following a reduction in its ratings, the Provider posted collateral to secure payment of its obligations under the Forward Delivery Agreement. The Forward Delivery Agreement entails risks to the Authority. The counterparty may fail or be unable to perform and the Authority may be required to make significant payments in the event of an early termination of the Forward Delivery Agreement.

## **Insurance Covenants**

The Indenture requires the Authority to obtain or cause to be obtained and to keep continuously in force for so long as any Bonds are Outstanding, the following insurance with respect to the Project (as defined in the Indenture and which includes, among other things, the Rail Corridor and the related improvements):

**Liability Insurance**—a commercial general liability insurance policy or policies to protect the Authority, the Trustee and the officers, agents and employees of each from liability for damages from bodily injury or property damage caused by or arising from the acts or omissions of such parties or occasioned by reason of the construction, condition or operation of the Project with limits of not less than \$25,000,000 per occurrence. The commercial general liability insurance policy or policies may be subject to deductible clauses in amounts customary for such types of insurance policies, and the Authority may provide other kinds of insurance or methods or plans of protection, including self-insurance, provided such other alternative is approved by an independent insurance consultant. Each liability insurance policy is to name POLA and POLB as additional insureds.

**Property Insurance**—a policy or policies of property insurance on the Project insuring against loss or damage by fire, lightning, explosion, windstorm, riot, aircraft, vehicle damage, smoke, vandalism and malicious mischief and such other perils as are normally covered by such policies, and insurance protecting against loss or damage by flood and earthquake (if and only to the extent available on the open market from reputable insurance companies at a reasonable cost) with limits of not less than the lesser of (i) maximum probable loss with respect to the Project as determined by an independent insurance consultant; or (ii) the principal amount of all Bonds then Outstanding. The Authority has determined that only a minimum amount of flood and earthquake insurance coverage is available under the terms described above. Each property insurance policy is to name the Trustee and the Authority as loss payee as their interest may appear and POLA and POLB as additional insureds. See “THE RAIL CORRIDOR AND RELATED PROJECTS” and “BONDHOLDERS’ RISKS—Seismic Risks and Other Events of Force Majeure; Limited or No Insurance Coverage.”

**Business Interruption Insurance**—business interruption insurance to cover loss, total or partial, of the use of the Project as a result of any of the hazards covered by the casualty insurance described under “Property Insurance” above in an amount not less than the total Debt Service payable on all Outstanding Bonds for any period of one year following Substantial Completion of the Rail Corridor. Each such policy may be subject to a deductible clause in an amount customary and reasonable for such policies; provided, however, in no event shall any such deductible exceed the maximum amount set forth in the Operating Agreement. See “THE RAIL CORRIDOR AND RELATED PROJECTS” and “BONDHOLDERS’ RISKS—Seismic Risks and Other Events of Force Majeure; Limited or No Insurance Coverage.”

**Payment of Premiums and Application of Net Proceeds**—The Indenture and the Operating Agreement provide that premiums and any deductible in respect of property insurance, including business interruption insurance, are to be M & O Charges payable by the Railroads and that other insurance premiums and deductibles are to be Administrative Costs payable by the Authority from Revenues.

The Indenture requires that the Trustee use any Net Proceeds of property insurance (excluding any proceeds of business interruption insurance) to (1) repair or replace the damaged or destroyed facilities, (2) redeem Bonds or (3) create an escrow fund pledged to pay specified Bonds and thereby cause such Bonds to be deemed to be paid as provided in the Indenture. See “DESCRIPTION OF THE SERIES 2016 BONDS—Redemption—Extraordinary Redemption.”

### **Certain Other Covenants of the Authority**

The Authority has made certain other covenants in the Indenture with respect to the Rail Corridor and the related improvements. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Covenants of the Authority” in Appendix E.

### **Events of Default and Remedies**

The Indenture specifies a number of Events of Defaults and remedies. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—The Master Indenture—Events of Default and Remedies” in Appendix E for a description of Events of Default and remedies.

### **Rights of the Series 2012 Lender, the Series 1999 Bond Insurer, the Series 2004 Bond Insurer and the Series 2013A Bond Insurer**

The Authority has made separate covenants with the Series 1999 Bond Insurer, the Series 2004 Bond Insurer, the Series 2012 Lender and the Series 2013A Bond Insurer. These covenants may be enforceable only by the Insurers or the Series 2012 Lender, respectively, and not by the Trustee or the Bondholders, but in some circumstances a breach of the covenants may be an event of default under the Indenture. In addition, the Bond Insurers (so long as they are not in default under their respective policies) have the rights to direct or consent to actions of the Trustee and to direct proceedings under the Indenture to the same extent and in place of the registered owners of the applicable Series of Bonds.

### **Rights of the Series 2016B Bond Insurer**

The Eleventh Supplemental Indenture provides that, subject to the conditions set forth in the Eleventh Supplemental Indenture (including that the Series 2016B Bond Insurer not be in default), the written consent of the Series 2016B Bond Insurer will be required in lieu of the consent, approval, direction or appointment of the Holders of the Insured Series 2016B Bonds whenever a consent, approval, direction or appointment by such Holders is required or permitted under the Indenture, including, without limitation, for the purpose of exercising any voting right or privilege or giving any consent or direction or taking any other action that such Holders are entitled to take pursuant to the Indenture pertaining to (i) defaults and remedies, (ii) the duties and obligations of the Trustee and (iii) any amendment, supplement, modifications to, waiver of, the Indenture that requires the consent of Holders of the Insured Series 2016A Bonds or adversely affects the rights and interest of the Series 2016B Bond Insurer. The Eleventh Supplemental Indenture also provides that to eliminate any doubt, the Holders of the Insured Series 2016B Bonds will have no right to give any consent, approval, direction or appointment required or permitted by the Indenture to be given by such Holders.

Pursuant to the Eleventh Supplemental Indenture, the Authority agrees that, among other things, without the written consent of the Series 2016B Bond Insurer (unless the Series 2016B Bond Insurer is in default), the Authority will (i) not approve or agree to any amendment, waiver or other modification of the Operating Agreement which could be reasonably expected to result in a material impairment of the security for the Series 2016B Bonds or adversely affect the Series 2016B Bond Insurer’s rights and interests under the Indenture or its obligations under the Series 2016B Bond Insurance Policy or the Series 2016B Reserve Policy, if any, or (ii) not issue any additional Senior Lien Bonds, First Subordinate Lien Bonds or Second Subordinate Lien Bonds (other than refunding Bonds). All of the Authority’s covenants in the Eleventh

Supplemental Indenture for the benefit of the Series 2016B Bond Insurer may be waived, modified or otherwise agreed to by the Series 2016B Bond Insurer.

## **THE SERIES 2016B BOND INSURER**

### **Series 2016B Bond Insurance Policy**

Concurrently with the issuance of the Series 2016B Bonds, Assured Guaranty Municipal Corp. (“AGM” or the “Series 2016B Bond Insurer”) will issue its Municipal Bond Insurance Policy (the “Series 2016B Bond Insurance Policy”) for the Series 2016B Bonds maturing on October 1, 2034 and bearing interest at 3.00%, October 1, 2035 and bearing interest at 4.00%, October 1, 2035 and bearing interest at 5.00% and yielding 2.71%, October 1, 2036 and bearing interest at 3.125%, October 1, 2036 and bearing interest at 5.00% and yielding 2.75%, October 1, 2037 and bearing interest at 4.00% and October 1, 2037 and bearing interest at 5.00% and yielding 2.77% (collectively, the “Insured Series 2016B Bonds”). The Series 2016B Bond Insurance Policy guarantees the scheduled payment of principal of and interest on the Insured Series 2016B Bonds when due as set forth in the form of the Series 2016B Bond Insurance Policy included APPENDIX I to this Official Statement.

The Series 2016B Bond Insurance Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

### **Assured Guaranty Municipal Corp.**

AGM is a New York domiciled financial guaranty insurance company and an indirect subsidiary of Assured Guaranty Ltd. (“AGL”), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol “AGO.” AGL, through its operating subsidiaries, provides credit enhancement products to the U.S. and global public finance, infrastructure and structured finance markets. Neither AGL nor any of its shareholders or affiliates, other than AGM, is obligated to pay any debts of AGM or any claims under any insurance policy issued by AGM.

AGM’s financial strength is rated “AA” (stable outlook) by S&P Global Ratings, a business unit of Standard & Poor’s Financial Services LLC (“S&P”), “AA+” (stable outlook) by Kroll Bond Rating Agency, Inc. (“KBRA”) and “A2” (stable outlook) by Moody’s Investors Service, Inc. (“Moody’s”). Each rating of AGM should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of AGM in its sole discretion. In addition, the rating agencies may at any time change AGM’s long-term rating outlooks or place such ratings on a watch list for possible downgrade in the near term. Any downward revision or withdrawal of any of the above ratings, the assignment of a negative outlook to such ratings or the placement of such ratings on a negative watch list may have an adverse effect on the market price of any security guaranteed by AGM. AGM only guarantees scheduled principal and scheduled interest payments payable by the issuer of bonds insured by AGM on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the relevant insurance policy), and does not guarantee the market price or liquidity of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

**Current Financial Strength Ratings.** On June 29, 2015, S&P issued a credit rating report in which it affirmed AGM’s financial strength rating of “AA” (stable outlook). AGM can give no assurance as to any further ratings action that S&P may take.

On December 8, 2015, Moody's published a credit opinion maintaining its existing insurance financial strength rating of "A2" (stable outlook) on AGM. AGM can give no assurance as to any further ratings action that Moody's may take.

On December 10, 2015, KBRA issued a financial guaranty surveillance report in which it affirmed AGM's insurance financial strength rating of "AA+" (stable outlook). AGM can give no assurance as to any further ratings action that KBRA may take.

For more information regarding AGM's financial strength ratings and the risks relating thereto, see AGL's Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

**Capitalization of AGM.** At March 31, 2016, AGM's policyholders' surplus and contingency reserve were approximately \$3,742 million and its net unearned premium reserve was approximately \$1,530 million. Such amounts represent the combined surplus, contingency reserve and net unearned premium reserve of AGM, AGM's wholly owned subsidiary Assured Guaranty (Europe) Ltd. and 60.7% of AGM's indirect subsidiary Municipal Assurance Corp.; each amount of surplus, contingency reserve and net unearned premium reserve for each company was determined in accordance with statutory accounting principles.

**Incorporation of Certain Documents by Reference.** Portions of the following documents filed by AGL with the Securities and Exchange Commission (the "SEC") that relate to AGM are incorporated by reference into this Official Statement and shall be deemed to be a part hereof:

- (i) the Annual Report on Form 10-K for the fiscal year ended December 31, 2015 (filed by AGL with the SEC on February 26, 2016); and
- (ii) The Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 (filed by AGL with the SEC on May 5, 2016).

All consolidated financial statements of AGM and all other information relating to AGM included in, or as exhibits to, documents filed by AGL with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, excluding Current Reports or portions thereof "furnished" under Item 2.02 or Item 7.01 of Form 8-K, after the filing of the last document referred to above and before the termination of the offering of the Series 2016 Bonds shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the internet at the SEC's website at <http://www.sec.gov>, at AGL's website at <http://www.assuredguaranty.com>, or will be provided upon request to Assured Guaranty Municipal Corp.: 31 West 52<sup>nd</sup> Street, New York, New York 10019, Attention: Communications Department (telephone (212) 974-0100). Except for the information referred to above, no information available on or through AGL's website shall be deemed to be part of or incorporated in this Official Statement.

Any information regarding AGM included herein under the caption "THE SERIES 2016B BOND INSURER – Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "AGM Information") shall be modified or superseded to the extent that any subsequently included AGM Information (either directly or through incorporation by reference) modifies or supersedes such previously included AGM Information. Any AGM Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

**Miscellaneous Matters.** AGM makes no representation regarding the Series 2016 Bonds or the advisability of investing in the Series 2016 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this



Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading “THE SERIES 2016B BOND INSURER.”

## **AUTHORITY REVENUES**

### **General**

Under the Indenture, the Authority has pledged the Revenues to the Trustee for payment of the Bonds. As defined in the Indenture, “Revenues” includes Use Fees and Container Charges, Shortfall Advances, proceeds of business interruption insurance received by the Authority (or the Trustee on behalf of the Authority), the earnings on all funds and accounts held by the Trustee under the Indenture (provided that Revenues at a particular level of priority are only to include the interest earnings on the Debt Service Funds and the Debt Service Reserve Accounts with respect to such level of priority to the extent such earnings are required to be deposited or retained in such Debt Service Funds or Debt Service Reserve Accounts). “Revenues” also includes grants and other amounts received under contracts or agreements with governmental or private entities and permitted to be applied as Revenues, but does not include funds to be deposited or retained in or earnings on the moneys held in the M & O Fund, the Reserve Account or the Rebate Fund. Revenues also does not include any Net Proceeds or proceeds from borrowings or any amounts expended by the Railroads for maintenance and operating expenses for the Non-Rail Components or the Drill Track (each as defined in the Operating Agreement). See “—Use Fees” and “—Container Charges” below and “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—INDENTURE—Definitions” and “—USE AND OPERATING AGREEMENT—Certain Definitions” in Appendix E.

The Railroads are required to pay Use Fees and Container Charges, the primary sources of Revenues, in accordance with the Operating Agreement. The Railroads are obligated only to make certain payments required by the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. Use Fees and Container Charges may be increased only in accordance with the terms of the Operating Agreement; the Authority cannot unilaterally increase Use Fees and Container Charges to address Revenue shortfalls, including to pay debt service on its Bonds. Following the settlement of the transloading dispute, the Operating Agreement was amended to extend the term by 25 years, to provide for a \$0.90/TEU increase in the Use Fees and Container Charges (effective December 1, 2006, the “Fee Increase Date”), to increase the amount of the maximum annual inflation adjustment and to require payment by the Railroads of an additional fee in the event Shortfall Advances are paid after the Fee Increase Date. The Railroads’ obligations to make payments under the Operating Agreement terminate on the earlier of (i) April 15, 2062 (60 years after the April 15, 2002 “Commencement Date”) and (ii) the date that Net Project Costs and other amounts required to be paid under the Operating Agreement have been repaid in full (including repayment of the Bonds and amounts, if any, required to reimburse Bond Insurers for any payments made under their financial guaranty policies) and the funding of the Reserve Account to the then-current Reserve Account Target). See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT” in Appendix E. Although other railroad companies may in the future use the Rail Corridor, the Railroads currently are, and currently are expected to remain, the sole users of the Rail Corridor.

The amount of Use Fees and Container Charges payable by the Railroads depends in large part upon the amount of cargo, containerized and non-containerized, that passes through the Ports. Historical containerized cargo volumes at the Ports (representing most of the cargo moved along the corridor) are summarized below and in Appendices B and C. See “—Recent Cargo Throughput and Revenue Collections” below and Tables B-3, B-4 and B-5 in Appendix B and Tables C-3, C-6 and C-7 in Appendix C.

The Operating Agreement obligates each Port, severally and not jointly, to pay Shortfall Advances in the event the amount of Use Fees and Container Charges collected is not sufficient to pay certain of the

Authority's obligations, including debt service on Outstanding Bonds (including the Series 2016 Bonds). The Shortfall Advances are limited in amount and are subordinated obligations of each Port, payable solely from each Port's available net revenues after all of such Port's other obligations are paid. See "—Shortfall Advances" and "BONDHOLDERS' RISKS—Shortfall Advances Are Limited, Subordinate Obligations of the Ports."

## **Use Fees**

The Operating Agreement provides that each Railroad is required to pay to the Authority a Use Fee on (i) all Through Trains (as defined in the Operating Agreement), regardless of whether the Through Train uses the Rail Corridor (unless such Through Train cannot use the Rail Corridor because of a complete blockage of the Rail Corridor for more than five consecutive days); (ii) all Local Trains (as defined in the Operating Agreement) that actually use all or any portion of the Rail Corridor; and (iii) all railcars and/or containers, as the case may be, that originate or terminate at the facilities of the Ports but which are included on a Local Train that does not use the Rail Corridor (other than certain railcars terminating at the Toyota Distribution Facility located at POLB). There is no charge on empty railcars, although empty containers (waterborne or non-waterborne) do incur a charge. Use Fees are not to be assessed on Repositioning or Crossing Movements or on the switching of railcars at Permitted Switching Locations. A container or railcar transported on the Rail Corridor to a rail-staging or assembly area (and not loaded or unloaded) and then moved on the Rail Corridor again (in the same direction) to a location off of the Rail Corridor are to be charged only one Use Fee for the one-way trip.

Table 5 lists Use Fees in effect as of January 1, 2016. Use Fees are to be increased, effective on January 1 of each year, based upon changes in the Consumer Price Index (the "CPI") for the 12-month period ended the preceding October 31. The Operating Agreement provides, however, that in no event will such an increase be less than 1.5% or greater than 4.5%. See Table 8. If Shortfall Advances are paid after the Fee Increase Date, the Operating Agreement permits the Authority to increase the amount of the Use Fees for loaded Waterborne Containers and the amount of Container Charges (including the annual escalation permitted by the Operating Agreement, a "Temporary Increase" and referred to in this Official Statement as a "Surcharge") by a \$1.00/TEU Surcharge (including the annual increase in the amount of the Surcharge in accordance with the annual CPI adjustments) so long as Bonds (including any reimbursement obligations to Bond Insurers) are outstanding and until such Shortfall Advances, plus interest, are repaid. See "—Historical Cargo Throughput and Revenue Collections" below and the summary of the Operating Agreement in Appendix E. Shortfall Advances paid after the Fee Increase Date are referred to in the Operating Agreement as "Subsequent Shortfall Advances." The Surcharge is to remain in effect only until all then-outstanding Subsequent Shortfall Advances (plus accrued interest) are reimbursed. In the event all Shortfall Advances are reimbursed and Subsequent Shortfall Advances are made, the Surcharge will go back into effect. The Use Fees shown in Table 5 include the Surcharge the Authority began charging on December 1, 2011 following payment by the Ports of Shortfall Advances on October 1, 2011 and on October 1, 2012. As of January 1, 2016, the Surcharge was adjusted to \$1.24 per TEU. See paragraph "FOURTEENTH" under "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds."

**TABLE 5**  
**SCHEDULE OF USE FEES**  
(as of January 1, 2016)

Waterborne Containers <sup>(1)</sup>	\$23.26 per TEU (Loaded) 5.57 per TEU (Empty)
Non-Waterborne Containers	5.57 per TEU (Loaded or Empty)
Automobiles	11.14 per Railcar
Coal	11.14 per Railcar
White Bulk <sup>(2)</sup>	11.14 per Railcar
Iron & Steel	11.14 per Railcar
Liquid Bulk <sup>(3)</sup>	11.14 per Railcar
Miscellaneous Carload	11.14 per Railcar

<sup>(1)</sup> The Use Fee for Waterborne Containers includes the Surcharge described above. The maximum allowable CPI increase is 4.5%.

<sup>(2)</sup> White Bulk generally consists of potash, borax, light colored ores and occasionally sulfur.

<sup>(3)</sup> Liquid Bulk includes, among other cargos, crude oil, gasoline and other miscellaneous chemicals.

*Source: The Authority.*

### **Container Charges**

The Operating Agreement requires each Railroad to pay to the Authority, in the manner specified in the Operating Agreement and at the same rate per TEU as set forth in the Operating Agreement for Use Fees for loaded Waterborne Containers, a charge (a “Container Charge”) on each loaded Waterborne Container, that originates or terminates at the Ports and that is moved by rail into or out of Southern California by such Railroad, unless (i) such Waterborne Container has already been assessed the Use Fee required under the Operating Agreement (which Use Fee is required to be paid regardless of whether such container has traveled on the Rail Corridor) or (ii) a Waterborne Container has been shifted to transport by truck as a result of the complete blockage of the Rail Corridor for more than five consecutive days. There is to be no adjustment in Container Charges for a partial blockage of the Rail Corridor or a complete blockage of less than five days. The Container Charge, as of January 1, 2016, was adjusted to \$23.26 per loaded TEU (the equivalent of the Use Fee for loaded Waterborne Containers). The Operating Agreement provides that as with Use Fees, the Container Charge is to be increased, effective on January 1 of each year, based on changes in the CPI for the 12-month period ended the preceding October 31, but provides that in no event will such an increase be less than 1.5% or greater than 4.5% in any given calendar year.

As defined in the Operating Agreement, “Waterborne Containers” means containers that are loaded onto or discharged from a vessel or barge at the Ports. The Operating Agreement provides that the transportation movement of a container as a Waterborne Container terminates when the container’s cargo is unloaded, unless the Waterborne Container is reloaded with the same cargo and/or with cargo from one or more other Waterborne Containers as a Governmental Transfer and not for a substantial commercial purpose. “Non-Waterborne Containers” means all containers that are not Waterborne Containers, regardless of whether the container holds cargo that has been Transloaded from a Waterborne Container. The Operating Agreement provides that the Transloading or other unloading of a Waterborne Container after it has been transported eastbound over the Rail Corridor will not affect the amount of the Use Fee that is due for such transportation over the Rail Corridor. “Transloading,” as defined in the Operating Agreement, means practices by which cargo from a container is placed in or transferred to another container, including practices known as “transloading,” “cross-docking” or “repackaging” that may involve value-added services on the cargo or combining the cargo with other cargo, except the transfer of cargo from one container to another or unloading and reloading of the same cargo as required by federal or state laws or regulations relating to homeland security or to customs or immigration.

The Operating Agreement also requires that, as with Use Fee Surcharges, if Shortfall Advances are made by the Ports after the Fee Increase Date, the Railroads will be obligated to pay a Surcharge on the Container Charge in an amount equal to \$1.00 per TEU, escalated annually from the Fee Increase Date in accordance with the annual CPI adjustments, but only until all Shortfall Advances are repaid, with interest, to the Ports through the Annual Accounting provision in the Flow of Funds. See “FOURTEENTH” under “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds.”

**The Use Fees and Container Charges to be paid by the Railroads are based upon the number of containers and railcars transported on the Rail Corridor, or containers that are trucked around the Rail Corridor that are loaded or unloaded at the Ports and transported by rail into or out of Southern California, and are not based upon the debt service payable on the Bonds, including the Series 2016 Bonds, or upon other financial obligations of the Authority. The Ports and the Railroads are obligated only to make certain payments required under the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of the principal or accreted value of or premium, if any, or interest on, the Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations.”**

### **Collection of Use Fees and Container Charges; Revenue Verification System**

The Operating Agreement provides that Use Fees and Container Charges are to be assessed by the Authority at their full rates until the Use Fees Termination Date. The Use Fees Termination Date is the earlier of (i) 60 years after the Commencement Date and (ii) the date that Net Project Costs and other amounts required to be paid by the Operating Agreement have been repaid in full (including repayment of the Bonds and any reimbursement obligations to Bond Insurers and the funding of the Reserve Account to the then current Reserve Account Target).

The Operating Agreement provides that, on or before the last day of each month, each Railroad is required to pay to the Authority its Use Fees and Container Charges for the preceding month, based upon the actual number of containers and railcars transported by or on behalf of such Railroad during the immediately preceding month for which the payment of a Use Fee or Container Charge would apply. The Authority has assigned its rights to receive Use Fees and Container Charges to the Trustee pursuant to the Indenture. Accordingly, the Railroads are to pay Use Fees and Container Charges directly to the Trustee for deposit in the Revenue Fund. The Operating Agreement provides that any payment not made when due bears interest at the Overdue Rate until paid (in addition to all of the Authority’s other remedies for non-payment). See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Defaults and Remedies” in Appendix E.

Pursuant to the Operating Agreement, the Authority implemented a revenue verification system to monitor the collection of Use Fees and Container Charges. This system, known as the “Alameda Corridor Revenue Assessment and Verification System” or “RAVS,” is designed to calculate independently the Use Fees and Container Charges payable by the Railroads under the Operating Agreement. The RAVS compares the information provided by the data sources itemized below to the amounts actually paid each month by the Railroads to determine whether the proper amounts of Use Fees and Container Charges have been paid. The RAVS was developed by an independent contractor and is based upon five primary data sources, including (i) daily reports prepared by each Railroad describing each rail movement in Southern California during such day; (ii) daily reports prepared by each major terminal operator located at the Ports describing each container movement through the Ports during such day; (iii) minute-by-minute reports of railcars using the Rail Corridor as detected by Automatic Equipment Identification (“AEI”) stations installed and maintained by the Authority; (iv) daily terminal gate movements as reported to PierPass (a not-for-profit company created by the marine terminal operators at the Ports) by each major terminal operator located at the Ports, describing each container movement through the Ports during such day; and (v) monthly reports prepared by each

Railroad describing each rail movement in Southern California for which Use Fees and Container Charges are owed during such month.

Under the Operating Agreement, the Authority is required at the end of each calendar quarter to reconcile the amount of Use Fees and Container Charges actually paid by each Railroad for such quarter against amounts reported. The Operating Agreement provides that, to the extent the amount of a Railroad's payment for such quarter differs from the amount the Railroad actually should have paid for the quarter based upon the number of containers and railcars actually subject to such charges, such Railroad shall receive a credit for such difference during the next succeeding month(s), or shall pay the shortfall within 30 days after receiving a statement from the Authority, as the case may be.

Table 6 is derived from the Authority's audited financial statements and summarizes Use Fees and Container Charges received for fiscal years ended June 30, 2006 through June 30, 2015. The \$3.5 million (3.2%) decrease in the fiscal year ended June 30, 2015 was due primarily to the productivity, congestion and labor contract issues at both Ports described below. See "—Recent and Budgeted Cargo Throughput and Revenue Collection—Containerized Cargo Throughput Calendar Years 2006-2015." For the first seven (7) months of fiscal years 2015 and 2016, the Authority collected Use Fees and Container Charges in the amounts of \$62,516,973 and \$61,870,126, respectively, of Use Fees and Container Charges.

**TABLE 6**  
**USE FEES AND CONTAINER CHARGES**

<b>Fiscal Year Ended June 30</b>	<b>Use Fees and Container Charges<sup>(1)</sup></b>
2006	\$ 80,540,063
2007	95,220,756
2008	94,048,421
2009	85,349,060
2010	80,478,532
2011	93,188,481
2012 <sup>(2)</sup>	97,283,963
2013 <sup>(3)</sup>	99,358,973
2014 <sup>(3)</sup>	108,998,890
2015 <sup>(3)(4)</sup>	105,518,770

<sup>(1)</sup> Effective December 1, 2006, includes the \$0.90-per TEU increase in Use Fees and Customer Charges agreed to as part of the settlement with the Railroads.

<sup>(2)</sup> Includes seven months of Surcharges based upon the Subsequent Shortfall Advance payment required for October 1, 2011 debt service.

<sup>(3)</sup> Revenues include an annual fee increase of 3.0% on January 1, 2013 and an increase of 1.5% on January 1, 2014, on January 1, 2015 and on January 1, 2016.

<sup>(4)</sup> See "—Recent and Budgeted Cargo Throughput and Revenue Collections" and Table 6 below for a description of the productivity, congestion and labor contract issues that affected both Ports during the end of calendar year 2014 and the first six months of calendar year 2015.

*Sources: Extracted by the Authority from its audited financial statements for fiscal years 2006-2015.*

### **Shortfall Advances**

The Ports have agreed in the Operating Agreement that in any year in which Use Fees and Container Charges are insufficient to pay debt service on the Bonds and certain other deposits and payments, including certain Financing Fees and deposits to any debt service reserve fund (collectively, the "Annual Amount"),

the Ports are to advance to the Authority, from any legally available source, funds (the “Shortfall Advances” or “Subsequent Shortfall Advances”) sufficient to pay the positive difference between the Annual Amount due with respect to such year and the amount of other funds available to be applied against the Annual Amount in such year (exclusive of all reserves and other funds specifically pledged for other purposes). The Operating Agreement provides, however, that in no event will the Shortfall Advances required to be made with respect to a calendar year exceed in the aggregate an amount equal to 40% of the total Annual Amount due in such calendar year (defined in the Indenture as the “Contingent Port Obligations”). The Operating Agreement provides that each of the Ports is separately responsible for one-half of the Shortfall Advances due in a year, with neither Port responsible for the contribution required of the other and provides that in no event is either Port individually required to pay in any calendar year an amount in excess of 20% of the Annual Amount due in such year. The obligations to pay Shortfall Advances are limited, subordinate obligations of the Ports and are payable solely from each Port’s legally available revenues after all of such Port’s other obligations are paid. See “THE PORT OF LOS ANGELES” in Appendix B, “THE PORT OF LONG BEACH” in Appendix C and “BONDHOLDERS’ RISKS—Shortfall Advances Are Limited, Subordinate Obligations of the Ports.”

The Ports’ obligation to make Shortfall Advances continues even if the Railroads’ obligation to pay Use Fees is abated as the result of complete blockage of the Rail Corridor for more than five consecutive days. The Operating Agreement requires that the proceeds of any business interruption insurance with respect to an abatement of Use Fees (and, if applicable, Container Charges) that are actually applied to the Annual Amount be taken into account in determining the amount of Shortfall Advances due. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Shortfall Advances” in Appendix E.

The Operating Agreement requires the Authority to submit to each Port at least 90 days prior to the beginning of each Port’s fiscal year the Authority’s estimate of the amount of Shortfall Advances that will be required from each Port during such fiscal year. On March 23, 2016, the Authority delivered a Notice to the Ports indicating that, as of such date, Shortfall Advances in the aggregate approximate amount of \$4.0 million would be required for the fiscal year ending June 30, 2017. The issuance of the Series 2016 Bonds is being designed to reduce or eliminate the need for Shortfall Advances for the fiscal year ending June 30, 2017.

Each Port has covenanted in the Operating Agreement that it will include its share of the estimated Shortfall Advances in its budget for the fiscal year in which such shortfall may occur and/or that it will set aside existing surplus revenues or other lawfully available funds for the payment of its share of the estimated Shortfall Advance. Neither Port is required under the Operating Agreement to take Shortfall Advances into account when establishing its rates and charges or when incurring additional indebtedness or determining compliance with rate covenants under its existing resolutions or indentures. The Authority is required to notify each Port of the actual amount of a Shortfall Advance at least 45 days prior to the date on which a Shortfall Advance is needed, and each Port is required to pay its respective share of such Shortfall Advance on or before such date. The Operating Agreement provides that in the event a Port fails to pay its Shortfall Advance in the year such payment is due, the amount of such unpaid Shortfall Advance (the “Unpaid Shortfall”) will continue to accrue and be payable by such Port.

The Ports were not required to pay Shortfall Advances until calendar year 2011, in part because the Authority was able to postpone some of its capital projects and to allocate unexpended Series 1999 Bond proceeds to the redemption of Outstanding current interest Bonds. Together, the Ports paid a total of \$5.9 million of Shortfall Advances for debt service payments due on October 1, 2011 and a total of \$5.9 million of Shortfall Advances for debt service payments due on October 1, 2012. As a result of the payment of Shortfall Advances by the Ports, the Authority began imposing the Surcharges in December 2011.

No assurance can be given that the amount of any Shortfall Advance required to be made by the Ports will be sufficient to satisfy the financial needs of the Authority, including the payment of Bonds when due, or that either Port will have sufficient funds available to make any particular Shortfall Advance when due. As described below, for the Authority to pay scheduled debt service on its Outstanding Bonds, even with Shortfall Advances, some growth in cargo volumes that use the Rail Corridor and revenues will be required if the Authority is to pay all of the outstanding Bonds. The Operating Agreement provides that Shortfall Advances, plus interest, are to be reimbursed to the Ports from Use Fees and Container Charges to the extent available, after the payment of debt service on the Bonds, replenishment of the Debt Service Reserve Account for each Series of Bonds, the funding of the Reserve Account, the payment of Authority expenses and the Benefit Amount and payment of any unreimbursed Net Project Costs advanced by the Ports prior to substantial completion of the Rail Corridor. As described above, the Operating Agreement also permits the Authority to increase the amount of the Use Fees for loaded Waterborne Containers and the amount of Container Charges by a \$1.00/TEU Surcharge (including the annual increase in the amount of the Surcharge permitted by the Operating Agreement in accordance with the annual CPI adjustments) so long as Bonds (including any reimbursement obligations to Bond Insurers) are outstanding and until such Shortfall Advances, plus interest, are repaid. As of January 1, 2016, the Surcharge was adjusted to \$1.24 per TEU. See Table 5 and “—Flow of Funds.”

### **Recent Cargo Throughput and Revenue Collections**

**Containerized Cargo Throughput Calendar Years 2006-2015.** Combined containerized cargo throughput at the Ports, and the Authority’s share of Port throughput, peaked in calendar year 2006, when containerized cargo totaled approximately 15.76 million TEUs. Beginning in 2008, the global economic downturn resulted in significant decreases in global trade, including trade through the Ports. As shown in Table 6, from approximately 15.67 million TEUs in calendar year 2007, annual containerized cargo throughput at the Ports decreased approximately 8.5% in calendar year 2008 and another 17.6%, to 11.8 million TEUs, in calendar year 2009. Many terminal operators, ocean carriers and shippers took steps to mitigate costs and the impact of reduced revenues, and both Ports initiated incentive programs for their customers to mitigate some of the effects of the downturn, to maintain market share and to attract additional discretionary cargo.

Containerized cargo throughput increased approximately 19.3% at the Ports in calendar year 2010, decreased slightly in calendar year 2011 and increased slightly in calendar year 2012. The combined containerized cargo throughput at the Ports in 2013, 2014 and 2015 increased by 3.4%, 3.8% and 1.3%, respectively. In 2015, containerized cargo throughput decreased by 2.2% to 8.16 million TEUs at POLA and increased by 5.4% to 7.19 million TEUs at POLB; still below the volumes reached in 2007. See “THE PORT OF LOS ANGELES” in Appendix B and “THE PORT OF LONG BEACH” in Appendix C.

Containerized cargo movements at both Ports slowed between April 2014 and June 2015 as a result of congestion issues at the Ports generally and also as a result of disruptions related to contract negotiations between the Pacific Maritime Association (the “Association”) and the International Longshore and Warehouse Union (the “ILWU”). The Association represents most of the steamship lines, marine terminal operators, car-loading bureaus and cargo companies on the Pacific Coast, and the ILWU represents employees who contract with the Association. The current contract was entered into on May 21, 2015 and was ratified by the ILWU membership on May 22, 2015, retroactive to July 1, 2014, and expires on June 30, 2019. The previous contract expired on June 30, 2014, and although the Association and the ILWU began negotiating a new contract in May 2014, they did not reach an agreement until February 2015. The protracted negotiations and resulting disruptions had a compounding effect on congestion issues that had slowed container cargo movement through the Ports generally since September 2014, and container volumes and revenues at both Ports were temporarily impacted. Containerized cargo movements increased as the congestion cleared during the second half of calendar year 2015, and full-year volumes were 15.35 million

TEUs, compared to 15.16 million TEUs in calendar year 2014. See “BONDHOLDERS’ RISKS—Labor Unrest.”

Table 7 shows (in TEUs) historical full and empty containers that moved through the Ports and full and empty containers for which the Authority received revenues for calendar years 2006 through 2015. In general, the Authority’s share of the containerized cargo that passes through the Ports is intermodal cargo from or destined to areas outside Southern California without transloading, and Authority Revenue from such throughput includes (1) Use Fees on containers transferred directly to or from railcars at on-dock or near-dock facilities both of which have direct access to the Rail Corridor, and (2) Container Charges on full containers that are trucked around the Rail Corridor to or from off-dock rail facilities without utilizing the Rail Corridor and that originated from or are destined to points beyond Southern California. As described below, the volumes of containerized cargo handled at the Ports (and the Authority’s Revenues from its share of the Ports’ cargo throughput) vary from year to year and depend upon a variety of local, regional, national and international economic, demographic, political and competitive factors. See “BONDHOLDERS’ RISKS—Recent and Forecast Cargo Throughput and Revenue Collections” below, “THE PORT OF LOS ANGELES” in Appendix B, “THE PORT OF LONG BEACH” in Appendix C and the Report of the Ports’ Independent Consultant in Appendix J.



TABLE 7

**PORTS OF LONG BEACH AND LOS ANGELES AND AUTHORITY CONTAINER THROUGHPUT**  
**CALENDAR YEARS 2006-2015**  
(TEUs)

	2006	2007	2008	2009	2010	2011	2012 <sup>(1)</sup>	2013	2014	2015
<b>Ports<sup>(1)</sup></b>										
<b>Inbound<sup>(2)</sup></b>	8,127,866	8,114,763	7,327,953	6,059,282	7,102,794	7,091,732	7,154,911	7,432,017	7,787,274	7,784,725
<b>Outbound<sup>(2)</sup></b>	2,714,462	3,181,884	3,469,553	3,020,965	3,403,673	3,616,086	3,583,264	3,625,999	3,536,409	3,182,237
<b>Empties</b>	4,917,890	4,370,857	3,540,295	2,736,345	3,588,936	3,293,784	3,385,201	3,541,139	3,837,191	4,385,562
<b>Total TEUs</b>	15,760,218	15,667,504	14,337,801	11,816,592	14,095,402	14,001,602	14,123,376	14,599,155	15,160,874	15,352,524
<b>% Change From Prior Year</b>	--	-0.6%	-8.5%	-17.6%	19.3%	-0.7%	0.9%	3.4%	3.8%	1.3%
<b>Authority<sup>(1)</sup></b>										
<b>Inbound<sup>(2)</sup></b>	3,613,098	3,406,714	3,087,796	2,338,783	2,655,783	2,766,551	2,643,636	2,769,596	2,959,071	2,843,550
<b>Outbound<sup>(2)</sup></b>	1,549,261	1,833,979	1,766,917	1,587,680	1,763,450	1,857,205	1,704,824	1,720,652	1,636,401	1,392,488
<b>Empties</b>	1,012,620	714,576	524,442	285,857	375,302	363,636	333,105	342,344	505,239	682,773
<b>Total TEUs</b>	6,174,979	5,955,269	5,379,155	4,212,320	4,794,535	4,987,392	4,681,565	4,832,592	5,100,711	4,918,811
<b>% Change From Prior Year</b>	--	-3.6%	-9.7%	-21.7%	13.8%	4.0%	-6.1%	3.2%	5.6%	-3.5%
<b>Authority's % of Ports' Throughput</b>	39.2%	38%	37.5%	35.7%	34.0%	35.6%	33.2%	33.1%	33.6%	32.0%

<sup>(1)</sup> For the Authority, for years 2006-2011, includes the Authority's domestic (Non-Waterborne) component and for the years 2012-2015, excludes the Authority's domestic (Non-Waterborne) component; for the Ports, includes transfers to Alaska and Hawaii.

<sup>(2)</sup> Fully loaded.

Sources: For Port TEUs, the Ports; and for Authority TEUs, the Authority.

## Historical Cargo Throughput and Revenue Collections

Table 8 summarizes for calendar years 2007 through 2016 the Authority's Use Fees and Container Charges.

**TABLE 8**  
**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**CONTAINER CHARGES AND USE FEES**  
(Effective January 1, 2007-2016)<sup>(1)</sup>

<b>Calendar Year</b>	<b>Loaded Waterborne/TEU</b>	<b>Empty TEU or Loaded Non-Waterborne/TEU</b>	<b>Miscellaneous Full Railcar</b>	<b>CPI Increase<sup>(2)</sup></b>
2007	\$18.04 <sup>(3)</sup>	\$4.57	\$9.13	2.20%
2008	18.67 <sup>(3)</sup>	4.73	9.45	3.50
2009	19.31 <sup>(3)</sup>	4.89	9.77	3.43
2010	19.60 <sup>(3)</sup>	4.96	9.92	1.50
2011	19.89 <sup>(3)(4)</sup>	5.03	10.07	1.50
2012	21.60 <sup>(3)(5)</sup>	5.17	10.35	2.80
2013	22.25 <sup>(3)(6)</sup>	5.33	10.66	3.00
2014	22.58 <sup>(3)(6)</sup>	5.41	10.82	1.50
2015	22.92 <sup>(3)(6)</sup>	5.49	10.98	1.50
2016	23.26 <sup>(3)(6)</sup>	5.57	11.14	1.50

<sup>(1)</sup> Except that the \$0.90/Loaded Waterborne TEU increase agreed to in the settlement and the amendments to the Operating Agreement became effective December 1, 2006 and except that the Surcharge of \$1.12/TEU (\$1.00, escalated from 2006 by the annual CPI escalator) became effective on December 1, 2011 following the Shortfall Advance payment required for the October 1, 2011 debt service payment.

<sup>(2)</sup> CPI increases are calculated from October 31 to October 31 of the prior calendar year. Under the Operating Agreement, the minimum increase is 1.5%, even if (as in 2009 and 2010) the actual CPI increase was lower than 1.5%.

<sup>(3)</sup> Includes a one-time, permanent fee increase of \$0.90/Loaded Waterborne TEU effective December 1, 2006 pursuant to the Transload settlement. That increase, together with the CPI increase, resulted in an increase of \$1.29/Loaded Waterborne TEU in 2007.

<sup>(4)</sup> Excludes the Surcharge of \$1.12/TEU (\$1.00, escalated from 2006 by the annual CPI escalator) effective on December 1, 2011 following the Shortfall Advance payment required for the October 1, 2011 debt service payment.

<sup>(5)</sup> The addition of the Surcharge, plus the CPI increase, resulted in a total increase of \$1.71/Loaded Waterborne TEU in 2012.

<sup>(6)</sup> Includes the Surcharge.

Source: The Authority.

Table 9 summarizes revenue collected by the Authority during fiscal years 2007 through 2015. The amounts shown in Table 9 include the one-time, permanent fee increase of \$0.90/Loaded Waterborne TEU effective December 1, 2006 pursuant to the Transload settlement, as well as the annual CPI increase. Beginning in 2011, the Authority implemented a Surcharge of \$1.12/Loaded Waterborne TEU (\$1.00, escalated from 2006 by the annual CPI escalator) effective on December 1, 2011, following the Shortfall Advance payments required for the October 1, 2011 debt service payment, which is also reflected in Table 9. See "—Use Fees," "—Container Charges" and "—Collection of Use Fees and Container Charges; Revenue Verification System." As shown in the table, between 94.34% and 96.58% of the Authority's Container Charge and Use Fee revenues has been derived from full Waterborne containers.

TABLE 9

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**CONTAINER CHARGE AND USE FEE REVENUE IN FISCAL YEARS 2007-2015 AND FIRST SEVEN MONTHS OF FISCAL YEARS 2015 AND 2016<sup>(1)</sup>**  
(Fiscal Years ended June 30)

<b>Component</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>	<b>Revenue</b>
<b>Waterborne Full</b>	\$89,831,585	\$89,912,972	\$81,572,924	\$77,722,350	\$89,637,086	\$93,771,838	\$95,818,966	\$104,859,129	\$100,128,456
<b>Waterborne Empty</b>	3,824,422	2,181,043	2,087,658	1,202,976	1,966,438	1,776,213	1,823,295	2,149,683	3,475,207
<b>Non-Waterborne</b>	879,106	1,108,015	987,457	803,053	689,258	740,226	672,416	685,034	730,053
<b>Misc. Full Railcars</b>	685,643	846,390	701,201	750,153	895,700	995,686	1,044,296	1,305,044	1,185,054
<b>Totals</b>	<b>\$95,220,756</b>	<b>\$94,048,420</b>	<b>\$85,349,240</b>	<b>\$80,478,532</b>	<b>\$93,188,482</b>	<b>\$97,283,963</b>	<b>\$99,358,973</b>	<b>\$108,998,890</b>	<b>\$105,518,770</b>
	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>
<b>Waterborne Full</b>	94.34%	95.60%	95.58%	96.58%	96.19%	96.39%	96.44%	96.20%	94.89%
<b>Waterborne Empty</b>	4.02	2.32	2.45	1.49	2.11	1.83	1.84	1.97	3.29
<b>Non-Waterborne</b>	0.92	1.18	1.16	1.00	0.74	0.76	0.68	0.63	0.69
<b>Misc. Full Railcars</b>	0.72	0.90	0.82	0.93	0.96	1.02	1.05	1.20	1.12
<b>Totals</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

<b>Component</b>	<b>First Seven Months</b>		<b>First Seven Months</b>	
	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2015</b>	<b>FY 2016</b>
	<b>Revenue</b>	<b>Revenue</b>	<b>% of Total Revenue</b>	<b>% of Total Revenue</b>
<b>Waterborne Full</b>	\$59,421,008	\$58,395,247	95.05%	94.29%
<b>Waterborne Empty</b>	1,930,772	2,560,959	3.09	4.13
<b>Non-Waterborne</b>	432,318	418,951	0.69	0.68
<b>Misc. Full Railcars</b>	732,875	559,515	1.17	0.90
<b>Totals</b>	<b>\$62,516,973</b>	<b>\$61,934,672</b>	<b>100.00%</b>	<b>100.00%</b>

<sup>(1)</sup> Totals may not add due to rounding.

Source: The Authority.

## Historical Revenues and Expenses

Table 10A is derived from the Authority's audited financial statements for fiscal years ended June 30, 2011 through 2015.

**TABLE 10A**  
**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
(Fiscal Years ended June 30)

	2011 <sup>(1)</sup>	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014 <sup>(1)</sup>	2015
Operating revenues:					
Use fees and container charges	\$ 93,188,481	\$ 97,283,963	\$ 99,358,973	\$ 108,998,890	\$ 105,518,770
Maintenance-of-way charges <sup>(2)</sup>	3,996,449	4,408,285	4,557,706	4,788,030	4,856,519
Total operating revenues	97,184,930	101,692,248	103,916,679	113,786,920	110,375,289
Operating expenses:					
Salaries and benefits	1,839,141	2,116,405	2,154,998	1,708,783	1,860,394
Administrative expenses	2,215,700	1,829,151	1,821,842	1,524,456	1,521,284
Professional services	4,939,826	2,962,133	736,069	949,450	744,920
Maintenance-of-way	5,489,127	5,984,781	6,204,519	6,039,975	6,738,543
Depreciation	21,701,750	21,754,246	21,304,024	21,308,675	21,244,199
Total operating expenses	36,185,544	34,646,717	32,221,452	31,531,339	32,109,340
Operating income	60,999,386	67,045,531	71,695,227	82,255,581	78,265,949
Nonoperating revenues:					
Interest and investment revenue, net	5,070,228	4,156,696	3,111,174	2,230,983	2,413,719
Grants <sup>(3)</sup>	6,203,554	2,806,482	4,168,478	8,158,398	3,479,593
Miscellaneous revenue	2,673,181	980,469	499,967	188,533	193,220
Total nonoperating revenues	13,946,963	7,943,647	7,779,619	10,577,914	6,086,532
Nonoperating expenses:					
Interest expense	118,156,735	118,538,433	109,435,367	116,183,634	111,683,412
Loss on sale and transfers of capital assets held for sale and transfer <sup>(4)</sup>	-	-	-	13,011,363	26,328,348
Expenses for public benefit <sup>(5)</sup>	-	-	5,216,480	3,460,496	4,195,569
Bond issuance costs	3,230,361	-	4,372,302	-	-
Total nonoperating expenses	121,387,096	118,538,433	119,024,149	132,655,493	142,207,329
Change in net position <sup>(6)</sup>	(46,440,747)	(43,549,255)	(39,549,303)	(39,821,998)	(57,854,848)
Net position, beginning of the year, as restated	123,854,033	24,959,164	(18,590,091)	(93,327,062)	(133,149,060)
Cumulative effect of change in accounting principle	(52,454,122) <sup>(9)</sup>		(35,187,668) <sup>(7)</sup>		(1,688,512) <sup>(8)</sup>
Net position, beginning of the year, as restated	71,399,911	24,959,164	(53,777,759)	(93,327,062)	(134,837,572)
Net position, end of year <sup>(5)</sup>	\$24,959,164	\$ (18,590,091)	\$ (93,327,062)	\$ (133,149,060)	\$ (192,692,420)

<sup>(1)</sup> As restated as of June 30, 2015 to conform with Fiscal Year 2015 presentation. In 2015, certain expenditures recorded in prior years as capital assets were determined to be more appropriately presented as expenses, and certain land and rights-of-way classified within capital assets were reclassified as assets held for sale and transfer. See Note 12 in Appendix A.

<sup>(2)</sup> M & O charges are payable by the Railroads as provided by the Operating Agreement and are not pledged to or available for payment of Bonds. See "THE RAIL CORRIDOR AND RELATED PROJECTS—Maintenance and Operation of the Rail Corridor."

<sup>(3)</sup> Represents proceeds from federal or state grants awarded to reimburse the Authority or the California Department of Transportation for costs of Related Improvements.

<sup>(4)</sup> See Note 4 in Appendix A.

<sup>(5)</sup> See Note 12 in Appendix A.

<sup>(6)</sup> Decreases in total net position are primarily because operating income (which takes depreciation into account) is less than interest expense. See Appendix A.

<sup>(7)</sup> As restated as of June 30, 2015 to conform with Fiscal Year 2015 presentation.

<sup>(8)</sup> In 2015, the Authority implemented new accounting standards pursuant to Governmental Accounting Standards Board Statement No. 68. See Note 9 in Appendix A.

<sup>(9)</sup> In 2013, the Authority implemented new accounting standards pursuant to Governmental Accounting Standards Board Statement No. 65.

Source: The Authority.

Table 10B is derived from the Authority's unaudited financial information for the first seven months of fiscal years ended June 30, 2015 and June 30, 2016.

**TABLE 10B**  
**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
(Seven Months Ended January 31, 2015 and 2016)

	<u>2015</u>	<u>2016</u>
Operating revenues:		
Use fees and container charges	\$ 62,516,973	\$ 61,870,126
Maintenance-of-way charges	2,625,658	2,571,770
Total operating revenues	<u>65,142,631</u>	<u>64,441,896</u>
Operating expenses:		
Salaries and benefits	1,085,721	1,096,142
Administrative expenses	704,505	722,277
Professional services	463,722	764,159
Maintenance-of-way	3,465,360	3,734,293
Depreciation	12,712,644	12,607,800
Total operating expenses	<u>18,431,952</u>	<u>18,924,671</u>
Operating income	<u>46,710,679</u>	<u>45,517,225</u>
Nonoperating revenues:		
Interest and investment revenue, net	1,386,409	1,732,941
Grants	136,282	1,328,607
Miscellaneous revenue	303,722	104,214
Gain/Loss Sale or Transfer of Capital Assets	533,797	-
Total nonoperating revenues	<u>2,360,210</u>	<u>3,165,765</u>
Nonoperating expenses:		
Interest expense	65,105,626	65,224,627
Expenses for public benefit and Pass Thru Expenses	-	1,328,958
Total nonoperating expenses	<u>65,105,626</u>	<u>66,553,585</u>
Change in net position	<u>(16,034,737)</u>	<u>(17,870,595)</u>
Net position, beginning of the period, as restated	<u>(90,309,586)</u>	<u>(192,692,420)</u>
Net position, end of period	<u>\$ (106,344,323)</u>	<u>\$ (210,563,015)</u>

*Source: Derived from unaudited financial information of the Authority.*

## **Forecast Port Cargo Throughput and Estimated Authority Revenues**

In general, the Authority's share of the containerized cargo that passes through the Ports is intermodal cargo from or destined to areas outside Southern California without transloading, and Authority Revenue from such throughput includes (1) Use Fees on containers transferred directly to or from railcars at on-dock or near-dock facilities both of which have direct access to the Rail Corridor, and (2) Container Charges on full containers that are trucked to or from off-dock rail facilities without utilizing the Rail Corridor and that originated from or are destined to points beyond Southern California. The volumes of containerized cargo handled at the Ports (and the Authority's Revenues from its share of the Ports' cargo throughput) vary from year to year and depend upon a variety of local, regional, national and international economic, demographic, political and competitive factors.

### **Report of the Ports' Independent Consultant**

The Report of the Ports' Independent Consultant was commissioned by the Ports to assist the Ports in developing their own long-term forecasts of containerized and non-containerized cargo throughput through the two Ports. The Report was not commissioned by the Ports to forecast use of the Rail Corridor or future Authority Revenues. Among other things, the Report of the Ports' Independent Consultant identifies key macroeconomic drivers and cost considerations that impact competitiveness and cargo throughput decisions by shippers and carriers. The Report of the Ports' Independent Consultant also includes forecasts of long-term U.S. and Canada trade levels and competitiveness for containerized cargo and for non-containerized cargo, such as dry- and liquid-bulk cargo, break-bulk cargo and vehicles and other roll-on/roll-off cargo.

In the Report of the Ports' Independent Consultant, the Ports' Independent Consultant identified two primary categories of imported international cargo that passes through the Ports: local cargo and "Inland Point Intermodal," or IPI, cargo. "Local cargo" consists of cargo that stays in the Southern California area, cargo that moves or is transloaded to move by truck as far east as Colorado and New Mexico and cargo that is transloaded and moved inland by rail, mostly to points beyond the Rocky Mountains. Local cargo, including transloaded cargo, represented approximately 62% of loaded imports moving through the Ports for calendar year 2014. According to the Ports' Independent Consultant, such local cargo is less likely to be diverted to other ports because the additional costs of moving cargo to the Ports' catchment area from alternative ports would outweigh any port or terminal costs savings. In addition, according to the Consultant, transloaded movements by rail are relatively unlikely to be diverted because of sailings frequency, lower shipping costs, shorter transit times, and access to intermodal train services.

IPI cargo consists of containerized cargo that is moved by rail directly from or to an interior destination (but not cargo that is transloaded and then transported by rail to inland destinations). According to the Ports' Independent Consultant, IPI cargo represented approximately 38% of loaded international containerized cargo imports that moved through the Ports in calendar year 2014. IPI volumes generally are the container volumes that use the Rail Corridor or are trucked around the Rail Corridor but are still eligible for an Authority fee, both of which generate the Authority's Revenues.

In the Report, the Consultant concluded that IPI cargoes are highly divertible to other ports because there are a number of gateway ports along the Pacific coast that are positioned to handle these volumes and also because the increased availability of services between Asia and East/Gulf Coast ports enables all-water routings to be viable alternatives for the lower-value, less time-sensitive commodities moving to inland destinations east of the Mississippi River valley. The Consultant concludes that consequently, IPI volume is the cargo segment that is most vulnerable to the risk of share loss for the Ports. To evaluate how the Ports' competitive position for their existing IPI volumes could evolve over the next 25 years, the Ports' Independent Consultant performed analyses that identified and assessed the following competitive factors/trends with potential impact on the Ports' positions:

- the completion in 2016 of the expansion of the Panama Canal, which will allow larger vessels to be deployed on all-water services between Northeast Asia and the Atlantic/Gulf Coast ports, enabling ocean carriers to lower their costs (but not their time) on this route;
- slower growth in vessel capacities calling on the Ports as a result of slower growth of import volumes to the Ports, all of which could reduce the slot-cost advantage that transpacific deployments and the Ports currently have over all-water services and the East Coast ports;
- faster increases in terminal handling costs at the Ports than at competing ports, which could result in higher terminal service charges to carriers and reduce the Ports' competitiveness; and
- increased terminal capacity at ports in British Columbia, particularly at Prince Rupert Sound, and at improved facilities at Oakland and in the Pacific Northwest and along the East Coast and Gulf Coast, which would allow these ports to handle additional services and greater numbers of IPI movements to destinations within the United States.

In the Report, the Consultant identifies the diversion of containerized cargo to other ports as the primary competitive risk for the Ports. The Consultant concludes that the competitive factors that are expected to affect IPI volumes at the Ports, including the expansion of the Panama Canal facilities, the expansions of the facilities at Prince Rupert Sound in British Columbia and improvements in facilities along the East and West Coasts and Gulf Coast, slow growth in vessel sizes calling at the Ports and differential growth rates of terminal costs are the most significant and the most likely to cause diversion.

The Report of the Ports' Independent Consultant includes three macroeconomic scenarios for the United States economy (expected growth, high growth and low growth), with a base and two competitive factor adjustments (base case, upside and downside) applied to each macroeconomic scenario, resulting in a total of nine scenarios. For discussions of the various scenarios and the competitive adjustments, see the Report of the Ports' Independent Consultant included in Appendix J.

**Expected Base Case.** Table 11A below shows estimated future Use Fees and Container Charges and future debt service coverage, based upon the "expected base case" scenario (expected growth in the United States economy adjusted for the base case competitive factors) (the "Expected Base Case") and the cargo growth rates forecasted in the Expected Base Case in the Report of the Ports' Independent Consultant. In the "expected growth" macroeconomic scenario, the Ports' Independent Consultant forecasts that the U.S. economy continues its gradual recovery, the United States gross domestic product grows at rate of 2.4% over the long-term, United States trade grows at a rate of 3.9% and tariff rates decline. For the "base case" competitive adjustment, the Ports' Independent Consultant assumes moderation in largest vessel size growth and some IPI cargo losses to British Columbia, the U.S. Gulf Coast and U.S. East Coast ports.

**Low Downside Case.** Table 11B shows estimated future Use Fees and Container Charges and future debt service coverage based upon the "low downside case" scenario (low growth in the United States economy adjusted for the downside case competitive factors) (the "Low Downside Case") and the cargo growth rates forecasted in the Low Downside Case in the Report of the Ports' Independent Consultant, adjusted by the Authority to reflect a 2.0% annual growth rate through Calendar Year 2019. In the low growth macroeconomic scenario, the Ports' Independent Consultant forecasts that the U.S. economy experiences near term shocks, the United States gross domestic product grows at rate of 2.0% over the long-term and United States trade grows at a rate of 2.7%. For the "downside" competitive factor adjustment, the Ports' Independent Consultant forecasts that vessel size is weighted towards Panama Canal limits, additional first call service is added for ports in British Columbia and that calling at the Ports results in significant route cost disadvantages.

## **Future Estimated Authority Revenues and Debt Service Coverage**

Table 11A below sets forth estimated future Use Fees and Container Charges and debt service coverage on the Bonds, including the Series 2016 Bonds from Total Dedicated Revenues (Use Fees and Container Charges and Contingent Port Obligations combined) based upon the Expected Base Case scenario included in the Report of the Ports' Independent Consultant, and Table 11B sets forth estimated future Use Fees and Container Charges and debt service coverage on the Bonds from Dedicated Revenues based upon the Low Downside Case scenario included in the Report, with the cargo growth rate adjusted as described above, in each case for Fiscal Years 2016 through 2042. The IPI volumes shown in the Report for Calendar Year 2015 are based on preliminary information as of approximately September 2015 and are higher than the Authority's actual TEU throughput volumes for Calendar Year 2015 by approximately 9.0%.

The estimated future Use and Container Fee Charges shown in Tables 11A and 11B below are based on the Authority's actual TEU throughput volumes for Calendar Year 2015 and the IPI cargo growth rates set forth in the Report of the Ports' Independent Consultant (with the growth rates for the Low Downside Case adjusted as described below). Debt Service on the Bonds (and Contingent Port Obligations) shown in Tables 11A and 11B was structured with reference to the growth rates included in the Low Downside Case scenario included in the Report, adjusted as described above.

Tables 11A and 11B also reflect the following assumptions and adjustments: (i) that Debt Service Reserve Account releases are made and transferred to pay debt service as Bonds mature; (ii) that an annual increase of the Consumer Price Index of 1.75% is applied to the User Fees and Container Charges and to Operating Expenses; (iii) in Table 11A, that the cargo growth rates are the IPI cargo growth rates shown for the Expected Base Case scenario in the Report of the Ports' Independent Consultant; (iv) for Table 11A, that (A) all outstanding Shortfall Advances are repaid by Fiscal Year 2024 and that the Surcharge is included in Fiscal Years 2016 through 2023, but not included in Fiscal Year 2024, and (B) that additional Shortfall Advances will be incurred beginning in Fiscal Year 2025 and the Surcharge is again included beginning in Fiscal Year 2025 through and including Fiscal Year 2032; (v) for Table 11B, that (A) the cargo growth rates are the IPI cargo growth rates shown for the Low Downside Case scenario in the Report of the Ports' Independent Consultant, adjusted to assume an annual growth rate of 2.0% through Fiscal Year 2019 and (B) the Surcharge is included in each Fiscal Year; (vi) that after the issuance of the Series 2016 Bonds, no other refunding Bonds are issued and no other tender/purchase programs are completed; (vii) that excess Revenues are not utilized to redeem Bonds early after the Ports are repaid in full; and (viii) that for purposes of estimating Shortfall Advances, debt service payments are funded six months in advance of the applicable debt service payment dates. The cargo growth rates included in the Report and annual CPI adjustment are based on calendar years; for purposes of Tables 11A and 11B, the annual amounts, after adjusting the Authority cargo throughput for seasonality, have been calculated on and applied on a monthly basis, then re-totaled to derive Fiscal Year information.



**TABLE 11A**  
**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**ESTIMATED DEBT SERVICE COVERAGE TABLE (EXPECTED BASE CASE)**

Fiscal Year Ending	Use Fees and Container Charges <sup>(1)</sup> [A]	Contingent Port Obligations <sup>(2),(3)</sup> [B]	Total Dedicated Revenues [A]+[B]=[C]	Senior Lien Bonds Debt Service [D]	Debt Service Coverage for Senior Lien Bonds [C]/[D]=[E]	First Subordinate Lien Bonds Debt Service <sup>(3)</sup> [F]	Debt Service Coverage for Senior Lien Bonds and First Subordinate Lien Bonds [C]/([D]+[F])=[G]	Second Subordinate Lien Bonds Debt Service <sup>(3)</sup> [H]	Debt Service Coverage for All Bonds [C]/[J]=[I]	Total Debt Service <sup>(3)</sup> [D]+[F]+[H]=[J]	Financing Fees [K]	Projected Shortfall Advances <sup>(4)</sup> [L]
2016	\$105,423,521	\$29,696,879	\$135,120,401	\$62,504,217	2.16x	\$11,450,550	1.83x	-	1.83x	\$73,954,767	\$287,431	-
2017	113,623,360	34,768,603	148,391,964	62,933,625	2.36x	1,371,011	2.31x	\$22,320,819	1.71x	86,625,455	296,054	-
2018	120,967,641	39,884,848	160,852,489	63,370,234	2.54x	9,862,700	2.20x	26,174,250	1.62x	99,407,184	304,935	-
2019	128,990,844	41,440,137	170,430,981	63,804,309	2.67x	13,307,700	2.21x	26,174,250	1.65x	103,286,259	314,083	-
2020	135,159,550	42,942,004	178,101,554	75,079,554	2.37x	5,777,700	2.20x	26,174,250	1.66x	107,031,504	323,506	-
2021	141,277,584	44,688,794	185,966,378	82,271,825	2.26x	2,942,700	2.18x	26,174,250	1.67x	111,388,775	333,211	-
2022	150,145,792	46,722,441	196,868,233	83,109,646	2.37x	7,179,000	2.18x	26,174,250	1.69x	116,462,896	343,207	-
2023	158,855,580	48,965,780	207,821,360	83,947,146	2.48x	11,939,550	2.17x	26,174,250	1.70x	122,060,946	353,504	-
2024	162,651,103	50,521,888	213,172,991	94,081,462	2.27x	5,684,900	2.14x	26,174,250	1.69x	125,940,612	364,109	-
2025	170,539,322	50,927,328	221,466,651	94,024,539	2.35x	6,744,500	2.20x	26,174,250	1.74x	126,943,289	375,032	-
2026	183,180,639	50,901,086	234,081,725	93,968,183	2.49x	6,724,000	2.32x	26,174,250	1.85x	126,866,433	386,283	\$36,684,177
2027	192,818,321	88,482,670	281,300,991	93,959,553	2.99x	100,675,000	1.45x	26,174,250	1.27x	220,808,803	397,872	30,460,738
2028	204,450,870	88,461,139	292,912,009	93,893,789	3.12x	100,675,000	1.51x	26,174,250	1.33x	220,743,039	409,808	18,971,505
2029	216,735,081	88,428,122	305,163,202	93,803,952	3.25x	100,670,000	1.57x	26,174,250	1.38x	220,648,202	422,102	6,762,830
2030	229,755,733	88,401,562	318,157,295	93,719,890	3.39x	100,675,000	1.64x	26,174,250	1.44x	220,569,140	434,765	-
2031	243,598,412	91,528,219	335,126,631	101,533,490	3.30x	100,665,000	1.66x	26,174,250	1.47x	228,372,740	447,808	-
2032	258,264,886	91,557,866	349,822,752	101,589,172	3.44x	100,670,000	1.73x	26,174,250	1.53x	228,433,422	461,242	-
2033	273,685,884	91,580,850	365,266,733	101,632,795	3.59x	100,670,000	1.81x	26,174,250	1.60x	228,477,045	475,079	-
2034	282,550,581	91,604,444	374,155,024	101,672,527	3.68x	100,675,000	1.85x	26,174,250	1.64x	228,521,777	489,332	-
2035	291,566,606	102,123,723	393,690,329	101,712,671	3.87x	-	3.87x	153,092,625	1.55x	254,805,296	504,012	-
2036	308,753,658	101,303,045	410,056,703	99,966,480	4.10x	-	4.10x	152,772,000	1.62x	252,738,480	519,132	-
2037	326,768,838	101,637,882	428,406,721	100,845,000	4.25x	-	4.25x	152,715,000	1.69x	253,560,000	534,706	-
2038	345,682,680	101,957,699	447,640,379	101,855,000	4.39x	-	4.39x	152,488,500	1.76x	254,343,500	550,747	-
2039	365,482,376	226,908	365,709,283	-	-	-	-	-	-	-	567,270	-
2040	386,219,629	233,715	386,453,344	-	-	-	-	-	-	-	584,288	-
2041	397,089,407	240,727	397,330,134	-	-	-	-	-	-	-	601,816	-
2042	397,089,407	247,948	397,337,356	-	-	-	-	-	-	-	619,871	-
Total <sup>(5)</sup>	\$6,291,327,305	\$1,609,476,307	\$7,900,803,612	\$2,045,279,059		\$888,359,311		\$1,078,351,194		\$4,011,989,563	\$11,701,206	\$92,879,251

[FOOTNOTES ON FOLLOWING PAGE]

- <sup>(1)</sup> Based on the Authority's actual TEU throughput volumes for Calendar Year 2015 and the IPI cargo growth rates set forth in the Expected Base Case in the Report of the Ports' Independent Consultant, adjusted to a fiscal year basis, as described above. Use Fees and Container Charges are shown in the Fiscal Years estimated to be received. Also assumes that all outstanding Shortfall Advances are repaid by Fiscal Year 2024 and that the Surcharge is included in Fiscal Years 2017 through 2023, but not included in Fiscal Year 2024. Assumes additional Shortfall Advances will be incurred beginning in Fiscal Year 2025 and that the Surcharge is again included beginning in Fiscal Year 2025 through and including Fiscal Year 2032. Assumes 1.75% annual inflation. See the paragraph immediately preceding this Table 11A.
- <sup>(2)</sup> Contingent Port Obligations are equal to 40% of the Annual Amount. See "AUTHORITY REVENUES-Shortfall Advances" and the definition of Annual Amount in APPENDIX E—"SUMMARY OF PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT."
- <sup>(3)</sup> Debt Service on the Bonds (and Contingent Port Obligations) shown in Table 11A was structured with reference to the growth rates included in the Low Downside Case scenario included in the Report, adjusted as described above. Debt service is shown in the Fiscal Year in which it is due.
- <sup>(4)</sup> The Authority is required to submit to each Port at least 90 days prior to the beginning of each Port's fiscal year the Authority's estimate of the amount of Shortfall Advance that is expected to be required from each Port during such fiscal year. Because the estimate is required approximately six months in advance of the October 1 principal payment date (and in the fiscal year preceding such principal payment date), for purposes of Table 11A, future Shortfall Advances are estimated assuming that applicable debt service is paid six months in advance of the applicable debt service payment date. By aligning each October 1 principal payment date with the prior fiscal year revenues, future Use Fees and Container Charges, as estimated as described above and as shown in Table 11A, along with estimated Shortfall Advances so determined, are expected to be sufficient to meet annual debt service requirements. Because for purposes of Table 11A, Shortfall Advances are determined by assuming that debt service is paid 6 months in advance, Shortfall Advances cannot be calculated from information provided solely in Table 11A.
- <sup>(5)</sup> Totals may not add up due to rounding.

As shown in Table 11A, based upon the assumptions and adjustments described above, future debt service coverage on the Senior Lien Bonds would range from a low of approximately 2.16 times to a high of approximately 4.49 times; future debt service coverage on all Senior Lien Bonds and all First Subordinate Lien Bonds (including the Series 2016A Bonds) would range from a low of approximately 1.45 times to a high of approximately 2.33 times; future debt service coverage on all Senior Lien Bonds, First Subordinate Lien Bonds (including the Series 2016A Bonds) and Second Subordinate Lien Bonds (including the Series 2016B Bonds) would range from a low of approximately 1.27 times to a high of approximately 1.85 times.

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**TABLE 11B**  
**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**ESTIMATED DEBT SERVICE COVERAGE TABLE (LOW DOWNSIDE CASE AS ADJUSTED)**

Fiscal Year Ending	Use Fees and Container Charges <sup>(1)</sup> [A]	Contingent Port Obligations <sup>(2),(3)</sup> [B]	Total Dedicated Revenues [A]+[B]=[C]	Senior Lien Bonds Debt Service [D]	Debt Service Coverage for Senior Lien Bonds [C]/[D]=[E]	First Subordinate Lien Bonds Debt Service <sup>(3)</sup> [F]	Debt Service Coverage for Senior Lien Bonds and First Subordinate Lien Bonds [C]/([D]+[F])=[G]	Second Subordinate Lien Bonds Debt Service <sup>(3)</sup> [H]	Debt Service Coverage for All Bonds [C]/[J]=[I]	Total Debt Service <sup>(3)</sup> [D]+[F]+[H]=[J]	Financing Fees [K]	Projected Shortfall Advances <sup>(4)</sup> [L]
2016	\$102,559,544	\$29,696,879	\$132,256,423	\$62,504,217	2.12x	\$11,450,550	1.79x	-	1.79x	\$73,954,767	\$287,431	-
2017	106,307,098	34,768,603	141,075,701	62,933,625	2.24x	1,371,011	2.19x	\$22,320,819	1.63x	86,625,455	296,054	-
2018	110,351,360	39,884,848	150,236,208	63,370,234	2.37x	9,862,700	2.05x	26,174,250	1.51x	99,407,184	304,935	-
2019	114,537,932	41,440,137	155,978,069	63,804,309	2.45x	13,307,700	2.02x	26,174,250	1.51x	103,286,259	314,083	-
2020	118,194,026	42,942,004	161,136,031	75,079,554	2.15x	5,777,700	1.99x	26,174,250	1.51x	107,031,504	323,506	-
2021	122,480,269	44,688,794	167,169,063	82,271,825	2.03x	2,942,700	1.96x	26,174,250	1.50x	111,388,775	333,211	-
2022	128,366,317	46,722,441	175,088,759	83,109,646	2.11x	7,179,000	1.94x	26,174,250	1.50x	116,462,896	343,207	-
2023	133,448,604	48,965,780	182,414,384	83,947,146	2.17x	11,939,550	1.90x	26,174,250	1.49x	122,060,946	353,504	-
2024	134,732,338	50,521,888	185,254,227	94,081,462	1.97x	5,684,900	1.86x	26,174,250	1.47x	125,940,612	364,109	-
2025	134,896,071	50,927,328	185,823,400	94,024,539	1.98x	6,744,500	1.84x	26,174,250	1.46x	126,943,289	375,032	-
2026	137,034,837	50,901,086	187,935,923	93,968,183	2.00x	6,724,000	1.87x	26,174,250	1.48x	126,866,433	386,283	\$82,829,979
2027	141,245,134	88,482,670	229,727,804	93,959,553	2.45x	100,675,000	1.18x	26,174,250	1.04x	220,808,803	397,872	82,033,925
2028	148,119,963	88,461,139	236,581,102	93,893,789	2.52x	100,675,000	1.22x	26,174,250	1.07x	220,743,039	409,808	75,302,412
2029	155,307,465	88,428,122	243,735,586	93,803,952	2.60x	100,670,000	1.25x	26,174,250	1.11x	220,648,202	422,102	68,190,446
2030	162,806,821	88,401,562	251,208,383	93,719,890	2.68x	100,675,000	1.29x	26,174,250	1.14x	220,569,140	434,765	66,074,956
2031	170,666,403	91,528,219	262,194,622	101,533,490	2.58x	100,665,000	1.30x	26,174,250	1.15x	228,372,740	447,808	10,750,225
2032	178,942,668	91,557,866	270,500,533	101,589,172	2.66x	100,670,000	1.34x	26,174,250	1.18x	228,433,422	461,242	50,051,254
2033	187,569,782	91,580,850	279,150,632	101,632,795	2.75x	100,670,000	1.38x	26,174,250	1.22x	228,477,045	475,079	41,472,153
2034	196,567,423	91,604,444	288,171,866	101,672,527	2.83x	100,675,000	1.42x	26,174,250	1.26x	228,521,777	489,332	40,635,190
2035	205,953,967	102,123,723	308,077,691	101,712,671	3.03x	-	3.03x	153,092,625	1.21x	254,805,296	504,012	50,558,996
2036	215,689,646	101,303,045	316,992,691	99,966,480	3.17x	-	3.17x	152,772,000	1.25x	252,738,480	519,132	34,512,482
2037	225,789,908	101,637,882	327,427,790	100,845,000	3.25x	-	3.25x	152,715,000	1.29x	253,560,000	534,706	32,636,798
2038	236,237,288	101,957,699	338,194,987	101,855,000	3.32x	-	3.32x	152,488,500	1.33x	254,343,500	550,747	-
2039	246,991,205	226,908	247,218,113	-	-	-	-	-	-	-	567,270	-
2040	258,120,619	233,715	258,354,334	-	-	-	-	-	-	-	584,288	-
2041	263,896,201	240,727	264,136,927	-	-	-	-	-	-	-	601,816	-
2042	263,896,201	247,948	264,144,149	-	-	-	-	-	-	-	619,871	-
Total <sup>(4)</sup>	\$4,600,709,089	\$1,609,476,307	\$6,210,185,396	\$2,045,279,059		\$888,359,311		\$1,078,351,194		\$4,011,989,563	\$11,701,206	\$635,048,818

[FOOTNOTES ON FOLLOWING PAGE]

- <sup>(1)</sup> Based on the Authority's actual TEU throughput volumes for Calendar Year 2015 and the IPI cargo growth rates set forth in the Low Downside Case in the Report of the Ports' Independent Consultant, adjusted to assume an annual growth rate of 2.0% through Fiscal Year 2019, and adjusted to a fiscal year basis. Use Fees and Container Charges are shown in the Fiscal Years estimated to be received. Assumes Shortfall Advances are outstanding through Fiscal Year 2042 and that the Surcharge is included in all Fiscal Years shown in Table 11B. See the paragraph immediately preceding Table 11A.
- <sup>(2)</sup> Contingent Port Obligations are equal to 40% of the Annual Amount. See "AUTHORITY REVENUES-Shortfall Advances" and the definition of Annual Amount in APPENDIX E—"SUMMARY OF PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT."
- <sup>(3)</sup> Debt Service on the Bonds (and Contingent Port Obligations) shown in Table 11B was structured with reference to the growth rates included in the Low Downside Case scenario included in the Report, adjusted as described above. Debt service is shown in the Fiscal Year in which it is due.
- <sup>(4)</sup> The Authority is required to submit to each Port at least 90 days prior to the beginning of each Port's fiscal year the Authority's estimate of the amount of Shortfall Advance that is expected to be required from each Port during such fiscal year. Because the estimate is required approximately six months in advance of the October 1 principal payment date (and in the fiscal year preceding such principal payment date), for purposes of Table 11B, future Shortfall Advances are estimated assuming that applicable debt service is paid six months in advance of the applicable debt service payment date. By aligning each October 1 principal payment date with the prior fiscal year revenues, future Use Fees and Container Charges, as estimated as described above and as shown in Table 11B, along with estimated Shortfall Advances so determined, are expected to be sufficient to meet annual debt service requirements. Because for purposes of Table 11B, Shortfall Advances are determined by assuming that debt service is paid 6 months in advance, Shortfall Advances cannot be calculated from information provided solely in Table 11B.
- <sup>(5)</sup> Totals may not add up due to rounding.

As shown in Table 11B, based upon the assumptions and adjustments described above, future debt service coverage on the Senior Lien Bonds would range from a low of approximately 1.97 times to a high of approximately 3.32 times; future debt service coverage on all Senior Lien Bonds and all First Subordinate Lien Bonds (including the Series 2016A Bonds) would range from a low of approximately 1.18 times to a high of approximately 2.19 times; future debt service coverage on all Senior Lien Bonds, First Subordinate Lien Bonds (including the Series 2016A Bonds) and Second Subordinate Lien Bonds (including the Series 2016B Bonds) would range from a low of approximately 1.04 times to a high of approximately 1.79 times.

## Historical Debt Service Coverage

Table 12 shows for Fiscal Years ended June 30, 2006 through 2015 debt service coverage calculated using Use Fee and Container Charges, plus in Fiscal Years 2012 and 2013, the Shortfall Advances paid in October 2011 and 2012, and Debt Service for Fiscal Years 2006 through 2015. The calculations shown in Table 12 are not required by the Indenture and are shown for information only.

**TABLE 12**

### **HISTORICAL AUTHORITY REVENUE DEBT SERVICE COVERAGE AUTHORITY FISCAL YEARS 2006-2015**

Fiscal Year Ending June 30	Use Fees and Container Charges <sup>(1)</sup>	Senior Lien Bonds Debt Service <sup>(3)</sup>	Debt Service Coverage for Senior Lien Bonds <sup>(2)</sup>	First Subordinate Lien Bonds Debt Service <sup>(4)</sup>	Debt Service Coverage for Senior Lien Bonds and First Subordinate Lien Bonds <sup>(2)</sup>	Shortfall Advances <sup>(6)</sup>	Additional Funds Used for Debt Service on October 1 of Such Fiscal Year <sup>(6)</sup>
2006	\$80,540,063	\$50,268,771	1.60	\$23,281,072	1.10	-	-
2007	95,220,756	50,989,071	1.87	28,047,735	1.20	-	\$13,112,196
2008	94,048,421	58,011,471	1.62	22,395,191	1.17	-	-
2009	85,349,060	58,287,840	1.46	26,908,538	1.00	-	2,000,000
2010	80,478,532	58,577,279	1.37	30,846,733	0.90	-	2,150,000
2011	93,188,481	58,848,536	1.58	35,813,315	0.98	-	11,150,000
2012 <sup>(5)</sup>	97,283,963	58,524,916	1.66	42,659,825	0.96	\$5,900,000	1,200,000
2013	99,358,973	43,865,232	2.27	68,294,588	0.89	5,900,000	5,465,000
2014	108,998,890	42,106,771	2.59	57,543,575	1.09	-	15,000,000
2015	105,518,770	45,135,046	2.34	69,523,600	0.92	-	18,963,799

<sup>(1)</sup> Derived from the Authority's audited financial statements.

<sup>(2)</sup> Does not include cash-on-hand (e.g., Use and Container Charges revenue from prior Fiscal Years), investment income and transfers of unexpended Series 1999 Bond proceeds and other funds available for and/or applied to October 1 debt service payments. The Authority makes monthly deposits with the Trustee to fund debt service payments (e.g., the deposits for May and June are made after the April 1 interest payment date, but before the end of the Fiscal Year, and are applied to pay debt service on October 1, which is in the following Fiscal Year).

<sup>(3)</sup> Includes debt service on the Series 1999 Senior Lien Bonds, the Series 2012 Senior Lien Bonds and the Series 2013A Senior Lien Bonds.

<sup>(4)</sup> Includes debt service on the 1999 Subordinate Lien Bonds and Series 2004 First Subordinate Lien Bonds.

<sup>(5)</sup> The amount of Debt Service shown for Fiscal Year 2012 does not include debt service on the Series 2012 Senior Lien Bonds (issued on June 21, 2012). On July 24, 2012, \$83.71 million of Series 1999A Bonds were redeemed with proceeds of the Series 2012 Senior Lien Bonds and on October 1, 2011, \$24.295 million of Series 1999A Bonds were redeemed with unexpended proceeds of the Series 1999A Bond Construction Fund.

<sup>(6)</sup> The amounts shown include amounts transferred from investment earnings from post-maturity Debt Service Reserve Account releases and/or from unexpended Series 1999 Bond proceeds in September 2006 and 2008 through 2012.

Source: The Authority.

Table 13 shows for Fiscal Years ended June 30, 2006 through 2015 debt service coverage calculated as provided in the Indenture. Table 13 illustrates debt service coverage using Use Fees and Container Charges, plus Contingent Port Obligations (referred to in Table 12 as “Total Dedicated Revenues”). Contingent Port Obligations equals 40% of the Annual Amount (annual debt service, Required Debt Service Reserve Account deposits, if any, and Financing Fees such as trustee and rating agency costs and RAV verification and monitoring fees). Unlike Table 12, Table 13 does not include additional funds used to pay debt service.

**TABLE 13**  
**HISTORICAL DEDICATED REVENUE DEBT SERVICE COVERAGE**  
**FISCAL YEARS 2006-2015**

Fiscal Year Ending June 30	Use Fees and Container Charges	Contingent Port Obligations <sup>(1)</sup>	Total Dedicated Revenues <sup>(2)</sup>	Senior Lien Bonds Debt Service	Debt Service Coverage for Senior Lien Bonds <sup>(2)</sup>	First Subordinate Lien Bonds Debt Service	Debt Service Coverage for Senior Lien Bonds and First Subordinate Lien Bonds
2006	\$80,540,063	\$29,419,937	\$109,960,000	\$50,268,771	2.19	\$23,281,072	1.50
2007	95,220,756	31,614,722	126,835,478	50,989,071	2.49	28,047,735	1.60
2008	94,048,421	32,162,665	126,211,086	58,011,471	2.18	22,395,191	1.57
2009	85,349,060	34,078,551	119,427,611	58,287,840	2.05	26,908,538	1.40
2010	80,478,532	35,769,605	116,248,137	58,577,279	1.98	30,846,733	1.30
2011	93,188,481	37,864,741	131,053,222	58,848,536	2.23	35,813,315	1.38
2012 <sup>(3)</sup>	97,283,963	40,473,896	137,757,859	58,524,916	2.35	42,659,825	1.36
2013	99,358,973	44,863,928	144,222,901	43,865,232	3.29	68,294,588	1.29
2014	108,998,890	39,860,138	148,859,028	42,106,771	3.54	57,543,575	1.49
2015	105,518,770	45,863,458	151,382,228	45,135,046	3.35	69,523,600	1.32

<sup>(1)</sup> Contingent Port Obligations equals 40% of the Annual Amount, which includes but is not limited to, debt service on the Bonds and Financing Fees Relating to First Subordinate Lien Bonds. Contingent Port Obligations is the maximum amount the Ports may be obligated to pay to the Authority pursuant to the Operating Agreement.

<sup>(2)</sup> Total Dedicated Revenues equals Use Fees and Container Charges plus Contingent Port Obligations but not investment income, transfers of unexpended Series 1999 Bond proceeds or Debt Service Reserve Account releases.

<sup>(3)</sup> The amount of Debt Service shown for Fiscal Year 2012 does not include debt service on the Series 2012 Senior Lien Bonds (issued on June 21, 2012). On July 24, 2012, \$83.71 million of Series 1999A Bonds were redeemed with proceeds of the Series 2012 Senior Lien Bonds. On October 1, 2011, \$24.295 million of Series 1999A Bonds were redeemed with unexpended proceeds of the Series 1999A Bond Construction Fund.

Source: The Authority.

## THE RAIL CORRIDOR AND RELATED PROJECTS

The Indenture defines the “Project” as the Rail Corridor and certain related improvements and permits the Authority to undertake from time to time additional extensions, enhancements, related improvements and replacements of the Project approved by the Authority, the Ports and the Railroads. The Rail Corridor became operational on April 15, 2002, and in May 2002 the Authority, the Ports and the Railroads authorized the expansion of the Project to include the development and construction of a number of additional, related improvements. As described below, some of these improvements have been completed or are underway; others have been postponed indefinitely or have been deleted from the scope of the Project.

### The Rail Corridor

The Rail Corridor consists of a 20-mile long, multiple-track rail system that links the rail tracks at the Ports with the transcontinental rail routes near downtown Los Angeles, California and certain structures,

roadways and other improvements. The Rail Corridor consolidated the freight rail traffic from 90 miles of pre-existing rail lines onto an integrated system separated from non-rail traffic.

The Rail Corridor consists of three segments. The North End Segment connects the Rail Corridor to the central rail yards near downtown Los Angeles. The North End Segment includes connections to pre-existing Railroad main rail lines near their respective downtown rail yards, grade separations of passenger rail lines that cross the Rail Corridor and roadway bridge structures. The North End Segment also includes the Los Angeles River Bridge.

The South End Segment connects the Rail Corridor to the Ports and extends from State Route 91 (the Artesia Freeway) in the City of Compton to the connections to the Ports. The South End Segment of the Rail Corridor was constructed at grade, with the roadways crossing on bridge structures. The South End Segment also includes a connection to the pre-existing Intermodal Container Transfer Facility (the “ICTF”) just south of Interstate 405 and connections to the Ports at three locations: Terminal Island, POLB’s facilities and POLA’s West Basin area.

The Mid-Corridor Segment, the largest segment of the Rail Corridor extends approximately ten miles from Santa Fe Avenue in Los Angeles, south to State Route 91 (the Artesia Freeway) in the City of Compton. Originally, the Mid-Corridor segment was a double-track segment built in a trench, approximately 30 feet deep and 50 feet wide, parallel to Alameda Street. In December 2002, the Railroads completed construction of a third track in the trench, to be used and operated as part of the Mid-Corridor Segment. See “—The Use Permit and the Operating Agreement—Reserve Account.” The trench was designed to allow freight trains to travel at a level completely separated from roadway traffic. In addition, 29 pre-existing cross streets pass over the trench on highway bridges, and two pre-existing rail branch lines cross the trench on rail bridges. The Mid-Corridor Segment also includes a rail line (the “By-pass Track”) immediately east of the pre-existing tracks and the trench. The By-pass Track, which the Authority sold to Union Pacific in 2008, runs along approximately six miles of the trench right-of-way from Firestone Boulevard in Los Angeles south to State Route 91. The Authority does not receive any Revenues with respect to the use of the By-pass Track nor is it responsible for maintaining the By-pass Track.

The maximum capacity of the Rail Corridor, as estimated by a prior study, is 186 train movements per day, which included 113 intermodal trains with a carrying capacity of 18 to 22 million TEUs per year depending on average train length. The estimated IPI volume for calendar year 2040 contained in the Expected Base Case in the Report of the Ports’ Independent Consultant is 13.6 million TEUs per year, which is about 60% of the Rail Corridor’s estimated maximum capacity

## **Related Projects**

In May 2002, the Authority, the Ports and the Railroads amended the definition of the “Project” pursuant to the Use and Operating Agreement to include ten additional projects for study or construction. The purpose of the additional projects was to enhance operation of the Rail Corridor.

Two projects, the Intermodal Container Transfer Facility (ICTF) Tail Track and the West Alameda St. Storage Yard, were cancelled. Five projects, the Watson Lead Tracks, the ICTF Lead Tracks, the Thenard Connection, the Thenard Wye Tracks and Additional Port Control Points, were completed. The Pacific Coast Highway Project was completed in 2004, but project close-out awaits final property transfers, which are ongoing. The Cerritos Channel Rail Bridge Project was postponed indefinitely after the feasibility and seismic evaluation was completed and, if resumed, is to be taken over by the Ports. The SR-47 Project is comprised of two segments and initially involved feasibility studies, preliminary engineering and environmental document preparation only, all of which are complete. The construction of one of the two SR-47 Project segments is now underway and is being managed by the California Department of Transportation. The Authority’s obligation is limited to providing environmental mitigation and third-party property acquisitions and utility coordination

work for the Schuyler Heim Bridge. Construction of the Schuyler Heim Bridge is scheduled for substantial completion in December 2017, with final completion and closeout scheduled for 2018. Construction of the second segment, a four-lane, elevated roadway connection to Alameda Street, was postponed indefinitely because of litigation and funding issues.

Union Pacific is proposing replacement of an existing track connection to its Dolores Yard at the south end of the Rail Corridor to improve access to and from the Rail Corridor. The project is scheduled to be built in 2017 at Union Pacific's expense.

## **Environmental Considerations**

**General.** Design, construction and operation of the Project are subject to and influenced by or result in a number of environmental considerations, including the current litigation described below. See "THE PORT OF LOS ANGELES—Environmental and Regulatory Matters" in Appendix B and "THE PORT OF LONG BEACH—Environmental Compliance" in Appendix C.

**Dominguez Channel Oil Release and Encroachment.** On December 21, 2010, a crude oil release from a then-unknown origin was discovered in the Dominguez Channel and nearby storm water drainage system adjacent to the Rail Corridor. The U.S. Environmental Protection Agency (the "EPA"), the California Department of Fish & Game (the "DFG"), the U.S. Coast Guard and others were involved in the initial mitigation, investigation and immediate clean-up efforts and containment of the release.

On January 7, 2011, the EPA issued an order to the Ports and to the Authority to assume responsibility for these activities effective January 14, 2011. The EPA agreed to limit the Authority's and the Ports' roles to maintaining the containment systems and cleaning up the City of Los Angeles pump station and the sewer line leading to the pump station. The Authority and the Ports subsequently completed the work required by the EPA while the EPA and the DFG continued the source investigation.

On March 30, 2011, after identifying an oil pipeline owned and operated by Crimson Pipeline Management Company ("Crimson") as the source of the release, the EPA issued an order to Crimson for removal, mitigation or prevention of a substantial threat of oil discharge. The Authority has been notified that Crimson has taken over responsibility for the oil release containment facilities effective June 15, 2011, and has assumed financial and operational responsibilities from that date.

On April 27, 2012, Crimson filed a lawsuit against the City of Los Angeles, the City of Long Beach, the Authority and Herzog Contracting Corporation ("Herzog") alleging that, among other things, Herzog, while performing certain construction work in the late 1990s on behalf of the City of Los Angeles, damaged the casing in which the pipeline was installed at some unspecified time, and further alleging that water entered the damaged casing and eventually corroded the pipeline and further alleging that as a result, quantities of crude oil were released into a storm water drainage system leading to the Dominguez Channel. The complaint sought damages against the City of Los Angeles and Herzog, and a declaration of rights and liabilities of all the parties named in the complaint. The Authority, the City of Los Angeles and the City of Long Beach sought cost reimbursement from Crimson through counter-complaints in the litigation and sought also other funding sources available for such purpose, including the Oil Spill Liability Trust Fund (established under the Oil Pollution Act of 1990).

In May 2012, Crimson entered into a stipulated judgment with the City of Los Angeles in connection with alleged criminal violations regarding the oil spill and paid a \$1.75 million fine.

Between October 2013 and September 2015, the Authority and other named parties engaged in confidential mediation in regard to this matter and in September 2015, the Authority and the other parties executed a settlement agreement, which includes a payment from Crimson's insurance carrier. Subject to



completion of a settlement agreement with its insurance carrier, through its insurance coverage and the settlement, the Authority expects to have recovered most of its costs associated with the event and received funds and indemnity for future site investigation work, and the storm-water discharge is to continue to be contained, monitored and treated by Crimson at its expense for the foreseeable future until there are assurances that no further oil is present.

As of the date of this Official Statement, there has been no impact on Use Fees or Container Charges as a result of the release. See Note 6 and the Authority's "Management's Discussion and Analysis—Operating Expenses" in Appendix A.

### **The Use Permit and the Operating Agreement**

In connection with the Project, the Ports and the Authority entered into a Use Permit (the "Use Permit") pursuant to which the Ports granted to the Authority use of the Property to develop, construct and operate the Rail Corridor. The term of the Use Permit commenced on December 15, 1998 and is scheduled to expire on the earliest of December 14, 2048 (50 years after the commencement date), the date the Operating Agreement is terminated (but only if payment of the Bonds has been made or provided for) or the date the Authority ceases to exist. As amended in 2006, the Joint Powers Agreement provides that its term will expire on the earlier of June 30, 2064 and June 30 of the second calendar year following the calendar year in which the Use Fees Termination Date occurs. See "THE AUTHORITY" and "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE PERMIT" in Appendix E.

The Operating Agreement, also entered into in 1998, governs the administration, operation and maintenance of the Rail Corridor and, as described above, the collection and application of Use Fees, Container Charges, M & O Charges and Shortfall Advances. The Operating Agreement also provides for access by the Railroads to the Rail Corridor and to certain Port-Owned Tracks; provides for the operation, repair and maintenance of the Rail Corridor; creates an Operating Committee; establishes M & O Charges; provides for the remedies available with respect to a default thereunder; and limits the rights of the parties thereto to assign the Operating Agreement. See "AUTHORITY REVENUES," "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations" and "—Insurance Covenants" and "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT" in Appendix E.

### **Maintenance and Operation of the Rail Corridor**

**Operating Committee.** Pursuant to the Operating Agreement, the Operating Committee oversees and administers operation of the Project and is required, among other things, to establish standards and procedures and to prepare and approve an annual budget for maintenance and capital expenditures on a calendar year basis. The Operating Agreement specifies that the Operating Committee is to be comprised of four members, one representative (and one alternate for each representative) from each Port and each Railroad. The Authority is not a member of the Operating Committee.

Unless otherwise specified in the Operating Agreement, any decision to be made by the Operating Committee requires the affirmative votes of a majority of the members of the Operating Committee, and if a majority of the members of the Operating Committee is unable to agree upon any decision or any action to be taken, then any member of the Operating Committee has the right to submit such matter to arbitration. See "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—The Operating Committee" in Appendix E.

**Fair Political Practices Commission Advice Letter Request.** On August 20, 2015, the City Attorney of the City of Long Beach, on behalf of POLB, requested written advice from the California Fair Political Practices Commission ("FPPC") as to whether the Operating Committee is a "local government agency" for purposes of the Political Reform Act (the "Advice Letter Request"). The Advice Letter Request sets forth

certain background facts regarding the creation and role of the Operating Committee under the Use and Operating Agreement.

The California Political Reform Act requires “public officials” (as defined in such Act) who make or participate in making governmental decisions to disclose economic interests which may be materially affected by those decisions. In particular, the Political Reform Act requires, among other things, that a “local government agency” (as defined in such Act) adopt a conflict-of-interest code and public officials who make or participate in making decisions on behalf of the local government agency to be subject to disqualification from decision-making based on such code. The Political Reform Act also requires that public officials file certain annual financial disclosures regarding their economic interests.

On August 25, 2015, the City Attorney of the City of Los Angeles, on behalf of POLA, also sent a letter to the FPPC agreeing with the background facts provided by POLB in the Advice Letter Request and requesting that advice also be given to POLA on the matter. On October 13, 2015, counsel to BNSF and UP submitted a similar request to the FPPC.

On March 23, 2016, the FPPC issued Advice Letter No. A-16-019 (the “Advice Letter”) finding that the Operating Committee is a “local government agency” under the Political Reform Act and, as such, is required to adopt a conflict-of-interest code for its members or be included within an existing conflict-of-interest code. The Ports and Railroads are currently evaluating the Advice Letter, including the impact, if any, that the application of the Political Reform Act would have on the current functions of the Operating Committee. As of the date of this Official Statement, the Authority is unable to predict what actions the Ports and/or the Railroads will take, if any, in response to such finding. However, the Authority believes that any potential changes to the methods and practices of the Operating Committee, or to the process for overseeing and managing the operations of the Rail Corridor, are not expected to have an impact on the operations of the Rail Corridor or the obligations of the Railroads to pay Use Fees and Container Charges, nor on the Authority’s ability to repay its Bonds.

**M & O Charges.** Subject to the limitations specified in the Operating Agreement, each Railroad is charged a Pro Rata Portion of certain maintenance and operation expenses (referred to in the Operating Agreement as “M & O Charges”) in connection with its use of the Rail Corridor and the Port-Owned Tracks. M & O Charges include, generally, the annual costs of operating, maintaining and repairing the designated portions of the Rail Corridor and certain Port-Owned Tracks and related facilities and equipment and property taxes and insurance premiums and deductibles, but do not include replacement costs (except to the extent that the Operating Committee determines that such costs are not properly included in Capital Expenses), costs to remediate hazardous material conditions and certain liability insurance premiums or deductibles. As described below, to the extent funds are available, non-rail maintenance costs (approximately \$1.9 million in fiscal year 2015) are paid from the reserve account funded by Use Fees and Charges and are not charged to the Railroads. **M & O Charges are not pledged to, and are not available for, payment of the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds.** “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT” in Appendix E.

In addition, the Operating Agreement provides that each Railroad is individually responsible, at its sole cost and expense, for maintaining, repairing and operating facilities, signals, structures and property that are exclusively used or operated by such Railroad or that exclusively benefit such Railroad. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Use Fees, Container Charges and M & O Charges” in Appendix E.

The Operating Agreement requires that the annual plan and budget prepared by the Operating Committee set forth the estimated M & O Charges for the coming calendar year. These budgeted M & O Charges are to be divided by the number of full or partial calendar months in such calendar year to obtain a monthly amount (the “Monthly Amount”). If the Operating Committee modifies the budgeted M & O Charges

during a year, the Monthly Amount is to be adjusted to reflect the revised budget, with any increase or decrease in the budget spread over the remainder of the year.

Each Railroad is required under the Operating Agreement to pay an amount equal to (i) the applicable Monthly Amount, multiplied by (ii) such Railroad's Pro Rata Portion during the immediately preceding calendar year. The Operating Agreement provides that any payment of M & O Charges not made when due shall bear interest at the Overdue Rate until paid.

In calendar years 2015 and 2014, the Monthly Amount was approximately \$311,000 and \$271,000, respectively. In addition, the Railroads paid approximately \$1.4 million and \$1.68 million in calendar years 2015 and 2014 for insurance premiums. The Operating Committee's annual plan and budget estimates M & O Charges of approximately \$3,907,000 for calendar year 2016, resulting in a Monthly Amount of \$326,000 in addition to insurance premiums.

Except as expressly provided in the Operating Agreement, neither the Authority nor either of the Ports is responsible for the payment of any M & O Charges. See "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Use Fees, Container Charges and M & O Charges" in Appendix E.

**Capital Expenses and Non-Rail Maintenance and Capital Improvement Charges.** The Operating Agreement requires the Operating Committee's annual plan and budget for the Rail Corridor to contain a separate subplan and subbudget for, among other things, Capital Expenses and Non-Rail Maintenance and Capital Improvement Charges.

"Capital Expenses" includes the costs and expenses incurred in making any capital improvements or betterments and, in certain cases, replacements to the Rail Corridor (other than certain "Non-Rail Components" as defined in the Operating Agreement, including the retaining walls, barrier walls, embankments, support structures of and for the trench portion of the Rail Corridor, and the structural portions of the bridges and overpasses over the trench portion of the Rail Corridor). "Non-Rail Maintenance and Capital Improvement Charges" includes, under certain circumstances, annual maintenance and capital improvements and replacements of the Non-Rail Components, together with capital replacement of any rail bridge over the Rail Corridor. Capital Expenses and Non-Rail Maintenance and Capital Improvement Charges are to be paid from the Reserve Account described below, to the extent sufficient funds are available. For fiscal year ended June 30, 2015, Capital Expenses and Non-Rail Maintenance and Capital Improvement Charges were budgeted at \$1.48 million, down 20% from fiscal year 2014. Capital costs of \$3.6 million (including \$1.0 million of capital costs was transferred from the operating budget) were budgeted for fiscal year ending June 30, 2016, and approximately \$4.5 million of additional capital costs are expected to be incurred in fiscal years 2014 and later.

**Reserve Account.** Pursuant to the Operating Agreement, the Authority established the Reserve Account to pay, as provided in the Operating Agreement, Capital Expenses, Non-Rail Maintenance and Capital Improvement Charges and, if approved by the Operating Committee, M & O Charges to the extent such charges have not been paid by the Railroads and sufficient funds are not otherwise available therefor. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds," "AUTHORITY REVENUES" and "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Reserve Account" in Appendix E. **The Reserve Account is not pledged to, and is not available for, payment of the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds.**

Subject to the limits set forth in the Operating Agreement, the Reserve Account is funded over time from Use Fees and Container Charges remaining each year in accordance with the Flow of Funds until the Reserve Account reaches (or is restored to) the then-current target amount for the Reserve Account (the "Reserve Account Target"). The Reserve Account Target may be adjusted by the Operating Committee as set

forth in the Operating Agreement. Once the Reserve Account Target has been met, Use Fees and Container Charges are to be added to the Reserve Account only to the extent necessary to restore the balance therein to the then-current Reserve Account Target. As of December 31, 2015, the cash balance credited to the Reserve Account was approximately \$14.135 million and through 2017 the Reserve Account Target is \$15 million. For calendar year 2016, the Operating Committee has budgeted approximately \$1.07 million of capital expenses to be paid from the Reserve Account.

If funds in the Reserve Account are insufficient to cover Capital Expenses, Non-Rail Maintenance and Capital Improvement Charges and certain other types of expenses and charges described in the Operating Agreement, each Railroad is required to pay its Pro Rata Portion of such expenses and/or charges on a gross ton-mile basis. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Reserve Account” in Appendix E.

Initially, the Railroads had the right to elect to make capital improvements or betterments to the Rail Corridor that the Railroads deemed necessary or appropriate (“Additional Capital Improvements”), provided that the aggregate cost of such improvements did not exceed \$15 million to be paid from the Reserve Account. Pursuant to a Waiver and Release of Rights under Section 8.6 of the Use and Operating Agreement, dated as of May 22, 2002 (the “Waiver”), by and between the Railroads and the Authority, the Railroads withdrew approximately \$6 million from the Reserve Account (which amount was pre-funded by Port Advances) for the Railroads’ construction of the third track in the Mid-Corridor Segment. See “THE RAIL CORRIDOR AND RELATED PROJECTS—The Rail Corridor.” As a condition to the pre-funding of the Reserve Account, the Railroads agreed to waive their right to use any additional funds from the Reserve Account for Additional Capital Improvements.

**Additional Agreements Relating to Maintenance and Operation of the Rail Corridor.** Pursuant to the Operating Agreement, the Authority, at the direction of the Operating Committee, entered into the following agreements with the Railroads and with other third parties relating to the operation and maintenance of the Rail Corridor: (i) an Alameda Corridor Dispatching Agreement dated as of January 30, 2002 (the “Dispatching Agreement”), between the Authority and the Railroads; (ii) an Alameda Corridor Maintenance Agreement (Rail Corridor and Non-Rail Components), dated April 15, 2007 and amended in 2008 (the “Maintenance Agreement”) between the Authority and Balfour Beatty Rail Inc., now Balfour Beatty Infrastructure, Inc. (“Balfour”); and (iii) an Alameda Corridor Police and Security Services Agreement dated as of October 15, 2002 (the “Security Services Agreement”), between the Authority and the Railroads. Upon the expiration of such agreements, the Authority may, at the direction of the Operating Committee, enter into replacement agreements or extend the respective terms of the existing agreements in accordance with the Operating Agreement. Except as noted below, all costs and expenses incurred by the Authority pursuant to such agreements are treated as M & O Charges and are required to be paid by the Railroads as part of M & O Charges.

**The Maintenance Agreement.** Pursuant to the Maintenance Agreement, Balfour provides maintenance services for the Rail Corridor, the real property comprising the Rail Corridor, and for certain Non-Rail Components, including but not limited to (i) the walls, retaining walls, embankments, barrier walls, fence structures and fencing and support structures, drainage facilities (including two storm water pump stations) and emergency drop ladders and related equipment of and for the trench portion of the Rail Corridor, (ii) the structural portions of the Washington Avenue Grade Separation Bridge and the Henry Ford Avenue Grade Separation Bridge, and (iii) the Automatic Equipment Identification reader system equipment. On September 1 of each contract year, Balfour is required to submit to the Authority for approval a proposed maintenance plan and budget with respect to the Rail Corridor and the Non-Rail Components (as approved by the Authority, the “Approved Maintenance Plan”). Services provided by Balfour include, among other things, (i) preventative maintenance of the Rail Corridor and the Non-Rail Components, (ii) repair of damage to the Rail Corridor and the Non-Rail Components caused by vandalism and (iii) the planning, purchasing, storage, distribution and control of all materials required to perform the maintenance services, maintenance of inventories and emergency

response activities (the “Services”) set forth in the Maintenance Agreement. Balfour is required to perform all Services in accordance with the maintenance standards set forth in the Maintenance Agreement and is paid a maintenance fee as and when expenses are incurred in accordance with the Approved Maintenance Plan. Work not included in the Approved Maintenance Plan is required to be submitted as a Contract Task Order (a “CTO”) and is subject to approval by the Authority. The Authority’s maximum cumulative payment obligation under the Maintenance Agreement for each contract year is the amount stated in the then-effective Approved Maintenance Plan, as amended and supplemented by the total of all approved CTOs. Unless terminated earlier, the term of the Maintenance Agreement is scheduled to expire on April 14, 2017.

The Dispatching Agreement. The Operating Committee directed the Authority to contract with Union Pacific and BNSF as the Corridor Dispatcher for train and equipment movements along certain portions of the Rail Corridor. Among other duties, the Corridor Dispatcher is responsible for dispatching trains to and from the Rail Corridor in order of priority set forth in the Dispatching Agreement, scheduling closures of certain tracks for maintenance services, and diverting trains to other routes when there is a significant delay on the Rail Corridor. Under the Dispatching Agreement, the Corridor Dispatcher is required to provide the Operating Committee with a monthly report regarding any significant delays on the Rail Corridor during the prior month. The Dispatching Agreement also provides that, on or before August 1 of each year, the Corridor Dispatcher is required to submit to the Operating Committee for approval a budget specifying, among other items, (i) capital expenditures (which, as used in the Dispatching Agreement, has the meaning assigned to the term “Capital Expenses” in the Operating Agreement), if any, that the Corridor Dispatcher expects to be made in the next calendar year, and (ii) an estimated budget for performing the dispatching services. All costs and expenses of the Corridor Dispatcher are treated as M & O Charges and are to be paid by the Railroads as part of M & O Charges, except that expenses incurred to acquire, upgrade, or replace any dispatching equipment, if approved by the Operating Committee as a capital expenditure (which, as used in the Dispatching Agreement, has the meaning assigned to the term “Capital Expenses” in the Operating Agreement), are to be paid from the Reserve Account. The term of the Dispatching Agreement commenced on April 15, 2002 and a second extension, to April 14, 2017, has been approved by the Operating Committee and the Authority.

The Security Services Agreement. Pursuant to the Security Services Agreement, Union Pacific and BNSF (together, the “Corridor Security Provider”) provide police and security services for all aspects of the Rail Corridor, including rail operations, the physical facility and the equipment located therein (the “Secured Facilities”). The Corridor Security Provider conducts daily security patrols of the Secured Facilities. Among other duties, the Corridor Security Provider is responsible for investigating and documenting each incident. Under the Security Services Agreement, the Corridor Security Provider is required to submit a monthly written performance report to the Authority and the Operating Committee summarizing the activities of the Corridor Security Provider on the Secured Facilities during that month. Such performance report includes a summary of (i) all incidents handled by the Corridor Security Provider during the prior month and (ii) any new or on-going investigations and prosecutions with respect to prior incidents on the Secured Facilities. All costs and expenses of the Corridor Security Provider are treated as M & O Charges and are to be paid by the Railroads as part of M & O Charges, except that expenses incurred to acquire, upgrade, or replace any security services equipment, if approved by the Operating Committee as a capital expenditure (which, as used in the Security Services Agreement, has the meaning assigned to the term “Capital Expenses” in the Operating Agreement), are to be paid from the Reserve Account. The term of the Security Services Agreement commenced on September 15, 2002 and an extension of the term to April 14, 2017 has been approved by the Operating Committee and the Authority.

## **Rights-of-Way; Local Agencies**

**Rights-of-Way.** Right-of-way acquisition for the Rail Corridor began in 1992, and much of the property required for the Project was obtained in 1994 and 1995 with the Ports’ purchase of existing rail rights-of-way from Union Pacific and BNSF and from the former Southern Pacific Transportation Company (“Southern Pacific”). These purchases included the rights-of-way along which most of the Rail Corridor runs

and represent more than 80% of all the rights-of-way necessary for the construction of the Rail Corridor. The Authority obtained the right to use and occupy this property for purposes of constructing, developing and operating the Rail Corridor under the terms of the Use Permit. See “SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE PERMIT” in Appendix E.

The Authority acquired the remaining rights-of-way required for the Project (approximately 600 parcels) through negotiated purchases or eminent domain proceedings. These acquisitions ranged in size from several square feet to more than one acre and included temporary construction easements as well as full fee acquisitions. The Authority acquired these properties in its own name and anticipates that title will ultimately be conveyed to the Ports, subject to the Use Permit, or to other agencies. The process for making and/or assigning such conveyances has begun and is expected to take several years.

### **BONDHOLDERS’ RISKS**

The Authority’s ability to pay the principal of, premium, if any, and interest on the Bonds, including the Series 2016 Bonds, depends upon the timely receipt by the Authority of sufficient Revenues. Particularly because debt service payable on the Bonds increases in future years, the Authority’s ability to make such payments, especially without requiring Shortfall Advances from the Ports, will depend upon cargo and Revenue growth. The obligations of the Railroads to pay increased Use Fees and Container Charges and the ability of the Ports to pay Shortfall Advances depend upon, among other factors, the volume of cargo handled at the Ports and the volume of cargo moved by rail without transloading. Growth in cargo volumes, in turn, depends in part upon a number of economic and other factors that are not within the Authority’s, the Railroads’ or the Ports’ control.

The following discussion of considerations is not meant to be an exhaustive list of the risks associated with the purchase of the Series 2016 Bonds and does not necessarily reflect the relative importance of the various risks. Potential purchasers of the Series 2016 Bonds are advised to consider the following factors, among others, and to review all of the other information in this Official Statement in evaluating whether to purchase Series 2016 Bonds. Any one or more of the risks discussed, and others, could lead to a decrease in the market value and/or in the liquidity of the Series 2016 Bonds, notwithstanding the obligations of the Series 2016B Bond Insurer to pay scheduled debt service when due on the Insured Series 2016B Bonds. No assurance can be given that other risk factors will not become material in the future.

### **Uncertainties of Projections and Assumptions**

This Official Statement contains, and the Authority’s and Ports’ plans and budgets and the Ports’ Independent Consultant’s forecasts are based upon, certain assumptions, estimates, projections and other forward-looking statements. Demonstration of compliance by the Authority with certain of the covenants contained in the Indenture also may be based upon assumptions, estimates and projections. Actual results, however, may differ, perhaps materially, from those assumptions, estimates and projections. The cargo volumes forecast by the Ports’ Independent Consultant and projections that may be contained in any future certificate of the Authority or of a consultant, are not necessarily indicative of future performance. For example, none of the Ports, the Railroads or the Authority predicted the timing or the severity of the global financial and economic downturn in 2008 and 2009 or the severity of the impact thereof on international trade and consumer and governmental spending, and many did not anticipate the extent of the impact of the contraction of the economy in China. Although cargo volumes at the Ports have increased since 2009, such increases have been moderate and no assurances can be given that even moderate increases will continue. Similarly, transloading, including transloading of cargo that then moves inland by rail, also has increased since 2009, and no assurance can be given that such trend will not continue.

Similarly, no assurance can be given regarding the possible impacts on trade volumes through the Ports of various companies’ decisions to manufacture products in other parts of the world instead of in China, of the

recent contraction in China or the possible impacts of significant decreases in federal, State and other governmental spending. No assurances can be given that the impact of such changes will not have a material and adverse effect on trade, on the economic and financial factors that influence consumer and business consumption and trade and thus have a significant adverse impact on Port and Authority revenues.

In addition, certain assumptions with respect to future business and financing decisions, including the decision to undertake, or to postpone or cancel, future capital improvements of the Authority, the Railroads, the Ports or other entities may not occur and are subject to change. No representation is made or intended, nor should any representation be inferred, with respect to the existence of any particular future set of facts or circumstances, and prospective purchasers of the Series 2016 Bonds are cautioned not to place undue reliance upon any forecasts, estimates, plans or projections or requirements for forecasts or projections. If actual results are less favorable than the results budgeted or forecast or if the assumptions used in preparing budgets or forecasts prove to be incorrect, the ability of the Authority to make timely payment of the principal of, premium, if any, and interest on the Bonds, including the Series 2016 Bonds, may be materially and adversely affected.

In addition, demonstration of compliance with certain of the covenants contained in the Indenture may also be based upon assumptions and projections. The assumptions and projections contained in any future certificate of the Authority or of a consultant required under the Indenture are not necessarily indicative of future performance.

### **Collection of Use Fees and Container Charges**

The ability of the Authority to collect sufficient Use Fees and Container Charges depends upon or may be affected by a number of factors, including growth or decrease in the volume of cargo through the Ports, growth or decrease in the volume of cargo moved by rail, changes in logistics methods and priorities, increased transloading activities, shifts in manufacturing locations, the efficiency and accuracy of the Authority's collection procedures, including the accuracy and completeness of the cargo movement information provided by the Railroads and other sources used in the Authority's RAVS system, the Authority's ability to monitor accurately the railcars and containers subject to the Use Fees and Container Charges and the ability and willingness of the Railroads to pay the Use Fees and Container Charges on the dates and in the amounts required. The Authority and the Railroads have had disputes in the past about fees due to the Authority, particularly in connection with transloading, a dispute that took years to resolve, and no assurance can be given that additional disputes will not occur in the future.

If the number of containers or railcars transported on the Rail Corridor, or loaded or unloaded at the Ports and transported by rail without transloading into or out of Southern California, is significantly below the numbers budgeted by the Authority, the amount of Use Fees and Container Charges actually collected by the Authority each year may be less than the amount required to pay the principal or accreted value of, and premium, if any, and interest on the Bonds (including the Series 2016 Bonds). As shown in Table 4, the amount of annual debt service the Authority will be required to pay on the Outstanding Bonds will increase and will require sufficient cargo volumes and/or increasing amounts of Shortfall Advances (which are limited to 40% of the Annual Amount). Growth in cargo volume and revenues will be required for the Authority to be able to pay scheduled debt service on the Authority's Bonds, even with assistance from the Ports. See "AUTHORITY REVENUES—Debt Service Coverage." The Railroads are not obligated to increase their payments in the event cargo growth falls below the levels required to enable the Authority to pay debt service on the Bonds.

A Railroad may fail to pay Use Fees and Container Charges when and as due and payable. In such case, the Authority's rights against the Railroad may be limited. See "—Limitations on Enforceability" and "—Bankruptcy Risks" below and "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Defaults and Remedies" in Appendix E.

## **Shortfall Advances Are Limited, Subordinate Obligations of the Ports**

The obligation of each Port to make Shortfall Advances is a limited, subordinate obligation of such Port. The Ports' obligations are several obligations (not joint and several), and neither Port is obligated to pay for the Shortfall Advances required of the other Port, even if the other Port fails to make its payment when due. Each Port's obligation to make Shortfall Advances is limited to 20% of the Annual Amount and is payable only to the extent such Port has funds legally available for such purpose. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS" and "AUTHORITY REVENUES—Shortfall Advances" above and "SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS—USE AND OPERATING AGREEMENT—Shortfall Advances" in Appendix E. If Revenues (other than Shortfall Advances) received by the Authority are not sufficient to pay at least 60% of all amounts payable by the Authority on the Bonds, Revenues will still be insufficient, and the Authority may be unable, to make debt service payments on the Bonds, including the Series 2016 Bonds.

The Ports were required to make Shortfall Advances during the Authority's 2012 and 2013 fiscal years to enable the Authority to make part of the October 1, 2011 and October 1, 2012 debt service payments, and additional Shortfall Advances could be required in the future. See "AUTHORITY REVENUES—Shortfall Advances." As described in Appendix B and in Appendix C, respectively, as of December 31, 2015, POLA had approximately \$1.151 billion (including the ability to issue and have outstanding \$200 million of commercial paper notes) aggregate principal amount of POLA Parity Obligations outstanding and as of December 31, 2015, POLB had approximately \$1.113 billion (including the ability to have up to \$200 million of revolving obligations outstanding) aggregate principal amount of POLB Harbor Revenue Bonds outstanding. See "THE PORT OF LOS ANGELES—Outstanding Indebtedness" in Appendix B and "THE PORT OF LONG BEACH—Outstanding Indebtedness" in Appendix C. Each of the Ports may, and is likely to, incur substantial amounts of additional indebtedness in the future, and as with the current debt, such additional indebtedness would be payable from such Port's revenues prior to the payment of any Shortfall Advances. Both Ports have encouraged the Authority to pursue a restructuring program to reduce the likelihood and amount of any future Shortfall Advances.

The Ports are required to include expected Shortfall Advances in their budgets (based upon information received from the Authority), but Shortfall Advances are subordinate to all of the Ports' other obligations, including payments of operation and maintenance costs, debt service on Port obligations and major maintenance expenses, and neither Port is required to take Shortfall Advances into account when determining whether it may incur additional indebtedness or when calculating compliance with rate covenants under its outstanding bond indentures or resolutions. See "THE PORT OF LOS ANGELES—Source of Funds for Payment of Shortfall Advances" in Appendix B and "THE PORT OF LONG BEACH—Source of Funds for Payment of Shortfall Advances" in Appendix C. Neither the Authority nor any bondholder can require either Port to raise its rates, charges and fees to generate funds sufficient to pay Shortfall Advances.

## **Bonds Are Limited Obligations of the Authority; Limited Sources of Funds**

The Series 2016 Bonds are special, limited obligations of the Authority and except as described herein are payable solely from and are secured solely by a lien on the Trust Estate. The Bonds, including the Series 2016 Bonds, are not obligations of the State of California or of any political subdivision of the State of California and are not obligations of any of the Cities, the Ports or the Railroads. The Project is not security for the Bonds, and the Bonds are not secured by a lien on any properties or improvements of the Authority, the Cities, the Ports or the Railroads or by a pledge of any revenues of the Cities, the Ports or the Railroads.

The Railroads and the Ports are obligated only to make certain payments required by the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of, the



**principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations.”**

The Authority has no significant assets other than the Project and may not be able to raise additional funds in the event there are insufficient moneys to operate the Project and to pay debt service on the Bonds. Other than in connection with a Surcharge, the Authority is not authorized under the Operating Agreement to increase Use Fees and Container Charges in the event Revenues are insufficient to pay debt service on the Bonds. The Authority’s ability to issue additional Bonds, including additional refunding Bonds, also is limited. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Additional Bonds.” In addition, the Authority’s ability to find additional lenders or credit enhancement may be limited or even nonexistent.

### **Report of the Ports’ Independent Consultant**

The Ports provided the Report of the Ports’ Independent Consultant to the Authority for use by the Authority in connection with developing its restructuring program and the preparation of this Official Statement. The Ports and the Authority note, however, that any forecast, including the Ports’ Independent Consultant’s forecasts of IPI volumes, is subject to uncertainties. The Report of the Ports’ Independent Consultant contains certain assumptions and projections. The assumptions, forecasts and projections contained in the Report of the Ports’ Independent Consultant are not necessarily indicative of future performance. Some or all of the assumptions used to develop the forecasts of cargo volumes, including IPI cargo volumes, and thus the basis of the estimated future Revenues, may not be realized, and unanticipated events and circumstances may occur. There will be differences between the forecasts and actual results, and those differences may be material. In addition, certain assumptions with respect to future business and financing decisions of the Ports and the Authority are subject to change. None of the Authority, the Ports, the Ports’ Independent Consultant or any other person makes any representation or gives any assurance that the forecasts will reflect actual results. No representation is made or intended, nor should any representation be inferred, with respect to the likely existence of any particular future set of facts or circumstances, and prospective purchasers of the Series 2016 Bonds are cautioned not to place undue reliance upon the projections in the Report of the Ports’ Independent Consultant or upon any other projections or requirements for projections. If actual results are less favorable than the results projected or if the assumptions used in preparing such projections prove to be incorrect, the Authority’s ability to make timely payment of the principal of and interest on the Series 2016 Bonds may be materially and adversely affected.

### **Uncertainties of Cargo Volumes**

The Authority’s ability to derive Use Fees and Container Charges from its operation of the Project depends in part upon cargo utilization of Port facilities, which in turn depends upon the financial health of the shipping industry, including the financial condition of carriers and their customers and of Port tenants and service providers. The shipping industry was undergoing significant changes even before the most recent economic downturn that occurred in 2008 and 2009, including a number of mergers and acquisitions and service alliances among ocean carriers, consolidation of operations among companies and mergers of companies and the shift of a number of logistical responsibilities and costs from ocean carriers to their shipping customers or to independent logistics providers. Investments in much larger ships and increased fuel costs (and related slow-steaming) have had a profound impact on ocean carrier alliances, logistics (including choices of shipping points for discretionary cargo) and pricing.

The Southern California area is the largest primary market in the United States, and a significant amount of cargo handled through the Ports originates or remains in Southern California and is moved by truck, not by rail. Cargo intended to meet demand in the Southern California region (often referred to as “non-discretionary cargo”) depends especially on local and regional economic and demographic conditions.

Shippers or carriers of non-discretionary cargo destined for Southern California also may decide that cargo destined for the Midwest and for other parts of the country (referred to as “discretionary cargo”) also be unloaded at the Ports and then moved East, predominantly by rail. Waterborne containers that originate or terminate at the Ports to or from Asia represent most of the Revenues collected by the Authority. Although the Ports have a larger share of non-discretionary trade than other West Coast ports, a still-significant number of containers unloaded at the Ports may be discretionary and could be transported via routes that do not go through the Ports at all and an increasing number of containers that do go through the Ports are transloaded and then carried by rail to southeastern destinations without using the Rail Corridor. A significant reduction in the Ports’ share of such discretionary trade would be noticeable and would have an adverse impact on Authority Revenues.

A Port’s share of discretionary trade is a function of a variety of factors, including competition from other ports and from all-water services (services between Asia and the U.S. East and Gulf Coasts via the Suez Canal and especially the Panama Canal). The volume of international cargo that is currently shipped through the Ports could decrease in the future in the event of, among other things, increased competition from ports in Canada (including, in particular, the Port Metro Vancouver and the Prince Rupert Port Authority in British Columbia) and/or from ports in Mexico (including the Mexican Ports of Punta Colonet, Ensenada, Mazatlan and Manzanillo) because of faster transit times, increased efficiencies and increased capacity to handle larger ships, lower labor and other costs and lower fees and taxes; increased competition from other ports in Northern California (especially the Port of Oakland) or in the Pacific Northwest (the Ports of Tacoma and Seattle, which recently combined their cargo operations to form The Northwest Seaport Alliance, and The Port of Portland); increased competition from all-water services from Asia directly to the East Coast and/or Gulf Coast, particularly after 2016, when the expansion of the Panama Canal is scheduled to be completed, or if manufacturing more significantly shifts from China to Southeast Asia and use of the Suez Canal becomes more economical than going to the West Coast ports. Although intermodal transit times to and from the Ports from Asia and to the East and Midwest can be faster than other routes, some observers forecast that half of containerized cargo shipments may be shipped through East Coast ports within the next five years; and even with expedited growth in cargo volumes and capacity there can be no assurance that the Ports’ current shares of cargo volumes will be maintained or that expected increases in cargo volumes will occur. Among the other factors that may influence shipper and carrier decisions, and thus cargo volumes, significantly are fuel costs, transit times, costs of complying with additional environmental laws and other regulatory requirements (including regulatory and/or market responses to climate change and global warming and clean-truck costs passed down to shippers), labor disagreements (including slowdowns, strikes and lockouts, such as the disruption on the West Coast at the end of 2014 and first five months of 2015), truck and chassis shortages, increased taxes or fees for use of Port facilities, increases in labor costs and severe weather and other casualty events, such as earthquakes.

### **Consolidation of the Containerized Cargo Industry**

During the past 10 years, the containerized cargo industry has been under pressure resulting from a number of factors, including in addition to the world-wide recession of 2008 and 2009, over-capacity of available ships and the costs of acquiring larger ships, decreasing freight rates and volatile fuel costs. In response to these challenges, among others, shipping lines formed strategic alliances and in many cases have merged. In 2014, for example, six shipping companies formed the “G6 Alliance,” which has received regulatory approval to cooperate internationally in carrying shipments between the Asia and the U.S. West Coast and between Northern Europe and all U.S. ports, and in the same year Hapag-Lloyd, a member of the G6 Alliance, merged with Compañía Sud Americana de Vapores to form the fourth largest containerized cargo shipping line. Later in 2014, Maersk and Mediterranean Shipping Company formed the 2M Alliance; CMA-CGM, China Shipping Container Lines and United Arab Shipping Co. formed the O3 Alliance; and COSCO, K Line, Yang Ming and Hanjin Shipping received regulatory approval to include Evergreen Line into its vessel-sharing agreement in trans-Pacific and Atlantic routes. COSCO and China Shipping officially merged their fleets in February 2016 and currently are in talks with Evergreen Line and with OOCL to form a new alliance or to become part of the O3 Alliance, reducing the size of the G-06 Alliance. Many of the companies within these

alliances operate at one or both of the Ports, and additional consolidation of alliances and/or of shipping lines could occur. Neither the Ports nor the Authority can predict all of the consequences of such realignments and consolidations or how long they will persist. Confusion and inefficiencies, especially in the beginning, have been noted by terminal operators as well as shippers.

### **Uncertainties of the Railroad Industry**

As with the shipping industry, the railroad industry has undergone significant strain and consolidation in recent years and, in general, is constantly changing. Both Railroads may be adversely affected, directly and indirectly, by the effects of adverse domestic and global economic conditions and/or volatility or disruptions in the financial and credit markets. Both Railroads have large route structures and face operational difficulties from time to time, particularly in years following mergers with other rail lines and when labor contracts are nearing expiration, and both may undergo other corporate changes that could adversely affect their operations. Both Railroads also face competition from other railroads, motor carriers, ships, barges and pipelines, not only in connection with pricing but also with respect to transit times and quality and reliability of service. Difficulties in moving freight by rail in Southern California have in the past, including in 2003 and 2004, for example, and congestion in Chicago and other inland regions have prompted shippers to divert cargo from the Ports to other ports on the West Coast or to use all-water services to the East Coast. No assurance can be given that congestion or other difficulties will not occur or recur or continue for an extended period of time in the future. Moreover, the Railroads may alter their routes or change (or their customers may change) their businesses and not maintain their current levels of use of the Ports or the Rail Corridor or not use the Ports or the Rail Corridor as frequently as expected. There can be no assurance that the Railroads will continue to use the Rail Corridor or that the Railroads will be able to continue to pay M & O Charges, Use Fees and Container Charges when due even if they do continue to operate at the Ports and to utilize the Rail Corridor.

### **Operating Risks and Capacity Constraints**

Continual and efficient operation of the Rail Corridor may be affected by a number of other events. For example, a derailment of one or more trains could block one or all tracks of the Rail Corridor and divert the movement of cargo, potentially reducing the amount of Use Fees that are payable by the Railroads. In addition, at certain times of the year, the Railroads may encounter shortages of available train crews or equipment to move all possible cargo to and from the Ports. Such shortages have occurred, and no assurances can be given that shortages, which can be severe, will not occur in the future. General repair and replacement of equipment and the availability of parts and funds to make such repairs or to replace such equipment also may affect operation of the Rail Corridor.

The capacity of the Rail Corridor and supporting infrastructure could have an additional, significant impact on operation of the Rail Corridor and on the collection of Use Fees. Original projections that the Rail Corridor capacity would be sufficient were based upon certain assumptions regarding the average train size, through-train distribution by the Railroads and estimated departure and arrival times at the various terminals located within the Ports. There can be no assurance that the estimated through-train distribution or the estimated departure and arrival times always will be achieved. The Authority also assumed a nominal amount of time per day for maintenance of the tracks and track-support structures. No assurance can be given that more time will not be needed to keep the Rail Corridor in good repair or that this maintenance period will continue to be available on a regular basis. In addition, certain assumptions with respect to future business and financing decisions, including the decision by the Authority, the Railroads, the Ports or other entities to undertake future capital improvements or replacements, may not occur or may be changed. A number of significant improvements have been postponed indefinitely because of lack of funding, and no assurances can be given that the Authority, the Ports and/or the Railroads will be able or willing to effect changes required to expand capacity or efficiency, to reduce congestion, to meet environmental, safety or other legal or political requirements or to accommodate other changes or demands.

Other operating risks include risks to or failures of train-control technology, including disruptions to the Railroads' technology networks (including computer systems, communications equipment and software), because of cyber-security intrusions, corruption of data or operating disruptions or because of natural events such as severe weather, fires, floods or earthquakes or human error.

### **Labor Unrest**

Employees of tenants and contractors that serve at or work for the Ports or the Railroads may have work-related disputes with their employers, and many of such employees belong to unions or to other labor-related organizations. A strike, slow-down or lock-out at one facility can directly or indirectly affect operations at an entire facility or at many facilities at once. A dispute between one tenant and the employees of one union may spread to include workers at some or all facilities at both Ports. During the Fall of 2012, for example, various labor-related events caused shutdowns at each of the major ports on the U.S. West Coast. At the Ports, a strike by members of the Office Clerical Unit ("Unit 63") of the International Longshore and Warehouse Union (the "ILWU") Local 63, was honored by ILWU dock workers and closed each terminal that used Unit 63 workers (seven of eight terminals at POLA and three of six terminals at POLB) for eight days in December 2012, until Unit 63 and the Los Angeles and Long Beach Harbor Employers Association agreed to new contract terms and the terminals reopened. During the strike, 20 ships were diverted to the Port of Oakland or to ports in Mexico and Panama. The Authority estimates that normally it might have collected approximately \$2.6 million during that eight-day period and expects that although most of that amount likely will be collected in December, revenue related to the diverted cargo probably will not be collected. Prior to this work stoppage, there had been no prolonged work stoppage at the Ports since October 2002.

Stevedoring and cargo handling at the Ports are provided pursuant to a contract between the Association and the ILWU. In October 2002, after the Association and the ILWU failed to agree upon a new contract, the shipping lines and terminal operators instituted a lock-out of the stevedoring companies, thereby shutting down all Pacific West Coast ports, including all terminals at the Ports, for 10 days. Work resumed when President Bush ordered the ports to re-open pursuant to the Taft-Hartley Act. Prior to the 2002 lock-out, there had not been a prolonged work stoppage since 1971. The current contract between the Association and ILWU expires on June 30, 2019. Although the prior contract expired June 30, 2014, the current contract between the Association and the ILWU was not entered into until May 21, 2015 and was not ratified by the ILWU members until May 22, 2015, retroactive to July 1, 2014. The protracted negotiations and resulting disruptions had a compounding effect on congestion issues that had slowed container cargo movement through the Ports generally between April 2014 and June 2015, and container volumes and revenues at both Ports were temporarily impacted. According to press reports, the Association and the ILWU are currently considering extending the current contract; however, no assurance can be given that they will agree to do so or that protracted negotiations will be avoided in the future.

No assurance can be given that prolonged disruptions, work slowdowns or stoppages at the Ports will not occur in the future and result in cargo diversions. Significant work stoppages and cargo diversions could adversely affect the Ports' revenues and the Ports' ability to pay any Shortfall Advances and the Authority's traffic and revenues and, thus, the Authority's ability to pay principal or accreted value of and interest on the Bonds, including the Series 2016 Bonds.

### **Limitations on Enforceability**

The rights of the owners of the Bonds, including the Series 2016 Bonds, and the enforceability of the Authority's obligation to make payments on the Bonds may be subject to bankruptcy, insolvency, arrangement, fraudulent conveyances or transfer, reorganization, moratorium and other similar laws affecting creditors' rights under currently existing law or laws enacted in the future, and under certain circumstances also may be subject to the exercise of judicial discretion and to limitation on legal remedies against public entities in the State of California. The opinion of Bond Counsel as to the enforceability of the Authority's obligations to make

payment on the Bonds will be qualified as to bankruptcy and such other legal events. See “LEGAL MATTERS” below and the proposed form of Bond Counsel opinion in Appendix G. The enforceability of the Authority’s rights under the Operating Agreement and under the other agreements discussed in this Official Statement also may be severely limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors’ rights under currently existing law or laws enacted in the future and in the case of Port obligations, including the Ports’ obligations to pay Shortfall Advances, may also be subject to the exercise of judicial discretion under certain circumstances and to limitations on legal remedies against public entities in the State of California.

### **Bankruptcy and Insolvency Risks**

**The Ports and the Cities.** Under existing law, it is unlikely that either Port is eligible to file for bankruptcy by itself. Each of the Cities, however, is eligible to file for bankruptcy under certain circumstances. Should either City file for bankruptcy, there could be adverse effects on the holders of the Series 2016 Bonds. These adverse effects could include, but may not be limited to, one or more of the following. The automatic stay provisions of the Bankruptcy Code could prevent (unless approval of the bankruptcy court were obtained) any action to collect any Shortfall Advances or any other amounts owing by such City or its Port and any action to enforce any obligation of such City or its Port under the Operating Agreement, the Use Permit, or any other agreement to which the City or its Port is a party. These restrictions may also prevent the Trustee from making payments to the holders of the Series 2016 Bonds from funds in the Trustee’s possession. The City also may be able to reject the Operating Agreement, the Use Permit, or any other agreement to which such City or its Port is a party and such a rejection could deprive the Authority and the Railroads of their rights to use the Rail Corridor, could excuse the Railroads from making any further payments under the Operating Agreement and could excuse such City from any further obligations under the agreement that has been rejected.

Payments previously made to the holders of the Series 2016 Bonds from Shortfall Advances also could be avoided as preferential payments, and the holders of the Series 2016 Bonds could be required to return such payments to the bankrupt City. In addition, the provisions of the transaction documents that require the Railroads to make payments under the Operating Agreement directly to the Trustee, rather than to the City or the Authority, may no longer be enforceable, and payments by the Railroads may be required to be made to the City. Such City also may be able, with the approval of the bankruptcy court, but without the consent and over the objection of the Authority and the holders of the Series 2016 Bonds, to alter the terms of its obligations to pay Shortfall Advances or any other amounts payable by such City or its Port, or to assign to another entity the City’s (and the Port’s) rights and obligations under the Use Permit, the Operating Agreement or any other agreement to which the City or its Port is a party. The occurrence of any of these, as well as the occurrence of other possible effects of a bankruptcy of a City, could result in significant delays or in reductions in payments on the Series 2016 Bonds or result in other significant losses to the holders of the Series 2016 Bonds. Regardless of any specific adverse determinations in a City bankruptcy proceeding, the fact of a City bankruptcy proceeding could have an adverse effect on the liquidity and value of the Series 2016 Bonds, notwithstanding the Series 2016B Bond Insurer’s obligation to continue to pay scheduled debt service on the Insured Series 2016B Bonds when due.

**The Authority.** The Authority is authorized under California state law to file for bankruptcy under certain circumstances. Should the Authority file for bankruptcy, there could be adverse effects on the holders of the Series 2016 Bonds. If the Use Fees and Container Charges are “special revenues” under the Bankruptcy Code, then Use Fees and Container Charges collected after the date of the bankruptcy filing should continue to be subject to the lien of the Indenture. “Special revenues” are defined to include receipts derived from the ownership or operation of projects or systems that are primarily used to provide transportation services. Although the Use Fees and Container Charges may satisfy this definition and thus may be “special revenues,” no assurance can be given that a court would not hold that the Use Fees and Container Charges are not special revenues or are not subject to the lien of the Indenture.

A court could, however, conclude that the Shortfall Advances, Use Fees or Container Charges are not “special revenues.” If a court reached that conclusion, any Shortfall Advances, Use Fees or Container Charges, as applicable, collected after the commencement of the bankruptcy case likely would not be subject to the lien of the Indenture. The holders of the Series 2016 Bonds may not be able to assert a claim against any property of the Authority other than the Shortfall Advances, the Use Fees and the Container Charges, and if those amounts were no longer subject to the lien of the Indenture, then there may be no amounts from which the holders of the Series 2016 Bonds are entitled to be paid.

The Bankruptcy Code provides that special revenues can be applied to necessary operating expenses of the project or system, before they are applied to other obligations. This rule applies regardless of the provisions of the transaction documents. Thus, the Authority may be able to use Use Fees and Container Charges to pay necessary operating expenses of the Rail Corridor before the remaining Use Fees and Container Charges are turned over to the Trustee to pay amounts owed to the holders of the Series 2016 Bonds. It is not clear precisely which expenses would constitute necessary operating expenses.

If the Authority is in bankruptcy, the parties (including the holders of the Series 2016 Bonds) may be prohibited from taking any action to collect any amount from the Authority or to enforce any obligation of the Authority, unless the permission of the bankruptcy court is obtained. These restrictions may also prevent the Trustee from making payments to the holders of the Series 2016 Bonds from funds in the Trustee’s possession. The Authority may be able to require that all Use Fees and Container Charges be paid directly to it, notwithstanding the provisions of the transaction documents that require the Use Fees and the Container Charges to be paid directly to the Trustee.

The Authority also may be able to reject the Operating Agreement, the Use Permit, or any other agreement to which the Authority is a party; such a rejection could deprive the Railroads of their rights to use the Rail Corridor, could excuse the Railroads from making any further payments under the Operating Agreement and could excuse the Authority from any further obligations under the agreement that has been rejected.

The Authority may be able to borrow additional money that is secured by a lien on any of its property (including the Use Fees and the Container Charges), which lien could have priority over the lien of the Indenture, so long as the bankruptcy court determines that the rights of the Trustee and the holders of the Series 2016 Bonds will be “adequately protected.” A court’s determination of what is adequate protection may be different than what bondholders would consider to be adequate protection. The Authority also may be able, without the consent and over the objection of the Trustee and the holders of the Series 2016 Bonds, to alter the priority, interest rate, payment terms, collateral, maturity dates, payment sources, covenants (including tax-related covenants) and other terms or provisions of the Indenture and the Series 2016 Bonds, so long as the bankruptcy court determines that the alterations are fair and equitable.

There may be delays in payments on the Series 2016 Bonds while the court considers any of these issues. There may be other possible effects of a bankruptcy of the Authority that could result in delays or reductions in payments on the Series 2016 Bonds, or result in losses to the holders of the Series 2016 Bonds. Regardless of any specific adverse determinations in an Authority bankruptcy proceeding, the fact of an Authority bankruptcy proceeding could have an adverse effect on the liquidity and value of the Series 2016 Bonds, notwithstanding the Series 2016B Bond Insurer’s obligation to continue to pay scheduled debt service on the Insured Series 2016B Bonds when due.

**The Railroads.** Each of the Railroads is eligible to file for bankruptcy or to have an involuntary bankruptcy case commenced against it. Should a Railroad become the subject of a bankruptcy case, there could also be adverse effects on the holders of the Series 2016 Bonds. These adverse effects could include, but not be limited to, one or more of the following. The automatic stay provisions of the Bankruptcy Code could prevent (unless approval of the bankruptcy court were obtained) any action to collect any Use Fees, Container Charges,

M & O Charges or any other amounts owed by the Railroad and any action to enforce any obligation of the debtor Railroad under the Operating Agreement or any other agreement to which the Railroad is a party. These restrictions also may prevent the Trustee from making payments to the holders of the Series 2016 Bonds from funds in the Trustee's possession. The Railroad may be able to reject the Operating Agreement or any other agreement to which it is a party; such a rejection could excuse the Railroad from any further obligations under the agreement that has been rejected and could excuse the other parties to such agreement from any further obligations. Payments previously made to the holders of the Series 2016 Bonds may be avoidable as preferential payments, so that the holders would be required to return such payments to the Railroad or to a trustee in bankruptcy. The Railroad may be able, with the approval of the bankruptcy court, but without the consent and over the objections of the Authority, the Cities, the Ports and the holders of the Series 2016 Bonds, to alter the terms of its obligations to pay Use Fees, Container Charges or any other amounts payable by the Railroad and/or to assign its rights and obligations under the Operating Agreement, or any other agreement to which the Railroad is a party, to another entity. The occurrence of any of these, as well as the occurrence of other possible effects of a bankruptcy of a Railroad, could result in significant delays and/or in reductions in payments on the Series 2016 Bonds or other losses to the holders of the Series 2016 Bonds. Regardless of any specific adverse determinations in a Railroad bankruptcy proceeding, the fact of a Railroad bankruptcy proceeding could have an adverse effect on the liquidity and value of the Series 2016 Bonds notwithstanding the Series 2016B Bond Insurer's obligation to continue to pay scheduled debt service on the Insured Series 2016B Bonds when due.

**Series 2016B Bond Insurer and Other Bond Insurers.** The Series 2016B Bond Insurer is regulated by the New York Department of Financial Services. The rights of creditors of insolvent financial guaranty insurers are governed by the insolvency laws of the states in which insurers are formed (in the case of the Series 2016B Bond Insurer, the State of New York), and not by the Bankruptcy Code. The New York Superintendent of Financial Services has the power to order a financial guaranty insurance company to stop paying claims, or to pay claims only with the permission of the Superintendent, even before the insurance company becomes the subject of a formal insolvency proceeding. Should the Series 2016B Bond Insurer become the subject of an insolvency proceeding under New York insurance law, it may be able to retain its rights to control remedies under the transaction documents and direct the Trustee and its rights to consent to amendments of the transaction documents, even if it is insolvent or not paying claims as required by the Series 2016B Bond Insurance Policy. If the Series 2016B Bond Insurer is in an insolvency proceeding, it may be able to require the Authority to reimburse the Series 2016B Bond Insurer before paying amounts due on the Insured Series 2016B Bonds, regardless of what the transaction documents provide. If any of these circumstances occur at a time when the Authority is not making, or is unable to make, payments on the Series 2016 Bonds, there may be delays or reductions in payments on the Series 2016 Bonds. There may be other adverse effects of an insolvency of the Series 2016B Bond Insurer. Regardless of any specific adverse determinations in an insolvency of the Series 2016B Bond Insurer, the fact of an insolvency of the Series 2016B Bond Insurer could have an adverse effect on the liquidity and value of the Series 2016 Bonds.

Similar risks exist with respect to any debt service reserve surety policy that may be obtained by the Authority and with respect to other insurers, such as property and casualty insurers. See “—Limited or No Insurance.”

### **Seismic Risks, Climate Risk and Other Events of Force Majeure; Limited or No Insurance Coverage**

**Seismic Risks.** The Ports and the Rail Corridor are located within a seismically active area, and damage from an earthquake and/or from a tsunami could range from total destruction of the Rail Corridor and/or of Port facilities, to destabilization or liquefaction of the soils underneath such facilities, to little or no damage at all. The Authority is responsible for earthquake repairs to the Rail Corridor. Six earthquakes, with magnitudes on the Richter scale ranging from 5.9 to 7.3 and within approximately 25 to 27 miles of the Rail Corridor, have occurred within the last 80 years. A number of “active faults” are located within approximately six or seven

miles of the Rail Corridor, and three known “potentially active faults” are located within 2.3 miles of the Rail Corridor.

In March 2015, the Uniform California Earthquake Rupture Forecast (the “2015 Earthquake Forecast”) was issued by the Working Group on California Earthquake Probabilities. Organizations sponsoring the Working Group on California Earthquake Probabilities include the U.S. Geological Survey, the California Geological Survey, the Southern California Earthquake Center and the California Earthquake Authority. According to the 2015 Earthquake Forecast, the probability of a magnitude 6.7 or larger earthquake over the next 30 years (from 2014) striking the greater Los Angeles area is 60%. From the Uniform California Earthquake Rupture Forecast published in April 2008 (the “2008 Earthquake Forecast”), the estimated rate of earthquakes around magnitude 6.7 or larger decreased by about 30%. However, the estimate for the likelihood that California will experience a magnitude 8.0 or larger earthquake in the next 30 years (from 2014) increased from about 4.7% in the 2008 Earthquake Forecast to about 7.0% in the 2015 Earthquake Forecast. The 2015 Earthquake Forecast considered more than 250,000 different fault-based earthquakes, including multi-fault ruptures, whereas the 2008 Earthquake Forecast considered approximately 10,000 different fault-based earthquakes.

The Ports’, the Railroads’ and the Authority’s facilities could sustain extensive damage in a major seismic event from ground motion and liquefaction of underlying soils, which damage could include slope failures along the shoreline, pavement and rail displacement, distortions of pavement grades, breaks in utility, drainage and sewage lines, displacement or collapse of buildings, failure of bulkhead walls, and rupture of gas and fuel lines. A major seismic event in Southern California, or elsewhere in the world, also could result in the creation of a tsunami that could cause flooding and other damage, and such damage could materially and adversely affect the condition of the Rail Corridor, Port and Railroad facilities and Revenues. The Ports have advised that, to date, none of their facilities has been damaged in an earthquake or tsunami, but no assurances can be given that Port facilities (or Railroad or Authority facilities) always will be able to withstand the effects of earthquakes or tsunamis. Although the Authority currently carries limited earthquake insurance, neither of the Ports carries earthquake insurance of any kind, although one or both may from time to time set aside some funds for emergencies. The extent of damage and the long-term effects from an earthquake or tsunami, particularly ongoing earthquake activity, may be difficult to determine immediately.

**Climate Risk.** In May 2009, the California Climate Change Center released a final paper entitled “The Impacts of Sea-Level Rise on the California Coast” that was funded by the California Energy Commission, the California Environmental Protection Agency, the Metropolitan Transportation Commission, the California Department of Transportation and the California Ocean Protection Council. The paper posits that increases in sea level will be a significant impact of climate change over the next century and that future flood risk with sea-level rise could be significant at California’s major ports, including the Ports. While noting that, among other things, sea-level rise can reduce bridge clearance, reduce efficiency of port operations or flood transportation corridors to and from ports, the report states that impacts are highly site-specific and somewhat speculative. The Authority is unable to predict whether sea-level rise or other impacts of climate change will occur while the Series 2016 Bonds are outstanding, and if any such events occur, whether there will be an adverse impact, material or otherwise, on Revenues.

**Other Events of Force Majeure.** Operation of the Rail Corridor also is at risk from other events of force majeure, such as damaging storms, winds and floods, fires and explosions, strikes and lockouts, terrorist attacks, sabotage, wars, blockades, riots and spills of hazardous substances, among other events. A significant act of terrorism on United States soil or against United States interests, for example, or at any port or other major facility anywhere in the world, could have an adverse impact on international trade and on the Authority’s ability to pay debt service on the Series 2016 Bonds and, among other things, could increase the Authority’s cost of operations significantly, decrease Revenues or both. Operations also may be stopped or delayed from non-casualty events such as the implementation of new or increased security, safety or environmental measures or



other changes in law or regulations, revocation or revision of permits and litigation, among other things. No assurance can be given that such events would be covered by insurance.

**Limited or No Insurance.** Although the Authority is required to provide insurance, the required insurance policies do not cover damage and delay from all events that could interrupt operation of the Rail Corridor. In particular, either losses resulting from earthquakes, tsunamis, floods or acts of terrorism or from strikes, riot, civil commotion, unforeseen environmental conditions, change of law, bankruptcy and insurer insolvency are not covered by insurance or any insurance that is available may not be in amounts that would be sufficient or be paid in sufficient time in all events (or at all) to pay all of the Authority's expenses, including debt service on the Bonds. In addition, the availability of insurance coverage could vary from time to time, and there can be no assurance that the Authority will be able to obtain or to renew insurance policies in a timely manner or that the provider of any such insurance coverage always will be willing or able to honor its policies. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Insurance Covenants."

No assurances can be given that the Authority will be able to repair any damage or will be able to resume operation of the Rail Corridor or that the Ports and Railroads would be able to repair damage to their facilities and resume operations following a significant event of force majeure.

### **Community, Political and Regulatory Risks**

In 2014, legislation was introduced in the California Legislature which proposed to replace the Authority's existing rights to collect Use Fees and Container Charges under the Use and Operating Agreement with a new system of assessing and collecting fees which would require, among other things, fees to be paid by beneficial owners of cargo rather than by the Railroads, prior to the cargo entering the Rail Corridor, subject to certain exceptions. If enacted, such legislation would have resulted in, among other things, significant legal challenges. The Authority, the Ports and the Los Angeles County Board of Supervisors opposed the legislation on various legal grounds and the legislation was ultimately not referred out of committee nor considered by the California Legislature. There can be no assurance that legislation similar to the foregoing or other adverse legislation will not be introduced or enacted in the future and, if enacted, would not have a material adverse effect on the Authority or the Bonds.

Continued operation of the Project could have considerable local business and community impacts, including noise, vibrations and traffic congestion that over time and as development of surrounding areas increases could trigger protests and objections from nearby communities. Particularly if local structures, waters or grounds near the Project are damaged or polluted whether from operation of the Rail Corridor or because of some other, unrelated cause, such protests and objections could lead to increased regulation and/or to the need for increased capital or operating expenditures, and no assurances can be given that operation of the Rail Corridor will not be severely limited as a result.

The Authority, the Railroads, each of the Ports and each of their permittees and customers are subject to environmental, safety, security, permit and other federal and State regulatory requirements and inspections that can result in delays and in increased costs. The Rail Corridor, for example, is subject to frequent inspections by the FRA and by the California Public Utilities Commission. No assurances can be given that such inspections will not cause or lead to interference in operations or to additional conditions to the continuation of operations.

### **No Acceleration of the Series 2016 Bonds**

The Indenture contains no provisions for acceleration of the maturity of the Bonds, including the Series 2016 Bonds, after any payment default or after any other default by the Authority. The Indenture permits the issuance of additional Bonds, including variable-rate Bonds that may be secured by letters of credit or other credit facilities. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Additional Bonds." Under certain circumstances, such variable-rate Bonds could be subject to mandatory tenders for purchase or to

mandatory redemption at the direction of the bank or other credit enhancer, and the Authority could be required to reimburse such bank or credit enhancer and to retire all of such bonds prior to the payment in full of the Series 2016 Bonds.

### **Continuing Compliance with Tax Covenants; Changes of Law**

The Indenture and the Authority's tax certificate will contain various covenants and agreements on the part of the Authority that are intended to establish and maintain the tax-exempt status of interest on the Series 2016 Bonds. A failure by the Authority to comply with such covenants and agreements, including any remediation obligations, could, directly or indirectly, adversely affect the tax-exempt status of interests on the Series 2016 Bonds. Any loss of tax-exemption could cause all of the interest received by the Owners of the Series 2016 Bonds to be taxable. All or a portion of interest on the Series 2016 Bonds also could become subject to federal and/or State income tax as a result of changes of law. See "TAX MATTERS." The Authority is not required to redeem the Series 2016 Bonds should the interest become taxable.

## **THE RAILROADS**

The Railroads have agreed to pay Use Fees, Container Charges and M & O Charges in accordance with, and for the term specified in, the Operating Agreement. The Use Fees and Container Charges paid by the Railroads are the primary source of Revenues pledged to the payment of the Bonds, but the Railroads are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. The Bonds, including the Series 2016 Bonds, are not secured by a lien on any properties or improvements of the Railroads or by a pledge of any revenues of the Railroads. Although other railroad companies may in the future use the Rail Corridor under certain circumstances, the Railroads are currently, and are expected to remain in the future, the sole users of the Rail Corridor. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations" and "AUTHORITY REVENUES."

BNSF and Union Pacific Corporation, the parent of Union Pacific, currently are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and are required to file reports and other information with the Securities and Exchange Commission (the "SEC"). The reports and other information can be inspected and copied at the public reference facility that the SEC maintains, or may be accessed electronically by means of the SEC's home page on the Internet (<http://www.sec.gov>). See "THE RAILROADS" in Appendix D. The Authority is not responsible for and makes no representation concerning information filed by the Railroads.

The Railroads have not provided the information contained in this Official Statement and have not reviewed this Official Statement. The information concerning the Railroads contained or referred to in this Official Statement (including the information in the next two paragraphs) has been obtained from public information filed with the SEC as described in Appendix D and has not been independently verified. The Authority makes no representations about this information.

### **Union Pacific**

Union Pacific is incorporated in Delaware. All of the issued and outstanding shares of voting stock of Union Pacific are owned, directly or indirectly, by Union Pacific Corporation, a Utah corporation. Union Pacific operates various railroad and railroad-related businesses and is the largest railroad in North America. Union Pacific's approximately 32,084 route miles, traveling through 23 states, link Pacific Coast and Gulf Coast ports to the Midwest and eastern United States gateways and provide several north/south corridors to key Mexican gateways. Union Pacific serves the western two-thirds of the country and maintains coordinated schedules with other carriers for the handling of freight to and from the Atlantic Coast, the Pacific Coast, the Southeast, the Southwest, Canada and Mexico. Export and import traffic is moved through Gulf Coast and

Pacific Coast ports and across the Mexican and Canadian borders. The largest of Union Pacific's roughly 10,000 customers include steamship lines, vehicle manufacturers, agricultural companies, utilities, intermodal companies and chemical manufacturers. Union Pacific has approximately 47,500 full-time equivalent employees as of December 31, 2015, of whom approximately 85% are represented by 14 major rail unions. See "THE RAILROADS—Union Pacific Railroad Company" in Appendix D.

## **BNSF**

BNSF, a subsidiary of Berkshire Hathaway, Inc., is also incorporated in Delaware. BNSF engages primarily in the rail transportation business and operates one of the largest railroad systems in North America. BNSF's approximately 32,500 route miles run through 28 states and three Canadian provinces and serve more than 40 ports and 25 intermodal facilities. BNSF's network covers the western two-thirds of the United States, stretching from major Pacific Northwest and Southern California ports to the Midwest, Southeast and Southwest, and from the Gulf of Mexico to Canada. Freight revenues are generated mainly through the transportation of consumer products, coal, industrial products and agricultural products. BNSF has approximately 44,000 employees as of December 31, 2015. See "THE RAILROADS—BNSF Railway Company" in Appendix D.

## **THE PORTS**

The Ports are obligated only to make the payments required by the Operating Agreement and are not responsible for paying, and are not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. See Appendix B and Appendix C. The information in this Official Statement about POLA, including in Appendix B, was provided by POLA, and the information in this Official Statement about POLB, including in Appendix C, was provided by POLB. The Authority makes no representation concerning such information.

## **CONTINUING DISCLOSURE**

### **The Authority and the Ports**

The Authority has covenanted for the benefit of the holders and beneficial owners of the Series 2016 Bonds to provide certain financial and operating information not later than April 1 (or June 1 with respect to POLB, on and after the date that the 1999 Bonds and the 2004 Subordinate Lien Bonds are no longer outstanding) of each year in which any Series 2016 Bonds are outstanding, commencing April 1, 2017 with the report for the 2015-16 Fiscal Year (each an "Annual Report"). In addition, the Authority has covenanted to provide notices of the occurrence of certain enumerated events. In connection with the Authority's disclosure obligations, each of the Ports has covenanted for the benefit of the holders and beneficial owners of the Series 2016 Bonds to provide the Authority with certain financial and operating information, not later than March 1 (or May 1 with respect to POLB, on and after the date that the 1999 Bonds and the 2004 Subordinate Lien Bonds are no longer outstanding) of each year in which any Series 2016 Bonds are outstanding, commencing with the report for the 2015-16 Fiscal Year. Because POLB's fiscal year ends on September 30 (three months later than POLA's and the Authority's fiscal years, at times information about POLB is filed in a separate supplement to an Annual Report. The Annual Reports are required to be filed by the Authority with the MSRB through its EMMA system. The specific nature of information to be contained in the Annual Report or the notices of enumerated events is summarized in the form of the Continuing Disclosure Certificate in Appendix H. These covenants have been made in order to assist the Underwriters in complying with SEC Rule 15c2-12(b)(5).

According to the Authority, within the past five years, the Authority has not failed to comply in any material respect with its disclosure obligations under the continuing disclosure undertakings entered into by the Authority (the "ACTA Prior Continuing Disclosure Undertakings") in connection with the Series 1999 Bonds, the Series 2004 Bonds and the Series 2013A Bonds (the "Prior ACTA Bonds"). The Authority notes, however,

that it did not always timely file notices of bond insurer rating changes as required under the ACTA Prior Continuing Disclosure Undertakings. The Authority has subsequently filed such notice. The Authority also notes that subsequent to the issuance of certain of the Prior ACTA Bonds and date of certain of the ACTA Prior Continuing Disclosure Undertakings, the Authority updated the type of financial information and operating data contained in the Authority's official statements and annual reports provided in connection with the ACTA Prior Continuing Disclosure Undertakings. As such, the Authority now presents in its annual reports required pursuant to the ACTA Prior Continuing Disclosure Undertakings certain financial information and operating data in a format different than described in such ACTA Prior Continuing Disclosure Undertakings.

According to POLA, within the past five years, POLA has not failed to comply in any material respect with its disclosure obligations under the continuing disclosure undertakings entered into by POLA (the "POLA Prior Continuing Disclosure Undertakings") in connection with Prior ACTA Bonds. POLA notes, however, that subsequent to the issuance of certain of the Prior ACTA Bonds and date of certain of the POLA Prior Continuing Disclosure Undertakings, POLA updated the type of financial information and operating data contained in POLA's official statements and annual reports provided in connection with the POLA Prior Continuing Disclosure Undertakings. As such, POLA now provides to the Authority, for inclusion in the annual reports required pursuant to the POLA Prior Continuing Disclosure Undertakings, certain financial information and operating data in a form different than described in such POLA Prior Continuing Disclosure Undertakings.

According to POLB, within the past five years, POLB has not failed to comply in any material respect with its disclosure obligations under the continuing disclosure undertakings entered into by POLB (the "POLB Prior Continuing Disclosure Undertakings") in connection with the Prior ACTA Bonds. POLB notes, however, in 2012 and 2014, POLB did not provide its audited financial statements to the Authority prior to the date that the Authority was required, pursuant to the POLB Prior Continuing Disclosure Undertakings, to file the annual reports required thereunder. POLB's audited financial statements for the applicable periods were filed by the Authority when such financial statements become available to POLB and the Authority. POLB further notes, that subsequent to the issuance of certain of the Prior ACTA Bonds and date of certain of the POLB Prior Continuing Disclosure Undertakings, POLB updated the type of financial information and operating data contained in POLB's official statements and annual reports provided in connection with the POLB Prior Continuing Disclosure Undertakings. As such, POLB now provides to the Authority, for inclusion in the annual reports required pursuant to the POLB Prior Continuing Disclosure Undertakings, certain financial information and operating data in a form different than described in such POLB Prior Continuing Disclosure Undertakings.

## **The Railroads**

Each of the Railroads also has covenanted to provide certain financial information for the benefit of the holders and beneficial owners of the Series 2016 Bonds. This information is incorporated in documents filed with the SEC. BNSF has agreed that if in the future it is no longer subject to the informational requirements of Sections 13 or 15(d) of the Exchange Act and Union Pacific has agreed that if in the future neither Union Pacific nor Union Pacific Corporation is subject to the informational requirements of Sections 13 or 15(d) of the Exchange Act, it will notify the Trustee and will furnish certain financial information and operating data to the MSRB through its EMMA system. See "THE RAILROADS" in Appendix D.

## **TAX MATTERS**

### **Federal Income Taxes**

The Internal Revenue Code of 1986, as amended (the "Code"), imposes certain requirements that must be met subsequent to the issuance and delivery of the Series 2016 Bonds for interest thereon to be and remain excluded from gross income for federal income tax purposes. Noncompliance with such requirements could cause the interest on the Series 2016 Bonds to be included in gross income for federal income tax purposes retroactive to the date of issue of the Series 2016 Bonds. Pursuant to the Indenture and the tax and nonarbitrage

certificate executed by the Authority in connection with the issuance of the Series 2016 Bonds (the “Tax Certificate”), the Authority has covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Series 2016 Bonds from gross income for federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority has made certain representations and certifications in the Indenture and the Tax Certificate. Special Tax Counsel will not independently verify the accuracy of those representations and certifications. Furthermore, Special Tax Counsel has assumed the accuracy of the approving opinion of O’Melveny & Myers LLP, Bond Counsel, relating to the validity of the Series 2016 Bonds.

In the opinion of Nixon Peabody LLP, Special Tax Counsel, under existing law and assuming compliance with the aforementioned covenant, and the accuracy of certain representations and certifications made by the Authority described above, interest on the Series 2016 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code. Special Tax Counsel is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Interest on the Series 2016 Bonds is, however, included in the adjusted current earnings of certain corporations for purposes of computing the alternative minimum tax imposed on such corporations.

### **State Taxes**

Special Tax Counsel is also of the opinion that interest on the Series 2016 Bonds is exempt from personal income taxes of the State of California under present State law. Special Tax Counsel expresses no opinion as to other state or local tax consequences arising with respect to the Series 2016 Bonds nor as to the taxability of the Series 2016 Bonds or the income therefrom under the laws of any state other than the State of California.

### **Original Issue Discount**

Special Tax Counsel is further of the opinion that the excess of the principal amount of any maturity of the Series 2016 Bonds over the price at which a substantial amount of such maturity of the Series 2016 Bonds was sold to the public (excluding bond houses, brokers or similar persons or organizations acting in the capacity of underwriters or wholesalers) (each, a “Discount Bond” and collectively the “Discount Bonds”) constitutes original issue discount which is excluded from gross income for federal income tax purposes to the same extent as interest on the Series 2016 Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount. The accrual of original issue discount may be taken into account as an increase in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Discount Bonds, even though there will not be a corresponding cash payment. Owners of the Discount Bonds are advised that they should consult with their own advisors with respect to the state and local tax consequences of owning such Discount Bonds.

### **Original Issue Premium**

Series 2016 Bonds sold at prices in excess of their principal amounts are “Premium Bonds.” An initial purchaser with an initial adjusted basis in a Premium Bond in excess of its principal amount will have amortizable bond premium which is not deductible from gross income for federal income tax purposes. The amount of amortizable bond premium for a taxable year is determined actuarially on a constant interest rate basis over the term of each Premium Bond based on the purchaser’s yield to maturity (or, in the case of Premium Bonds callable prior to their maturity, over the period to the call date, based on the purchaser’s yield to the call date and giving effect to any call premium). For purposes of determining gain or loss on the sale or other disposition of a Premium Bond, an initial purchaser who acquires such obligation with an amortizable

bond premium is required to decrease such purchaser's adjusted basis in such Premium Bond annually by the amount of amortizable bond premium for the taxable year. The amortization of bond premium may be taken into account as a reduction in the amount of tax-exempt income for purposes of determining various other tax consequences of owning such Series 2016 Bonds. Owners of the Premium Bonds are advised that they should consult with their own advisors with respect to the state and local tax consequences of owning such Premium Bonds.

### **Ancillary Tax Matters**

Ownership of the Series 2016 Bonds may result in other federal tax consequences to certain taxpayers, including, without limitation, certain S corporations, foreign corporations with branches in the United States, property and casualty insurance companies, individuals receiving Social Security or Railroad Retirement benefits, and individuals seeking to claim the earned income credit. Ownership of the Series 2016 Bonds may also result in other federal tax consequences to taxpayers who may be deemed to have incurred or continued indebtedness to purchase or to carry the Series 2016 Bonds. Prospective investors are advised to consult their own tax advisors regarding these rules.

Interest paid on tax-exempt obligations such as the Series 2016 Bonds is subject to information reporting to the Internal Revenue Service (the "IRS") in a manner similar to interest paid on taxable obligations. In addition, interest on the Series 2016 Bonds may be subject to backup withholding if such interest is paid to a registered owner that (a) fails to provide certain identifying information (such as the registered owner's taxpayer identification number) in the manner required by the IRS, or (b) has been identified by the IRS as being subject to backup withholding.

Special Tax Counsel is not rendering any opinion as to any federal tax matters other than those described in the opinion attached as Appendix G. Prospective investors, particularly those who may be subject to special rules described above, are advised to consult their own tax advisors regarding the federal tax consequences of owning and disposing of the Series 2016 Bonds, as well as any tax consequences arising under the laws of any state or other taxing jurisdiction.

### **Changes in Law and Post Issuance Events**

Legislative or administrative actions and court decisions, at either the federal or state level, could have an adverse impact on the potential benefits of the exclusion from gross income of the interest on the Series 2016 Bonds for federal or state income tax purposes, and thus on the value or marketability of the Series 2016 Bonds. This could result from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), repeal of the exclusion of the interest on the Series 2016 Bonds from gross income for federal or state income tax purposes, or otherwise. We note that each year since 2011, President Obama released legislative proposals that would limit the extent of the exclusion from gross income of interest on obligations of states and political subdivisions under Section 103 of the Code (including the Series 2016 Bonds) for taxpayers whose income exceeds certain thresholds. It is not possible to predict whether any legislative or administrative actions or court decisions having an adverse impact on the federal or state income tax treatment of holders of the Series 2016 Bonds may occur. Prospective purchasers of the Series 2016 Bonds should consult their own tax advisors regarding the impact of any change in law on the Series 2016 Bonds. Special Tax Counsel has not undertaken to advise in the future whether any events after the date of issuance and delivery of the Series 2016 Bonds may affect the tax status of interest on the Series 2016 Bonds. Special Tax Counsel expresses no opinion as to any federal, state or local tax law consequences with respect to the Series 2016 Bonds, or the interest thereon, if any action is taken with respect to the Series 2016 Bonds or the proceeds thereof upon the advice or approval of other counsel.

## **LEGAL MATTERS**

Legal matters incident to the issuance of the Series 2016 Bonds and with regard to the exclusion of interest on the Series 2016 Bonds from gross income for federal income tax purposes (see “TAX MATTERS”) are subject to the legal opinion of O’Melveny & Myers LLP, Bond Counsel to the Authority, and Nixon Peabody LLP, Special Tax Counsel to the Authority, whose legal services have been retained by the Authority. The signed legal opinion with respect to the Series 2016 Bonds, dated and premised on law in effect as of the date of original delivery of the Series 2016 Bonds, will be delivered to the Authority on the date of issuance of the Series 2016 Bonds. The proposed text of the legal opinion of Bond Counsel is included as Appendix G to this Official Statement. The legal opinion to be delivered may vary from the text if necessary to reflect facts and law on the date of delivery. The opinion will speak only as of its date, and subsequent distribution of it by recirculation of the Official Statement or otherwise shall create no implication that Bond Counsel has reviewed or expresses any opinion concerning any of the matters referred to in the opinion subsequent to its date.

Certain legal matters will be passed upon for the Authority by one of its Co-General Counsel, for POLA by the Office of the Los Angeles City Attorney and for POLB by the Office of the Long Beach City Attorney. Certain legal matters will be passed upon for the Underwriters by their counsel, Orrick, Herrington & Sutcliffe LLP. The opinion provided to the Underwriters by their counsel will provide that only the Underwriters may rely upon such opinion.

Polsinelli LLP serves as Disclosure Counsel to the Authority in connection with certain matters. Polsinelli LLP undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement and will not render any legal opinions with respect thereto.

O’Melveny & Myers LLP and Nixon Peabody LLP undertake no responsibility for the accuracy, completeness or fairness of this Official Statement and will not render any legal opinions with respect thereto.

The legal opinions and other letters of counsel to be delivered concurrently with the delivery of the Series 2016 Bonds express the professional judgment of the attorneys rendering the opinions or advice regarding the legal issues and other matters expressly addressed therein. By rendering a legal opinion or advice, the firm providing such opinion or advice does not become an insurer or guarantor of the result indicated by that opinion or advice, the transaction on which the opinion or advice is rendered or the future performance of parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

## **LITIGATION**

There is no action, suit, proceeding or investigation at law or in equity before or by any court, public board or body, pending against the Authority or, to the best knowledge of the Authority, threatened against or affecting the Authority that would materially adversely impact the Authority’s ability to perform the obligations required of it by the Indenture and the Operating Agreement, or in any way contesting or affecting the validity of the Series 2016 Bonds, the Indenture or the Operating Agreement or wherein an unfavorable decision, ruling or judgment would materially adversely affect the validity or enforceability of the Indenture, the Operating Agreement or the Series 2016 Bonds.

In addition to the litigation described under “THE RAIL CORRIDOR AND RELATED PROJECTS — Environmental Considerations,” the Authority is involved in a number of legal proceedings that are not described in this Official Statement, including proceedings relating to condemnation. The Authority does not expect that such proceedings, even if decided adversely to the Authority, will have a material adverse effect on the Authority’s financial position.

## **RATINGS**

Moody's Investors Service ("Moody's") and S&P Global Ratings are expected to assign their ratings of "A2" and "AA," respectively, for the Insured Series 2016B Bonds, assuming the Series 2016B Bond Insurance Policy is delivered at the time the Insured Series 2016B Bonds are issued. Moody's, Fitch Ratings and Standard & Poor's Rating Services assigned underlying ratings on the Series 2016A Bonds of "Baa2," "BBB+" and "BBB+," respectively, and underlying ratings on the Series 2016B Bonds of "Baa2," "BBB" and "BBB+," respectively. Certain information was supplied by the Authority and the Ports to such rating agencies to be considered in evaluating the Series 2016 Bonds, some of which has not been included in this Official Statement. Generally, rating agencies base their ratings on information and materials furnished to them and on their own investigations, studies and assumptions.

The foregoing ratings express only the views of the rating agencies and are not a recommendation to buy, sell or hold any of the Series 2016 Bonds. An explanation of the significance of each of the ratings may be obtained from the rating agency furnishing the rating. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by the rating agencies, or any of them, if, in their or its judgment, circumstances so warrant. Any downward revision or withdrawal of ratings, or other actions of a rating agency relating to its rating of the Series 2016 Bonds, may have an adverse effect on the market price, marketability or liquidity of the Series 2016 Bonds.

The Authority expects to furnish each rating agency with information and material that it may request. The Authority, however, assumes no obligation to furnish requested information and materials, and may issue debt for which a rating is not requested. Failure to furnish requested information and materials, or the issuance of debt for which a rating is not requested, may result in the suspension or withdrawal of a rating on the Series 2016 Bonds.

None of the Underwriters, the Authority, the Ports or the Railroads undertakes any responsibility to assure the maintenance of the ratings or to oppose any revision or withdrawal thereof.

## **UNDERWRITING**

The Series 2016A Bonds are to be purchased from the Authority by Merrill Lynch, Pierce, Fenner & Smith Incorporated, Barclays Capital Inc., Citigroup Global Markets Inc., RBC Capital Markets, LLC and Stifel Nicolaus & Company, Incorporated (collectively the "Underwriters") at an aggregate purchase price of \$41,131,171.45 (representing the aggregate principal amount of the Series 2016A Bonds, plus original issue premium of \$7,077,784.45 and less an Underwriters' discount of \$226,613.00), and the Series 2016B Bonds are to be purchased from the Authority by the Underwriters at an aggregate purchase price of \$641,268,224.47 (representing the aggregate principal amount of the Series 2016B Bonds, plus original issue premium of \$89,576,177.05, less original issue discount of \$739,350.00 and less an Underwriters' discount of \$4,428,602.58), all subject to the terms of a Bond Purchase Agreement (the "Bond Purchase Agreement") between the Authority and the Underwriters. The Bond Purchase Agreement provides that the Underwriters will purchase all of the Series 2016 Bonds if any are purchased and that the obligation to make such purchase is subject to certain terms and conditions set forth in the Bond Purchase Agreement, including the approval by counsel of certain legal matters.

The Underwriters intend to offer the Series 2016 Bonds for sale at the prices or yields set forth on the inside cover page hereof. Such initial public offering prices or yields may be changed from time to time by the Underwriters without prior notice. The Underwriters may offer and sell the Series 2016 Bonds to certain dealers, unit investment trusts or money market funds at prices lower than or at yields higher than the public offering prices or yields stated on the inside cover page.



The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the Authority, either or both of the Ports and either or both of the Railroads, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority, including Bonds being refunded, either or both of the Ports and either or both of the Railroads.

Citigroup Global Markets Inc., one of the Underwriters of the Series 2016 Bonds (“Citigroup”), has entered into a retail distribution agreement with each of TMC Bonds L.L.C. (“TMC”) and UBS Financial Services Inc. (“UBSFS”). Under these distribution agreements, Citigroup may distribute municipal securities to retail investors through the financial advisor network of UBSFS and the electronic primary offering platform of TMC. As part of this arrangement, Citigroup may compensate TMC (and TMC may compensate its electronic platform member firms) and UBSFS for their selling efforts with respect to the Series 2016 Bonds.

Merrill Lynch, Pierce, Fenner & Smith Incorporated, one of the Underwriters, is an affiliate of Bank of America, N.A., the Provider under the Forward Delivery Agreement described above and of a revolving line of credit with POLB. See “THE PORT OF LONG BEACH—Outstanding Indebtedness” in Appendix C.

## **FINANCIAL STATEMENTS**

The audited financial statements of the Authority as of and for the fiscal years ended June 30, 2015 and 2014 are included in Appendix A. The Authority’s financial statements as of and for the year ended June 30, 2014, before restatement, were audited by KPMG LLP, independent auditor. The Authority’s financial statements as of and for the year ended June 30, 2015 have been audited by Moss Adams LLP, independent auditor, as stated in their report appearing therein. Moss Adams LLP has not been engaged to perform and has not performed, since the date of its report appearing in Appendix A, any procedures on the financial statements addressed in that report. Moss Adams LLP also has not performed any procedures relating to this Official Statement. Moss Adams LLP has not examined, compiled or performed any procedures with respect to Revenues or other forecasts included in this Official Statement and, accordingly, expresses no opinion or any other form of assurance with respect thereto.

The audited financial statements of POLA for the fiscal years ended June 30, 2015 and 2014 and the report of the independent auditor dated November 23, 2015 were provided by POLA for inclusion in Appendix B. Simpson & Simpson LLP, the independent auditor, has not been engaged to perform and has not performed, since the date of its report included in Appendix B, any procedures on the financial statements of POLA addressed in that report. Simpson & Simpson LLP also has not performed any procedures relating to POLA’s information included in this Official Statement.

The audited financial statements of POLB for the fiscal year ended September 30, 2015 and the report of the independent auditor dated March 28, 2016 were provided by POLB for inclusion in Appendix C. KPMG LLP, the independent auditor, has not been engaged to perform and has not performed, since the date of its report included in Appendix C, any procedures on the financial statements of POLB addressed in that report. KPMG LLP also has not performed any procedures relating to POLB’s information included in this Official Statement.

The Independent Auditors' reports contained in this Official Statement relate only to historical financial information specifically set forth or referred to therein.

#### **FINANCIAL ADVISOR**

Public Financial Management, Los Angeles, California, has acted as the Financial Advisor to the Authority in connection with the issuance of the Series 2016 Bonds. The Financial Advisor is not obligated to undertake, and has not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. Public Financial Management is an advisory firm and is not engaged in the business of underwriting or distributing municipal or other public securities.

#### **MISCELLANEOUS**

The purpose of this Official Statement is to supply information to potential investors in the Series 2016 Bonds. The summaries provided in this Official Statement, including the Appendices, do not purport to be comprehensive or definitive, and all references to the documents summarized are qualified in their entirety by reference to each such document. All references to the Series 2016 Bonds are qualified in their entirety by reference to the forms thereof and the information with respect thereto included in the aforesaid documents. Copies of the documents referred to herein are available from the Authority upon written request submitted to the attention of James Preusch, Chief Financial Officer, at the address shown on the third page of this Official Statement or by facsimile at (562) 247-7090.

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Statements in this Official Statement, including matters of opinion, projections and forecasts, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the Authority or the Underwriters and the purchasers of the Series 2016 Bonds. The Authority has authorized the preparation, execution and distribution of this Official Statement.

ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

By                     /s/ John T. Doherty                      
Chief Executive Officer

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**APPENDIX A**

**AUDITED BASIC FINANCIAL STATEMENTS OF THE AUTHORITY**

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Report of Independent Auditors  
and Financial Statements  
with Required Supplementary Information for

**Alameda Corridor  
Transportation Authority**

June 30, 2015 and 2014

**MOSS-ADAMS<sub>LLP</sub>**

Certified Public Accountants | Business Consultants

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## REPORT OF INDEPENDENT AUDITORS

The Governing Board  
Alameda Corridor Transportation Authority  
Long Beach, California

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Alameda Corridor Transportation Authority (the Authority), as of and for the year ended June 30, 2015, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the California Code of Regulations, Title 2, Section 1131.2, State Controller's *Minimum Audit Requirements* for California Special Districts. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Alameda Corridor Transportation Authority as of June 30, 2015, and the changes in its financial position and its cash flows for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

### ***Emphasis of a Matter***

As discussed in Note 9 to the financial statements, effective July 1, 2014, the Authority adopted the requirements of Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date—an Amendment of GASB Statement No. 68*. The beginning net position has been adjusted for this change. Our opinion is not modified with respect to this matter.

### ***Other Matters***

#### ***June 30, 2014, Financial Statements***

The basic financial statements of the Alameda Corridor Transportation Authority as of and for the year ended June 30, 2014, before restatement as described in Note 12, were audited by other auditors, whose report dated December 11, 2014, expressed an unmodified opinion on those financial statements.

In addition, those other auditors included an emphasis-of-matter paragraph describing the adoption of certain accounting principles and an other-matters paragraph reporting on required supplementary information.

As part of our audit of the June 30, 2015, financial statements, we also audited the adjustment described in Note 12 that was applied to restate the 2014 financial statements. In our opinion, such adjustment is appropriate and has been properly applied. We were not engaged to audit, review, or apply any procedures to the 2014 basic financial statements other than with respect to the adjustment and, accordingly, we do not express an opinion or any other form of assurance on the 2014 financial statements as a whole.

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the accompanying management's discussion and analysis on pages 4–11 and the schedule of proportionate share of the net pension liability, schedule of contributions, and schedule of funding progress for other postemployment benefits on pages 47–49 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### **Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 2, 2015, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

A handwritten signature in dark ink, appearing to read "Moss Adams LLP", is written over a light blue horizontal line.

Irvine, California  
November 2, 2015

# **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

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### **Description of Basic Financial Statements**

The Alameda Corridor Transportation Authority (the Authority) presents its basic financial statements using the economic resources measurement focus and full accrual basis of accounting. The Authority's basic financial statements include statements of net position; statements of revenues, expenses, and changes in net position; and statements of cash flows. The basic financial statements also include notes that explain the information presented in the basic financial statements.

### **Financial Highlights**

The net deficit of the Authority at June 30, 2015 and 2014, respectively, was \$192,692,420 and \$133,149,060. Of this amount, \$155,907,566 and \$135,232,427, respectively, are invested in the Authority's capital assets, net of related debt, at June 30, 2015 and 2014. The Authority's net position decreased by \$59,543,360 and \$39,821,998 in the years ended June 30, 2015 and 2014, respectively. The Authority adjusted beginning net position as of July 1, 2014, to reflect the adoption of a new accounting standard that resulted in the retroactive recognition of the net pension liability and the restated financial statements as of June 30, 2014, to expense SR-47 project costs that were previously capitalized (Note 12).

The 2015 and 2014 fiscal years marked the thirteenth and twelfth full years of operations for the Authority. The Authority earned \$110,375,289 and \$113,786,920 from use fees, container charges, and maintenance-of-way charges during fiscal years ended June 30, 2015 and 2014, respectively. The Authority's use fees and container charges for the year 2015 were less than the 2014 total by 3.2%. All of the use fee and container charges and all of the maintenance-of-way charges are received from the Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) railroads that utilize the Authority's Alameda Corridor (Corridor).

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)

### Condensed Financial Information

The following condensed financial information provides an overview of the Authority's financial position for the fiscal years ended June 30, 2015, 2014, and 2013:

	Year Ended June 30			Change Between 2015 and 2014	Change Between 2014 and 2013
	2015	2014 (As Restated)	2013 (As Restated)		
<b>Assets</b>					
Capital assets, net	\$ 1,640,450,554	\$ 1,661,605,137	\$ 1,682,674,288	\$ (21,154,583)	\$ (21,069,151)
Other assets	314,350,204	353,169,593	364,425,931	(38,819,389)	(11,256,338)
Total assets	1,954,800,758	2,014,774,730	2,047,100,219	(59,973,972)	(32,325,489)
Deferred outflows of resources	196,611	-	-	196,611	-
<b>Liabilities</b>					
Long-term liabilities	2,079,148,645	2,078,499,894	2,080,633,616	648,751	(2,133,722)
Current liabilities	68,138,117	69,423,896	59,793,665	(1,285,779)	9,630,231
Total liabilities	2,147,286,762	2,147,923,790	2,140,427,281	(637,028)	7,496,509
Deferred inflows of resources	403,027	-	-	403,027	-
<b>Net position</b>					
Net investment in capital assets	155,907,566	135,232,427	124,431,592	20,675,139	10,800,835
Restricted for debt service	88,219,461	91,301,757	101,632,480	(3,082,296)	(10,330,723)
Restricted for capital projects	542,172	1,640,793	1,510,865	(1,098,621)	129,928
Restricted by Master Trust					
Indenture	74,479,257	83,618,810	65,586,139	(9,139,553)	18,032,671
Unrestricted (deficit)	(511,840,876)	(444,942,847)	(386,488,138)	(66,898,029)	(58,454,709)
Total net position	\$ (192,692,420)	\$ (133,149,060)	\$ (93,327,062)	\$ (59,543,360)	\$ (39,821,998)

### Capital Assets

Capital assets, net, made up of plant and equipment, decreased by \$21.2 million, or 1.3%, and \$21.1 million, or 1.3%, between 2015 and 2014, and 2014 and 2013, respectively. These decreases are due to depreciation of capital assets of \$21.2 and \$21.3 million in fiscal years 2015 and 2014, respectively, which were partially offset by the addition of capitalized costs during the years ended June 30, 2015 and 2014.

### Other Assets

Other assets decreased by \$38.8 million, or 11.0%, during fiscal year 2015 primarily due to a decrease in cash and investments and the sale and transfer of assets held for transfer.

In fiscal year 2015, the Authority incurred a loss of \$26.3 million on the sale of two parcels and an easement and transfer of multiple parcels to the City of Los Angeles and the County of Los Angeles. These assets held for sale and transfer were initially acquired for the development of the Corridor, but ultimately determined not to be necessary for the Corridor's operations.

## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)**

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In fiscal year 2014, the decrease in other assets is also the result of losses of \$13.0 million for the transfer of property and easements to the City of Los Angeles.

#### ***Current Liabilities***

Current liabilities consist of the current portion of accrued interest and revenue bonds payable, accounts payable, unearned revenue, and other liabilities. Current liabilities decreased by \$1.3 million, or 1.9%, and increased by \$9.6 million, or 16.1%, during the fiscal years ended June 30, 2015 and 2014, respectively.

The \$1.3 million decrease in 2015 is primarily due to \$1.3 million in principal and interest payments made in fiscal 2015.

The \$9.6 million increase in 2014 is primarily due to an increase of \$15.9 million in principal and interest payments in fiscal 2014, which was offset by a decrease of \$5.9 million in unearned revenues.

#### ***Long-Term Liabilities***

Long-term liabilities increased by \$0.6 million, or 0.0%, in fiscal year 2015 compared to fiscal year 2014. The 2015 decrease was due to the decrease in bond payable, offset by an increase in the net pension liability which is due to the adoption of GASB Statement No. 68, increase of interest payable and Bank of America's collateral deposit, a function of the reduction in Bank of America liability, consistent with remaining payment on the Forward Delivery Agreement.

Long-term liabilities decreased by \$2.1 million, or 0.1%, in fiscal year 2014 compared to fiscal year 2013. The 2014 decrease was mainly due to the decrease of Bank of America's collateral deposit.

#### ***The Master Trust Indenture***

In conjunction with the sale of project revenue and refunding bonds in 1999, 2004, 2012, and 2013A (Bonds), the Authority entered into a Master Trust Indenture (MTI) with U.S. Bank, the bond trustee (Trustee), pursuant to which the Authority assigned all of its rights, title, and interest in and to the Corridor, including the receipt of certain use fees and container charges and other revenues known as "Authority Revenues" to the Trustee as security for the repayment of the Bonds. Pursuant to the terms of the MTI, the Trustee is required to establish certain funds and accounts and to apply the Authority's revenues for the purposes specifically set forth therein. The MTI establishes debt service funds, debt service reserve funds, construction funds, maintenance and capital reserve funds, and certain other restricted funds. The MTI also establishes a priority of payments, which restricts the manner, timing, and sequence of transfers into and out of such funds and accounts, and among such funds and accounts. The MTI requires that the Authority comply with certain operational and financial covenants, restricts the types of investments the Trustee and Authority may make, and requires regular financial reporting and disclosure.

## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)**

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#### ***Net Position***

Net position, the difference between assets, deferred outflows of resources, liabilities, and deferred inflows of resources, decreased by \$59.5 million, or 44.7%, and \$39.8 million, or 47.7%, during the years ended June 30, 2015 and 2014, respectively. The change in net position was primarily the result of interest expenses continuing to exceed operating income and losses on the sale and transfer of assets held for sale and transfer. In fiscal years 2015 and 2014, operating revenues of \$110.4 million and \$113.8 million, respectively, were not sufficient to cover the interest expense of \$111.7 million and \$116.2 million in fiscal years 2015 and 2014, respectively. The remaining change is the result of depreciation of \$21.2 million in fiscal year 2015 and \$21.3 million in fiscal year 2014. In addition, in 2015, there was \$26.3 million in losses on the sale and transfer of parcels initially acquired for the development of the Corridor, but ultimately determined not to be necessary for ongoing operations. Two parcels were sold publicly and the remaining were transferred to other government entities, as appropriate (Note 4).

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)

### Summary of Changes in Net Position

The table below summarizes the changes in net position for the years ended June 30, 2015, 2014, and 2013:

	Year Ended June 30			Change	Change
	2015	2014 (As Restated)	2013 (As Restated)	Between 2015 and 2014	Between 2014 and 2013
Operating revenues					
Use fees and container charges	\$ 105,518,770	\$ 108,998,890	\$ 99,358,973	\$ (3,480,120)	\$ 9,639,917
Maintenance-of-way charges	4,856,519	4,788,030	4,557,706	68,489	230,324
Total operating revenues	110,375,289	113,786,920	103,916,679	(3,411,631)	9,870,241
Operating expenses					
Salaries and benefits	1,860,394	1,708,783	2,154,998	151,611	(446,215)
Administrative expenses and professional services	2,266,204	2,473,906	2,557,911	(207,702)	(84,005)
Maintenance-of-way charges	6,738,543	6,039,975	6,204,519	698,568	(164,544)
Depreciation	21,244,199	21,308,675	21,304,024	(64,476)	4,651
Total operating expenses	32,109,340	31,531,339	32,221,452	578,001	(690,113)
Operating income	78,265,949	82,255,581	71,695,227	(3,989,632)	10,560,354
Nonoperating revenues (expenses)					
Interest and investment income, net	2,413,719	2,230,983	3,111,174	182,736	(880,191)
Interest expense	(111,683,412)	(116,183,634)	(109,435,367)	4,500,222	(6,748,267)
Grant revenues	3,479,593	8,158,398	4,168,478	(4,678,805)	3,989,920
Miscellaneous revenues	193,220	188,533	499,967	4,687	(311,434)
Expenses for public benefit	(4,195,569)	(3,460,496)	(5,216,480)	(735,073)	1,755,984
Loss on sale and transfers of assets held for sale and transfer	(26,328,348)	(13,011,363)	-	(13,316,985)	(13,011,363)
Bond issuance costs	-	-	(4,372,302)	-	4,372,302
Total nonoperating expenses	(136,120,797)	(122,077,579)	(111,244,530)	(14,043,218)	(10,833,049)
Changes in net position	(57,854,848)	(39,821,998)	(39,549,303)	(18,032,850)	(272,695)
Net position, beginning of the year, as originally presented	-	-	(18,590,091)	(39,821,998)	(74,736,971)
Cumulative effect of restatement	-	-	(35,187,668)	-	35,187,668
Net position, beginning of the year, as restated	(133,149,060)	(93,327,062)	(53,777,759)	(39,821,998)	(39,549,303)
Cumulative effect of change in accounting principle	(1,688,512)	-	-	(1,688,512)	-
Net position, beginning of the year, as restated	(134,837,572)	(93,327,062)	(53,777,759)	(41,510,510)	(39,549,303)
Net position, end of year	<u>\$ (192,692,420)</u>	<u>\$ (133,149,060)</u>	<u>\$ (93,327,062)</u>	<u>\$ (59,543,360)</u>	<u>\$ (39,821,998)</u>



## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)**

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### ***Operating Revenues***

Use fees and container charges revenues, representing 95.6% and 95.8% of operating revenues, decreased by \$3.5 million and increased by \$9.6 million, or 3.2% and 9.7%, in 2015 and 2014, respectively. The 2015 decrease is primarily due to a volume decrease following the 2014/2015 productivity and labor disruption.

The increase in fiscal year 2014 was due to the higher volume of cargo and annual fee increases of 1.5% that became effective on January 1, 2014.

### ***Operating Expenses***

Operating expenses consist of salaries and benefits, administrative expenses, professional services, maintenance of way, and depreciation. During the year ended June 30, 2015, operating expenses increased by \$0.6 million or 1.8%. The increase in 2015 is primary related to increased maintenance-of-way charges as well as higher salary and benefit costs. During the year ended June 30, 2014, operating expenses decreased by \$0.7 million, or 2.1%. The decrease in 2014 is primarily related to the reductions of \$0.45 million in salaries and benefits due to severance packages paid out in fiscal year 2013.

### ***Nonoperating Revenues and Expenses***

Nonoperating revenues and expenses consist of interest and investment earnings, interest expense, grant revenues, miscellaneous revenues, losses on assets held for sale and transfer, expenses for public benefit, and amortization of bond issuance costs.

The 2015 increase in nonoperating revenues and expenses was primarily due to \$13.3 million of additional losses from the sale and transfer of assets held for sale and transfer in relation to 2014 and the decrease of \$4.7 million in grant revenue due to recognition of grant funds previously reported as unearned revenue. Excess parcels or portions thereof and easement rights are in the process of being sold or transferred, as appropriate. At the conclusion of this process, all remaining parcels and easement rights will be transferred to the Ports of Los Angeles and Long Beach, as tenants in common. This increase was partially offset by a \$4.5 million decrease in interest expense.

The 2014 decrease of \$10.8 million is primarily the result of an increase of \$2.8 million in nonoperating revenues offset by an increase of \$13.6 million in nonoperating expenses. The increase in nonoperating revenues was primarily the result of an increase of \$4.0 million in grant revenues. State Route 47 Expressway (SR-47) project costs decreased by \$1.6 million; however, that was offset by an increase of \$5.6 million due to recognition of funds previously reported as unearned revenue. The increase in nonoperating expenses is primarily the result of a \$13.0 million loss on the transfer of real estate, an increase in interest expense of \$6.7 million offset by a decrease of \$4.4 million in bond issuance costs. The Authority recognized the transfer of 43 property parcels/easements during fiscal year 2014. The increase in interest expense is due to the 2004A convertible capital appreciation bonds (CAB) which, beginning October 2012, converted to current interest bonds. Therefore, these bonds began paying interest in fiscal year 2014. Lastly, bond issuance costs decreased \$4.4 million. In fiscal year, 2013, the Authority issued 2013A series bonds and incurred \$4.4 million in associated issuance costs. There were no bonds issued in 2014; therefore, no bond issuance costs were incurred.

## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)**

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### **Capital Assets and Debt Administration**

At June 30, 2015 and 2014, the Authority had approximately \$1.64 billion and \$1.66 billion, respectively, of capital assets and approximately \$2.1 billion in outstanding long-term debt.

#### ***Capital Assets***

During fiscal years 2015 and 2014, the Authority expended \$0.09 million and \$0.24 million, respectively, on capital project activities. In 2015 and 2014, the Authority's additions were primarily related to closeout/parcel transfer activities.

#### ***Long-Term Debt***

As of June 30, 2015 and 2014, the Authority's total long-term debt in revenue bonds was \$1.601 billion and \$1.642 billion. In addition, accrued interest payable was \$455.9 million and \$416.6 million, during fiscal years 2015 and 2014, respectively.

As of June 30, 2015, ACTA's credit ratings for the Senior Bonds (1999A, 1999C, 2012, and 2013A) are A3, A-, and A by Moody's Investor Service, Standard & Poor's, and Fitch Ratings, respectively. For the subordinated debt (2004A and 2004B), the ratings are Baa2, BBB+, and BBB+ by Moody's Investor Service, Standard & Poor's, and Fitch Ratings, respectively.

Additional debt information can be found in Note 6 to the basic financial statements.

### **Other Developments**

The Authority's Alameda Corridor Project opened on April 15, 2002. On that date, the Authority commenced operations and began collecting revenues for intermodal containers and rail cars using the Corridor, as authorized in the Use and Operating Agreement between the Authority and the participating railroads (Use and Operating Agreement). The Authority's bonds are payable solely from and secured by a pledge of, among other revenues, use fees, container charges to be paid by the railroads, and shortfall advances to be paid under certain circumstances by the Ports of Los Angeles and Long Beach (collectively referred to as the Ports). To the extent that the revenues from use and container charges are not sufficient to meet the Authority's obligations, the Ports have agreed to advance the funds necessary to pay up to the maximum amount of 20% each for any debt service payment. From inception until the fiscal year ended June 30, 2015, approximately \$1.118 billion has been received from the railroads. These revenues, combined with remaining interest income and other surplus cash balances, have been sufficient to meet debt services, fund reserve account required deposits, and pay the cost of revenue collections, monitoring, and administrative fees, except for in fiscal years 2012 and 2013, when shortfall advances totaling \$11.8 million were needed.

## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)**

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The Authority's program manager, Alameda Corridor Engineering Team (ACET), together with the Authority's staff are actively working to close out the remaining completed projects from the original Corridor projects as well as to support Caltrans on the SR-47 project as outlined in cooperative agreements. Remaining work involves property transfers, right-of-way closeouts, and support on the SR-47 Project.

The Authority's Governing Board (the Board) modified the Corridor to include the addition of several Corridor-related projects, consistent with the Authority's Joint Powers Agreement, Use and Operating Agreement between the Authority and participating railroads (the Use and Operating Agreement), and its bond-related documents. Significant among those projects are the Pacific Coast Highway (PCU) and SR-47 Projects. The PCH project was completed in August 2004. The SR-47 Project has progressed, and the Authority is currently working in conjunction with Caltrans to advance the Heim Bridge portion of the project. The National Environmental Policy Act (NEPA) Record of Decision was approved on August 12, 2009; the Notice of Determination was received on August 17, 2009. The final design for replacement of the Bridge was completed in October 2010. Construction of the bridge is being administered by Caltrans and is underway. Construction is expected to be completed in December 2017, with full closeout set to occur in 2018.

At June 30, 2015, the Authority's total net position is a negative \$192.7 million as total liabilities were greater than total assets. The Authority's net position continued to decline during fiscal 2015 primarily due to interest expenses exceeding operating and nonoperating revenue, and transfer of properties to City and County of Los Angeles. The Authority has continued to engage in activities to prevent further decline in its net position and improve the overall financial condition of the Authority. In previous years, the Authority instituted programs to reduce costs by reducing or freezing staff costs and implementing programs to reduce debt service costs by refinancing a portion of its outstanding bonds. The Authority will continue to evaluate alternative debt refinancing options to generate economic savings. Although the Authority does not expect to require shortfall advances from the Ports within the next fiscal year, the ability to request advances remains an option to the Authority. In addition to reducing costs, the Authority has forecasted that cargo volumes will increase in the future based on cargo volumes projected from the Ports, resulting in greater revenues for the Authority to fund future debt service requirements.

### **Contacting the Authority's Financial Management**

The financial report is designed to provide a general overview of the Authority's finances for all those with an interest. Questions concerning any of the information provided in this report or request for additional financial information should be addressed to the Chief Financial Officer, Alameda Corridor Transportation Authority, 3760 Kilroy Airport Way, Suite 200, Long Beach, California, 90806.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## STATEMENTS OF NET POSITION

### ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

	June 30,	
	2015	2014 (As Restated)
<b>CURRENT ASSETS</b>		
Restricted cash and cash equivalents	\$ 14,058,615	\$ 25,396,418
Restricted investments	54,079,502	44,027,480
Receivables	18,761,083	11,830,166
Prepaid expenses	1,394,441	1,459,520
Total current assets	<u>88,293,641</u>	<u>82,713,584</u>
Restricted investments held with fiscal agent	9,068,836	8,197,471
Restricted investments	104,094,558	122,562,803
Assets held for sale and transfer	112,537,294	139,332,555
Net OPEB asset	355,875	363,180
Capital assets, net	<u>1,640,450,554</u>	<u>1,661,605,137</u>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>	<u>196,611</u>	<u>-</u>
Total assets and deferred outflows of resources	<u><u>\$ 1,954,997,369</u></u>	<u><u>\$ 2,014,774,730</u></u>

### LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION

<b>CURRENT LIABILITIES</b>		
Accounts payable	\$ 1,865,576	\$ 2,069,849
Unearned revenue	1,411,083	1,210,698
Accrued interest payable, current portion	27,424,030	27,862,616
Revenue bonds payable, current portion	37,013,485	37,889,513
Other liabilities	<u>423,943</u>	<u>391,220</u>
Total current liabilities	68,138,117	69,423,896
Collateral deposit	9,068,836	8,197,471
Shortfall advances to Ports	11,837,523	11,827,466
Net pension liability	1,438,008	-
Accrued interest payable, net current portion	455,877,061	416,594,044
Revenue bonds payable, net of current portion and unamortized discount	<u>1,600,927,217</u>	<u>1,641,880,913</u>
Total liabilities	<u>2,147,286,762</u>	<u>2,147,923,790</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>	<u>403,027</u>	<u>-</u>
<b>NET POSITION</b>		
Net investments in capital assets	155,907,566	135,232,427
Restricted, expendable for		
Debt service	88,219,461	91,301,757
Capital projects	542,172	1,640,793
Master Trust Indenture	74,479,257	83,618,810
Unrestricted (deficit)	<u>(511,840,876)</u>	<u>(444,942,847)</u>
Total net position	<u>(192,692,420)</u>	<u>(133,149,060)</u>
Total liabilities, deferred inflows of resources, and net position	<u><u>\$ 1,954,997,369</u></u>	<u><u>\$ 2,014,774,730</u></u>

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION**

	Years Ended June 30,	
	2015	2014
		(As Restated)
OPERATING REVENUES		
Use fees and container charges	\$ 105,518,770	\$ 108,998,890
Maintenance-of-way charges	4,856,519	4,788,030
Total operating revenues	110,375,289	113,786,920
OPERATING EXPENSES		
Salaries and benefits	1,860,394	1,708,783
Administrative expenses	1,521,284	1,524,456
Professional services	744,920	949,450
Maintenance of way	6,738,543	6,039,975
Depreciation	21,244,199	21,308,675
Total operating expenses	32,109,340	31,531,339
Operating income	78,265,949	82,255,581
NONOPERATING REVENUES (EXPENSES)		
Interest and investment revenue, net	2,413,719	2,230,983
Grant revenues	3,479,593	8,158,398
Miscellaneous revenue	193,220	188,533
Interest expense	(111,683,412)	(116,183,634)
Expenses for public benefit	(4,195,569)	(3,460,496)
Loss on transfer of assets held for sale and transfer	(26,328,348)	(13,011,363)
Total nonoperating expenses, net	(136,120,797)	(122,077,579)
Changes in net position	(57,854,848)	(39,821,998)
NET POSITION, beginning of the year, as previously reported	-	(53,421,063)
Cumulative effect of restatement (Note 12)	-	(39,905,999)
NET POSITION, beginning of the year, as restated	(133,149,060)	(93,327,062)
Cumulative effect of change in accounting principle (Note 9)	(1,688,512)	-
NET POSITION, beginning of the year, as restated	(134,837,572)	(93,327,062)
NET POSITION, end of year	\$ (192,692,420)	\$ (133,149,060)

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**STATEMENTS OF CASH FLOWS**

	Years Ended June 30,	
	2015	2014
		(As restated)
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Receipts from customers for services	\$ 103,799,828	\$ 117,841,043
Payment to suppliers for goods and services	(9,143,941)	(8,892,544)
Payments to employees	(1,864,454)	(1,705,213)
Net cash provided by operating activities	92,791,433	107,243,286
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES</b>		
Grants	3,311,492	1,943,103
Payments for assets held for sale and transfer	(10,876)	(4,020)
Payments for expenses for public benefit	(4,195,569)	(3,460,496)
Receipts for miscellaneous income	671,009	188,535
Net cash used in noncapital financing activities	(223,944)	(1,332,878)
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Purchases of capital assets	(89,616)	(239,525)
Principal paid on notes and bonds payable	(41,829,724)	(31,869,986)
Interest payments on capital debt	(72,828,924)	(67,780,360)
Net cash used in capital and related financing activities	(114,748,264)	(99,889,871)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchases of investments	(79,778,463)	(136,329,476)
Sales of investments	88,194,686	136,839,347
Interest received	2,426,749	2,271,829
Net cash provided by investing activities	10,842,972	2,781,700
<b>NET (DECREASE) INCREASE IN RESTRICTED CASH AND CASH EQUIVALENTS</b>	(11,337,803)	8,802,237
<b>RESTRICTED CASH AND CASH EQUIVALENTS, beginning of year</b>	25,396,418	16,594,181
<b>RESTRICTED CASH AND CASH EQUIVALENTS, end of year</b>	\$ 14,058,615	\$ 25,396,418

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**STATEMENTS OF CASH FLOWS (continued)**

	Years Ended June 30,	
	2015	2014
		(As restated)
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Operating income	\$ 78,265,949	\$ 82,255,581
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation expense	21,244,199	21,308,675
Changes in operating assets, deferred outflows of resources, liabilities, and deferred inflows of resources		
Receivables	(6,575,461)	4,054,123
Prepaid expenses	65,079	25,837
Net OPEB asset	7,305	(4,797)
Deferred outflows/inflows of resources	206,416	-
Accounts payable	(204,273)	(404,500)
Net pension liability	(250,504)	-
Other liabilities	32,723	8,367
Net cash provided by operating activities	<u>\$ 92,791,433</u>	<u>\$ 107,243,286</u>
NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES		
Losses on sales and transfers for assets held for sale and transfer	<u>\$ 26,328,348</u>	<u>\$ 13,011,363</u>

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### **Note 1 - Organization and Summary of Significant Accounting Policies**

**Reporting entity** - The Alameda Corridor Transportation Authority (the Authority) was established in August 1989 through a Joint Exercise of Powers Agreement (JPA) between the cities of Los Angeles and Long Beach, California. The purpose of the Authority is to acquire, construct, finance, and operate a consolidated transportation corridor, including an improved railroad expressway between the ports of Los Angeles and Long Beach (collectively known as the Ports) and downtown Los Angeles (the route between the two locations has become known as the Alameda Corridor).

The Authority's independent Governing Board has seven members, comprising two members each from the Ports, one member each from the cities of Los Angeles and Long Beach, and one member representing the Los Angeles County Metropolitan Transportation Authority (LACMTA).

As of June 30, 2015, the members of the Authority's Governing Board were the following:

Chairperson - Mr. Joe Buscaino, Council member, City of Los Angeles  
Vice Chairperson - Ms. Lena Gonzalez, Council member, City of Long Beach  
Member - Hon. Don Knabe, Supervisor, County of Los Angeles and Chairperson, LACMTA  
Member - Mr. Eugene Seroka, Executive Director, Port of Los Angeles  
Member - Mr. Jon Slingerup, Executive Director, Port of Long Beach  
Member - Mr. Richard Dines, Commissioner, Port of Long Beach  
Member - Mr. Edward Renwick, Commissioner, Port of Los Angeles

The Authority is empowered to explore alternative methods of financing, to develop existing property, and to coordinate other governmental efforts necessary for a consolidated transportation corridor, including the completion of the Alameda Corridor Project (the Project). The Authority may issue revenue bonds to carry out its obligations under the JPA. Such bonds will be payable from revenues generated from the Alameda Corridor, from one or more pledges of revenues from the Authority, the Board of Harbor Commissioners of Long Beach and Los Angeles, from pledges of revenues from other responsible agencies, or from any other legally available funds.

**Program management agreement** - In January 1996, the Authority's Governing Board entered into a 10-year Program Management Agreement (Agreement) with the Alameda Corridor Engineering Team (ACET), a joint venture comprising Daniel, Mann, Johnson, and Mendenhall (now AECOM); Moffatt and Nichol Engineers; Jenkins, Gales, and Martinez, Inc.; and TELACU Construction Management, Inc., to provide the broad program management services necessary to assist the Authority in implementing the Corridor. The Agreement calls for ACET to provide the Authority with professional services related to management, engineering, construction support, procurement, coordination, and administration of the Alameda Corridor Project Construction Program. This Agreement was amended twice by the Governing Board and is now extended through June 30, 2016.



## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

### NOTES TO FINANCIAL STATEMENTS

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#### **Note 1 - Organization and Summary of Significant Accounting Policies (continued)**

**Use and operating agreement** - In October 1998, the cities of Long Beach and Los Angeles, the Authority, Union Pacific Railroad Company (UP), and Burlington Northern Santa Fe Railway Company (BNSF) entered into a use and operating agreement (the Use and Operating Agreement or UOA), which outlines the provisions for the construction, operation, and use of the Rail Corridor (as defined in the UOA). Specifically, it grants UP and BNSF the right to use the Rail Corridor constructed by the Authority for all Through Train (as defined in the UOA) movements upon substantial completion in exchange for paying maintenance, operating charges, container charges, and use fees to the Authority. Proceeds of the container charges and use fees will be used to repay the revenue bonds. The Use and Operating Agreement was amended in 2006 to resolve a dispute involving application of the container charge and use fee provisions of the Agreement to transloaded cargo. The UOA requirements are to be in effect until the earlier of April 15, 2062, or repayment of all obligations under the UOA.

**Master trust indenture** - In conjunction with the sale of project revenue and refunding bonds in 1999, 2004, 2012, and 2013A (Bonds), the Authority entered into a Master Trust Indenture (MTI) with U.S. Bank, the bond trustee (Trustee), pursuant to which the Authority assigned all of its rights, title, and interest in and to the Project, including the receipt of certain use fees and container charges and other revenues known as "the Authority revenues" to the Trustee as security for the repayment of the Bonds. Pursuant to the terms of the MTI, the Trustee is required to establish certain funds and accounts and to apply the Authority's revenues for the purposes specifically set forth therein, which include the payment of most operating expenses and debt service payments. The MTI establishes debt service funds, debt service reserve funds, construction funds, maintenance and capital reserve funds, and certain other restrictive funds. The MTI also establishes a priority of payments, which restricts the manner, timing, and sequence of transfers into and out of such funds and accounts, and among such funds and accounts. The MTI requires that the Authority comply with certain operational and financial covenants, restricts the types of investments the Trustee and Authority may make, and requires regular financial reporting and disclosure. The Authority's net position restricted by the MTI included in the accompanying statements of net position of \$74,479,527 and \$83,618,810 as of June 30, 2015 and 2014, respectively, represents the accumulation of the Authority's revenues in excess of operating expenses and debt payments that can only be used for the aforementioned purposes noted in the MTI.

**Basis of presentation** - The basic financial statements of the Authority have been prepared in conformity with U.S. generally accepted accounting principles (GAAP) as applied to governmental units and the State Controller's Minimum Audit Requirements and Reporting Guidelines. The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles for state and local governments within the United States of America.

In accordance with GAAP, the Authority's operations are accounted for as a business-type activity. In this regard, the Authority follows the economic resources measurement focus and the accrual basis of accounting, whereby revenues are recognized when they are earned, and expenses are recorded when they are incurred, irrespective of when paid.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 1 - Organization and Summary of Significant Accounting Policies (continued)

**Restricted cash and cash equivalents** - The Authority has defined, for purposes of the preparation of its statements of cash flows, that cash and cash equivalents include deposits, money market accounts, and investments with an original maturity date of three months or less, including investments in the State of California Local Agency Investment Fund (LAIF). The Authority participates in the State of California's LAIF, a non-Securities and Exchange Commission registered investment pool open to all government units in the State of California and is able to withdraw amounts from LAIF on demand without penalty.

**Investments** - Investments are stated at fair value. The value of each investment security has been determined based on the published closing price of the security as of June 30, 2015 and 2014. The net changes in fair value of investments, consisting of realized gains or losses and the unrealized appreciation/depreciation on those investments, have been included in interest and investment revenue as shown in the accompanying statements of revenues, expenses, and changes in net position.

The Authority's investment practices are governed by a board-approved investment policy. The types of investment authorized by the policy are described further in Note 2.

**Assets held for sale and transfer** - Remaining right-of-way parcels that require a transfer or sale are valued based upon the known costs paid at the time the parcel was originally acquired, and additional costs associated with the legal transfer and sale process.

**Capital assets** - Capital assets purchased or constructed are carried at cost, including capitalized interest during construction. Donated assets are valued at the estimated fair value on the date received. Depreciation is provided over the estimated useful life of each asset and computed on a straight-line basis beginning with the fiscal year after the asset is placed in service. Trench structures, tracks and signals, rail bridge structures, and highway bridge structures include both depreciable and nondepreciable components.

Estimated useful lives of classes of capital assets are as follows:

Tenant improvements	3 years
Automotive vehicles	5 years
Office and other equipment	3-5 years
Buildings	30 years
Revenue assessment and verification system and other software	5 years
Tracks and signal systems	40 years
Roads	50 years
Highway bridge structures	100 years
Trench structures	100 years
Rail bridge structures	100 years

Capital assets acquired with state and local grants are also included in property and equipment. Depreciation on these assets are recorded as operating expenses.

## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

### NOTES TO FINANCIAL STATEMENTS

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#### Note 1 - Organization and Summary of Significant Accounting Policies (continued)

**Restricted assets and net position** - Certain proceeds of the Authority's revenue bonds, as well as certain resources set aside for their repayment, are classified as restricted assets on the statements of net position because their use is limited by applicable bond covenants. The revenue bonds' accrued interest, debt service reserve, indemnity, and revenue fund accounts have been classified as restricted assets, because these accounts are first restricted to the payment of interest and principal on the outstanding revenue bonds. These amounts, offset by any related outstanding debt, are reported as net position restricted for debt service. After payment of debt service, remaining revenues, if any, are restricted to the payment of the Authority's other costs and legal obligations (e.g., Port Shortfall Advances) as defined by the Authority's Use and Operating Agreement. The Reserve Account has also been classified as restricted assets, because the amount in this account is restricted for specific purposes under the Use and Operating Agreement and the revenue bond covenants. These amounts, offset by any related outstanding liabilities, are reported as net position restricted by the Master Trust Indenture.

Remaining long-term debt proceeds that have been set aside for capital projects are also reported as restricted assets. When both restricted and unrestricted resources are available for use, it is the Authority's practice to use restricted resources first, and then unrestricted resources as they are needed.

The Authority's net position as of June 30, 2015, is a negative \$192.7 million because total liabilities and deferred inflows of resources were greater than total assets and deferred outflows of resources due to accumulating accreted interest on revenue bonds payable. The Authority's interest cash payments are lower than recorded interest expense because the bonds are capital appreciation bonds, which compound interest until final maturity. As a result, the Authority is able to maintain a liquid financial position. Management believes that it will be able to sustain its liquidity based on the terms of the bonds payable and through shortfall advances from the Ports, if necessary, as discussed further in Note 6.

**Compensated absences** - All Authority employees accumulate time off for vacation and sick leave each pay period. While sick leave hours are accrued at a uniform rate among all employees, vacation accrual is based on length of service. Vacation hours are payable to employees when used at the individual employee's current rate of pay. Any unused vacation remaining at the time of termination is also payable to the employee at his/her then rate of pay. All vacation hours that have been earned but not paid as of June 30, 2015 and 2014, have been accrued in the accompanying statements of net position in other liabilities. Sick hours are paid to employees when used. The Authority's sick leave policy also provides that employees will be paid 50% of the remaining value of their sick leave hours upon termination. Consequently, 50% of all unused sick hours for all employees totaling \$208,316 and \$175,416 as of June 30, 2015 and 2014, respectively, have also been accrued in other liabilities of the accompanying statement of net position.

## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

### NOTES TO FINANCIAL STATEMENTS

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#### **Note 1 - Organization and Summary of Significant Accounting Policies (continued)**

**Collateral deposit** - In conjunction with the 1999, 2012, and 2013A series bonds issued by the Authority, the Authority also entered into a Forward Delivery Agreement (FDA) for debt service funds with a Trustee and a Provider. As noted in the FDA, the Provider guarantees a rate of return on debt service funds deposited with the Trustee. The FDA also includes a provision, which requires that, in the event of a downgrade of the Provider's long-term unsecured credit rating, the Provider is required to (i) procure a guarantor, (ii) assign its rights to another higher-rated financial institution, or (iii) deliver collateral to the Trustee in the name of the Authority and the Trustee. In 2011, the Provider's credit rating was downgraded and the Provider elected to deliver collateral to comply with the FDA. As a result, the Authority received the collateral in the form of approximately \$11.0 million in U.S. Treasury securities. As of June 30, 2015 and 2014, the carrying value was \$9,068,836 and \$8,197,471 and recorded within restricted investments held with fiscal agent on the statements of net position. If the Provider's credit rating recovers, the Authority will then return the collateral; therefore, the Authority has recorded a corresponding liability for the collateral deposit due to the Provider.

**Pensions** - For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Agency of California Public Employees' Retirement System (CalPERS) plans (Plans), and additions to/deductions from the Plans' fiduciary net position have been determined on the same basis as they are reported by CalPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Operating revenues and expenses** - Operating revenues and expenses generally result from the operation of the Rail Corridor. The principal operating revenues of the Authority are fees assessed to the railroads for use and maintenance of the Corridor. These fees are recognized in the period earned. Operating expenses include revenue collection and other administrative expenses, maintenance, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

**Use of estimates** - The preparation of basic financial statements in conformity with GAAP requires that management make estimates and assumptions that may affect the reported amount of assets, deferred outflows of resources, liabilities, deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the basic financial statements and the reported amount of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Reclassifications** - Certain reclassifications have been made to the 2014 and 2013 financial data to conform to the 2015 presentation.

## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

### NOTES TO FINANCIAL STATEMENTS

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#### Note 2 - Restricted Cash, Cash Equivalents, and Investments

Cash, cash equivalents, and investments as of June 30, 2015 and 2014, are classified in the accompanying basic financial statements as follows:

	June 30, 2015 Fair Value	June 30, 2014 Fair Value
Current restricted cash and cash equivalents	\$ 14,058,615	\$ 25,396,418
Current restricted investments	54,079,502	44,027,480
Noncurrent restricted investments held with fiscal agent	9,068,836	8,197,471
Noncurrent restricted investments	<u>104,094,558</u>	<u>122,562,803</u>
 Total restricted cash, cash equivalents, and investments	 <u>\$ 181,301,511</u>	 <u>\$ 200,184,172</u>

**Deposits** - At June 30, 2015 and 2014, the net carrying amount of the Authority's deposit account with Bank of America was \$2,519,786 and \$514,159, while the corresponding bank balance was \$2,530,520 and \$852,848, respectively. Outstanding checks account for the respective differences between the carrying amounts and bank balances. Of the aforementioned bank balance, \$250,000 is covered by the Federal Deposit Insurance Corporation, with the excess being secured with collateral of securities held by the pledging financial institution's trust or agent in the Authority's name.

The California Government Code Section 53601 requires California banks and savings and loan associations to secure a public agency's deposits not covered by federal depository insurance by pledging government securities as collateral. The carrying amount of pledged securities must equal at least 110% of the agency's deposits. California law also allows financial institutions to secure agency deposits by pledging first trust deed mortgage notes having a value of 150% of the Authority's total deposits. The collateral must be held at the pledging bank's trust department or other bank acting as the pledging bank's agent in the Authority's name.

**Investments** - The Authority's investments are invested pursuant to the investment policy guidelines adopted by the Governing Board of the Authority. The objectives of the policy are, in order of priority, preservation of capital, liquidity, and yield. The policy addresses the types of investment instruments and the percentage of the portfolio in which the Authority may invest its funds as permitted by the California Government Code. Generally, investments shall be made in the context of the "prudent investor" rule.

**Investment in State of California Local Agency Investment Pool** - The Authority is a voluntary participant in the LAIF that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. The fair value of the Authority's investment in this pool is reported in the accompanying statements of net position as restricted cash equivalents at amounts based upon the Authority's pro rata share of the fair value provided by LAIF for the entire LAIF portfolio. The balance available for withdrawal is based on the accounting records maintained by LAIF, which is recorded at fair value. Amounts up to \$10 million can be withdrawn on demand. At June 30, 2015 and 2014, the fair value of the balance of such deposits is \$6,975,577 and \$8,929,731, respectively.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 2 - Restricted Cash, Cash Equivalents, and Investments (continued)

**Interest rate risk** - Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity its fair value is to changes in market interest rates. One of the ways that the Authority manages its exposure to interest rate risk is by purchasing a combination of short-term and medium-term investments, and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturity evenly over time as necessary to provide the cash flow and liquidity needed for operations. The Authority monitors the interest rate risk inherent in its portfolio by measuring the weighted-average maturity of its portfolio. The Authority has no specific limitations with respect to this metric.

Under provision of the Authority's investment policy, and in accordance with Section 53601 of the California Government Code, the Authority may invest in the following types of investments:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment in One Issuer
Authority bonds	N/A	None	N/A
U.S. Treasury bills, notes, or bonds	5 years	None	None
State warrants or bonds	None	None	None
U.S. local agency bonds, notes, or warrants	None	None	None
Federal Agency obligations	5 years	None	None
Callable federal agency securities	5 years	20%	None
Bankers' acceptances	180 days	40%	10%
Commercial paper	270 days	25%	10%
Negotiable certificates of deposit	2 years	30%	None
Repurchase agreements	90 days	50%	None
State of California Local Agency Investment Fund (LAIF)	N/A	None	None
Time deposits	1 year	15%	None
L.A. County Treasurer Investment Pool	N/A	None	None
Money market funds	None	20%	10%
Medium-term maturity corporate notes	None	30%	10%
Mortgage- or asset-backed securities	5 years	20%	None

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 2 - Restricted Cash, Cash Equivalents, and Investments (continued)

The MTI allows for exception of the maximum maturity prescript in the Authority's investment policy. The Authority is allowed a maximum maturity of five years for investments in the debt service reserve funds:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment in One Issuer
U.S. Treasury bills, notes, or bonds	10 years	None	None
State warrants or bonds	10 years	None	None
U.S. local agency bonds, notes, or warrants	10 years	None	None
Federal Agency obligations	10 years	None	None
Bankers' acceptances	270 days	40%	10%
Commercial paper	180 days	15%	10%
Negotiable certificates of deposit	2 years	30%	None
Repurchase agreements	90 days	50%	None
State of California Local Agency Investment Fund (LAIF)	N/A	None	None
L.A. County Treasurer Investment Pool	N/A	None	None
Money market funds	None	20%	10%
Medium-term maturity corporate notes	3 years	30%	8%
Guaranteed Investment Contracts and Investment Agreements	10 years	50%	20%
Mortgage- or asset-backed securities	10 years	20%	None

The following schedules indicate the interest rate risk of the Authority's investments as of June 30:

	2015		2014	
	Fair Value	Weighted-Average Maturity (in Years)	Fair Value	Weighted-Average Maturity (in Years)
Cash and investment type				
Cash	\$ 500	-	\$ 500	-
Money market fund	7,082,538	-	11,157,777	-
LAIF	6,975,577	-	8,929,731	-
U.S. Treasury notes	39,026,620	1.78	64,244,895	1.16
U.S. corporate notes	17,299,445	2.08	16,791,487	2.10
Commercial paper	1,278,161	0.34	2,856,887	0.39
Federal agency obligations	109,638,670	1.80	96,202,895	1.79
	<u>\$ 181,301,511</u>	1.67	<u>\$ 200,184,172</u>	1.41

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 2 - Restricted Cash, Cash Equivalents, and Investments (continued)

**Disclosure relating to credit risk** - Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum of a rating by (where applicable) the Authority's investment policy, debt agreements, and the actual rating as of year-end for each investment type:

Investment type	Ratings as of June 30, 2015								Total
	AAA / AA+	AA	AA- / A+	A	A-	A-1+	A-1	NR	
Cash and money market	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,083,038	\$ 7,083,038
LAIF	-	-	-	-	-	-	-	6,975,577	6,975,577
U.S. Treasury notes	39,026,620	-	-	-	-	-	-	-	39,026,620
U.S. corporate notes	2,445,457	1,329,453	7,387,776	6,136,759	-	-	-	-	17,299,445
Commercial paper	-	-	-	-	-	548,891	729,270	-	1,278,161
Federal agency obligations	77,746,347	-	-	-	-	31,892,323	-	-	109,638,670
<b>Total</b>	<b>\$ 119,218,424</b>	<b>\$ 1,329,453</b>	<b>\$ 7,387,776</b>	<b>\$ 6,136,759</b>	<b>\$ -</b>	<b>\$ 32,441,214</b>	<b>\$ 729,270</b>	<b>\$ 14,058,615</b>	<b>\$ 181,301,511</b>

Investment type	Ratings as of June 30, 2014								Total
	AAA / AA+	AA	AA- / A+	A	A-	A-1+	A-1	NR	
Cash and money market	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,158,277	\$ 11,158,277
LAIF	-	-	-	-	-	-	-	8,929,731	8,929,731
U.S. Treasury notes	64,244,895	-	-	-	-	-	-	-	64,244,895
U.S. corporate notes	2,334,088	1,802,846	5,853,998	5,895,647	904,908	-	-	-	16,791,487
Commercial paper	-	-	-	-	-	764,065	2,092,822	-	2,856,887
Federal agency obligations	83,323,233	-	-	-	-	12,879,662	-	-	96,202,895
<b>Total</b>	<b>\$ 149,902,216</b>	<b>\$ 1,802,846</b>	<b>\$ 5,853,998</b>	<b>\$ 5,895,647</b>	<b>\$ 904,908</b>	<b>\$ 13,643,727</b>	<b>\$ 2,092,822</b>	<b>\$ 20,088,008</b>	<b>\$ 200,184,172</b>

**Concentration of credit risk** - The Authority's investment policy contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of the total Authority's investments are as follows:

		June 30	
		2015	2014
Federal Home Loan Bank	Federal agency obligations	\$ 20,378,661	\$ 20,532,624
Federal National Mortgage Association	Federal agency obligations	49,652,821	40,445,120
Federal Home Loan Mortgage Corporation	Federal agency obligations	36,669,151	29,663,069
		<b>\$ 106,700,633</b>	<b>\$ 90,640,813</b>



# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 3 - Receivables

Receivables consist of grants, use fees, and other amounts due from private entities. The following provides a summary of the amounts of accounts and other receivables:

	June 30	
	2015	2014
Grants receivable	\$ 2,082,258	\$ 1,713,772
Interest receivable	856,338	869,368
Use fees and other receivables	15,822,487	9,247,026
Total	<u>\$ 18,761,083</u>	<u>\$ 11,830,166</u>

### Note 4 - Assets Held for Sale and Transfer

Assets held for sale and transfer represent right-of-way land and land improvements that were acquired by the Authority. Hundreds of parcels and easement rights were acquired in order to complete the construction of the Corridor. The Authority is transferring all excess parcels or portions of parcels and/or easement rights, which are no longer required in order to operate the Corridor, to the appropriate entities. The Authority, under the terms of the joint powers agreement, is not permitted to own any land or land easement rights. The Ports own the land that the trench was built on and the Authority has the right to use and occupy the property under the terms of a Use Permit that was executed between the Ports and the Authority on October 12, 1998. Title to all land and easement rights necessary to operate the Corridor is in the process of being deeded to the Ports, as tenants in common.

The following schedule summarizes assets held for sale and transfer for the years ended June 30, 2015 and 2014:

	Balance, June 30, 2014 (As Restated)	Additions	Sales/Transfers	Balance, June 30, 2015
Assets held for sale and transfer	<u>\$ 139,332,555</u>	<u>\$ 10,876</u>	<u>\$ (26,806,137)</u>	<u>\$ 112,537,294</u>
	Balance, June 30, 2013 (As Restated)	Additions	Sales/Transfers	Balance, June 30, 2014 (As Restated)
Assets held for sale and transfer	<u>\$ 152,339,898</u>	<u>\$ 4,020</u>	<u>\$ (13,011,363)</u>	<u>\$ 139,332,555</u>

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 5 - Capital Assets

The following schedule summarizes capital assets for the years ended June 30, 2015 and 2014:

	Balance, June 30, 2014 (As Restated)	Additions	Deletions	Balance, June 30, 2015
Buildings and equipment				
Automotive vehicles	\$ 82,097	\$ -	\$ -	\$ 82,097
Office equipment	611,899	12,708	-	624,607
Other equipment	186,825	-	-	186,825
Tenant improvements	72,334	-	-	72,334
Buildings	1,102,594	-	-	1,102,594
Revenue assessment and verification system and other software	9,827,107	-	-	9,827,107
Total buildings and equipment	11,882,856	12,708	-	11,895,564
Alameda Corridor Project				
Infrastructure				
Capital assets, being depreciated				
Trench structures	715,581,463	-	-	715,581,463
Track and signals	196,509,123	-	-	196,509,123
Rail bridge structures	408,956,034	16,294	-	408,972,328
Highway bridge structures	147,132,504	42,584	-	147,175,088
Capital assets, not being depreciated				
Trench structures	224,167,723	-	-	224,167,723
Track and signals	66,493,773	-	-	66,493,773
Rail bridge structures	101,779,388	3,665	-	101,783,053
Highway bridge structures	45,689,818	14,365	-	45,704,183
Alameda Corridor Project Infrastructure	1,906,309,826	76,908	-	1,906,386,734
Total capital assets	1,918,192,682	89,616	-	1,918,282,298
Less accumulated depreciation for				
Trench structures	(124,961,077)	(10,430,222)	-	(135,391,299)
Track and signals	(35,468,053)	(3,270,175)	-	(38,738,228)
Rail bridge structures	(62,950,761)	(5,296,561)	-	(68,247,322)
Highway bridge structures	(22,225,091)	(1,981,142)	-	(24,206,233)
Automotive vehicles	(82,096)	-	-	(82,096)
Office equipment	(603,898)	(2,471)	-	(606,369)
Other equipment	(186,825)	(2,667)	-	(189,492)
Tenant improvements	(72,334)	-	-	(72,334)
Buildings	(474,730)	(36,753)	-	(511,483)
Revenue assessment and verification system and other software	(9,562,680)	(224,208)	-	(9,786,888)
Total accumulated depreciation	(256,587,545)	(21,244,199)	-	(277,831,744)
Capital assets, net	\$ 1,661,605,137	\$ (21,154,583)	\$ -	\$ 1,640,450,554

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 5 - Capital Assets (continued)

The following schedule summarizes capital assets for the years ended June 30, 2014 and 2013:

	Balance, June 30, 2013 (As Restated)	Additions	Deletions	Balance, June 30, 2014 (As Restated)
Buildings and equipment				
Automotive vehicles	\$ 82,097	\$ -	\$ -	\$ 82,097
Office equipment	603,899	8,000	-	611,899
Other equipment	186,825	-	-	186,825
Tenant improvements	72,334	-	-	72,334
Buildings	1,102,594	-	-	1,102,594
Revenue assessment and verification system and other software	9,796,784	30,323	-	9,827,107
Total buildings and equipment	11,844,533	38,323	-	11,882,856
Alameda Corridor Project				
Infrastructure				
Capital assets, being depreciated				
Trench structures	715,581,463	-	-	715,581,463
Track and signals	196,509,123	-	-	196,509,123
Rail bridge structures	408,956,034	-	-	408,956,034
Highway bridge structures	146,982,052	150,452	-	147,132,504
Capital assets, not being depreciated				
Trench structures	224,167,723	-	-	224,167,723
Track and signals	66,493,773	-	-	66,493,773
Rail bridge structures	101,779,388	-	-	101,779,388
Highway bridge structures	45,639,068	50,750	-	45,689,818
Alameda Corridor Project Infrastructure	1,906,108,624	201,202	-	1,906,309,826
Total capital assets	1,917,953,157	239,525	-	1,918,192,682
Less accumulated depreciation for				
Trench structures	(114,530,854)	(10,430,223)	-	(124,961,077)
Track and signals	(32,197,878)	(3,270,175)	-	(35,468,053)
Rail bridge structures	(57,654,200)	(5,296,561)	-	(62,950,761)
Highway bridge structures	(20,245,871)	(1,979,220)	-	(22,225,091)
Automotive vehicles	(82,096)	-	-	(82,096)
Office equipment	(603,898)	-	-	(603,898)
Other equipment	(186,825)	-	-	(186,825)
Tenant improvements	(72,334)	-	-	(72,334)
Buildings	(437,977)	(36,753)	-	(474,730)
Revenue assessment and verification system and other software	(9,266,937)	(295,743)	-	(9,562,680)
Total accumulated depreciation	(235,278,870)	(21,308,675)	-	(256,587,545)
Capital assets, net	\$ 1,682,674,287	\$ (21,069,150)	\$ -	\$ 1,661,605,137

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 6 - Bonds Payable

The 1999A Series Senior Lien Tax-Exempt Bonds (1999A Bonds), the 1999C Senior Lien Taxable Bonds (1999C Bonds), the 1999D Subordinate Lien Taxable Bonds (1999D Bonds), the 2004A Series Subordinate Lien Tax-Exempt Bonds (2004A Bonds), the 2004B Subordinate Lien Taxable Bonds (2004B Bonds), the 2012 Series Taxable Senior Lien Bonds (2012 Bonds), and the 2013A Series Tax-Exempt Senior Lien Bonds (2013A Bonds) are payable solely from and secured by a pledge of, among other revenues, use fees and container charges to be paid by the UP and BNSF for use of the Project and from shortfall advances to be paid under certain circumstances by the City of Long Beach, acting by and through its Board of Harbor Commissioners, and the City of Los Angeles, acting by and through its Board of Harbor Commissioners. The 1999D Bonds were paid off on October 1, 2014.

As of June 30, 2015 and 2014, the unamortized premium and discount balance on the 1999A and 1999C, 2004A and 2004B, and 2013A Bonds was \$32,857,963 and \$36,798,174, respectively.

Long-term liability activity for the years ended June 30, 2015 and 2014, was as follows:

	Balance, June 30, 2014	Additions	Payments	Balance, June 30, 2015	Due Within One Year
Bonds payable					
1999A Bonds	\$ 50,453,617	\$ -	\$ -	\$ 50,453,617	\$ -
1999C Bonds	497,453,396	-	(3,130,000)	494,323,396	21,290,000
1999D Bonds	16,240,000	-	(16,240,000)	-	-
2004A Bonds	615,657,829	-	(18,519,513)	597,138,316	15,723,485
2004B Bonds	131,132,410	-	-	131,132,410	-
2012 Bonds	83,710,000	-	-	83,710,000	-
2013A Bonds	248,325,000	-	-	248,325,000	-
Total bonds payable	1,642,972,252	-	(37,889,513)	1,605,082,739	37,013,485
Less unamortized bond premium (discounts)	36,798,174	-	(3,940,211)	32,857,963	-
Interest payable					
Accrued interest payable	444,456,660	115,613,565	(76,769,134)	483,301,091	27,424,030
Net long-term liabilities	<u>\$ 2,124,227,086</u>	<u>\$ 115,613,565</u>	<u>\$ (118,598,858)</u>	<u>\$ 2,121,241,793</u>	<u>\$ 64,437,515</u>
	Balance, June 30, 2013	Additions	Payments	Balance, June 30, 2014	Due Within One Year
Bonds payable					
1999A Bonds	\$ 50,453,617	\$ -	\$ -	\$ 50,453,617	\$ -
1999C Bonds	497,453,396	-	-	497,453,396	3,130,000
1999D Bonds	34,200,000	-	(17,960,000)	16,240,000	16,240,000
2004A Bonds	625,637,134	-	(9,979,305)	615,657,829	18,519,513
2004B Bonds	131,132,410	-	-	131,132,410	-
2012 Bonds	83,710,000	-	-	83,710,000	-
2013A Bonds	248,325,000	-	-	248,325,000	-
Total bonds payable	1,670,911,557	-	(27,939,305)	1,642,972,252	37,889,513
Less unamortized bond premium (discounts)	40,728,855	-	(3,930,681)	36,798,174	-
Interest payable					
Accrued interest payable	396,064,025	120,103,677	(71,711,042)	444,456,660	27,862,616
Net long-term liabilities	<u>\$ 2,107,704,437</u>	<u>\$ 120,103,677</u>	<u>\$ (103,581,028)</u>	<u>\$ 2,124,227,086</u>	<u>\$ 65,752,129</u>

## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

### NOTES TO FINANCIAL STATEMENTS

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#### Note 6 - Bonds Payable (continued)

**1999 Series A Capital Appreciation Bonds** - The 1999A CABs were issued by the Authority in the aggregate amount of \$50,453,617 on February 2, 1999. Proceeds from the sale of these insured 1999A CABs were used to finance a portion of the cost of design and construction of the Project.

The first maturity of the bonds will commence on October 1, 2030. The 1999A CABs, which mature between October 1, 2030 and October 1, 2037, have an accretion yield to maturity at rates ranging from 5.25% to 5.27%. The principal and accrued interest balance outstanding on the 1999A CABs at June 30, 2015 and 2014, are \$50,453,617 and \$68,252,697 and \$50,453,617 and \$62,222,121, respectively. The 1999A CABs are not subject to optional redemption.

The remaining debt service of the 1999A CABs is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2031 - 2035	\$ 33,535,373	\$ 158,389,627	\$ 191,925,000
2036 - 2040	16,918,244	102,906,756	119,825,000
Total	<u>\$ 50,453,617</u>	<u>\$ 261,296,383</u>	<u>\$ 311,750,000</u>

**1999 C Bonds** - The 1999C Bonds include both current interest bonds (CIB) and capital appreciation bonds (CAB).

**1999 Series C Current Interest Bonds** - The 1999C CIBs were issued by the Authority in the aggregate amount of \$430,155,000 on January 1, 1999. Proceeds from the sale of these insured 1999C CIBs were used to finance a portion of the cost of the design and construction of the Project.

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**

**Note 6 - Bonds Payable (continued)**

Interest on the 1999C CIBs is payable semiannually on April 1 and October 1 of each year commencing April 1, 1999, with principal payments commencing October 1, 2014. The 1999C CIBs Series, which mature annually each October 1, from 2015 through 2029, bear interest at rates ranging from 6.50% to 6.60%. The principal balance outstanding on the 1999C CIBs is \$427,025,000 at June 30, 2015. The 1999C CIBs are not subject to optional redemption. The remaining debt service of the Authority's 1999C CIBs is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2016	\$ 21,290,000	\$ 27,365,180	\$ 48,655,180
2017	23,170,000	25,920,230	49,090,230
2018	25,175,000	24,349,018	49,524,018
2019	27,315,000	22,643,092	49,958,092
2020	29,595,000	20,793,518	50,388,518
2021 - 2025	70,065,000	94,625,025	164,690,025
2026 - 2030	230,415,000	40,312,635	270,727,635
Total	<u>\$ 427,025,000</u>	<u>\$ 256,008,698</u>	<u>\$ 683,033,698</u>

**1999C CABs** - The 1999C CABs were issued by the Authority in the aggregate amount of \$67,298,396 on February 9, 1999. Proceeds from the sale of these insured 1999C CABs were used to finance a portion of the cost of the design and construction of the Project.

The first maturity of the bonds will commence on October 1, 2020. The 1999C CABs, which mature between October 1, 2020 and October 1, 2037, have an accretion yield to maturity at rates ranging from 6.69% to 6.83%. The principal balance and accrued interest outstanding on the 1999C CABs at June 30, 2015 and 2014, are \$67,298,396 and \$134,961,101, and \$67,298,396 and \$121,849,970, respectively. The 1999C CABs are not subject to optional redemption.

The Authority's remaining debt service on the 1999C CABs is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2021 - 2025	\$ 22,052,990	\$ 75,812,010	\$ 97,865,000
2026 - 2030	-	-	-
2031 - 2035	30,649,550	262,025,450	292,675,000
2036 - 2040	14,595,856	168,124,144	182,720,000
Total	<u>\$ 67,298,396</u>	<u>\$ 505,961,604</u>	<u>\$ 573,260,000</u>

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 6 - Bonds Payable (continued)

**1999 Series D Bonds** - 1999D Bonds were issued by the Authority in the aggregate principal amount of \$145,635,000 on January 1, 1999. Proceeds from the sale of these insured 1999D Bonds were used to finance a portion of the cost of the design and construction of the Project.

Interest on the 1999D Bonds was payable semiannually on April 1 and October 1 of each year commencing April 1, 1999, with principal payments commencing October 1, 2003. The 1999D Bonds, which matured on October 1, 2014, bore interest at rates ranging from 5.47% to 6.37%. The principal balance outstanding on the 1999D Bonds is \$0 and \$16,240,000 at June 30, 2015 and 2014, respectively. No 1999D Bonds remain outstanding.

**2004A Bonds** - The 2004A Bonds include both Capital Appreciation Bond - Non Convertible (CAB) and Capital Appreciation Bonds - Convertible (CCIB).

**2004 Series A Capital Appreciation Bonds - Non Convertible** - The 2004A Bonds were initially all capital appreciation bonds. Of the total \$475,292,386, \$274,992,286 were convertible and converted to current interest bonds on October 1, 2012, and are callable on October 1, 2017 (CCIB). \$200,300,100 are not convertible or callable (CAB). The 2004 Bonds were issued by the Authority in the aggregate amount of \$475,292,386 on April 22, 2004. Proceeds from the sale of these insured 2004A Bonds were used to refund a portion of the U.S. Department of Transportation Loan. The 2004 CABs mature between fiscal years 2012 and 2031 and have an accretion yield to maturity at rates ranging from 4.30% to 5.72%.

The Authority's remaining debt service on the 2004A CABs is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2016	\$ 15,723,485	\$ 11,221,515	\$ 26,945,000
2017	18,482,475	15,127,525	33,610,000
2018	20,916,377	19,523,623	40,440,000
2019	23,428,768	24,826,232	48,255,000
2020	25,823,537	30,946,462	56,769,999
2021 - 2025	28,024,253	37,755,747	65,780,000
2026 - 2030	13,641,409	43,373,591	57,015,000
2031 - 2035	22,708,012	77,956,989	100,665,001
Total	<u>\$ 168,748,316</u>	<u>\$ 260,731,684</u>	<u>\$ 429,480,000</u>

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**

**Note 6 - Bonds Payable (continued)**

**2004 Series A Capital Appreciation Bond - Convertible** - The 2004A CCIBs were convertible and callable, and accreted to full face value of \$5,000 per bond on October 1, 2012. These bonds converted automatically and pay interest semiannually on April 1 and October 1 of each year commencing with April 1, 2013. The first maturity of the 2004A CCIBs will commence on October 1, 2021. The 2004 CCIBs mature between fiscal years 2021 and 2025, and bear interest at rates ranging from 5.25% to 5.45%. These bonds are callable at par, with accrued interest, if any, on October 1, 2017, or any date thereafter. The principal balance outstanding on the 2004A CCIBs is \$428,390,000 at June 30, 2015 and 2014.

The Authority's remaining debt service on the 2004A CCIBs is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2016	\$ -	\$ 22,901,100	\$ 22,901,100
2017	-	22,901,100	22,901,100
2018	-	22,901,100	22,901,100
2019	-	22,901,100	22,901,100
2020	-	22,901,100	22,901,100
2021 - 2025	332,930,000	80,679,880	413,609,880
2026 - 2030	95,460,000	2,601,285	98,061,285
Total	<u>\$ 428,390,000</u>	<u>\$ 197,786,665</u>	<u>\$ 626,176,665</u>

**2004B Bonds** - The 2004B Bonds are capital appreciation bonds that were issued by the Authority in the aggregate amount of \$210,731,703 on April 22, 2004. Proceeds from the sale of these insured 2004B Bonds were used to repay a portion of the U.S. Department of Transportation Loan.

The first maturity of the 2004B Bonds commenced October 1, 2006. The 2004B Bonds mature between October 1, 2006 and October 1, 2033, and have an accretion yield to maturity at rates ranging from 3.05% to 6.33%. The 2004B Bonds are not subject to optional redemption. The principal balance and accrued interest outstanding on the 2004B Bonds are \$131,132,410 and \$132,407,082 and \$131,132,410 and \$116,431,637, at June 30, 2015 and 2014, respectively.

The Authority's remaining debt service on the 2004B Bonds is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2026 - 2030	\$ 79,625,818	\$ 266,054,182	\$ 345,680,000
2031 - 2035	51,506,592	250,508,408	302,015,000
Total	<u>\$ 131,132,410</u>	<u>\$ 516,562,590</u>	<u>\$ 647,695,000</u>



# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 6 - Bonds Payable (continued)

**2012 Bonds** - The 2012 Bonds were issued by the Authority in the aggregate amount of \$83,710,000 on June 21, 2012. Proceeds from the sale of these 2012 Bonds were used on July 24, 2012, to call and refund all 1999A Bonds maturing on October 1, 2014 through 2018, and a portion of the 1999A Bonds maturing on October 1, 2019.

The 2012 Bonds are current interest bonds. Interest is payable semiannually on April 1 and October 1 of each year commencing October 1, 2012, with principal payments commencing October 1, 2023 through 2035, all at an interest rate of 2.46%. The principal balance on the 2012 Bonds is \$83,710,000 on June 30 2015 and June 30, 2014. The 2012 Bonds are redeemable at par at the option of the Authority at any time, in whole or in part, from any available moneys that may be provided for such purpose.

The Authority's remaining debt service on the 2012 Bonds is a follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2016	\$ -	\$ 2,062,087	\$ 2,062,087
2017	-	2,056,445	2,056,445
2018	-	2,059,266	2,059,266
2019	-	2,059,266	2,059,266
2020	-	2,062,087	2,062,087
2021 - 2025	20,545,000	9,781,968	30,326,968
2026 - 2030	40,695,000	5,107,901	45,802,901
2031 - 2035	22,350,000	1,190,655	23,540,655
2036 - 2040	120,000	1,480	121,480
Total	<u>\$ 83,710,000</u>	<u>\$ 26,381,155</u>	<u>\$ 110,091,155</u>

**2013A Series Bonds** - The 2013A Bonds were issued by the Authority in the aggregate amount of \$248,325,000 on February 12, 2013. Proceeds from the sale of these 2013A Bonds were used on February 14, 2013, to call and refund all remaining 1999A CIBs.

The 2013A Bonds are current interest bonds. Interest is payable semiannually on April 1 and October 1 of each year commencing April 1, 2013, with principal payments commencing October 1, 2019 through 2029, at interest rates ranging from 3.00% to 5.00%. The principal balance on the 2013A Bonds is \$248,325,000 on June 30, 2015 and June 30, 2014. The 2013A Bonds are redeemable at par at the option of the Authority at any time, in whole or in part, from any available moneys that may be provided for such purpose.

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**

**Note 6 - Bonds Payable (continued)**

The Authority's remaining debt service on the 2013A Bonds is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2016	\$ -	\$ 11,786,950	\$ 11,786,950
2017	-	11,786,950	11,786,950
2018	-	11,786,950	11,786,950
2019	-	11,786,950	11,786,950
2020	11,120,000	11,508,950	22,628,950
2021 - 2025	100,275,000	44,277,625	144,552,625
2026 - 2030	136,930,000	15,884,831	152,814,831
Total	<u>\$ 248,325,000</u>	<u>\$ 118,819,206</u>	<u>\$ 367,144,206</u>

**Accrued interest payable** - The Authority's accrued interest payable is as follows:

	June 30, 2015		
	Current Interest Bond	Long-Term CABs	Total
1999A Bonds	\$ -	\$ 68,252,697	\$ 68,252,697
1999C Bonds	7,014,276	134,961,101	141,975,377
1999D Bonds	-	-	-
2004A Bonds	16,946,789	120,256,181	137,202,970
2004B Bonds	-	132,407,082	132,407,082
2012 Bonds	516,227	-	516,227
2013A Bonds	2,946,738	-	2,946,738
Total	<u>\$ 27,424,030</u>	<u>\$ 455,877,061</u>	<u>\$ 483,301,091</u>

	June 30, 2014		
	Current Interest Bond	Long-Term CABs	Total
1999A Bonds	\$ -	\$ 62,222,121	\$ 62,222,121
1999C Bonds	7,065,139	121,849,970	128,915,109
1999D Bonds	253,750	-	253,750
2004A Bonds	17,080,762	116,090,316	133,171,078
2004B Bonds	-	116,431,637	116,431,637
2012 Bonds	516,227	-	516,227
2013A Bonds	2,946,738	-	2,946,738
Total	<u>\$ 27,862,616</u>	<u>\$ 416,594,044</u>	<u>\$ 444,456,660</u>

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 6 - Bonds Payable (continued)

**Combined on all outstanding bonds debt service** - The Authority's debt service of the 1999A, 1999C, 1999D, 2004A, 2004B, 2012, and 2013A Bonds in aggregate is as follows:

Fiscal year(s)	Annual Debt Service Requirement		
	Principal	Interest	Total
2016	\$ 37,013,485	\$ 75,336,832	\$ 112,350,317
2017	41,652,475	77,792,250	119,444,725
2018	46,091,377	80,619,957	126,711,334
2019	50,743,768	84,216,640	134,960,408
2020	66,538,537	88,212,117	154,750,654
2021 - 2025	573,892,243	342,932,255	916,824,498
2026 - 2030	596,767,227	373,334,425	970,101,652
2031 - 2035	160,749,527	750,071,129	910,820,656
2036 - 2040	31,634,100	271,032,380	302,666,480
Total	<u>\$ 1,605,082,739</u>	<u>\$ 2,143,547,985</u>	<u>\$ 3,748,630,724</u>

### Note 7 - Operating Leases

ACTA leases office space, a vehicle, and a postage machine under operating lease agreements. Total lease expense amounted to approximately \$189,710 and \$288,450 in the fiscal years ended June 30, 2015 and 2014, respectively. Minimum future lease payments on existing noncancelable leases as of June 30, 2015, are as follows:

2016	\$ 219,768
2017	224,012
2018	226,034
2019	228,844
2020	135,821
Total minimum lease payments	<u>\$ 1,034,479</u>

## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

### **NOTES TO FINANCIAL STATEMENTS**

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#### **Note 8 - Pollution Remediation Obligations**

On December 21, 2010, a crude oil release from a then-unknown origin was discovered in the Dominguez Channel and nearby storm water drainage system adjacent to the Alameda Corridor. The U.S. Environmental Protection Agency (EPA), the California Department of Fish and Game (DFG), the U.S. Coast Guard, and others have been involved in the mitigation, containment, investigation, and immediate cleanup efforts, and have contained the release.

On January 7, 2011, the EPA issued an order to the Port of Los Angeles, the Port of Long Beach, and the Authority, to assume responsibility for these activities effective January 14, 2011. The EPA agreed to limit the Authority's and the Ports' role to maintaining the containment systems and cleaning up the Los Angeles City pump station and sewer line leading to the pump station. The Authority and the Ports have completed the work required by the EPA. The EPA and DFG have managed the remaining work, including the source investigation.

On March 30, 2011, after identifying an oil pipeline owned and operated by Crimson Pipeline Management Company (Crimson) as the source of the release, the EPA issued an Order to Crimson for removal, mitigation, or prevention of a substantial threat of oil discharge. The Authority has been notified that Crimson has taken over responsibility for the oil release containment facilities effective June 15, 2011, and has assumed financial and operational responsibilities from that date.

Crimson filed a lawsuit against ACTA, the City of Los Angeles, the City of Long Beach, and Herzog Contracting Corporation on April 27, 2012, alleging that these other entities, and not Crimson, were responsible for the oil spill and/or were prevented from recovering damages from Crimson for the oil spill. ACTA, the City of Long Beach, and the City of Los Angeles, counterclaimed against Crimson. The Authority and the Ports are continuing to cooperate with Crimson, EPA, DFG, and other agencies to assist as necessary with containment, investigation, and cleanup. The Authority and the Ports intend to seek reimbursement from the responsible party or parties, and from any other funding sources available for such purpose, including the Oil Spill Liability Trust Fund (established under the Oil Pollution Act of 1990).

During fiscal year 2015, the Authority and other named parties engaged in confidential mediation in regard to this matter. In September 2015, a settlement agreement was executed by all parties. The settlement agreement includes a payment from Crimson. The apportionment of those funds to the various parties is currently under review. The Authority will have no further financial obligations on this matter.

## ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

### NOTES TO FINANCIAL STATEMENTS

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#### Note 9 - Pension Plan

**Adoption of GASB 68** - Effective July 1, 2014, Alameda Corridor Transportation Authority (Authority) adopted Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions*, which replaced GASB Statement No. 27, *Accounting for Pensions by State and Local Governmental Employers*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date—an Amendment of GASB Statement No. 68*, which requires the Authority to record its proportionate share of the defined benefit pension obligation for retirement benefits provided under California Public Employees' Retirement System. Restatement of the amounts of pension expense, deferred inflows of resources, and deferred outflows of resources for the prior period presented is not practical due to the unavailability of information from the pension plan; therefore, the provisions of GASB Statements No. 68 and 71 were not applied to the prior period. The cumulative effects of applying the provisions of GASB Statements No. 68 and 71 have been reported as a restatement of beginning net position for the year ended June 30, 2015, in accordance with the Statements. The cumulative effect this adjustment to net position is \$1,688,512 and comprises the addition of the net pension liability of \$1,851,196 and deferred outflows of resources in the amount of \$162,684.

**Plan description** - All qualified employees are eligible to participate in the Authority's Miscellaneous Employee Pension Plan (Plan), cost-sharing multiple employer defined benefit pension plan administered by the California Public Employees' Retirement System (CalPERS). Benefit provisions under the Plan are established by State statute and Local Government resolution. CalPERS issues publicly available reports that include a full description of the pension plan regarding benefit provisions, assumptions, and membership information that can be found on the CalPERS website.

**Benefits provided** - CalPERS provides service retirement and disability benefits, annual cost of living adjustments, and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service, equal to one year of full-time employment. Members with five years of total service are eligible to retire at age 50 with statutorily reduced benefits. All members are eligible for non-duty disability retirement benefits after 5 years of service. The death benefit is one of the following: the Post Retirement Basic Lump Sum Death Benefit or the Pre-Retirement Optional Settlement 2W Death Benefit and, if applicable, the 1959 Survivor Benefit Level 3. The cost of living adjustments for each plan are applied as specified by the Public Employees' Retirement Law.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 9 - Pension Plan (continued)

The Plans' provisions and benefits in effect at June 30, 2015, are summarized as follows:

Hire date	Miscellaneous	
	Prior to January 1, 2013 (Classic Employees)	On or after January 1, 2013 (PEPRA Employees)
Benefit formula	2% @ 55	2% @ 62
Benefit vesting schedule	5 years service	5 years service
Benefit payments	monthly for life	monthly for life
Retirement age	50 - 63+	52 - 67+
Monthly benefits, as a % of eligible compensation	1.426% to 2.418%	1.0% to 2.5%
Required employee contribution rates	7%	6.250%
Required employer contribution rates	15.726%	6.250%

**Contributions** - Section 20814(c) of the California Public Employees' Retirement Law requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. Funding contributions for both Plans are determined annually on an actuarial basis as of June 30 by CalPERS. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The Authority is required to contribute the difference between the actuarially determined rate and the contribution rate of employees.

For the year ended June 30, 2015, the contributions recognized as part of pension expense for the Plan were as follows:

	Miscellaneous
Contributions - employer	\$ 196,611
Contributions - employee (paid by employer for classic employees)	87,516

As of June 30, 2015, the Authority reported net pension liability for its proportionate shares of the net pension liability of each Plan as follows:

	Proportionate Share of Net Pension Liability
Net pension liability as reported by CalPERS	\$ 1,448,169
Adjustment to reported value	(10,161)
Total net pension liability	<u>\$ 1,438,008</u>

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 9 - Pension Plan (continued)

The Authority's net pension liability is measured as the proportionate share of the Plan's net pension liability. The net pension liability of the Plan is measured as of June 30, 2014, and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2013, rolled forward to June 30, 2014, using standard update procedures. The Authority's proportion of the net pension liability was based on a projection of the Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The Authority's proportionate share of the net pension liability for each Plan as of June 30, 2013 and 2014, was as follows:

	Plan Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Increase (Decrease) Plan Net Pension Liability/(Asset) (c) = (a) - (b)	Adjustment Report to Value	Adjusted Value
Balance at June 30, 2013	\$ 6,646,409	\$ 4,796,471	\$ 1,849,938	\$ 1,258	\$ 1,851,196
Balance at June 30, 2014	7,041,934	5,593,765	1,448,169	(10,161)	1,438,008
Net changes during 2013-14	395,525	797,294	(401,769)	(1,258)	(403,027)

For the year ended June 30, 2015, the Agency recognized pension expense of \$162,684. At June 30, 2015, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	\$ 196,611	\$ -
Net difference between projected and actual earnings on Plan investments	-	(384,228)
Adjustment due to differences in proportions	-	(18,799)
Total	<u>\$ 196,611</u>	<u>\$ (403,027)</u>

The \$196,611 reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2016. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Year Ended June 30	Deferred Inflows of Resources
2016	\$ (102,771)
2017	(102,771)
2018	(101,428)
2019	(96,057)
Total	<u>\$ (403,027)</u>

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 9 - Pension Plan (continued)

**Actuarial assumptions** - The total pension liabilities in the June 30, 2013, actuarial valuations were determined using the following actuarial assumptions:

	Miscellaneous
Valuation Date	6/30/2013
Measurement Date	6/30/2014
Actuarial Cost Method	Entry-Age Normal Cost Method
Actuarial Assumptions:	
Discount Rate	7.50%
Inflation	2.75%
Payroll Growth	3.00%
Projected Salary Increase	3.3% - 14.2% (1)
Investment Rate of Return	7.5% (2)
Mortality Rate Table (3)	

- (1) Depending on age, service, and type of employment.
- (2) Net of pension plan investment expenses, including inflation.
- (3) The underlying mortality assumption and all other actuarial assumptions used in the June 30, 2013, valuation were based on the results of a January 2014 actuarial experience study for the period of 1997 to 2011. Further details of the Experience Study can be found on the CalPERS website.

**Discount rate** - The discount rate used to measure the total pension liability was 7.50% for the Plan. To determine whether the municipal bond rate should be used in the calculation of a discount rate for the plan, CalPERS stress-tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing, none of the tested plans run out of assets. Therefore, the current 7.50% discount rate is adequate and the use of the municipal bond rate calculation is not necessary. The long-term expected discount rate of 7.50% will be applied to all plans in the Public Employees Retirement Fund (PERF). The stress-test results are presented in a detailed report that can be obtained from the CalPERS website.

According to Paragraph 30 of Statement 68, the long-term discount rate should be determined without reduction for pension plan administrative expense. The 7.50% investment return assumption used in this accounting valuation is net of administrative expenses. Administrative expenses are assumed to be 15 basis points. An investment return excluding administrative expenses would have been 7.65%. Using this lower discount rate has resulted in a slightly higher Total Pension Liability and Net Pension Liability. CalPERS checked the materiality threshold for the difference in calculation and did not find it to be a material difference.

CalPERS is scheduled to review all actuarial assumptions as part of its regular Asset Liability Management (ALM) review cycle that is scheduled to be completed in February 2018. Any changes to the discount rate will require Board action and proper stakeholder outreach. For these reasons, CalPERS expects to continue using a discount rate net of administrative expenses for GASB 67 and 68 calculations through at least the 2017-18 fiscal year. CalPERS will continue to check the materiality of the difference in calculation until such time as the Authority has changed its methodology.



# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 9 - Pension Plan (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations, as well as the expected pension fund cash flows. Using historical returns of all the funds' asset classes, expected compound returns were calculated over the short-term (first 10 years) and the long-term (11–60 years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equivalent to the single equivalent rate calculated above and rounded down to the nearest one quarter of one percent.

The table below reflects the long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These rates of return are net of administrative expenses.

Asset Class	New Strategic Allocation	Real Return Years 1 - 10(a)	Real Return Years 11+(b)
Global equity	47.00%	5.25%	5.71%
Global fixed income	19.00%	0.99%	2.43%
Inflation sensitive	6.00%	0.45%	3.36%
Private equity	12.00%	6.83%	6.95%
Real estate	11.00%	4.50%	5.13%
Infrastructure and forestland	3.00%	4.50%	5.09%
Liquidity	2.00%	-0.55%	-1.05%
Total	100%		

(a) An expected inflation of 2.5% used for this period.

(b) An expected inflation of 3.0% used for this period.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 9 - Pension Plan (continued)

#### Sensitivity of the proportionate share of the net pension liability to changes in the discount rate -

The following presents the Authority's proportionate share of the net pension liability for the Plan, calculated using the discount rate for the Plan, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	Miscellaneous
1% decrease	6.50%
Net pension liability	\$ 2,382,372
Current discount rate	7.50%
Net pension liability, as adjusted	\$ 1,438,008
1% increase	8.50%
Net pension liability	\$ 672,870

**Pension plan fiduciary net position** - Detailed information about the Plan's fiduciary net position is available in the separately issued CalPERS financial reports.

### Note 10 - Other Postemployment Benefits (OPEB)

**Plan description (OPEB)** - The Alameda Corridor Transportation Authority Retiree Healthcare Plan is a single-employer defined-benefit health care plan administered by the Authority. The plan provides health care benefits to eligible retirees and their dependents. Employees must retire directly from the Authority under a CalPERS disability retirement or service retirement (age 50 and five years of service for Classic employees, but age increases to 52 for PEPR employees hired after 1/1/2013). Benefit provisions are established and may be amended through agreements and memorandums of understanding between the Authority, its management employees, and unions representing Authority employees.

The Authority provides retiree medical benefits through the California Public Employees' Retirement System Healthcare Program (PEMHCA). The Authority contributes, for eligible retirees and their dependents, using the Los Angeles Regional Kaiser rate structure at 5% of the active member contribution amount multiplied by years in PEMHCA (increase each year not greater than \$100 per month, total amount not to exceed the active amount). The Authority joined PEMHCA in 2000 for all bargaining units, and contributes up to the Kaiser premium based on coverage level for active employees.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### Note 10 - Other Postemployment Benefits (OPEB) (continued)

The Authority participates in the California Employers' Retiree Benefit Trust (CERBT) Fund, which is administered by CalPERS. CERBT is a tax-qualified irrevocable trust organized under Internal Revenue Code Section 115 and established to prefund retiree health care benefits. CERBT, an agent multiple-employer trust, issues a publicly available financial report including GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, disclosure information in aggregate with the other CERBT participating employers. That report can be obtained from the CalPERS website at [www.calpers.ca.gov](http://www.calpers.ca.gov).

**Funding policy (OPEB)** - The contribution requirements of the plan members and the Authority are established by and may be amended by the Authority. The Authority prefunds plan benefits through the CERBT by contributing at least 100% of the ARC.

The ARC is an amount actuarially determined in accordance with the parameters of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefit Other Than Pensions*. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years.

For fiscal year 2015, the Authority contributed \$123,744 to the Plan, including \$13,744 for current benefit payments and administrative fees and \$110,000 to prefund plan benefits.

**Annual OPEB cost and net OPEB asset** - The following table shows the components of the Authority's annual OPEB cost for the year, the amount actually contributed to the plan, and changes in the Authority's net OPEB asset:

Annual required contribution	\$ (110,000)
Interest on net OPEB asset	22,699
Adjustment to annual required contribution	<u>(43,748)</u>
Annual OPEB cost	(131,049)
Contributions to irrevocable trust	<u>123,744</u>
Decrease in net OPEB asset	(7,305)
Net OPEB asset, beginning of year	<u>363,180</u>
Net OPEB asset, end of year	<u><u>\$ 355,875</u></u>

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**

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**Note 10 - Other Postemployment Benefits (OPEB) (continued)**

The Authority's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB asset for fiscal year 2015 and the three preceding years were as follows:

<u>Fiscal Year Ended</u>	<u>Annual OPEB Cost</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Asset</u>
June 30, 2013	\$ 92,651	85%	\$ 358,383
June 30, 2014	123,384	104%	363,180
June 30, 2015	131,049	94%	355,875

**Funded status and funding progress (OPEB)** - The funded status of the plan as of June 30, 2015, the plan's most recent actuarial valuation date, was as follows:

Actuarial accrued liability (AAL)	\$ 1,223,000
Actuarial value of plan assets	<u>1,343,000</u>
Unfunded actuarial accrued liability (UAAL)	<u><u>\$ (120,000)</u></u>
Funded ratio (actuarial value of plan assets/AAL)	110%
Covered payroll (active plan members)	\$ 1,266,000
UAAL as a percentage of covered payroll	-9%

Actuarial valuations of an ongoing plan involve estimates of the value of expected benefit payments and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the health care cost trend. Amounts determined regarding the funded status of the plan and the ARCs of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the basic financial statements, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

**Actuarial methods and assumptions (OPEB)** - Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

## **ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

### **NOTES TO FINANCIAL STATEMENTS**

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#### **Note 10 - Other Postemployment Benefits (OPEB) (continued)**

In the June 30, 2015, actuarial valuation, the entry age normal actuarial cost method was used. The actuarial assumptions included a 6.25% investment rate of return (net of administrative expenses), which is the expected long-term investment return on CERBT investments, a 3.0% general inflation assumption, an annual pre-Medicare eligible medical cost trend rate of 7.0% for 2017 decreasing to 5.0% after 4 years (the post-Medicare eligible medical cost trend rate started 0.2% higher for 2017). The actuarial value of assets is based on market value, but investment gains and losses are spread over a 5-year rolling period. In addition, the actuarial value of assets can never be less than 80% or more than 120% of market value. The June 30, 2015, UAAL was amortized as a level percentage of projected payroll over 12 years from June 30, 2015.

#### **Note 11 - Commitments and Contingencies**

The Authority is subject to claims and lawsuits arising in the normal course of business. Such claims are routinely evaluated by the Authority's legal counsel. Management may make provisions for probable losses if deemed appropriate on advice of legal counsel. To the extent that provisions for damages are considered necessary, appropriate amounts are reflected in the accompanying basic financial statements. It is the opinion of the Authority's management, based on consultation with legal counsel, that the estimated liability for unreserved claims and suits will not have a material impact on the Authority's basic financial statements.

The Authority is also exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets, errors, and omissions; and natural disasters for which the Authority carries commercial insurance. In each of the past three fiscal years, the Authority has experienced no losses that have not been covered by existing insurance policy limits, beyond applicable deductible amounts.

As a recipient of federal and state grant funds, the Authority is subject to periodic audits and compliance reviews by, or on behalf of, the granting agencies to determine whether the expenditure of granted funds has been made in accordance with grant provisions. Such audits and compliance reviews could result in the potential disallowance of expenditures claimed by the Authority. The Authority's management believes that the Authority has complied with the terms of its grant agreements and that the possible adverse effects, if any, of disallowed grant expenditures that may be determined by the granting agencies upon the Authority would not be material to the Authority.

# ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

### Note 12 - Restatement of 2014 Financial Results

During the current year, certain expenditures recorded in prior years as Capital Assets were determined to be more appropriately expensed as Expenses for Public Benefit or reclassified as Assets Held for Sale or Transfer. As a result, correcting adjustments were made to the prior-year financial statements.

**Expenses for public benefit** - The Authority had previously capitalized and depreciated expenditures related to the environmental document, bridge design, right-of-way, and construction support of the State Route 47 (SR-47) project. The Authority has assisted Caltrans with the project through several cooperative agreements, while Caltrans owns and maintains the bridge. As a result, the Authority has written off these costs to Expenses for Public Benefit, and has removed the related accumulated depreciation by restating the previously issued financial statements.

**Reclassification** - Certain parcels of land and easement rights that were originally acquired for the development of the Corridor were previously classified as rights of way and land improvements within capital assets. Since completion of the Corridor, these parcels are currently being held for sale or transfer. To reflect the intent of the Authority, these parcels were reclassified from capital assets to assets held for sale and transfer on the statements of net position. This reclassification had no impact on total net position; however, the amounts reported as net investment in capital assets and unrestricted have been restated, accordingly.

In addition, certain balances within net investment in capital assets were reclassified to restricted, expendable for debt service, capital projects, and Master Trust Indenture to more accurately reflect restrictions imposed by the Authority's creditors.

	Reported	Reclassification	As Restated
Selected Statement of Net Position Data			
as of June 30, 2014			
Capital assets, net	\$ 1,843,777,166	\$ (182,172,029)	\$ 1,661,605,137
Assets held for sale and transfer	-	139,332,555	139,332,555
Total assets	2,057,614,204	(42,839,474)	2,014,774,730
Net investment in capital assets	401,863,205	(266,630,778)	135,232,427
Restricted, expendable for debt service	8,135,850	83,165,907	91,301,757
Restricted, expendable for capital projects	434,531	1,206,262	1,640,793
Restricted, expendable for Master Trust Indenture	73,245,231	10,373,579	83,618,810
Unrestricted net position	(573,988,403)	129,045,556	(444,942,847)
Total net position	(90,309,586)	(42,839,474)	(133,149,060)
Selected Statement of Revenues, Expenses, and			
Changes in Net Position as of June 30, 2014			
Depreciation	21,835,695	(527,020)	21,308,675
Total operating expenses	32,058,359	(527,020)	31,531,339
Operating income	81,728,561	527,020	82,255,581
Expenses for public benefit	-	(3,460,496)	(3,460,496)
Changes in net position	(36,888,522)	(2,933,476)	(39,821,998)

Information in Note 4 and Note 5 has been adjusted accordingly to restate balances as of June 30, 2013.

## **REQUIRED SUPPLEMENTARY INFORMATION**

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**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**  
**JUNE 30, 2015**

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Actuarially determined contribution	\$ 184,173
Contributions in relation to the actuarially determined contribution	<u>(184,173)</u>
Contribution deficiency/(excess)	<u><u>\$ -</u></u>
Covered-employee payroll	\$ 1,207,037
Contributions as a percentage of covered-employee payroll	15.26%



**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**SCHEDULE OF CONTRIBUTIONS**  
**JUNE 30, 2015**

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Plan's proportion of the net pension liability/(asset)	0.02327%
Plan's proportionate share of the net pension liability/(asset)	\$ 1,438,008
Plan's covered-employee payroll	\$ 1,207,037
Plan's proportionate share of the net pension liability/(asset) as a percentage of its covered-employee payroll	119.14%
Plan's proportionate share of the fiduciary net position as a percentage of the Plan's total pension liability	79.44%
Plan's proportionate share of aggregate employer contributions	\$ 151,265

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**  
**SCHEDULE OF FUNDING PROGRESS FOR OTHER POSTEMPLOYMENT BENEFITS**

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OPEB Biennial Actuarial Valuation Date	Funding History					
	Actuarial Value of Assets (AVA)	Accrued Liabilities (AL)	Unfunded Liabilities (UL)	Funded Ratio (AVA/AL)	Annual Covered Payroll	ULAs as % of Payroll
June 30, 2011	\$ 650,000	\$ 711,000	\$ 61,000	91%	\$ 1,459,000	4%
June 30, 2013	936,000	1,296,000	360,000	72%	1,065,000	34%
June 30, 2015	1,343,000	1,223,000	(120,000)	110%	1,266,000	-9%

See accompanying auditors' report.

## **APPENDIX B**

### **THE PORT OF LOS ANGELES, INCLUDING AUDITED FINANCIAL STATEMENTS**

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## THE PORT OF LOS ANGELES

POLA is obligated only to make certain payments required by the Operating Agreement and is not responsible for paying, and is not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. The Bonds are not secured by a lien on any properties or improvements of the City of Los Angeles or of POLA, or by a pledge of any revenues of POLA. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations” in the forepart of this Official Statement. Under certain circumstances, the Operating Agreement requires POLA to pay Shortfall Advances, the payment of which is a limited obligation, payable solely from POLA’s net revenues, after all of POLA’s other obligations, including operation and maintenance costs, are paid. See “AUTHORITY REVENUES—Shortfall Advances” and “BONDHOLDERS’ RISKS—Shortfall Advances are Limited, Subordinate Obligations of the Ports” in the forepart of this Official Statement. POLA has agreed that it will include in its budget Shortfall Advances of which it has notice, but POLA is not required to reserve or to set aside any funds, and the payment of Shortfall Advances by POLA is payable after all of POLA’s other obligations, including operation and maintenance costs, have been paid.

The information about POLA in this Official Statement was provided by POLA. The Authority makes no representation concerning such information.

### General

The Harbor Department of the City of Los Angeles (the “LA Harbor Department”) is a proprietary, independent department of the City of Los Angeles similar to the Los Angeles Department of Water and Power and the Los Angeles Department of Airports. The LA Harbor Department operates POLA independently from the City of Los Angeles, using POLA’s own revenues, and administers and controls its fiscal activities, subject to oversight by the City Council of the City of Los Angeles. The City of Los Angeles holds in trust and the LA Harbor Department administers POLA’s facilities, located in San Pedro Bay, approximately 20 miles south of downtown Los Angeles. POLA’s facilities lie within the shelter of a nine-mile long breakwater constructed by the federal government in several stages, the first of which commenced in 1899. The breakwater encloses the largest man-made harbor in the Western Hemisphere.

POLA has three major continuing sources of revenue: shipping revenue, which is a function of cargo throughput; revenue from the rental of POLA’s land and buildings (i.e., revenue from permit and lease agreements); and the smallest component, fee and royalty revenue.

POLA operates as a landlord, issuing permits for the use of POLA land, docks, wharves, transit sheds, terminals and other facilities. POLA also is landlord to various shipyards, fish markets, ocean-related entities (i.e., fisheries and ship repair), railroads, restaurants and other similar operations. These arrangements are entered into under various lease and permit agreements. Under the permit agreements the occupants agree to pay tariffs or fees established by POLA. Permittees are generally shipping or terminal companies, agents or other private firms. POLA has no direct role in managing the daily movements of cargo. POLA also recovers its costs of providing services and improvements through tariff charges for shipping services.

Most of the property on which POLA’s land, docks, wharves, transit sheds, terminals and other facilities are located is owned by the City of Los Angeles and administered by POLA, subject to a trust created pursuant to certain tideland grants from the State. These tidelands were granted to the City of Los Angeles under the State Tidelands Trust Act by the California State Legislature in 1911 for the purpose of promoting commerce, navigation and fishery. Subsequent state legislative action expanded the permitted uses of tidelands to include maritime commerce, fishing, navigation and recreation and environmental activities that are water-oriented and are intended to be of statewide benefit. Certain additional requirements and restrictions are imposed by the

tidelands grants, including limitations on the sale and long-term leasing of tidelands and limitations on the use of funds generated from the tidelands and tidelands trust assets.

Under the tidelands trusts, funds from the tidelands may be transferred to the City of Los Angeles's General Fund only for tidelands trust purposes and may not be transferred to the City General Fund for general municipal purposes. All amounts in the Los Angeles Harbor Revenue Fund are subject to the tidelands trust use restrictions. POLA does not expect that restrictions on the use of tidelands or with respect to tidelands funds will materially adversely affect POLA's operations or finances of POLA. Tideland grants and terms of the tidelands trusts are subject to amendment or revocation by the California Legislature, as grantor of the trust and as representative of the beneficiaries (the people of the State).

According to the American Association of Port Authorities, during calendar year 2014, POLA was the busiest container port in North America in terms of cargo volume, handling approximately 8.3 million TEUs. According to statistics compiled by the Journal of Commerce, during calendar year 2014, POLA and the Port of Long Beach ("POLB"), combined, ranked as the tenth busiest container port complex in the world in terms of TEUs handled. POLA handled approximately 8.2 million TEUs during calendar year 2015, as compared to approximately 8.3 million TEUs during calendar year 2014.

### **Physical Description and Geography**

In terms of physical size, POLA covers approximately 7,500 acres (4,300 acres of land and 3,200 acres of water); 43 miles of waterfront berthing; and 27 passenger and cargo terminal facilities, including eight major container cargo terminals, four break-bulk facilities, seven petroleum/liquid bulk cargo terminals, three dry bulk facilities, two passenger cruise terminals, one vehicle handling facility and two multi-use facilities. POLA is served by the two Railroads and is at the terminus of two major highways within the Los Angeles area highway system. POLA also is linked by subsurface pipelines to many of the major refineries and petroleum distribution terminals within the Los Angeles basin. POLA is a deep-water port with a minimum depth of 45 feet below mean low water throughout the main channels and 53 feet at the bulkloader and supertanker channels. POLA recently completed the dredging of its main channel to the depth of 53 feet to accommodate the most modern container ships. POLA currently has the capability to handle modern, deeper-draft vessels. Because there is no significant source of river sand or silt in the POLA harbor, these channels do not require frequent dredging for maintenance purposes. Sand and silt deposits are typically restricted to storm drain outlets and the adjacent Dominguez Channel. Maintenance dredging typically occurs every three years to remove accumulations of deposits throughout the port complex.

Many of the container terminal operators located at POLA utilize the Intermodal Container Transfer Facility (the "ICTF"), a specialized rail yard for the transfer of containers to and from trucks and railcars, located five miles from POLA. The ICTF was financed and constructed by Southern Pacific Transportation Company and the Intermodal Container Transfer Facility Joint Powers Authority, a joint powers authority organized by the Ports. The ICTF is operated by Union Pacific under a long-term lease agreement.

POLA's major permittees (tenants) as of June 30, 2015 are listed in Table B-1 below.

**TABLE B-1**

**PORT OF LOS ANGELES  
MAJOR PERMITTEES (TENANTS)  
AS OF JUNE 30, 2015**

APM Terminals Pacific LTD/Maersk	SA Recycling/Hugo Neu-Proler Corp
China Shipping Holding Company, LTD	Shell Oil Company
Eagle Marine Services Ltd.	TraPac, Inc.
Everport Terminal Services Inc.	Ultramar Marine Inc.
Exxon-Mobil Oil Corporation	Union Pacific Railroad Company
Kinder Morgan/GATX Terminals Corporation	Vopak/Wilmington Liquid Bulk Terminal
Parking Concepts, Inc.	WWL Vehicle Services Americas/Distribution and
Phillips 66 Company	Auto Services
Ports America Cruise, Inc.	Yang Ming Transport Ltd.
Rio Doce Pasha Terminal, L.P.	Yusen Terminal Inc./N.Y.K. (North America) Inc.

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*Source: POLA*

POLA sets tariff charges for, among other things, wharfage, dockage, storage, pilotage, land usage, passenger fees and demurrage applicable to all ships and cargo using POLA-owned property and necessary for the orderly movement of cargo. POLA and all other California public ports control and determine their own individual tariff structures. The ports cooperate, however, in setting tariff rates through membership in the California Association of Port Authorities (“CAPA”). One of CAPA’s goals is to establish and maintain reasonable and, as far as practicable, uniform terminal rates, charges, classifications, rules and regulations for the handling and movement of domestic and foreign waterborne cargo. These tariff provisions cover, among other things, space assignments at marine terminal facilities, as well as other miscellaneous terminal charges necessary for the orderly movement of cargo. CAPA’s goal is to permit California ports to obtain an adequate return on investment to facilitate the necessary maintenance, expansion and improvement of marine facilities. CAPA is exempt from federal antitrust laws, thereby allowing for this cooperative rate setting.

**Source of Funds for Payment of Shortfall Advances**

Pursuant to the Operating Agreement, POLA is obligated to include in its budget each fiscal year an amount equal to the amount of projected Shortfall Advances for such fiscal year that has been forecasted by the Authority and for which due notice thereof has been provided to POLA by the Authority. The payment of Shortfall Advances by POLA is payable after all of POLA’s other obligations, including operation and maintenance costs and POLA’s debt service, are paid. POLA has established a special reserve fund known as the “Emergency/ACTA Fund”, the purpose of which is to pay for any unexpected expense that may arise during a fiscal year, including, but not limited to, Shortfall Advances. As of the date of this Official Statement, approximately \$47.6 million is on deposit in the Emergency/ACTA Fund.

**Financial and Operation Information**

The Los Angeles Harbor Revenue Fund is a separate fund established by the Charter of the City of Los Angeles. All fees, charges, rentals and revenue from every source collected by POLA in connection with its possession, management and control of the Los Angeles Harbor District and Los Angeles Harbor Assets (as defined in the Charter of the City of Los Angeles) are deposited in the Los Angeles Harbor Revenue Fund. All such moneys and revenues deposited in the Los Angeles Harbor Revenue Fund are under the direction and control of the Los Angeles Board of Harbor Commissioners (the “POLA Board”). POLA expends moneys in the Los Angeles Harbor Revenue Fund, from time to time, to pay operating and maintenance expenses and debt service on its outstanding indebtedness. Remaining revenues constitute surplus revenues and may be used for any lawful purposes, including, among other things, payment of Shortfall Advances.

The following Table B-2 sets forth a breakdown of the Department's operating revenues, expenses and net assets for fiscal years ended June 30, 2011 through 2015.

**TABLE B-2**  
**PORT OF LOS ANGELES**  
**SUMMARY OF REVENUES, EXPENSES AND NET ASSETS**  
**FISCAL YEARS ENDED JUNE 30, 2011 THROUGH 2015**  
(in thousands of dollars)

	2011	2012	2013	2014	2015
<b>REVENUES</b>					
Shipping Services					
Wharfage	\$ 317,621	\$ 333,757	\$ 322,821	\$ 350,928	\$ 336,997
Dockage	5,848	4,813	4,689	4,930	6,097
Demurrage	238	230	228	223	329
Pilotage	7,417	7,131	6,954	7,540	7,110
Assignment Charges	12,374	11,785	13,184	13,592	14,365
Total Shipping Services	\$ 343,498	\$ 357,716	\$ 347,876	\$ 377,213	\$ 364,899
Rentals					
Land	\$ 42,693	\$ 40,127	\$ 38,856	\$ 38,189	\$ 45,255
Other	2,735	3,016	4,034	1,966	979
Total Rentals	\$ 45,428	\$ 43,143	\$ 42,890	\$ 40,156	\$ 46,233
Royalties, Fees and Other Operating Revenues	11,577	8,928	6,602	8,582	35,763
Total Operating Revenues	\$ 400,503	\$ 409,787	\$ 397,368 <sup>(1)</sup>	\$ 425,951	\$ 446,895
<b>EXPENSES</b>					
Operating and Administrative Expenses					
Salaries and Benefits	\$ 98,838	\$ 98,614	\$ 101,861	\$ 93,668	\$ 92,786
Pension Expenses Adjustment <sup>(2)</sup>	--	--	--	18,385	19,002
City Services and Payments	29,964	32,014	31,074	33,633	34,749
Outside Services	29,367	27,660	29,690	26,331	28,983
Utilities	6,612	6,653	5,726	12,335	19,373
Materials and Supplies	6,249	6,314	5,989	6,883	6,257
Pollution Remediation Expenses	14,698	11,635	11,635	1,268	(211)
Marketing and Public Relations	2,912	3,177	2,877	2,711	2,771
Workers' Compensation, Claims and Settlement	4,633	7,507	3,550	1,959	2,503
Clean Truck Program Expenses	5,445	790	934	1,100	949
Travel and Entertainment	804	932	1,139	548	512
Other Operating Expenses	10,174	4,511	10,694	6,533	26,574
Total Operating and Administrative expenses	209,695	199,806	205,169	205,354	234,249
Income from Operations before Depreciation	190,808	209,981	192,199	220,597	212,646
Depreciation	90,468	100,485	108,037	124,221	137,384
Operating income	100,340	109,496	84,162	96,376	75,262
Nonoperating Revenues/(Expenses)					
Income From Investments in JPAs and Other Entities	(333)	1,851	2,049	2,129	2,811
Interest and Investment Income	6,436	9,486	826	4,654	5,039
Interest Expense	(3,704)	(10,538)	(2,473)	(1,530)	(330)
Other Income and Expenses, net	(6,667)	(8,359)	784	(27,364)	(2,226)
Net Nonoperating Revenues/(Expenses)	(4,268)	(7,560)	1,186	(22,111)	5,293
Income Before Capital Contributions	\$ 96,072	\$ 101,936	\$ 85,348	\$ 74,265	\$ 80,555
Capital Contributions	12,059	31,307	17,630	80,374	111,852
Special item	--	--	13,387	15,002	--
Changes in Net Assets	108,131	133,243	116,365	169,640	192,407
Total Net Assets – Beginning of Year	2,534,754	2,642,885	2,776,128	2,884,351	3,064,554
Net Adjustment for Prior Year Amortization of Bond Premium/Discount	--	--	--	10,562	--
Net Adjustment for Prior Year Pension Expense	--	--	--	--	(194,062) <sup>(3)</sup>
Net Adjustment for Write-Off of Prior Period Bond Costs	--	--	(8,142)	--	--
Total Net Assets – End of Year	\$2,642,885	\$2,776,128	\$2,884,351	\$3,064,554	\$3,062,899

<sup>(1)</sup> In October 2012, Transpacific 8, a service route jointly operated by Mediterranean Shipping Co., Maersk Line and CMA CGM, transferred from POLA to POLB and initially it impacted both cargo volume and associated revenue at POLA. POLA has since recovered from the initial impact through ongoing capital investment to enhance capacity and recent favorable movement of alliance traffic.

<sup>(2)</sup> Pension expenses incurred in fiscal years ended June 30, 2014 and 2015 have been reported separately from "Salaries and Benefits" expense as a result of the implementation of Governmental Accounting Standards Board ("GASB") "Statement No. 68, Accounting and Financial Reporting for Pensions" ("GASB 68") and GASB "Statement No. 71, Pension Transition for Contributions Made Subsequent to the Measure Date" ("GASB 71"). Pension expenses incurred in fiscal years ended June 30, 2011 through 2013 have been reported within "Salaries and Benefits" expense.

<sup>(3)</sup> One-time adjustment required by GASB 68 and GASB 71. Refer to Note 1(B) "Summary of Significant Accounting Policies—Restatement" in POLA's Audited Financial Statements for the fiscal years ended June 30, 2015 and 2014 (attached hereto in this Appendix B) for more information.

Note: TEU = twenty foot equivalent units.

Source: POLA



The following Table B-3 provides a summary of the type and volume of cargo handled at POLA for the past ten fiscal years.

**TABLE B-3**  
**PORT OF LOS ANGELES**  
**REVENUE TONNAGE BY CARGO TYPE<sup>(1)</sup>**  
**FISCAL YEARS 2006 THROUGH 2015**  
(in thousands of metric revenue tons)

<b>Fiscal Year Ended June 30</b>	<b>General Cargo</b>	<b>Liquid Bulk<sup>(2)</sup></b>	<b>Dry Bulk<sup>(3)</sup></b>	<b>Total<sup>(4)</sup></b>	<b>% Increase (Decrease) in Total Tonnage over Prior Year</b>
2006	155,200	16,000	3,600	174,800	8.1%
2007	171,900	15,400	2,800	190,100	8.8
2008	161,900	6,200	1,900	170,000	(10.6) <sup>(6)</sup>
2009	144,400	11,100	2,000	157,500	(7.4) <sup>(6)</sup>
2010	145,800	10,700	1,300	157,800	0.2
2011 <sup>(5)</sup>	149,100	10,600	1,200	160,900	2.0
2012 <sup>(5)</sup>	163,900	9,900	1,100	174,900	8.7
2013	156,300	7,800	1,000	165,100	(5.6) <sup>(7)</sup>
2014	165,000	10,500	900	176,400	6.8
2015	165,100	10,300	1,400	176,800	0.2

<sup>(1)</sup> Numbers are rounded.

<sup>(2)</sup> For fiscal year ended June 30, 2007, the number includes 7,354,000 metric revenue tons, which represents a correcting entry for multiple prior years.

<sup>(3)</sup> Dry bulk cargo includes steel slabs, sulfur, pipe, beams, scrap metal, coal, ores, cement, fertilizers and bauxite.

<sup>(4)</sup> Computed on an accrual basis, adjusted for unverified amounts.

<sup>(5)</sup> Tonnage changes due to post-close adjustments.

<sup>(6)</sup> Due to the global economic downturn that began in December 2007, the Department experienced declines in total revenue tonnage in the fiscal years ended June 30, 2008 and June 30, 2009.

<sup>(7)</sup> In October 2012, Transpacific 8, a service route jointly operated by Mediterranean Shipping Co., Maersk Line and CMA CGM, transferred from POLA to POLB and initially it impacted both cargo volume and associated revenue at POLA. POLA has since recovered from the initial impact through ongoing capital investment to enhance capacity and recent favorable movement of alliance traffic.

Source: POLA

The following Tables B-4 and B-5 provide information about the container traffic at POLA for calendar years 2011 through 2015 and for fiscal years 2011 through 2015.

**TABLE B-4**

**PORT OF LOS ANGELES  
CONTAINER TRAFFIC  
CALENDAR YEARS 2011-2015  
(TEUs)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Inbound<sup>(1)</sup></b>	4,066,764	4,092,621	3,976,692	4,269,760	4,159,462
<b>Outbound<sup>(1)</sup></b>	2,109,394	2,043,076	1,921,069	1,932,014	1,656,677
<b>Empties</b>	1,764,353	1,942,017	1,970,822	2,138,291	2,344,319
<b>Total TEUs<sup>(2)</sup></b>	7,940,511	8,077,714	7,868,583	8,340,065	8,160,458

<sup>(1)</sup> Fully loaded.

<sup>(2)</sup> Totals may not sum due to rounding.

Source: POLA.

**TABLE B-5**

**PORT OF LOS ANGELES  
CONTAINER TRAFFIC  
FISCAL YEARS 2011-2015  
(TEUs)**

	<b>2011</b>	<b>2012<sup>(1)</sup></b>	<b>2013<sup>(1)</sup></b>	<b>2014</b>	<b>2015</b>
<b>Inbound<sup>(2)</sup></b>	4,043,089	4,172,744	3,936,484	4,178,641	4,187,443
<b>Outbound<sup>(2)</sup></b>	1,933,888	2,159,949	1,909,019	1,976,387	1,788,266
<b>Empties</b>	1,958,454	1,852,814	1,931,957	2,054,828	2,216,251
<b>Total TEUs<sup>(3)</sup></b>	7,935,431	8,185,507	7,777,460	8,209,856	8,191,960

<sup>(1)</sup> Restated.

<sup>(2)</sup> Fully loaded.

<sup>(3)</sup> Totals may not sum due to rounding.

Source: POLA.

The following Table B-6 shows the breakdown of shipping revenues by container and noncontainer for fiscal years 2006 through 2015. Shipping revenues are comprised of wharfage, dockage, demurrage, cranes, pilotage, assignment charges, and storage

**TABLE B-6**  
**PORT OF LOS ANGELES**  
**SHIPPING REVENUE BREAKDOWN<sup>(1)</sup>**  
**FISCAL YEARS ENDED JUNE 30, 2006-2015**

<b>Fiscal Year Ended June 30</b>	<b>Total Shipping Revenues (000)</b>	<b>Container Shipping Revenues (000)</b>	<b>TEUs (000)</b>	<b>Container Shipping Revenue Per TEU</b>	<b>Non-Container Shipping (000)</b>	<b>Non-Container Tons (000)</b>	<b>Non-Container Shipping Revenue Per Ton</b>
2006	\$373,300	\$311,400	7,801	\$39.92	\$61,900	30,832	\$2.01
2007	375,500	324,200	8,650	37.48	51,300	21,731	2.36
2008	374,900	328,800	8,083	40.68	46,100	18,450	2.50
2009	329,300	293,100	7,262	40.36	36,200	14,518	2.49
2010	327,600	296,500	7,228	41.02	31,100	12,525	2.48
2011	343,500	306,300	7,935	38.60	37,200	14,896	2.50
2012	357,700	321,900	8,186	39.32	35,800	13,800	2.59
2013 <sup>(2)</sup>	347,900	313,700	7,777	40.34	34,200	11,700	2.92
2014	377,200	335,700	8,210	40.89	41,500	14,900	2.79
2015	364,900	325,500	8,192	39.73	39,400	15,100	2.61

<sup>(1)</sup> Numbers are rounded.

<sup>(2)</sup> In October 2012, Transpacific 8, a service route jointly operated by Mediterranean Shipping Co., Maersk Line and CMA CGM, transferred from POLA to POLB and initially it impacted both cargo volume and associated revenue at POLA. POLA has since recovered from the initial impact through ongoing capital investment to enhance capacity and recent favorable movement of alliance traffic.

Source: POLA.

The following Table B-7 shows a breakdown of total TEUs by country of origin for imports and country of destination for exports.

**TABLE B-7**  
**PORT OF LOS ANGELES**  
**TEU COUNT BY COUNTRY**  
**FISCAL YEAR ENDED JUNE 30, 2015**

<b>Exports Country</b>	<b>Export TEUs</b>	<b>% of Total</b>	<b>Imports Country</b>	<b>Import TEUs</b>	<b>% of Total</b>
China	609,179	37.9%	China	2,366,581	58.7%
Japan	210,751	13.1	Japan	253,512	6.3
Taiwan	169,721	10.6	Vietnam	227,801	5.6
South Korea	155,960	9.7	Taiwan	217,241	5.4
Hong Kong	50,027	3.1	South Korea	190,170	4.7
Vietnam	46,542	2.9	Thailand	158,369	3.9
Indonesia	39,484	2.5	Hong Kong	106,946	2.7
Thailand	36,946	2.3	Indonesia	103,723	2.6
Singapore	35,832	2.2	Malaysia	70,222	1.7
Philippines	29,440	1.8	India	50,342	1.2
All Others	222,330	13.9	All Others	287,276	7.2
Total Exports	1,606,212	100.0	Total Imports	4,032,183	100.0

Source: Ports Import Export Reporting Services ("PIERS"). Data from PIERS excludes domestic cargo and empties.

## Security

POLA's port security program is designed to secure POLA through prevention and deterrence. POLA security operations are conducted by the Los Angeles Port Police. The POLA security program consists of operational security measures supported by advanced surveillance, communications, command and control and sensor systems. Additionally, POLA is engaged in development and implementation of national and international port and cargo security standards and regulations. The security program is closely coordinated with a number of federal, State and local agencies.

Since 2010, POLA has been awarded approximately \$10.3 million in grants to fund safety and security projects by federal and State government agencies, including the U.S. Department of Homeland Security, the Federal Emergency Management Agency, the Transportation Security Administration and the State Office of Homeland Security.

POLA has made significant progress on initiatives to improve security such as a Port-wide surveillance camera system, a fiber optic data network, a centralized Operations Center, implementation of the Transportation Workers Identification Credential security credentialing program and continued engagement with the Federal Government and overseas ports in improving the security of international supply chains. POLA continues to seek additional funding to support the security program from State and federal levels.

## Capital Improvement Projects.

POLA's capital improvement projects are categorized into five types of projects: (i) Terminal Projects, (ii) Transportation Projects, (iii) Security Projects, (iv) Public Access/Environmental Enhancement Projects, and (v) Maritime Services Projects.

Expenditures for capital improvement projects for the fiscal year ended June 30, 2015 were approximately \$255.6 million, comprised of: Terminal Projects (a total of approximately \$152.1 million), Transportation Projects (a total of approximately \$84.6 million), Security Projects (a total of approximately \$3.8 million), Public Access/Environmental Enhancement Projects (a total of approximately \$7.2 million), and Maritime Services Projects (a total of approximately \$7.9 million).

Table B-8 provides a summary of the total estimated project costs by category of POLA's capital improvement program for fiscal years ending June 30, 2016 through 2020.

**TABLE B-8**  
**PORT OF LOS ANGELES**  
**CAPITAL IMPROVEMENT PROGRAM BY CATEGORY**  
**FISCAL YEARS 2016-2020**

<b>Project Category</b>	<b>Estimated Total Cost (\$ millions)</b>
Terminal Projects	\$416
Transportation Projects	56
Security Projects	1
Public Access/Environmental Enhancement Projects	168
Maritime Projects	<u>161</u>
Total	<u>\$803</u>

*Source: POLA*

***Terminal Projects.*** Following are summaries of certain of POLA's major Terminal Projects.

TraPac Terminal Expansion. The TraPac terminal project (the "TraPac Terminal Project") includes expansion between Berths 136 and 147 on POLA's northwest perimeter to facilitate TraPac's expansion of cargo handling and to increase efficiency. POLA estimates that the TraPac Terminal Project will increase potential related TEU throughput by TraPac from 900,000 TEUs (baseline year 2003) to 2.4 million TEUs by 2025. The TraPac Terminal Project consists primarily of wharf and backland improvements, an intermodal container transfer facility, terminal buildings and installation of Alternative Maritime Power ("AMP") improvements (consists of plugging into shore-side electrical power while at dock). The facility spans 172 acres. The TraPac Terminal Project will be POLA's most advanced container terminal with advanced automation technology being implemented for the new backland and railyard areas. The TraPac Terminal Project has a budget of \$510 million (approximately \$41 million of which remains to be expended) and is expected to be completed in March 2017. Construction of the wharf improvements, the Phase 1A, 1B and 1C backland improvements, the new main gate and the terminal buildings have been completed. Construction of backland improvements in Phases 2, 3 and 4 and the on-dock rail facility are in progress. POLA intends to use proceeds from previously issued POLA bonds and cash from operations to finance costs of the TraPac Terminal Project. POLA's long-term contract with TraPac expires in 2039. See "Environmental and Regulatory Matters—Recent Developments Relating to TraPac EIR" below for recent developments with respect to the TraPac Terminal Project Environmental Impact Report ("EIR").

YTI Terminal Expansion. The Yusen Terminals Inc. ("YTI") container terminal redevelopment project (the "YTI Container Terminal Redevelopment Project") includes backland and wharf improvement and expansion of the intermodal container transfer facility located at the YTI terminal. The facility spans 183 acres. The backland improvement includes pavement repair and the construction of concrete runways. Wharf improvements include dredging at Berths 217-220 from an existing depth of 45 feet to 47 feet, dredging at Berths 214-216 from an existing depth of 45 feet to 53 feet, new landslide crane rail extension along Berths 217-220 and four AMP box relocations from Berths 214-216 to Berths 217-220. The EIR and the Environmental Impact Statement ("EIS") for the YTI Container Terminal Redevelopment Project was completed in November 2014. The YTI Container Terminal Redevelopment Project is estimated to cost approximately \$85 million (approximately \$61.6 million of which remains to be expended) and is expected to be completed in September 2017. POLA intends to use proceeds from previously issued POLA bonds and cash from operations to finance costs of the YTI Container Terminal Redevelopment Project. POLA's long-term contract with YTI expires in 2026.

China Shipping Terminal Expansion. The China Shipping expansion project (the "China Shipping Project") provides for a long-term permit agreement with China Shipping and expands China Shipping's terminal capacity to accommodate an annual throughput of 1.5 million TEUs. The facility footprint is being expanded from an existing 73 acres to 132 acres of backland and 2,500 feet of wharf to be served by ten Postpanamax A-frame cranes. The three main phases of the China Shipping Project have been completed. Phase I was completed in December 2004 and consisted of construction of 1,200 feet of wharf at Berth 100, 73 acres of backland development and Access Bridge No. 1. Phase II was completed in December 2010 and consisted of construction of 925 feet of wharf at Berth 102, 18 acres of backland development and Access Bridge No. 2. Phase III was completed in November 2013 and consisted of construction of 375 feet of wharf and 41 acres of backland development. AMP improvements also were installed at the container wharves constructed in Phases I, II and III. Phases II and III also consisted of wharf expansion, backland development, a marine operations building, a crane maintenance building, relocation of the Catalina Express Terminal and installation of AMP improvements. POLA's long-term contract with China Shipping expires in 2030.

In addition to the three main phases of the project, the China Shipping Project includes construction of marine operations and a crane maintenance building. Costs of \$16.8 million related to the marine operations and crane maintenance building are included in POLA's capital improvement program for fiscal years 2016 through 2020. The China Shipping Project also includes several community beautification initiatives, including the redevelopment of an existing community park in San Pedro (Plaza Park), which is currently under

construction, and implementing a beautification plan along area corridors and landscaping along Front Street which runs parallel to the terminal perimeter. POLA intends to use cash from operations to finance costs of the remaining components of the China Shipping Project. See “Environmental and Regulatory Matters—Recent Developments Relating to China Shipping EIR” below for recent developments with respect to the China Shipping Project EIR.

Everport Redevelopment. Redevelopment at Berths 226 through 236 (the “Everport Redevelopment”) consists of various projects within the Everport Container Terminal. These projects include terminal improvements such as dredging Berths 226 through 229 to a depth of -53 feet and Berths 230 through 232 to a depth of -47 feet as well as developing 1.5 acres of new terminal backland. In addition, the Everport Redevelopment includes: AMP upgrades and retrofits, panzerbelt trench upgrades and the installation of a water leak detection system. In total, the Everport Redevelopment is expected to cost approximately \$60 million. As of June 2015, construction of AMP installations and associated infrastructure at Berths 230 through 232 had been completed. The design of additional AMP vaults at Berths 228 through 230 is currently underway with construction expected to begin in mid-2017. Environmental studies as well as design efforts related to the planned dredging activities and backland development are currently underway and are expected to be completed by late-2016 with construction work anticipated to begin in late-2017.

AltaSea at the Port of Los Angeles. In December 2013, the Los Angeles City Council approved a 50-year lease to transform a 100 year old pier on the LA Waterfront in San Pedro into an urban marine research and innovation center called “AltaSea at the Port of Los Angeles” (the “AltaSea Development”). The lease agreement is between POLA and AltaSea at the Port of Los Angeles (“AltaSea”), a California public benefit corporation established to develop and operate the AltaSea Development. The AltaSea Development involves approximately 35 acres of land and water at POLA’s City Dock No. 1 site. The AltaSea Development will be developed through a private-public partnership comprised of POLA, AltaSea and regional public and private universities. Phase 1 of the AltaSea Development is estimated to cost \$217 million. As of the date of this Official Statement, funding commitments for Phase 1 of the AltaSea Development include \$58 million in site-related capital investment by POLA and a \$25 million gift by the Annenberg Foundation. The remaining funding for Phase 1 of the AltaSea Development are expected to come from private philanthropic donations, foundation and corporate grants, business sponsorships and other sources.

Marine Oil Terminal Engineering and Maintenance Standards Implementation. Built between 1919 and 1959, POLA has seven liquid bulk facilities (including storage tanks and underground pipeline networks) that handle various types of commodities for both import and export. Vessels calling at these facilities include tankers, barges and bulk carriers. Oil cargo operations within the State of California generally fall under the jurisdiction of the California State Lands Commission (the “State Lands Commission”). Effective February 2006, the State Lands Commission established the Marine Oil Terminal Engineering and Maintenance Standards (“MOTEMS”) which apply to all existing and new marine oil terminals in the State. One such standard required POLA’s oil terminal facilities to undergo an Initial Audit, the purpose of which was to determine “Fitness-for-Purpose” of all marine oil terminals. Initial Audits were performed at Berths 118-120, 148-151, 163, 164, 167-169, 187-191, and 238-239. As a result of these Initial Audits, Kinder Morgan’s operations at Berths 118-120 will be de-commissioned within five years.

Another MOTEMS requirement is that all liquid bulk wharves at the port be significantly upgraded or replaced. Through ongoing discussions with the State Lands Commission, POLA has agreed to upgrade or replace its liquid bulk wharves by fiscal year 2020. As of June 2015, aggregate costs of the upgrade or replacement of liquid bulk wharves are estimated to be approximately \$180 million. Any reimbursement of these costs to POLA will be negotiated with the marine oil terminal tenants as part of currently ongoing lease negotiations. As of the date of this Official Statement, POLA’s financial participation in the costs of these liquid bulk wharf upgrades or replacements are capped at \$7.5 million per berth (or \$60.0 million in the aggregate). POLA intends to use cash from operations to finance costs of the MOTEMS implementation.

A majority of the total remaining project costs related to the aforementioned Terminal Projects have been included in POLA's capital improvement program for fiscal years 2016 through 2020. POLA also is reviewing additional Terminal Projects related to the land and facilities currently utilized by cruise ship operators, Yang Ming and APL. However, POLA will not advance the design and construction of these facilities until it and the applicable tenants have reached agreement on, among other things, the scope and costs of the projects. Certain of these projects are described below.

Cruise Terminal. Since 2008, POLA has invested more than \$42 million in improvements to its World Cruise Center. The improvements include four new gangway systems, two complete AMP berths, new rooftop solar panels designed to generate approximately one megawatt of electricity, and other improvements, including new fenders, parking lot reconfigurations, painting, lighting and audio/video upgrades. POLA is planning to expand the current AMP system to allow greater flexibility to accommodate larger cruise ships. POLA also has approved an additional cruise ship terminal at Kaiser Point in the outer harbor terminal which would operate in conjunction with the existing World Cruise Center, enabling POLA to provide more berth space to simultaneously accommodate the larger Voyager class cruise ships and improved navigation for larger ships. Construction of the outer harbor cruise terminal will not be undertaken until such time as market conditions warrant an expansion of the current facilities.

Yang Ming Terminal Project. The Yang Ming terminal project (the "Yang Ming Terminal Project") represents a redevelopment program to upgrade a portion of existing container wharves at Berths 121 through 131 and expand the intermodal container transfer facility located at the Yang Ming terminal. As part of the currently planned container wharf upgrades, an existing 50-foot wharf and dike at Berths 127 through 129 is planned to be demolished and a new 1,260 linear foot wharf that can accommodate a typical 14,000 TEU vessel, approximately 6 to 10 additional cranes as well as AMP infrastructure will be constructed in its place. In addition, Berths 127 through 129 will be dredged to a depth of -53 feet. In addition to the aforementioned wharf upgrades, the Yang Ming Terminal Project is expected to include expansion of the intermodal container transfer facility with four additional loading tracks. In total, the Yang Ming Terminal Project is expected to cost approximately \$185 million, and, as of June 2015, approximately \$14 million has been spent to design and construct AMP installations and associated infrastructure at the Yang Ming terminal. As of June 2015, remaining design and construction work on this project has been put on hold while negotiations with the tenant take place.

APL Terminal Project. The APL terminal project (the "APL Terminal Project"; also known as the "Berths 302-306 Container Terminal Improvements") consists of multiple projects to expand the container terminal located at Berths 302-306 by approximately 50 acres and to modify some existing terminal elements. The expansion area improvements would include: approximately 1,250 linear feet of new wharf, AMP installations, dredging, approximately 41 acres developed for automated operations and approximately 6 acres redeveloped for container terminal operations. As part of the currently conceived project, the existing tenant would also redevelop 17 acres for an automated landside transfer facility as well as an outside truck holding area. The APL Terminal Project is currently estimated to cost approximately \$250 million. The EIR/EIS for the APL Terminal Project was completed in May 2012, and the construction of AMP installations and associated infrastructure at Berths 302 through 305 was completed in March 2014. Through June 2015, approximately \$45 million had been spent on AMP installation and other miscellaneous improvements. As of June 2015, the remaining design and construction work for this project had been put on hold while negotiations with the tenant take place.

***Transportation and Other Projects.*** Following are summaries of certain of POLA's current Transportation Projects and certain other projects.

I-110 Connectors Improvement Program. The I-110 Connectors Improvement Program (the "ICIP") consists of several arterial street and freeway-to-freeway interchange improvements in the immediate vicinity of the intersection of SR 47 (Vincent Thomas Bridge) and I-110 freeway. The projects provided for under the ICIP are designed to improve freeway access to POLA facilities, eliminate traffic movement conflicts, improve

existing non-standard elements, and better accommodate existing and future traffic conditions for POLA and background traffic. POLA and the California Department of Transportation (“Caltrans”) are working in partnership on implementing the ICIP. The ICIP received environmental clearance in February and June of 2012, and construction began in November 2013, with completion expected to occur in the first quarter of calendar year 2017. It is estimated that the cost of the ICIP will be approximately \$104.1 million, of which POLA will be responsible for approximately \$64.0 million. POLA has used or intends to use cash from operations to finance its portion of the costs of the ICIP. The remaining \$40.1 million of funding for the ICIP, is expected to come from grants obtained from various authorities including: the Los Angeles County Metropolitan Transportation Authority, Proposition 1B, the California State Corridors Improvement Funds and the Federal Safe, Accountable, Flexible, Efficient Transportation for Equity Act: A Legacy for Users.

Security Projects. Over the last several years, POLA has implemented numerous initiatives to improve security at its facilities, including a Port-wide surveillance camera system, a fiber optic data network, a state-of-the-art Department Operations Center and the Transportation Workers Identification Credential secure access program.

Public Access/Environmental Enhancements. The LA Waterfront Program is an initiative to improve and enhance areas located along the waterfronts of Wilmington and San Pedro. The LA Waterfront Program is comprised of two segments, the Wilmington Segment and the San Pedro Segment. The Wilmington Segment includes two complementary projects, the Wilmington Waterfront Park Project (the “Wilmington Waterfront Park Project”) and the Wilmington Waterfront Project (the “Wilmington Waterfront Project”). The Wilmington Waterfront Park Project was completed in June 2011 and consists of a 30-acre park with walking trails, water features, plazas, public art and a pedestrian bridge. The EIR for the 94-acre Wilmington Waterfront Project was approved by the POLA Board in June 2009 and, project elements include a waterfront promenade, 11 acres of open green space, plazas, a 200-foot observation tower, Red Car museum, and commercial and light industrial development. The five-year total cost of the Wilmington Segment is estimated to be approximately \$67.6 million.

The San Pedro Segment is generally located along the west side of the Port’s main channel from the Vincent Thomas Bridge to Cabrillo Beach. The San Pedro Segment, the Wilmington Waterfront Park Project and the Wilmington Waterfront Project are all connected along existing roadways in the West Basin area of the Port. The EIR for the San Pedro Segment was approved by the POLA Board in September 2009. The project will transform over 400 acres of property currently operated by POLA. The San Pedro Segment involves development of a variety of land uses within the proposed project area, including, among other things, public waterfront and open space areas, expansion of cruise ship facilities, a continuous waterfront promenade that would extend throughout the proposed project area, upgrades to and expansion of retail and commercial uses, improved transportation infrastructure, and surface and structured parking to accommodate project development within the proposed project area. The five-year cost of the San Pedro Segment is estimated to be approximately \$52.9 million.

Maritime Services Projects. Maritime Services Projects at the Port consist of improvements to POLA’s administration building (“Harbor Administration Building”) and miscellaneous projects that are not classified under the Terminal, Transportation, Security or Public Access/Environmental Enhancement initiatives currently planned at the Port. These projects include the Harbor Administration Building drain line replacement, Liberty Hall Plaza Fire Life Safety System Replacement and Berth 161 Marine Ways Modifications. Other projects include a \$1.7 million upgrade to control systems for the Badger Avenue Railroad Bridge, a \$3.9 million retrofit to the wharf supporting the Maritime Museum at Berth 84 and numerous other projects throughout the Port. POLA intends to use cash from operations to finance costs of the Maritime Services Projects.

## **Environmental and Regulatory Matters**

***Environmental Compliance.*** POLA was the first port in the nation to have an Environmental Management Division. POLA’s Environmental Management Division provides full environmental services



related to water, soils and sediments, air and living resources affected by water, soils and sediments and air. In 2003, the LA Harbor Department adopted an environmental policy, which calls for continuous environmental improvement and the implementation of pollution prevention measures. POLA's Environmental Management System meets the specifications of the International Organization for Standardization Standard 14001 for environmental management systems.

POLA is required to comply with the provisions of a number of federal and state laws designed to protect or enhance the environment. The basic environmental assessment laws are the federal National Environmental Policy Act ("NEPA") and the California Environmental Quality Act ("CEQA"). These two laws require consideration and disclosure of environmental impacts of development projects. Other federal environmental laws applicable to POLA include the Resource Conservation and Recovery Act, which governs the treatment and disposal of certain substances; the Clean Water Act and the Marine Protection, Research and Sanctuary Act, which govern the dumping of dredged materials; the Rivers and Harbors Act, which governs navigable waterways; and State and Federal Endangered Species Act. Enforcement agencies include the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California Air Resource Board, South Coast Air Quality Management District, and California Department of Toxic Substances Control. POLA also is required to conform to provisions of a number of other State environmental and health safety laws.

In conforming to these laws and the implementing regulations, POLA has instituted a number of compliance programs and procedures to protect the environment, each of which are designed to, among other things, limit POLA's liabilities. In 2006, POLA and POLB established the Clean Air Action Plan (the "CAAP"). See "Clean Air Action Plan" below. POLA's voluntary Vessel Speed Reduction Program has been in place since 2001 and has produced favorable results. POLA also has in place the Technology Advancement Program which evaluates and demonstrates new and emerging emissions treatment technologies. In 2008, POLA implemented the Clean Truck Program which essentially replaced older polluting trucks with newer clean trucks, thereby reducing truck emissions by over 90 percent at the port and the surrounding communities. In the fiscal year ended June 30, 2010, POLA adopted its Water Resources Action Plan aimed at significantly reducing water pollution discharges from land, vessels and the watershed and removing contaminated sediments. All these programs are backed up by long-term monitoring of the applicable media.

***Clean Air Action Plan.*** In 2006, POLA, together with the POLB, developed the CAAP with input from the U.S. Environmental Protection Agency, the California Air Resources Board, and the South Coast Air Quality Management District. The CAAP was updated and reauthorized in 2010. The CAAP is currently undergoing a second update, with final approval expected in late 2016. The CAAP is POLA's comprehensive plan to address air pollution emissions from port-related sources and contains aggressive long-term goals through 2023 to reduce health risk, diesel particulate matter, and nitrogen and sulfur oxides. Pursuant to the CAAP, POLA has undertaken several programs to lower air pollution levels at POLA. Emission sources targeted by the CAAP include ships, trains, cargo handling equipment, harbor craft and heavy duty trucks. Through implementation of the CAAP, since 2005, there has been an 80% reduction in diesel particulate matter, a 90% reduction in sulfur oxides and a 57% reduction in nitrogen oxides emissions from Port-related sources. The CAAP and its associated various measures have cost POLA and POLA's tenants approximately \$250 million to date and the CAAP will continue to require a significant investment by POLA, POLB and private sector businesses and will expedite the introduction of new and innovative methods of reducing emissions prior to any federal or State requirements being imposed on POLA and POLB. In the fiscal year ended June 30, 2015, fees related to the Clean Truck Program amounted to approximately \$3.5 million. For the fiscal year ending June 30, 2016, POLA has budgeted approximately \$2.0 million for fees related to the Clean Truck Program.

***Recent Developments Relating to TraPac EIR.*** Three of 52 environmental mitigation measures set forth in the TraPac Container Terminal EIR were noted in a 2015 POLA self-audit as being delayed or not fully implemented. POLA was advised by TraPac that two of the measures will be completed in 2016 and the third measure, a road improvement project, has been funded and is in process on a timetable to be set by the City of

Los Angeles Bureau of Engineering. POLA's emission inventories have shown that the throughput and actual emissions at the TraPac Terminal have been well below projections in the EIR

***Recent Developments Relating to China Shipping EIR.*** The EIR completed for the China Shipping Project (the "China Shipping EIR") includes 52 mitigation measures to reduce impacts to air quality, noise, and transportation. In 2008, at the time POLA adopted the China Shipping EIR, many of the mitigation measures set forth therein had never been attempted anywhere in the world. POLA believed, at that time, that these measures, although far-reaching, were realistic and could be accomplished within a reasonable timeframe, and the majority of the mitigation measures have been or will be accomplished. POLA is currently preparing a Supplemental Environmental Impact Report (the "China Shipping SEIR") with respect to the China Shipping Project that will analyze, through the public process under CEQA, eleven of the mitigation measures set forth in the China Shipping EIR that were noted in a 2015 POLA self-audit as being delayed or not fully implemented. The China Shipping SEIR will assess the environmental impacts of possible changes based upon the feasibility and availability of alternative technologies and other factors. POLA also is negotiating with China Shipping to amend its lease with POLA to incorporate the mitigation measures to be set forth in the China Shipping SEIR. Negotiations between POLA and China Shipping are progressing, however challenges remain because some of the mitigation measures may be infeasible due to the lack of technology, the cost of such measures and/or the operational challenges of such measures. POLA's emission inventories have shown that the throughput and actual emissions at the China Shipping Terminal had been at or below the projections set forth in the China Shipping EIR.

POLA has entered into a tolling and standstill agreement with Natural Resources Defense Council, San Pedro And Peninsula Homeowners' Coalition, San Pedro Peninsula Homeowners United, Inc. and Coalition For Clean Air, pursuant to which such parties are contending that POLA may be in violation of certain of the mitigation measures set forth in the China Shipping EIR. POLA also has received a request for a tolling agreement from the South Coast Air Quality Management District ("SCAQMD"), pursuant to which SCAQMD also is contending that POLA failed to timely implement certain of the mitigation measures set forth in the China Shipping EIR. Both agreements toll the statute of limitations for these alleged claims indefinitely, and may be terminated by any party on 60-days notice. POLA disagrees with, disputes and denies all of these claims. As of the date of this Official Statement, it is unknown whether these claims could ultimately lead to potential litigation. Any potential requested remedies are also unknown, but could include requests for injunctive relief. POLA does not currently expect any claims to involve monetary damages. The claims and any potential litigation may also be mooted out by the China Shipping SEIR.

### **Stevedoring and Cargo Handling**

Arranging for cargo handling services is the responsibility of each shipping line. Cargo handling at POLA is provided pursuant to a contract between the Pacific Maritime Association (the "Association") and the International Longshore and Warehouse Union ("ILWU"). The Association represents most of the steamship lines, marine terminal operators, car loading bureaus and cargo companies on the Pacific Coast. Most ILWU employees work under contract with the Association. The current contract between the Association and the ILWU was entered into on May 21, 2015 and was ratified by the ILWU membership on May 22, 2015, retroactive to July 1, 2014. The current contract expires on June 30, 2019.

The previous contract between the Association and ILWU expired on June 30, 2014. The Association and the ILWU began negotiating a new contract in May 2014, but did not agree on a new contract until February 2015. The protracted negotiations had a compounding effect on congestion issues that had slowed down container cargo movement through POLA and POLB since September 2014. POLA's revenues and container volumes at the port were temporarily impacted during fiscal year 2015 as a result of the slowdown and other congestion factors, but full-fiscal year revenues were not materially affected and container volumes decreased only slightly (0.23%).

Since 2002, there have been two other periods of prolonged labor unrest which led to an interruption of the normal course of business at POLA. In October 2002, after the Association and the ILWU failed to negotiate a new contract, the shipping lines instituted a lock out of the stevedoring companies, thereby shutting down all West Coast ports, including POLA, for ten days. Work resumed when then-President Bush ordered the ports to re-open pursuant to the Taft Hartley Act. Additionally, in November 2012, after the Harbor Employers Association (“HEA”) and ILWU Marine Clerks Association Local 63 Office Clerical Unit (“ILWU 63”) failed to negotiate a new contract, the approximately 600 clerical workers represented by ILWU 63 walked off the job. Although only about 450 clerical workers throughout both POLA and POLB participated in the strike, thousands of workers represented by a sister union refused to cross the picket lines. As a result, 10 out of the 14 terminals at POLA and POLB were shut down for eight days. Work resumed when the HEA and ILWU 63 reached a tentative agreement whereby ILWU 63 members received modest increases in wage and pension benefits, and the HEA promised to outsource no more than 14 jobs over a four-year period.

Other than the periods of unrest which occurred in 2002, 2012 and 2014/15, there has generally been a history of cooperative working relationships between the ILWU and the employer groups represented by the Association and HEA. POLA understands that the risk of a work slowdown is the greatest as negotiations get closer to the end of the current contract and until a new agreement is reached. Prolonged work slowdowns or stoppages, if they occur, could adversely affect POLA revenues and its ability to pay any Shortfall Advances.

### **San Pedro Bay Port’s Cooperative Working Agreement**

On February 27, 2015, the U.S. Federal Maritime Commission approved an amendment to a cooperative working agreement previously entered into by POLA and POLB. The amendment allows the two ports to discuss and agree on projects and programs that address congestion issues (including, establishing initiatives to increase terminal productivity, facilitate chassis availability and usage, and improve drayage truck turn times), transportation infrastructure needs and the reduction of pollution caused by port-related activities.

On April 23, 2015, POLA and POLB hosted a meeting of supply chain stakeholders to gather input, insights and solutions focused on improving the performance of the supply chain. On May 27, 2015, POLA and POLB announced the creation of issue-specific working groups focusing on peak operations and terminal optimization to develop ways to strengthen the competitiveness of the San Pedro Bay Ports.

### **Outstanding Indebtedness**

As of December 31, 2015, POLA had approximately \$951 million in parity debt outstanding, comprised of long-term revenue bonds. The long-term revenue bonds mature on or before 2045 and bear interest at rates between 2.00% and 5.50%. POLA also is authorized to issue commercial paper notes (collectively with the long-term revenue bonds, the “POLA Parity Obligations”) from time to time in an aggregate principal amount not to exceed \$200,000,000 at any one time. As of the date of this Official Statement, POLA has no commercial paper notes outstanding. POLA’s commercial paper program is supported by a liquidity facility provided by Mizuho Bank Ltd., acting through its New York Branch, which has an expiration date of August 24, 2018.

POLA Parity Obligations are special, limited obligations of POLA payable solely from revenues of POLA, which are generally derived from ownership and operation of POLA and which include shipping revenue, rental revenue and fee and royalty revenue. Neither the full faith and credit nor the taxing power of the City of Los Angeles, the State of California or any political subdivision thereof is pledged to payment or principal of, premium, if any, or interest on the POLA Parity Obligations. POLA has no taxing power. The POLA Parity Obligations are senior in payment to POLA’s obligation to make Shortfall Advances.

## **Audited Financial Statements**

The audited financial statements of POLA for the fiscal years ended June 30, 2015 and 2014, and the report of the auditor dated November 23, 2015, are included below in this Appendix B. Simpson & Simpson, the independent auditor, has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements of POLA addressed in that report. Simpson & Simpson also has not performed any procedures relating to POLA's information included in this Official Statement.

**AUDITED FINANCIAL STATEMENTS OF  
PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)  
FOR FISCAL YEARS ENDED JUNE 30, 2015 AND 2014**

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**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)  
Comprehensive Annual Financial Report  
June 30, 2015 and 2014  
(With Independent Auditor's Report Thereon)**

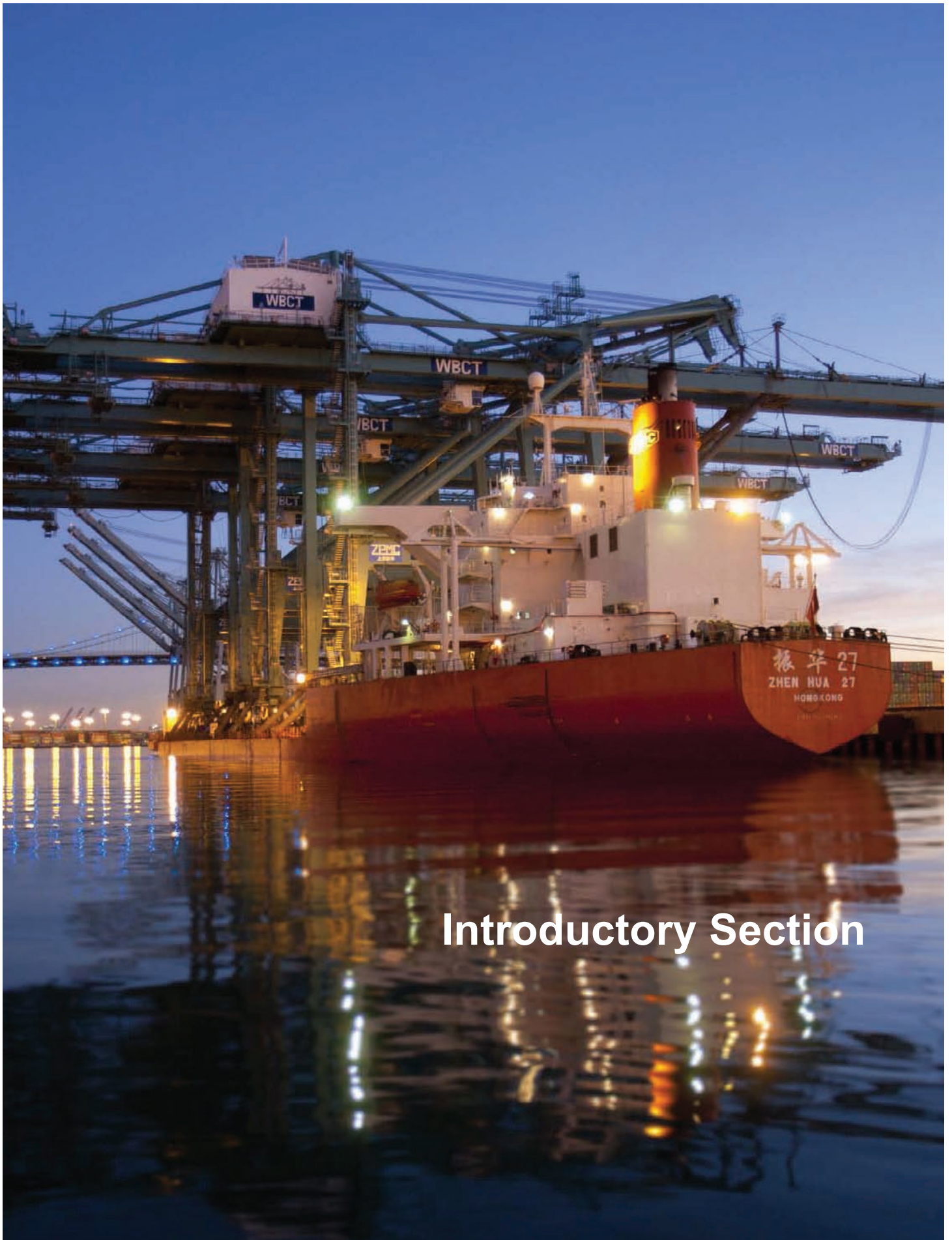


**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)  
Comprehensive Annual Financial Report  
For the Fiscal Year Ended June 30, 2015**

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## Introductory Section



425 S. Palos Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT [www.portoflosangeles.org](http://www.portoflosangeles.org)

Eric Garcetti *Mayor, City of Los Angeles*

Board of Harbor  
Commissioners

Ambassador Vilma S. Martinez  
*President*

David Arian  
*Vice President*

Patricia Castellanos

Anthony Pirozzi, Jr.

Edward R. Renwick

Eugene D. Seroka *Executive Director*

November 23, 2015

Mr. Eugene D. Seroka  
Executive Director  
Port of Los Angeles  
San Pedro, California

This Annual Financial Report of the Port of Los Angeles, Harbor Department of the City of Los Angeles, California, for the years ended June 30, 2015 and 2014, is hereby submitted.

## Introduction

The management of the Port of Los Angeles (the Port) has prepared this annual report. The responsibility for both the accuracy of the presented data, and the completeness and fairness of the presentation, including all disclosures, rests with the Port. To the best of management's knowledge and belief, the enclosed data are accurate in all material respects and are reported in a manner designed to present fairly the financial position and changes in financial position of the Port. All disclosures necessary to enable the reader to gain an understanding of the Port's financial activities have been included. The report contains the audited financial statements of the Port for the fiscal years ended June 30, 2015 and 2014, which have received an unmodified opinion from the Port's independent auditor and are presented in accordance with generally accepted accounting principles (GAAP). The report is presented in five sections: Introductory, Financial, Management's Discussion and Analysis, Financial Statements, and Supplemental Information.

The Introductory Section outlines the relationship of the Port to the City of Los Angeles and describes the organization and reporting entity. It additionally provides an overview of Port properties, operations, and key personnel.

The Financial Section includes the independent auditor's report. The Management's Discussion and Analysis presents a comparative review of financial position and changes in financial position for fiscal years 2015, 2014, and 2013. Also included in this section are a description of current and proposed capital development plans, a discussion of revenue growth, and an overview of the economic conditions and the competitive environment in which the Port operates.

The financial statements are prepared on an accrual basis and use an economic resources measurement focus. The Financial Statements Section comprise statements of net position that present the financial position as of June 30, 2015 and 2014, statements of revenues, expenses, and changes in net position depicting financial performance for fiscal years 2015 and 2014, statements of cash flows that present the source and application of funds from operations, financing, and investment activities for fiscal years 2015 and 2014, and notes to the financial statements. The accompanying notes to the financial statements explain some of the information in the financial statements and provide more detailed information, generally presented on a multi-year basis that further explain and support the information in the statements.

## **The Port of Los Angeles**

The Port is a proprietary department of the City of Los Angeles (the City) and is held in trust by the City for the people of the State of California pursuant to a series of tidelands grants. The Port is operated independently from the City, generating its own revenues, and administering and controlling its own expenses and fiscal activities. The Port is governed by a five-member Board of Harbor Commissioners (the Board), subject to the oversight by the City Council, which has the duty to provide for the needs of maritime commerce, navigation, fishing and recreation and environmental activities that are water-related and are intended to be of statewide benefit. In accordance with GAAP, the accompanying financial statements are included as an Enterprise Fund of the City, based upon the primary oversight responsibility that the City Council (the Council) and the City have on all matters affecting Port activities.

In addition, based on the foregoing criteria of oversight responsibility and accountability of all Port-related entities, the operations of the Los Angeles Harbor Improvements Corporation, a nonprofit corporation, have been included in the accompanying financial statements. Two joint ventures with the Port of Long Beach have been recorded as investments of the Port in accordance with the equity method of accounting. Additional information regarding these joint ventures and shareholders agreement may be found in the notes to the financial statements for the Port.

The management and operation of the Port are under the direction of the Executive Director, who is responsible for coordinating and directing the activities of several major management groups or bureaus. These bureaus each consist of multiple divisions and fall under the responsibilities of five senior executives who report directly to the Executive Director. The Port's management structure is described in more detail below.

- The Deputy Executive Director & Chief of Staff leads the External Affairs Bureau, which consists of the Communications (including Community Relations and Media Relations), Government Affairs, Trade Development, and Commission Office divisions.
- The Deputy Executive Director & Chief Financial Officer leads the Finance and Administration Bureau, which consists of the Contracts and Purchasing, Human Resources, Accounting, Debt and Treasury Management, Financial Management, Management Audit, and Risk Management divisions.
- The Chief of Public Safety & Emergency Management leads the Public Safety & Emergency Management Bureau, which consists of the Los Angeles Pilot Service, Port Police, and Information Technology divisions.
- The Deputy Executive Director of Marketing & Customer Relations leads the Marketing and Customer Relations Bureau, which consists of the Planning & Strategy, Cargo Marketing, Environmental Management, Waterfront/Commercial Real Estate, Cargo/Industrial Real Estate, and Wharfingers divisions.
- The Deputy Executive Director of Development leads the Development Bureau, which consists of the Construction, Goods Movement, Construction and Maintenance, and Engineering divisions.

The Port is located in San Pedro Bay, approximately 20 miles south of downtown Los Angeles. The Port's facilities lie within the shelter of a nine-mile long breakwater constructed by the federal government in several stages, the first of which commenced in 1899. The breakwater encloses the largest man-made harbor in the Western hemisphere.

The Port operates primarily as a landlord, as opposed to an operating port. Its docks, wharves, transit sheds, and terminals are leased to shipping or terminal companies, agents, and to other private firms.

Although the Port owns these facilities, it has no direct hand in managing the daily movement of cargoes. The Port is a landlord to close to 300 entities. In addition to major terminal operators, other tenants include marinas, fish markets, railroads, restaurants, and shipyards.

The major sources of income for the Port are from shipping services (wharfage, dockage, pilotage, assignment charges, etc.), land rentals, fees, concessions, and royalties. It currently serves approximately 80 shipping companies and agents with facilities that include 270 berthing facilities along 43 miles of waterfront.

In terms of its size and volume, the Port is one of the world's largest and busiest ports. The Port encompasses approximately 4,300 acres of land and 3,200 acres of water. The Port is a deep-water port with a minimum depth of 45 feet below mean low water mark and 53 feet in its main channel and at the bulk loader and supertanker channels. Two major railroads serve the Port.

The Port lies at the terminus of two major freeways within the Los Angeles freeway system. Subsurface pipelines link the Port to major refineries and petroleum distribution terminals within the Los Angeles Basin.

The Port handles the largest volume of containerized cargo of all U.S. ports, and additionally ranks as number one in cargo value for U.S. waterborne foreign traffic. The Port's major trading partners, concentrated along the Pacific Rim, include China/Hong Kong, Japan, South Korea, Taiwan, and Vietnam. Cargo to and from these countries represents the bulk of the total value of all cargo shipped through the Port.

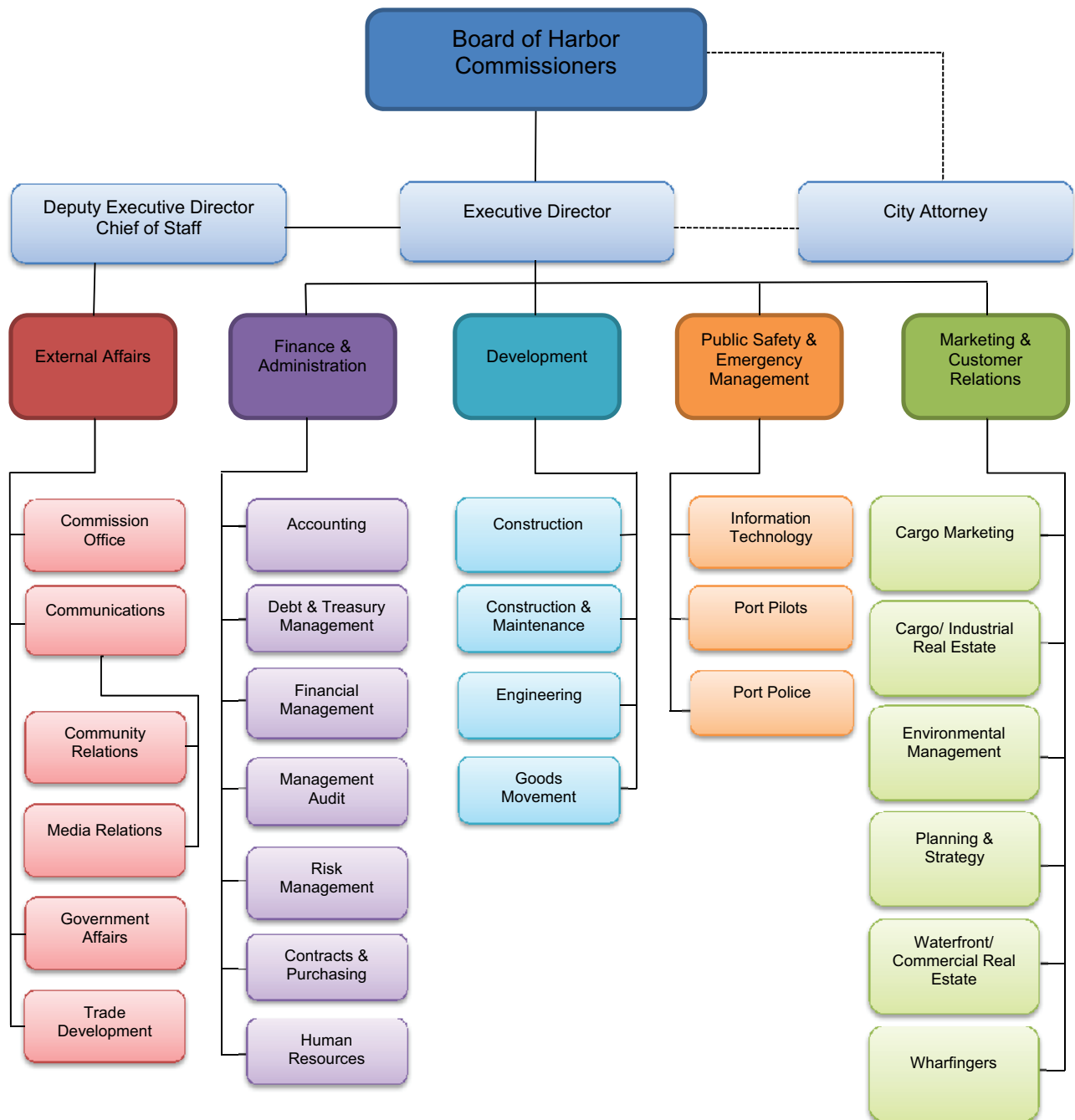
The Port must be financially self-sufficient through the revenues it generates as it has no taxing authority. When appropriate, it seeks to obtain State and Federal funding for defined projects. The Port continues to maintain an AA/Aa2/AA credit ratings with Standard & Poor's, Moody's, and Fitch Investor Services, respectively, with a "stable" outlook. These are the highest credit ratings for any stand-alone U.S. port.

Sincerely,

A handwritten signature in cursive script that reads "Marla Bleavins".

MARLA BLEAVINS  
Deputy Executive Director and Chief Financial Officer

**PORT OF LOS ANGELES**  
**(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**  
 Organizational Chart  
 Fiscal Year 2014-2015





**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**BOARD OF HARBOR COMMISSIONERS**



Ambassador Vilma  
S. Martinez  
President



David Arian  
Vice President



Patricia Castellanos  
Commissioner



Anthony Pirozzi, Jr.  
Commissioner



Edward R. Renwick  
Commissioner

**SENIOR MANAGEMENT**



Eugene D. Seroka  
Executive Director

Doane Liu  
Deputy Executive Director &  
Chief of Staff  
External Relations

Marla Bleavins  
Deputy Executive Director &  
Chief Financial Officer  
Finance & Administration

Thomas Gazsi  
Acting Chief of Public Safety &  
Emergency Management

Michael Di Bernardo  
Deputy Executive Director  
Marketing & Customer Relations

Tony Gioiello  
Deputy Executive Director  
Development

**MANAGEMENT STAFF**

Theresa Adams Lopez  
Director of Community Relations

Arley Baker  
Senior Director of  
Communications

Diane Boskovich  
Chief Wharfinger

Christopher Cannon  
Director of Environmental  
Management

Tricia Carey  
Director of Contracts &  
Purchasing

Eric Caris  
Director of Cargo Marketing

Kerry Cartwright  
Director of Goods Movement

Capt. Bent Christiansen  
Pilot Service

Michael Galvin  
Director of Waterfront &  
Commercial Real Estate

Annie Gregorio  
Director of Accounting

Jack Hedge  
Director of Cargo/Industrial Real  
Estate

Michael Hillmann  
Assistant Chief of Port Police

Julie Huerta  
Commission Office

Lance Kaneshiro  
Director of Information  
Technology

Michael Keenan  
Director of Planning & Economic  
Development

David Libatique  
Senior Director of Governmental  
Affairs

Tish Lorenzana  
Director of Human Resources

James MacLellan  
Director of Business & Trade  
Development

Joe Maldonado  
Director of Construction &  
Maintenance

Kathy Merkovsky  
Director of Risk Management

Jim Olds  
Director of Management Audits

Capt. Mike Rubino  
Pilot Service

Soheila Sajadian  
Director of Debt & Treasury  
Management

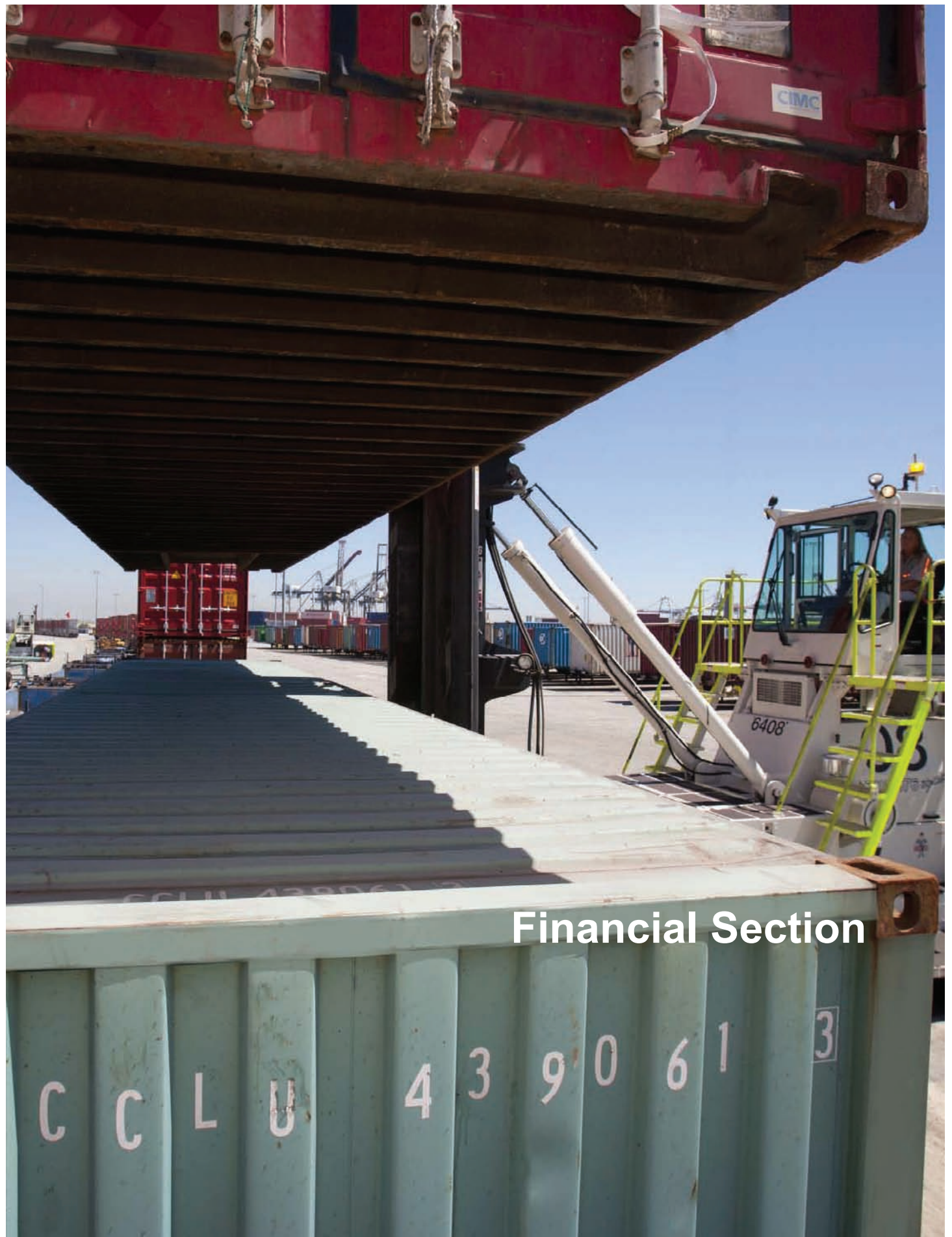
Phillip Sanfield  
Director of Media Relations

Shaun Shahrestani  
Chief Harbor Engineer of  
Construction

Dave Walsh  
Chief Harbor Engineer of Design

**CITY ATTORNEY STAFF**

Janna Sidley  
General Counsel



**Financial Section**



SIMPSON & SIMPSON  
CERTIFIED PUBLIC ACCOUNTANTS

FOUNDING PARTNERS  
BRANARD C. SIMPSON, CPA  
MELBA W. SIMPSON, CPA

U.S. BANK TOWER  
633 WEST 5TH STREET, SUITE 3320  
LOS ANGELES, CA 90071  
(213) 736-6664 TELEPHONE  
(213) 736-6692 FAX  
www.simpsonandsimpsoncpas.com

## Independent Auditor's Report

The Board of Commissioners  
Port of Los Angeles (Harbor Department of the City of Los Angeles):

### Report on the Financial Statements

We have audited the accompanying financial statements of the Port of Los Angeles (Harbor Department of the City of Los Angeles) (the Port), an enterprise fund of the City of Los Angeles, California, as of and for the years ended June 30, 2015 and 2014, and the related notes to the financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Port's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Port's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Port as of June 30, 2015 and 2014, and respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.





### ***Emphasis of Matters***

As discussed in Note 1.A, the financial statements of the Port are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the business-type activities of the City of Los Angeles, California that is attributable to the transactions of the Port. They do not purport to, and do not, present fairly the financial position of the City of Los Angeles, California as of June 30, 2015 and 2014, the changes in its financial position, or, where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1.B, the Port implemented Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions— an amendment of GASB Statement No. 27* and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date—an Amendment of GASB Statement No. 68* in fiscal year 2015. The beginning net position has been adjusted for this change.

Our opinion is not modified with respect to the aforementioned matters.

### ***Other Matters***

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 8 to 39 and schedule of proportionate share of the net pension liability and schedule of contributions on pages 111-112 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### ***Other Information***

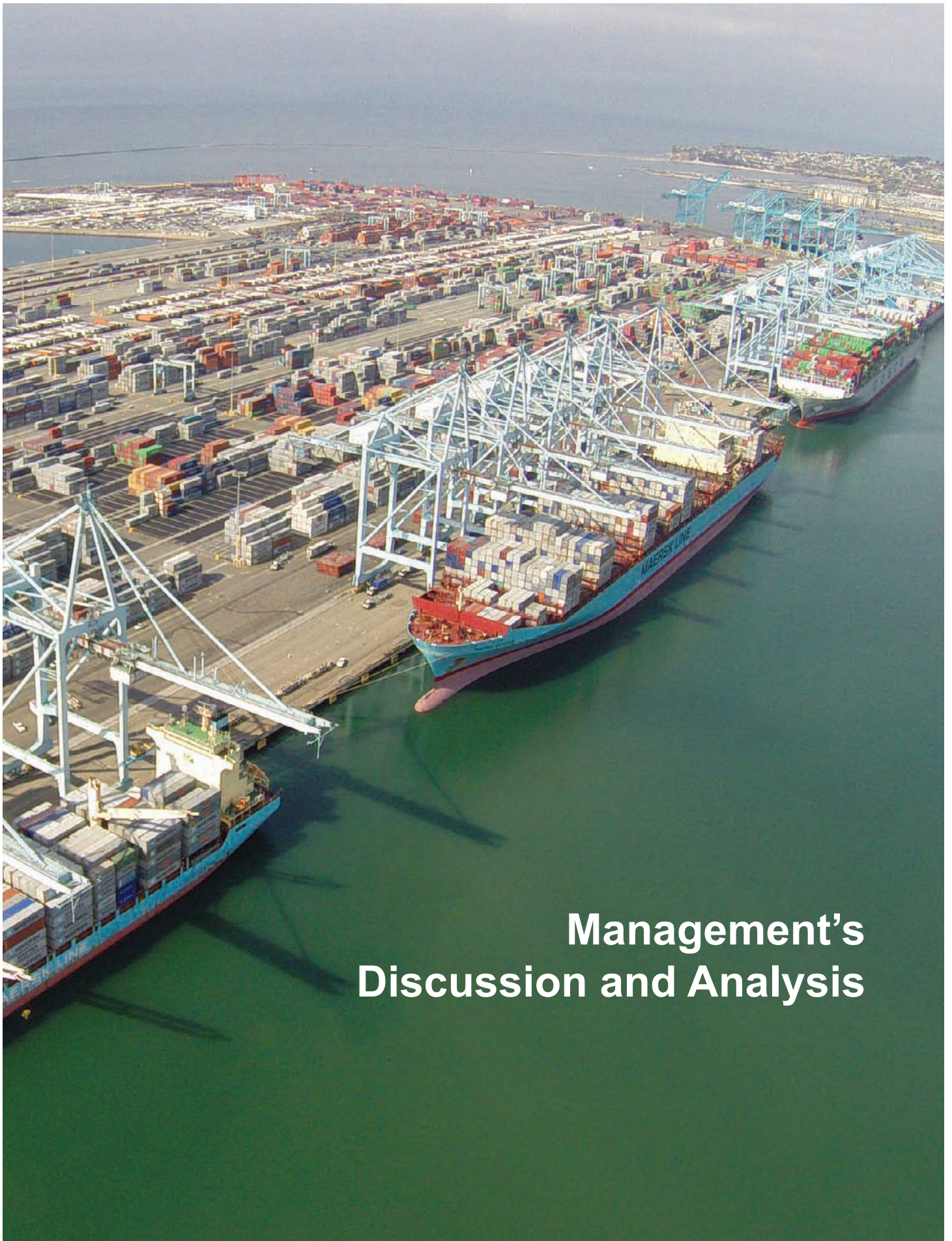
Our audit was conducted for the purpose of forming an opinion on the Port's financial statements. The introduction and supplemental information sections as listed in the accompanying table of contents are presented for the purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

### ***Other Reporting Required by Governmental Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our reports dated November 23, 2015, on our consideration of the Port's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of those reports is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Port's internal control over financial reporting and compliance.

A handwritten signature in cursive script, appearing to read 'Simpson &amp; Simpson', written in dark ink.

Los Angeles, California  
November 23, 2015



## Management's Discussion and Analysis



**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Management's Discussion and Analysis

June 30, 2015 and 2014

(Unaudited)

**Using This Financial Report**

The management of the Port of Los Angeles (the Port) presents an overview of the Port's financial performance during the years ended June 30, 2015 and 2014. This discussion and analysis should be read in conjunction with the transmittal letter on pages 1-3 and the Port's financial statements starting from page 40.

The Port's financial report consists of this management's discussion and analysis (MD&A), and the following financial statements:

- *Statements of Net Position* – present information of all of the Port's assets, deferred outflows of resources and liabilities as of June 30, 2015 and 2014. The sum of assets and deferred outflows of resources minus the sum of liabilities and deferred inflows of resources is reported as net position, which over time may increase or decrease and, serves as an indicator of the Port's financial position.
- *Statements of Revenues, Expenses, and Changes in Net Position* – present the results of operations during the current and prior fiscal year. These show the sources of the Port's revenues and its expenditures. Revenues and expenses were recorded and reported for some items that will result in cash flows in future periods. Changes in net position were reported when the underlying events occurred, regardless of the timing of the related cash flows.
- *Statements of Cash Flows* – present the inflows and outflows of cash and cash equivalents resulting from operating, noncapital financing, capital and related financing, and investing activities. A reconciliation is also provided to assist in understanding the difference between operating income and cash flows from operating activities.
- *Notes to the Financial Statements* – present information that is not displayed on the face of the financial statements. Such information is essential to a full understanding of the Port's financial activities.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Management's Discussion and Analysis

June 30, 2015 and 2014

(Unaudited)

**Overview of the Port's Financial Statements**

The Port is a fiscally independent department and an enterprise fund of the City. The Port's financial statements are prepared on an accrual basis using the economic resources measurement focus in accordance with generally accepted accounting principles promulgated by the Governmental Accounting Standards Board (GASB). The notes to the financial statements on pages 47 to 110 provide additional information that is essential to a full understanding of the data provided in the financial statements.

**Financial Highlights for Fiscal Year 2015**

- Current assets exceeded current liabilities by \$348.1 million.
- Capital assets, net of accumulated depreciation of \$1.7 billion amounted to \$3.9 billion.
- Total assets and deferred outflows of resources exceeded total liabilities and deferred Inflows of resources by \$3.1 billion.
- Bonded debt net of unamortized discounts/premiums of \$58.7 million, totaled \$1.1 billion.
- Outstanding commercial paper of \$125.0 million was refunded.
- Operating revenue amounted to \$446.9 million.
- Net operating expenses excluding depreciation of \$137.4 million amounted to \$234.2 million.
- Capital grants amounted to \$111.9 million.

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**Financial Highlights for Fiscal Year 2014**

- Current assets exceeded current liabilities by \$205.5 million.
- Capital assets, net of accumulated depreciation of \$1.6 billion amounted to \$3.8 billion.
- Application development costs of \$ 4.2 million, incurred during the fiscal year, for the design, installation, coding and testing of the Port's new financial system, the Enterprise Resource Planning System (ERP), was capitalized as Intangible Assets.
- Total assets and deferred outflows of resources exceeded total liabilities by \$3.1 billion.
- Bonded debt net of unamortized discounts/premiums of \$16.5 million, totaled \$781.0 million.
- Borrowings in the form of commercial paper totaled \$125.0 million.
- Operating revenue amounted to \$426.0 million.
- Net operating expenses excluding depreciation of \$124.2 million amounted to \$205.4 million.
- Capital grants amounted to \$80.4 million.

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**Analysis of Net Position**

Net position is the sum of assets and deferred outflows of resources minus liabilities and deferred inflows of resources. Over time, increases or decreases in net position may serve as an indicator of whether the Port's financial position is improving or deteriorating. The following is a condensed summary of the Port's net position as of June 30, 2015, 2014, and 2013 (in thousands):

<b>Condensed Net Position</b>					
	FY 2015	FY 2014	FY 2013	Increase (Decrease) Over Prior Year	
	FY 2015	FY 2014	FY 2013	FY 2015	FY 2014
<b>Assets</b>					
Current and other assets	\$ 637,824	\$ 422,527	\$ 536,621	\$ 215,297	\$ (114,094)
Capital assets, net	3,912,136	3,764,716	3,551,505	147,420	213,211
Total assets	4,549,960	4,187,243	4,088,126	362,717	99,117
<b>Deferred outflows of resources</b>	50,714	5,073	5,660	45,641	(587)
<b>Liabilities</b>					
Current liabilities	176,498	138,750	188,219	37,748	(49,469)
Long term liabilities	1,317,027	989,012	1,021,216	328,015	(32,204)
Total liabilities	1,493,525	1,127,762	1,209,435	365,763	(81,673)
<b>Deferred inflows of resources</b>	44,250	--	--	44,250	--
<b>Net position</b>					
Net investment in capital assets	2,856,561	2,863,795	2,634,840	(7,234)	228,955
Restricted for debt service	97,461	58,054	57,913	39,407	141
Unrestricted	108,877	142,705	191,598	(33,828)	(48,893)
Total net position	<u>\$ 3,062,899</u>	<u>\$ 3,064,554</u>	<u>\$ 2,884,351</u>	<u>\$ (1,655)</u>	<u>\$ 180,203</u>

**Net Position, Fiscal Year 2015**

The largest portion of the Port's net position (\$2.9 billion or 93.3%) reflects its investment in capital assets (e.g. land, facilities and equipment, construction in progress and intangible assets). These assets are used for the construction, operation and maintenance of Port facilities. An additional portion of the Port's net position (\$97.5 million or 3.2%) represents resources that are restricted for debt service. The remaining balance of \$108.9 million or 3.6% are unrestricted resources that may be used to meet the Port's ongoing obligations.

Current and other assets increased by \$215.3 million or 51.0% from \$422.5 million in fiscal year 2014 to \$637.8 million in fiscal year 2015. Fluctuations in current and other assets resulted from an increase in cash and investments of \$214.3 million.

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Unrestricted and restricted cash, cash equivalents, and investments consist primarily of cash and pooled investments held by the City Treasury on behalf of the Port. The increase of \$214.3 million from \$359.8 million at June 30, 2014 to \$574.1 million at June 30, 2015 resulted as the Port issued new bonds during the fiscal year 2015. Restricted investments increased by \$39.4 million also due to the new issuance of bonds during the fiscal year. At June 30, 2015, the Port's share in the mark to market valuation of the City's pooled investments totaled \$1.2 million. The Port reported additional investments of \$4.9 million from its share in the City's investment purchases on June 30, 2015, and \$2.9 million in securities lending transactions.

Grants receivable increased by \$4.6 million mainly due to the higher level of grant contributions in FY 2015 as the Port had received \$97.8 million from various agencies of the State of California for the Port's transportation and air quality programs.

Capital assets, net of depreciation increased by \$147.4 million due to continued commercial and terminal development, various building and facilities improvements, and acquisition of equipment.

Current liabilities increased by \$37.7 million or 27.2% mainly due to the increases of \$21.2 million in accounts payable resulting from timing difference in payments and an increase of \$15.6 million in the current portion of notes payable and bonded debt due to new issuance of bonds during the fiscal year.

These increases were offset by a \$5.7 million decrease in other current liabilities resulting from a \$6.8 million payment made for China Shipping and Community Aesthetic Mitigation liabilities and a decrease of \$2.6 million in pollution remediation liability. Please refer to page 109 of the notes to the financial statements for additional information on the payments from the China Shipping and Community Aesthetic Mitigation Funds, and page 89 for the decrease in pollution remediation liabilities.

Long-term liabilities increased by \$328.1 million mainly due to a new bond issuance of \$337.3 million in September 2014 and recognition of \$198.8 million in net pension liabilities under the new accounting standards. These increases were offset by a \$125.0 million decrease in commercial paper notes which were refunded through issuance of new debt, a \$100.9 million decrease in outstanding debt, and a \$4.8 million decrease in estimated pollution remediation liabilities. Additional information on the decrease in pollution remediation liabilities is found on page 89 of the notes to the financial statements.

**Net Position, Fiscal Year 2014**

The largest portion of the Port's net position (\$2.9 billion or 93.4%) reflects its investment in capital assets (e.g. land, facilities and equipment, construction in progress and intangible assets). These assets are used for the construction, operation and maintenance of Port facilities. An additional portion of the Port's net position (\$58.1 million or 1.9%) represents resources that are restricted for debt service. The remaining balance of \$142.7 million or 4.7% are unrestricted resources that may be used to meet the Port's ongoing obligations.

Current and other assets decreased by \$114.1 million or 21.3% from \$536.6 million in fiscal year 2013 to \$422.5 million in fiscal year 2014. Fluctuations in current and other assets resulted from: a decrease in cash and investments of \$97.7 million, a net decrease of \$11.6 million in accounts and grants receivables, an

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increase of \$0.3 million in inventories and prepaid expenses, and a decline of \$4.8 million in notes receivable.

Unrestricted and restricted cash, cash equivalents, and investments consist primarily of cash and pooled investments held by the City Treasurer on behalf of the Port. The decrease of \$97.7 million from \$457.6 million at June 30, 2013 to \$359.8 million at June 30, 2014 resulted as the Port used portions of its cash for capital improvement activities and the redemption of bonds. Restricted cash and cash equivalents decreased by \$8.8 million due to payments made from the China Shipping Mitigation Funds of \$8.0 million to reimburse expenditures for improvement projects and \$0.9 million from the Clean Truck Restricted Funds for clean truck program expenses. At June 30, 2014, the Port's share in the mark to market valuation of the City's pooled investments totaled \$0.9 million. The Port reported additional investments of \$2.1 million from its share in the City's investment purchases on June 30, 2014, and \$0.4 million in securities lending transactions.

Higher cargo volume and revenues in fiscal year 2014 contributed to the \$7.1 million or 19.6% increase in net accounts receivable. Certain billings pertaining to a TEU rate increase remained uncollected due to ongoing negotiations with a tenant which contributed to the higher outstanding accounts receivable as well. Grants receivable decreased by \$18.7 million mainly due to the higher level of grant receipts in FY 2014 as the Port had received \$8.5 million from the State of California Emergency Management Agency for the Port and Maritime Security Grant Program and \$6.2 million from the U.S. Department of Homeland Security.

Capital assets, net of depreciation increased by \$213.2 million due to continued commercial and terminal development, various building and facilities improvements, and acquisition of equipment.

Current liabilities decreased by \$49.5 million or 26.3% mainly due to the decreases of \$43.9 million in accounts payable resulting from improved efficiency in payments, \$1.1 million lower obligations under securities lending transactions, and \$11.0 million in other current liabilities. The net decrease of \$11.0 million in other current liabilities mainly resulted from decreases of \$4.1 million in China Shipping and Community Aesthetic Mitigation liabilities, \$3.0 million in federal pass through grant liability, and \$1.6 million in pollution remediation liability. Please refer to page 109 of the notes to the financial statements for additional information on the payments from the China Shipping and Community Aesthetic Mitigation Funds, and page 89 for the decrease in pollution remediation liability.

These decreases were offset by \$4.8 million increase in accrued construction payable resulting from higher retention liabilities, \$1.2 million increase in accrued salaries and benefits and \$0.5 million increase in the current portion of notes, bonds payable and interest payable for the redemption of bonds.

Long-term liabilities decreased by \$32.2 million mainly due to lower bonds and notes payable of \$41.2 million and \$16.2 million decrease in other liabilities. These were offset by an increase of \$25.0 million obligation for commercial paper notes from additional issuance during the fiscal year. The decrease of \$16.2 million in other liabilities was mainly due to lower estimated pollution remediation liability. Additional information on the decrease in pollution remediation liability is found on page 89 of the notes to the financial statements.



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**Analysis of the Port's Activities**

The following table presents condensed information showing how the Port's net position changed during fiscal years 2015, 2014 and 2013 (in thousands):

<b>Condensed Statement of Net Position</b>					
	FY 2015	FY 2014	FY 2013	Increase (Decrease) Over Prior Year	
	FY 2015	FY 2014	FY 2013	FY 2015	FY 2014
Operating revenue	\$ 446,895	\$ 425,951	\$ 397,368	\$ 20,944	\$ 28,583
Operating expenses	(234,249)	(205,354)	(205,169)	(28,895)	(185)
Operating income before depreciation and amortization	212,646	220,597	192,199	(7,951)	28,398
Depreciation and amortization	(137,384)	(124,221)	(108,037)	(13,163)	(16,184)
Operating income	75,262	96,376	84,162	(21,114)	12,214
Net nonoperating revenue (expenses)	5,293	(22,111)	1,186	27,404	(23,297)
Income before capital contributions	80,555	74,265	85,348	6,290	(11,083)
Capital contributions	111,852	80,374	17,630	31,478	62,744
Special Item	--	15,002	13,387	(15,002)	1,615
Changes in net position	192,407	169,641	116,365	22,766	53,276
Net position, July 1	3,064,554	2,884,351	2,776,128	180,203	108,223
Net adjustment for write off of bond issue costs	--	--	(8,142)	--	8,142
Net adjustment for prior year amortization of bond premium/discount	--	10,562	--	(10,562)	10,562
Cumulative effect of change in accounting principles	(194,062)	--	--	(194,062)	--
Net position, July 1, restated	2,870,492	2,894,913	2,767,986	(24,421)	126,927
Net position, June 30	<u>\$ 3,062,899</u>	<u>\$ 3,064,554</u>	<u>\$ 2,884,351</u>	<u>\$ (1,655)</u>	<u>\$ 180,203</u>

**Fiscal Year 2015**

Net position for the Port posted a \$1.7 million or 0.1% decrease in fiscal year 2015. Approximately \$411.1 million or 92.0% of total operating revenues were derived from fees for shipping services and leasing of facilities to customers. Since the Port operates as a landlord, operating expenses are principally administrative in nature. Operating expenses were higher by \$28.9 million in fiscal year 2015 compared to the previous fiscal year.

Depreciation expense increased by \$13.2 million to \$137.4 million in fiscal year 2015 from \$124.2 million in fiscal year 2014, primarily due the net addition of \$791.8 million in net depreciable assets in fiscal year 2015.

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Nonoperating revenues for fiscal year 2015 totaled \$13.5 million, while nonoperating expenses were \$8.2 million, thereby resulting in net nonoperating revenue of \$5.3 million. Nonoperating revenues of \$13.5 million include: \$2.8 million income from the investment in the Intermodal Container Transfer Facility Joint Powers Authority, \$5.0 million from interest and investment income from the Port's cash in the City's pooled investments, \$4.0 million from noncapital grants, \$0.6 million from pass through grant revenue, as well as \$1.1 million from various rebates, reimbursements, and miscellaneous other receipts. Nonoperating expenses of \$8.2 million include \$0.3 million interest on indebtedness, \$0.6 million pass through grant expenditures, \$3.5 million of expenses resulting from certain capitalized projects being discontinued during the fiscal year, \$1.4 million loss on sale of assets, and \$2.4 million related to the costs of issuing debts and maintaining liquidity support for the commercial paper program during the fiscal year.

As a result, income before capital contributions increased by \$6.3 million or 8.5% to \$80.6 million in fiscal year 2015 from \$74.3 million in fiscal year 2014.

Capital contributions of \$111.9 million represented funds for capital grants obtained in fiscal year 2015, or an increase of \$31.5 million compared to the \$80.4 million received in fiscal year 2014. Capital grant reimbursements in fiscal year 2015 came from the California Transportation Commission and California Air Resource Board for the Proposition 1B transportation projects (\$81.6 million), Metropolitan Transit Authority for the Trade Corridor Improvement project (\$16.1 million), U.S. Department of Homeland Security for the Integrated Command and Control Fiber Connectivity and Information Technology Cyber Security projects (\$5.4 million), and U.S. Department of Transportation for various transportation projects (\$8.7 million).

**Fiscal Year 2014**

Net position for the Port posted a \$180.2 million or 6.2% increase in fiscal year 2014. Approximately \$417.4 million or 98.0% of total operating revenues were derived from fees for shipping services and leasing of facilities to customers. Since the Port operates as a landlord, operating expenses are principally administrative in nature. Operating expenses were higher by \$0.2 million in fiscal year 2014 compared to the previous fiscal year.

Depreciation expense increased by \$16.2 million to \$124.2 million in fiscal year 2014 from \$108.0 million in fiscal year 2013, primarily due the net addition of \$80.1 million in net depreciable assets in fiscal year 2014.

Nonoperating revenues for fiscal year 2014 totaled \$21.0 million, while nonoperating expenses were \$43.1 million, thereby resulting in net nonoperating expenses of \$22.1 million. Net nonoperating revenues of \$21.0 million include \$2.1 million income from the investment in the Intermodal Container Transfer Facility Joint Powers Authority, \$4.7 million from interest and investment income from the Port's cash in the City's pooled investments, \$1.4 million from noncapital grants, \$6.8 million from pass through grant revenue, \$5.0 million from various rebates and reimbursements, and \$1.0 million miscellaneous other receipts. Nonoperating expenses of \$43.1 million include \$1.5 million interest on indebtedness, \$6.8 million pass through grant expenditures, \$32.9 million of expenses resulting from certain capitalized projects being discontinued during the fiscal year, \$0.5 million loss on sale of assets, and \$1.2 million related to the costs of issuing commercial paper and maintaining the liquidity support for the commercial paper program during the fiscal year.

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As a result, income before capital contributions decreased by \$13.0 million or 15.3% to \$72.3 million in fiscal year 2014 from \$85.3 million in fiscal year 2013.

Capital contributions of \$80.4 million represented funds for capital grants obtained in fiscal year 2014, or an increase of \$62.7 million compared to the \$17.6 million received in fiscal year 2013. Capital grant reimbursements in fiscal year 2014 came from the California Transportation Commission for the Proposition 1B transportation projects (\$35.7 million), Metropolitan Transit Authority for the Trade Corridor Improvement project (\$17.8 million), U.S. Department of Homeland Security for the Integrated Command and Control Fiber Connectivity project (\$4.0 million), and U.S. Department of Transportation for various transportation projects (\$22.0 million).

In fiscal year 2014, the Port fully implemented GASB 65 which requires that the effective interest method of amortizing bond premium or discount be used instead of the straight line method. The Port adjusted its beginning net position by \$10.6 million to reflect the cumulative effect of applying this change.

An adjustment of \$15.0 million for pollution remediation obligations was reflected as Special Item. Additional information on pollution remediation liability adjustment may be found on page 89 of the notes to the Financial Statements.

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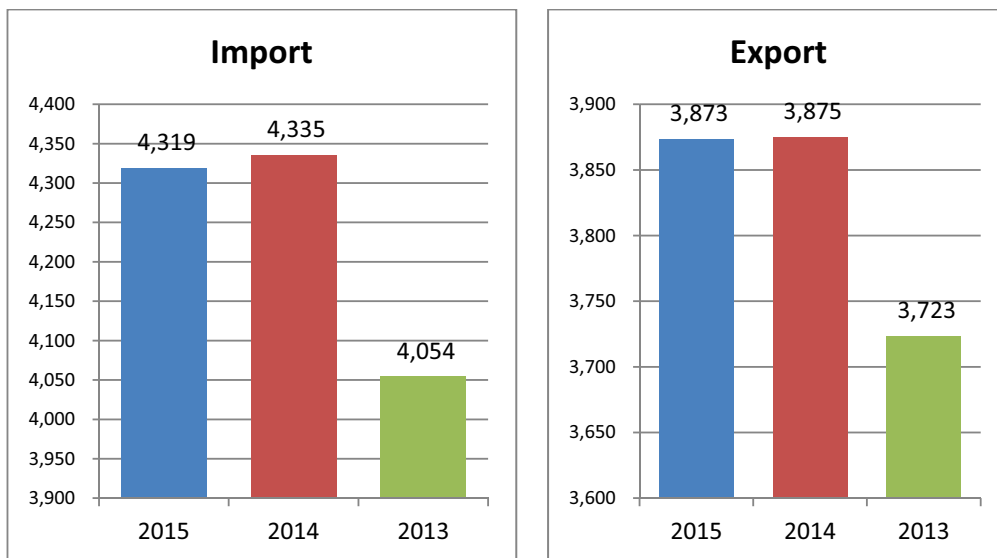
(Unaudited)

**Operating Revenue**

Annual container counts for the Port in twenty-foot equivalent units (TEUs) - a standard measurement used in the maritime industry for measuring containers of varying lengths for the last three fiscal years are as follows (in thousands):

Container Volume	In TEUs			% Change Over Prior Year	
	FY 2015	FY 2014	FY 2013	FY 2015	FY 2014
Import	4,319	4,335	4,054	-0.4%	6.9%
Export	3,873	3,875	3,723	-0.1%	4.1%
Total	8,192	8,210	7,777	-0.2%	5.6%

Following is the graphical presentation of the Port's container counts (in thousands TEUs) for fiscal years 2013 to 2015:



In Thousand TEUs

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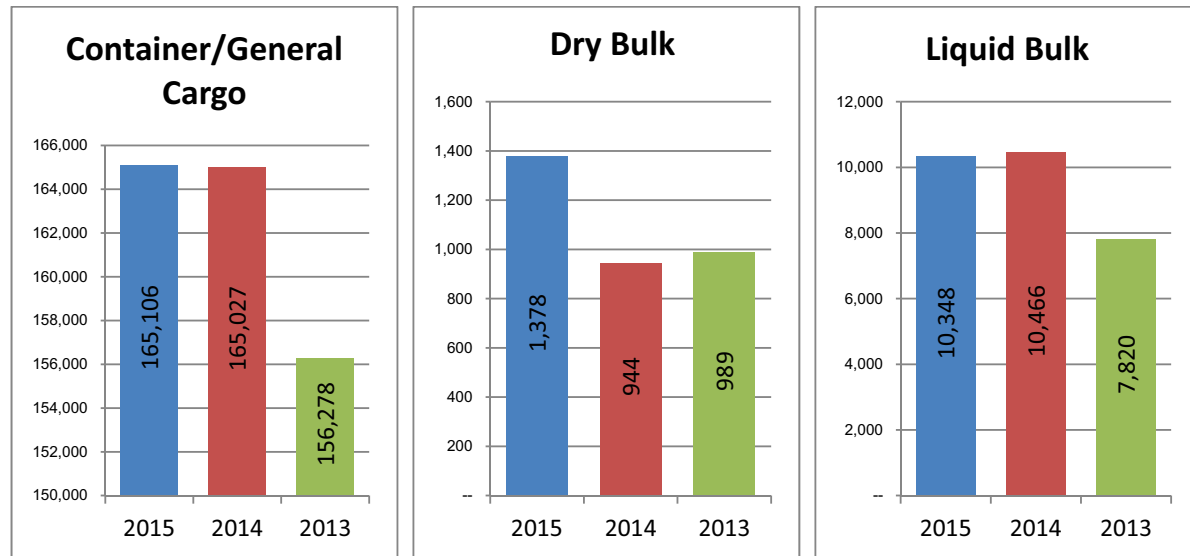
(Unaudited)

The Port is the leading seaport in North America in terms of shipping container volume. The following presents a summary of cargo volumes by major classification handled by the Port for the last three fiscal years (in thousands):

Cargo Type	In Metric Revenue Tons			% Change Over Prior Year	
	FY 2015	FY 2014	FY 2013	FY 2015	FY 2014
Container/general cargo	165,106	165,027	156,278	0.1%	5.6%
Dry bulk	1,378	944	989	46.0%	-4.6%
Liquid bulk	10,348	10,466	7,820	-1.1%	33.8%
Total	176,832	176,437	165,087		

Information for the cargo volume that moved through the Port for the last ten fiscal years is found in the supplemental information on page 116.

Following is the graphical presentation of the Port's cargo volumes for fiscal years 2013 to 2015 in thousand metric tons:



In Thousand Metric Tons

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The Port is the number one port by container volume in North America. Over the course of fiscal year 2015, cargo volumes exhibited significant volatility relative to fiscal year 2014. After the July 1, 2014 expiration of the labor contract between the International Longshore and Warehouse Union (ILWU) and the Pacific Maritime Association (PMA), cargo handling activities continued to occur with the majority of arriving ships proceeding directly to berth. Despite (i) bigger ships bringing larger quantities of cargo in one specific time period, (ii) greater complexity in cargo sorting when discharging large volumes of containers for multiple alliance members, (iii) chassis dislocations and provisioning gaps, and (iv) truck driver gate turn-time challenges at container terminals among other operational issues, first quarter cargo volumes exceeded prior year-to-date cargo volumes by 5.3%.

However, as fiscal year 2015 progressed, the aforementioned operational challenges as well as protracted labor negotiations became more of a factor for congestion not only at the Port, but also at most ports along the U.S. west coast. In each of the three months during the second quarter of fiscal year 2015, the Port's fiscal year-to-date cargo volume growth declined relative to prior year such that by the end of December 2014, cargo volumes were only 3.1% above prior year figures.

By February 20, a tentative agreement between the PMA and ILWU was reached; however, by that point, congestion had impacted operations within San Pedro Bay such that ships that had in the first quarter typically proceeded to berth now had to wait at anchor for several days prior to being unloaded. At the height of the congestion, more than 30 ships sat at anchor in San Pedro Bay awaiting berth availability. Furthermore, the aforementioned operational challenges (bigger ships, cargo sorting complexity, chassis dislocations, etc.) continued to persist once these ships reached berth such that loading and unloading activities took significantly longer than usual. By the end of February 2015 and only 5 months after being 5.3% above prior year figures, fiscal year-to-date cargo volumes had fallen 1.5% below prior year.

Following the tentative agreement reached between the PMA and ILWU as well as the integration of new operational initiatives intended to improve chassis utilization and expedite container pick up, cargo volumes began to rebound such that the Port handled 791,863 TEUs in March, the second highest monthly total in its history. Through the third quarter of fiscal year 2015, cargo volumes rose to 0.6% above prior year.

Over the course of the fourth quarter of fiscal year 2015, congestion throughout the Port continued to ease as: ships once again began proceeding directly to berth rather than anchor; members of the ILWU's rank-and-file voted to approve the tentative agreement with the PMA; and the aforementioned operational initiatives continued to increase the velocity at which cargo moved off of terminal docks and onto their final destinations. However, due to the diversion of non-discretionary cargo to East and Gulf Coast ports at the height of congestion and given that cargo owners had stockpiled inventory in the fiscal year prior to the expiration of the ILWU contract with the PMA (thus inflating prior fiscal year volumes), fiscal year 2015 cargo volumes ultimately fell 0.2% below fiscal year 2014 figures.

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The Port's major sources of its operating revenue are derived from shipping services, rental fees, royalties and other concession fees. The following table presents a summary of the Port's operating revenues during fiscal years 2015, 2014 and 2013 (in thousands):

**Summary of Operating Revenues**

	FY 2015	FY 2014*	FY 2013*	Increase (Decrease) Over Prior Year	
				FY 2015	FY 2014
Shipping services					
Wharfage	\$ 336,090	\$ 349,953	\$ 322,708	\$ (13,863)	\$ 27,245
Dockage and demurrage	6,426	5,153	4,917	1,273	236
Pilotage	7,110	7,540	6,954	(430)	586
Assignment and other charges	15,273	14,567	13,297	706	1,270
Total shipping services	<u>364,899</u>	<u>377,213</u>	<u>347,876</u>	<u>(12,314)</u>	<u>29,337</u>
Rentals					
Land	45,255	38,189	38,856	7,066	(667)
Others	978	1,967	4,034	(989)	(2,067)
Total rentals	<u>46,233</u>	<u>40,156</u>	<u>42,890</u>	<u>6,077</u>	<u>(2,734)</u>
Royalties and other fees					
Fees, concession and royalties	14,968	2,767	1,744	12,201	1,023
Clean truck program fees	3,520	2,119	1,409	1,401	710
Others	17,275	3,696	3,449	13,579	247
Total royalties and other fees	<u>35,763</u>	<u>8,582</u>	<u>6,602</u>	<u>27,181</u>	<u>1,980</u>
Total operating revenues	<u>\$ 446,895</u>	<u>\$ 425,951</u>	<u>\$ 397,368</u>	<u>\$ 20,944</u>	<u>\$ 28,583</u>

\* Certain information was reclassified to conform to current year's presentation.

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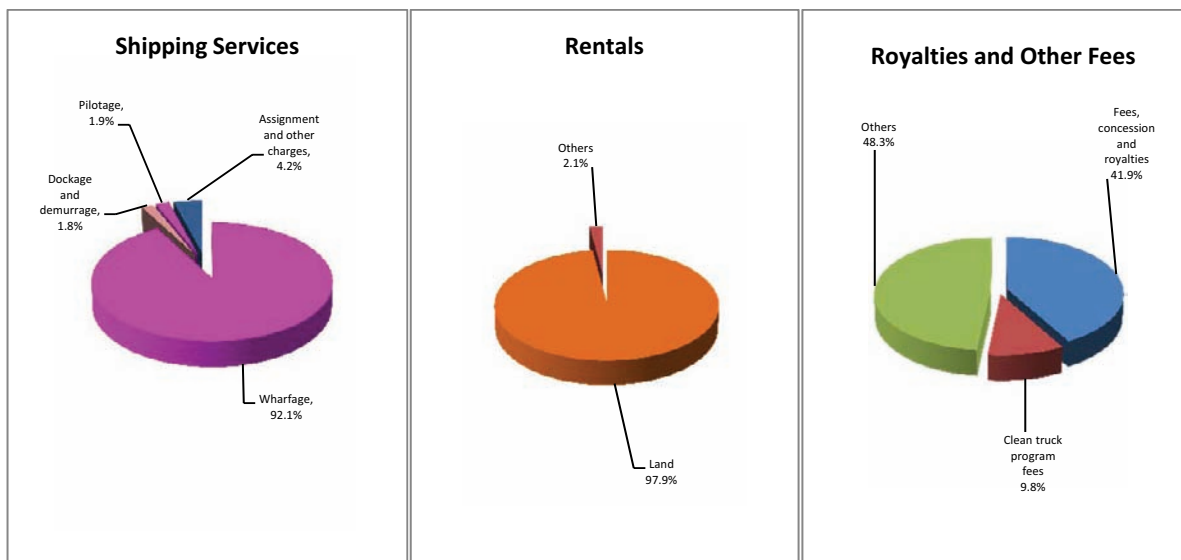
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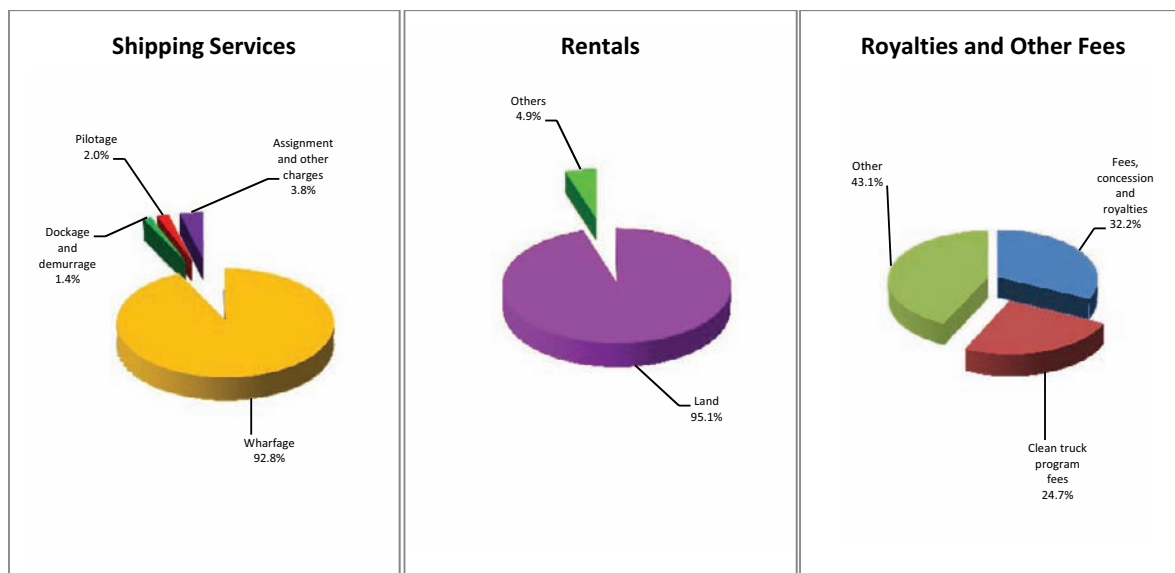
(Unaudited)

The following charts show the major components of the Port's sources of operating revenue for fiscal years 2015 and 2014:

**Fiscal Year 2015**



**Fiscal year 2014**





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**Operating Revenue, Fiscal Year 2015**

Operating revenue for fiscal year 2015 increased to \$446.9 million, reflecting a 4.9% increase from the prior year revenue of \$426.0 million. As stated earlier, the Port derives its operating revenues primarily from shipping services, rentals, and fees from royalties, concessions and other fees.

***Shipping Services***

Shipping services revenues consist of several classifications of fees assessed for various activities relating to vessel and cargo movement. Of these fees, wharfage is the most significant and comprised 92.1% of the total shipping service revenues in fiscal year 2015. Wharfage is the fee charged against merchandise for passage over wharf premises, to and from vessels, and barges. Wharfage was \$13.9 million lower compared to fiscal year 2014 mainly due to TEUs qualifying for lower rates as higher cargo volumes moved through terminals with lower overall TEU rates and lower cargo volumes moved through terminals with higher overall TEU rates. Net other shipping revenues were \$1.5 million higher as dockage, demurrage and assignment revenues increased by \$1.2 million, \$0.1 million, and \$0.8 million, respectively. Increases in net other shipping revenues were due to bigger ships and longer vessel stay at the Port as well as more space assignments provided due to additional areas requested by terminal operators.

***Rentals***

The Port generates revenues from making available various types of rental properties such as land, buildings, warehouses, wharves, and sheds. Rates are negotiated for these properties based upon two general classifications, waterfront and backland. Independent appraisals are performed periodically to establish benchmark rates for these properties. Rates ultimately set in land rental agreements may be adjusted, within reason, to reflect general market conditions. Rates for other categories of properties are also set taking into account the condition, location, utility, and other aspects of the property.

During fiscal year 2015, rental income at the Port which represented 10.3% of fiscal year 2015 total operating revenues increased by \$6.1 million, or 15.1%, over last fiscal year. Rental revenues from land increased by \$7.1 million or 18.5% due to a one-time adjustment which recovered higher Minimum Annual Guaranteed rental rates and increased container charges related to the Intermodal Container Transfer Facility retroactive to December 2011.

***Royalties, Fees, and Other Operating Revenue***

The Port levies fees for a variety of activities conducted on the Port properties. Examples include royalties from the production of oil and natural gas, fees for parking lots, motion picture productions, foreign trade zone operations, miscellaneous concessions, distribution of utilities, and maintenance and repair services conducted by the Port at the request of customers.

Revenues from royalties, fees, and other operating revenues in 2015 was \$35.8 million or 8.0% of the total operating revenue. This represented an increase of \$27.2 million more in this revenue category compared with fiscal year 2014 due to \$10.9 million in higher license fees related to the BNSF/SCIG facility, \$9.4 million in higher utility reimbursements, \$5.1 million in higher refunds/reimbursements, \$1.4 million in higher Clean Truck Program revenues and \$0.4 million in higher parking fees.

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**Operating Revenue, Fiscal Year 2014**

Operating revenue for fiscal year 2014 increased to \$426.0 million, reflecting a 7.2% increase from the prior year revenue of \$397.4 million. As stated earlier, the Port derives its operating revenues primarily from shipping services, rentals, and fees from royalties, concessions and other fees.

***Shipping Services***

Shipping services revenues consist of several classifications of fees assessed for various activities relating to vessel and cargo movement. Of these fees, wharfage is the most significant and comprised 93.0% of the total shipping service revenues in fiscal year 2014. Wharfage is the fee charged against merchandise for passage over wharf premises, to and from vessels, and barges. Wharfage was \$28.1 million higher compared to fiscal year 2013 mainly due to higher container cargo volume as measured in TEUs as both organic growth and, towards the latter part of the fiscal year, uncertainty over labor contract negotiations spurred cargo owners to stockpile goods. A general rate increase of 1.7% from July to November 2013 as well as scheduled TEU rate adjustments also contributed to the higher shipping services revenues. Net other shipping revenues were \$1.2 million higher as dockage and demurrage, pilotage and assignment revenues increased by \$0.2 million, \$0.6 million and \$0.4 million respectively. Increases in net other shipping revenues were due to more favorable contract terms to the Port with respect to cruise ships handling, and a 25% increase in the number of cruise vessels that called at the Port as well as more space assignments provided due to additional areas requested by terminal operators.

***Rentals***

The Port generates revenues from making available various types of rental properties such as land, buildings, warehouses, wharves, and sheds. Rates are negotiated for these properties based upon two general classifications, waterfront and backland. Independent appraisals are performed periodically to establish benchmark rates for these properties. Rates ultimately set in land rental agreements may be adjusted, within reason, to reflect general market conditions. Rates for other categories of properties are also set taking into account the condition, location, utility, and other aspects of the property.

During fiscal year 2014, rental income at the Port which represented 9.4% of fiscal year 2014 total operating revenues decreased by \$2.7 million, or 6.4%, over last fiscal year. Rental revenues from land, building, and warehouse facilities declined by \$2.8 million or 6.7% due to the cancellation of certain rental agreements. In addition, a one-time fee of \$0.7 million billed to the U.S. Customs House in fiscal year 2013 contributed to the higher rental revenue in the prior fiscal year. This decline in fiscal year 2014 was offset by higher rental revenues from wharves and sheds of \$0.1 million or 19.0% because of a 1.33% rent adjustment based on an increase in consumer price index.

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***Royalties, Fees, and Other Operating Revenue***

The Port levies fees for a variety of activities conducted on the Port properties. Examples include royalties from the production of oil and natural gas, fees for parking lots, motion picture productions, foreign trade zone operations, miscellaneous concessions, distribution of utilities, and maintenance and repair services conducted by the Port at the request of customers.

Revenues from royalties, fees, and other operating revenues in 2014 was \$8.6 million or 2.0% of the total operating revenue. This represented a 30.0% increase or \$2.0 million more in this revenue category compared with fiscal year 2013. Revenues from fees and concessions were up by \$1.0 million mainly due to higher receipts from Temporary Entry and Use Permits and general engineering permit fees. Income from oil royalties went down because of a refund granted to Tidelands Oil Production Company for overpayment to the Port due to certain billing adjustments. Net other revenues increased by \$0.8 million due to higher receipts from utility reimbursements from customers for Alternative Marine Power (AMP) usage.

**Operating Expenses**

The following table presents a summary of the Port's operating expenses, net of direct and indirect costs allocated to capitalized construction projects for fiscal years 2015, 2014 and 2013. Included in other operating expenses are expenses for workers compensation, clean truck program, pollution remediation, insurance premiums, travel and entertainment, customer incentive payout, and miscellaneous other items.

**Operating Expenses, Net of Direct and Indirect Costs  
(amounts in thousands)**

	FY2015	FY2014	FY2013*	Increase(Decrease) Over Prior Year	
				FY2015	FY2014
Salaries and benefits	\$ 111,788	\$ 112,053	\$ 101,861	\$ (265)	\$ 10,192
City services	34,749	33,633	31,074	1,116	2,559
Outside services	28,983	26,331	29,690	2,652	(3,359)
Utilities	19,373	12,335	5,723	7,038	6,612
Materials and supplies	6,257	6,883	5,989	(626)	894
Marketing and public relations	2,771	2,711	2,877	60	(166)
Other operating expenses	30,328	11,408	27,955	18,920	(16,547)
<b>Total Operating Expenses</b>	<b>\$ 234,249</b>	<b>\$ 205,354</b>	<b>\$ 205,169</b>	<b>\$ 28,895</b>	<b>\$ 185</b>

\*Certain information was reclassified to conform to current year's presentation.

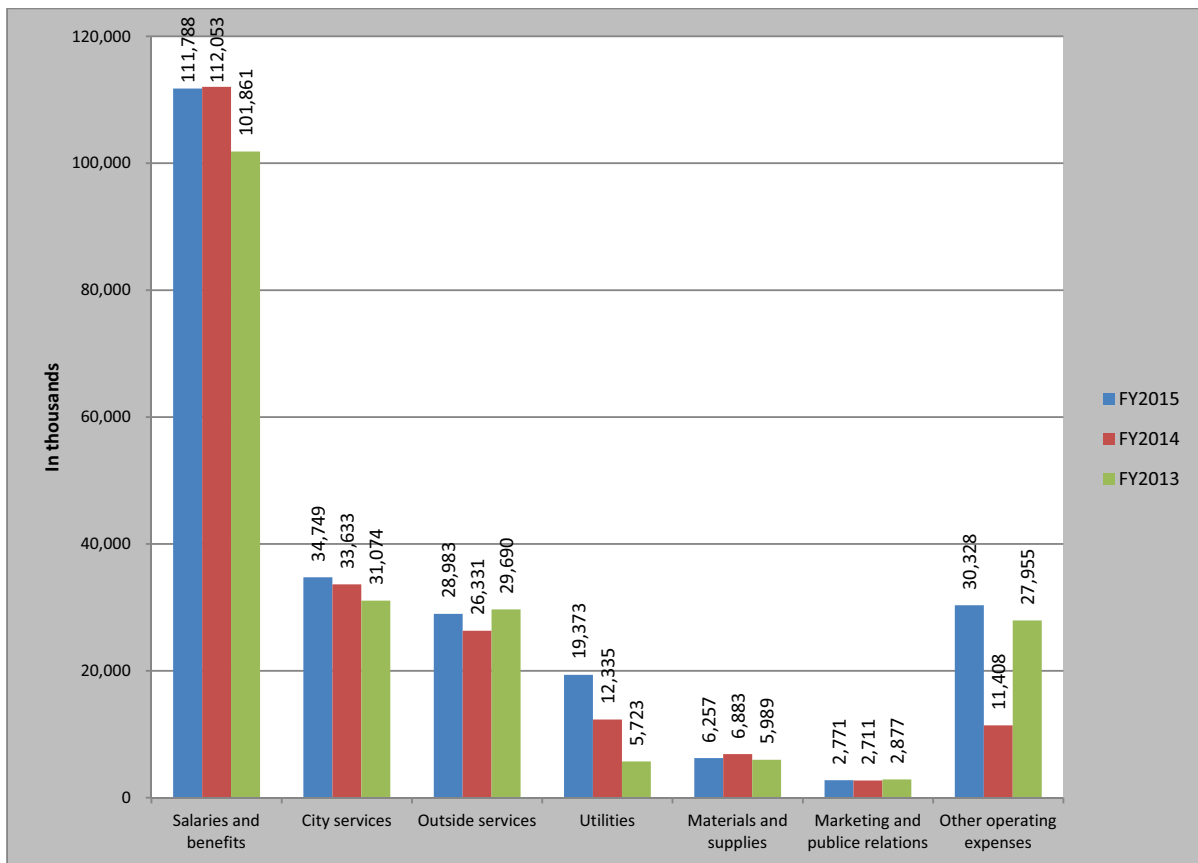
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The following chart shows the graphical comparison of the Port's operating expenses, net of direct and indirect costs, for fiscal years 2015, 2014 and 2013:



### Fiscal Year 2015

Operating expenses were presented net of direct and indirect costs allocated to capitalized construction projects. Direct costs are costs of materials, labor, and expenses assigned or identified with specific capital projects. Indirect costs are overhead costs not directly identified with a particular capital project such as administrative expenses, maintenance costs and City services, and hence, are allocated based on the average outstanding balance of capitalized construction projects. Information on direct and indirect costs deducted from operating expenses and charged to capitalized construction projects are presented on pages 118-119 of the supplemental information section.

In fiscal year 2015, operating expenses increased by \$28.9 million to \$234.2 million, a 14.1% increase from prior fiscal year expense of \$205.4 million as a GASB-68 pension expense adjustment, higher provisioning for BNSF/SCIG license fees, increased customer incentive payouts and higher AMP-related electricity expenses were only modestly offset by lower average headcounts throughout the Port.

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Salaries and benefits expense including pension expense decreased by \$0.3 million to \$111.8 million, or 0.2% lower than prior year of \$112.1 million as declines resulting from lower average full-time filled positions. Average full-time filled positions in fiscal year 2015 were 910 versus 937 in fiscal year 2014 which offset MOU salary increases for employees throughout the Port.

Total payments for City services increased by \$1.1 million due to higher street paving service than prior year.

Outside services expenses of \$29.0 million represented an increase of \$2.7 million, or 10.1%, relative to prior year expenses of \$26.3 million. This increase in outside services expenses was primarily attributable to expense increases resulting from the following: lower direct allocations to capital of \$3.6 million, higher spending for environmental assessment services of \$1.1 million and higher cruise terminal operating expenses of \$0.5 million. These increases in outside services were partially offset by: \$0.4 million in lower hiring hall salaries, \$0.4 million in lower spending on expert witnesses and legal services, \$0.3 million in lower public relations spending, \$0.2 million in lower spending on grants monitoring and administrative expenses, \$0.2 million in lower spending on external audits, \$0.2 million in lower spending on miscellaneous professional executive services, and \$0.1 million in lower spending on Port Pilot equipment.

Utilities increased by \$7.1 million to \$19.4 million or 57.1% from prior year of \$12.3 million mainly as a result of the additional AMP electricity consumption as fiscal year 2015 represented the first full fiscal year in which all container terminals utilized AMP services over a 12 month period.

Materials and supplies expenses decreased by \$0.6 million to \$6.3 million or 9.1% from prior year of \$6.9 million due primarily to \$0.6 million in higher capitalization of materials and supplies expenses relative to prior year.

Other operating expenses of \$30.3 million represented an increase of \$19.0 million, or 174.5%, relative to prior year expenses of \$11.4 million. This increase in other operating expenses was primarily attributable to a charge of \$10.9 million for possible non-collection of BNSF/SCIG license fees and \$10.5 million in payouts related to the Ocean Common Carrier Incentive Program.

**Fiscal Year 2014**

Operating expenses were presented net of direct and indirect costs allocated to capitalized construction projects. Direct costs are costs of materials, labor, and expenses assigned or identified with specific capital projects. Indirect costs are overhead costs not directly identified with a particular capital project such as administrative expenses, maintenance costs and City services, and hence, are allocated based on the average outstanding balance of capitalized construction projects. Information on direct and indirect costs deducted from operating expenses and charged to capitalized construction projects are presented on pages 118-119 of the supplemental information section.

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In fiscal year 2014, operating expenses increased by \$0.2 million to \$207.3 million, a 0.1% increase from prior fiscal year expense of \$205.2 million as the Port controlled its overall level of operating expenditures in light of rising salaries and benefits costs. Significant drivers in operating expenses include salaries and benefits, outside services, City services, utilities, materials and supplies and pollution remediation obligations.

Salaries and benefits expense increased by \$10.2 million to \$112.1 million, or 10.0% higher than prior year of \$101.9 million despite slightly lower average full-time filled positions of 939. Salaries and benefits rose primarily driven by an increase of \$2.8 million in salaries due to increases that ranged from 1.0% to 5.5% in cost of living allowances for employees covered by various MOUs and mandatory step salary increases. The costs of benefits increased as rising costs associated with the City's defined pension plan and health and dental insurance rose by \$2.3 million. The increase comprised of \$2.0 million or 9.6% in pension contributions, and \$0.3 million or 2.4% increase in medical and dental insurance costs. Allocation of salaries and benefits to capital projects decreased by \$4.2 million despite higher capital expenditures as Port staff time spent on capital projects declined.

Total payments for City services increased by \$2.6 million. The increase in City services payments resulted from \$2.2 million in higher salaries costs as the City employees providing services to the Port billed at higher rates in line with negotiated MOUs. Also contributing to the higher costs was \$0.9 million in higher payment to the Fire Department for the protection services given slightly higher CAP rates offset by a \$0.8 million refund for City Attorney services overbilling given the existence of furlough in the previous year. Indirect allocation to capitalized projects decreased by \$10.6 million as the level of indirect allocation is formula based against the level of direct allocation. Offsetting these higher costs were lower payment to the Department of Recreation and Parks of \$1.6 million due to completion of various projects, and decreased charges of \$3.1 million for utility costs, as well as net decrease of \$6.9 million in payments to the Department of Public Works due to reduced services.

Outside services decreased by \$3.4 million to \$26.3 million or 11.3% from prior year of \$29.7 million primarily due to the following: \$3.9 million lower spending for maintenance of building and grounds (\$1.9 million), open facilities and land (\$0.7 million), wharves and other facilities (\$1.3 million), \$0.6 million decline in maintenance and consulting needs for various computer hardware and software primarily because the ERP continues to stabilize requiring less configuration, \$5.0 million decline in expenditures for architectural and engineering design support services, lower hiring hall salaries and benefits payments of \$1.5 million given greater reliance on Port staff and found efficiencies in certain maintenance activities, and \$5.3 million lower environmental assessment services as the Port reclassified certain projects to capital, fewer emergency hazardous waste response took place, and portions of the Clean Air Action Plan experienced lower costs. These decreases were offset by the following higher payments: \$0.7 million for dredging activities, \$1.1 million increase in Port security operations, and \$0.5 million additional legal services, and \$1.3 million for operations at the Cruise Terminal as the number of cruise ship calls increased over the previous fiscal year. Allocation of portions of outside services to capital projects declined by \$7.8 million as a result of the reversion of certain capital projects to expense, thereby resulting in higher operating expense charge for outside services.

Utilities increased by \$6.6 million to \$12.3 million or 115.5% from prior year of \$5.7 million mainly as a result of the additional \$4.2 million electricity consumption due to the full operation of the AMP program in fiscal

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year 2014, and \$1.0 million prior fiscal year usage paid in fiscal year 2014. Water and communications usage also increased by \$0.9 million during the year as new facilities required additional utility services.

Materials and supplies expenses increased by \$0.9 million to \$6.9 million or 14.9% from prior year of \$6.0 million due to \$0.4 million more purchases of equipment for security activity and the tools needed for the maintenance of additional infrastructure. Allocation to capital projects decreased by \$0.5 million resulting in higher expense charges.

Marketing and public relations expenses decreased by \$0.2 million to \$2.7 million or 5.8% from prior year of \$2.9 million as the Port refocused its strategy for marketing and public relations.

Other operating expenses decreased by \$16.5 million to \$11.4 million or 59.2% from prior year of \$28.0 million. This \$16.5 million decrease comprised of \$10.4 million related to pollution remediation as the latest estimation of certain remediation liability turned out to be lower. Other components included \$1.6 million for workers compensation as actuarial estimates of such costs, upon which the expense is based, have declined given the Port's improved record of safety, \$0.6 million in travel expenses as the Port realigned travel to be more in line with its strategic plan, and \$4.2 million miscellaneous other operating expense items. The \$4.2 million decline in other operating expense were mainly due to lower provision for doubtful accounts of \$1.4 million, and decline of \$1.3 million in payments for customer environmental subsidies and incentives and lower amounts of expenses allocated to capital projects.

Additional information regarding pollution remediation for these sites is found on page 89 of the notes to the financial statements.

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**Nonoperating Revenues and Expenses**

Nonoperating revenues and expenses include income from investment in a joint powers authority, interest income, and expenses along with receipts and expenditures related with noncapital grant as well as pass through grant awards. The following table presents a summary of the Port's nonoperating revenues and expenses for fiscal years 2015, 2014 and 2013:

**Summary of NonOperating Revenues and Expenses**  
(amounts in thousands)

	FY 2015	FY 2014	FY 2013	Increase (Decrease) Over Prior Year	
				FY 2015	FY 2014
Nonoperating revenues					
Income from investments in					
Joint Powers Authorities	\$ 2,811	\$ 2,129	\$ 2,049	\$ 682	\$ 80
Interest and investment income	5,039	4,654	826	385	3,828
Other nonoperating revenue	5,619	14,176	16,731	(8,557)	(2,555)
Total nonoperating revenues	13,469	20,959	19,606	(7,490)	1,353
Nonoperating expenses					
Interest expense	331	1,530	2,473	(1,199)	(943)
Other nonoperating expenses	7,845	41,540	15,947	(33,695)	25,593
Total nonoperating expenses	8,176	43,070	18,420	(34,894)	24,650
Net nonoperating revenues (expenses)	\$ 5,293	\$ (22,111)	\$ 1,186	\$ 27,404	\$ (23,297)

**Fiscal Year 2015**

Net nonoperating revenues (expenses) for fiscal year 2015 increased by \$27.4 million from net nonoperating expenses of \$22.1 million in fiscal year 2014 to net nonoperating revenues of \$5.3 million in fiscal year 2015.

Nonoperating revenues decreased by \$7.5 million due to lower pass-through grant receipts by \$6.3 million and lower settlement/rebates receipts by \$4.9 million. These decreases were offset by higher Federal/State noncapital grant receipts by \$2.7 million and higher interest and investment income by \$0.4 million.

Nonoperating expenses decreased by \$34.9 million in fiscal year 2015 mainly because of \$29.5 million decrease in discontinued capital projects together with lower pass-through grant disbursement by \$6.3 million and lower interest capitalization by \$7.7 million during the year. Partially offsetting this decrease was \$6.5 million increase in interest expense, \$1.4 million loss on asset sales, and \$1.1 million in bond issuance costs.



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**Fiscal Year 2014**

Net nonoperating revenues (expenses) for fiscal year 2014 decreased by \$23.3 million from \$1.2 million in fiscal year 2013 to \$(22.1) million in fiscal year 2014.

Interest and investment income increased by \$3.8 million or 463.4% to \$4.7 million from the prior fiscal year's \$0.8 million due to higher interest earnings on investments.

Other nonoperating revenues mainly include noncapital grant and pass through grant revenues of \$1.4 million and \$6.8 million respectively, and \$2.2 million refund from South Coast Air Quality Management District for uncommitted funds related to the Clean Trucks Program.

Interest expense decreased by \$1.0 million to \$1.5 million from the prior fiscal year of \$2.5 million. The decrease was a result of the adjustment to the current fiscal year interest expense account arising from the change in amortizing bond discount/premium from straight line method to the effective interest method in compliance with the requirements of GASB 65.

Other nonoperating expenses increased by \$25.6 million in fiscal year 2014 mainly because \$33.7 million in various capital projects were cancelled during the year causing the expenditures previously capitalized to be expensed. Partially offsetting this increase was a \$4.7 million decrease in pass through grant expenses and \$2.6 million in miscellaneous rebates, refunds and reimbursements.

**Long-Term Debt**

The Port's long-term debt comprises of senior debt in the form of Harbor Revenue Bonds and commercial paper. As of June 30, 2015 and 2014 the Port's outstanding long-term debt was \$1.1 billion and \$906.0 million, respectively. For all outstanding bonds, the Port continues to maintain Aa2, AA, and AA credit ratings from Moody's, Standard & Poor's, and Fitch Ratings, respectively. For its commercial paper, the ratings are P-1, A-1+, and F-1+, respectively.

***Bonded Debt***

Under Section 609 of the City Charter of the City of Los Angeles and the Bond Procedural Ordinance, the Port's capacity to issue debt is not limited. However, the Port's capacity is constrained under covenants of the currently outstanding debt to an aggregate ratio of revenue to annual debt service of at least one hundred twenty-five percent (125%). The Port's financial policy requires that a minimum of 2.0x debt service coverage ratio be maintained at all times. At June 30, 2015, the Port's debt service coverage ratio was 3.2x using the additional bond test method as defined in its bond indentures.

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The Port's long-term debt consisted of the following as of June 30, 2015, 2014, and 2013 (in thousands):

	2015	2014	2013
Revenue bonds payable	\$ 1,059,603	\$ 780,993	\$ 821,130
Commercial paper	--	125,000	100,000
Total	<u>\$ 1,059,603</u>	<u>\$ 905,993</u>	<u>\$ 921,130</u>

**Capital Assets**

The Port's investment in capital assets, net of accumulated depreciation as of June 30, 2015, 2014 and 2013 amounted to \$3.9 billion, \$3.8 billion and \$3.6 billion, respectively. These accounted for 86.0%, 89.8%, and 86.9% of total assets, respectively. The following table presents the Port's capital assets, net of accumulated depreciation for fiscal years 2015, 2014 and 2013 (in thousands):

**Summary of Capital Assets**

	FY 2015	FY 2014	FY 2013	Increase(Decrease) Over Prior Year	
				FY 2015	FY 2014
Land	\$ 1,107,506	\$ 1,094,732	\$ 1,133,902	\$ 12,774	\$ (39,170)
Facilities and equipment, net	2,437,287	1,773,059	1,821,353	664,228	(48,294)
Intangible assets, net	24,034	24,657	20,942	(623)	3,715
Construction in progress	182,747	646,727	342,279	(463,980)	304,448
Preliminary costs-capital projects	160,562	225,541	233,029	(64,979)	(7,488)
Total	<u>\$ 3,912,136</u>	<u>\$ 3,764,716</u>	<u>\$ 3,551,505</u>	<u>\$ 147,420</u>	<u>\$ 213,211</u>

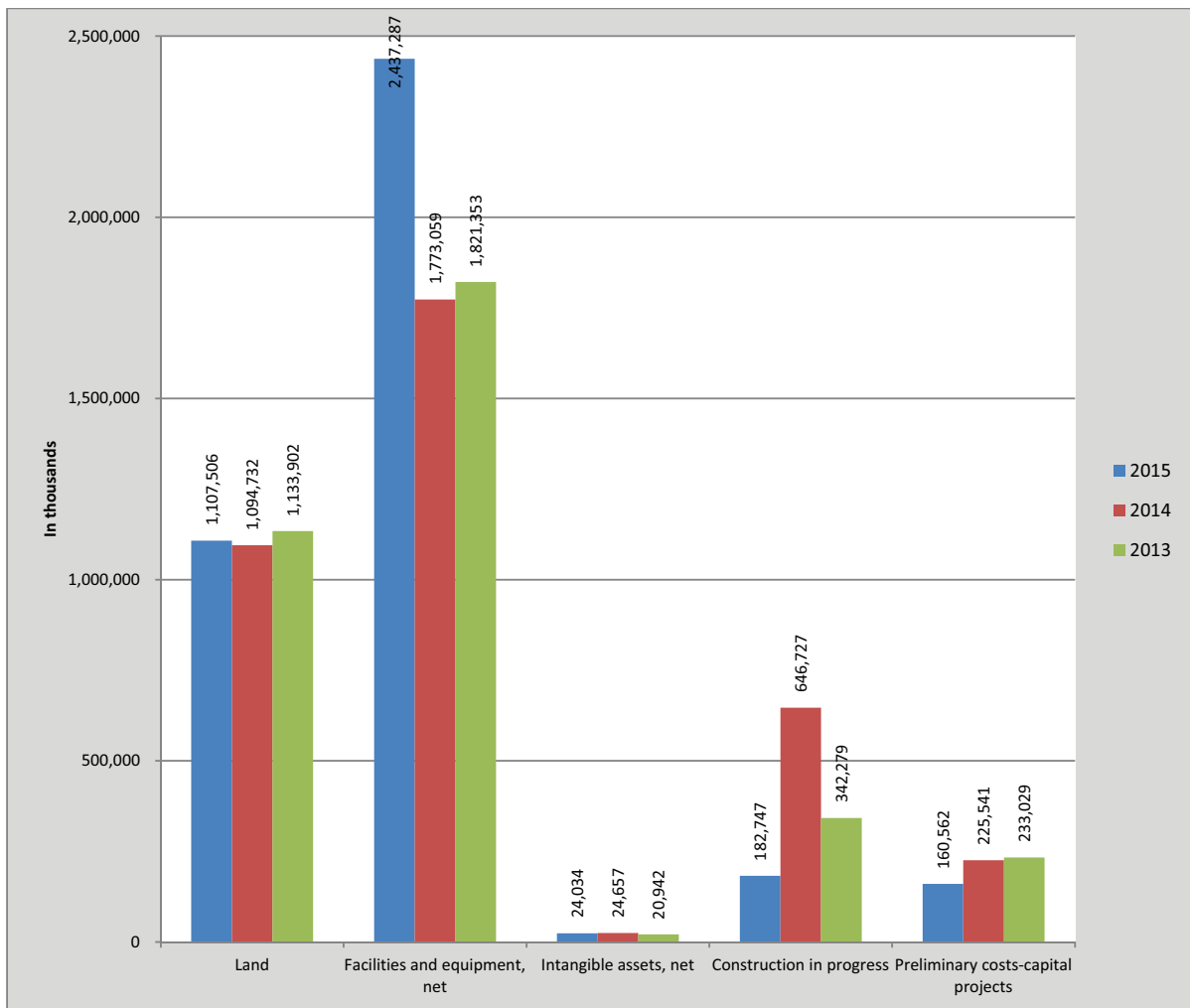
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The following chart shows the graphical presentation of the Port's capital assets for the fiscal years 2015, 2014 and 2013:



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**Fiscal Year 2015**

Major capital assets activities during fiscal year 2015 are as follows:

- \$114.3 million - automatic stacking crane infrastructure at the TRAPAC (Berths 135-147) including backland improvements, terminal buildings and main gate, and facility expansion.
- \$9.2 million - design and construction of yard site, tracks, yard office building, diesel engine service facility and rail yard track connections at Berth 200 Rail Yard.
- \$19.5 million - design and construction of a grade separation in South Wilmington to carry vehicular traffic over railroad tracks to Port terminals.
- \$43.8 million – various transportation projects including rail yard track connections, C-Street/I-110 access ramp improvements, South Wilmington grade separation, John S. Gibson Intersection/I-110 access ramp improvements, and I-110/SR-47 connector improvements.

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**Fiscal Year 2014**

Major capital assets activities during fiscal year 2014 are as follows:

- \$50.4 million - Port-wide Alternative Maritime Power (AMP) installations at Yang Ming, YTI, Everport, APL and APMT/CUT terminals.
- \$31.1 million - completion of 375 linear feet of expanded wharf, an AMP™ installation at Berth 100, and the development of approximately 37 acres of new backlands at the China Shipping Container Terminal (Berths 100-102).
- \$17.7 million - design and construction of a waterfront promenade, plaza and town square from Fire Station 112 to 6<sup>th</sup> Street at the Downtown Harbor.
- \$6.5 million - design and construction of the second phase of a fiber optic network around the Port complex.
- \$91.4 million - automatic stacking crane infrastructure at the TRAPAC (Berths 135-147) including backland grading and paving, utilities installation and design, and preliminary construction of the TRAPAC Administration building.
- \$61.0 million - design and construction of yard site, tracks, yard office building, diesel engine service facility and rail yard track connections at Berth 200 Rail Yard.
- \$33.0 million - design and construction of a grade separation in South Wilmington to carry vehicular traffic over railroad tracks to Port terminals.
- \$11.7 million – various transportation projects including C-Street/I-110 access ramp improvements, John S. Gibson Intersection/I-110 access ramp improvements, I-110/SR-47 connector improvements and Terminal Island street improvements.

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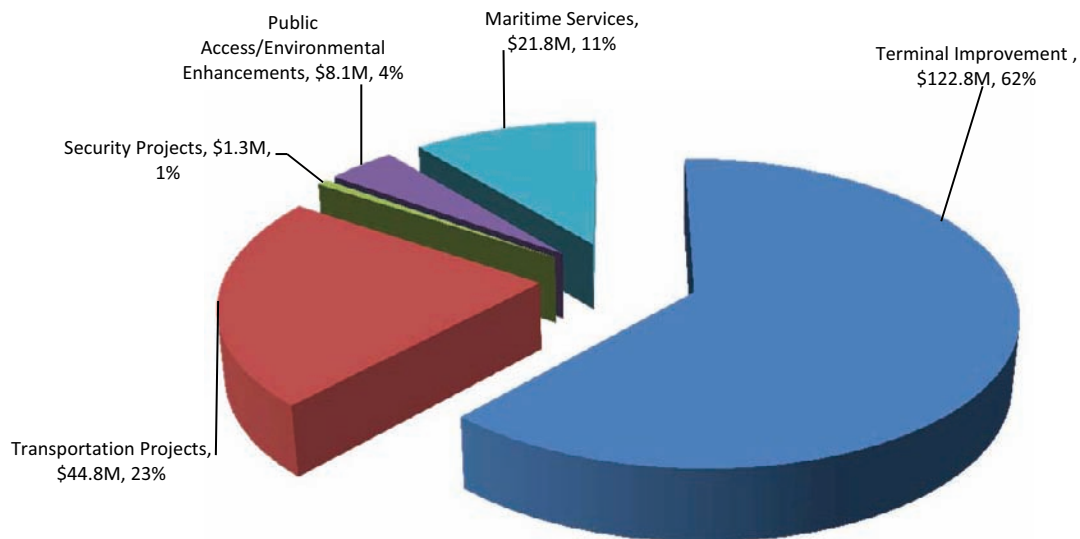
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**Capital Improvement Expenditures (CIP) for Fiscal Year 2016**

The Port aims to continue to maintain its competitive edge and support the community and local economy by adopting a capital budget of \$263.2 million in fiscal year 2016. Comprising 26.0% of its total budget of \$1.0 billion, the adopted capital expenditures include \$198.8 million of direct costs of capital improvement projects, indirect costs of \$60.1 million in allocated capitalized overhead and interest costs, and \$4.3 million for capital equipment. The adopted capital expenditures of \$198.8 million include \$122.8 million for terminal development projects, \$44.8 million for transportation and infrastructure projects, \$8.1 million for public access/environmental enhancement projects, \$1.3 million for security projects, and \$21.8 million for maritime services. Below is the graphical presentation of the fiscal year 2016 adopted capital improvement projects budget:

**Capital Improvement Program \$198.8 Million**



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The components of the CIP are as follows:

***Terminal Development Projects***

- Approximately \$122.8 million or 61.8% of the total CIP direct cost budget of \$198.8 million is dedicated to development projects at various Port terminals.
- \$82.7 million for projects at TraPac Terminal, including \$39.2 million for backland expansion and improvement projects, \$33.1 million for a new semi-automated on-dock rail yard, \$6.7 million for multiple buildings improvement at the terminal, and \$3.7 million for constructing the crane maintenance building.
- \$20.9 million for redevelopment at the YTI Terminal, including \$18.0 million for wharf upgrades, berth dredging, crane rail extensions, electrical improvements, expansion of the terminal, and backland improvements, and \$2.8 million for improvements at Berth 212 and 220, installation of AMP and fire alarm system replacement.
- \$3 million for construction of the marine operations and crane maintenance buildings at the China Shipping Container Terminal.
- \$2.3 million for project planning and development at the Everport Terminal including environmental assessment, wharf and backland improvements, and equipment upgrade and installation.
- \$1.6 million for AMP installation and continued development of the APL Terminal, \$1.4 million for the improvement of Yang Ming Terminal, and \$0.3 million for pavement replacement throughout Pier 400.
- \$0.9 million for the upgrade and AMP installation, security improvements, and replacement of the water line at the World Cruise Center.

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***Transportation and Infrastructure Projects***

- Approximately \$44.8 million or 22.5% of the total CIP direct cost budget of \$198.8 million is designated for transportation improvement projects.
- \$18.9 million for the C Street/I-110 access ramp improvements which will provide free-flowing right turn lanes to accommodate heavy right-turn truck volumes
- \$10.5 million for the John S. Gibson Intersection and Northbound I-100 ramp access improvements which will improve road geometry and allow trucks to make wider turns
- \$6.8 million for I-110/SR-47 connector improvements which will add an additional lane to the SR-47 connector to the northbound I-110 freeway.
- \$7.5 million for the final close-out phase of the South Wilmington grade separation and Berth 200 Rail Yard projects.
- \$1.1 million for various transportation projects such as completion of street improvements on Terminal Island and initial reviews and studies for road, bridge, and interchange configurations.

***Public Access and Environmental Enhancement Projects***

- \$6.2 million for Los Angeles Waterfront projects including the Ports O' Call development, Sampson Way Roadway improvement, wharf retrofit and Signal Street improvement projects.

***Port Security Projects***

- \$1.3 million for the completion of the Information Technology Cyber Security Improvements Phase II which will build upon previously completed projects to expand capabilities and enhance the detection, prevention, response and overall Maritime Domain Awareness capabilities of the Port and its information technology infrastructure.

***Maritime Services***

- \$21.8 million of miscellaneous projects including the Badger Avenue Bridge, the Maritime Museum, Banning's Landing, Liberty Hill Plaza, the Harbor Administrative Building, and other future projects.



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**Factors That May Affect the Port's Operations**

There is significant competition for container traffic among North American ports. The availability of alternate port facilities at competitive prices affects the use of the Port's facilities and therefore the revenues of the Port. The Port cannot predict the scope of such impact.

All of the ports on the West Coast of the U.S. compete for discretionary intermodal cargo destined for locations across the U.S. and Canada. Discretionary cargo makes up approximately 50% of cargo arriving at the Port. Currently, this discretionary cargo moves eastward both by rail and through the Panama Canal. The use of all-water routes primarily through the Panama Canal to the East and Gulf Coasts of the U.S. is an alternative to Asian intermodal cargo moving through U.S. West Coast ports. The Panama Canal is in the process of expanding its locks with reports indicating that the opening of the new locks will take place in early 2016 as the widening and deepening of the lock chambers will allow ships of greater size to transit the Canal. The expansion creates a route to the East and Gulf Coast for ships of greater capacity than the current "Panamax" ships. While the effects of an expanded Canal are unknown, the Port has an existing ability to handle the New Panamax and Super Post-Panamax ships and continues to maintain and improve its strong infrastructure and intermodal capabilities.

The activities at the Port may generate air emissions that are subject to legal and regulatory requirements. Such requirements mandate and offer certain incentives for reductions of air pollution from ships, trains, trucks and other operational activities. Paying for mandated air pollution reduction infrastructure, equipment and other measures may become a significant portion of the Port's capital budget and operating budget. Such expenditures may be necessary even if the Port does not undertake any new revenue-generating capital improvements. The Port cannot provide assurances that the actual cost of the required measures will not exceed the forecasted amount.

**Competitive Environment**

As of fiscal year ended June 30, 2015, six major container ports controlled 99.1% of the entire U.S. West Coast containerized cargo market: the ports of Los Angeles, Long Beach, and Oakland in California; the ports of Seattle and Tacoma in Washington State; and the port of Portland in Oregon. The ports of Los Angeles and Long Beach together controlled 73.4% of all U.S. West Coast market share based on a loaded TEU basis.

The industry is capital intensive and requires long lead times to plan and develop new facilities and infrastructure. Resources are typically allocated and facilities developed upon the commitment of customers to long-term permits at the Port that currently range from 15 to 30 years before expiry. Occupancy remains high and West Coast ports have limited land areas for expansion. Additionally, the greater Los Angeles area represents not only a large destination market for waterborne goods, but also the most attractive point of origin for trans-shipments to points east as the Port has extensive on-dock rail facilities creating intermodal connections that provide for time-to-market advantages.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Management's Discussion and Analysis

June 30, 2015 and 2014

(Unaudited)

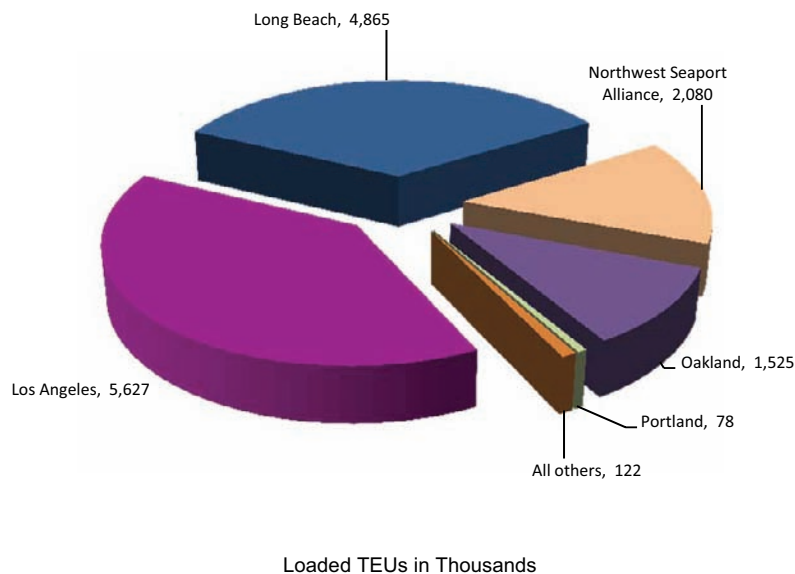
The following presents a summary of the West Coast container market share for fiscal years 2013 to 2015:

Ports	Loaded TEUs (in thousands)			Percentage Market Share		
	FY 2015*	FY 2014*	FY 2013*	FY 2015	FY 2014	FY 2013
Los Angeles	5,627	5,903	5,655	39.4%	39.5%	38.9%
Long Beach	4,865	4,977	4,723	34.0%	33.3%	32.5%
Northwest Seaport Alliance**	2,080	2,197	2,332	14.5%	14.7%	16.0%
Oakland	1,525	1,617	1,572	10.7%	10.8%	10.8%
Portland	78	136	143	0.5%	0.9%	1.0%
All others	122	115	113	0.9%	0.8%	0.8%
	<u>14,297</u>	<u>14,945</u>	<u>14,538</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

\* Source: PIERs

\*\* Northwest Seaport Alliance consists of Seattle and Tacoma, effective August 1, 2015.

Following is the graphical presentation of the West Coast container market share for fiscal year 2015:



### Request for Information

This financial report is designed to provide a general overview of the Port of Los Angeles' finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to Marla Bleavins, Deputy Executive Director and Chief Financial Officer, Port of Los Angeles (Harbor Department of the City of Los Angeles), 425 S. Palos Verdes St., San Pedro, CA 90731.



**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Statements of Net Position  
June 30, 2015 and 2014  
(amounts in thousands)**

<b>ASSETS</b>	<b>2015</b>	<b>2014</b>
Current Assets		
Cash and cash equivalents, unrestricted	\$ 441,834	\$ 262,729
Cash and cash equivalents, restricted	25,035	29,234
Accounts receivable, net of allowance for doubtful accounts: 2015 - \$13,752; 2014 - \$3,469	43,763	43,283
Grants receivable	5,025	429
Materials and supplies inventories	2,641	2,606
Prepaid expenses	393	421
Accrued interest receivable	824	599
Current portion of notes receivable	5,095	4,947
Total current assets	524,610	344,248
Noncurrent Restricted Assets		
Restricted investments – bond funds	97,461	58,054
Other restricted cash and investments	9,727	9,826
Accrued interest receivable	--	2
Total noncurrent restricted assets	107,188	67,882
Capital assets		
Land	1,107,506	1,094,732
Facilities and equipment net of accumulated depreciation: 2015 - \$1,742,483; 2014 - \$1,614,961	2,437,287	1,773,059
Intangible assets, net of amortization: 2015 - \$1,326; 2014 - \$703	24,034	24,657
Construction in progress	182,747	646,727
Preliminary costs – capital projects	160,562	225,541
Total capital assets	3,912,136	3,764,716
Notes receivable	--	5,182
Investment in Joint Powers Authorities	6,026	5,215
<b>TOTAL ASSETS</b>	<b>4,549,960</b>	<b>4,187,243</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred charges on debt refunding	4,027	5,073
Deferred outflows of resources - pensions	46,687	--
Total deferred outflows of resources	50,714	5,073

continued.....

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Statements of Net Position  
June 30, 2015 and 2014  
(amounts In thousands)**

	<u>2015</u>	<u>2014</u>
<b>LIABILITIES</b>		
Current Liabilities		
Accounts payable	\$ 47,257	\$ 26,098
Current maturities of notes payable and bonded debt	42,910	27,270
Accrued interest payable	20,833	16,073
Accrued salaries and employee benefits	16,876	15,625
Obligations under securities lending transactions	2,865	357
Accrued construction cost payable	4,631	6,475
Other current liabilities	41,126	46,852
Total current liabilities	<u>176,498</u>	<u>138,750</u>
Long-term liabilities		
Long-term liabilities payable from unrestricted assets		
Bonds payable, net of unamortized discount/premium:		
2015 - \$58,693; 2014 - \$16,488	1,016,693	753,723
Commercial paper	--	125,000
Accrued salaries and employee benefits	8,286	11,740
Net pension liabilities	198,762	--
Other liabilities	83,786	88,997
Total long-term liabilities payable from unrestricted assets	<u>1,307,527</u>	<u>979,460</u>
Long-term liabilities payable from restricted assets	<u>9,500</u>	<u>9,552</u>
Total long-term liabilities	<u>1,317,027</u>	<u>989,012</u>
<b>TOTAL LIABILITIES</b>	<u>1,493,525</u>	<u>1,127,762</u>
 <b>DEFERRED INFLOWS OF RESOURCES</b>		
Deferred inflows of resources - pensions	44,250	--
 <b>NET POSITION</b>		
Net investment in capital assets	2,856,561	2,863,795
Restricted for debt service	97,461	58,054
Unrestricted	108,877	142,705
<b>TOTAL NET POSITION</b>	<u>\$ 3,062,899</u>	<u>\$ 3,064,554</u>

See accompanying notes to financial statements.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Statements of Revenues, Expenses, and Changes in Net Position  
For the Years ended June 30, 2015 and 2014  
(amounts In thousands)**

	<u>2015</u>	<u>2014</u>
<b>OPERATING REVENUE</b>		
Shipping services		
Wharfage	\$ 336,090	\$ 349,953
Dockage	6,097	4,930
Demurrage	329	223
Lay day fees	908	975
Pilotage	7,110	7,540
Assignment charges	14,365	13,592
Total shipping services	<u>364,899</u>	<u>377,213</u>
Rentals		
Land	45,255	38,189
Buildings	237	1,211
Warehouses	115	180
Wharf and shed	626	576
Total rentals	<u>46,233</u>	<u>40,156</u>
Royalties, fees, and other operating revenues		
Fees, concessions, and royalties	14,968	2,767
Clean truck program fees	3,520	2,119
Other	17,275	3,696
Total royalties, fees, and other operating revenues	<u>35,763</u>	<u>8,582</u>
Total operating revenue	<u>446,895</u>	<u>425,951</u>
<b>OPERATING EXPENSES</b>		
Salaries and other benefits	92,786	93,668
Pension expense	19,002	18,385
City services	34,749	33,633
Outside services	28,983	26,331
Utilities	19,373	12,335
Materials and supplies	6,257	6,883
Marketing and public relations	2,771	2,711
Workers' compensation, claims and settlement	2,503	1,959
Clean truck program expenses	949	1,100
Travel and entertainment	512	548
Other operating expenses	26,364	7,801
Total operating expenses before depreciation	<u>234,249</u>	<u>205,354</u>
Operating Income before depreciation - forwarded	<u>212,646</u>	<u>220,597</u>

continued....

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Statements of Revenues, Expenses, and Changes in Net Position  
For the Years ended June 30, 2015 and 2014  
(amounts In thousands)**

	<u>2015</u>	<u>2014</u>
Operating Income before depreciation - forwarded	\$ 212,646	\$ 220,597
Depreciation	137,384	124,221
<b>OPERATING INCOME</b>	<u>75,262</u>	<u>96,376</u>
<b>NONOPERATING REVENUE (EXPENSES)</b>		
Nonoperating revenue		
Income from investments in Joint Powers Authorities	2,811	2,129
Interest and investment income	5,039	4,654
Non capital grant revenue	4,035	1,368
Pass through grant revenue	550	6,823
Other nonoperating revenue	1,034	5,985
Total nonoperating revenue	<u>13,469</u>	<u>20,959</u>
Nonoperating expenses		
Interest expense	(331)	(1,530)
Pass through grant expenses	(550)	(6,823)
Discontinued capital projects	(3,466)	(32,949)
Other nonoperating expenses	(3,829)	(1,768)
Total nonoperating expenses	<u>(8,176)</u>	<u>(43,070)</u>
Net nonoperating revenue (expenses)	<u>5,293</u>	<u>(22,111)</u>
<b>INCOME BEFORE CAPITAL CONTRIBUTIONS</b>	80,555	74,265
Capital contributions	111,852	80,374
Special item	--	15,002
<b>CHANGES IN NET POSITION</b>	<u>192,407</u>	<u>169,641</u>
<b>NET POSITION, JULY 1</b>	3,064,554	2,884,351
Net adjustment for prior year amortization of bond premium/discount	--	10,562
Cumulative effect of change in accounting principle	(194,062)	--
Net position July 1, restated	<u>2,870,492</u>	<u>2,894,913</u>
<b>NET POSITION, JUNE 30</b>	<u>\$ 3,062,899</u>	<u>\$ 3,064,554</u>

See accompanying notes to financial statements.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Statements of Cash Flows  
Years ended June 30, 2015 and 2014  
(amounts in thousands)**

	<b>2015</b>	<b>2014</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Shipping service fees collected	\$ 364,506	\$ 370,942
Rentals collected	46,184	39,488
Royalties, fees, and other operating revenues collected	35,725	8,439
Payments for employee salaries and benefits, net of capitalized amounts: 2015 - \$25,069 ; 2014 - \$24,199	(111,728)	(110,709)
Payments for goods and services	(121,503)	(176,876)
Net cash provided by operating activities	213,184	131,284
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITY</b>		
Proceeds from noncapital grants	4,035	1,368
Net cash provided by noncapital financing activity	4,035	1,368
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Payments for property acquisitions and construction	(244,519)	(298,149)
Proceeds from sale of capital assets	163	188
Proceeds from capital grants and contributions	107,256	99,106
Payments for refunding of commercial paper notes	(150,000)	--
Net proceeds from issuance of commercial paper notes	25,000	25,000
Net proceeds from issuance of bonds	386,278	--
Principal repayment, redemption, and defeasance – bonds	(100,870)	(26,235)
Payments to bond reserve fund	(39,407)	(141)
Interest paid	(43,454)	(39,246)
Net cash used in capital and related financing activities	(59,553)	(239,477)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Receipt of interest	4,655	4,969
Cash collateral received (paid) under the securities lending transactions	2,506	(1,090)
Increase (decrease) in fair value of investments	260	(19)
Sale (purchase) of investments	2,785	(1,755)
Net payments received on notes receivable	5,034	4,824
Distribution from Joint Powers Authorities	2,000	2,000
Net cash provided by investing activities	17,240	8,929
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	174,906	(97,896)
<b>CASH AND CASH EQUIVALENTS, JULY 1</b>	291,963	389,859
<b>CASH AND CASH EQUIVALENTS, JUNE 30</b>	<b>\$ 466,869</b>	<b>\$ 291,963</b>

continued.....



**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Statements of Cash Flows  
Years ended June 30, 2015 and 2014  
(amounts in thousands)**

	<u>2015</u>	<u>2014</u>
<b>CASH AND CASH EQUIVALENTS COMPONENTS</b>		
Cash and cash equivalents, unrestricted	\$ 441,834	\$ 262,729
Cash and cash equivalents, restricted	25,035	29,234
Total cash and cash equivalents	<u>\$ 466,869</u>	<u>\$ 291,963</u>
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES</b>		
Operating income	\$ 75,262	\$ 96,376
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation	137,384	124,221
Provision for doubtful accounts	10,842	(1,545)
Changes in assets, liabilities, and deferred outflows and inflows of resources		
Accounts receivable	(11,322)	(5,537)
Materials and supplies inventories	(35)	(552)
Prepaid assets	28	250
Deferred outflows of resources - pensions	(46,687)	--
Accounts payable	21,159	(43,868)
Accrued salaries and employee benefits	2,496	1,345
Other liabilities	(20,193)	(39,406)
Deferred inflows of resources - pensions	44,250	--
Total adjustments to reconcile operating income to net cash	<u>137,922</u>	<u>34,908</u>
Net cash provided by operating activities	<u>\$ 213,184</u>	<u>\$ 131,284</u>
<b>NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Acquisition of capital assets with construction payable	\$ 4,631	\$ 6,475
Acquisition of capital assets with accounts payable	2,310	3,103
Write-off of discontinued construction projects	3,466	33,718
Capitalized interest expense, net	42,130	34,466

See accompanying notes to financial statements.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Notes to the Financial Statements

June 30, 2015 and 2014

The Notes to the Financial Statements include disclosures considered necessary for a better understanding of the accompanying financial statements. An index to the Notes follows:

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**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Notes to the Financial Statements

June 30, 2015 and 2014

**1. Organization and Summary of Significant Accounting Policies**

The financial statements of the Port of Los Angeles (Harbor Department of the City of Los Angeles), hereafter referred to as "Port of Los Angeles" or "Port," have been prepared in conformity with generally accepted accounting principles (GAAP) as promulgated by the Governmental Accounting Standards Board (GASB). GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The Port's significant accounting policies are described below.

**A. Organization and Reporting Entity**

The Port of Los Angeles is an independent, self-supporting department of the City of Los Angeles (the City), formed for the purpose of providing shipping, fishing, recreational, and other resources and benefits for the enjoyment of the citizens of California. The Port is under the control of a five-member Board of Harbor Commissioners (BHC), who are appointed by the Mayor and approved by the City Council. The Port is administered by an Executive Director, subject to the State of California Tidelands Trust Act.

Most of the property of the Port including land, docks, wharves, transit shed, terminals, and other facilities are owned by the City and administered by the Port, subject to a trust created pursuant to certain tideland grants from the State. All monies arising out of the operation of the Port are limited as to use for the operation and maintenance of Port facilities, the acquisition and construction of improvements, and other such trust considerations under the Tidelands Trust and the Charter of the City.

The Port prepares and controls its own financial plan, administers and controls its fiscal activities, and is responsible for all Port construction and operations. The Port operates as principal landlord for the purpose of assigning or leasing port facilities and land areas. The Port's principal source of revenue is from shipping services under tariffs (dockage and wharfage, etc.), rental of land and facilities, fees (parking and foreign trade zones), and royalties (oil wells). Capital construction is financed by cash from operations, and debt secured by future revenues and federal and state grants. The Port's permanent work force attends to the daily operation of the Port facilities and its regular maintenance. Generally, the Port uses commercial contractors for large construction projects.

Operations of the Port are financed in a manner similar to that of a private business. The Port recovers its costs of providing services and improvements through tariff charges for shipping services and the leasing of facilities to Port customers.

In evaluating how to define the Port for financial reporting purposes, management has considered all potential component units by applying the criteria set forth by the GASB. The financial statements present only the financial activities of the Port in conformity with GAAP and are not intended to present the financial position and results of operations of the City.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Notes to the Financial Statements

June 30, 2015 and 2014

**Reporting Entity**

The Los Angeles Harbor Improvements Corporation (LAHIC) is a nonprofit public benefit corporation organized under the laws of the state of California for public purposes. LAHIC was formed to assist the Port in undertaking financing third party capital expenditures at potentially advantageous terms that the BHC deems necessary for the promotion and accommodation of commerce.

The board of directors of LAHIC consists of five members. Election of the LAHIC board of directors occurs by vote of the BHC. The BHC is financially responsible for LAHIC's activities. Further, although LAHIC is legally separate from the Port, it is reported as if it were part of the Port, because its sole purpose is to help finance and construct facilities and improvements, related to Port activities.

LAHIC is included in the reporting entity of the Port, and accordingly, the operations of LAHIC are blended in the Port's accompanying financial statements.

**B. Summary of Significant Accounting Policies**

**Method of Accounting** – The Port activities are accounted for as an enterprise fund, and as such, its financial statements are presented using the economic resources measurement focus and the accrual method of accounting. Under this method of accounting, revenues are recognized when earned and expenses are recorded when the related liabilities are incurred.

**Cash, Cash Equivalents, and Investments** – The Port pools its available cash with that of the City. All cash and investments pooled with the City, plus any other cash deposits or investments with initial maturities of three months or less are considered cash and cash equivalents.

Interest income and realized gains and losses arising from such pooled cash and investments are apportioned to each participating City department fund based on the relationship of such department fund's respective average daily cash balances to aggregate pooled cash and investments. The change in the fair value of pooled investments is allocated to each participating City department fund based on the aggregate respective cash balances at year-end.

The Port's investments, including its share of the City's Investment Pool, are stated at fair value. Fair value is determined based upon market closing prices or bid/asked prices for regularly traded securities. The fair value of investments with no regular market is estimated based on similar traded investments. The fair value of mutual funds, government-sponsored investment pools, and other similar investments is stated at share value or an allocation of fair value of the pool, if separately reported. Certain money market investments with initial maturities at the time of purchase of less than one year are recorded at cost. The calculation of realized gains is independent of the calculation of the net increase in the fair value of investments. Realized gains and losses on investments that had been held more than one fiscal year and sold in the current year may have been recognized as an increase or decrease in fair value of investments reported in the prior year and the current year.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Notes to the Financial Statements

June 30, 2015 and 2014

**Securities Lending** – As a participant in the City's Investment Pool, the Port's funds are also part of the City's securities lending program (SLP). The investment collateral received by the City together with the corresponding liability is allocated among the City's participating funds using the same basis as that of allocating interest income and realized gains or losses.

**Materials and Supplies Inventories** – Inventories of materials and supplies are stated at lower of average cost or market.

**Capital Assets** – Capital assets are carried at cost or at appraised fair value at the date received, in the case of properties acquired by donation, and by termination of leases for tenant improvements, less allowance for accumulated depreciation. The Port has a capitalization threshold of \$5,000. Capital assets include intangible assets for the Port's radio frequency and emission mitigation credits, and capitalized costs of the Port's integrated financial accounting system, the Enterprise Resource Planning System.

Development costs for proposed capital projects that are incurred prior to the finalization of formal construction contracts are capitalized. Upon completion of capital projects, such preliminary costs are transferred to the appropriate property account. In the event the proposed capital projects are abandoned, the associated preliminary costs are charged to expense in the year of abandonment. Preliminary costs - capital projects for fiscal years 2015 and 2014 are \$160.6 million and \$225.5 million, respectively.

The Port capitalizes interest costs incurred on indebtedness issued in connection with the acquisition, construction or improvement of capital assets, net of interest revenue on reinvested debt proceeds. Interest capitalized in fiscal years 2015 and 2014 were \$42.1 million and \$34.5 million, respectively.

The Port capitalizes indirect project costs associated with the acquisition, development, and construction of new capital projects. Indirect project costs allocated to construction projects for fiscal years 2015 and 2014 were \$18.4 million and \$10.5 million, respectively.

Depreciation is computed on the straight-line basis over the estimated useful lives of the assets. The estimated useful lives of the Port's depreciable assets are as follows:

Wharves and sheds	15 to 30 years
Buildings and facilities	10 to 50 years
Equipment	3 to 18 years
Intangible assets	20 years

**Investments in Joint Powers Authorities** – Investments in joint power authorities are accounted for by the equity method.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Notes to the Financial Statements

June 30, 2015 and 2014

**Accrued Salaries and Employee Benefits** – Aside from accrued salaries, the Port records as liabilities all accrued employee benefits, including estimated liabilities for certain unused vacation and sick leave in the period the benefits are earned. Port employees accumulate annual vacation and sick leave based on their length of service up to a designated maximum. Upon termination or retirement, employees are paid the cash value of their accumulated leave benefits.

**Deferred Outflows and Inflows of Resources** – In addition to assets, the Port reports a separate section for deferred outflows of resources. This represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Port has two items that qualified for reporting in this category. They are deferred charges on refunding and deferred outflows of resources related to pensions from the implementation of GASB Statement No. 68. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.

In addition to liabilities, the Port reports a separate section for deferred inflows of resources. This represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until then. The Port has only one item that qualified for reporting in this category – deferred inflows of resources related to pensions from the implementation of GASB Statements No. 68.

**Operating and Nonoperating Revenues and Expenses** – The Port differentiates between operating revenues and expenses, and nonoperating revenues and expenses. Operating revenues and expenses generally result from the Port's primary ongoing operations. All revenues and expenses other than these are reported as nonoperating revenues and expenses.

Revenues from shipping services, rental fees, and royalties are the major sources of the Port's revenues. Shipping services revenues consist of fees assessed for various activities relating to vessel and cargo movement. Twenty-foot equivalent units (TEUs) and metric tons are the measures used to determine cargo volumes that move through the Port. Rental fees are collected from the lease of various types of rental properties in Port-controlled lands. Rental rates are set using various methodologies, and are appraised periodically to evaluate and establish benchmark rates. Rental rates may be adjusted, within reason, to reflect general market conditions. The Port levies fees for various activities such as royalties from oil and natural gas production, fees for parking lots, and miscellaneous concessions.

**Operating Expenses** – The Port presents operating expenses at net of direct and indirect overhead costs allocated to capitalized construction projects. Direct costs are costs of materials, labor, and expenses assigned or identified with specific capitalized construction projects. Indirect costs are those that are not directly identifiable with a particular capital project and hence, are allocated to all outstanding construction projects. Indirect overhead costs such as administrative expenses, maintenance costs and City services are allocated to projects based on the average outstanding balance of capitalized construction projects.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Notes to the Financial Statements

June 30, 2015 and 2014

Indirect overhead costs are defined to be the costs not directly attributable to those activities related to a capital project. The overhead rate is calculated based on the ratio of the costs of the direct amount of work assigned to capital projects to the total amount of hours worked by Port staff. The resulting rate is defined as the indirect overhead rate and is applied to the operating expenses of those divisions that participate both directly and indirectly in the activities related to capital projects. The resulting indirect overhead amount is then allocated on a pro-rata basis to capitalized construction projects based on the outstanding balance of each project.

Details of operating expenses net of allocated direct and indirect costs may be found on pages 118-119 of the Supplemental Information Section.

**Operating Leases** – The Port leases a substantial portion of lands and facilities to others. The majority of these leases provide for cancellation on a 30-day notice by either party and for retention of ownership by the Port or restoration of the property to pre-leased conditions at the expiration of the agreement; accordingly, no leases are considered capital leases.

**Pension and Other Postemployment Benefits (OPEB)** – All full-time civilian Port employees are eligible to participate in the Los Angeles City Employees' Retirement System (LACERS), a defined benefit single-employer pension plan. All full-time Port police officers are eligible to participate in the City of Los Angeles Fire and Police Pension system (LAFPP), a defined benefit single-employer pension plan. The Port funds fully its entire annual share of LACERS and LAFPP pensions and the respective OPEB contributions. The funding amounts are determined at the start of each fiscal year and are incorporated as part of the Port's payroll to reimburse the City for the Port's pro rata contribution share.

For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions, and pension expenses, information about the fiduciary net positions of LACERS and LAFPP, and additions to/deductions from LACERS and LAFPP's fiduciary net positions have been determined on the same basis as they are reported by LACERS and LAFPP. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Capital Contributions** – The Port may receive grants for the purpose of acquisition or construction of property and equipment. These grants are generally structured as reimbursements against expenditures. Grants are recorded as capital contributions when the grant is earned. Grants are generally earned upon expenditure of funds.

**Net Position** – The statements of net position are designed to display the financial position of the Port. The Port's equity is reported as net position, which is classified into the following categories:

- *Net investment in capital assets* – This category consists of capital assets, net of accumulated depreciation, and is reduced by the outstanding balances of any bonds, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.

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- *Restricted* – This category consists of restrictions placed on net asset use through external constraints imposed by creditors (such as debt covenants), grantors, contributors, or law or regulations of other governments. Constraints may also be imposed by law or constitutional provisions or enabling legislation.
- *Unrestricted* – This category consists of net assets that do not meet the definition of “restricted” or “invested in capital assets, net of related debt.”

When both restricted and unrestricted resources are available for use, it is the Port’s policy to use unrestricted resources as needed and restricted resources for the purpose for which the restriction exists.

**Use of Estimates** – The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

**Reclassifications** – Certain reclassifications have been made to amounts reported in fiscal year 2014 to conform to the fiscal year 2015 presentation. These reclassifications have no material impact on the Port’s financial statements.

**Restatement** – In fiscal year 2015, the Port implemented Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date—an Amendment of GASB Statement No. 68*, which requires the Port to record its proportionate share of the defined benefit pension obligation for pensions provided under LACERS and LAFPP. Restatement of the amounts of pension expense, deferred inflows of resources, and deferred outflows of resources for the prior period presented is not practical due to the unavailability of information from the pension plans; therefore, the provisions of GASB Statements No. 68 and 71 were not applied to the prior period. The cumulative effect of applying the provisions of GASB Statements No. 68 and 71 has been reported as a restatement of beginning net position for the year ended June 30, 2015, in accordance with the Statements. The cumulative effect of this adjustment to net position is \$194.1 million and comprises the addition of the net pension liability of \$215.1 million and deferred outflows of resources in the amount of \$18.4 million and reduction of the net pension obligation of \$2.6 million.

In fiscal year 2014, the Port changed the method of amortizing bond premium and discount from straight line method to effective interest method. The effective interest method allocates bond interest expense over the life of the bonds in such a way that it yields a constant rate of interest, which in turn is the market rate of interest at the date of issue of bonds. With effective interest method, the amortization of bond discount/premium is calculated using the effective market interest rate versus the coupon rate used in straight-line method. As a result of this change, the beginning net position at July 1, 2013 was adjusted for the cumulative effect of this change in the amount of \$10.6 million and fiscal year interest expense was reduced by \$0.9 million.



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**2. Adoption of New GASB Pronouncements**

GASB Statement No. 68, "Accounting and Financial Reporting for Pensions." Issued in June 2012, this statement aims (a) to improve the usefulness of information for decisions made by users of financial reports of governments whose employees, both active and inactive, are provided with pensions, and (b) improve information provided about pension-related financial support from certain non-employer entities that make contributions to pension plans that are used to provide benefits to employees of other entities. The Port implemented this statement in fiscal year 2015.

GASB Statement No. 69, "Government Combinations and Disposals for Government Operations." Issued in January 2013, this statement addresses accounting and financial reporting for government combinations and disposals of government operations. Government combinations are arrangements that meet the definition of a government merger, government acquisition, or transfer of operations. The Port implemented this statement in fiscal year 2015. This statement has no impact on the Port's financial statements.

GASB Statement No. 71, "Pension Transition for Contributions Made Subsequent to the Measurement Date, an amendment of GASB Statement No. 68." Issued in November 2013, this statement aims to improve accounting and financial reporting by addressing an issue in Statement No. 68, concerning transition provisions related to certain pension contributions made to defined benefit pension plans prior to implementation of that Statement by employers and nonemployer contributing entities. The Port implemented this statement in fiscal year 2015.

**3. Recent GASB Pronouncements for Future Adoption**

GASB Statement No. 72, "Fair Value Measurement and Application." Issued in February 2015, this Statement will enhance comparability of financial statements among governments by requiring measurement of certain assets and liabilities at fair value using a consistent and more detailed definition of fair value and accepted valuation techniques. This Statement also will enhance fair value application guidance and related disclosures in order to provide information to financial statement users about the impact of fair value measurements on a government's financial position. This statement will be effective beginning fiscal year 2016.

GASB Statement No. 73, "Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68." Issued in June 2015, this Statement establishes requirements for defined benefit pensions that are not within the scope of Statement No. 68, Accounting and Financial Reporting for Pensions, as well as for the assets accumulated for purposes of providing those pensions. In addition, it establishes requirements for defined contribution pensions that are not within the scope of Statement 68. It also amends certain provisions of Statement No. 67, Financial Reporting for Pension Plans, and Statement 68 for pension plans and pensions that are within their respective scopes. This statement will be effective beginning fiscal year 2016.

GASB Statement No. 74, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans." Issued in June 2015, this Statement establishes new accounting and financial reporting requirements for governments whose employees are provided with postemployment benefits other than pensions (other postemployment benefits or OPEB), as well as for certain

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nonemployer governments that have a legal obligation to provide financial support for OPEB provided to the employees of other entities. This statement will be effective beginning fiscal year 2017.

GASB Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." Issued in June 2015, this Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. For defined benefit OPEB, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed. This statement will be effective beginning fiscal year 2018.

GASB Statement No. 76, "The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments." Issued in June 2015, this Statement improves financial reporting by (1) raising the category of GASB Implementation Guides in the GAAP hierarchy, thus providing the opportunity for broader public input on implementation guidance; (2) emphasizing the importance of analogies to authoritative literature when the accounting treatment for an event is not specified in authoritative GAAP; and (3) requiring the consideration of consistency with the GASB Concepts Statements when evaluating accounting treatments specified in nonauthoritative literature. This statement will be effective beginning fiscal year 2016.

GASB Statement No. 77, "Tax Abatement Disclosures." Issued in August 2015, this Statement improves financial reporting by giving users of financial statements essential information that is not consistently or comprehensively reported to the public at present. Disclosure of information about the nature and magnitude of tax abatements will make these transactions more transparent to financial statement users. As a result, users will be better equipped to understand (1) how tax abatements affect a government's future ability to raise resources and meet its financial obligations and (2) the impact those abatements have on a government's financial position and economic condition. This statement will be effective beginning fiscal year 2017.

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**4. Cash and Investments**

The Port's cash and investments consist of the following (in thousands):

	2015	2014
Cash in bank and certificates of deposit	\$ 388	\$ 382
Investment in U.S. Treasury money market fund	97,461	58,130
Equity in the City of Los Angeles Investment Pool	476,208	301,331
Total cash and investments	<u>\$ 574,057</u>	<u>\$ 359,843</u>

Certain of the Port's cash and investments are restricted as to use by reason of bond indenture requirements or similar legal mandate. The Port's unrestricted and restricted cash and investments are as follows (in thousands):

	2015	2014
Unrestricted cash and cash equivalents	\$ 441,834	\$ 262,729
Restricted cash and cash equivalents		
Current		
China Shipping Mitigation Fund	22,623	26,836
Community Aesthetics Mitigation Fund for Parks	--	--
Community Mitigation Trust Fund – Trapac	108	108
Narcotics/Customs Enforcement Forfeiture Fund	384	394
Clean Truck Program and Fee Fund	227	227
Other	1,693	1,669
Subtotal – Current	<u>25,035</u>	<u>29,234</u>
Noncurrent		
Harbor Revenue Bond Funds	97,461	58,054
Commercial Paper Redemption Fund	--	76
Customer Security Deposits	3,155	3,184
Batiquitos Environmental Fund	6,011	6,006
Harbor Restoration Fund	561	560
Subtotal – Noncurrent	<u>107,188</u>	<u>67,880</u>
Total restricted cash and investments	<u>132,223</u>	<u>97,114</u>
Total cash and investments	<u>\$ 574,057</u>	<u>\$ 359,843</u>

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**A. Deposits**

The Port had cash deposits and certificates of deposit with several major financial institutions amounting to \$0.3 million for both fiscal years ended June 30, 2015 and 2014. The deposits were entirely covered by federal depository insurance or collateralized by securities held by the financial institutions in the Port's name in conformance with the State Government Code.

**B. Pooled Investments**

The cash balances of substantially all funds on deposit in the City Treasury are pooled and invested by the City Treasurer for the purpose of maximizing interest earnings through pooled investment activities but safety and liquidity still take precedence over return. Interest earned on pooled investments is allocated to and recorded in certain participating funds, as authorized by the Los Angeles City Council (City Council) and permitted by the City Charter and the California Government Code, based on each fund's average daily deposit balance. Unless allocation provisions are specifically stipulated in City ordinance, Council action, or funding source, interest earned on certain funds is allocated to and recorded in the General Fund. Investments in the City Treasury are stated at fair value based on quoted market prices except for money market investments that have remaining maturities of one year or less at time of purchase, which are reported at amortized cost.

Pursuant to California Government Code Section 53607 (State Code) and the City Council File No. 94-2160, the City Treasury shall render to the City Council a statement of investment policy (the Policy) annually. City Council File No. 11-1740 was adopted on February 12, 2014, as the City's investment policy. This Policy shall remain in effect until the City Council and the Mayor approve a subsequent revision. The Policy governs the City's pooled investment practices. The Policy addresses soundness of financial institutions in which the City Treasurer will deposit funds and types of investment instruments permitted by California Government Code Sections 53600-53638, 16340 and 16429.1. The City Treasury further reports that the current policy allows for the purchase of investments with maturities up to thirty (30) years.

Examples of investments permitted by the Policy are obligations of the U.S. Treasury and agencies, local agency bonds, commercial paper notes, certificates of deposit (CD) placement service, bankers' acceptances, medium term notes, repurchase agreements, mutual funds, money market mutual funds, and the State of California Local Agency Investment Fund.

The Port had \$476.2 million and \$301.3 million invested in the City's General Pool and three Special Investment Pools, representing approximately 5.2% and 3.5% of the City Treasury's General Pool and Special Investment Pools at June 30, 2015 and 2014, respectively.

The disclosures on "Note 4.B. Pooled Investments" were derived from information prepared by the City and furnished to the Port.

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At June 30, 2015, the investments held in the City Treasury's General and Special Investment Pool Programs and their maturities are as follows (in thousands):

Type of Investments	Amount	Investment Maturities				
		1 to 30 Days	31 to 60 Days	61 to 365 Days	366 Days To 5 Years	Over 5 Years
U.S. Treasury Notes	\$ 4,713,955	\$ --	\$ --	\$ --	\$ 4,682,760	\$ 31,195
U.S. Agencies Securities	1,334,695	171,585	75,705	345,657	724,213	17,535
Medium Term Notes	1,645,006	40,001	--	202,001	1,403,004	--
Commercial Paper	1,302,850	939,479	261,856	101,515	--	--
Municipal Bonds	42,496	--	--	--	42,496	--
Supranational Coupons	73,074	7,844	--	--	65,230	--
Short Term Investment Funds	1,678	1,678	--	--	--	--
Securities Lending Short-Term Repurchase Agreement	59,190	59,190	--	--	--	--
Total General and Special Pools	<u>\$ 9,172,944</u>	<u>\$ 1,219,777</u>	<u>\$ 337,561</u>	<u>\$ 649,173</u>	<u>\$ 6,917,703</u>	<u>\$ 48,730</u>

*Interest Rate Risk.* The Policy limits the maturity of its investments to five years for the U.S. Treasury and government agency securities, medium term notes, CD placement service, negotiable certificates of deposit, collateralized bank deposits, mortgage pass-through securities, and bank/time deposits; one year for repurchase agreements; 270 days for commercial paper; 180 days for bankers' acceptances; and 92 days for reverse repurchase agreements. The Policy also allows City funds with longer-term investments horizons, to be invested in securities that at the time of the investment have a term remaining to maturity in excess of five years, but with a maximum final maturity of thirty years.

*Credit Risk.* The Policy establishes minimum credit ratings requirement for investments. There is no credit quality requirement for local agency bonds, U.S. Treasury Obligations, State of California Obligations, California Local Agency Obligations, and U.S. Agencies (U.S. government sponsored enterprises) securities. The City's \$1.3 billion investments in U.S. government sponsored enterprises consist of securities issued by the Federal Home Loan Bank - \$316.2 million, Federal National Mortgage Association (Fannie Mae) - \$582.5 million, Federal Home Loan Mortgage Corporation (Freddie Mac) - \$317.6 million, Federal Farm Credit Bank - \$42.1 million, Federal Agriculture Mortgage Corporation - \$56.1 million and Tennessee Valley Authority - \$20.2 million. Of the City's \$1.3 billion investments in U.S. Agencies securities, \$799.5 million were rated "AA+" by S&P and "Aaa" by Moody's; \$535.2 million were not rated individually by S&P nor Moody's (issuers of these securities are rated "AA+/A-1+" by S&P and "Aaa/P-1" by Moody's).

Medium term notes must be issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States. Medium term notes must have at least an "A" rating at the time of purchase. The City's \$1.6 billion investments in medium term notes consist of securities issued by banks and corporations that comply with these requirements and were

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rated "A" or better by S&P and "A3" or better by Moody's. Subsequent to purchase, one issuer of \$25.1 million medium term notes were downgraded to "BBB+" by S&P and "Baa1" by Moody's, one issuer of \$8.1 million medium term notes was downgraded to "BBB+" by S&P and "Baa2" by Moody's, one issuer of \$8.1 million medium term notes was downgraded to "A-" by S&P and "Baa1" by Moody's, one issuer of \$5.0 million medium term notes was downgraded to "A-1" by S&P and "Baa2" by Moody's and one issuer of \$7.0 million medium term notes was downgraded to "BBB+" by S&P and "A3" by Moody's. Of the City's \$1.6 billion investments in medium term notes, one issuer of \$25.0 million was not rated by S&P but rated "A3" by Moody's.

Commercial paper issues must have a minimum of "A-1" or equivalent rating. If the issuer has issued long-term debt, it must be rated "A" without regard to modifiers. Issuing corporation must be organized and operating within the United States and have assets in excess of \$500.0 million. The City's \$1.3 billion investments in commercial paper were rated "A-1+/A-1" by S&P and "P-1/P-2" by Moody's.

Municipal bonds have no minimum rating requirement. The City's \$42.5 million investments in municipal bonds were rated "AA/A+" by S&P and "Aa2/Aa3" by Moody's.

Investments in supranational coupons must have a minimum rating of "AA". This investment was not included in the Policy effective February 2014, but were authorized for purchase by state municipalities upon revisions made to California Code Section 53601 effective January 1, 2015. The City's investments in supranational coupons of \$65.2 million were rated "AAA" by S&P, "Aaa" by Moody's. Investments of \$7.8 million were rated "A1+" by S&P and "P1" by Moody's. These short-term securities are backed by the full faith of the issuing entity which is rated AAA/Aaa.

*Concentration of Credit Risk.* The Policy does not allow more than 40% of its investment portfolio to be invested in commercial paper and bankers' acceptances, 30% in certificates of deposit and medium term notes, 20% in mutual funds, money market mutual funds and mortgage pass-through securities. The Policy further provides for a maximum concentration limit of 10% in any one issuer including its related entities. There is no percentage limitation on the amount that can be invested in the U.S. Treasury and government agencies. The City's pooled investments comply with these requirements. GAAP requires disclosure of certain investments in any one issuer that represent 5% or more of total investments. Of the City's total pooled investments as of June 30, 2015, \$582.5 million (6%) was invested in securities issued by Federal National Mortgage Association.

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At June 30, 2014, the investments held in the City Treasury's General and Special Investment Pool Programs and their maturities are as follows (in thousands):

Type of Investments	Amount	Investment Maturities				
		1 to 30 Days	31 to 60 Days	61 to 365 Days	366 Days To 5 Years	Over 5 Years
U.S. Treasury Bills	\$ 248,766	\$ 248,746	\$ --	\$ 20	\$ --	\$ --
U.S. Treasury Notes	4,121,579	--	--	--	4,085,830	35,749
U.S. Sponsored Agency Issues	1,915,548	606,056	213,475	352,807	730,202	13,008
Medium Term Notes	1,443,640	--	--	191,976	1,231,654	20,010
Commercial Paper	904,407	867,252	26,998	10,157	--	--
Municipal Bonds	30,207	--	--	--	30,207	--
Certificates of Deposit	7,000	--	--	7,000	--	--
Short Term Investment Funds	5,609	5,609	--	--	--	--
Securities Lending Short-Term Collateral Investment Pool	11,425	11,425	--	--	--	--
Total General and Special Pools	<u>\$ 8,688,181</u>	<u>\$ 1,739,088</u>	<u>\$ 240,473</u>	<u>\$ 561,960</u>	<u>\$ 6,077,893</u>	<u>\$ 68,767</u>

*Interest Rate Risk.* The Policy limits the maturity of its investments to five years for the U.S. Treasury and government agency securities, medium term notes, CD placement service, negotiable certificate of deposits, collateralized bank deposits, mortgage pass-through securities, and bank/time deposits; one year for repurchase agreements; 270 days for commercial paper; 180 days for bankers' acceptances; and 92 days for reverse repurchase agreements. The Policy also allows City funds with longer-term investments horizons, to be invested in securities that at the time of the investment have a term remaining to maturity in excess of five years, but with a maximum final maturity of thirty years.

*Credit Risk.* The Policy establishes minimum credit ratings requirement for investments. There is no credit quality requirement for local agency bonds, U.S. Treasury Obligations, State of California Obligations, California Local Agency Obligations, and U.S. Sponsored Agencies (U.S. government sponsored enterprises) securities. The City's \$1.9 billion investments in U.S. government sponsored enterprises consist of securities issued by the Federal Home Loan Bank - \$896.7 million, Federal National Mortgage Association - \$675.8 million, Federal Home Loan Mortgage Corporation - \$279.7 million, Federal Farm Credit Bank - \$17.3 million, and Tennessee Valley Authority - \$46.2 million. Of the City's \$1.9 billion investments in U.S. Sponsored Agencies securities, \$798.3 million were rated "AA+" by S&P and "Aaa" by Moody's; \$1,117.3 million were not rated individually by S&P nor Moody's (issuers of these securities are rated "AA+/A-1+" by S&P and "Aaa/P-1" by Moody's).

Medium term notes must be issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States. Medium term notes must have at least an "A" rating. The City's \$1.4 billion investments in medium term notes consist of securities issued by banks and corporations that comply with these requirements and were rated "A" or better by S&P and "A3" or better by Moody's. Subsequent to purchase, two issuers of \$38.7 million medium term notes were

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downgraded to “A-1” by S&P and “Baa1” by Moody’s and one issuer of \$7.0 million medium term notes was downgraded to “BBB+” by S&P and “A3” by Moody’s.

Commercial paper issues must have a minimum of “A-1” or equivalent rating. If the issuer has issued long-term debt, it must be rated “A” without regard to modifiers. Issuing corporation must be organized and operating within the United States and have assets in excess of \$500.0 million. The City’s \$904.4 million investments in commercial paper were rated “A-1+/A-1” by S&P and “P-1” by Moody’s.

Municipal bonds have no minimum rating requirement. The City’s \$30.2 million investments in municipal bonds were rated “AA/A” by S&P and “Aa2/Aa3” by Moody’s.

The issuers of the certificates of deposit were not rated.

*Concentration of Credit Risk.* The Policy does not allow more than 40% of its investment portfolio to be invested in commercial paper and bankers’ acceptances, 30% in certificates of deposit and medium term notes, 20% in mutual funds, money market mutual funds and mortgage pass-through securities. The Policy further provides for a maximum concentration limit of 10% in any one issuer including its related entities. There is no percentage limitation on the amount that can be invested in the U.S. government agencies. The City’s pooled investments comply with these requirements. GAAP requires disclosure of certain investments in any one issuer that represent 5% or more of total investments. Of the City’s total pooled investments as of June 30, 2014, \$896.7 million (10%) was invested in securities issued by Federal Home Loan Bank, and \$675.8 million (8%) was invested in securities issued by Federal National Mortgage Association.

**C. Special Investment Pools**

The Port currently has three funds that are invested in the City’s Special Investment Pools. They are Emergency/ACTA Reserve Fund 751, Restoration Fund 70L, and Batiquitos Long-term Investment Fund 72W. Investments in the Special Investment Pool are managed in accordance with the California State Government Code Sections 53600-53635 and the City’s Policy. Funds in the three funds were invested in U.S. Treasuries and government agency securities with maturities of 180 days or less.

**D. Other Investments**

In each issuance of a parity obligation, the Port is required to establish a reserve fund with a trustee pursuant to the indenture. All moneys in the reserve funds or accounts shall be invested by the trustee solely in permitted investments. Permitted investments on deposit in the debt service reserve funds should be valued at fair market value and marked to market at least once per half year to meet the specific requirement under the indenture. Investments held in the debt service reserve funds shall mature no later than the final maturity of the bonds.

The Port evaluates the value of the reserve funds on or at August 1 of each year, in accordance with the Indenture of Trust (Indenture). The common reserve was \$68.4 million at June 30, 2015 versus \$58.1 million at June 30, 2014. The reserve funds were invested in Federal Agency Securities rated “Aaa” by Moody’s and “AAA” by Standard & Poor’s (S&P), and U.S. Treasuries.



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Proceeds from any new money bonds should be invested in the "Permitted Investments" specified as follows: (1) direct obligations of the United States of America or obligations of the principal of and interest on which are unconditionally guaranteed by the United States of America; (2) bonds, debentures, notes, or other evidence of indebtedness issued or guaranteed by the federal or U.S. government agencies identified in the Indenture; (3) money market funds registered under the Federal Securities Act of 1933, and having a rating of AAAm-G, AAA-m, or AA-m by S&P and Aaa, Aa1, or Aa2 by Moody's; (4) certificates of deposit issued by commercial bank, savings and loan associations, or mutual saving banks and secured at all times by collateral held by a third party; (5) certificates of deposits, savings accounts, deposit accounts, or money market deposits, which are fully insured by the Federal Deposit Insurance Corporation (FDIC), including the Bank Insurance Fund (BIF) and the Savings Association Insurance Fund (SAIF); (6) investment agreements including guaranteed investment contracts, forward purchase agreements, and reserve fund agreements with a provider whose long-term unsecured debt is rated not lower than the second highest rating category of Moody's, and S&P; (7) commercial paper rated at the time of purchase, "Prime-1" by Moody's, and "A-1" or better by S&P; (8) bonds or notes issued by any state or municipality, which are rated by Moody's and S&P in one of the two highest rating categories assigned by such agencies; (9) federal funds or bankers acceptances with a maximum term of one year of any bank, which has an unsecured, uninsured, and unguaranteed obligation rating of "Prime-1" or "A3" or better by Moody's and "A-1" or "A" or better by S&P; and (10) repurchase agreements between the department and a dealer bank and securities firm. The term of the repurchase agreement may be up to 30 days and the value of the collateral must be equal to 104% of the amount of cash transferred to the dealer bank plus accrued interest. If the value of securities held as collateral slips below 104% of the value of the cash transferred by the department, then additional cash and/or acceptable securities must be transferred. If, however, the securities used as collateral are the Federal National Mortgage Association (FNMA) or the Federal Home Loan Mortgage Corporation (FHLMC) then the value of collateral must equal to 105%.

**E. City of Los Angeles Securities Lending Program**

Portions of the Port funds are also used by the City in a Securities Lending Program (SLP) as part of the investment strategy relative to the total pool of funds invested by the City. The SLP is permitted and limited under provisions of California Government Code Section 53601. The City Council approved the SLP on October 22, 1991 under Council File No. 91-1860, which complies with the California Government Code. The objectives of the SLP in priority order are safety of loaned securities and prudent investment of cash collateral to enhance revenue from the investment program. The SLP is governed by a separate policy and guidelines.

The City's custodial bank acts as the securities lending agent. In the event a counterparty defaults by reason of an act of insolvency, the bank shall take all actions which it deems necessary or appropriate to liquidate permitted investment and collateral in connection with such transaction and shall make a reasonable effort for within two business days (Replacement Period) to apply the proceeds thereof to the purchase of securities identical to the loaned securities not returned. If during the Replacement Period, the collateral liquidation proceeds are insufficient to replace any of the loaned securities not returned, the bank shall, subject to payment by the City of the amount of any losses on any permitted investments, pay such additional amounts as necessary to make such replacement.

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Under the provisions of the SLP, and in accordance with the California Government Code, no more than 20% of the market value of the General Investment Pool (the Pool) is available for lending. The City loans out U.S. Treasury and U.S. agencies securities, i.e. Fannie Mae, Freddie Mac, Federal Home Loan Bank, Federal Agricultural Mortgage Corporation (Farmer Mac), Federal Farm Credit Bank and Tennessee Valley Authority. The City receives cash as collateral on the loaned securities, which is reinvested in securities permitted under the Policy. In addition, the City receives securities as collateral on loaned securities, which the City has no ability to pledge or sell without borrower default. In accordance with the California Government Code, the securities lending agent marks to market the value of both the collateral and the reinvestments daily. Except for open loans where either party can terminate a lending contract on demand, term loans have a maximum life of 60 days. Earnings from securities lending accrue to the Pool and are allocated on a pro-rata basis to all Pool participants.

During the fiscal year 2015, collateralizations on all loaned securities were compliant with the required 102% of the market value. The City can sell collateral securities only in the event of borrower default. The lending agent provides indemnification for borrower default. There were no violations of legal or contractual provisions and no borrower or lending agent default losses during the fiscal year. There was no credit risk exposure to the City because the amounts owed to the borrowers exceeded the amounts borrowed. Loaned securities are held by the City's agents in the City's name and are not subject to custodial credit risk.

The Port's share in the assets and liabilities from the reinvested cash collateral amounted to \$2.9 million in fiscal year 2015.

The above disclosures on "Note 4.E. City of Los Angeles Securities Lending Program" were derived from information prepared by the City and furnished to the Port.

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**5. Capital Assets**

The Port's capital assets consist of the following activities for fiscal year ended June 30, 2015 (in thousands):

	Balance July 1, 2014	Additions	Retirements and Disposals	Adjustments and Transfers	Balance June 30, 2015
Capital assets not depreciated					
Land	\$ 1,094,732	\$ --	\$ (792)	\$ 13,566	\$ 1,107,506
Construction in progress	646,727	267,142	--	(731,122)	182,747
Preliminary costs – capital projects	225,541	14,446	--	(79,425)	160,562
Intangible assets	12,900	--	--	--	12,900
Total capital assets not depreciated	1,979,900	281,588	(792)	(796,981)	1,463,715
Capital assets depreciated/amortized					
Wharves and sheds	881,300	--	--	282,442	1,163,742
Buildings/facilities	2,366,180	--	--	491,723	2,857,903
Equipment	140,540	5,172	(10,403)	22,816	158,125
Intangible assets	12,460	--	--	--	12,460
Total capital assets depreciated/amortized	3,400,480	5,172	(10,403)	796,981	4,192,230
Less accumulated depreciation/amortization					
Wharves and sheds	(410,856)	(26,350)	--	--	(437,206)
Buildings/facilities	(1,119,739)	(93,675)	--	--	(1,213,414)
Equipment	(84,366)	(16,736)	9,239	--	(91,863)
Intangible assets	(703)	(623)	--	--	(1,326)
Total accumulated depreciation/amortization	(1,615,664)	(137,384)	9,239	--	(1,743,809)
Total capital assets depreciated/amortized, net	1,784,816	(132,212)	(1,164)	796,981	2,448,421
Capital assets, net	\$ 3,764,716	\$ 149,376	\$ (1,956)	\$ --	\$ 3,912,136

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The Port's capital assets consist of the following activities for fiscal year ended June 30, 2014 (in thousands):

	Balance July 1, 2013	Additions	Retirements and Disposals	Transfers	Balance June 30, 2014
Capital assets not depreciated					
Land	\$ 1,133,902	\$ --	\$ --	\$ (39,170)	\$ 1,094,732
Construction in progress	342,279	347,545	(13,058)	(30,039)	646,727
Preliminary costs – capital projects	233,029	17,387	(20,660)	(4,215)	225,541
Intangible assets	12,900	--	--	--	12,900
Total capital assets not depreciated	1,722,110	364,932	(33,718)	(73,424)	1,979,900
Capital assets depreciated/amortized					
Wharves and sheds	884,284	--	--	(2,984)	881,300
Buildings/facilities	2,300,508	--	--	65,672	2,366,180
Equipment	132,787	6,720	(5,488)	6,521	140,540
Intangible assets	8,245	--	--	4,215	12,460
Total capital assets depreciated/amortized	3,325,824	6,720	(5,488)	73,424	3,400,480
Less accumulated depreciation/amortization					
Wharves and sheds	(385,240)	(25,616)	--	--	(410,856)
Buildings/facilities	(1,039,304)	(80,435)	--	--	(1,119,739)
Equipment	(71,682)	(17,669)	4,985	--	(84,366)
Intangible assets	(203)	(500)	--	--	(703)
Total accumulated depreciation/amortization	(1,496,429)	(124,220)	4,985	--	(1,615,664)
Total capital assets depreciated/amortized, net	1,829,395	(117,500)	(503)	73,424	1,784,816
Capital assets, net	\$ 3,551,505	\$ 247,432	\$ (34,221)	\$ --	\$ 3,764,716

Net interest expense of \$42.1 million and \$34.5 million was capitalized for fiscal years 2015 and 2014, respectively.

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**6. Investment in Joint Powers Authorities and Other Entities**

The Port has entered into two joint power agreements as follows:

**A. Intermodal Container Transfer Facility Joint Powers Authority**

The Port of Los Angeles (POLA) and the Harbor Department of the City of Long Beach, California (POLB) entered into a joint powers agreement to form the Intermodal Container Transfer Facility Joint Powers Authority (ICTF) for the purpose of financing and constructing a facility to transfer cargo containers between trucks and railroad cars. The POLA contributed \$2.5 million to the ICTF as part of the agreement. The facility, which began operations in December 1986, was developed by Southern Pacific Transportation Company (SPTC, subsequently a wholly owned subsidiary of Union Pacific Corporation), which operates the facility under a long-term lease agreement. The POLA appoints two members of the ICTF's five-member governing board and accounts for its investment using the equity method. Both the POLA and POLB share income and equity distributions equally.

Pursuant to an indenture of trust dated November 1, 1984, the ICTF issued \$53.9 million in bonds (1984 Bonds) on behalf of the SPTC to construct the facility. In 1989, the ICTF issued \$52.3 million in refunding bonds (1989 Bonds) on behalf of the SPTC to advance refund all of the 1984 Bonds. In 1999, the ICTF, on behalf of the SPTC, again issued \$42.9 million of refunding bonds (1999 Bonds) to advance refund all of the 1989 Bonds. The 1999 Bonds are payable solely from payments by the SPTC under the lease agreement for use of the facility. The nature of the bonds is such that the indebtedness is that of the SPTC and not of the ICTF, POLA, or POLB. At June 30, 2015, there were no outstanding bonds.

The ICTF's operations are financed from lease revenues by ICTF activities. The ICTF is empowered to perform those actions necessary for the development of the facility, including acquiring, constructing, leasing, and selling any of its property. The Port's share of the ICTF's net position at June 30, 2015 and 2014 totaled \$6.0 million and \$5.2 million, respectively. Separate financial statements for ICTF may be obtained from the Executive Director, Port of Long Beach, 4801 Airport Plaza Drive, Long Beach, California 90815.

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**B. Alameda Corridor Transportation Authority**

In August 1989, the POLA and the Port of Long Beach (the POLB and, together with the POLA, the Ports) entered into a joint powers agreement and formed the Alameda Corridor Transportation Authority (ACTA) for the purpose of establishing a comprehensive transportation corridor and related facilities consisting of street and railroad rights-of-way and an improved highway and railroad network along Alameda Street between the Harbor and Long Beach Freeways and the POLA and POLB in San Pedro Bay linking the two ports to the central Los Angeles area.

The POLA has no share of the ACTA's net assets and income at June 30, 2015 and 2014, and accordingly, they have not been recorded in the accompanying financial statements. If in the future, ACTA is entitled to distribute income or make equity distributions, the Ports shall share such income and equity distributions equally.

Separate financial statements for ACTA may be obtained from the Chief Financial Officer, Alameda Corridor Transportation Authority, One Civic Plaza Drive, Suite 350, Carson, California 90745.

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**7. Long-Term Debt**

**A. Bonded Debt, Commercial Paper and Other Indebtedness**

The Port's activities for bonded debt, commercial paper and other indebtedness for fiscal year 2015 are as follows (in thousands):

Parity Bonds	Call Provisions	Date of Issue	Interest Rate	Fiscal Maturity Year	Original Principal	Beginning Balance July 1, 2014	Additions	Deductions	Ending Balance June 30, 2015	Principal Due Within One Year
Issue 2005, Series A	8/1/2015 @ 102%	10/13/2005	3.25% – 5.00%	2027	\$ 29,930	\$ 25,685	\$ --	\$ (1,435)	\$ 24,250	\$ 1,510
Issue 2005, Series B	8/1/2015 @ 102%	10/13/2005	3.00% – 5.00%	2027	30,110	24,095	--	(1,415)	22,680	1,490
Issue 2005, Series C-1	8/1/2015 @ 102%	10/13/2005	4.00% – 5.00%	2018	43,730	7,880	--	(470)	7,410	7,410
Issue 2006, Series A	8/1/2016 @ 102%	5/4/2006	5.00%	2027	200,710	50,130	--	(1,370)	48,760	--
Issue 2006, Series B	8/1/2016 @ 102%	8/3/2006	5.00%	2027	209,815	84,100	--	--	84,100	11,540
Issue 2006, Series C	8/1/2016 @ 102%	8/3/2006	5.00%	2026	16,545	12,815	--	(810)	12,005	850
Issue 2006, Series D	8/1/2014 @ 102%	8/31/2006	4.50% – 5.00%	2037	111,300	75,935	--	(75,935)	--	--
Issue 2009, Series A	8/1/2019 @ 100%	7/9/2009	2.00% – 5.25%	2029	100,000	86,290	--	(3,720)	82,570	3,905
Issue 2009, Series B	8/1/2019 @ 100%	7/9/2009	5.25%	2040	100,000	100,000	--	--	100,000	--
Issue 2009, Series C	8/1/2019 @ 100%	7/9/2009	4.00% – 5.25%	2032	230,160	205,825	--	(15,715)	190,110	9,675
Issue 2011, Series A	8/1/2021 @ 100%	7/7/2011	3.00% – 5.00%	2023	58,930	58,930	--	--	58,930	2,135
Issue 2011, Series B	8/1/2021 @ 100%	7/7/2011	4.00% – 5.00%	2026	32,820	32,820	--	--	32,820	--
Issue 2014, Series A	8/1/2024 @ 100%	9/18/2014	2.00% – 5.00%	2045	203,280	--	203,280	--	203,280	2,275
Issue 2014, Series B	8/1/2024 @ 100%	9/18/2014	3.00% – 5.00%	2045	89,105	--	89,105	--	89,105	1,360
Issue 2014, Series C	8/1/2024 @ 100%	9/18/2014	2.00% – 5.00%	2045	44,890	--	44,890	--	44,890	760
Total parity bonds					<u>\$ 1,501,325</u>	<u>764,505</u>	<u>337,275</u>	<u>(100,870)</u>	<u>1,000,910</u>	<u>42,910</u>
Unamortized bond (discount) premium						<u>16,488</u>	<u>49,003</u>	<u>(6,798)</u>	<u>58,693</u>	<u>--</u>
Net parity bonds						<u>780,993</u>	<u>386,278</u>	<u>(107,668)</u>	<u>1,059,603</u>	<u>42,910</u>
Commercial paper notes						<u>125,000</u>	<u>25,000</u>	<u>(150,000)</u>	<u>--</u>	<u>--</u>
Less: current maturities of long-term debt						<u>(27,270)</u>	<u>(42,910)</u>	<u>27,270</u>	<u>(42,910)</u>	<u>--</u>
Total long-term debt net of current maturities						<u>\$ 878,723</u>	<u>\$ 368,368</u>	<u>\$ (230,398)</u>	<u>\$ 1,016,693</u>	<u>\$ 42,910</u>

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The Port's activities for bonded debt, commercial paper and other indebtedness for fiscal year 2014 are as follows (in thousands):

Parity Bonds	Call Provisions	Date of Issue	Interest Rate	Fiscal Maturity Year	Original Principal	Beginning Balance July 1, 2013	Additions	Deductions	Ending Balance June 30, 2014	Principal Due Within One Year
Issue 2005, Series A	8/1/2015 @ 102%	10/13/2005	3.25% - 5.00%	2027	\$ 29,930	\$ 27,055	\$ --	\$ (1,370)	\$ 25,685	\$ 1,435
Issue 2005, Series B	8/1/2015 @ 102%	10/13/2005	3.00% - 5.00%	2027	30,110	25,440	--	(1,345)	24,095	1,415
Issue 2005, Series C-1	8/1/2015 @ 102%	10/13/2005	4.00% - 5.00%	2018	43,730	7,880	--	--	7,880	470
Issue 2006, Series A	8/1/2016 @ 102%	5/4/2006	5.00%	2027	200,710	50,130	--	--	50,130	1,370
Issue 2006, Series B	8/1/2016 @ 102%	8/3/2006	5.00%	2027	209,815	90,100	--	(6,000)	84,100	--
Issue 2006, Series C	8/1/2016 @ 102%	8/3/2006	5.00%	2026	16,545	13,580	--	(765)	12,815	810
Issue 2006, Series D	8/1/2014 @ 102%	8/31/2006	4.50% - 5.00%	2037	111,300	78,160	--	(2,225)	75,935	2,335
Issue 2009, Series A	8/1/2019 @ 100%	7/9/2009	2.00% - 5.25%	2029	100,000	89,870	--	(3,580)	86,290	3,720
Issue 2009, Series B	8/1/2019 @ 100%	7/9/2009	5.25%	2040	100,000	100,000	--	--	100,000	--
Issue 2009, Series C	8/1/2019 @ 100%	7/9/2009	4.00% - 5.25%	2032	230,160	216,775	--	(10,950)	205,825	15,715
Issue 2011, Series A	8/1/2021 @ 100%	7/7/2011	3.00% - 5.00%	2023	58,930	58,930	--	--	58,930	--
Issue 2011, Series B	8/1/2021 @ 100%	7/7/2011	4.00% - 5.00%	2026	32,820	32,820	--	--	32,820	--
Total parity bonds					<u>\$ 1,164,050</u>	<u>790,740</u>	<u>--</u>	<u>(26,235)</u>	<u>764,505</u>	<u>27,270</u>
Unamortized bond (discount) premium						<u>30,390</u>	<u>--</u>	<u>(13,902)</u>	<u>16,488</u>	<u>--</u>
Net parity bonds						<u>821,130</u>	<u>--</u>	<u>(40,137)</u>	<u>780,993</u>	<u>27,270</u>
Commercial paper notes						<u>100,000</u>	<u>25,000</u>	<u>--</u>	<u>125,000</u>	<u>--</u>
Less: current maturities of long-term debt						<u>(26,235)</u>	<u>(27,270)</u>	<u>26,235</u>	<u>(27,270)</u>	<u>--</u>
Total long-term debt net of current maturities						<u>\$ 894,895</u>	<u>\$ (2,270)</u>	<u>\$ (13,902)</u>	<u>\$ 878,723</u>	<u>\$ 27,270</u>



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**B. Bond Premium and Discount**

Original bond premium or discount is amortized over the life of the bonds. At the time of bond refunding, the unamortized discount or premium is amortized over the life of the refunded bonds or the life of the refunding bonds, whichever is shorter.

In fiscal year 2014, the Port changed the method of amortizing bond premium and discount from straight line method to effective interest method. The effective interest method allocates bond interest expense over the life of the bonds in such a way that it yields a constant rate of interest, which in turn is the market rate of interest at the date of issue of bonds. With the effective interest method, the amortization of bond discount/premium is calculated using the effective market interest rate versus the coupon rate used in straight-line method. As a result of this change, the beginning net position at July 1, 2013 was adjusted for the cumulative effect of this change in the amount of \$10.6 million and fiscal year 2014 interest expense was reduced by \$0.9 million.

The unamortized discount or premium for the outstanding bonds for fiscal years 2015 and 2014 are as follows (in thousands):

Harbor Revenue Bonds	2015 Premium (Discount)	2014 Premium (Discount)
Issue of 2005, Series A	\$ 758	\$ 895
Issue of 2005, Series B	699	830
Issue of 2005, Series C-1	111	161
Issue of 2006, Series A	924	1,101
Issue of 2006, Series B	1,117	1,476
Issue of 2006, Series C	290	350
Issue of 2006, Series D	--	1,237
Issue of 2009, Series A	969	1,189
Issue of 2009, Series B	(2,043)	(2,098)
Issue of 2009, Series C	3,613	4,298
Issue of 2011, Series A	3,196	4,076
Issue of 2011, Series B	2,721	2,973
Issue of 2014, Series A	26,612	--
Issue of 2014, Series B	13,327	--
Issue of 2014, Series C	6,399	--
Total	<u>\$ 58,693</u>	<u>\$ 16,488</u>

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**C. Principal Maturities and Interest**

The Port's scheduled annual debt service payments for bonded debt and other indebtedness are as follows (in thousands):

	Principal	Interest	Total
2016	\$ 42,910	\$ 48,871	\$ 91,781
2017	42,095	47,028	89,123
2018	37,155	45,167	82,322
2019	46,830	43,161	89,991
2020	48,690	40,811	89,501
2021 – 2025	282,925	163,830	446,755
2026 – 2030	178,665	97,429	276,094
2031 – 2035	116,425	67,301	183,726
2036 – 2040	128,615	35,203	163,818
2041 – 2045	76,600	9,957	86,557
Subtotal	1,000,910	598,758	1,599,668
Unamortized bond premium (discount), net	58,693	--	58,693
Current maturities of long-term debt	(42,910)	--	(42,910)
Total	<u>\$ 1,016,693</u>	<u>\$ 598,758</u>	<u>\$ 1,615,451</u>

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**D. Summary of the Port's Bonded Indebtedness and Pledged Revenues**

**2005 Series A Refunding Bonds**

The 2005 Series A Refunding Bonds were issued on October 13, 2005 in the aggregate principal amount of \$29.9 million to advance refund, on a crossover basis, \$30.9 million of the 1996 Series A Bonds on their call date (the Crossover Date) of August 1, 2006.

Interest on the 2005 Series A Refunding Bonds is payable semiannually on February 1 and August 1 of each year commencing February 1, 2006. The 2005 Series A Bonds with maturity dates ranging from August 1, 2010 to 2026 bear coupon interest rates from 3.25% to 5.00%.

The bonds maturing on or after August 1, 2016 are subject to optional redemption prior to their stated maturities at the redemption price of 102% if they are redeemed during the period from August 1, 2015 to July 31, 2016.

At June 30, 2015 and 2014, the outstanding balances of the 2005 Series A Refunding Bonds, plus the unamortized premium of \$0.8 million and \$0.9 million, were \$25.0 million and \$26.6 million, respectively.

Debt service of the Port's 2005 Series A Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 1,510	\$ 1,175	\$ 2,685
2017	1,590	1,097	2,687
2018	1,670	1,016	2,686
2019	1,755	930	2,685
2020	1,850	840	2,690
2021 – 2025	10,755	2,679	13,434
2026 – 2027	5,120	259	5,379
Subtotal	24,250	7,996	32,246
Unamortized premium	758	--	758
Total	<u>\$ 25,008</u>	<u>\$ 7,996</u>	<u>\$ 33,004</u>

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**2005 Series B Refunding Bonds**

The 2005 Series B Refunding Bonds were issued on October 13, 2005 in the aggregate principal amount of \$30.1 million, on a crossover basis, to advance refund \$31.7 million of the 1996 Series B Bonds on their call date of November 1, 2006 (the Crossover Date).

Interest on the 2005 Series B Bonds is payable semiannually on February 1 and August 1 of each year, commencing February 1, 2006. The 2005 Series B Refunding Bonds with maturity dates ranging from August 1, 2008 to 2026 bear coupon interest rates from 3.00% to 5.00%.

The bonds maturing on or after August 1, 2016 are subject to optional redemption prior to their stated maturities at the redemption price of 102% if they are redeemed during the period from August 1, 2015 to July 31, 2016.

At June 30, 2015 and 2014, the outstanding balances of the 2005 Series B Refunding Bonds, plus the unamortized premium of \$0.7 million and \$0.8 million, were \$23.4 million and \$24.9 million, respectively.

Debt service of the Port's 2005 Series B Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 1,490	\$ 1,097	\$ 2,587
2017	1,565	1,020	2,585
2018	1,640	940	2,580
2019	1,725	856	2,581
2020	1,820	768	2,588
2021 – 2025	10,585	2,340	12,925
2026 – 2027	3,855	166	4,021
Subtotal	22,680	7,187	29,867
Unamortized premium	699	--	699
Total	<u>\$ 23,379</u>	<u>\$ 7,187</u>	<u>\$ 30,566</u>

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**2005 Series C-1 Refunding Bonds**

The 2005 Series C-1 Refunding Bonds, associated with the purchase on the open market of the purchased 1996 Bonds, were issued on October 13, 2005 in the aggregate principal amount of \$43.7 million.

Interest on the 2005 Series C-1 Refunding Bonds is payable semiannually on February 1 and August 1 of each year, commencing February 1, 2006. The 2005 Series C-1 Bonds with maturity dates ranging from August 1, 2006 to August 1, 2017 bear coupon interest rates from 4.00% to 5.00%.

The bonds maturing on or after August 1, 2017 shall be subject to optional redemption prior to their stated maturities at the redemption price of 102% if they are redeemed during the period from August 1, 2015 to July 31, 2016.

The 2005 Series C-2 Refunding Bonds were issued for \$4.1 million to pay certain issuance costs. The 2005 Series C-2 Bonds Refunding Bonds were sold with a coupon rate of 4.75%.

To take advantage of the American Recovery and Reinvestment Act (ARRA) of 2009, the Port issued the 2009 Series C (Non-AMT) Refunding Bonds in an aggregate amount of \$230.2 million on July 9, 2009. A portion of the Refunding bond proceeds was to provide funds to refund \$2.7 million of the 2005 Series C-1 AMT Bonds.

The outstanding balances of the 2005 Series C-1 Refunding Bonds, plus the unamortized premium of \$0.1 million and \$0.2 million, were \$7.5 million and \$8.0 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2005 Series C-1 Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ --	\$ 371	\$ 371
2017	--	371	371
2018	7,410	185	7,595
Subtotal	7,410	927	8,337
Unamortized premium	111	--	111
Total	\$ 7,521	\$ 927	\$ 8,448

The 2005 Series A, B, and C refunding transactions resulted in an economic gain of \$4.0 million and a cash savings of \$6.1 million.

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**2006 Series A Refunding Bonds**

The 2006 Series A Refunding Bonds were issued on May 4, 2006 in the aggregate principal amount of \$200.7 million, on a forward-delivery basis, to currently refund \$202.7 million of the 1996A Bonds. The 2006 Series A refunding transactions resulted in an economic gain of \$27.7 million and cash savings of \$44.8 million.

Interest on the 2006 Series A Refunding Bonds is payable semiannually on February 1 and August 1 of each year. Principal and interest are payable commencing August 1, 2006. The 2006 Series A Bonds bear a coupon interest rate of 5.00% with maturity dates ranging from August 1, 2006 to August 1, 2026.

The bonds maturing on or after August 1, 2017 shall be subject to optional redemption prior to their maturities at the redemption price of 102% if they are redeemed during the period from August 1, 2016 to July 31, 2017.

To take advantage of the ARRA, the Port issued the 2009 Series C (Non-AMT) Refunding Bonds on July 9, 2009. A portion of the 2009 Refunding Bond proceeds was to provide funds to refund \$121.1 million of the 2006 Series A AMT Bonds.

At June 30, 2015 and 2014, the outstanding balances of the 2006 Series A Refunding Bonds, plus the unamortized premium of \$0.9 million and \$1.1 million, were \$49.7 million and \$51.2 million, respectively.

Debt service of the Port's 2006 Series A Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ --	\$ 2,438	\$ 2,438
2017	195	2,433	2,628
2018	8,930	2,205	11,135
2019	9,990	1,732	11,722
2020	--	1,482	1,482
2021-2025	29,645	4,358	34,003
Subtotal	48,760	14,648	63,408
Unamortized premium	924	--	924
Total	<u>\$ 49,684</u>	<u>\$ 14,648</u>	<u>\$ 64,332</u>

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**2006 Series B Refunding Bonds**

The 2006 Series B Refunding Bonds were issued on August 3, 2006 in the aggregate principal amount of \$209.8 million, on a forward-delivery basis, to currently refund \$211.9 million of the 1996 Series B Bonds. The 2006 Series B refunding transactions resulted in an economic gain of \$18.9 million and cash savings of \$34.7 million.

Interest on the 2006 Series B Refunding Bonds is payable semiannually on February 1 and August 1 of each year. The 2006 Series B Bonds bear a coupon interest rate of 5.00% with maturity dates ranging from August 1, 2007 to August 1, 2026.

The bonds maturing on or after August 1, 2017 shall be subject to optional redemption prior to their maturities at the redemption price of 102% if they are redeemed during the period from August 1, 2016 to July 31, 2017.

To take advantage of the ARRA, the Port issued the 2009 Series C (Non-AMT) Refunding Bonds on July 9, 2009. A portion of the 2009 Refunding Bond proceeds was to provide funds to refund \$94.1 million of the 2006 Series B AMT Bonds.

The outstanding balances of the 2006 Series B Refunding Bonds, plus the unamortized premium of \$1.1 million and \$1.5 million, were \$85.2 million and \$85.6 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2006 Series B Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 11,540	\$ 3,917	\$ 15,457
2017	12,140	3,325	15,465
2018	3,095	2,944	6,039
2019	12,855	2,545	15,400
2020	13,485	1,886	15,371
2021 – 2025	30,760	1,614	32,374
2026	225	6	231
Subtotal	84,100	16,237	100,337
Unamortized premium	1,117	--	1,117
Total	\$ 85,217	\$ 16,237	\$ 101,454

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**2006 Series C Refunding Bonds**

The 2006 Series C Refunding Bonds were issued on August 3, 2006 in the aggregate principal amount of \$16.5 million, on a forward-delivery basis, to currently refund \$17.1 million of the 1996 Series C Bonds. The refunding transactions resulted in an economic gain of \$1.2 million and cash savings of \$1.6 million.

Interest on the 2006 Series C Refunding Bonds is payable semiannually on February 1 and August 1 of each year. The 2006 Series C Refunding Bonds bear coupon interest at a rate of 5.00% with maturity dates ranging from August 1, 2008 to August 1, 2025.

The bonds maturing on or after August 1, 2017 shall be subject to optional redemption prior to their maturities at the redemption price of 102% if they are redeemed during the period from August 1, 2016 to July 31, 2017.

The outstanding balances of the 2006 Series C Refunding Bonds, plus the unamortized premium of \$0.3 million and \$0.4 million, were \$12.3 million and \$13.2 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2006 Series C Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 850	\$ 579	\$ 1,429
2017	895	535	1,430
2018	930	490	1,420
2019	980	442	1,422
2020	1,035	392	1,427
2021 – 2025	5,955	1,113	7,068
2026	1,360	34	1,394
Subtotal	12,005	3,585	15,590
Unamortized premium	290	--	290
Total	<u>\$ 12,295</u>	<u>\$ 3,585</u>	<u>\$ 15,880</u>



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**2006 Series D Refunding Bonds**

The 2006 Series D Refunding Bonds were issued on August 31, 2006 in the aggregate principal amount of \$111.3 million, to refund \$113.6 million of Commercial Paper Notes.

Interest on the 2006 Series D Refunding Bonds is payable semiannually on February 1 and August 1 of each year. The 2006 Series D Bonds bear coupon interest at rates ranging from 4.50% to 5.00% with maturity dates from August 1, 2007 to August 1, 2036.

The bonds maturing on or after August 1, 2015 are subject to optional redemption prior to their stated maturities at the redemption price of 101% if they are redeemed during the period from August 1, 2014 to July 31, 2015.

To take advantage of the American Recovery and Reinvestment Act of 2009 (ARRA), the Port issued the 2009 Series C (Non-AMT) Refunding Bonds on July 9, 2009. A portion of the Refunding Bonds was to provide funds to refund \$22.5 million of the 2006 Series D AMT Bonds.

All outstanding balances of 2006 Series D Refunding Bonds of \$73.6 million were refunded upon the issuance of 2014 Series A Refunding Bonds in September 2014.

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**2009 Series A New Money Bonds**

The 2009 Series A New Money Bonds were issued on July 9, 2009 in the aggregate principal amount of \$100.0 million, in accordance with ARRA. The Bonds were issued to (i) finance certain Private Activity Projects; (ii) fund a debt service reserve fund with respect to the 2009A Bonds; and (iii) pay the costs incidental to the issuance of the 2009A Bonds.

Interest on the 2009 Series A Bonds is payable semiannually on February 1 and August 1 of each year, commencing August 1, 2009. The Bonds bear coupon interest at rates ranging from 2.00% to 5.25% with maturity dates from August 1, 2010 to August 1, 2029.

The Bonds with stated maturities on or after August 1, 2020 shall be subject to optional redemption prior to their maturities on or after August 1, 2019 without early redemption premium. The Bonds are not subject to mandatory sinking fund redemption.

The outstanding balances of the 2009 Series A Bonds, plus the unamortized premium of \$1.0 million and \$1.2 million, were \$83.5 million and \$87.5 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2009 Series A Bonds are as follows (in thousands):

Fiscal year	Principal	Interest	Total
2016	\$ 3,905	\$ 3,969	\$ 7,874
2017	4,095	3,794	7,889
2018	4,255	3,627	7,882
2019	4,425	3,453	7,878
2020	4,605	3,250	7,855
2021 – 2025	26,795	12,354	39,149
2026 – 2030	34,490	4,489	38,979
Subtotal	82,570	34,936	117,506
Unamortized premium	969	--	969
Total	<u>\$ 83,539</u>	<u>\$ 34,936</u>	<u>\$ 118,475</u>

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**2009 Series B New Money Bonds**

Along with the issuance of the 2009 Series A New Money Bonds, the Port issued its 2009 Series B Bonds in the aggregate principal amount of \$100.0 million in accordance with the ARRA of 2009. The Bonds were issued to (i) finance certain Governmental Projects in Fiscal Years 2009 and 2010; (ii) fund a debt service reserve fund with respect to the 2009B Bonds; and (iii) pay the costs incidental to the issuance of the 2009B Bonds.

Interest on the 2009 Series B Bonds is payable semiannually on February 1 and August 1 of each year, commencing August 1, 2009. The Bonds bear a coupon interest rate at 5.25% with maturity dates from August 1, 2030 to August 1, 2039.

The Bonds with stated maturities on or after August 1, 2020 shall be subject to optional redemption on or after August 1, 2019 without early redemption premium. The Bonds maturing on August 1, 2034 (the 2009B 2034 Term Bonds) and on August 1, 2039 (the 2009B 2039 Term Bonds) are subject to mandatory sinking fund redemption.

The outstanding balance of the 2009 Series B Bonds, net of unamortized discount of \$2.0 million and \$2.1 million were \$98.0 million and \$97.9 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2009 Series B Bonds are as follows (in thousands):

<u>Fiscal year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2016	\$ --	\$ 5,250	\$ 5,250
2017	--	5,250	5,250
2018	--	5,250	5,250
2019	--	5,250	5,250
2020	--	5,250	5,250
2021 – 2025	--	26,250	26,250
2026 – 2030	--	26,250	26,250
2031 – 2035	43,640	20,756	64,396
2036 – 2040	56,360	7,700	64,060
Subtotal	100,000	107,206	207,206
Unamortized discount	(2,043)	--	(2,043)
Total	<u>\$ 97,957</u>	<u>\$ 107,206</u>	<u>\$ 205,163</u>

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**2009 Series C Refunding Bonds**

Contemporaneously with the issuance of the 2009 Series A and Series B New Money Bonds, the Port issued the 2009 Series C Refunding Bonds in the aggregate principal amount of \$230.2 million. The Bonds were issued to provide funds for the purchase of certain maturities of the Department's outstanding (i) Refunding Revenue Bonds 2005 Series C-1 (AMT) of \$2.7 million, (ii) Refunding Revenue Bonds 2006 Series A (AMT) of \$121.1 million, (iii) Refunding Revenue Bonds 2006 Series B (AMT) of \$94.1 million, and (iv) Revenue Bonds 2006 Series D (AMT) of \$22.5 million. The refunding transactions resulted in a reduction of \$12.7 million in future debt service payments and the net present value benefit of \$8.2 million.

Interest on the 2009 Series C Refunding Bonds is payable semiannually on February 1 and August 1 of each year, commencing August 1, 2009. The Bonds bear coupon interest rates ranging from 4.00% to 5.25% with maturity dates from August 1, 2011 to August 1, 2031.

The Bond maturing on August 1, 2021, which bears coupon interest at 5.25% per annum, and the Bonds maturing on or after August 1, 2022 are subject to optional redemption prior to their respective stated maturities without early redemption premium. The Bonds maturing on August 1, 2031 (the Term Bonds) are subject to mandatory sinking fund redemption.

The outstanding balances of the 2009 Series C Refunding Bonds, plus the unamortized premium of \$3.6 million and \$4.3 million, were \$193.7 million and \$210.1 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2009 Series C Bonds are as follows (in thousands):

Fiscal year	Principal	Interest	Total
2016	9,675	9,500	19,175
2017	8,860	9,055	17,915
2018	2,265	8,786	11,051
2019	--	8,729	8,729
2020	10,000	8,479	18,479
2021-2025	79,795	33,499	113,294
2026-2030	77,095	5,183	82,278
2031-2032	2,420	133	2,553
Subtotal	190,110	83,364	273,474
Unamortized premium	3,613	--	3,613
Total	<u>\$ 193,723</u>	<u>\$ 83,364</u>	<u>\$ 277,087</u>

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**2011 Series A Refunding Bonds**

The 2011 Series A Refunding Bonds were issued in 2011 in the aggregate principal amount of \$58.9 million to refund the outstanding principal of \$64.9 million of the 2001 Series B Refunding Bonds. The refunding transaction resulted in cash flow savings of \$10.7 million and economic gain of \$8.6 million over the life of the bonds.

Interest on the 2011 Series A Refunding Bonds is payable semiannually on February 1 and August 1 of each year starting from August 1, 2012. The bonds bear interest at coupon rates from 3.00% to 5.00% with maturity dates ranging from August 2015 to 2022.

The 2011 Series A Refunding Bonds are subject to optional redemption on or after August 1, 2021 without early redemption premium. Principal and interests on these bonds are payable solely from Harbor revenues and other amounts pledged under the indenture.

The outstanding balance of the 2011 Series A Refunding Bonds, plus the unamortized premium of \$3.2 million and \$4.1 million, were \$62.1 million and \$63.0 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2011 Series A Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 2,135	\$ 2,872	\$ 5,007
2017	7,130	2,662	9,792
2018	7,490	2,296	9,786
2019	7,855	1,912	9,767
2020	8,250	1,510	9,760
2021 – 2023	26,070	1,939	28,009
Subtotal	58,930	13,191	72,121
Unamortized premium	3,196	--	3,196
Total	\$ 62,126	\$ 13,191	\$ 75,317

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**2011 Series B Refunding Bonds**

The 2011 Series B Refunding Bonds were issued in 2011 in the aggregate principal amount of \$32.8 million to refund the outstanding principal of \$36.2 million of the 2001 Series A Refunding Bonds. The refunding transaction resulted in cash flow savings of \$5.7 million and economic gain of \$4.0 million.

Interest on the 2011 Series B Refunding Bonds is payable semiannually on February 1 and August 1 of each year starting from February 1, 2012. The bonds bear coupon interest rates from 4.00% to 5.00% with maturity dates ranging from August 2022 to 2025.

The 2011 Series B Refunding Bonds are subject to optional redemption on or after August 1, 2021 without early redemption premium. Principal and interests on these bonds are payable solely from Harbor revenues and other amounts pledged under the indenture.

The outstanding balance of the 2011 Series B Refunding Bonds, plus the unamortized premium of \$2.7 million and \$3.0 million, were \$35.5 million and \$35.8 million at June 30, 2015 and 2014, respectively.

Debt service of the Port's 2011 Series B Refunding Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ --	\$ 1,618	\$ 1,618
2017	--	1,618	1,618
2018	--	1,618	1,618
2019	--	1,618	1,618
2020	--	1,618	1,618
2021 – 2025	21,775	6,954	28,729
2026 – 2027	11,045	271	11,316
Subtotal	32,820	15,315	48,135
Unamortized premium	2,721	--	2,721
Total	\$ 35,541	\$ 15,315	\$ 50,856

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**2014 Series A Revenue Bonds and Refunding Revenue Bonds**

The 2014 Series A Revenue Bonds and Refunding Revenue Bonds were issued on September 18, 2014 in the aggregate principal amount of \$203.3 million to cover the construction costs of private activity projects, primarily the Trapac Container Terminal, China Shipping Container Terminal and Alternative Maritime Power (AMP) installation at several berths, as well as to refund all of the outstanding principal of \$73.6 million of the 2006 Series D Refunding Bonds, make deposit to the Reserve Fund and pay the cost of issuance of the Series 2014A bonds. The refunding transaction resulted in present value savings of \$9.0 million or cash flow savings of \$7.3 million over the remaining life of these bonds.

Interest on the 2014 Series A Bonds is payable semiannually on February 1 and August 1 of each year, commencing February 1, 2015. The Bonds bear coupon interest at rates ranging from 2.00% to 5.00% with maturity dates from August 1, 2015 to August 1, 2044. The Bonds with stated maturities on or after August 1, 2025 shall be subject to optional redemption prior to their maturities on or after August 1, 2024 without early redemption premium.

The outstanding balance of the 2014 Series A Bonds, plus the unamortized premium of \$26.6 million was \$229.9 million at June 30, 2015.

Debt service of the Port's 2014 Series A Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 2,275	\$ 9,993	\$ 12,268
2017	3,420	9,902	13,322
2018	4,595	9,741	14,336
2019	4,865	9,528	14,393
2020	5,160	9,277	14,437
2021 – 2025	26,590	42,220	68,810
2026 – 2030	27,450	36,091	63,541
2031 – 2035	47,330	26,749	74,079
2036 – 2040	42,785	14,268	57,053
2041 – 2045	38,810	5,045	43,855
Subtotal	203,280	172,814	376,094
Unamortized premium	26,612	--	26,612
Total	\$ 229,892	\$ 172,814	\$ 402,706

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**2014 Series B Refunding Revenue Bonds**

Included in the 2014 transaction was the issuance of the 2014 Series B Bonds in the aggregate principal amount of \$89.1 million, to refund \$100.0 million of exempt facility Commercial Paper Notes that were originally issued during the ARRA period (2009-2010) to finance private activity projects such as China Shipping, Trapac, and AMP projects, to make a deposit to the Reserve Fund, and to pay for cost of issuance of the 2014 Series B bonds.

Interest on the 2014 Series B Bonds is payable semiannually on February 1 and August 1 of each year, commencing February 1, 2015. The Bonds bear coupon interest rates ranging from 3.00% to 5.00% with maturity dates from August 1, 2015 to August 1, 2044. The Bonds with stated maturities on or after August 1, 2025 bear interest of 5.00%, and shall be subject to optional redemption prior to their maturities on or after August 1, 2024 without early redemption premium.

The outstanding balance of the 2014 Series B Bonds, plus the unamortized premium of \$13.3 million was \$102.4 million at June 30, 2015.

Debt service of the Port's 2014 Series B Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 1,360	\$ 4,328	\$ 5,688
2017	1,425	4,266	5,691
2018	1,480	4,208	5,688
2019	1,545	4,147	5,692
2020	1,615	4,076	5,691
2021 – 2025	9,400	19,050	28,450
2026 – 2030	12,065	16,385	28,450
2031 – 2035	15,390	13,060	28,450
2036 – 2040	19,645	8,806	28,451
2041 – 2045	25,180	3,273	28,453
Subtotal	89,105	81,599	170,704
Unamortized premium	13,327	--	13,327
Total	\$ 102,432	\$ 81,599	\$ 184,031



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**2014 Series C Revenue Bonds**

Contemporaneous with the issuance of the 2014 Series A Revenue Bonds and Refunding Revenue Bonds and the Series B Refunding Revenue Bonds, the Port issued the 2014 Series C Revenue Bonds in the aggregate principal amount of \$44.9 million, to reimburse the construction cost of government projects, mainly the San Pedro Waterfront Landside Improvements project and the in-kind match of transportation projects primarily financed by State and Federal grants, to make deposit into the Reserve Fund, and pay the costs of issuance of the 2014 Series C bonds.

Interest on the 2014 Series C Revenue Bonds is payable semiannually on February 1 and August 1 of each year, commencing February 1, 2015. The Bonds bear coupon interest rates ranging from 2.00% to 5.00% with maturity dates from August 1, 2015 to August 1, 2044. The Bonds with stated maturities on or after August 1, 2025 shall be subject to optional redemption prior to their maturities on or after August 1, 2024 without early redemption premium.

The outstanding balance of the 2014 Series C Bonds, plus the unamortized premium of \$6.4 million was \$51.3 million at June 30, 2015.

Debt service of the Port's 2014 Series C Bonds are as follows (in thousands):

Fiscal Year	Principal	Interest	Total
2016	\$ 760	\$ 2,090	\$ 2,850
2017	780	2,070	2,850
2018	805	2,046	2,851
2019	835	2,018	2,853
2020	870	1,984	2,854
2021 – 2025	4,800	9,461	14,261
2026 – 2030	5,960	8,295	14,255
2031 – 2035	7,645	6,603	14,248
2036 – 2040	9,825	4,429	14,254
2041 – 2045	12,610	1,639	14,249
Subtotal	44,890	40,635	85,525
Unamortized premium	6,399	--	6,399
Total	\$ 51,289	\$ 40,635	\$ 91,924

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**E. Commercial Paper**

The Port has established a Commercial Paper program (Program) supported by bank credit lines to issue commercial paper notes (Notes) to provide interim financing primarily for the construction, maintenance, and replacement of the Port's structures, facilities, and equipment needs. The total credit available under the credit facilities that support the Program was at \$250.0 million. The term of the Program expired at the end of July 2015.

There was no outstanding commercial paper as of June 30, 2015 and total amount outstanding was \$125.0 million as of June 30, 2014. Funds were used to finance the China Shipping and TraPac Container Terminal Projects. The 2014 notes issued were remarketed upon maturity and refunded through the issuance of long term bonds. Therefore, these notes were classified as long-term liabilities as of June 30, 2014.

**F. Current Year and Prior Years' Defeasance of Debt**

The Port defeased those bonds refunded by placing the proceeds of refunding bonds in irrevocable trusts to provide for all future debt service payments on old bonds. Accordingly, the trust account assets and liability for the defeased bonds are not included in the Port's financial statements.

The Port has outstanding bonds in the defeasance escrows held by the trustee at June 30, 2015 and 2014 of \$38.8 million and \$46.8 million, respectively.

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**8. Changes in Long-Term Liabilities**

The changes in the Port's long-term liabilities for the year ended June 30, 2015 are as follows (in thousands):

	Balance July 1, 2014	Additions	Deductions	Balance June 30, 2015	Due within one year
Revenue bonds	\$ 764,505	\$ 337,275	\$ (100,870)	\$ 1,000,910	\$ 42,910
Unamortized (discount)/ premium	16,488	49,003	(6,798)	58,693	--
Net revenue bonds	780,993	386,278	(107,668)	1,059,603	42,910
Commercial paper	125,000	25,000	(150,000)	--	--
Accrued salaries	5,266	108,437	(107,504)	6,199	6,199
Compensated absences	9,543	22,476	(22,400)	9,619	9,619
Accrued employee benefits	9,883	97,998	(98,536)	9,345	1,060
Litigation	333	1,611	(343)	1,601	1,601
Workers compensation	15,826	1,271	(1,762)	15,335	1,783
Pollution remediation	80,832	11,730	(19,159)	73,403	8,227
Deposits	12,925	198	(372)	12,751	--
Net pension obligation/liabilities	2,673	198,762	(2,673)	198,762	--
Others	31,730	215,151	(222,435)	24,446	22,640
Total long-term liabilities	<u>\$ 1,075,004</u>	<u>\$ 1,068,912</u>	<u>\$ (732,852)</u>	<u>\$ 1,411,064</u>	<u>\$ 94,039</u>

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The changes in the Port's long-term liabilities for the year ended June 30, 2014 are as follows (in thousands):

	Balance July 1, 2013	Additions	Deductions	Balance June 30, 2014	Due within one year
Revenue bonds	\$ 790,740	\$ --	\$ (26,235)	\$ 764,505	\$ 27,270
Unamortized (discount)/ premium	30,390	--	(13,902)	16,488	--
Net revenue bonds	821,130	--	(40,137)	780,993	27,270
Commercial paper	100,000	25,000	--	125,000	--
Accrued salaries	4,274	85,151	(84,159)	5,266	5,266
Compensated absences	9,386	20,773	(20,616)	9,543	9,543
Accrued employee benefits	9,469	30,975	(30,561)	9,883	816
Litigation	441	--	(108)	333	333
Workers compensation	15,175	2,686	(2,035)	15,826	1,939
Pollution remediation	99,361	6,790	(25,319)	80,832	10,873
Deposits	12,938	1,264	(1,277)	12,925	--
Net pension obligation	2,891	--	(218)	2,673	--
Others	39,130	17,723	(25,123)	31,730	29,951
Total long-term liabilities	<u>\$ 1,114,195</u>	<u>\$ 190,362</u>	<u>\$ (229,553)</u>	<u>\$ 1,075,004</u>	<u>\$ 85,991</u>

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**9. GASB 49 Pollution Remediation Obligations**

The Port's estimated pollution remediation liability as of June 30, 2015 and 2014 totaled \$73.4 million and \$80.8 million, respectively. These costs relate mostly to soil and ground water contamination on sites within the Port premises. As certain sites were formerly used for a variety of industrial purposes, legacy contamination or environmental impairments exist. As environmental risks may be managed, the Port has adopted the "Managed Environmental Risk" approach in estimating the remediation liability. The Port uses a combination of in-house specialists as well as outside consultants to perform estimates of potential liability. Certain remediation contracts are included in site development plans as final uses for the sites have been identified.

The changes in the Port's pollution remediation obligations for fiscal year 2015 are as follows (in thousands):

	Balance July 1, 2014	Additions	Deductions	Balance June 30, 2015	Due Within One Year
Obligating Event					
Named by regulator as a potential party to remediation	\$ 74,303	\$ 11,730	\$ (17,783)	\$ 68,250	\$ 7,934
Voluntary commencement	6,529	—	(1,376)	5,153	293
Total	<u>\$ 80,832</u>	<u>\$ 11,730</u>	<u>\$ (19,159)</u>	<u>\$ 73,403</u>	<u>\$ 8,227</u>
Pollution Type					
Soil and or groundwater remediation	<u>\$ 80,832</u>	<u>\$ 11,730</u>	<u>\$ (19,159)</u>	<u>\$ 73,403</u>	<u>\$ 8,227</u>

The changes in the Port's pollution remediation obligations for fiscal year 2014 are as follows (in thousands):

	Balance July 1, 2013	Additions	Deductions	Balance June 30, 2014	Due Within One Year
Obligating Event					
Named by regulator as a potential party to remediation	\$ 89,444	\$ 3,212	\$ (18,353)	\$ 74,303	\$ 10,323
Voluntary commencement	9,917	4,545	(7,933)	6,529	550
Total	<u>\$ 99,361</u>	<u>\$ 7,757</u>	<u>\$ (26,286)</u>	<u>\$ 80,832</u>	<u>\$ 10,873</u>
Pollution Type					
Soil and or groundwater remediation	<u>\$ 99,361</u>	<u>\$ 7,757</u>	<u>\$ (26,286)</u>	<u>\$ 80,832</u>	<u>\$ 10,873</u>

In fiscal year 2014, the Port adjusted the outstanding pollution remediation liabilities of \$15.0 million and presented this as Special Item in the Port's financial statements. Please see Note 21 on page 110 for more information.

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**10. Employee-Deferred Compensation Plan**

The City offers a deferred compensation plan created in accordance with Internal Revenue Code Section 457 to its employees, in which Port employees participate, allowing them to defer receipt of income. All amounts deferred by the Port's employees are paid to the City, which in turn pays them to the deferred compensation plan administrator. All amounts of compensation deferred under the plan, all property and rights purchased with those amounts, and all income attributable to those amounts are held in such custodial account for the exclusive benefit of the employee participants and their beneficiaries. Information on the Port employees' share of plan assets is not available and is not recorded in the Port's financial statements.

While the City has full power and authority to administer and to adopt rules and regulations for the plan, all investment decisions under the plan are the responsibility of the plan participants. The City has no liability for losses under the plan, but does have the duty of due care that would be required of an ordinary prudent investor. Under certain circumstances, employees may modify their arrangements with the plan to provide for greater or lesser contributions or to terminate their participation. If participants retire under the plan or terminate service with the City, they may be eligible to receive payments under the plan in accordance with the provisions thereof. In the event of serious financial emergency, the City may approve, upon request, withdrawals from the plan by the participants, along with their allocated contributions.

**11. Risk Management**

The Port purchases insurance for a variety of exposures associated with property, automobiles, vessels, railroad, employment practices, travel, police, pilotage, and terrorism. The City is self-insured for workers compensation, and the Port participates in the City's self-insurance program. Third party general liability exposures are self-insured by the Port for \$1.0 million and the excess liability is maintained over the self-insured retention. There have been no settlements in the past three years that have exceeded the Port's insurance coverage.

The actuarially determined accrued liability for workers compensation includes provision for incurred but not reported claims and loss adjustment expenses. The Port's accrued workers compensation liability at June 30, 2015 and 2014 were \$15.3 million and \$15.8 million, respectively.

A number of lawsuits were pending against the Port that arose in the normal course of operations. The Port recognizes a liability for claims and when it is probable that a loss has been incurred and the amount of that loss, including those incurred but not reported, can be reasonably estimated. The City Attorney provides estimates for the amount of liabilities to be probable of occurring from lawsuits. The Port's liability for litigation and other claims at June 30, 2015 and 2014 were \$1.6 million and \$0.3 million, respectively.

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The changes in the Port's estimated claims payable are as follows (in thousands):

	2015	2014	2013
Unpaid claims, July 1			
Workers compensation	\$ 15,826	\$ 15,175	\$ 13,639
General liability/litigation	333	441	465
Total unpaid claims, July 1	<u>16,159</u>	<u>15,616</u>	<u>14,104</u>
Provision for current year's events and changes in provision for prior year's events			
Workers compensation	936	2,686	4,700
General liability/litigation	1,567	--	133
Total provision	<u>2,503</u>	<u>2,686</u>	<u>4,833</u>
Claims payments			
Workers compensation	(1,427)	(2,035)	(3,164)
General liability/litigation	(299)	(108)	(157)
Total claims payments	<u>(1,726)</u>	<u>(2,143)</u>	<u>(3,321)</u>
Unpaid claims, June 30			
Workers' compensation	15,335	15,826	15,175
General liability/litigation	1,601	333	441
Total unpaid claims, June 30	<u>\$ 16,936</u>	<u>\$ 16,159</u>	<u>\$ 15,616</u>
Current portion			
Workers compensation	\$ 1,783	\$ 1,939	\$ 1,939
General liability/litigation	1,601	333	441
Total current portion	<u>\$ 3,384</u>	<u>\$ 2,272</u>	<u>\$ 2,380</u>

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**12. Leases, Rentals, and Minimum Annual Guarantee (MAG) Agreements**

A substantial portion of the Port lands and facilities are leased to others. The majority of these leases provide for cancellation on a 30-day notice by either party and for retention of ownership by the Port or restoration of the property at the expiration of the agreement; accordingly, no leases are considered capital leases for purposes of financial reporting.

MAG agreements relate to shipping services and certain concessions provide for the additional payment beyond the fixed portion, based upon tenant usage, revenues, or volumes.

Agreements relating to terminal operations tend to be long term in nature (as long as 30 years) and are made to provide the Port with a firm tenant commitment. These agreements are subject to periodic review and reset of base amounts. For the years ended June 30, 2015 and 2014, the minimum rental income from such lease agreements was approximately \$46.2 million and \$40.2 million, respectively. For the years ended June 30, 2015 and 2014, the MAG payments were approximately \$248.7 million and \$241.6 million, respectively, and were reported under shipping services revenue.

The carrying cost and related accumulated depreciation of property held for operating leases as of June 30, 2015 and 2014 are as follows (in thousands):

	2015	2014
Wharves and sheds	\$ 1,163,741	\$ 881,299
Cranes and bulk facilities	52,441	52,441
Municipal warehouses	13,578	13,422
Port pilot facilities and equipment	7,363	7,910
Buildings and other facilities	839,816	774,710
Cabrillo Marina	200,804	221,666
Total	2,277,743	1,951,448
Less accumulated depreciation	(1,065,032)	(1,003,238)
Net	<u>\$ 1,212,711</u>	<u>\$ 948,210</u>

Assuming that current agreements are carried to contractual termination, minimum tenant commitments due to the Port over the next five years are as follows (in thousands):

Fiscal Year Ending	Rental income	MAG income
2016	\$ 46,696	\$ 248,712
2017	47,163	248,720
2018	47,635	248,727
2019	48,111	248,360
2020	48,592	248,360
Total	<u>\$ 238,197</u>	<u>\$ 1,242,879</u>



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**13. Los Angeles City Employees' Retirement System**

**A. General Information about the Plan**

*Plan description.* All full-time employees of the Port are eligible to participate in the Los Angeles City Employees' Retirement System (LACERS), a single-employer defined benefit pension plan (the Plan). LACERS serves as a common investment and administrative agent for various City departments and agencies that participate in LACERS. LACERS is under the exclusive management and control of its Board of Administration whose authority is granted by status in Article XVI, Section 17 of the California State Constitution, and Article XI of the Los Angeles City Charter. Changes to the benefit terms require approval of the City Council.

LACERS issues a publicly available financial report that may be obtained by writing or calling: Los Angeles City Employees' Retirement System, 202 W. First Street, Suite 500, Los Angeles, CA 90012, (800) 779-8328. As of the completion date of the Port's financial statements, LACERS' financial statements and the plan's actuarial valuation study for fiscal year 2015 are not yet available.

*Benefits provided.* LACERS provides retirement, disability, death benefits, postemployment healthcare benefits, and annual cost-of-living adjustments based on the employees' years of service, age, and final compensation. There are two tiers of memberships. Under Tier 1, employees with ten or more years of service may retire if they are at least 55 years old, or if the retirement date is between October 2, 1996 and September 30, 1999 at age 50 or older with at least 30 years of service. Normal retirement allowances are reduced for employees under age 55 with ten or more years of service at the time of retirement, unless they have more than 30 years of service at any age at the time of retirement. Employees aged 70 or above may retire at any time with no required minimum period of service. Membership to Tier 1 is closed to new entrants. Eligible employees hired on or after July 1, 2013 become members of Tier 2. Under Tier 2, employees with ten or more years of service may retire if they are at age 65, or at age 70 or older regardless of length of service. Normal retirement allowances are reduced for employees under age 55 with ten or more years of service at the time of retirement. LACERS does not have a mandatory retirement age.

Benefit terms provide for annual cost-of-living adjustments to each employee's retirement allowance subsequent to the employee's retirement date. The annual adjustment are the change in the Consumer Price Index, to a maximum increase in retirement allowance of 3% per year, excess banked, for Tier 1 members and 2% per year, excess not banked, for Tier 2 member.

LACERS covers all full-time personnel and department-certified part-time employees of the Port, except for sworn employees of certain Port Police officers.

*Contributions.* The Board of Administration of LACERS establishes and may amend the contribution requirements of System members and the City in accordance with Article XI Sections 1158 and 1160 of the Los Angeles City Charter provides for periodic employer contributions at actuarially-determined rates that, expressed as percentages of annual covered payroll together with certain fixed amounts, are sufficient to accumulate the required assets to pay benefits when due. The employer contribution rate as calculated by LACERS' actuary is 26.56% for Tier 1 members and 19.63% for Tier 2 members.

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Based on the Port's reported covered payroll of \$77.1 million for fiscal year 2015, \$76.3 million is subject to the 26.56% rate and \$0.8 million is subject to the 19.63% rate. The Port's actual contribution to LACERS, including family death benefit, excess benefit, and limited term plans is \$20.8 million (100% of the actuarially determined contribution) and \$19.0 million (100% of actuarially determined contribution) for the fiscal years ended June 30, 2015 and 2014, respectively. The allocation of contributions between the pension and postemployment healthcare benefits are not available.

All members are required to make contributions to LACERS regardless of the tier in which they are included. Currently, most Tier 1 members contribute at 11% of compensation and all Tier 2 members contribute at 10% of compensation.

**B. Pension Liability, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Pension**

At June 30, 2015, the Port reported a liability of \$188.3 million for its proportionate shares of the net pension liability of LACERS. The net pension liability was measured as of June 30, 2014, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Port's proportion of the net pension liability was based on a projection of the Port's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The Port's proportionate share were determined to be 4.224% and 4.248% for fiscal years June 30, 2014 and 2013.

For the year ended June 30, 2015, the Port recognized pension expense of \$16.3 million. At June 30, 2015, the Port reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands).

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	\$ 15,765	\$ --
Changes of assumptions or other inputs	27,274	--
Differences between expected and actual experience in the total pension liability	--	5,621
Changes in proportion and differences between employer's contributions and proportionate share of contributions	--	922
Net difference between projected and actual earnings on pension plan investments	--	34,396
Total	<u>\$ 43,039</u>	<u>\$ 40,939</u>

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Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Year ended June 30

2016	\$	(4,112)
2017		(4,112)
2018		(4,112)
2019		(4,112)
2020		2,783
Thereafter		--

*Actuarial assumptions.* The total pension liability in the June 30, 2014 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.25%
Projected salary increases	Ranges from 4.40% to 10.50% based on years of service
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Cost-of-living adjustments	Tier 1: 3.00%, Tier 2: 2.00%, actuarial increases are contingent upon Consumer Price Index (CPI) increases with a 3.00% maximum for Tier 1 and 2.00% maximum for Tier 2.

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The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and projected arithmetic real rate of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized as follows:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
U.S. Larger Cap Equity	20.4%	20.4%
U.S. Small Cap Equity	3.6%	6.6%
Developed International Equity	21.7%	7.0%
Emerging Market Equity	7.3%	8.5%
Core Bonds	16.5%	0.7%
High Yield Bonds	2.5%	2.9%
Private Real Estate	5.0%	4.7%
Private Equity	12.0%	10.5%
Public Real Assets	5.0%	3.4%
Credit Opportunities	5.0%	3.1%
Cash	1.0%	-0.5%
Total	<u>100.0%</u>	

Postemployment mortality rates for healthy retirees and beneficiaries were based on the RP-2000 Combined Healthy Mortality Table projected with scale BB to the year 2020, set back one year for males and with no setback for females. Postemployment mortality rates for disabled retirees were based on the RP-2000 Combined Healthy Mortality Table projected with scale BB to the year 2020, set forward seven years for males and set forward eight years for females.

For pre-retirement mortality, withdrawal rates, disability rates, and service retirement rates, the rates vary by age, gender, and/or service.

*Discount rate.* The discount rate used to measure the Total Pension Liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from the employers will be made at contractually required rates, actuarially determined. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability. *Sensitivity of the Port's proportionate share of net pension liability to*

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*change in the discount rate.* The following presents the Port's proportionate share of the net pension liability, calculated using the discount rate of 7.50%, as well as what the Port's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.50%) or one percentage point higher (8.50%) than the current rate (in thousands):

	1% Decrease (6.50%)	Discount rate (7.50%)	1% Increase (8.50%)
Port's proportionate share of the net pension liability	\$281,113	\$188,299	\$111,166

*Pension plan fiduciary net position.* Detailed information about the pension plan's fiduciary net position is available in the separately issued LACERS financial report.

**C. Other Postemployment Benefits (OPEB)**

The Port, as a participant in LACERS, also provides a retiree health insurance premium subsidy. Under Division 4, Chapter 11 of the City's Administrative Code, certain retired employees are eligible for a health insurance premium subsidy. This subsidy is to be funded entirely by the City. Employees with ten or more years of service who retire after age 55, or employees who retire at age 70 with no minimum service requirement, are eligible for a health premium subsidy with a City approved health carrier. LACERS is advance funding the retiree health benefits on an actuarially determined basis.

During fiscal year 2011, the City adopted an ordinance to freeze the maximum medical subsidy at \$1,190 for LACERS members who retire on or after July 1, 2011. However, LACERS members who at any time prior to retirement contribute the additional 2% or 4% of pay are exempted from the freeze and obtain a vested right to future increases in the maximum medical subsidy at an amount not less than the dollar increase in the Kaiser two-party non-Medicare Part A and Part B premium. As of June 30, 2013, approximately 97% of non-retired members were making the additional contributions, and therefore are not subject to the medical subsidy freeze.

Projections of benefits include the types of benefits in force at the valuation date. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

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The actuarial valuation for OPEB for fiscal year 2015 is not yet available as of the completion date of the Port's financial statements.

The City's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB asset (obligation) for fiscal years ended June 30, 2014 and the two preceding years for the plan are as follows (in thousands):

Year Ended	Annual OPEB Cost (AOC)	Percentage of OPEB Cost Contributed	Net OPEB Asset (Obligation)
06/30/14	\$ 97,841	100%	\$ --
06/30/13	72,916	100%	--
06/30/12	115,209	100%	--

**D. Funded Status of LACERS OPEB**

Actuarial valuations involve the estimate of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the annual required contributions of the City are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Following is the funded status information of the plan for fiscal years ended June 30, 2014, 2013 and 2012 (in thousands):

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Underfunded AAL (UAAL) (b) - (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)]/(c)
06/30/2014	\$ 1,941,225	\$ 2,662,853	\$ 721,628	72.9%	\$ 1,816,171	39.7%
06/30/2013	1,734,733	2,412,484	677,751	71.9%	1,846,970	36.7%
06/30/2012	1,642,374	2,292,400	650,026	71.6%	1,819,270	35.7%

The most recent actuarial valuation methods and assumptions used for LACERS OPEB as of June 30, 2014 were as follows: actuarial cost method used – entry age normal; amortization method - level percent of payroll; amortization period - multiple layers, closed not exceeding 30 years. Initial years range from 5 to 30 years; asset valuation method - 7-year fair value of assets less unrecognized return in each of the last 7 years; investment rate of return - 7.50%; projected salary increases – ranges from 10.50% to 4.40%; inflation rate - 3.25%; and healthcare cost trend rates – for medical, 7.75%, decreasing by 0.25% for each year until it reaches an ultimate rate of 5.00%, and 5.00% for dental.

On October 23, 2012, the LACERS Board modified its funding policy to change the actuarial cost method from the projected unit credit method to entry age normal method beginning with the June 30, 2012 valuation, and to combine and re-amortize all UAAL layers with some exceptions, over 30 years, to mitigate the immediate impact on the employer contributions.

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Information related to the funded status of LACERS for fiscal year 2014 are not yet available as of the completion date of the Port's financial statements. Separate information for the Port is not available.

Notes 13. A to D on LACERS retirement and OPEB plans were derived from information prepared by LACERS and the City.

**14. City of Los Angeles Fire and Police Pension System**

**A. General Information about the Plan**

*Plan description.* The Los Angeles Fire and Police Pension System (LAFPP) operates under the City of Los Angeles Charter and Administrative Code provisions as a single-employer defined benefit pension plan covering all full-time active sworn firefighters, police officers, and certain Harbor Port Police officers of the City of Los Angeles. LAFPP is composed of six tiers.

Tier 6 is the current tier for all Harbor Port Police officers hired on or after July 1, 2011. Tier 5 was the tier for all Harbor Port Police officers hired on or after January 8, 2006 through June 30, 2012. The Los Angeles City Council approved Ordinance No. 177214 that allows Harbor Department's Port police officers (Harbor Port Police Officers) the option to transfer from LACERS to Tier 5 of LAFPP. The election period was from January 8, 2006 to January 5, 2007 and the decision to transfer is irrevocable.

Only "sworn" service with the Port is transferable to LAFPP. Other "non-sworn" services with other City Departments are not eligible for transfer. All new employees hired by the Harbor Department after the effective date of the Ordinance automatically go into either Tier 5 or Tier 6 of LAFPP.

Under provisions of the City Charter, the City Administrative Code and the State Constitution, the Board has the responsibility to administer the plan. Changes to the benefit terms require approval by the City Council.

LAFPP issues a publicly available financial report that may be obtained by writing or calling: Los Angeles Fire and Police Pension system, 360 E. Second Street, Suite 400, Los Angeles, CA 90012, (213) 978-4545. As of the completion date of the Port's financial statements, the LAFPP's financial statements and the plan's actuarial valuation study for fiscal year 2015 are not yet available.

*Benefits provided.* Information about benefits for Tiers 1 through 4 members is available in the separately issued LAFPP financial report. Tier 5 members must be at least age 50, with 20 or more years of services, to be entitled to a service pension. Annual pension benefit are equal to 50% of their one-year average compensation, increasing for each year of service over 20 years, to a maximum of 3% per year. However, any increase in Consumer Price Index (CPI) greater than 3% per year is placed into a COLA bank for use in years in which the increase in CPI is less than 3%. The City Council may also grant a discretionary ad-hoc COLA no more than every three years, subject to certain conditions. Members who terminate their employment are entitled to a refund of their contributions plus Board-approved interest if they do not qualify for a pension or if they waive their pension entitlements.

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Tier 6 members must be at least age 50, with 20 or more years of service, to be entitled to a service pension. Annual pension benefits are equal to 40% of their two-year average compensation, increasing for each year of service over 20 years, to a maximum of 90% for 33 years. Tier 6 provides for postemployment COLAs based on the CPI to a maximum of 3% per year. However, any increase in the CPI greater 3% per year is placed into a COLA bank for use in years in which the increase in CPI is less than 3%. The City Council may also grant a discretionary ad-hoc COLA no more than every three years, subject to certain conditions. Members who terminate their employment are entitled to a refund of their contributions plus Board-approved interest if they do not qualify for a pension or if they waive their pension entitlements.

*Contributions.* The Board of Administration/Commissioners of LAFPP establishes and may amend the contribution requirements of members and the City. The City's annual contribution for the LAFPP plan is actuarially determined and represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize unfunded actuarial liabilities over a period not to exceed thirty years. The City Administrative Code and related ordinance define member contributions.

All members are required to make contributions to LAFPP regardless of tier in which they are included. However, members are exempt from making contributions when their continuous service exceeds 30 years for Tier 1 through 4, and 33 years for Tier 5 and Tier 6. The average member contribution rate for fiscal year 2014-15 (based on the June 30, 2013 valuation) was 9.46% of compensation paid biweekly.

In fiscal year 2015, the Port's contribution rate for sworn employees that are members of the Harbor Tier 5 plan, as determined by the actuary is 35.68% of covered payroll. The Harbor Tier 6 rate is 33.30%. Based on the Port's reported sworn covered payroll of \$12.2 million for Tier 5, and \$0.1 million for Tier 6, the Port's pro rata share of the combined actuarially determined contribution for pension and postemployment healthcare benefits, and actual contribution made to LAFPP was \$4.4 million (100% of actuarially determined contribution) and \$3.9 million (100% of actuarially determined contribution) for the years ended June 30, 2015 and 2014, respectively. The allocation of contributions between the pension and postemployment healthcare benefits is not available.

**B. Pension Liability, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Pension**

At June 30, 2015, the Port reported a liability of \$10.5 million for its proportionate shares of the net pension liability of LAFPP. The net pension liability was measured as of June 30, 2014, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Port's proportion of the net pension liability was based on a projection of the Port's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The Port's proportionate share were determined to be 0.559% and 0.400% for fiscal years June 30, 2015 and 2014.



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For the year ended June 30, 2015, the Port recognized pension expense of \$2.7 million. At June 30, 2015, the Port reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands).

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	\$ 3,648	\$ --
Changes of assumptions or other inputs	--	396
Differences between expected and actual experience in the total pension liability	--	175
Net difference between projected and actual earnings on pension plan investments	--	2,740
Total	<u>\$ 3,648</u>	<u>\$ 3,311</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Year ended June 30

2016	\$ (806)
2017	(806)
2018	(806)
2019	(806)
2020	(87)
Thereafter	--

*Actuarial assumptions.* The total pension liability in the June 30, 2014 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.25%
Projected salary increases service	Ranges from 4.75% to 11.50% based on years of service
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Cost-of-living adjustments	3.25% of Tiers 1 and 2 retirement income and 3.00% of Tiers 3, 4, 5 and 6 retirement income

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The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and projected arithmetic real rate of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized as follows:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Large Cap U.S. Equity	23.00%	6.03%
Small Cap U.S. Equity	6.00%	6.71%
Developed International Equity	16.00%	6.71%
Emerging Market Equity	5.00%	8.02%
U.S. Core Fixed Income	14.00%	0.52%
High Yield Bonds	3.00%	2.81%
Real Estate	10.00%	4.73%
TIPS	5.00%	0.43%
Commodities	5.00%	4.67%
Cash	1.00%	0.00%
Unconstrained Fixed Income	2.00%	2.50%
Private Equity	10.00%	9.25%
Total	<u>100.00%</u>	

Postemployment mortality rates were based on the RP-2000 Combined Healthy Mortality Table for Males or Females, as appropriate, projected to 2022 with scale BB with different age adjustment (i.e., set back or set forward) for healthy and disabled members, including beneficiaries. For pre-retirement mortality, withdrawal rates, disability rates, and service retirement rates, the rates vary by age, service, gender, membership classification and tier.

The actuarial assumptions used were based on the results of an actuarial experience study as of June 30, 2013 and economic assumptions study as of June 30, 2014.

*Discount rate.* The discount rate used to measure the Total Pension Liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from the employers will be made at contractually required rates, actuarially determined. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's

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fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

*Sensitivity of the Port's proportionate share of net pension liability to change in the discount rate.* The following presents the Port's proportionate share of the net pension liability, calculated using the discount rate of 7.50%, as well as what the Port's proportionate share of the net pension liability would be if it were calculated using a discount rate what is one percentage point lower (6.50%) or one percentage point higher (8.50%) than the current rate (in thousands):

	1% Decrease (6.50%)	Discount rate (7.50%)	1% Increase (8.50%)
Port's proportionate share of the net pension liability	\$19,892	\$10,463	\$3,527

*Pension plan fiduciary net position.* Detailed information about the pension plan's fiduciary net position is available in the separately issued LAFPP financial report.

**C. Other Postemployment Benefits (OPEB)**

The City Charter, the Administrative Code, and related ordinance define the postemployment healthcare benefits. There are no member contributions for healthcare benefits. The Port, as a participant in LAFPP, also provides a retiree health insurance premium subsidy.

The City's annual OPEB cost, the percentage of annual OPEB cost contributed to the LAFPP plan, and the net OPEB asset (obligation) for fiscal years ended June 30, 2014, 2013, and 2012 are as follows (in thousands):

Year Ended	Annual OPEB Cost (AOC)	Percentage of OPEB Cost Contributed	Net OPEB Asset (Obligation)
06/30/14	\$ 149,877	99%	\$ (148,348)
06/30/13	144,569	99%	(128,780)
06/30/12	159,777	83%	(127,024)

From the most recent data made available by the City, as of June 30, 2014, amounts contributed specifically to the retiree health insurance premium subsidy by the Port alone are not available.

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**D. Funded Status of LAFPP OPEB**

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status of the plan and the ARC of the City are subject to continual revision as actual results are compared to expectations and new estimates are made about the future. Following is the funded status information for the LAFPP OPEB plan for fiscal years ended June 30, 2014, 2013 and 2012 (in thousands).

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Underfunded AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)]/(c)
06/30/2014	\$ 1,200,874	\$ 2,783,283	\$ 1,582,409	43.1%	\$ 1,402,715	112.8%
06/30/2013	1,013,400	2,633,793	1,620,393	38.5%	1,367,237	118.5%
06/30/2012	927,362	2,499,289	1,571,927	37.1%	1,341,914	117.1%

The most recent actuarial valuation methods and assumptions used for LAFPP OPEB as of June 30, 2014 were as follows: actuarial cost method used - entry age normal; amortization method – closed amortization periods; remaining amortization period – multiple layers, closed, 22 years for prior to June 30, 2012, 18 years on June 30, 2012, and 19 years on June 30, 2013; asset valuation method – market value of assets less unrecognized returns in each of the last seven years; investment rate of return - 7.50%; projected salary increases - 4.00%; inflation rate - 3.25%; medical healthcare cost trend rate of 7.00% in 2014 and 2015, decreasing by 0.25% for each year for eight years until it reaches an ultimate rate of 5.00%; and dental healthcare cost trend of 5.00%.

The LAFPP's financial statements and actuarial study for fiscal year 2015 are not yet available as of the completion date of the Port's financial statements.

Notes 14. A to D on LAFPP retirement and OPEB plans were derived from information prepared by LAFPP and the City.

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**15. Notes Receivable**

**A. Settlement of Dispute on Nexus Study**

In 1994, the City undertook a series of studies to determine whether or not the Port received services from the City for which the Port had not been inclusively billed. These studies, collectively referred to as the Nexus Study, were conducted under the auspices of the City Attorney. The studies found that the City could have billed the Port for substantial amounts for services undertaken on behalf of the Port by the City or for City services conducted within the Port's jurisdiction.

It is and has been the policy of the Port to pay the City all of the amounts to which the City is entitled. In light of these studies, the BHC adopted a resolution providing for the reimbursement to the City of certain expenditures incurred by the City on behalf of the Port, but which the City had never inclusively billed the Port. Under its resolution, the BHC authorized the Port to make, and the Port paid to the City, two annual payments of \$20.0 million for the 1994/95 and 1995/96 fiscal years. The BHC further authorized the Executive Director to negotiate additional amounts as may be determined to be due, and accordingly, a memorandum of understanding (MOU) with the City was executed on June 27, 1997 (1997 MOU).

The California State Lands Commission (the Commission) is responsible for oversight of the State's Tideland Trust Lands. This Commission, together with the State Office of the Attorney General, has expressed concerns regarding the methodologies employed in the studies and whether such transfers of monies from the Port to the City comply with the criteria for compliance with applicable California State Tidelands Trust Land laws. Prior to the adoption of the above-referenced resolution, the Commission officials and the Office of the Attorney General requested the BHC to postpone any decision involving these trust funds until the Commission and Office of the Attorney General could complete an inquiry into the studies and transfers. Subsequently, various organizations, including the Steamship Association of Southern California, which represents carriers using the Port, together with the Commission and Office of the Attorney General, brought legal action against the City and Port regarding the BHC's action.

On January 19, 2001, the City, along with the Port and the Commission, entered into a settlement and mutual release agreement to resolve their disputes concerning the City's entitlement to historic and future reimbursements for costs the City incurred or would incur providing services to the Port. The settlement agreement provides that the City, as reimbursement for payments made by the Port to the City for retroactive billings for City services provided during the period July 1, 1977 through June 30, 1994, inclusive, pay the Port \$53.4 million in principal plus 3% simple interest over a 15-year period.

The settlement agreement also provides that the City reimburse the Port for the payment differential, that amount representing the difference between the actual payments and the amount to which the City would have been entitled to reimbursement during fiscal year 1994–1995 through fiscal year 2000–2001, inclusive, had the reimbursement been computed during each of those fiscal years using the settlement formula. This amount is estimated at \$8.4 million. Payment for this period is to be reimbursed to the Port over 15 years, including 3% simple interest. The agreement also states that at any time after five years from January 19,

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2001, the City, the Port, and the Commission may negotiate to amend this agreement to account for new or changed circumstances.

The State of California (the State), the City, and the Port agreed to mutually release and discharge the other from any and all claims, demands, obligations, and causes of action, of whatever kind or nature pertaining in any way to the use, payment, transfer, or expenditure for any of the services or facilities identified in the Nexus Study or the 1997 MOU and provided for during the period July 1, 1977 through June 30, 2002.

Accordingly, the Port had recorded the notes receivable due from the City. At June 30, 2015 and 2014, the current portion of notes receivable amounted to \$5.0 million and \$4.9 million, respectively; while long-term portion was \$5.0 million as June 30, 2014. There was no long-term portion at June 30, 2015.

**B. Note Receivable – Yusen**

In order to settle the then-outstanding \$2.4 million terminal construction cost overruns, the Port agreed in 1994 that Yusen, one of the Port container terminal tenants, be permitted to pay over 22 years in equal monthly installments of \$0.1million. To record the transaction, an amortization schedule using a 5% interest rate was prepared and the note balance was adjusted to \$1.5 million, with the balance of \$0.9 million recognized as the Port's capital assets in fiscal year 1995. The note matures in October 2015. At June 30, 2015 and 2014, the current portion of the note receivable is \$0.1 million for both fiscal years; while the long-term portion was \$0.1 million at June 30, 2014. There was no long-term portion at June 30, 2015.

**16. Commitments, Litigations and Contingencies**

**A. Commitments**

Open purchase orders and uncompleted construction contracts amounted to approximately \$43.1 million as of June 30, 2015. Such open commitments do not lapse at the end of the Port's fiscal year and are carried forth to succeeding periods until fulfilled.

In 1985, the Port received a parcel of land, with an estimated value of \$14.0 million from the federal government, for the purpose of constructing a marina. The Port has agreed to reimburse the federal government up to \$14.0 million from excess revenues, if any, generated from marina operations after the Port has recovered all costs of construction. No such payments were made in fiscal years 2015 and 2014.

**B. Litigations**

The Port is also involved in certain litigation arising in the normal course of business. In the opinion of management, there is no pending litigation or unasserted claims, the outcome of which would materially affect the financial position of the Port.

**C. Alameda Corridor Transportation Authority Agreement (ACTA)**

In August 1989, the Port and the POLB (the Ports) entered into a joint exercise of powers agreement and formed ACTA for the purpose of establishing a comprehensive transportation corridor and related facilities consisting of street and railroad rights-of-way and an improved highway and railroad network along Alameda Street between the Santa Monica Freeway and

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the Ports in San Pedro Bay, linking the Ports to the central Los Angeles area. The Alameda Corridor began operating on April 15, 2002. ACTA is governed by a seven-member board, which comprises of two members from each Port, one each from the Cities of Los Angeles and Long Beach and one from the Metropolitan Transportation Authority. In 2003, ACTA agreed to an expanded mission to develop and support projects that more effectively move cargo to points around Southern California, ease truck congestion, improve air quality, and make roads safer. If in the future, ACTA becomes entitled to distribute income or make equity distributions, the Ports shall share such income and equity distributions equally.

In October 1998, the Ports, ACTA, and the railroad companies, which operate on the corridor, entered into a Corridor Use and Operating Agreement (Corridor Agreement). The Corridor Agreement obligates the privilege of using the corridor to transport cargo into and out of the Ports. ACTA negotiated with BNSF Railway Company (BNSF) and Union Pacific (UP) regarding certain types of cargo movements (transload movements) for which BNSF and UP are not paying use fees. In the Settlement and Release Agreement (the Agreement), dated July 5, 2006, ACTA, BNSF, and UP agreed to resolve the "Transloading Dispute." ACTA, the Ports, the City of Los Angeles, and the City of Long Beach (the ACTA Releasing Parties) each release, acquit, and discharge BNSF and UP of all liability and costs, as stated in the Agreement, arising from or relating to the Transloading Dispute. BNSF and UP (the Railroad Releasing Parties) each release, acquit, and discharge the ACTA Releasing Parties from any and all liability and costs, as stated in the Agreement, arising from or relating to any claim by the Railroad Releasing Parties. These use fees are used to pay (a) the debt service that ACTA incurs on approximately \$1.2 billion of bonds, which ACTA issued in early 1999 and approximately \$686.0 million of bonds issued in 2004, and (b) for the cost of funding required reserves and costs associated with the financing, including credit enhancement and rebate requirements, if any (collectively, ACTA Obligations). Use fees end after 35 years or sooner if the ACTA Obligations are paid off earlier.

If ACTA revenues are insufficient to pay ACTA Obligations, the Corridor Agreement obligates each Port to pay up to twenty percent (20%) of the shortfall (Shortfall) on an annual basis. If this event occurs, the Ports' payments to ACTA are intended to provide cash for debt service payments and to assure that the Alameda Corridor is available to maintain continued cargo movement through the Ports. The Ports are required to include expected Shortfall payments in their budgets, but Shortfall payments are subordinate to other obligations of the Port, including the bonds and commercial paper currently outstanding. The Port does not and is not required to take Shortfall payments into account when determining whether it may incur additional indebtedness or when calculating compliance with rate covenants under their respective bond indentures and resolutions.

In 2012, ACTA obtained a Federal Railroad Administration loan for \$83.7 million under Railroad Rehabilitation and Improvement Financing (RRIF) Program. The purpose of the loan which was in the form of 2012 Taxable Senior Lien Revenue Refunding Bonds, was to refinance a portion of ACTA's outstanding bonds. Furthermore, in 2013, ACTA refunded \$288.0 million of its 1999 Series A Bonds in the form of Tax-Exempt Senior Lien Revenue Refunding Bonds of Series 2013A, generating a present value savings of \$35.0 million or 12%.

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**D. TraPac Project and Environmental Impact Report**

On December 6, 2007, the Board of Harbor Commissioners (BHC) certified the Final Environmental Impact Report for TraPac, Inc. (TraPac), a terminal operator, and approved the TraPac project. The TraPac project involves the development and improvements to Berths 136-147, currently occupied by TraPac. Subsequent to the project approval, certain entities (Appellants) appealed to the City Council the certification/project approval under the provisions of the California Environmental Quality Act (CEQA).

On April 3, 2008, the BHC approved a Memorandum of Understanding (MOU) between the City and the Appellants to resolve the appeal of the TraPac Environmental Impact Report (EIR). The MOU provides for the revocation of the appeals and the establishment of a Port Community Mitigation Trust Fund (PCMTF) to be operated by a nonprofit entity to pay for off-Port environmental impacts from Port-related operations. The nonprofit created to provide administrative services for this fund is the Harbor Community Benefit Foundation (HCBF).

The Port had provided the first two years funding of \$12.0 million and \$4.0 million to the PCMTF for the identified TraPac projects in the MOU. Based on the volume of cargo processed in the third year, no additional funding has been necessary.

On October 26, 2010, the BHC approved the Operating Agreement of the TraPac MOU (Operating Agreement) which provided for more detailed procedures for the implementation of the MOU. The Operating Agreement also provided for the management of the PCMTF by California Community Foundation (CCF) or other appropriate independent financial manager. CCF managed the PCMTF funds pursuant to the Operating Agreement from 2011 to 2013.

In fiscal year 2013, the Port and HCBF agreed that a change in financial manager was in the best interest of the PCMTF, and hence, terminated the financial management agreement with CCF. On October 18, 2013, the Board approved the selection of J.P. Morgan Private Bank (JPMorgan) as the new independent financial manager to receive, manage, and disburse funds from the PCMTF. Approximately \$7.8 million in PCMTF funds being managed by CCF were transferred to a JPMorgan account in November 2013. Due to disbursements made in accordance with the MOU and Operating Agreement, the balance in the PCMTF account managed by JPMorgan as of July 2014 totaled \$6.3 million.

While the five-year MOU expired in April 2013, the Operating Agreement provided that the Port shall continue to fund the PCMTF with contributions on account of certain expansion projects that have environmental impact reports certified within five years after the first HCBF Board of Directors meeting, which time expires in May 2016. The Operating Agreement provides that if the identified MOU expansion projects have EIRs certified and will proceed with construction; the Port will make a one-time additional contribution at a rate of \$3.50 per TEU (or \$1.50 per cruise passenger, and 0.15 per ton of bulk cargo) per project for growth associated with such expansion projects. Funds will be transferred to the PCMTF within 21 days following award of a construction contract or commencement of construction of each project that had an EIR certified prior to May 19, 2016. There were no contributions made during fiscal years 2015 and 2014.

As of June 30, 2015, a total of \$16.8 million has been disbursed from the PCMTF fund held by the Port. The remaining fund balance including interest earned as of June 30, 2015 is \$0.1 million.



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**17. Related-Party Transactions**

During the normal course of business, the Port is charged for services provided and use of land owned by the City, the most significant of which is related to fire protection, museum/park maintenance, utilities and legal services. Total amounts charged by the City for services approximate \$45.9 million and \$41.8 million in fiscal years 2015 and 2014, respectively.

**18. Capital Contributions**

Amounts either received or to be reimbursed for the restricted purpose of the acquisition, construction of capital assets, or other grant-related capital expenditures are recorded as capital contributions. During the years ended June 30, 2015 and 2014, the Port reported capital contributions of \$111.9 million and \$80.4 million, respectively, for certain capital construction and grant projects.

**19. Natural Resources Defense Council Settlement Judgment**

In March 2003, the Port settled a lawsuit entitled: Natural Resources Defense Council, Inc., et al. v. City of Los Angeles, et al., regarding the environmental review of a Port project at the China Shipping Terminal. The settlement called for a total of \$50.0 million in mitigation measures to be undertaken by the Port. This \$50.0 million charge was recorded as expense in fiscal year 2003.

The terms of the agreement require that the Port fund various mitigation activities in the amount of \$10.0 million per year over a five-year term ending in fiscal year 2007. As of June 30, 2009, a total of \$50.0 million were transferred from Harbor Revenue Fund to the restricted mitigation funds.

In June 2004, the Port agreed to amend the original settlement to include, and transferred to the restricted mitigation fund, an additional \$3.5 million for the creation of parks and open space in San Pedro.

Pursuant to the settlement agreement, the Port is also obligated to expend up to \$5.0 million to retrofit customer vessels to receive shore-side power as an alternative to using on-board diesel fueled generators. Through the end of fiscal year 2009, the Port has spent \$5.0 million for this program.

The settlement agreement also established a throughput restriction at China Shipping Terminal per calendar year. Actual throughput at the terminal exceeded the cap for calendar years 2008, 2007, 2006, and 2005, and payments of \$1.8 million, \$6.9 million, \$5.8 million, and \$3.9 million, respectively, were made for having exceeded the caps. The Port charged to nonoperating expense and deposited in the restricted mitigation fund the said amounts in June 2009, June 2008, May 2007, and April 2006, respectively. Total deposits for the four years were \$18.3 million, with the June 2009 deposit for calendar year 2008 being the last payment for excess throughput required under the settlement agreement.

In April 2011, the Port contributed \$3.2 million to the restricted mitigation funds as payment for four low profile cranes installed on Berth 102 designed to reduce visual impact by the use of a horizontal boom that does not need to be raised up when the crane is not in use.

As of June 30, 2015, the Port has contributed a total of \$75.0 million to the restricted mitigation funds in accordance with the provisions of the settlement.

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**20. Cash Funding of Reserve Fund**

As of June 30, 2015 and 2014, the Port had \$1.0 billion and \$764.5 million of outstanding parity bonds. The Port holds cash reserves for each Indenture of the outstanding bonds as the BHC, on September 18, 2008, approved the full cash funding of the entire reserve requirement of \$61.5 million and transferred it to the Port's bond trustee in December 2008. The cash funding of the reserve took place to reassure bond holders of the strong commitment of the Port to its financial wherewithal as rating agencies had reduced the AAA ratings of the surety companies that had provided insurance for the bonds that the Port had issued. The cash funding of the reserve took place to reassure bond holders of the strong commitment of the Port to its financial wherewithal as rating agencies had reduced the AAA ratings of the bond surety companies that had provided insurance for the bonds that the Port had issued.

As of June 30, 2015, the balance in the Common Reserve fund totaled \$68.4 million. Subsequent to the issuance of 2015 Series A Refunding Revenue Bonds in September 2015, the reserve requirement was reduced to \$66.0 million. Any excess amounts in the Common Reserve resulting from principal repayments will be transferred to the interest fund and/or redemption fund to be used to pay interest and redeem bonds. The required amount for the reserve fund will be reevaluated on a yearly basis. The funds in the reserve are fully invested in the U.S. Treasury securities.

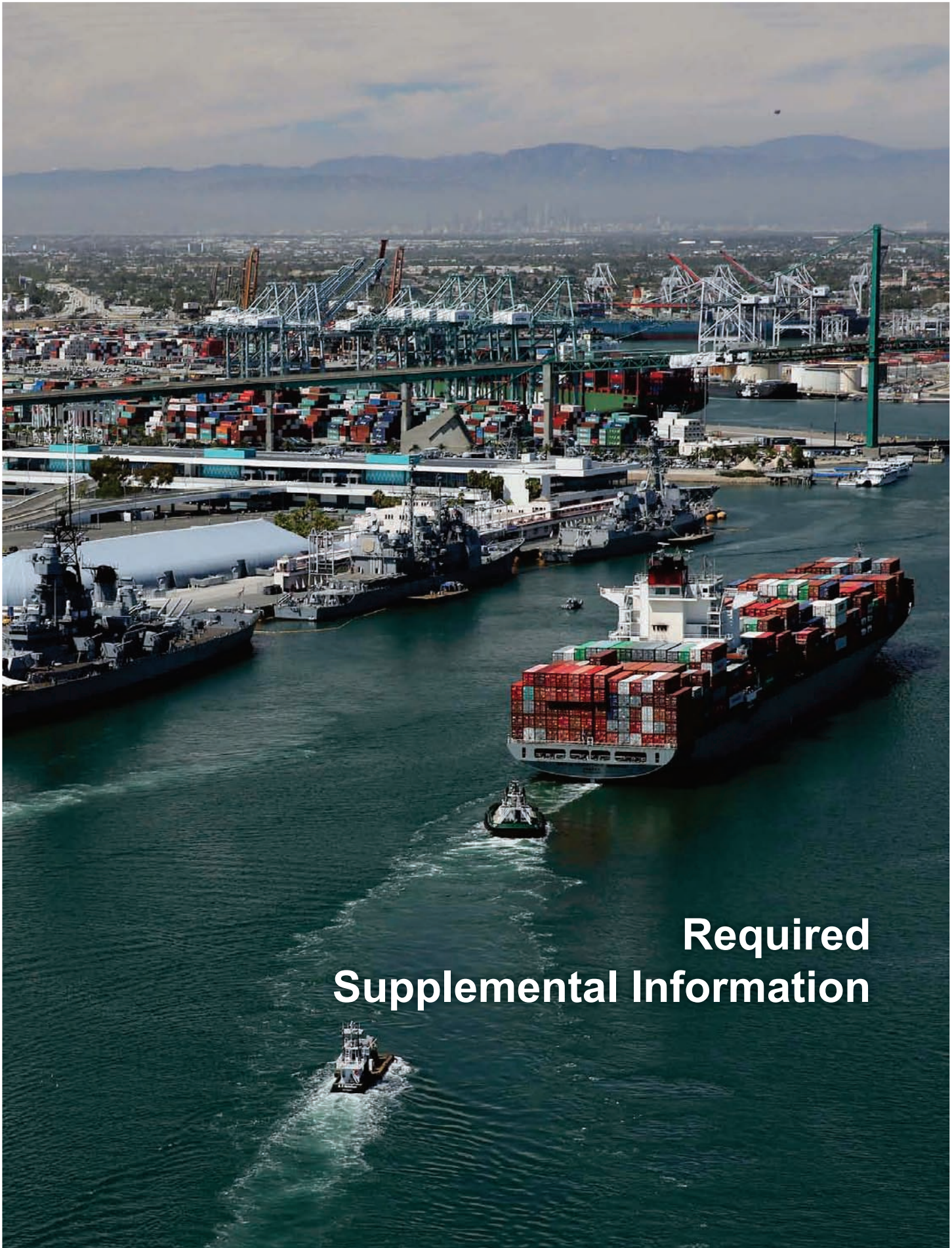
**21. Special Item**

In fiscal year 2014, the Port reduced the pollution remediation liabilities by \$15.0 million primarily associated with remediation of the Wilmington Waterfront Park and Opp Street/Southerland Avenue sites. The Port completed site development and cleanup at the Wilmington Waterfront Park and there are no additional regulation and remediation requirements from the Regional Water Quality Control Board (RWQCB). The Port also determined that there is a lack of regulatory and remediation requirements from the RWQCB for the Opp Street/Southerland Avenue sites. These adjustments were presented as Special Item in the Port's financial statements.

**22. Subsequent Events**

On August 25, 2015, the Port renewed its Commercial Paper Program through an extension of the existing Line of Credit (LOC) Agreement with Mizuho Bank, that was previously established in July 2012 for a period of three years. The extension of the LOC provides for \$200 million of liquidity support through August 24, 2018 at the rate of 0.29%.

On September 25, 2015, the Port redeemed all of the outstanding 2005 Series C-1 Refunding Bonds. On September 30, 2015, the Port issued \$37.05 million Refunding Revenue Bonds 2015 Series A to refund the 2005 Series A and B Bonds. The 2015 Series A Bonds have maturities from August 2016 through August 2027 with interest rates range from 2.0% to 5.0%.



# Required Supplemental Information

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Required Supplemental Information

Schedule of Proportionate Share of the Net Pension Liability – Last Ten Fiscal Years\*

(In Thousands)

(Unaudited)

Los Angeles City Employees' Retirement System (LACERS)					
Fiscal Year	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered- employee Payroll <sup>(1)</sup>	Proportionate Share of Net Pension Liability as a Percentage of Covered- employee Payroll	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
2015	4.224%	\$ 188,299	\$ 76,040	247.60%	72.57%

<sup>(1)</sup> Covered-employee payroll represents the collective total of the LACERS eligible wages of all LACERS membership tiers.

Los Angeles Fire and Police Pension Plan (LAFPP)					
Fiscal Year	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered- employee Payroll <sup>(2)</sup>	Proportionate Share of Net Pension Liability as a Percentage of Covered- employee Payroll	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
2015	0.559%	\$ 10,463	\$ 11,619	90.05%	79.16%

<sup>(2)</sup> Covered-employee payroll represents the collective total of the LAFPP eligible wages of all LAFPP membership tiers.

\* Fiscal year 2015 was the first year of implementation, therefore only one year is shown.

See accompanying independent auditor's report.

**PORT OF LOS ANGELES  
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Required Supplemental Information  
Schedule of Contributions – Last Ten Fiscal Years \*

(In Thousands)  
(Unaudited)

Los Angeles City Employees' Retirement System (LACERS)	
(Amount in thousands)	2015
Actuarially determined contribution	\$ 15,765
Contributions in relation to the actuarially determined contribution	<u>15,765</u>
Contribution deficiency (excess)	<u>\$ --</u>
Port's covered-employee payroll	\$ 77,126
Contributions as a percentage of covered-employee payroll	20.44%
Los Angeles Fire and Police Pension Plan (LAFPP)	
(Amount in thousands)	2015
Actuarially determined contribution	\$ 3,648
Contributions in relation to the actuarially determined contribution	<u>3,648</u>
Contribution deficiency (excess)	<u>\$ --</u>
Port's covered-employee payroll	\$ 12,301
Contributions as a percentage of covered-employee payroll	29.66%

\* Fiscal year 2015 was the first year of implementation, therefore only one year is shown.  
See Note to Schedule on the following page.

See accompanying independent auditor's report.



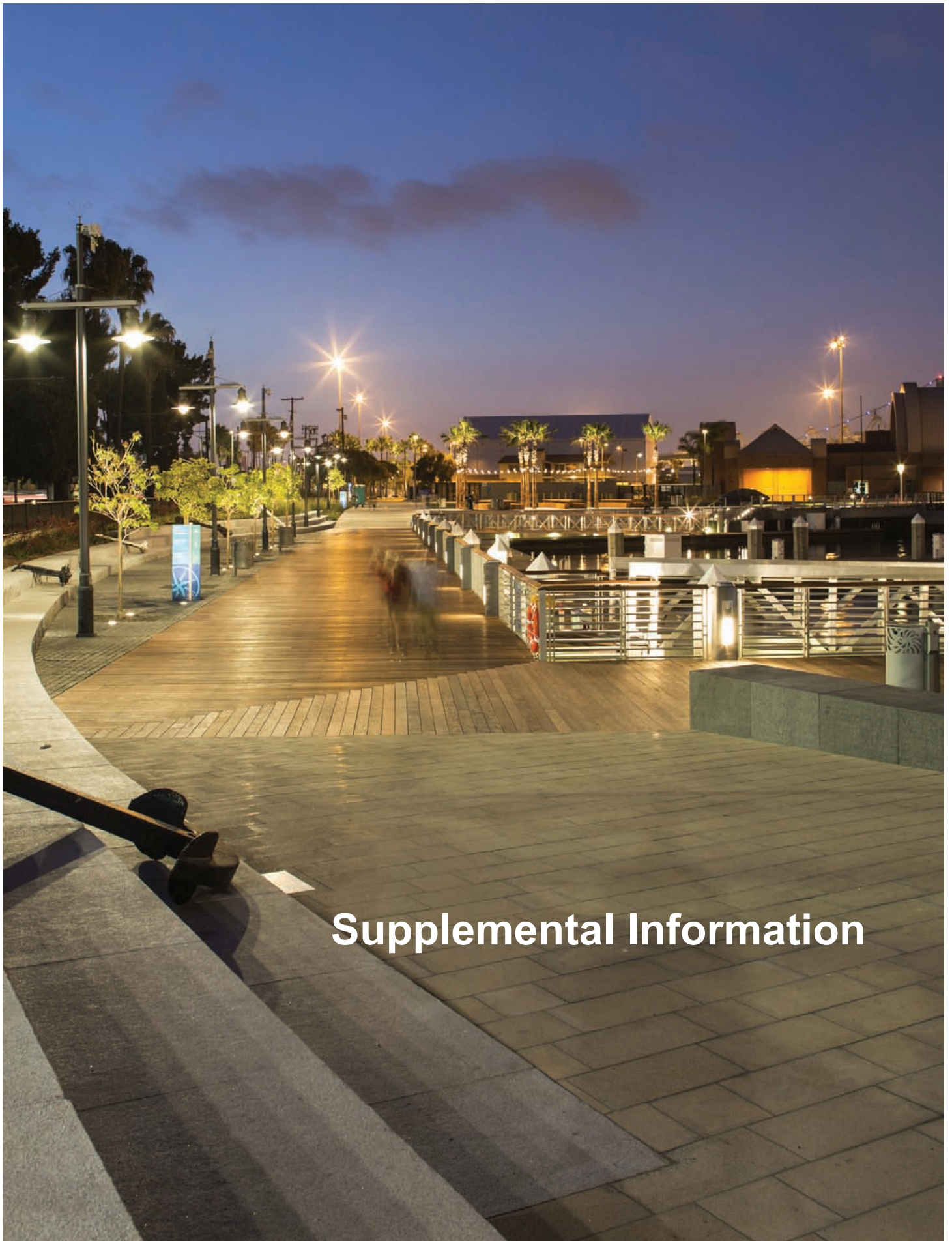
**PORT OF LOS ANGELES  
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Required Supplemental Information  
Schedule of Contributions – Last Ten Fiscal Years \*  
(In Thousands)  
(Unaudited)

**Notes to Schedule:**

	LACERS	LAFPP
Valuation date	As of June 30, two years prior to the end of the fiscal year in which contributions are reported	As of June 30, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method	Entry age, level percentage of salary	Entry age, level percentage of salary
Amortization cost method	Level percentage of payroll – assuming a 4% increase in total covered payroll	Level percentage of payroll with multiple layers
Amortization period	15 years for actuarial gains/losses, 20 years for assumption changes, and 15 years for plan changes, 30 years for actuarial surplus	20 years for actuarial gains/losses, 25 years for assumption changes, and 15 years for plan changes
Asset valuation method	Market value. Recognized over 7 years.	Market value. Recognized over 7 years.
Investment rate of return	7.75%	7.50%
Inflation	3.50%	3.25%
Project salary increases	Ranges from 11.25% to 6.50% for members with less than 5 years of service. Range from 6.50% to 4.65% for members with 5 or more years of service.	Ranges from 4.75% to 11.50% based on years of service
Mortality	RP-2000 Combined Healthy Mortality Table	RP-2000 Combined Healthy Mortality Table

See accompanying independent auditor's report.



## Supplemental Information

**PORT OF LOS ANGELES**  
**(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**  
**Summary of Revenues, Expenses, and Changes in Net Position**  
**Last Ten Fiscal Years**  
**(In Thousands)**  
**(Unaudited)**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Operating revenues										
Shipping services	\$ 353,390	\$ 369,972	\$ 374,878	\$ 329,347	\$ 327,630	\$ 343,498	\$ 357,716	\$ 347,876	\$ 377,213	\$ 364,899
Rentals	33,876	40,322	45,524	42,368	43,141	45,428	43,143	42,890	205,354	46,233
Royalties, fees, and other operating revenues	4,893	6,867	5,943	30,509	36,047	11,577	8,928	6,602	171,859	35,763
Total operating revenues	392,159	417,161	426,345	402,224	406,818	400,503	409,787	397,368	425,951	446,895
Operating expenses										
Salaries and benefits	64,090	72,183	92,979	95,429	92,930	98,837	98,614	101,861	112,053	111,788
Marketing and public relations	3,251	4,391	5,137	3,531	2,490	2,912	3,177	2,877	2,711	2,771
Travel and entertainment	802	587	1,099	609	546	804	932	1,139	548	512
Outside services	32,845	32,323	36,957	34,977	25,776	29,367	27,660	29,690	26,331	28,983
Materials and supplies	5,267	5,646	8,719	7,800	6,366	6,249	6,314	5,989	6,883	6,257
City services and payments	24,835	32,514	32,129	30,680	37,147	29,964	32,014	31,074	33,633	34,749
Other operating expenses	53,042	16,131	44,732	81,117	44,980	41,562	31,095	32,539	23,195	49,189
Total operating expenses before depreciation	184,132	163,775	221,752	254,143	210,235	209,695	199,806	205,169	205,354	234,249
Operating Income before depreciation	208,027	253,386	204,593	148,081	196,583	190,808	209,981	192,199	220,597	212,646
Depreciation	98,779	88,106	78,295	83,413	87,255	90,468	100,485	108,037	124,221	137,384
Operating Income	109,248	165,280	126,298	64,668	109,328	100,340	109,496	84,162	96,376	75,262
Nonoperating revenues (expenses)										
Income from investments in Joint Powers										
Authorities	4,302	4,675	4,440	2,980	5,832	(333)	1,851	2,049	2,129	2,811
Interest and investment income	9,582	23,773	34,863	18,824	11,671	6,436	9,486	826	4,654	5,039
Interest expense	(37,787)	(50,038)	(38,052)	(36,979)	(35,663)	(3,704)	(10,538)	(2,473)	(1,530)	(331)
Other income and expenses, net	7,222	11,018	(2,536)	(7,625)	(2,951)	(6,667)	(8,359)	784	(27,364)	(2,226)
Net nonoperating revenues (expenses)	(16,681)	(10,572)	(1,285)	(22,800)	(21,111)	(4,268)	(7,560)	1,186	(22,111)	5,293
Income before capital contributions	92,567	154,708	125,013	41,868	88,217	96,072	101,936	85,348	72,322	80,555
Capital contributions	2,044	4,145	14,161	4,103	16,950	12,059	31,307	17,630	80,374	111,852
Special item	--	(22,291)	--	--	--	--	--	13,387	16,945	--
Changes in net position	94,611	136,562	139,174	45,971	105,167	108,131	133,243	116,365	169,641	192,407
Total net position – beginning of year	2,106,696	2,201,307	2,337,869	2,383,616	2,429,587	2,534,754	2,642,885	2,776,128	2,884,351	3,064,554
Cumulative effect of change in accounting principle	--	--	--	--	--	--	--	--	--	(194,062)
Net adjustment for write off prior period bond issues costs	--	--	--	--	--	--	--	(8,142)	10,562	--
Net Position July 1, restated	2,106,696	2,201,307	2,337,869	2,383,616	2,429,587	2,534,754	2,642,885	2,767,986	2,894,913	2,870,492
Total net assets – end of year	\$ 2,201,307	\$ 2,337,869	\$ 2,477,043	\$ 2,429,587	\$ 2,534,754	\$ 2,642,885	\$ 2,776,128	\$ 2,884,351	\$ 3,064,554	\$ 3,062,899
Net position:										
Net investment in capital assets	1,854,468	1,931,037	1,985,653	2,101,396	2,164,885	2,278,052	2,397,744	2,634,840	2,863,795	2,856,561
Restricted	63,917	62	9	61,608	67,844	67,341	67,796	57,913	58,054	97,461
Unrestricted	282,922	406,770	491,381	266,583	302,025	297,492	310,588	191,598	142,705	108,877
Total net position	\$ 2,201,307	\$ 2,337,869	\$ 2,477,043	\$ 2,429,587	\$ 2,534,754	\$ 2,642,885	\$ 2,776,128	\$ 2,884,351	\$ 3,064,554	\$ 3,062,899

See accompanying independent auditor's report.



**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Summary of Debt Service Coverage (Pledged Revenue)

Last Ten Fiscal Years

(In Thousands)

(Unaudited)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Operating revenues (including investment interest income and noncapital grant revenues) (1)	\$ 406,043	\$ 445,609	\$ 465,648	\$ 424,028	\$ 424,306	\$ 412,962	\$ 435,291	\$ 416,974	\$ 446,910	\$ 460,364
Operating expenses (2)	184,132	163,775	221,752	254,143	210,235	209,695	199,806	205,169	205,354	234,249
Net available revenue	<u>\$ 221,911</u>	<u>\$ 281,834</u>	<u>\$ 243,896</u>	<u>\$ 169,885</u>	<u>\$ 214,071</u>	<u>\$ 203,267</u>	<u>\$ 235,485</u>	<u>\$ 211,805</u>	<u>\$ 241,556</u>	<u>\$ 226,115</u>
Debt service, revenue bonds	\$ 58,143	\$ 58,293	\$ 61,318	\$ 61,298	\$ 66,851	\$ 72,736	\$ 71,382	\$ 72,204	\$ 65,323	\$ 69,916
Debt service, commercial papers	3,431	792				191	227	194	165	187
Total debt service (3)	<u>\$ 61,574</u>	<u>\$ 59,085</u>	<u>\$ 61,318</u>	<u>\$ 61,298</u>	<u>\$ 66,851</u>	<u>\$ 72,927</u>	<u>\$ 71,609</u>	<u>\$ 72,398</u>	<u>\$ 65,488</u>	<u>\$ 70,103</u>
Net available revenue coverage	3.2	3.6	4.8	4.0	2.8	3.2	3.3	2.9	3.7	3.2
Net cash flow from operations	\$ 226,037	\$ 201,575	\$ 246,665	\$ 252,898	\$ 151,264	\$ 185,416	\$ 158,228	\$ 217,113	\$ 131,284	\$ 213,184
Net operating cash flow coverage	3.7	3.4	4.0	4.1	2.3	2.5	2.2	3.0	2.0	3.0

(1) Operating revenues include pledged pooled investment interest income and non capital grant revenues

(2) Depreciation and amortization expenses, interest expense, and other nonoperating expenses are not included

(3) Debt service includes principal and interest payments on issued bonds as well as on commercial paper notes, which are senior debt secured by pledged revenue. Debt service does not include loans from the California Department of Housing and Community Development, which are not secured by pledged revenue

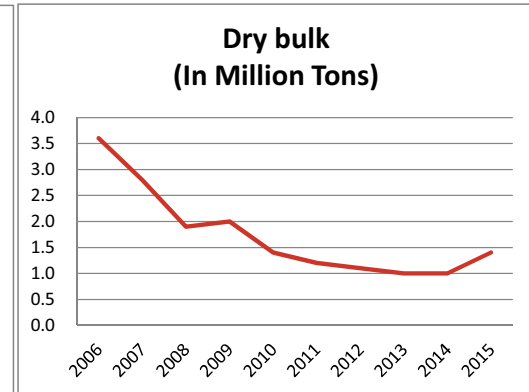
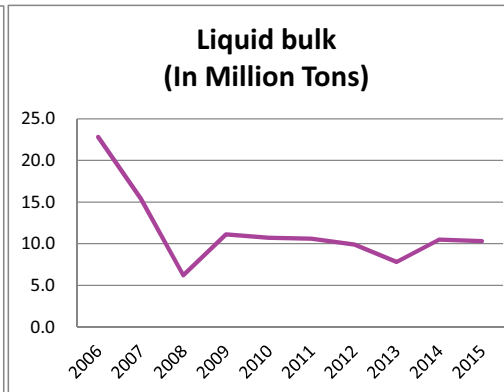
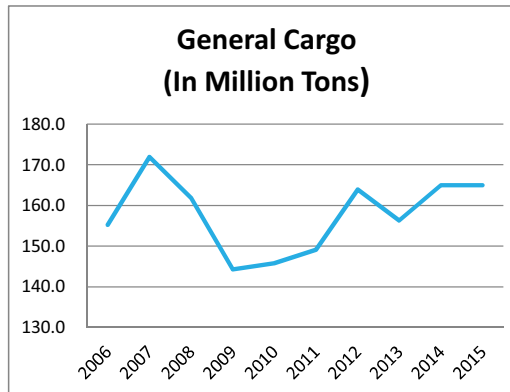
Note: Details regarding the Port of Los Angeles' outstanding debt can be found in the notes to the financial statements

See accompanying independent auditor's report

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Revenue Statistics  
Last Ten Fiscal Years  
(Unaudited)**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Revenue Information</b>										
Revenue Rates										
General cargo tariff rate	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
Basic dockage (600')	2,465	2,465	2,465	2,465	2,465	2,465	2,465	2,465	2,465	2,465
Required rate of return on improvements	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
Required rate of return on land	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Containerized cargo volume										
(in millions of TEUs)	7.8	8.7	8.1	7.3	7.2	7.9	8.2	7.8	8.2	8.2
Inbound tonnage (million tons)	113	118	105	94	88	94	98	93	99	103
Outbound tonnage (million tons)	69	72	65	66	67	68	75	72	74.3	74.6
Revenue tons (million)										
General cargo	155.2	171.9	161.9	144.3	145.8	149.1	163.9	156.3	165.0	165.0
Liquid bulk	22.8	15.4	6.2	11.1	10.7	10.6	9.9	7.8	10.5	10.3
Dry bulk	3.6	2.8	1.9	2.0	1.4	1.2	1.1	1.0	1.0	1.4
Total revenue tons (million)	181.6	190.1	170.0	157.4	157.9	160.9	174.9	165.1	176.5	176.7

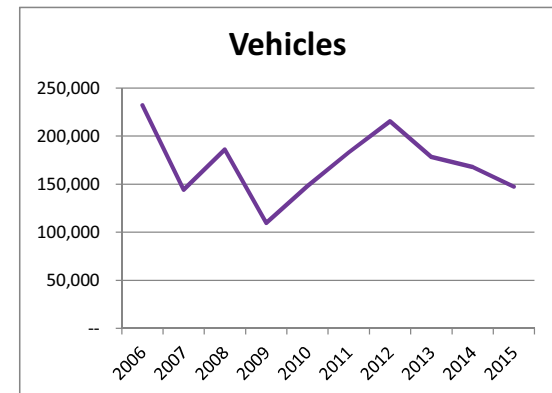
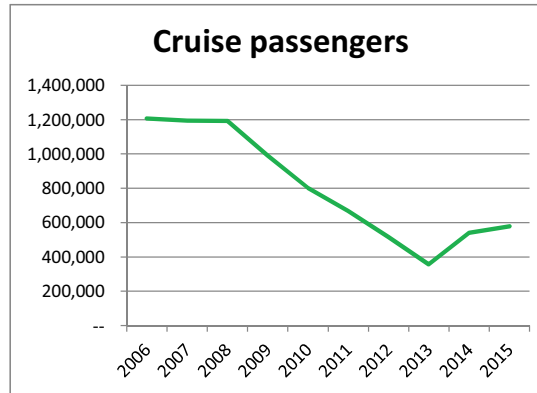
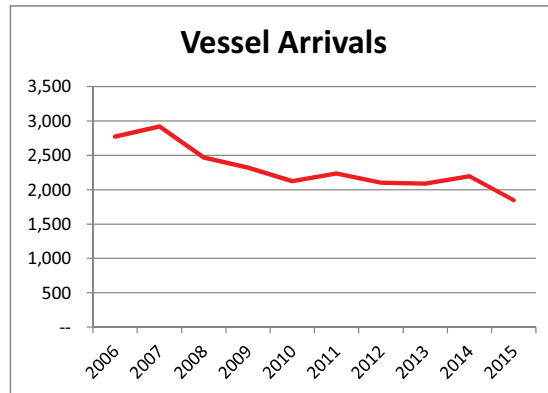


See accompanying independent auditor's report.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

**Other Operating Information  
Last Ten Fiscal Years  
(Unaudited)**

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Miles of waterfront	43	43	43	43	43	43	43	43	43	43
Number of major container terminals	8	8	8	8	8	8	8	8	8	8
Number of cargo terminals	27	25	25	25	24	24	24	24	23	23
Vessel arrivals	2,771	2,920	2,467	2,322	2,124	2,236	2,100	2,089	2,196	1,846
Cruise passengers	1,205,947	1,194,984	1,191,449	990,965	802,899	667,434	515,827	355,875	541,418	578,902
Vehicles	232,149	144,068	185,978	109,634	147,935	183,126	215,374	178,252	167,826	147,457
Full time employees	717	806	935	971	948	959	958	947	949	885



See accompanying independent auditor's report.

**PORT OF LOS ANGELES**  
**(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Operating Expenses Net of Direct and Indirect Costs

Fiscal Year Ended June 30, 2015

(In Thousands)

(Unaudited)

	Expenses Before Allocation of Direct and Indirect Costs	Direct Costs Allocated to Projects	Expenses After Allocation of Direct Costs	Indirect Overhead Costs Allocated to Capital Projects	Net Operating Expenses
Salaries and benefits	\$ 136,857	\$ (15,490)	\$ 121,367	\$ (9,579)	\$ 111,788
City services	45,874	(8,112)	37,762	(3,013)	34,749
Outside services	239,137	(208,214)	30,923	(1,940)	28,983
Utilities	20,772	(93)	20,679	(1,306)	19,373
Materials and supplies	9,849	(3,079)	6,770	(513)	6,257
Marketing and public relations	3,036	(8)	3,028	(257)	2,771
Workers' compensation, claims and settlements	2,503	—	2,503	—	2,503
Clean truck program expenses	949	—	949	—	949
Travel and entertainment	575	(16)	559	(47)	512
Other operating expenses	<u>30,299</u>	<u>(2,145)</u>	<u>28,154</u>	<u>(1,790)</u>	<u>26,364</u>
Total Operating Expenses	\$ <u>489,851</u>	\$ <u>(237,157)</u>	\$ <u>252,694</u>	\$ <u>(18,445)</u>	\$ <u>234,249</u>

See accompanying independent auditor's report.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)**

Operating Expenses Net of Direct and Indirect Costs

Fiscal Year Ended June 30, 2014

(In Thousands)

(Unaudited)

	Expenses Before Allocation of Direct and Indirect Costs	Direct Costs Allocated to Projects	Expenses After Allocation of Direct Costs	Indirect Overhead Costs Allocated to Capital Projects	Net Operating Expenses
Salaries and benefits	\$ 136,253	\$ (18,200)	\$ 118,053	\$ (6,000)	\$ 112,053
City services	41,882	(6,526)	35,356	(1,723)	33,633
Outside services	314,622	(287,009)	27,613	(1,282)	26,331
Utilities	13,264	(338)	12,926	(591)	12,335
Materials and supplies	9,657	(2,407)	7,250	(367)	6,883
Marketing and public relations	2,867	(24)	2,843	(132)	2,711
Workers' compensation, claims and settlements	1,959	—	1,959	—	1,959
Clean truck program expenses	1,100	—	1,100	—	1,100
Travel and entertainment	610	(6)	604	(56)	548
Other operating expenses	<u>9,682</u>	<u>(1,506)</u>	<u>8,176</u>	<u>(375)</u>	<u>7,801</u>
Total Operating Expenses	<u>\$ 531,896</u>	<u>\$ (316,016)</u>	<u>\$ 215,880</u>	<u>\$ (10,526)</u>	<u>\$ 205,354</u>

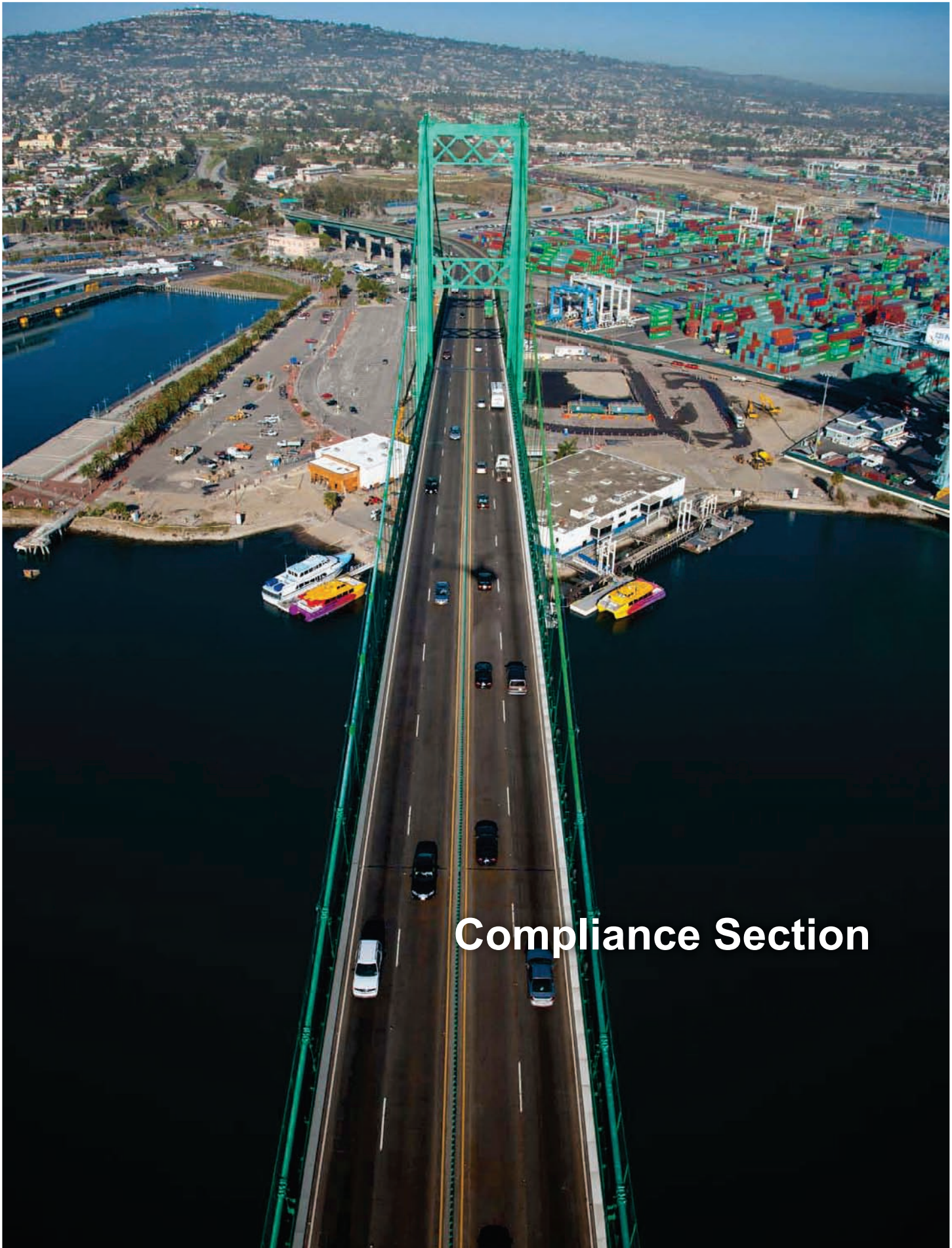
See accompanying independent auditor's report.

**PORT OF LOS ANGELES  
(HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES)  
Capital Development Program Expenditures Per Adopted Budget  
For Fiscal year 2015-2016  
(In Thousands)  
(Unaudited)**

<b>Project Description</b>	<b>Expenditures per Adopted Budget</b>
Berth 90-93 World Cruise Center	\$ 868
Berth 100-102 Development - China Shipping Container Terminal	3,029
Berth 121-131 - Yang Ming Container Terminal	1,440
Berth 135-147 Development - TraPac Container Terminal	82,718
Berth 212-224 Development - YTI Container Terminal	20,936
Berth 222-236 Development - Evergreen Container Terminal	2,272
Berth 300-306 Development - APL Container Terminal	1,584
Berth 400-409 Development - Maersk/Cut	336
Motems (Marine Oil Terminal Engineering and Maintenance Standards)	9,434
Miscellaneous Terminal Improvements	187
Transportation Improvement	44,830
Security Projects	1,337
Port-wide Public Enhancements - Community	1,256
Los Angeles Waterfront	6,180
Environmental Enhancement	624
Harbor Department Facilities	3,830
Miscellaneous Projects	2,102
Unallocated Capital Improvement Program Fund	15,874
Total	<u><u>\$ 198,837</u></u>

Note: Schedule above excludes capital equipment.

See accompanying independent auditor's report.



**Compliance Section**



SIMPSON & SIMPSON  
CERTIFIED PUBLIC ACCOUNTANTS

FOUNDING PARTNERS  
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**Independent Auditor's Report on Internal Control over Financial Reporting and on  
Compliance and Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with *Government Auditing Standards***

The Board of Commissioners  
Port of Los Angeles (Harbor Department of the City of Los Angeles):

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Port of Los Angeles (Harbor Department of the City of Los Angeles) (the Port), an enterprise fund of the City of Los Angeles, California, as of and for the year ended June 30, 2015, and the related notes to the financial statements, and have issued our report thereon dated November 23, 2015.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Port's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Port's internal control. Accordingly, we do not express an opinion on the effectiveness of the Port's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Port's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.







### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Simpson &amp; Simpson". The signature is written in a cursive, flowing style.

Los Angeles, California  
November 23, 2015

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## **APPENDIX C**

### **THE PORT OF LONG BEACH, INCLUDING AUDITED FINANCIAL STATEMENTS**

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## THE PORT OF LONG BEACH

The City of Long Beach, acting by and through its Board of Harbor Commissioners (“POLB”) is obligated only to make certain payments required by the Operating Agreement and is not responsible for paying, and is not guaranteeing the payment of, the principal or accreted value of, premium, if any, or interest on the Bonds, including the Series 2016 Bonds. The Bonds are not secured by a lien on any properties or improvements of the City of Long Beach or of POLB, or by a pledge of any revenues of POLB. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Limited Obligations” in the forepart of this Official Statement. Under certain circumstances, the Operating Agreement requires POLB to pay Shortfall Advances, the payment of which is a limited obligation, payable solely from POLB’s net revenues, after all of POLB’s other obligations, including operation and maintenance costs, are paid. See “AUTHORITY REVENUES—Shortfall Advances” and “INVESTOR CONSIDERATIONS—Shortfall Advances are Limited, Subordinate Obligations of the Ports” in the forepart of this Official Statement. POLB has agreed that it will include in its budget Shortfall Advances of which it has notice, but POLB is not required to reserve or to set aside any funds, and has not reserved or set aside funds, for such purposes, and the payment of Shortfall Advances by POLB is payable after all of POLB’s other obligations, including operation and maintenance costs, have been paid.

The information about POLB in this Official Statement was provided by POLB. The Authority makes no representation concerning such information.

### **POLB and Port Facilities**

**General.** POLB is a harbor complex that covers approximately 7,600 acres (or approximately 11.9 square miles), of which approximately 4,400 acres (or approximately 6.9 square miles) are water, and includes all harbor facilities of the City of Long Beach. The harbor complex is owned by the City of Long Beach and is operated and managed by the Harbor Department of the City of Long Beach (the “LB Harbor Department”). Exclusive control and management of the LB Harbor Department is vested in the City of Long Beach Board of Harbor Commissioners. POLB has approximately 31.5 miles of waterfront with 65 deep-water cargo berths, several of which are and will be capable of servicing the largest commercial ships currently afloat or being designed. Container terminals occupy 1,339 acres, auto terminals occupy 144 acres, breakbulk and general cargo occupy 77 acres, dry bulk terminals occupy 84 acres and petroleum and liquid bulk occupy 44 acres. POLB has six container terminals with 68 cranes, all of which are post-panamax cranes (all of which are owned by the tenants), and three container freight stations. Five container terminals are served by on-dock railyards. Additional cargo handling facilities include five transit sheds. Wharves are constructed of reinforced concrete supported by reinforced concrete pilings or sheet pile bulkhead. Wharf aprons at all transit shed berths average 50 feet in width. Rail tracks serve all major marine facilities. In all, POLB owns 82 miles of rail trackage. Current LB Harbor Department plans envision enlarging and consolidating several of the container terminals due to the demand for larger facilities.

POLB is protected by a federally financed breakwater more than nine miles in length. Water depths throughout the port range from 76 feet at the entrance channel to 45 feet in the inner harbor and 55 feet in part of the middle harbor. Depth alongside wharves ranges from 32 to 50 feet, except that the bulk petroleum terminal provides berthing depths of more than 70 feet. This facility, at maximum depth, is capable of handling supertankers of up to 265,000 dead weight tons. See “—POLB Capital Improvement Program—Long Beach Harbor Dredging.”

Shipments to and from POLB can be received or dispatched by water, rail or truck. The two Railroads, BNSF and Union Pacific, serve POLB. These rail carriers have connections with POLB’s rail system and offer reciprocal switching arrangements. In addition, POLB is located at the end of Interstate 710 (the “710 Freeway”), which provides access to the interstate highway system. Major highway carriers serve POLB and provide transportation to all parts of the United States, as well as to the Intermodal Container Transfer Facility (the “ICTF”), a specialized rail yard for the transfer of containers between trucks and railcars located four miles

from POLB, and to the switchyards of BNSF and Union Pacific. Truck travel to such switchyards takes approximately 30 to 60 minutes.

The ICTF was financed and constructed by Southern Pacific Transportation Company and the Intermodal Container Transfer Facility Joint Powers Authority, a joint powers authority organized by the POLB and the Port of Los Angeles (“POLA”). The ICTF is now operated by Union Pacific.

POLB’s cargo-handling facilities are diverse. Some of the largest facilities, or terminals, are under long-term lease agreements. See “—Source of Funds for Payment of Shortfall Advances” and “—Major Tenants.” Cargo terminal operations at POLB generally can be divided into four categories: container, dry bulk, general cargo and petroleum/liquid bulk. Descriptions of these operations are provided below.

***Container Terminals.*** Containerized cargo represents the largest source of revenue for the LB Harbor Department. For the 12 months ended September 30, 2015, containerized cargo accounted for approximately 76% of the LB Harbor Department’s total operating revenues, primarily from the collection of wharfage. According to the American Association of Port Authorities, during calendar year 2014, POLB was the number-two ranked port in the nation, in terms of container cargo, handling approximately 6.8 million TEUs. According to statistics compiled by the World Shipping Council, during calendar year 2013 (the latest information available), POLB was the 21<sup>st</sup> busiest container port in the world. POLB handled approximately 7.2 million TEUs during calendar year 2015. The following is a summary of the major container facilities at POLB.

**Pier A.** SSA Terminals (Long Beach), LLC, a joint venture among SSA Terminals, L.L.C. (“SSAT”), Terminals Investment Limited and Mediterranean Shipping Company, currently operates the container terminal on Pier A (the “Pier A Container Terminal”). The Pier A Container Terminal is an approximately 200-acre facility that includes three berths, a 3,600-foot-long wharf with a water depth of 50 feet, two gate facilities with a total of 28 truck lanes, a storage area for approximately 24,000 on-ground containers, power outlets for 650 refrigerated containers and an on-site railyard capable of handling two double-stack trains simultaneously. Ten gantry cranes with capacities ranging from 40 tons to 60 tons facilitate cargo movement. The facilities at the Pier A Container Terminal can handle ships carrying up to 9,000 TEUs.

**Pier C.** SSAT operates a 68-acre container terminal at Pier C (the “Pier C Container Terminal”), which includes two berths, an 1,800 foot-long wharf with a water depth of 42 feet, a storage area for approximately 4,000 on-ground containers and power outlets for 114 refrigerated containers. Three 40-ton to 60-ton capacity gantry cranes facilitate cargo movement. The facilities at the Pier C Container Terminal can handle ships carrying up to 4,500 TEUs.

**Piers D, E and F.** Piers D, E and F (collectively, the “Middle Harbor Terminal”) are currently being consolidated into one 305-acre container terminal as part of the “Middle Harbor Redevelopment Project.” The facilities on Piers D and E are currently out of service as the LB Harbor Department constructs the Middle Harbor Redevelopment Project.

In 2012, the LB Harbor Department and Orient Overseas Container Line LLC (“OOCL”) entered into a 40-year preferential assignment agreement for the Middle Harbor Terminal. When Phase 1 at the Middle Harbor Terminal is complete and becomes operational in 2016, the Middle Harbor Terminal will consist of 193 acres and the LB Harbor Department expects the facility will be capable of handling ships carrying approximately 22,000 TEUs. Once the overall Middle Harbor Redevelopment Project is fully complete, the facility will be able to handle ships carrying up to 24,000 TEUs. Based on the guaranteed annual minimum payments required to be made by OOCL pursuant to the terms of the preferential assignment agreement, the LB Harbor Department expects the agreement will generate a minimum of approximately \$4.6 billion of operating revenue for the LB Harbor Department over the 40-year term. The facility will be operated by OOCL’s subsidiary, Long Beach Container Terminal, LLC. See “POLB Capital Improvement Program—Middle Harbor Redevelopment (Piers D, E and F)” below.

Pier F continues to be operational while improvements are made to Piers D and E. Long Beach Container Terminal, Inc., an OOCL subsidiary, conducts its ground and chassis operation at Pier F (the “Pier F Container Terminal”). The Pier F Container Terminal is an approximately 100-acre facility that includes five berths, a 2,750 foot-long wharf with a water depth of 50 feet, a storage area for approximately 10,000 on-ground containers, power outlets for 240 refrigerated containers, and an on-dock rail yard. The Pier F Container Terminal has seven gantry cranes, with capacities ranging from 40-tons to 60-tons. The facilities at the Pier F Container Terminal can handle ships carrying up to 8,500 TEUs. The operations of Pier F will be consolidated with the operations on Piers D and E once the Middle Harbor Redevelopment Project is complete.

Pier G. International Transportation Service Inc. (“ITS”) operates a container terminal at Pier G (the “Pier G Container Terminal”). The Pier G Container Terminal is an approximately 247-acre facility that includes five berths, a 6,379 foot-long wharf with water depths ranging from 42 feet to 52 feet, a storage area for approximately 12,800 on-ground containers, power outlets for 384 refrigerated containers and an on-dock railyard. The Pier G Container Terminal has 17 gantry cranes, with capacities ranging from 30-tons to 60-tons. The facilities at the Pier G Container Terminal can handle ships carrying up to 10,000 TEUs.

Pier J. Pacific Maritime Services LLC (a joint venture between SSAT, CMA-CGM and China Overseas Shipping Company (“COSCO”)) operates from Pier J (the “Pier J Container Terminal”). The Pier J Container Terminal is an approximately 256-acre facility that includes five berths, a 5,900 foot-long wharf with water depths ranging from 49 feet to 50 feet, a storage area for approximately 12,320 on-ground containers, power outlets for 685 refrigerated containers and an on-dock railyard. The Pier J Container Terminal has 17 gantry cranes, with capacities ranging from 40-tons to 60-tons. The facilities at the Pier J Container Terminal can handle ships carrying up to 18,000 TEUs.

Pier T. Total Terminals International, LLC (a joint venture between Hanjin Shipping Company, Ltd. (“Hanjin”), Mediterranean Shipping Company and Marine Terminals, Inc.) operates POLB’s largest container terminal on Pier T (the “Pier T Container Terminal”). The Pier T Container Terminal is an approximately 380-acre facility that includes five berths, a 5,000 foot-long wharf with a water depth of 55 feet, a storage area for approximately 8,300 on-ground containers, power outlets for 1,850 refrigerated containers and an on-dock railyard. The Pier T Container Terminal has fourteen 65-ton gantry cranes. The facilities at the Pier T Container Terminal can handle ships carrying up to 18,000 TEUs.

***Dry Bulk Facilities.*** For the 12 months ended September 30, 2015, dry bulk accounted for approximately 8% of the LB Harbor Department’s total operating revenue, primarily through the collection of wharfage. The following describes the major dry bulk facilities at POLB.

Piers G and F. Approximately 7.0 million metric tons of dry bulk products were exported through the dry bulk terminals on Piers G and F in each of the fiscal years 2015 and 2014. These products include petroleum coke, calcined petroleum coke, coal and sulfur.

The Pier G bulkloader consists of two conveyor system shiploaders operated by Metropolitan Stevedore Company. Dry bulk products are stored temporarily in seven specifically-designed sheds that have a total capacity of 586,000 tons and are moved automatically to dockside, where ships are loaded at 3,900 tons per hour. An eighth storage shed, used to store coal, has a capacity of 150,000 tons of product and includes two rotary plow feeders, with a capacity of 3,000 metric tons per hour, which are connected via conveyor to the Pier G shiploaders. The storage sheds are leased to industrial firms that transport their products to POLB for sale abroad. The entire facility is automated and is capable of high-speed handling of cargo by truck or rail. A rotary railroad car dumper is capable of emptying an entire 100-car train in less than four hours, and bottom dumpers on two different track systems also operate at high capacity.

The Pier F bulkloader consists of an automated conveyor shiploader and a ten-acre silo complex operated by Koch Carbon Inc. for the storage and exporting of petroleum coke. The petroleum coke is delivered by rail or truck to the silos, screened, sorted and stored for shipment overseas.

**Cement Facilities.** There are two cement terminals at POLB. CEMEX Pacific Coast Cement Corporation operates a 50,000-ton capacity bulk cement terminal from Pier D. This terminal has six silos and a pollution-free enclosed unloader that can unload directly into the silos. The screw type unloader has a capacity to handle up to 800 tons of cement per hour. A second cement terminal is located on Pier F and utilizes a vacuum type unloader. Operated by MMC Terminal, Inc., this facility can handle 800 tons per hour and, instead of a silo system, utilizes a warehouse (with a capacity of 52,000 tons) to house and transfer product.

**Salt.** At Pier F, Morton Salt Co. handles bulk solar salt shipped from Baja, California. This salt is used primarily in water softeners and by chemical companies. Conveyor belts, cranes and other equipment are used for unloading and stockpiling the crude salt, which is then graded and bagged or delivered in bulk.

**General Cargo.** For the 12 months ended September 30, 2015, general cargo accounted for approximately 7.5% of the LB Harbor Department's total operating revenue, primarily through the collection of wharfage and facilities rentals. Below is a description of the major general cargo facilities at POLB.

**Vehicles.** The Toyota Motor Sales automobile terminal occupies a total of 144 acres in the northern area of POLB on Pier B. Vehicles are unloaded at this terminal, cleaned, processed and transported to destinations from Southern California to the Midwest. Approximately 204,000 vehicles were shipped through this terminal during fiscal year 2015 as compared to approximately 214,000 vehicles during fiscal year 2014. A majority of all Lexus cars imported into the United States pass through this terminal. Toyota Motor Sales also exports vehicles manufactured at its factories in the United States through this terminal.

Mercedes Benz vehicles arrive and are unloaded at Pier F, Berths 206 and 207. Crescent Terminals, Inc. ("Crescent Terminals") operates Berths 206 and 207. Mercedes received approximately 68,000 vehicles in fiscal year 2015 and approximately 79,000 vehicles in fiscal year 2014 through these facilities.

**Forest Products.** Weyerhaeuser Company, a subtenant of Fremont Forest Group Corporation, located at Pier T, transports framing lumber by barge to POLB from Coos Bay, Oregon, and Longview and Aberdeen, Washington. At this facility, approximately 150 million board feet of lumber are handled annually.

**Metals.** SA Recycling, LLC operates a recycled steel and iron ore facility on Pier T that includes an 850 foot wharf with a steel reinforced concrete storage area and two loading cranes. The facility is served by rail and truck and has the capacity to handle 650,000 tons per year.

**Break Bulk.** CSA Equipment Inc. (a joint venture of SSA and Cooper/T. Smith) occupies Berths 204-205 on Pier F, and mainly handles machinery, equipment and steel products imported from the Far East. The CSA terminal has an 180,000 square foot storage shed on-site. At Berths F206 and F207 Crescent Terminals, in addition to the Mercedes Benz vehicles, handles other products, including finished steel and project cargo. The Crescent terminal has a 190,000 square foot storage shed on-site.

**Petroleum/Liquid Bulk.** For the 12 months ended September 30, 2015, petroleum/liquid bulk produced approximately 5% of the LB Harbor Department's total operating revenue, primarily through the collection of wharfage per barrel. POLB maintains five bulk oil terminals; two are leased to Tesoro Refining and Marketing Company ("Tesoro") (on Pier B); one is leased to Carson Cogeneration Company, a Tesoro subsidiary (on Pier T); one is leased to Petro Diamond Terminal Co. ("Petro Diamond") (on Pier B) and one is leased to Chemoil Marine Terminal ("Chemoil") (on Pier F). Each terminal is connected directly to the storage and tank farms of the respective lessee. The three Tesoro terminals handle primarily crude oil, while the Petro Diamond and Chemoil terminals primarily handle finished petroleum products such as gasoline, vessel bunker fuel and jet fuel. The total movement of crude and refined petroleum products during fiscal year 2015 was approximately 31.0 million metric tons as compared to approximately 29.7 million metric tons during fiscal year 2014.



## **Source of Funds for Payments of Shortfall Advances**

POLB derives income from tariffs assessed on shipping activity (primarily wharfage and dockage) and from leases, rentals and utility services. POLB sets tariff charges for wharfage, dockage, pilotage, land usage, storage and demurrage applicable to all ships and cargo at municipal berths and wharves or otherwise using City-owned property in the Long Beach Harbor District. The current tariffs are published in the Port of Long Beach Tariff No. 4. POLB, like POLA and all other California public ports, controls and determines its own individual tariff structures, but cooperates with other California ports in setting tariff rates through membership in CAPA.

Property agreements for industrial and commercial use constitute one of POLB's largest and most stable sources of income. POLB currently has agreements with approximately 325 different entities (approximately 85% of which are private companies). These agreements include, preferential assignments, leases, revocable permits, and area assignments. Over the last five years, property agreements covering waterfront property and facilities have generated in excess of 95% of POLB's operating revenues. Under these agreements, POLB assigns or leases property and facilities to terminal operators for original terms of up to 40 years. The property agreements with POLB's current top ten revenue producers have expiration dates ranging from 2019 to 2051, with nine of these expiring between 2019 and 2034. Under most of the current property arrangements, the terminal operators are responsible for the operation and maintenance of the property and facilities, but POLB retains responsibility for maintaining the structural integrity of the piers, wharves, bulkheads, retaining walls and fender systems.

Most of POLB's property agreements entered into by the cargo terminal operators are in the form of preferential assignment agreements and require terminal operators to pay varying percentages of the tariff charges for wharfage, dockage, storage and demurrage collected at the properties and facilities covered by such agreements, subject to a guaranteed minimum payment. These agreements require that the compensation payable to POLB be renegotiated every five years and provide that if the parties cannot agree, compensation is to be set through arbitration. The agreements also provide that if the property or facilities covered thereby are damaged by acts of God such as fire, flood or earthquake, or if work stoppages or strikes prevent operation of the property or facilities, compensation payable to POLB will be reduced in proportion to the interference with operations.

For the five fiscal years ended September 30, 2015, revenues from non-waterfront properties and miscellaneous sources accounted for approximately 3.5% of POLB's operating revenues. These agreements generally provide for flat rentals or require payment of a percentage of gross revenues, subject to a fixed minimum rental.

The following table presents a summary of the LB Harbor Department's operating revenues for the five fiscal years ending September 30, 2015.

TABLE C-1

**PORT OF LONG BEACH  
OPERATING REVENUES  
FISCAL YEARS ENDED SEPTEMBER 30**  
(thousands)

	2011	2012	2013	2014	2015
<b>Berths &amp; Special Facilities</b>					
Wharfage	\$279,734	\$268,080	\$296,623	\$307,814	\$312,074
Dockage	12,003	11,705	12,055	10,877	10,773
Bunkers	1,547	1,373	1,375	703	1,048
Special Facilities Rentals	22,814	28,188	12,426	13,768	16,247
Crane Rentals	12,789	12,760	12,789	12,789	2,372
Other	100	319	601	570	620
<b>Total Berths &amp; Special Facilities</b>	<b>\$328,987</b>	<b>\$322,425</b>	<b>\$335,869</b>	<b>\$346,258</b>	<b>\$343,134</b>
Rental Properties	14,138	9,577	9,374	9,360	9,881
Utilities/Miscellaneous	2,265	1,885	1,001	1,262	2,435
<b>Total Operating Revenues</b>	<b>\$345,390</b>	<b>\$333,887</b>	<b>\$346,244</b>	<b>\$356,880</b>	<b>\$355,450</b>

*Source: LB Harbor Department.*

The Charter of the City of Long Beach and certain POLB resolutions require that all POLB revenues be deposited with the Treasurer of the City of Long Beach and set aside in the Long Beach Harbor Revenue Fund, which is established by the Long Beach Charter. From moneys on deposit in the Long Beach Harbor Revenue Fund, the Treasurer of the City of Long Beach transfers funds, as necessary, to pay debt service on POLB's outstanding indebtedness, as well as the reasonable expenses of management and other expenses necessary to operate, maintain and preserve the facilities in good repair and working order. Any revenues remaining in the Long Beach Harbor Revenue Fund after the above described transfers may be used for any lawful purpose, including, among other things, Shortfall Advances. See also "—Transfer to City of Long Beach" below.

### Major Tenants

The following companies (listed alphabetically) represent the LB Harbor Department's twenty-two largest customers in terms of revenues as of September 30, 2015. These customers accounted for approximately 96% of the LB Harbor Department's operating revenues in fiscal year 2015, with the largest single customer accounting for approximately 23% of annual operating revenues.

**TABLE C-2**

**PORT OF LONG BEACH  
LEADING REVENUE PRODUCERS  
AS OF FISCAL YEAR 2015  
(Listed Alphabetically)**

Carson Cogeneration Company	Metropolitan Stevedore Company
CEMEX USA	Mitsubishi Cement Corporation
Chemoil Corp.	Oxbow Carbon & Minerals, LLC
Crescent Terminals, Inc.	Pacific Container Terminal
Crescent Warehouse	SA Recycling, LLC
CSA Equipment	SSA Terminal C60/Matson Navigation
Energia Logistics Ltd.	SSA Terminals Long Beach, LLC
International Transportation Service, Inc.	Tesoro Refining & Marketing
Jacobson Pilot Service, Inc.	Tesoro Logistics LP
Koch Carbon, Inc.	Total Terminals International, LLC
Long Beach Container Terminal, Inc.	Toyota Logistics Services

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*Source: LB Harbor Department*

The following sets forth the total revenue tonnage handled by POLB's facilities in the fiscal years ended September 30, 2011 through 2015.

**TABLE C-3**

**PORT OF LONG BEACH  
REVENUE TONNAGE SUMMARY  
FISCAL YEARS ENDED SEPTEMBER 30  
(in metric revenue tons<sup>(1)</sup>)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>MUNICIPAL BERTHS</b>					
Inbound Cargo					
Foreign	96,907,924	91,490,393	101,026,699	104,245,298	98,464,085
Coastwise/Intercoastal	16,054,362	15,793,069	18,476,723	17,998,456	26,060,757
<b>Total Inbound Cargo</b>	<b>112,962,286</b>	<b>107,283,462</b>	<b>119,503,422</b>	<b>122,243,754</b>	<b>124,524,842</b>
Outbound Cargo					
Foreign	36,209,860	33,278,391	36,768,609	37,066,641	33,592,125
Coastwise/Intercoastal	3,507,497	3,270,377	5,141,434	5,348,303	4,843,410
Bunkers	1,545,586	1,311,310	843,291	866,945	1,313,215
<b>Total Outbound Cargo</b>	<b>41,262,943</b>	<b>37,860,078</b>	<b>42,753,334</b>	<b>43,281,889</b>	<b>39,748,750</b>
<b>Total Municipal Cargo</b>	<b>154,225,229</b>	<b>145,143,540</b>	<b>162,256,756</b>	<b>165,525,643</b>	<b>164,273,592</b>
<b>PRIVATE BERTHS</b>					
Inbound	191,568	—	—	—	—
Outbound	—	—	—	—	—
<b>Total Private Cargo</b>	<b>191,568</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>GRAND TOTAL</b>	<b>154,416,797</b>	<b>145,143,540</b>	<b>162,256,756</b>	<b>165,525,643</b>	<b>164,273,592</b>
Container Count in TEUs <sup>(2)</sup>	6,298,840	5,857,210	6,647,975	6,817,590	7,087,699

<sup>(1)</sup> A metric revenue ton is equal to either 1,000 kilograms or one cubic meter.

<sup>(2)</sup> A TEU represents a twenty-foot equivalent unit.

Source: LB Harbor Department

The following is a breakdown of cargo handled by POLB at municipal berths during fiscal years 2014 and 2015 in tonnage and revenue:

**TABLE C-4**  
**PORT OF LONG BEACH**  
**REVENUE TONNAGE BY CARGO TYPE**  
**FISCAL YEARS ENDED SEPTEMBER 30<sup>(1)</sup>**  
(in thousands of metric revenue tons)

	2014				2015			
	<b>Metric Revenue Tons (000s)</b>	<b>Percent of Total Tons</b>	<b>Revenue (000s)<sup>(3)</sup></b>	<b>Percent of Shipping Revenue</b>	<b>Metric Revenue Tons (000s)</b>	<b>Percent of Total Tons</b>	<b>Revenue (000s)<sup>(2)</sup></b>	<b>Percent of Shipping Revenue</b>
Containerized	125,662	76%	\$279,633	81%	125,285	76%	\$269,886	78%
Dry Bulk	7,771	5	25,665	7	7,029	4	29,253	9
General Cargo	2,400	1	25,416	7	1,140	1	26,696	8
Petroleum/ Liquid Bulk	29,692	18	15,543	4	31,000	19	17,299	5
<b>Totals</b>	<b>165,525</b>	<b>100%</b>	<b>\$346,258</b>	<b>100%</b>	<b>164,454</b>	<b>100%</b>	<b>\$343,134</b>	<b>100%</b>

<sup>(1)</sup> Reflects cargo handled at municipal berths only.

<sup>(2)</sup> Revenue includes operating revenues from wharfage, dockage, storage/demurrage, bunkers, special facilities rentals, crane rentals and other.

Source: LB Harbor Department

The top five trading countries with the LB Harbor Department for the five fiscal years ending September 30, 2015 are summarized below:

**TABLE C-5**  
**PORT OF LONG BEACH**  
**REVENUE TONNAGE BY LEADING TRADING COUNTRIES**  
**FISCAL YEARS ENDED SEPTEMBER 30**  
(Ranked in Fiscal Year 2015 Results)  
(in thousands of metric revenue tons)

<b>Countries</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Inbound</b>					
China	12,074	11,768	14,868	16,040	15,734
Ecuador	2,908	3,048	2,238	1,764	2,827
Panama	1,091	1,676	2,182	2,607	2,639
Mexico (Gulf of Mexico)	4,141	3,932	4,269	2,749	2,488
South Korea	1,339	1,189	1,203	1,639	1,685
<b>Outbound</b>					
China	9,901	9,142	11,623	8,765	6,957
Japan	4,557	3,936	4,318	4,118	3,415
Mexico	556	1,241	1,524	1,435	1,393
Taiwan	1,768	1,611	1,907	1,848	1,358
South Korea	1,962	1,208	964	973	1,135

Source: LB Harbor Department

In addition to the trading partners listed above, the other major inbound trading countries include Japan, Saudi Arabia, Mexico, Canada and Columbia, and the other major outbound trading countries include Hong Kong, Australia, Indonesia, India, and Vietnam.

The following Tables C-6 and C-7 provide information about the container traffic at POLB for calendar years 2011 through 2015 and for fiscal years 2011 through 2015.

**TABLE C-6**

**PORT OF LONG BEACH  
CONTAINER TRAFFIC  
CALENDAR YEARS 2011-2015  
(TEUs)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Inbound<sup>(1)</sup></b>	3,024,968	3,062,290	3,455,323	3,517,514	3,625,264
<b>Outbound<sup>(1)</sup></b>	1,506,692	1,540,188	1,704,932	1,604,394	1,525,560
<b>Empties</b>	1,529,431	1,443,184	1,570,318	1,698,898	2,041,244
<b>Total TEUs</b>	6,061,091	6,045,662	6,730,573	6,820,806	7,192,068

<sup>(1)</sup> Fully loaded.

Sources: POLB.

**TABLE C-7**

**PORT OF LONG BEACH  
CONTAINER TRAFFIC  
FISCAL YEARS ENDED SEPTEMBER 30, 2011-2015  
(TEUs)**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Inbound<sup>(1)</sup></b>	3,138,899	2,932,078	3,419,793	3,522,875	3,595,595
<b>Outbound<sup>(1)</sup></b>	1,582,477	1,491,390	1,670,749	1,664,050	1,528,318
<b>Empties</b>	1,577,464	1,433,750	1,557,433	1,630,665	1,963,786
<b>Total TEUs</b>	6,298,840	5,857,218	6,647,975	6,817,590	7,087,699

<sup>(1)</sup> Fully loaded.

Sources: POLB.

## **Stevedoring and Cargo Handling**

Arranging for stevedoring and cargo handling services is the responsibility of each marine terminal operator. Stevedoring and cargo handling at POLB are provided pursuant to a contract between the Pacific Maritime Association (the “Association”) and the International Longshore and Warehouse Union (“ILWU”). The contract covers approximately 20,000 dockworkers on the West Coast. The Association represents most of the steamship lines, marine terminal operators, car loading bureaus and stevedore companies on the Pacific Coast. The major providers of stevedoring and terminal services are Cooper/T. Smith Stevedoring, Metropolitan Stevedore Company (doing business as Metro Ports), Stevedoring Services of America, and Ports America Inc.

The current contract between the Association and the ILWU was entered into on May 21, 2015 and was ratified by the ILWU membership on May 22, 2015, retroactive to July 1, 2014. The current contract expires on June 30, 2019. The previous contract between the Association and ILWU expired on June 30, 2014. The

Association and the ILWU began negotiating a new contract in May 2014, but did not agree on a new contract until February 2015. The protracted negotiations had a compounding effect on congestion issues that had slowed down container cargo movement through POLB and POLA since September 2014. The LB Harbor Department's revenues and container volumes at the port were temporarily impacted during Fiscal Year 2015 as a result of the slowdown and other congestion factors, but full-fiscal year revenues were not materially affected and container volumes recovered and were slightly higher than the prior fiscal year (4%).

In December 2012, a strike by the members of the Office Clerical Unit ("Unit 63") of the ILWU, which was honored by the ILWU dock workers, resulted in an eight-day closure affecting only three container terminals in the San Pedro Bay that used Unit 63 workers. Unit 63 and the Los Angeles and Long Beach Harbor Employers Association subsequently agreed to a new contract and the closed terminals were reopened. There was no financial impact to the LB Harbor Department as a result of the Unit 63 strike. Prior to the work stoppage in December 2012, there had been no prolonged work stoppage since October 2002. In October 2002, after the Association and the ILWU failed to agree upon a new contract, the shipping lines and terminal operators instituted a lock-out of the stevedoring companies, thereby shutting down all West Coast ports, including POLB, for 10 days. Work resumed when the President of the United States ordered the ports to reopen pursuant to the Taft-Hartley Act. Prior to the 2002 lock-out, there had not been a prolonged work stoppage since 1971. Other than the work stoppages in 1971 and 2002, and as noted above, there has generally been a history of excellent working relationships between the ILWU and the employer group represented by the Association. Prolonged work slowdowns or stoppages, particularly if combined with excessive congestion, could adversely affect revenues of POLB and its ability to pay any Shortfall Advances. The employees of the LB Harbor Department do not work for the tenants of the port or the stevedoring companies.

The LB Harbor Department is actively evaluating the entire supply chain process, including ways to reduce costs, increase efficiencies and build relationships with stakeholders in the supply chain. On February 23, 2015 the Long Beach Board of Harbor Commissioners appointed a Senior Executive for Supply Chain Optimization to lead this long-term strategy. On February 27, 2015 the Federal Maritime Commission approved a cooperative working agreement between the LB Harbor Department and the City of Los Angeles, acting by and through its Board of Harbor Commissioners, that allows the two ports to discuss and agree on projects and programs that address congestion issues, transportation infrastructure needs, and reduce pollution caused by port-related activities.

## Summary of Historical Operating Results

The following table shows POLB's Statement of Revenues and Expenses for the five fiscal years ending September 30, 2015.

**TABLE C-8**

**PORT OF LONG BEACH**  
**COMPARATIVE SUMMARY OF STATEMENTS OF REVENUES AND EXPENSES**  
**FISCAL YEARS ENDED SEPTEMBER 30<sup>(1)</sup>**  
(thousands)

	2011	2012	2013	2014	2015
<b>Port Operating Revenues:</b>					
Berths/Special Facilities	\$328,987	\$322,425	\$335,869	\$346,258	\$343,134
Rental Properties	14,138	9,577	9,374	9,360	9,881
Miscellaneous	2,265	1,885	1,001	1,262	2,435
Total Port Operating Revenues	\$345,390	\$333,887	\$346,244	\$356,880	\$355,450
<b>Port Operating Expenses:</b>					
Operating/Administrative	\$81,423	\$87,637	\$97,696	\$108,455	\$133,771
Depreciation/Amortization	85,005	88,523	90,850	117,966	137,709
Total Port Operating Expenses	\$166,428	\$176,160	\$188,545	\$226,421	\$271,480
<b>Income from Port Operations</b>	\$178,962	\$157,727	\$157,699	\$130,459	\$83,970
<b>Non-Operating Revenues (Expenses):</b>					
Clean Air Action Plan Income (Loss)	\$(3,573)	\$(3,926)	\$(3,420)	\$(2,474)	\$(3,488)
Gain/(Loss) From Harbor Oil Operations	1,525	-	-	-	-
Gain/(Loss) on Sale of Property	74	7	(6)	16	35,979
Income from Equity in Joint Ventures, Net	-	-	-	-	2,811
Interest Expense, Net of Interest Capitalized	(20,551)	(10,341)	(65)	(1,205)	(878)
Interest Income	4,994	3,302	2,789	6,776	4,036
Other Income (Expense), Net	(27,979)	(1,904)	(182)	(298)	5,048
Total Non-Operating Revenues (Expense)	\$ (45,509)	\$(12,863)	\$(884)	\$2,816	\$43,508
<b>Income Before Transfers and Capital Grants</b>	\$133,452	\$144,865	\$156,815	\$133,275	\$127,478
Net Operating Transfers	\$(10,379)	\$(16,694)	\$(17,312)	\$(17,844)	\$(17,772)
Capital Grants	7,444	13,627	250,543	178,295	121,008
Loss on Long Term Receivable from Redevelopment Agency	(27,000)	-	-	-	-
Contributions to Others	-	-	-	(10,203)	-
<b>Change in Net Position</b>	<b>\$103,517</b>	<b>\$141,797</b>	<b>\$390,046</b>	<b>\$283,523</b>	<b>230,714</b>
<b>Total Net Position (beginning of fiscal year)</b>	2,548,005	2,651,522	2,793,319	3,178,686	3,462,209
Adjustment for GASB 65 Implementation	-	-	(4,678)	-	-
Adjustment for GASB 68 Implementation	-	-	-	-	(83,104)
<b>Total Adjusted Net Position (beginning of fiscal year)</b>	2,548,005	2,651,522	2,788,640	3,178,686	3,379,105
<b>Total Net Position (end of fiscal year)</b>	<b>2,651,522</b>	<b>2,793,319</b>	<b>3,178,686</b>	<b>3,462,209</b>	<b>\$3,609,819</b>

<sup>(1)</sup> Totals may not add due to rounding.

Source: LB Harbor Department



## **POLB Capital Improvement Program**

The LB Harbor Department maintains a 10-year capital plan which sets forth the specific projects the LB Harbor Department expects to develop and construct over the next ten years. The 2016-25 Capital Plan is the LB Harbor Department's current 10-year capital plan. Currently, the 2016-25 Capital Plan has an aggregate estimated cost of approximately \$3.007 billion. Many of the improvements to the piers set forth in the 2016-25 Capital Plan, include, but are not limited to, longer wharves, deeper berths, larger gantry cranes and larger storage areas necessary to accommodate the docking and loading/unloading requirements of the current and future designed ships. Currently, the largest container cargo ships have the capacity to carry upwards of 18,000 TEUs. The facilities at the port are currently being designed and constructed to accommodate the largest container cargo ships that are now in service.

Following is a brief description of some of the major projects included in the 2016-25 Capital Plan:

***Middle Harbor Redevelopment (Piers D, E and F).*** The Middle Harbor redevelopment project (the "Middle Harbor Redevelopment Project") is a 10-year approximately \$1.3 billion modernization of the shipping terminals on Piers D, E and F. The project will consolidate the Pier E terminal (170 acres), the Pier F terminal (101 acres), and the Berth E24 subsided oil area (five acres), into a single, modern, 305-acre container terminal. The project will add on-dock rail capacity, shore-side electrical power, electric rail-mounted gantry cranes, and deeper channels to accommodate the newest container ships. The project is being constructed in two phases. Phase 1 construction was completed in late 2015 and is currently being placed into operation. Construction of Phase 2 began in 2015 and is expected to be completed by 2019. When completed, the Middle Harbor terminal is expected to be able to move an estimated 3 million TEU's annually, twice the amount of cargo that was moved through the old facilities. See "—POLB and Port Facilities—Container Terminals—Piers D, E and F" for information about the preferential assignment agreement the LB Harbor Department entered into with OOCL for the Middle Harbor Terminal.

***Pier G Redevelopment Project.*** The Pier G Redevelopment Project is a mostly complete, which consisted of a multi-year renovation of the Pier G Container Terminal that upgraded rail, wharf, gate, container yard, maintenance and administration facilities. The Pier G South Rail Yard Renovation project is the next project in the program, which will add a second lead track serving both the Pier G Terminal and the Pier J Terminal, together with reconstruction of the original Pier G on-dock rail yard built over 40-years ago.

***Rail Program.*** A major transportation element of the 2016-25 Capital Plan is to move more cargo by rail instead of by truck. POLB has a significant railroad infrastructure improvement program that includes six rail-related projects with an approximate cost of \$700 million. The rail-related projects are located outside the on-dock container terminal facilities. The project will consist of a "on-dock rail support facility" to be located at Pier B. Currently, POLB is drafting an environmental impact report ("EIR") for the project, which is expected to be released for public comment in 2016. The Pier B on-dock rail support facility is expected to be a 10-year program following EIR certification. Right-of-way acquisition, utility relocations, street re-alignment and traffic improvements are significant work elements that will be undertaken prior to a phased railyard expansion. The proposed expansion would increase on-dock rail activity at the container terminals by providing a staging yard for on-dock rail operations. This staging yard would (1) allow longer, 10,000-ft trains to be operated consistently from each container terminal without congesting main line operations; (2) improve utilization at each on-dock railyard by shifting train arrival and departure activities, locomotive fueling, and potentially railcar maintenance work to the Pier B yard; (3) act as a central classification yard where the railroads could assemble railcars from different container terminals into a single train; (4) provide a buffer space where each on-dock terminal could stage railcars until the on-dock terminal is ready to load and unload them; and (5) enhance the viability of a future short-haul rail shuttle to a potential regional intermodal terminal that could reduce truck trips to and from POLB. This project would increase the rail modal share of cargo activity in the harbor, with a corresponding reduction in modal share moving to and from POLB by truck.

***Gerald Desmond Bridge Replacement Project.*** The Gerald Desmond Bridge is a vital link in POLB's and POLA's goods movements infrastructure because it connects to 710 Freeway, which is the primary access route for POLB and POLA and carries approximately 15% of all U.S. port-related container traffic.

The Gerald Desmond Bridge Replacement Project consists of replacing the existing four-lane Gerald Desmond Bridge, which spans POLB's Main Channel, with a new six-lane bridge and higher clearance. The new bridge will provide improved traffic flow, emergency lanes on both the inner and outer shoulders in each direction to reduce traffic delays and safety hazards from accidents and vehicle breakdowns, a 200-foot vertical clearance to accommodate the world's largest vessels, a reduction in the bridge's steep grades, and a bicycle/pedestrian path with scenic overlooks. Additional improvements include reconstruction of the Terminal Island East Interchange and a new interchange with the 710 Freeway. Currently, the Gerald Desmond Bridge is only two lanes in each direction with no shoulder and, depending on tide conditions, is too low to accommodate passage of the largest ships.

The Gerald Desmond Bridge Replacement Project is budgeted to cost approximately \$1.467 billion and is a joint effort between the California Department of Transportation ("Caltrans") and the LB Harbor Department. The LB Harbor Department anticipates that funding of the project will come from numerous sources, including federal and State grants, a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan, and revenues of the LB Harbor Department.

As of March 1, 2016, the design of the Gerald Desmond Bridge Replacement Project was approximately 95% complete and construction of the Gerald Desmond Bridge Replacement Project was approximately 49% complete. Construction of the new bridge began in 2013 and was originally expected to be completed by the end of 2016. Due to complexities of the site and design, the LB Harbor Department currently estimates that the bridge will be completed by mid-2018. Following completion of the new bridge, the existing bridge will be demolished and removed.

Upon completion of the new Gerald Desmond Bridge, ownership of the bridge will be transferred to Caltrans. However, the LB Harbor Department has agreed to pay Caltrans all operation and maintenance costs with respect to the new bridge for a 30-year period commencing on the date ownership of the bridge is transferred to Caltrans.

***Civic Center Plaza (Port Headquarters Building).*** The new Port of Long Beach Administrative Headquarters Building project is a part of the City of Long Beach Civic Center project. The project includes the construction of a new headquarters building for POLB in downtown Long Beach, co-located with a new city hall, library, public park and other shared facilities. The LB Harbor Department's total project cost, including certain shared facilities, purchase of land and non-construction cost, is expected to be approximately \$235 million. Procurement of the Port Headquarters Building will be under a modified design-build-finance-operate-maintain approach. Following a request for proposal and selection process, an exclusive negotiations agreement was executed on January 5, 2015 with the preferred developer, Plenary Edgemoor Civic Partners ("Plenary/Edgemoor"). The project agreement with Plenary/Edgemoor (the "Project Agreement") was approved by the City of Long Beach Board of Harbor Commissioners on December 17, 2015, and closing of the transaction occurred in April 2016. Construction is expected to start in June 2016 and be completed approximately four years later. Costs of construction of the Port Headquarters Building will be paid with proceeds of a construction loan being provided by Sumitomo Mitsui Banking Corporation to Plenary/Edgemoor. Pursuant to the terms of the Project Agreement, upon completion of the Port Headquarters Building, POLB has agreed to make a completion payment to Plenary/Edgemoor, which will generally equal the amount necessary for Plenary/Edgemoor to pay off the construction loan from Sumitomo Mitsui Banking Corporation.

***Long Beach Harbor Dredging.*** The LB Harbor Department has identified several dredging projects that will be in development over the next few years, including, deepening of the channels and berths at Pier J, and deepening of the West Basin approach and Pier T berths. A federal study to expand the limits of the federal

channels is also underway. Dredging projects that are currently scheduled to move forward have an approximate cost of \$100 million

***Fire Safety and Security Facilities Program.*** Fire safety and security facilities projects include the replacement of two obsolete fireboat stations, construction of a joint fire and security operations center, construction of a security support facility and construction of two new fireboats to replace the obsolete fireboats in service now. These projects have an estimated cost of approximately \$225 million.

***Pier S.*** Pier S is an approximately 170-acre site located on the west side of POLB directly north of Pier T. Prior to its purchase by the LB Harbor Department in 1994, Pier S was owned by the Union Pacific Resources Corporation (“UPRC”) and was used as an active oil and gas production field. During the 1950’s and 1960’s, a portion of Pier S was leased by UPRC to the now-defunct TLC Corporation for the shallow impoundment disposal of oil and gas drilling waste. Testing conducted in the early 1980’s indicated that TLC Corporation disposed of materials other than those permitted under the lease with UPRC. The LB Harbor Department has completed remediating the site, which included, among other projects, relocating certain pipelines and utilities and bringing the site to grade by filling the area with more than 5 million cubic yards of clean imported soil. The potential development of the Pier S site will be evaluated as part of a long term land use study. Currently, the LB Harbor Department is utilizing Pier S for temporary uses. The LB Harbor Department also is planning to widen Cerritos Channel as part of the Pier S wharf construction, to accommodate the next generation of large container vessels. Future landside development of the Pier S site will require the preparation of a new or supplemental EIR and environmental impact statement.

***Infrastructure Capital Improvement Programs.*** The LB Harbor Department owns and maintains infrastructure outside of operating terminals including roadways, water distribution system, sanitary sewer system, storm drain system, electrical distribution system, wharf structures and rock dikes and other assets. To manage the infrastructure condition efficiently, the LB Harbor Department has developed a 10-year plan for roadway and wet utilities improvements, including water, sanitary sewer and storm drain, with an approximate cost of \$150 million. To proactively monitor and manage infrastructure conditions throughout POLB, the LB Harbor Department intends to update the plan periodically.

POLB expects to finance these capital improvement projects with revenues of POLB, proceeds of revenue bonds, State and federal funds, a TIFIA loan and grants and other funds.

## **Environmental Compliance**

***General.*** POLB is required to comply with the provisions of a number of federal and state laws designed to protect or enhance the environment. The two basic laws are the Federal National Environmental Policy Act (“NEPA”) and the State of California Environmental Quality Act (“CEQA”). Other federal environmental laws applicable to POLB include the Resources Conservation and Recovery Act, which governs the cleanup, treatment and disposal of hazardous waste; the Clean Air Act, which governs the release of air pollutants; the Toxic Substances Control Act, which governs the handling and disposition of polychlorinated biphenyls (PCBs) and other toxic substances; the Marine Protection, Research and Sanctuary Act, which governs the ocean dumping of dredged materials; the Rivers and Harbors Act, which governs navigable waterways; and the Clean Water Act, which governs discharge of surface waters. Enforcement agencies include the U.S. and California Environmental Protection Agencies and the U.S. Army Corps of Engineers, which rely on consultation and advice from various federal resource agencies.

POLB is also required to conform to provisions of a number of other state environmental laws, including the Hazardous Waste Control Act, which governs hazardous waste treatment and disposal, and the Porter Cologne Act, which governs surface and ground water quality. State enforcement agencies include the Department of Toxic Substances Control, the State Water Resources Control Board and the local Regional Water Quality Control Board. The Air Resources Board, and the regional Air Quality Management District administer the federal Clean Air Act.

In conforming to these laws and their implementing regulations, POLB has instituted a number of compliance programs and procedures. Some of these are ongoing, including the sampling and analysis of harbor sediments to comply with dredging permit requirements, monitoring of water quality at stormwater outfalls and oversight of POLB and tenant housekeeping practices. Other compliance activities are carried out on an intermittent basis as necessary. These include disposal of contaminated soil excavated from construction sites, surveys of POLB-owned buildings for asbestos and associated remedial actions, other hazardous substances site clean up related to spills, releases and illegal disposal of materials and substances on POLB property by third parties, and monitoring and reporting pursuant to construction permits related to air and water quality.

POLB administers a number of environmental compliance programs, including the preparation by an outside consultant of an environmental facility audit and report of recommendations, and assessment and remediation programs for cleanup of contaminated soil, groundwater and building materials. POLB has adopted a number of contingency plans, some of which are mandated by law, regarding potential spills of fuel, oil and other hazardous substances for POLB's marine terminal facilities.

POLB's agreements with its tenants require the tenants to take the responsibility for financing the cost associated with cleaning up spills of fuels, oils and other hazardous substances.

***Air Pollution Reduction Programs.*** In 2006, POLB, together with POLA, developed the San Pedro Bay Ports Clean Air Action Plan ("CAAP") with input from the United States Environmental Protection Agency's ("EPA") the California Air Resources Board, and the South Coast Air Quality Management District. The CAAP was updated and reauthorized in 2010. The CAAP addresses every category of POLB-related emission sources (ships, trucks, trains, cargo-handling equipment and harbor craft) and outlines specific, detailed strategies to reduce emissions from each category. According to POLB, through implementation of the CAAP, since 2005, there has been an 85% reduction in diesel particulate matter, a 97% reduction in sulfur oxides and a 50% reduction in nitrogen oxides emissions from POLB-related sources. The CAAP has and will require a significant investment by the LB Harbor Department, the POLA and private sector businesses and is intended to expedite the introduction of new and innovative methods of reducing emissions prior to any additional federal or State requirements being imposed on POLB and POLA.

Pursuant to the CAAP, the POLB has undertaken several programs to lower air pollution levels at POLB, including, but not limited to: (a) an incentive-based program that encourages vessels entering POLB and POLA to lower their speeds (faster speeds produce higher emissions) (the "Green Flag Incentive Program"); (b) an incentive-based program to encourage vessel operators to deploy their lowest pollution-emitting ships to POLB and POLA (the "Green Ship Incentive Program"); (c) accelerated replacement of cargo handling equipment with equipment that meets the cleanest engine standards; (d) use of shore-side electrical power for ships calling at POLB (also known as "cold ironing"); (e) a Technology Advancement Program which seeks to accelerate the verification or commercial availability of new, clean technologies, through evaluation and demonstration in port operations; (f) replacement of the entire fleet of 16 switcher locomotives operated by harbor rail operator Pacific Harbor Line with less polluting locomotives and the purchase of six generator set locomotives which meet the cleanest engine standards; and (g) the clean Truck Program, which established progressively cleaner engine standards for trucks operating at POLB.

## **Security**

As a result of the terrorists attacks of September 11, 2001, the Maritime Transportation Security Act of 2002 ("MTSA") was signed into law on November 25, 2002 to require sectors of the maritime industry to implement measures designed to protect the ports and waterways of the U.S. from a terrorist attack. MTSA requires interagency teamwork within the Department of Homeland Security, including, the U.S. Coast Guard, the Transportation Security Administration (the "TSA") and the Bureau of Customs and Border Protection, and the Department of Transportation's Maritime Administration to develop security regulations. The LB Harbor Department and each of its applicable tenants have in place procedures for complying with MTSA.

To comply with MTSA regulations and based on the LB Harbor Department's own initiatives, the LB Harbor Department is implementing certain security measures. The LB Harbor Department has installed and implemented a video camera surveillance system with over 450 CCTV cameras to monitor activities throughout POLB complex. To address waterside threats, the LB Harbor Department has installed radar and sonar detection systems and has agreements with the Long Beach Police Department to provide 24/7 "on water" patrol capability. The LB Harbor Department has installed tools to assist in emergencies, including programmable highway signs, an AM radio station, an automated emergency notification system, and an encrypted radio system to provide secure communications with tenants and emergency services. The LB Harbor Department has improved and continues to enhance physical security throughout the POLB complex by installing security fencing, lighting, barriers and access control systems. Radiation portal monitors have been installed at all of the container terminals, which are managed by the U.S. Customs & Border Protection. All containers originating at foreign ports will be tested for the presence of radioactive materials when leaving POLB.

In February 2009, the LB Harbor Department opened the Joint Command & Control Center which serves as the LB Harbor Department Security Division and Port Police Division headquarters and functions as a multi-agency incident command post, housing approximately 120 personnel. The Command and Control Center functions as a "maritime domain awareness center" and combines and displays all the surveillance, detection and monitoring data from throughout POLB; this data is shared and communicated with facility security personnel and law enforcement agencies that protect the harbor complex. The Command and Control Center also is the home to the Maritime Coordination Center, which coordinates the response to offshore illicit activities for over 70 different maritime law enforcement entities along 320 miles of California coastline.

### **Outstanding Indebtedness**

As of December 31, 2015, POLB had \$912,990,000 aggregate principal amount of its Harbor Revenue Bonds and Notes outstanding (including, \$325 million of Short-Term Notes), and \$80.0 million of Subordinate Revolving Obligations outstanding provided through two revolving credit agreements (the "Subordinate Revolving Credit Agreements") POLB entered into with Bank of America, N.A. and Union Bank, N.A., respectively. POLB can borrow up to \$200 million under the Subordinate Revolving Credit Agreements at any one time. In addition to the Harbor Revenue Bonds and Notes and Subordinate Revolving Obligations, POLB has entered into a loan agreement (the "TIFIA Loan Agreement") with the U.S. Department of Transportation, acting by and through the Federal Highway Administrator (the "TIFIA Lender"), pursuant to which the TIFIA Lender, subject to certain conditions, has agreed to make a loan to POLB in an amount not to exceed \$325 million (the "TIFIA Loan"). If POLB draws on the TIFIA Loan (which would be at or around the time the new Gerald Desmond Bridge is completed), it expects to use the loan proceeds to repay the \$325 million of Short-Term Notes. POLB's Harbor Revenue Bonds, Notes and Subordinate Revolving Obligations and the principal and interest that will be payable under the TIFIA Loan are and/or will be payable from and are and/or will be secured by a pledge of and a lien and charge upon the LB Harbor Department's revenues prior to the payment of Shortfall Advances. POLB's outstanding Harbor Revenue Bonds and Notes bear interest at fixed rates that range from 3% to 6% and mature on or before 2042.

### **Transfers to City of Long Beach**

The Long Beach Charter permits in each fiscal year a transfer (the "5% Transfer") from the Long Beach Harbor Revenue Fund, subject to the approval of two-thirds of the members of the Long Beach City Council, an amount necessary to meet the lawful obligations of the Long Beach Tideland Operating Fund. Such transfer may not exceed 5% of the gross operating revenues of POLB as shown on the most recent available independently audited financial statements of the LB Harbor Department. The 5% Transfer also is subject to the prior approval of a majority of all the members of the Long Beach Board of Harbor Commissioners, expressed by resolution, finding and determining that the funds proposed to be transferred will not be needed for POLB operations, including, without limitation, operating expenses and capital projects, and that such transfer will not result in insufficient funds to pay the principal of and interest on POLB's Harbor Revenue Bonds or result in noncompliance by POLB of its debt to revenue coverage requirements. In Fiscal Year 2015, the POLB's 5%

Transfer to the Long Beach Tideland Operating Fund was approximately \$17.8 million. The 5% Transfer, if any, is made by POLB prior to any payment of the Shortfall Advances.

### **Audited Financial Statements**

POLB's audited financial statements for the fiscal year ended September 30, 2015, and the report of the auditor dated March 28, 2016, is included below in this Appendix C. KPMG LLP, the independent auditor, has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements of POLB addressed in that report. KPMG LLP also has not performed any procedures relating to POLB's information included in this Official Statement.

**HARBOR DEPARTMENT OF THE CITY OF LONG BEACH  
AUDITED FINANCIAL STATEMENTS FOR THE  
FISCAL YEAR ENDED SEPTEMBER 30, 2015**

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**THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

Basic Financial Statements

September 30, 2015

(With Independent Auditors' Report Thereon)

Jon Slangerup  
Chief Executive Officer

Steven B. Rubin  
Chief Financial Officer

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

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**KPMG LLP**  
Suite 1500  
550 South Hope Street  
Los Angeles, CA 90071-2629

## **Independent Auditors' Report**

The Honorable Members of the Board of Harbor Commissioners  
The Harbor Department of the City of Long Beach  
Long Beach, California:

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Harbor Department of the City of Long Beach (the Department), an enterprise fund of the City of Long Beach, California, as of September 30, 2015, and the related notes to the financial statements.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Harbor Department of the City of Long Beach, California as of September 30, 2015, and the changes in its financial position and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.



### ***Emphasis of Matters***

As discussed in note 1, the financial statements present only the Department and do not purport to, and do not, present fairly the financial position of the City of Long Beach, California as of September 30, 2015, the changes in its financial position or, where applicable, its cash flows for the year then ended in conformity with U.S. generally accepted accounting principles.

As discussed in note 1 to the financial statements, effective October 1, 2014, the Department adopted the provisions of Governmental Accounting Standard Board Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date – an amendment of GASB Statement No. 68*. Our opinion is not modified with respect to these matters.

### ***Other Matters***

#### ***Required Supplementary Information***

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis on pages 3–8 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### ***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated, March 28, 2016 on our consideration of the Department's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Department's internal control over financial reporting and compliance.

**KPMG LLP**

Los Angeles, California  
March 28, 2016

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Management's Discussion and Analysis

September 30, 2015

(Unaudited)

The following discussion and analysis of the financial performance of the Harbor Department of the City of Long Beach, California (the Department) provides an overview of the financial activities for the fiscal year ended September 30, 2015. We encourage readers to consider the information presented here in conjunction with the additional information contained in the Department's financial statements and related notes and our letter of transmittal that precedes this section.

#### Using this Financial Report

This annual financial report consists of the Department's financial statements and the required supplementary information and reflects the self-supporting activities of the Department that are funded primarily through leasing property, tariffs, and other charges to its tenants.

#### Statements of Net Position, Statements of Revenues, Expenses, and Changes in Net Position and Statements of Cash Flow

The financial statements provide an indication of the Department's financial health. The statement of net position include all of the Department's assets, deferred outflows, liabilities, and deferred inflows using the accrual basis of accounting, as well as an indication about which assets can be used for general purposes, and which assets are restricted as a result of bond covenants and other requirements. The statement of revenues, expenses, and changes in net position report all of the revenues and expenses during the time periods presented. The statement of cash flows report the cash provided by and used in operating activities, as well as other cash sources and uses, such as investment income and cash payments for bond principal and capital additions and betterments.

The following condensed financial information provides an overview of the Department's financial position as of September 30, 2015 and 2014:

#### Condensed Schedule of Assets, Deferred Outflows, Liabilities, Deferred Inflows, and Net Position September 30, 2015 and 2014 (Amounts expressed in thousands)

	<u>2015</u>	<u>2014</u>
Assets:		
Capital assets, net	\$ 4,096,520	3,897,294
Other assets	<u>878,310</u>	<u>784,607</u>
Total assets	4,974,830	4,681,901
Deferred outflows	<u>22,268</u>	<u>9,593</u>
Total assets and deferred outflows	<u>\$ 4,997,098</u>	<u>4,691,494</u>

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Management's Discussion and Analysis

September 30, 2015

(Unaudited)

### Condensed Schedule of Assets, Deferred Outflows, Liabilities, Deferred Inflows, and Net Position

September 30, 2015 and 2014

(Amounts expressed in thousands)

	<u>2015</u>	<u>2014</u>
Liabilities:		
Current liabilities	\$ 160,802	189,606
Long-term obligations, net of current portion	<u>1,214,609</u>	<u>1,036,715</u>
Total liabilities	1,375,411	1,226,321
Deferred inflows	<u>14,816</u>	<u>2,963</u>
Total liabilities and deferred inflows	<u>\$ 1,390,227</u>	<u>1,229,284</u>
Net position:		
Net investment in capital assets	\$ 3,077,225	2,974,555
Restricted:		
Capital projects	251,721	180,881
Debt service	13,754	17,938
Unrestricted	<u>267,119</u>	<u>288,835</u>
Total net position	<u>\$ 3,609,819</u>	<u>3,462,209</u>

Net position over time may serve as a useful indicator of the Department's financial position. At the close of fiscal year 2015, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$3.6 billion. This is an increase of \$147.6 million from last year. This change of net position consists mainly of \$84.0 million of current year operating income, \$121.0 million of grant revenue received from federal and state governments, and \$36.0 million of nonoperating revenue on disposition of capital assets, less \$22.1 million from other nonoperating expense, including financing costs and transfers to the City's Tidelands Operating Fund of \$17.8 million.

At September 30, 2015, the largest portion of the Department's net position (85.2%, or 3.1 billion) reflects the Department's net investment in capital assets. This component consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of borrowings attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources attributable to the addition of those assets or related debt are also included. These capital assets facilitate tenants' cargo operations. The amount of net investment in capital assets is not available for future spending. The increase of \$102.7 million from fiscal year 2014, is the result of the completion of Middle Harbor phase one construction project during the year.

An additional portion of the Department's net position (7.6%, or \$265.5 million) represents resources that are subject to external restrictions on how they may be used. The increase is due to the addition to the construction reserves for the completion of capital projects. The remaining unrestricted net position is \$267.1 million, to be used in the future to fund the Department's operation.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Management's Discussion and Analysis

September 30, 2015

(Unaudited)

The implementation of the provisions of GASB Statements No. 68 and No. 71, new pension accounting and financial reporting requirements, has caused the Department to restate net position as of October 1, 2014 in the amount of \$83.1 million. The net pension liability, representing unfunded pension obligations totaling \$90.5 million, is reported on the statement of net position as of September 30, 2015.

Detailed disclosure as required by GASB Statements No. 68 and 71 can be found in notes 1 and 11 to the basic financial statements.

### Condensed Schedule of Revenues, Expenses, and Changes in Net Position

Years ended September 30, 2015 and 2014

(Amounts expressed in thousands)

	<b>2015</b>	<b>2014</b>
Operating revenues	\$ 355,450	356,880
Operating expenses:		
Facility and infrastructure	38,302	34,046
Fire and Safety	48,178	33,286
General and administrative	47,291	41,124
Total operating expenses	133,771	108,456
Depreciation and amortization	137,709	117,966
Operating income	83,970	130,458
Nonoperating revenues (expenses):		
Interest income, net of interest expense	5,969	5,572
Gain (loss) on sale of capital assets	35,979	16
Clean Air Action Plan (CAAP), net	(3,488)	(2,474)
Other income (loss), net	5,048	(298)
Net nonoperating revenue	43,508	2,816
Income before capital grants and transfer	127,478	133,274
Operating transfer to City Tideland Fund	(17,772)	(17,844)
Capital grants	121,008	168,093
Change in net position	230,714	283,523
Total net position – beginning of year, as previously reported	3,462,209	3,178,686
Cumulative effect resulting from change in accounting for pensions	(83,104)	—
Total net position – beginning of year, as restated	3,379,105	3,178,686
Total net position – end of year	\$ 3,609,819	3,462,209

A comparison of the operating revenues for fiscal years 2015 and 2014 shows a slight decrease of \$1.4 million, or 0.4%. This is primarily due to a 3.5% decrease in container terminal revenue, which accounted for approximately

## **THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

### **Management's Discussion and Analysis**

September 30, 2015

(Unaudited)

76% of total revenue in fiscal year 2015. This decrease was partially offset by increases in noncontainerized terminal revenue seen at dry bulk, vehicle, petroleum, steel, and lumber terminals.

Operating expenses (excluding depreciation and amortization) increased \$31.3 million, compared to \$108.5 million at September 30, 2014. The increase mainly consists of the following one-time or unusual transitions: write off of previously capitalized projects totaling \$22.1 million; adoption of the new pension accounting and reporting standards totaling \$2.8 million, and, the Department's share of city-wide ERP costs totaling \$2.2 million. By operating expense functions, cargo facilities maintenance and infrastructure maintenance, increased \$4.5 million compared to \$25.4 million in fiscal year 2014, primarily due to an increase of maintenance expense for streets, bridges, and freeways as major capital projects take place. During fiscal year 2015, fire and safety costs increased by \$14.9 million, as the result of writing off previously capitalized projects, and higher labor costs due to a decrease in vacancies which were budgeted in fiscal year 2014. The increase of \$6.2 million in general and administrative and other indirect operating expense is mainly related to the one-time and unusual transactions mentioned above.

Depreciation expense is affected by acquisition and retirement of long-term assets, their useful lives, and the dates when such assets are placed in service. Depreciation expense for fiscal year 2015 was \$19.7 million higher than that of fiscal year 2014, due to a large number of capital assets that were placed into service at the end of fiscal 2014.

The annual interfund transfer decreased by \$71.5 thousand in fiscal year 2015. During the current fiscal year, the Department accrued \$17.8 million as a regular operating transfer to the City Tidelands Fund to be paid in fiscal 2016.

An increase of \$899.0 thousand in investment income during fiscal year 2015 is primarily due to the increase in restricted funds from new bond proceeds.

Total interest expense before allocation of capital assets was \$27.0 million in fiscal 2015 and \$31.3 million in fiscal year 2014. The decrease was mainly due to the debt service savings related to the 2015 bonds refunding.

Grant revenue decreased \$47.1 million to \$122.5 million in fiscal year 2015, as a result of a slower construction progress in the Gerald Desmond Bridge project and the completion of several grant related projects during fiscal year 2015. In fiscal year 2015, the Department received grant reimbursements of \$86.0 million for bridge, rail, and street improvements, \$933.8 thousand in environmental improvements and \$7.6 million in security related grants.

The Clean Air Action Plan (CAAP) continues to support the Port's effort to enhance clean air. The program is collecting less revenue and incurring lower expenses as the CAAP matures. Overall, this program's cash outflow increased \$391.0 thousand when compared to that of fiscal year 2014.



# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Management's Discussion and Analysis

September 30, 2015

(Unaudited)

### Capital Assets and Debt Administration

#### *Capital Assets*

The Department's capital assets, net of accumulated depreciation, as of September 30, 2015 and 2014 are as follows:

	<b>2015</b>	<b>2014</b>
Nondepreciable capital assets:		
Land	\$ 931,547	904,961
Construction in progress	1,251,763	1,248,187
Rights-of-way	207,032	207,823
Total nondepreciable capital assets	<u>2,390,342</u>	<u>2,360,971</u>
Depreciable capital assets (net):		
Structures and facilities	1,668,548	1,498,093
Furniture, fixtures, and equipment	37,630	38,230
Total depreciable capital assets (net)	<u>1,706,178</u>	<u>1,536,323</u>
Total capital assets, net	<u>\$ 4,096,520</u>	<u>3,897,294</u>

The Department's capital assets include land; structures and facilities; furniture, fixtures, and equipment; construction in progress; and rights-of-way. The impact on the capital asset accounts, net of accumulated depreciation, was a net increase of \$199.2 million from fiscal year 2014 primarily due to the substantial increase of assets placed into service related to major infrastructure projects taking place in the port. The amount of capital assets transferred out of construction in progress and into service, totaled approximately \$353.3 million for the year ended September 30, 2015.

#### *Debt Administration*

The following table summarizes the Department's debt as of September 30, 2015 and 2014.

	<b>2015</b>	<b>2014</b>
Short-term notes (principal and net premiums)	\$ 367,519	376,891
Lines of credit	120,000	120,000
Bond debt (principal and net premiums)	641,383	571,176
Total	<u>\$ 1,128,902</u>	<u>1,068,067</u>

The Department's total long-term debt increased by \$60.8 million, or 5.7%. The increase was primarily attributed to the net result of the issuance of the 2015C and 2015D bonds and principal payments made on existing debt.

The underlying ratings assigned to the Department's bond issues are as follows: Standard & Poor's: AA, stable outlook; Moody's Investors Services: Aa2, stable outlook; and Fitch Ratings: AA, stable outlook.

## **THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

### **Management's Discussion and Analysis**

September 30, 2015

(Unaudited)

The debt service coverage ratio for fiscal year 2015 was 2.81. The minimum rate required by the Department's various bond indenture documents is 1.25.

#### ***Factors that May Affect the Department***

The availability of alternate ports and competition affects the use of the department's facilities and, therefore, operating revenues of the Department. There is significant competition for container trade among North American ports. The department cannot predict the impact of this competition. Ports in the U.S. West Coast, Canada, and Mexico, compete for discretionary intermodal cargo headed from the Asia to mid-western and eastern U.S., which is more heavily populated. This discretionary cargo moves eastward primarily by rail. Discretionary cargo makes up more than half of the container cargo arriving at the Port of Long Beach.

The use of all-water routes to the East and Gulf Coasts of the United States is an alternative to Asian intermodal cargo moving through West Coast ports. All water services from Asia to the Gulf of Mexico and East Coast ports move primarily through the Panama Canal. The Panama Canal is in the process of expanding its locks. Although recent reports indicate that the opening of the new locks will be delayed to 2016 from the original scheduled date in 2015, the widening and deepening of the locks will allow larger vessels to transit the Canal. The expansion creates a potential route to the East Coast and Gulf of Mexico for vessels with larger capacity than the current "Panamax" ships. While the effects of an expanded Canal are unknown, the Port of Long Beach has an existing ability to handle ships that are larger than the expanded-Panamax ships, and continues to maintain and improve its terminals, infrastructure, and intermodal capabilities.

The Port is subject to legal and regulatory requirements relating to air emissions that may be generated by ships, trains, trucks, and other operational activities within the port. Paying for mandated air pollution reduction, infrastructure and other measures has become a significant portion of the Department's capital and operating budgets. Such expenditures are necessary even if the Department does not undertake any new revenue-generating capital improvements, and the Department cannot provide assurances that the actual cost of the required measures will not exceed the amounts forecasted.

#### ***Notes to Financial Statements***

The notes to the Department's financial statements can be found on pages 15–60 of this report. These notes provide additional information that is essential to a full understanding of the financial statements.

#### ***Requests for Information***

This financial report is designed to provide a general overview of the Department's finances for people or entities interested in the financial aspects of the Department. Questions concerning any of the information provided in this report should be addressed to the Director of Finance, 4801 Airport Plaza Drive, Long Beach, CA 90815. This report and other financial reports can be viewed on the Port's website at: [www.polb.com](http://www.polb.com). On the home page, select Finance, there are links to reports by title and reporting date.

**THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

Statement of Net Position

September 30, 2015

(Dollars in thousands)

**Assets and Deferred Outflows**

Current assets:

Pooled cash and cash equivalents (note 2)	\$ 320,731
Trade accounts receivable, net of allowance (note 3)	49,964
Due from other governmental agencies (note 3)	98,175
Prepaid – dredging services (note 4)	2,657
Inventories of supplies	584

Subtotal 472,111

Harbor Revenue Bond Funds and other funds restricted as to use:

Pooled cash and cash equivalents	28,998
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Total current assets 501,109

Noncurrent assets:

Capital assets (notes 6 and 11):

Land	931,547
Structures and facilities	3,164,854
Furniture, fixtures, and equipment	94,699
Construction in progress	1,251,763
Right-of-way (note 5)	207,032
Less accumulated depreciation	(1,553,375)

Net capital assets 4,096,520

Other assets:

Long-term receivables (note 3)	1,300
Environmental mitigation credits (note 15)	41,162
Investment in joint venture (note 12)	5,667
Restricted pooled cash and cash equivalents (notes 2 and 9)	102,929
Restricted nonpooled cash and cash equivalents (note 2)	127,166
Restricted nonpooled investments (note 2)	88,979
Other noncurrent assets	9,998

Total other assets 377,201

Total noncurrent assets 4,473,721

Total assets 4,974,830

Deferred outflows (note 17):

Loss on debt refunding (note 9)	5,459
Pension related (note 10)	16,809

Subtotal 22,268

Total assets and deferred outflows \$ 4,997,098

See accompanying notes to financial statements.

**THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

Statement of Net Position

September 30, 2015

(Dollars in thousands)

**Liabilities and Deferred Inflows**

Current liabilities payable from current assets:	
Accounts payable and accrued expenses	\$ 69,478
Compensated absences (note 1)	2,945
Due to City of Long Beach (note 14)	21,869
Security deposits and unearned revenue	5,906
	<hr/>
Total current liabilities payable from current assets	100,198
Current liabilities payable from restricted assets:	
Accrued interest – bonds	15,244
Current portion of bonds indebtedness	45,360
	<hr/>
Total current liabilities payable from restricted assets	60,604
	<hr/>
Total current liabilities	160,802
Long-term obligations net of current portion:	
Bonded indebtedness	596,023
Series 2014C Senior notes (note 7)	367,519
Lines of credit (note 8)	120,000
Compensated absences (note 1)	7,629
Net pension liability (note 10)	90,470
Unearned revenue	32,968
	<hr/>
Total noncurrent liabilities	1,214,609
	<hr/>
Total liabilities	1,375,411
Deferred inflows (note 17):	
Gain on debt refunding (note 9)	4,369
Pension related (note 10)	10,447
	<hr/>
Subtotal	14,816
	<hr/>
Total liabilities and deferred inflows	1,390,227
Net position:	
Net investment in capital assets	3,077,225
Restricted – capital projects	251,720
Restricted – debt service	13,754
Unrestricted	267,120
	<hr/>
Total net position	\$ 3,609,819
	<hr/>

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Statement of Revenues, Expenses, and Changes in Net Positions

Year ended September 30, 2015

(Dollars in thousands)

Port operating revenues:	
Berths and special facilities	\$ 343,134
Rental properties	9,881
Miscellaneous	2,435
	<hr/>
Total port operating revenues	355,450
	<hr/>
Port operating expenses:	
Facility maintenance	8,389
Infrastructure maintenance	19,247
Fire and safety	48,178
Other indirect operating	10,666
General and administrative	47,291
	<hr/>
Total operating expenses before depreciation and amortization	133,771
Depreciation and amortization	137,709
	<hr/>
Total operating expenses	271,480
	<hr/>
Income from operations	83,970
	<hr/>
Nonoperating revenues (expenses):	
Investment income, net	4,036
Income from equity in joint venture	2,811
Interest expense	(878)
Gain on disposition of capital assets	35,979
Clean Air Action Program (CAAP), net (note 16)	(3,488)
Other income	5,048
	<hr/>
Total nonoperating revenues	43,508
	<hr/>
Income before capital grants and transfers	127,478
Transfers to City Tideland Fund (note 14)	(17,772)
Capital grants	121,008
	<hr/>
Increase in net position	230,714
	<hr/>
Total net position – beginning of year, as previously reported	3,462,209
Cumulative effect resulting from change in accounting for pensions (note 1)	(83,104)
	<hr/>
Total net position – beginning of year, as restated	3,379,105
	<hr/>
Total net position – end of year	\$ 3,609,819
	<hr/> <hr/>

See accompanying notes to financial statements.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Statement of Cash Flows

Year ended September 30, 2015

(Dollars in thousands)

Cash flows from operating activities:	
Cash received from customers	\$ 357,266
Cash paid to employees	(48,709)
Cash paid to suppliers	(75,378)
	<hr/>
Net cash provided by operating activities	233,179
	<hr/>
Cash flows from investing activities:	
Interest received	3,200
Transfer from 2005 bond reserve premiums	16,689
Return on investment in joint venture	2,000
	<hr/>
Net cash provided by investing activities	21,889
	<hr/>
Cash flows from noncapital/financing activities:	
Clean Air Action Plan (net)	(2,038)
Transfers to City Tidelands Fund	(17,844)
Miscellaneous revenues	1,961
	<hr/>
Net cash used for noncapital financing activities	(17,921)
	<hr/>
Cash flows from capital and related financing activities:	
Grants provided	94,506
Interest paid	(15,217)
Principal payments-bond	(145,215)
Proceeds from issuance of bonds	227,535
Debt issuance costs	(781)
Proceeds from sale of assets	53,586
Payments for capital acquisitions	(363,472)
	<hr/>
Net cash used for capital and related financing activities	(149,058)
	<hr/>
Net increase in cash and cash equivalents	88,089
Cash and cash equivalents, beginning of year	491,735
	<hr/>
Cash and cash equivalents, end of the year	\$ 579,824
	<hr/>
Reconciliation of cash and cash equivalents:	
Unrestricted pooled cash and cash equivalents	\$ 320,731
Restricted pooled cash and cash equivalents	131,927
Bond reserve held by the City Treasurer	127,166
	<hr/>
	\$ 579,824
	<hr/>

**THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

Statement of Cash Flows

Year ended September 30, 2015

(Dollars in thousands)

Reconciliation of income from operations to net cash provided by operating activities:	
Income from operations	\$ 83,970
Adjustments to reconcile income from operations to net cash provided by operating activities:	
Depreciation and amortization	137,709
Bad debt expense	5
Decrease (increase) in accounts receivable	547
Decrease (increase) in inventory	46
(decrease) increase in accounts payable	(191)
(decrease) increase in accrued compensated absences	953
(decrease) increase in accrued liabilities	531
(decrease) increase in deferred revenues	(991)
(decrease) increase in due to other funds	2,846
(decrease) increase in unearned grants	7,754
Total adjustments	<u>149,209</u>
Net cash provided by operating activities	<u>\$ 233,179</u>
Supplemental schedule of noncash transactions:	
Change in accrued capital assets costs	\$ (8,931)
Capitalized interest	26,380
Amortization of bond premium	15,218
Amortization of deferred outflows on debt refunding	705
Amortization of deferred inflows on debt refunding	1,124

See accompanying notes to financial statements

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

#### (1) Summary of Significant Accounting Policies

##### (a) *The Reporting Entity*

Article XII of the City Charter of the City of Long Beach, California (the City) created the Harbor Department of the City of Long Beach (the Department) to promote and develop the Port of Long Beach (the Port). The Department's operations are included in the City's reporting entity as an enterprise fund; its activities are conducted in the Tidelands Trust area of the City and are subject to coastal area laws of the State of California and to the terms of the trust agreement between the City and the State of California. The financial statements present only the financial activities of the Department and are not intended to present the financial position and results of operations of the City.

The Harbor Facilities Corporation (the Corporation), a nonprofit public benefit corporation, was created in November 1971 under the laws of the State of California. The Corporation was established as a financing mechanism for construction of harbor improvements. It was authorized to issue bonds, debentures, notes and other forms of debt. The Corporation has been inactive since 1995 and did not have any activity during the 2015 fiscal year. If the Corporation would have any transactions with financial implications, they would be included in the Department's financial statements.

The Department, together with the Harbor Department of the City of Los Angeles, formed a joint venture to finance the construction of the Intermodal Container Transfer Facility (ICTF). The ICTF venture has been recorded as an investment under the equity method of accounting in the accompanying financial statements (note 12).

In 1989, the cities of Los Angeles and Long Beach entered into a Joint Exercise of Powers Agreement to create the Alameda Corridor Transportation Authority (ACTA). This agreement was amended and restated in 1996. The purpose of ACTA was to acquire, construct, finance, and operate the Alameda Corridor. The Alameda Corridor consists of a 20-mile-long rail cargo expressway connecting the ports in San Pedro Bay to the transcontinental rail yards near downtown Los Angeles, and it began operating in April 2004. ACTA prepares its own financial statements, and its transactions are not included as part of the Department's financial statements (note 5).

##### (b) *Basis of Accounting and Measurement Focus*

Disbursement of funds derived from the Department's operations is restricted to Harbor Trust Agreement purposes. The costs of providing port services are recovered entirely through leases, tariffs, and other charges assessed to Department's tenants. Consistent with U.S. generally accepted accounting principles for enterprise funds, the accounting policies of the Department conform to the accrual basis of accounting. The measurement focus of the accompanying financial statements is on the determination of changes in net position. Operating revenues and expenses are generated and incurred through cargo activities performed by port tenants; operating expenses include maintenance of facilities and infrastructure, security, and payments to other City departments for services provided to the Port. Administration and depreciation expenses are also considered operating expenses. Other revenues and expenses not included in the above categories are reported as nonoperating income (expense). The Department applies all applicable Governmental Accounting Standards Board (GASB) pronouncements and interpretations.



## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

The Department recognizes operating revenues when they are earned. Proceeds from federal or state grants are considered as nonoperating revenues, recognized as such when reimbursable and grant-eligible expenses are incurred, and are identified as capital grants in the statement of revenues, expenses, and changes in net position. Operating revenues or capital grant funds that have been received but not earned are identified as unearned revenue in the statement of net position.

**(c) *Pooled Cash and Cash Equivalents***

In accordance with City Charter requirements, the Department pools its available cash with that of the City. The City's cash management pool is used essentially as a demand deposit account by the participating City organizational units. For purposes of the statement of cash flows, the Department defines cash and cash equivalents as pooled cash and investments, including restricted pooled cash and investments and short term, easily convertible to cash, nonpooled investments. Investment decisions are made by the City Treasurer and approved by an investment committee whose membership includes one member of the Department's management ranks.

Investment income and gains/losses arising from such pooled cash and investments are apportioned to each participating unit based on the relationship of the unit's average daily cash balances to the aggregate pooled cash and investments. The Department's share of pooled cash and investments, as of September 30, 2015, is stated at fair value (note 2).

**(d) *Nonpooled Cash and Cash Equivalents***

The Department considers all highly liquid investments with an original maturity date of three months or less to be cash and cash equivalents.

**(e) *Investments***

Investments are reflected at fair value using quoted market prices. Realized and unrealized gains and losses are included in the accompanying statement of revenues, expenses, and changes in net position as investment income, net.

**(f) *Inventories***

Inventories of supplies are valued at the lower of average cost or market. Inventory is recorded when purchased, and expensed at the time the inventory is consumed.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

**(g) Capital Assets**

An asset is classified as a capital asset if it is a nonconsumable, tangible item, valued at a single amount greater than \$10 thousand, and with a useful life of more than one year. Capital assets are valued at historical costs. The historical cost of acquiring an asset includes the cost necessarily incurred to bring it to the condition and location necessary for its intended use. If an asset requires a period of time in which to carry out the activities necessary to bring it to that condition and location, the interest cost incurred during that period as a result of expenditures is a part of the historical cost of acquiring the asset. Depreciation is determined using the straight-line method with no allowance for salvage values. Identifiable intangible assets are recognized as such if they are separable or when they arise from contractual or other legal right, regardless of whether those rights are transferable or separable from the entity, or from other rights and obligations. The estimated economic lives used to determine annual rates of depreciation are subject to periodic review and revision, if appropriate, to assure that the cost of the respective assets will be written off over their economic lives. Estimated useful lives used in the computation of depreciation of capital assets are as follows:

Structures and facilities:	
Bridges and overpasses	15–20 years
Wharves and bulkheads	40 years
Transit sheds and buildings	5–20 years
State highway connections	15 years
Others	5–25 years
Furniture, fixtures, and equipment	5–15 years

Capitalized interest, which represents the cost of borrowed funds used for the construction of capital assets, is included as part of the cost of capital assets and as a reduction of interest expense. The Department capitalized \$26.4 million in interest costs during the year ended September 30, 2015.

**(h) Investment in Joint Venture**

The investment in the Intermodal Container Transfer Facility Joint Powers Authority (ICTF) is accounted for using the equity method. The amount realized by the Department is proportional to the reported value and is based on the department's share of ICTF. The reported profit is proportional to the size of the equity investment.

**(i) Compensated Absences**

The Department records all accrued employee benefits, including accumulated vacation and sick leave, as a liability in the period when the benefits are earned. Accrued employee benefits are classified into current and noncurrent liability for financial statement presentation. The current liability in the amount of \$2.9 million as of September 30, 2015, is calculated based on a five years average of vacation and sick leave taken or used annually. The Department reported \$7.6 million in noncurrent compensated absences liability as of September 30, 2015.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

(j) **Net Position**

The Department has adopted a policy of generally utilizing restricted funds, prior to unrestricted funds, when an expense is incurred for purposes for which both are available.

The Department's net position is classified into the following categories:

Net investment in capital assets – Capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction, or improvement of those assets.

Restricted – Net position subject to externally imposed conditions or constraints that can be fulfilled by the actions of the Department or by the passage of time. The restrictions are externally imposed by creditors, grantors, contributors, laws or regulations of other governments, or by law through constitutional provisions or enabling legislation.

Unrestricted – All other categories of net position. Additionally, unrestricted net position may be designated for use by management of the Department. These requirements limit the area of operations for which expenditures of net position may be made and require that unrestricted net position be designated to support future operations in these areas. The future funding commitments of the Department related to the Clean Air Action Plan (CAAP) are a primary example of unrestricted net position with designated uses.

#### **Restatement of Net Position**

Effective October 1, 2014, the Department adopted the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions; an amendment of GASB Statement No. 27*. Issued in June 2012, the objective of this Statement is (a) to improve the usefulness of information for decisions made by users of financial reports of governments whose employees, both active and inactive, are provided with pensions, and (b) improve information provided about pension related financial support from certain nonemployer entities that make contributions to pension plans that are used to provide benefits to employees of other entities.

In addition, the Department adopted the provisions of GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date, an amendment of GASB Statement No. 68*. Issued in November 2013, the objective of this Statement is to improve accounting and financial reporting by addressing an issue in Statement No. 68, concerning transition provisions related to certain pension contributions made to defined benefit pension plans prior to implementation of that Statement by employers and nonemployer contributing entities.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

As a result of the adoption of the provisions of these statements, the Department has restated net position as follows as of October 1, 2014:

Net position, as previously reported	\$ 3,462,209
Effects of accounting for adoption of GASB Statements No. 68 and 71:	
Net pension obligation at beginning of year	(84,623)
Deferred outflows related to contributions made after the measurement date	1,519
	<hr/>
Cumulative effect of change in accounting for pensions	(83,104)
	<hr/>
Net position at beginning of year, as restated	\$ <u>3,379,105</u>

**(k) Revenue Recognition**

The Department recognizes revenue on an accrual basis when earned. Rents, tariffs, or other miscellaneous receipts that are received in advance of earnings are unearned revenue until earned. Grant revenues are recognized in the fiscal year in which all eligibility requirements are met.

**(l) Allowance for Doubtful Accounts**

The allowance for doubtful accounts (allowance) is estimated at a level to absorb expected accounts receivable losses. The allowance is established to reflect the amount of the Department's receivables that management estimates will be uncollectible. The allowance is set at the greater of (1) one half of one percent (0.5%) of estimated annual operating revenues or (2) the sum of 75% of aged receivable amounts over 120 days delinquent, plus 50% of amounts over 90 days delinquent, plus 25% of amounts over 60 days delinquent, plus 10% of amounts over 30 days delinquent. In addition, management reviews the adequacy of the allowance on a monthly basis by reviewing the aging report and assesses whether any further adjustment is necessary.

To determine uncollectible amounts, the Department's Finance Division reviews all delinquent accounts in August of each year. Amounts deemed uncollectible are proposed to Harbor commission to be written off (note 3).

**(m) Use of Estimates**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Accordingly, actual results could differ from those estimates.

**(n) Recent Accounting Pronouncements – Effective Fiscal Year 2015**

As of October 1, 2014, the Department adopted the provisions of GASB Statements No. 68 and 71. The Department restated the beginning net position in the amount of \$83.1 million to record the Department's portion of the net pension liability totaling approximately \$84.6 million, as well as recognizing \$1.5 million of deferred outflows relating to pension contributions made subsequent to the June 30, 2014 measurement date (see note 11).

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

GASB Statement No. 69, *Government Combinations and Disposals of Government Operations*. Issued in January 2013, the objective of this Statement is to establish reporting standards related to government combinations and disposals of government operations. This statement had no impact on the Department's financial statements.

#### **Effective in Future Years**

GASB Statement No. 72, *Fair Value Measurement and Application*. Issued in February 2015, the Statement addresses accounting and financial reporting issues related to fair value measurements. The definition of fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This Statement provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements as well as determining a fair value measurement for financial reporting purpose. The Department is currently evaluating the financial impact of this statement that will be effective beginning fiscal year 2016.

GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statement 67 and 68*. This Statement is effective beginning fiscal year 2016. The Department is currently evaluating the financial impact of this statement.

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This Statement establishes new accounting and financial reporting requirements for governments whose employees are provided with OPEB. This Statement is effective for financial statements for fiscal years beginning after June 15, 2016.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This statement addresses reporting by governments that provide OPEB to their employees and for governments that finance OPEB for employee of other governments and parallels the pension standards issued in 2012 – GASB Statement No. 68. Together, these pension and OPEB standards provide consistent and comprehensive guidance for all postemployment benefits. The requirements of this Statement are effective for financial statements for period beginning after June 15, 2017. The Department is currently evaluating the financial impact of this statement.

GASB Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*. This statement reduces the hierarchy of generally accepted accounting principles (GAAP) to two categories of authoritative GAAP and addresses the use of authoritative and nonauthoritative literature in the event that the accounting treatment for a transaction or other event is not specified within a source of authoritative GAAP. The requirements of this Statement are effective for financial statements for periods beginning after June 15, 2015. This statement has no impact on the Department's financial statements.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

#### (2) Cash, Cash Equivalents, and Other Investments

The Department's cash and cash equivalents and investments as of September 30, 2015, is classified in the accompanying statement of net position as follows (in thousands):

Pooled cash and cash equivalents	\$	320,731
Pooled cash and cash equivalents, restricted		<u>131,927</u>
Total pooled cash and cash equivalents		<u>452,658</u>
Bond reserves held by fiscal agents:		
Nonpooled cash and cash equivalents		127,166
Nonpooled investments		<u>88,979</u>
Total bond reserves held by fiscal agents		<u>216,145</u>
Total pooled cash and cash equivalents and bond reserves held by fiscal agents	\$	<u><u>668,803</u></u>

The majority of the Department's cash and investments, including restricted cash and investments, are pooled with other City funds and maintained by the City Treasurer. The City Charter requires the Department to participate in the City Treasurer's pool. The Department's portion of the City's total pooled cash and cash equivalents amount as of September 30, 2015 was \$452.7 million or 29.3%.

The City Treasurer participates in a trustee services agreement with U.S. Bank National Association to establish and maintain the bond reserve. The reserves consist of U.S. Treasury notes, agency securities, and state and local government securities, and as such are not required to be rated. All such funds will be held in trust, disposed of, and invested in accordance with instruction given by the City Treasurer. The Department's reserves held by fiscal agents, as of September 30, 2015, were \$216.1 million for the 2010A, 2010B, 2015C, 2015D bonds and the 2014C Notes (note 10). This increase of \$95.0 million in the reserves held by fiscal agents, compared to the reserve as of September 30, 2014, was a result of a new issuance of 2015C and 2015D notes.

The City's investment policy authorizes the pool to invest in obligations issued or guaranteed by the federal government and its agencies and instrumentalities as well as in commercial paper rated A-1 by Standard & Poor's Corporation or P-1 by Moody's Commercial Paper Record, bankers' acceptances, repurchase agreements, reverse repurchase agreements, bank certificate of deposits, the State Treasurer's Local Agency Investment Fund, and shares of beneficial interest (mutual funds) issued by diversified management companies. It is the policy of the City Treasurer to invest funds in a manner that will provide the highest investment return with the maximum security while meeting the daily cash flow demands of the City and its Departments and to conform to all state and local statutes governing the investment of public funds, using the "prudent person" standard for managing the overall portfolio.

The primary objective of the policy is safety of principal, liquidity, yield, and maintaining the public trust. Individual departmental cash deposits and investments within this pool cannot be specifically identified

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

among the participating units. Interest income and gains and losses earned on pooled cash and investments are allocated monthly to the various pool participants based on their average daily cash balances.

**(a) Investments Authorized by the California Government Code and the City's Investment Policy**

The table on the following page identifies the investment types that are authorized by the City's investment policy for the City's Investment pool. The table also identifies certain provisions of the City's investment policy that address interest rate risk, credit risk, and concentration of credit risk.

**(b) Investments Authorized by Debt Agreements**

Investments of debt proceeds held by bond trustees are governed by provisions of the debt agreements and are not included in the following table.

Authorized investment type	Maximum maturity	Maximum of portfolio	Maximum investment in one issuer
Bonds Issued by the City	5 years *	30%	None
U.S. Treasury Notes, Bonds, or Bills	5 years *	None	None
Registered State Warrants or Treasury Notes or Bonds of the State of California	5 years *	30%	None
Local Agency Bonds	5 years *	30%	None
Federal Agency Securities	5 years *	None	None
Bankers Acceptances	180 days	40%	30%
Commercial Paper	270 days	25%	10%
Negotiable Certificates of Deposit	5 years *	30%	10%
Time Certificates of Deposit	5 years *	100%	10%
Repurchase Agreements	90 days	100%	None
Reverse Repurchase Agreements	92 days	20%	None
Securities Lending Program	92 days	20%	None
Medium-Term Notes	5 years *	30%	10%
Money Market Funds	N/A	20%	10%
Local Agency Investment Fund (LAIF)	N/A	None	\$40 million per account
Asset-backed securities	5 years	20%	None
Mortgage-backed securities	5 years	20%	None

\* Maximum maturity of five (5) years unless a longer maturity is approved by the City Council, either specifically or as part of an investment program, at least three (3) months prior to purchase.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

Cash and Investments as of September 30, 2015, are classified in the City's basic financial statements as follows (in thousands):

Cash and investments:	
Cash and investments in City pool	\$ 1,547,298
Nonpooled cash and investments	404,628
Total cash and investments	<u>\$ 1,951,926</u>
Cash and investments as of September 30, 2015 consist of the following:	
Cash and deposits	\$ 170,044
Outstanding checks	(10,508)
Investments	1,792,390
Total cash and investments	<u>\$ 1,951,926</u>

A reconciliation of the cash, cash equivalents, and investments between the City's basic financial statements and the fair value of the City's investment portfolio at September 30, 2015 is as follows (in thousands):

		<b>Primary government</b>			
	<b>Governmental activities</b>	<b>Business-type activities</b>	<b>Fiduciary funds</b>	<b>Total</b>	
Pooled cash and cash equivalents	\$ 97,003	183,299	16,832	297,134	
Nonpooled cash and cash equivalents	38,452	76,602	7,058	122,112	
Pooled investments	158,136	298,820	—	456,956	
Nonpooled investments	—	2,624	2,051	4,675	
Noncurrent pooled investments	274,501	518,707	—	793,208	
Restricted assets:					
Nonpooled cash and cash equivalents	—	127,166	—	127,166	
Nonpooled investments	—	150,675	—	150,675	
Total deposits and investments	<u>\$ 568,092</u>	<u>1,357,893</u>	<u>25,941</u>	<u>1,951,926</u>	

## Disclosures Relating to Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that the City manages its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and timing cash flows from maturities so that a near-level portion of the portfolio is maturing or coming closer to maturity over time to provide the cash flow and liquidity needed for operations.



# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

The following schedule indicates the interest rate risk of the City's investments as of September 30, 2015 (in thousands):

<b>Investment type</b>	<b>Fair value</b>	<b>Weighted average maturity (in years)</b>
Cash and investments in City pool:		
Money market account	\$ 647	0.05
U.S. Treasury notes	331,078	1.13
Federal agency securities	925,502	1.40
Time certificates of deposit	9,998	0.23
Local Agency Investment Fund (LAIF)	121,009	0.58
Subtotal City pool	1,388,234	
Cash and deposits	169,572	
Outstanding checks	(10,508)	
Total City pool	\$ 1,547,298	
Nonpooled cash and investments:		
Cash and deposits	\$ 472	—
Money market funds	248,805	—
U.S. Treasury notes	135,203	1.65
Guaranteed investment contracts	20,148	4.31
Total nonpooled cash and investments	\$ 404,628	

### Investments with Fair Values Highly Sensitive to Interest Rate Risk

The City had no investments that were highly sensitive to market interest rate changes as of September 30, 2015. Highly sensitive investments are investments whose sensitivity to market interest rate fluctuations are not fully addressed by use of one of the five methods for reporting interest rate risk.

### Disclosures Relating to Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. The minimum rating requirements for commercial paper, asset-backed securities, and medium-term notes is an A rating. Mortgage-backed security issuers must have a minimum AAA rating. State warrants, state treasury notes, or bonds of the State are to be rated at a minimum of A1/Sp-1 for short-term investments and Aa/AA for long-term investments.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

The following are the actual ratings as of September 30, 2015 for each investment type (in thousands):

Rating as of year end						
Investment type	Legal rating	Total	Not required to be rated	AAA	AA+	Unrated
Cash and investments in City pool:						
Money market account	N/A	\$ 647	—	647	—	—
U.S. Treasury notes	N/A	331,078	331,078	—	—	—
Federal agency securities	N/A	925,502	—	125,530	799,972	—
Time certificate of deposit	N/A	9,998	—	—	9,998	—
Local Agency Investment Fund (LAIF)	N/A	121,009	—	—	—	121,009
Subtotal City pool		1,388,234	331,078	126,177	809,970	121,009
Cash and deposits		169,572	—	—	—	169,572
Outstanding checks		(10,508)	—	—	—	(10,508)
Total City pool		\$ 1,547,298	331,078	126,177	809,970	280,073
Nonpooled cash and investments:						
Cash and deposits	N/A	\$ 472	—	—	—	472
Money market funds	N/A	248,805	248,805	—	—	—
U.S. Treasury notes	N/A	135,203	—	135,203	—	—
Guaranteed Investment Contracts	N/A	20,148	20,148	—	—	—
Total nonpooled cash and investments		\$ 404,628	268,953	135,203	—	472

### Concentration of Credit Risk

The investment policy of the City contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer that represent five percent or more of the City's total pooled investments are as follows (in thousands):

Issuer	Investment type	Reported amount
Federal Home Loan Bank	Federal agency securities	\$ 341,248
Federal Home Loan Mortgage Corporation	Federal agency securities	241,137
Federal National Mortgage Association	Federal agency securities	275,374
Local Agency Investment Fund (LAIF)	Local Agency Investment Fund (LAIF)	121,009
U.S. Treasuries	U.S. Treasury bills and notes	331,078

### Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

the possession of another party. The California Government Code and the City's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits or investments, other than the following provision for deposits. The California Government Code requires that a financial institution secure deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure City deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits. All securities owned by the City are deposited in trust for safekeeping with a custodial bank different from the City's primary bank.

As of September 30, 2015, the City reported deposits of \$170.0 million, collateralized in compliance with California Government Code, less \$11.0 million for checks outstanding.

#### Investment in State Investment Pool

The City is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California. The fair value of the City's investment in this pool is reported in the accompanying financial statements at amounts based upon the City's pro rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis. Included in LAIF's investment portfolio are mortgage-backed securities, loans to certain state funds, securities with interest rates that vary according to changes in rates greater than a one-for-one basis, and structured basis.

#### (3) Accounts Receivable and Other Receivables

Accounts receivable as of September 30, 2015, included the following (expressed in thousands):

Trade accounts receivable	\$	51,741
Less allowance for doubtful accounts		<u>(1,777)</u>
Accounts receivable, net	\$	<u><u>49,964</u></u>

Other receivables as of September 30, 2015 included the following (expressed in thousands):

Due from other governmental agencies:		
Current:		
Federal and state grants	\$	98,175
Long term:		
Tidelands – Beaches and Waterways		<u>1,300</u>
Total due from other governmental agencies	\$	<u><u>99,475</u></u>

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

The due from other governmental agencies is related to the grant programs from various governmental agencies, which include, but are not limited to: The Federal Highway Bridge Program; the Trade Corridor Improvement Program; Goods Movement Emission Reduction – Proposition 1B; and the Port Security Grant Program. Funds from these grant programs are available to the Department on a reimbursement basis except the Proposition 1B: Goods Movement Emission Reduction Program. Most of these programs require a matching contribution from the Department. If the grant program will result in the transfer of title to an organization outside of the Department, a contribution is recognized on the date of transfer.

#### **(4) Long Beach Harbor Dredging**

A project to deepen the Port of Long Beach Main Channel started in the 1990s. In 2000, Main Channel deepening work was completed except for an isolated location in the Main Channel turning basin. In 2009, the Department, City of Long Beach, and U.S. Army Corps of Engineers undertook a \$56 million dredging project to complete remaining deepening work in the Main Channel turning basin, clean-up contaminated sediments in the West Basin at a location identified as IR Site 7, complete maintenance dredging at the City of Long Beach's Catalina Express Terminal, and to fill the Department's Pier G North Slip as part of the Pier G Redevelopment Program. Construction was completed in 2011. The project was completed under budget and a remaining balance of \$1.7 million as of September 30, 2015, recorded as a prepaid expense, will now be used for the Department's share of a feasibility study which will evaluate potential extensions to the Main Channel. This new project is being conducted in partnership with the U.S. Army Corps of Engineers and is called the Long Beach Deep Draft Navigation Study.

#### **(5) Alameda Corridor Right-of-Way Purchase**

In December 1994, the Department and the Harbor Department of the City of Los Angeles (collectively, the Ports) executed the purchase of the rights of way needed for the development of the Alameda Corridor Project (the Project), which is a comprehensive transportation corridor between the Ports and the central Los Angeles area. The Ports purchased these rights, sharing the cost on a 50/50 basis, from the three railroad companies then serving the Ports: Union Pacific Railroad Company (Union Pacific), Southern Pacific Railroad Company (Southern Pacific), and Atchison, Topeka and Santa Fe Railroad Companies (Atchison, Topeka and Santa Fe). After the purchase, Southern Pacific merged into Union Pacific and Atchison, Topeka, and Santa Fe merged with Burlington Northern to form the Burlington Northern Santa Fe.

The total purchase comprised the right of way property from the three former railroad companies and a drill track from Southern Pacific to provide an additional right of way to access local businesses along the Project. As of September 30, 2015, total costs to the Department related to the rights of way purchase amounted to \$207.0 million. Construction of the Project began in 1997 and it was completed in April 2002. Funding for the Project came from federal, state, and local sources, and from issuance of debt.

Repayment to the Ports for their investments in the right of way and for any advances provided to the Project will occur only after the Project has generated revenues sufficient to retire all debt and to fund a maintenance reserve (note 14). In December, 2014, ACTA closed escrow for the sale of a joint ownership parcel and distributed the proceeds in the amount of \$472 thousand to the Department.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

### (6) Capital Assets

Capital Assets schedule as of September 30, 2015 as follows: (expressed in thousands)

Description	Balance, October 1, 2014	Additions	Disposals/ adjustments	Transfers	Balance, September 30, 2015
Nondepreciable capital assets:					
Purchased land	\$ 448,937	—	—	1,065	450,002
Constructed land	456,024	—	—	25,521	481,545
Construction in progress	1,248,187	356,837	4,767	(358,027)	1,251,764
Right of way (note 5)	207,823	—	(792)	—	207,031
Subtotal	2,360,971	356,837	3,975	(331,441)	2,390,342
Depreciable capital assets:					
Structures and facilities	2,953,693	—	(107,786)	318,947	3,164,854
Furniture, fixtures, and equipment	83,266	1,356	(2,417)	12,494	94,699
Subtotal	3,036,959	1,356	(110,203)	331,441	3,259,553
Total capital assets	5,397,930	358,193	(106,228)	—	5,649,895
Less accumulated depreciation:					
Structures and facilities	1,455,600	130,758	(90,053)	—	1,496,305
Furniture, fixtures, and equipment	45,036	14,308	(2,274)	—	57,070
Total accumulated depreciation	1,500,636	145,066	(92,327)	—	1,553,375
Net capital assets	\$ 3,897,294	213,127	(13,901)	—	4,096,520

### (7) 2014C Harbor Revenue Notes and Transportation Infrastructure Finance and Innovation Act Loan

The City of Long Beach Harbor Revenue Notes Series 2014C Senior Notes (2014C Notes) are secured by the Department's gross revenues. The 2014C Notes, dated June 12, 2014, amounting to \$325.0 million plus an original issue premium of \$53.4 million, less an underwriter's discount of \$659 thousand, were issued to finance a portion of the costs of constructing a replacement bridge for the existing Gerald Desmond Bridge, to fund capitalized interest on the 2014C Notes through November 15, 2018, to refund a portion of the City of Long Beach, California Subordinate Harbor Revenue Revolving Obligations, Series A (Tax-exempt) and Series B (Tax-exempt), and to finance the costs of issuance of the 2014C Notes.

The 2014C Notes are outstanding as of September 30, 2015, and will mature on November 15, 2018 with interest payable semiannually of May 15 and November 15 at coupon rates ranging from 3.0% to 5.0%. The Series 2014C will not be subject to redemption prior to maturity.

The original issue premium is being amortized over the loan term using the effective interest method. Unamortized premium totaled \$42.5 million for the year ended September 30, 2015.

\$55.2 million has been allocated at September 30, 2015 to the service account which is use to meet debt service requirements in conformity with the note resolution.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

Scheduled annual principal note maturities and interest are summarized as follows (in thousands):

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Fiscal year(s) ending September 30:			
2016	\$ —	15,643	15,643
2017	—	15,643	15,643
2018	—	15,643	15,643
2019	325,000	7,822	332,822
	<u>\$ 325,000</u>	<u>54,751</u>	<u>379,751</u>

**TIFIA Loan Commitment** – In May 2014, the Harbor Department entered into a loan agreement (the TIFIA Loan) with the United States Department of Transportation (USDOT) under the Transportation Infrastructure Finance and Innovation Act (TIFIA). Under the TIFIA Loan, the USDOT will allow the Department to borrow up to \$325.0 million, provided the amount so borrowed will be used to finance and refinance the costs related to the replacement of the Gerald Desmond Bridge, including but not limited to the repayment of the 2014C Notes. The loan is secured by a subordinate lien on the Department's gross revenues. The loan is expected to be drawn no later than one year after substantial completion of the replacement bridge currently expected in July 2018. As such, there is no outstanding liability for the TIFIA loan as of September 30, 2015. Once drawn upon, the TIFIA loan will be repaid over a period not to exceed 35 years at an interest rate of 3.42%.

### (8) Lines of Credit

In July 2013, the Board of Harbor Commissioners authorized the issuance of \$200.0 million Subordinate Harbor Revenue Revolving Obligations Series A (Tax-Exempt), Series B (Tax-Exempt), and Series C (Taxable).

The Harbor Department will secure any borrowings under the revolving lines of credit with a subordinate lien on the revenues of the Department. The Department has drawn \$120.0 million from the revolving line of credit as of September 30, 2015. The outstanding obligations under these lines of credit were as follows (expressed in thousands):

Long term:		
Line of Credit – Bank of America	\$	50,000
Line of Credit – Union Bank		<u>70,000</u>
Total	\$	<u>120,000</u>

#### ***Bank of America, N.A.-Subordinate Harbor Revenue Revolving Obligations Series A (Tax-Exempt)***

Bank of America will provide a tax-exempt revolving line of credit that will allow the Harbor Department to borrow up to \$78.0 million at any given point of time. As of September 30, 2015, the Department has drawn \$50 million against this revolving line of credit. The tax-exempt interest rate to be paid by the Department for borrowings under the revolving line of credit will be based on a percentage of the daily, one-month, two-month, three-month, or six-month (as selected by the Department) London Interbank

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

Offered Rate (Libor). Bank of America will make the revolving line of credit available to the Department for three years (unless the revolving line of credit is terminated earlier or extended pursuant to its terms. Borrowings under the Bank of America revolving line of credit will be incurred by the Department in the form of City of Long Beach, California Subordinate Harbor Revenue Revolving Obligations, Series A (Tax-Exempt) (Series A Obligations.)

The Harbor Department's obligations to repay any loans made by Bank of America under the Bank of America Credit Agreement will be evidenced by a promissory note (the Bank of America Note) to be issued by the Department to Bank of America. The Department made a repayment of \$37.5 million to the line of credit in November 2015.

#### ***Union Bank, N.A.-Subordinate Harbor Revenue Revolving Obligations Series B (Tax-Exempt) and Series C (Taxable)***

Union Bank will provide two revolving lines of credit (a tax-exempt revolving line of credit and a taxable revolving line of credit) that will allow the Harbor Department to borrow up to \$122.0 million at any given point of time. As of September 30, 2015, the Department has drawn \$70.0 million against this revolving line of credit. The tax-exempt and taxable interest rates to be paid by the Department for borrowings under the revolving lines of credit to be provided by Union Bank will be based on a percentage of the one-month Libor. Union Bank will make the revolving lines of credit available to Department for three years (unless the revolving line of credit is terminated earlier or extended pursuant to its terms), Borrowings under the Union Bank revolving lines of credit will be incurred by the Department in the form of City of Long Beach, California Subordinate Harbor Revenue Revolving Obligations, Series B (Tax-Exempt) (Series B Obligations), and City of Long Beach, California Subordinate Harbor Revenue Revolving Obligations, Series C (Taxable) (Series C Obligations).

The Harbor Department's obligations to repay any loans made by Union Bank under the Union Bank Credit Agreement will be evidenced by two promissory notes (one for tax-exempt loans and one for taxable loans) (the Union Bank Notes) to be issued by the Department to Union Bank. The Department made a repayment of \$37.5 million to the line of credit in November 2015.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

### (9) Bonded Indebtedness

Bond premiums and discounts of long-term debt issues are amortized over the life of the related debt. The Harbor department's bonded indebtedness issues and transactions are as follows (in thousands):

	<u>2015</u>
1998 Harbor Revenue Refunding Bonds:	
Maturing 2016 through 2019 at 6.0% interest	\$ 60,965
Plus unamortized premium	<u>2,319</u>
Total 1998 Harbor Revenue Refunding Bonds	<u>\$ 63,284</u>
2010A Harbor Revenue Bonds:	
Maturing 2016 through 2025 at 4.0% to 5.0% interest	\$ 148,705
Plus unamortized premium	<u>9,531</u>
Total 2010A Harbor Revenue Bonds	<u>\$ 158,236</u>
2010B Harbor Revenue Refunding Bonds:	
Maturing 2016 through 2027 at 4.0% to 5.0% interest	\$ 134,135
Plus unamortized premium	<u>9,065</u>
Total 2010A Harbor Revenue Refunding Bonds	<u>\$ 143,200</u>
2014A Harbor Revenue Refunding Bonds:	
Maturing 2016 through 2017 at 4.0 to 5.0% interest	\$ 25,690
Plus unamortized premium	<u>1,182</u>
Total 2014A Harbor Revenue Refunding Bonds	<u>\$ 26,872</u>
2014B Harbor Revenue Refunding Bonds:	
Maturing 2016 through 2027 at 3.0 to 5.0% interest	\$ 20,570
Plus unamortized premium	<u>2,645</u>
Total 2014A Harbor Revenue Refunding Bonds	<u>\$ 23,215</u>
2015A Harbor Revenue Refunding Bonds:	
Maturing 2017 through 2023 at 4.0 to 5.0% interest	\$ 44,845
Plus unamortized premium	<u>6,468</u>
Total 2015A Harbor Revenue Refunding Bonds	<u>\$ 51,313</u>



# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

	<b>2015</b>
2015B Harbor Revenue Refunding Bonds:	
Maturing 2023 through 2025 at 5.0% interest	\$ 20,130
Plus unamortized premium	4,753
Total 2015A Harbor Revenue Refunding Bonds	\$ 24,883
2015C Harbor Revenue Bonds:	
Maturing 2025 through 2032 at 5.0% interest	\$ 66,085
Plus unamortized premium	9,084
Total 2015A Harbor Revenue Refunding Bonds	\$ 75,169
2015D Harbor Revenue Bonds:	
Maturing 2033 through 2037 at 5.0% interest	\$ 66,865
Plus unamortized premium	8,345
Total 2015A Harbor Revenue Refunding Bonds	\$ 75,210
Summary:	
Principal	\$ 587,990
Net premium	53,393
Less current portions	45,360
Net long-term bonded indebtedness	\$ 596,023

The Department had the following activity in bonded indebtedness for the fiscal years ended September 30, 2015 (in thousands).

Description	Balance, October 1, 2014	Additions	Reductions	Balance, September 30, 2015	Amounts due within one year
1998	\$ 74,110	—	13,145	60,965	13,935
2005 A and B	105,595	—	105,595	—	—
2010A	160,175	—	11,470	148,705	11,990
2010B	136,365	—	2,230	134,135	6,475
2014A	38,465	—	12,775	25,690	12,960
2014B	20,570	—	—	20,570	—
2015A	—	44,845	—	44,845	—
2015B	—	20,130	—	20,130	—
2015C	—	66,085	—	66,085	—
2015D	—	66,865	—	66,865	—
	\$ 535,280	197,925	145,215	587,990	45,360

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

#### ***Annual Debt Service Requirements to Maturity – All Bonded Debt***

Scheduled annual principal bond maturities and interest are summarized as follows (in thousands):

<b>Fiscal year(s) ending September 30,</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>
2016	\$ 45,360	46,716	92,076
2017	44,905	43,678	88,583
2018	47,190	41,389	88,579
2019	45,965	31,231	77,196
2020	37,300	20,599	57,899
2021–thereafter	367,270	128,582	495,852
	<u>\$ 587,990</u>	<u>312,195</u>	<u>900,185</u>

Details of each outstanding debt issue are as follows:

#### ***(a) 1998 Harbor Revenue Refunding Bonds***

The City of Long Beach Harbor Revenue Refunding Bonds Series 1998A (the 1998 Bonds) are secured by the Department's gross revenues. The 1998 Bonds, dated February 1, 1998, amounting to \$206.3 million were issued to refund all of the City's Harbor Revenue Bonds Series 1989A (the 1989 Bonds). The 1989 Bonds were defeased and the liability for those bonds was removed from the Department's statements of net assets. No amounts remain outstanding as of September 30, 2015.

Serial bonds aggregating to \$60.9 million are outstanding and will mature on May 15 of each year from 2016 to 2019 in amounts ranging from \$13.9 million to \$16.6 million with interest payable semi-annually on May 15 and November 15 at coupon rates of 6.0%. The 1998 Bonds are not subject to optional or mandatory redemption before their respective maturity dates.

The bond resolution requires the Department to maintain sufficient funds in order to meet current and maximum annual debt service payments. As of September 30, 2015, the Department has allocated \$6.6 million and \$17.6 million to debt service account and reserve account, respectively.

The refunding of the 1989 Bonds resulted in a difference between the reacquisition price and net carrying amount on the old debt of \$8.6 million. The difference between the reacquisition price and net carrying amount is amortized using the straight-line method over the life of the new bonds and is reported in the accompanying statements of net position as component of deferred outflow of resources. As of September 30, 2015, \$1.5 million remained as a deferred outflow to be amortized.

#### ***(b) 2005 Harbor Revenue Refunding Bonds***

The 2005 Bonds, dated March 23, 2005, amounting to \$257.9 million were issued to refund and to defease all of the City's Harbor Revenue Bonds Series 1995 (1995 Bonds), to pay the premium for the Bond Insurance Policies, to fund a repayment reserve for the Series 2005 Bonds, and to finance the costs of issuance of the Series 2005 Bonds. The 2005 Bonds were defeased in fiscal year 2015, with the issuance of the 2015A and 2015B Harbor Revenue Refunding Bonds and the liability for these bonds has been removed from the Department's statement of net position.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

**(c) 2010A Harbor Revenue Bonds**

The City of Long Beach Harbor Revenue Bonds Series 2010A (the 2010A Bonds) are secured by the Department's gross revenues. The 2010A Bonds, dated March 31, 2010, amounting to \$200.8 million were issued to finance certain capital improvements at the Port, to fund a reserve fund for the Series 2010A Bonds, and to pay the costs of issuing the Series 2010A Bonds.

Serial bonds aggregating to \$148.7 million will mature on May 15 of each year from 2016 to 2025 in amounts ranging from \$11.9 million to \$18.3 million with interest payable semiannually on May 15 and November 15 at coupon rates ranging 3.0% to 5.0%.

The Series 2010A Bonds maturing on or before May 15, 2020 are not subject to redemption prior to maturity. The Series 2010A Bonds maturing on or after May 15, 2021 are subject to redemption prior to maturity, at the option of the Board, as a whole or in part on any date, on or after May 15, 2020, at a redemption price equal to 100% of the principal amount of the Series 2010A Bonds to be redeemed, plus accrued interest thereon to the date fixed for redemption, without premium.

The bond resolution requires the Department to maintain sufficient funds in order to meet current and maximum annual debt service requirement. As of September 30, 2015, \$7.2 million and \$19.4 million were allocated to the debt service account and reserve account respectively.

**(d) 2010B Harbor Revenue Refunding Bonds**

The City of Long Beach Harbor Revenue Refunding Bonds Series 2010B (the 2010B Bonds) are secured by the Department's gross revenues. The 2010B Bonds, dated April 29, 2010, amounting to \$158.1 million were issued to refund \$63.1 million aggregate principal amount of the City's Harbor Revenue Bonds, Series 2002B, \$12.1 million aggregate principal amount of the City's Harbor Revenue Refunding Bonds, Series 2004A, and \$78.4 million aggregate principal amount of the City's Harbor Revenue Refunding Bonds, Series 2005A, to fund a reserve fund for the Series 2010B Bonds; and to pay the costs of issuing the Series 2010B Bonds.

The difference between the reacquisition price and net carrying amount is amortized using the straight-line method over the life of the new bonds and is reported in the accompanying statement of net position as of September 30, 2015. The remaining balance of \$4.0 million is to be amortized in the statement of net position as a component of deferred outflow of resources.

Serial bonds aggregating to \$134.1 million will mature on May 15 of each year from 2016 to 2027 in amounts ranging from \$130 thousand to \$24.0 million with interest payable semiannually on May 15 and November 15 at coupon rates ranging from 4.0% to 5.0%.

The Series 2010B Bonds maturing on or before May 15, 2020 are not subject to redemption prior to maturity. The Series 2010B Bonds maturing on or after May 15, 2021 are subject to redemption prior to maturity, at the option of the Board, as a whole or in part on any date, on or after May 15, 2020, at a redemption price equal to 100% of the principal amount of the Series 2010B Bonds to be redeemed, plus accrued interest thereon to the date fixed for redemption, without premium.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

The bond resolution requires the Department to maintain sufficient funds in order to meet current and maximum annual debt service requirements. As of September 30, 2015, \$4.9 million and \$16.0 million were allocated to debt service account and reserve account, respectively.

**(e) 2014A Harbor Revenue Refunding Bonds**

The City of Long Beach Harbor Revenue Senior Bonds Series 2014A (the 2014A Bonds) are secured by the Department's gross revenues. The 2014A Senior Bonds, dated April 24, 2014, amounting to \$38.5 million were issued in conjunction with the 2014B Senior Bonds described below to (a) (i) refund all of the City of Long Beach, California, Harbor Revenue Bonds, Series 2002B, which were outstanding in the aggregate principal amount of \$43.4 million, (a) (ii) the City of Long Beach, California, Harbor Revenue Refunding Bonds, Series 2004A, which were outstanding in the aggregate principal amount of \$13.1 million, and (a) (iii) the City of Long Beach, California, Harbor Revenue Refunding Bonds, Series 2004B, which were outstanding in the aggregate principal amount of \$32.0 million (collectively, the Refunded Bonds), and (b) pay the costs of issuing the 2014A Bonds.

The difference between the reacquisition price and net carrying amount is amortized using the straight-line method over the life of the new bonds and is reported in the accompanying statement of net position as of September 30, 2015, \$1.4 million remained as a deferred inflow to be amortized in the statement of net position as a component of deferred inflow of resources.

Serial bonds aggregating to \$25.7 million will mature on May 15 of each year from 2016 to 2017 in amounts ranging from \$12.7 million to \$12.9 million with interest payable semiannually on May 15 and November 15 at coupon rates ranging from 4.0% to 5.0%.

The 2014A Bonds will not be subject to redemption prior to their respective maturity dates.

The bond resolution requires maintaining sufficient funds to meet current and maximum annual debt service requirements. As of September 30, 2015, \$5.3 million was allocated to debt service account.

**(f) 2014B Harbor Revenue Refunding Bonds**

The City of Long Beach Harbor Revenue Senior Bonds Series 2014B (the 2014B Bonds) are secured by the Department's gross revenues. The 2014B Bonds, dated April 24, 2014, amounting to \$20.6 million were issued in conjunction with the 2014A Bonds described above to refund all of (a) (i) the City of Long Beach, California, Harbor Revenue Bonds, Series 2002B, which were outstanding in the aggregate principal amount of \$43.4 million, (a) (ii) the City of Long Beach, California, Harbor Revenue Refunding Bonds, Series 2004A, which were outstanding in the aggregate principal amount of \$13.1 million, and (a) (iii) the City of Long Beach, California, Harbor Revenue Refunding Bonds, Series 2004B, which were outstanding in the aggregate principal amount of \$32.0 million (collectively, the Refunded Bonds), and (b) pay the costs of issuing the 2014 Bonds.

Serial bonds aggregating to \$20.6 million will mature on May 15 of each year from 2017 to 2027 in amounts ranging from \$940 thousand to \$7.7 million with interest payable semiannually on May 15 and November 15 at coupon rates ranging from 3.0% to 5.0%.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

The difference between reacquisition price and net carrying amount is amortized using the straight-line method over the life of the new bonds and is reported in the accompanying statements of net position as of September 30, 2015, \$635 thousand remained as a deferred inflow to be amortized in the statements of net position as a component of deferred inflows.

The 2014B Bonds maturing on or before May 15, 2024 are not subject to redemption prior to maturity. The 2014B Bonds maturing on or after May 15, 2025 are subject to redemption prior to maturity, at the option of the Board, as a whole or in part on any date, on or after May 15, 2024, at a redemption price equal to 100% of the principal amount of the 2014B Bonds to be redeemed, plus accrued interest thereon to the date fixed for redemptions without premium.

The bond resolution requires the Department to maintain sufficient fund in order to meet current and maximum annual debt service requirement. As of September 30, 2015, \$340 thousand was allocated to a debt service account.

#### **(g) 2015A Harbor Revenue Refunding Bonds**

The City of Long Beach Harbor Revenue Senior Bonds Series 2015A (the 2015A Bonds) are secured by the Department's gross revenues. The 2015A Bonds, dated April 16, 2015, amounting to \$44.8 million were issued in conjunction with the 2015B Bonds described below and other available moneys to (a) current refund and/or defeased all or a portion of the Series 2005 Senior Bonds, and (b) pay the costs of issuing the 2015 Bonds. This refunding was under taken to reduce total debt service payments over the next 10 years by \$36.2 million and resulted in an economic gain of \$12.1 million.

Serial bonds aggregating to \$44.5 million will mature on May 15 of each year from 2017 to 2023 in amounts ranging from \$1.4 million to \$14.4 million with interest payable semiannually on May 15 and November 15 at coupon rates ranging from 4.0% to 5.0%.

The difference between reacquisition price and net carrying amount is amortized using the straight-line method over the life of the new bonds and is reported as a deferred inflow of \$1.8 million in the accompanying statement of net position as of September 30, 2015.

The 2015A Bonds are not subject to redemption prior to maturity.

The bond resolution requires maintaining sufficient funds to meet current and maximum annual debt service requirements. As of September 30, 2015, \$3.0 million was allocated to a debt service account.

#### **(h) 2015B Harbor Revenue Refunding Bonds**

The City of Long Beach Harbor Revenue Senior Bonds Series 2015B (the 2015B Bonds) are secured by the Department's gross revenues. The 2015B Bonds, dated April 16, 2015, amounting to \$20.1 million, were issued in conjunction with the 2015A Bonds described above and other available money to (a) current refund and/or defeased all or a portion of the Series 2005 Senior Bonds, and (b) pay the costs of issuing the 2015 Bonds. Even though this refunding resulted in an increase of \$845 thousand in the total of debt service payments over the next 10 years, it resulted in an economic gain of \$1.7 million.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

Serial bonds aggregating to \$20.1 million will mature on May 15 of each year from 2023 to 2025 in amounts ranging from \$3.3 million to \$9.8 million with interest payable semiannually on May 15 and November 15 at coupon rates of 5.0%.

The difference between reacquisition price and net carrying amount is amortized using the straight-line method over the life of the new bonds and is reported in the accompanying statement of net position as of September 30, 2015, \$492 thousand remained as a deferred inflow to be amortized in the statement of net position as a component of deferred inflows.

The 2015B Bonds are not subject to redemption prior to maturity.

The bond resolution requires the Department to maintain sufficient funds in order to meet current debt service requirement. As of September 30, 2015, \$869 thousand was allocated to a debt service account.

**(i) 2015C Harbor Revenue Bonds**

The City of Long Beach Harbor Revenue Senior Bonds Series 2015C (the 2015C Bonds) are secured by the Department's gross revenues. The 2015C Bonds, dated July 15, 2015, amounting to \$66.1 million were issued in conjunction with the 2015D Bonds (the Series 2015 Senior Revenue Bonds) described above to (a) pay and/or reimburse the Harbor Department for capital expenditures incurred or to be incurred by the Harbor Department at the Port of Long Beach including, but not limited to, the Series 2015 Projects, and/or repaying all or a portion of the outstanding Series A Subordinate Obligations and Series B Subordinate Obligations and (b) paying the financing costs and the costs of issuing the Series 2015 Senior Revenue Bond.

Serial bonds aggregating to \$66.1 million will mature on May 15 of each year from 2026 to 2032 in amounts ranging from \$6.9 million to \$16.8 million with interest payable semiannually on May 15 and November 15 at coupon rates of 5.0%.

The Series 2015 Senior Revenue Bonds are subject to redemption prior to maturity, at the option of the Board, as a whole or in part on any date, or after May 15, 2025, at a Redemption Price equal to 100% of the principal amount of the Series 2015 Senior Revenue Bonds to be redeemed, plus accrued interest thereon to the date fixed for redemption, without premium.

The bond resolution requires the Department to maintain sufficient funds in order to meet current debt service requirement. As of September 30, 2015, \$408 thousand was allocated to a debt service account.

**(j) 2015D Harbor Revenue Bonds**

The City of Long Beach Harbor Revenue Senior Bonds Series 2015D (the 2015D Bonds) are secured by the Department's gross revenues. The 2015D Bonds, dated July 15, 2015, amounting to \$66.7 million were issued in conjunction with the 2015C Bonds (the Series 2015 Senior Revenue Bonds) described above to (a) pay and/or reimburse the Harbor Department for capital expenditures incurred or to be incurred by the Harbor Department including but not limited to, the Series 2015 Projects, and/or repaying all or a portion of the outstanding Series A Subordinate Obligations and Series B Subordinate Obligations and (b) paying the financing costs and the costs of issuing the Series 2015 Senior Revenue Bond.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

Serial bonds aggregating to \$66.7 million will mature on May 15 of each year from 2033 to 2042 in amounts ranging from \$5.3 million to \$23.6 million with interest payable semiannually on May 15 and November 15 at coupon rates of 5.0%.

The Series 2015 Senior Revenue Bonds are subject to redemption prior to maturity, at the option of the Board, as a whole or in part on any date, or after May 15, 2025, at a Redemption Price equal to 100% of the principal amount of the Series 2015 Senior Revenue Bonds to be redeemed, plus accrued interest thereon to the date fixed for redemption, without premium.

The bond resolution requires the Department to maintain sufficient funds in order to meet current debt service requirement. As of September 30, 2015, \$413 thousand was allocated to a debt service account.

#### **(10) Retirement Program**

##### **(a) *Pension Plan***

The Department participates with the City in CalPERS, a defined-benefit, agent multiple-employer pension system that acts as a common investment and administrative agent for entities in California. The system also provides death and disability benefits. The Department employees who are qualified employees are covered under the City's Miscellaneous Plan.

The City is the legal entity responsible for the Miscellaneous Plan, and the Department is billed by the City for its share of pension costs based upon rates established by CalPERS for the City's general employees. In accordance with the provisions of GASB 68, the Department is now required to report its proportionate share of the City's net pension liability in the accompanying statement of net position. The pension obligation totaled \$90.5 million at September 30, 2015. The Department paid \$6.7 million to the City, which was equal to its annual required contribution for fiscal year 2015.

As employees of the City, the Department's full-time employees are eligible to participate in CalPERS, becoming vested in the system after five years of service. Upon vesting, employees on tier 1 (those hired on or before October 20, 1989) and who retire at age 55 are entitled to receive an annual retirement benefit, payable for life, in an amount not to exceed 2.7% (with up to a 5.0% annual Cost of Living Adjustment (COLA) increase) of their highest paid year of employment for each year of credited service. Employees on tier 2 (those hired after October 20, 1989 but before October 1, 2006) and who retire at age 55 are entitled to receive an annual retirement benefit, payable for life, in an amount not to exceed 2.7% (with up to a 2.0% annual COLA increase) of their highest paid year of employment for each year of credited service. The City created tier three for employees hired after October 1, 2006. Vested tier 3 employees who retire at age 55 are entitled to receive an annual retirement benefit, payable for life, in an amount equal to 2.5% (with up to a 2.0% annual COLA increase) of their highest paid year of employment for each year of credited service.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

#### **Retirement Plan**

As discussed in note 1, the Department adopted the provisions of GASB 68 effective October 1, 2014. GASB 68 requires that the reported results pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation date: June 30, 2014

Measurement date: June 30, 2015

Measurement period: July 1, 2014 to June 30, 2015

As the Department's year end of September 30, does not coincide with the measurement date, for purposes of applying the provisions of GASB 71, a deferred outflow related to contributions made between July 1 and September 30 of each prior year was reported in the accompanying statement of net position.

#### **Plan Description – Public Employees' Retirement System (CalPERS)**

*Plan Description* – The City contributes to the California Public Employees' Retirement System (CalPERS) agent multiple-employer defined benefit pension plan. CalPERS acts as a common investment and administrative agent for its participating member employers. Benefit provisions under the Plans are established by State statute and City resolution. CalPERS issues publicly available reports that include a full description of the pension plans including benefit provisions, assumptions and membership information. All qualified permanent employees are eligible to participate in the City's separate Safety (police and fire) or Miscellaneous (all other) Plans. The reports can be found on the CalPERS website.

*Benefits Provided* – CalPERS provides retirement and disability benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service equal to one year of full-time employment, age at retirement and final compensation. Members with five years of total service are eligible to retire at age 50 with statutorily reduced benefits. All members are eligible for nonduty disability benefits after 10 years of service. The death benefit is one of the following: the Basic Death Benefit, the 1957 Survivor Benefit, or the Optional Settlement 2W Death Benefit. The cost of living adjustments for each plan are applied as specified by the Public Employees' Retirement Law.



# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

The Miscellaneous Plan's provisions and benefits in effect at September 30, 2015, are summarized in the following table:

<b>Hire date</b>	<b>Miscellaneous</b>		
	<b>Tier 1 Prior to October 1, 2006</b>	<b>Tier 2 On or after October 1 2006 and prior to January 1 2013</b>	<b>Tier 3 On or after January 1 2013</b>
Benefit formula	2.7% at 55	2.5% at 55	2.0% at 62
Benefit vesting schedule		5 years of service	
Benefit payments		Monthly for life	
Retirement age	50–55	50–55	52–60
<b>Required contribution rates</b>			
Employee	8.0%	8.0%	6.5%
Employer	16.288%	16.288%	16.288%
<b>Percentage of eligible compensation</b>			
Monthly benefits	2.0% to 2.7%	2.0% to 2.5%	1.0% to 2.0%

*Employees Covered* – Based on the Actuarial Valuation Report, as of June 30, 2012, the following employees were covered by the benefit terms for the City's Miscellaneous Plan:

	<b>Miscellaneous</b>
Active employees	3,354
Inactive employees or beneficiaries currently receiving benefits	3,851
Inactive employees entitled to but not yet receiving benefits	3,195

*Contributions* – California Public Employees' Retirement Law requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. Funding contributions for the Plans are determined annually on an actuarial basis as of June 30 by CalPERS. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The City is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. For the measurement period ended June 30, 2015 (the measurement date), the average active employee contribution rate for Miscellaneous Plan members was 7.772% of annual pay, and the City's contribution rate was 15.525% of annual payroll.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

### Allocation Methodology

The Department reported a net pension liability, pension expense, deferred inflows and deferred outflows related to pensions based on the Department's share of contributions made to the City's Miscellaneous plan. The Department's proportionate share totaled 18.9% as of September 30, 2015.

### Pension Liability, Pension Expense, and Deferred Outflows and Deferred Inflows Related to Pensions

The City's net pension liability for the Miscellaneous Plan is measured as the total pension liability, less the plan's fiduciary net position. Net pension liability is measured as of June 30, 2015 (measurement date), using the actuarial valuation report as of June 30, 2014, rolled forward using standard update procedures. The Department's share of the net pension liability for the Miscellaneous Plan was \$84.6 million at the beginning of the measurement period and \$90.5 million at September 30, 2015. For the measurement period ending June 30, 2015 (the measurement date), the Department incurred pension expense of \$1.0 million.

As of September 30, 2015, the Department had deferred outflows and deferred inflows related to pensions as follows (in thousands):

#### Deferred outflows of resources:

Pension contributions after measurement date	\$	1,762
Difference between actual and expected CalPERS investment returns		15,047
Total deferred outflows of resources	\$	<u>16,809</u>

#### Deferred inflows of resources:

CalPERS difference between actual and expected experience	\$	5,480
CalPERS change in assumptions		4,967
Total deferred inflows of resources	\$	<u>10,447</u>

Exclusive of deferred outflows related to payments after the measurement date, the net amount of deferred outflows (inflows) of resources related to pensions that will be recognized in pension expense as follows (in thousands):

	Measurement Period ended June 30	Total
2016		(2,042)
2017		(882)
2018		3,762
2019		3,762
Total		<u>\$ 4,600</u>

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

### Actuarial Methods and Assumptions Used to Determine Total Pension Liability

A summary of principal assumptions and methods used to determine the net pension liability is as follows:

	<u>Miscellaneous</u>
Valuation date	June 30, 2014
Measurement date	June 30, 2015
Actuarial cost method	Entry Age Normal
Actuarial assumptions:	
Discount rate	7.65%
Inflation	2.75
Payroll growth	3.00
Projected salary increase	Varies by entry age and service <sup>*1</sup>
Investment rate of return	7.50%
Mortality	See note <sup>*2</sup>

<sup>\*1</sup> Net of Pension Plan Investment and Administrative Expenses; includes inflation

<sup>\*2</sup> The mortality table used was developed based on CalPERS' specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale AA. For more details on this table, refer to the 2014 experience study report.

All other actuarial assumptions used in the June 30, 2015 Actuarial Valuation Report were based on the results of an actuarial experience study for the period from 1997 to 2011. Further details of the experience study can be found on the CalPERS website.

*Discount Rate* – The discount rate used to measure the total pension liability was 7.65%. To determine whether the municipal bond rate should be used in the calculation of a discount rate for each plan, CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing, none of the tested plans run out of assets. Therefore, the current 7.65% discount rate is adequate and the use of the municipal bond rate calculation is not necessary. The long-term expected discount rate of 7.65% is applied to all plans in the Public Employees Retirement Fund. The stress test results are presented in a detailed report called

The long-term expected rate of return on pension plan investments of 7.50% was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

The table on the following page reflects the long-term expected real rate of return by asset class for the Miscellaneous Plan. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These geometric rates of return are net of administrative expenses.

Asset class	New strategic allocation	Real return years 1–10 <sup>a</sup>	Real return years 11+ <sup>b</sup>
Global equity	51.0%	5.25%	5.71%
Global fixed income	19.0	0.99	2.43
Inflation sensitive	6.0	0.45	3.36
Private equity	10.0	6.83	6.95
Real estate	10.0	4.50	5.13
Infrastructure and forestland	2.0	4.50	5.09
Liquidity	2.0	(0.55)	(1.05)

<sup>a</sup> An expected inflation of 2.5% used for this period

<sup>b</sup> An expected inflation of 3.0% used for this period

*Sensitivity of the Net Pension Liability to Changes in the Discount Rate* – The following table presents the net pension liability of the City’s Miscellaneous plan as of the measurement date, calculated using the discount rate of 7.65%, compared to a discount rate that is 1 percentage point lower (6.65%) or 1 percentage point higher (8.65%). Amounts shown below are for the City’s and the Department's proportionate share of the Miscellaneous plan in thousands:

Net pension liability (asset)	City	Department
1% Decrease (6.65%)	\$ 819,433	145,005
Current discount rate (7.65%)	511,250	90,470
1% Increase (8.65%)	256,070	45,314

### Postretirement Healthcare Benefits (OPEB)

The City’s Retired Employees Health Insurance Program is a single-employer defined-benefit healthcare plan. The Department is billed by the City for its share of postretirement health benefit costs for the Department’s employees. The City has not identified the Department’s portion of the overall OPEB obligation; therefore, no separate Department obligation can be presented herein. The Department paid \$976.8 thousand to the City in fiscal year 2015.

Under the provisions of the City’s Personnel Ordinance, upon retirement, the City allows retirees, their spouses, and eligible dependents to use the cash value at retirement of the retiring employee’s accumulated unused sick leave to pay for health, dental, and long-term care insurance premiums. Full-time City employees are entitled to receive up to 96 hours of sick leave per year. Unused sick leave may be accumulated until termination or retirement. No sick leave benefits are vested.

## **THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH**

### **Notes to Financial Statements**

September 30, 2015

The City has provided 2 one-time early retirement incentive programs. The first had a maximum value of \$25 thousand for employees, based on age, who retired during calendar year 1996, and the second incentive offered a 16-hour increase in sick leave per year of service to management employees who retired by June 30, 2004. In all cases, once the cash value of the retired employee's unused sick leave is exhausted, the retiree can terminate coverage or elect to continue paying the premiums at the retiree's expense.

At September 30, 2015, there were 585 participants in the City's Retired Employees Health Insurance Program and their noninterest-bearing cash value equivalent of the remaining unused sick leave totaled \$19.5 million. Total premiums and actual claims paid by the City under the Retired Employees Health Insurance Program for the fiscal year ended September 30, 2015 were \$8.6 million and are included as an expense of the City's Employee Benefits Internal Service Fund.

#### **Termination Benefits**

As of September 30, 2015, the City has recorded a liability in the Employee Benefits Internal Service Fund of \$138.1 million based on an actuarial study of current and future retiree accumulated sick leave in accordance with GASB Statement No. 16, Accounting for Compensated Absences (GASB 16). The liability takes into account an estimate of future usage, additional leave accumulation, and wage increases for both current retirees and active employees, an additional amount relating to the sick leave incentive for employees who retired during calendar year 1996 and 2009 negotiated public safety health benefit supplements as described below:

#### **Other Postemployment Benefits**

As of September 30, 2015, the City has also recorded a liability in the Employee Benefits Internal Service Fund of \$72.2 million based on an actuarial study of the "implicit subsidy" as defined by GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45). While the City does not directly contribute any funding toward the cost of premiums for retirees, the ability to obtain coverage at an active employee's rate constitutes an economic benefit to the retirees. The inclusion of the retirees in the City's healthcare benefit plans increases the overall health plan rates. The economic benefit is defined as an "implicit subsidy" under GASB 45.

The ability to participate in the City's plan by self-paying the premiums extends for the lifetime of the retiree. However, upon attaining the age of Medicare eligibility, the retiree may enter a plan coordinated by Medicare. Standard actuarial practice assumes that Medicare supplemental plans do not generally give rise to an implicit subsidy, and while the City has included Medicare eligible retirees in this valuation, their liability under GASB 45 and their implicit subsidy are both \$0. This plan does not issue a separate financial report.

#### **Funding Policy**

The contribution requirement of plan members and the City are established and may be amended by the City. The required contribution is based on projected pay-as-you-go financing requirements, with an additional amount to prefund benefits as determined annually by the City Council. As of September 30, 2015, the City has not prefunded the plan.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

### Annual OPEB Cost and Net OPEB Obligation

The City's annual Other Postemployment Benefit (OPEB) cost (expense) is calculated based on the ARC, an amount that is actuarially determined in accordance with the requirements of GASB 45. The ARC represents the level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. The following table shows the components of the City's annual OPEB cost for the year, the amount actually contributed to the plan, and changes in the City's net OPEB obligation (in thousands):

Annual required contribution	\$	21,233
Interest on net OPEB obligation		2,384
Adjustment to annual required contribution		(4,398)
Annual OPEB cost		19,219
Contribution made		(6,218)
Increase in net OPEB obligation		13,001
Net OPEB obligation – beginning of year		59,207
Net OPEB obligation – end of year	\$	72,208

The ARC was determined as part of the September 2015 actuarial valuation. For the year ended September 30, 2015, the City's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation were as follows (in thousands):

Fiscal year ended	OPEB cost annual	Percentage of annual OPEB cost contributed	Obligation net OPEB
September 30, 2013	\$ 14,437	32.6%	\$ 45,242
September 30, 2014	19,161	27.1	59,207
September 30, 2015	19,219	32.4	72,208

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

#### Funded Status and Funding Progress

The funded status of the plan as of September 30, 2015 as follows (in thousands):

Actuarial accrued liability (AAL)	\$	153,386
Actuarial value of plan assets		—
Unfunded actuarial accrued liability (UAAL)	\$	153,386
Funded ratio (actuarial value of plan assets/AAL)		—%
Covered payroll	\$	357,543
UAAL as a percentage of covered payroll		42.9%
ARC as a percentage of covered payroll		5.9

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the ARC of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The schedule of funding progress, presented as required supplementary information following the notes to the basic financial statements, presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

#### Actuarial Methods and Assumption

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The September 30, 2015 actuarial valuation used the Entry Age Normal Cost method. The actuarial assumptions included a 4.25% investment rate of return (net of administrative expenses), an annual healthcare trend rate that begins at 7.5% for nonMedicare plans and 7.8% for Medicare plans with both decreasing to 5.0% for all plans by September 30, 2021, and an inflation assumption of 3.0%. The Entry Age Normal (EAN) cost method spreads plan costs for each participant from entry date to the expected retirement date. Under the EAN cost method, the plan's normal cost is developed as a level amount over the participants' working lifetime. The actuarial value of plan assets was \$0. The plan's unfunded actuarial accrued liability is being amortized using the level percentage of payroll method on an open basis over 30 years.

# THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

## Notes to Financial Statements

September 30, 2015

### (b) *Deferred Compensation Plan*

The City offers its employees the option to participate in a deferred compensation plan created in accordance with Internal Revenue Code Section 457 allowing them to defer or postpone receipt of income. Amounts deferred may not be paid to the employee during employment with the City except for a catastrophic circumstance creating an undue financial hardship for the employee. Further information regarding the City's deferred compensation plan may be found in the City's Comprehensive Annual Financial Report for the years ended September 30, 2015.

### (11) **Operating Leases**

The major portion of the Department's property is leased to others. Such property includes marine terminal facilities, special-purpose facilities, office and commercial space, and land.

Some marine terminal facilities are leased under agreements that provide the tenants with preferential but not exclusive use of the facilities. Some leases provide for rentals based on gross revenues or, in the case of marine terminal facilities, on annual usage of the facilities. The leases and the preferential assignments generally provide for minimum rentals.

Property under lease at September 30, 2015 consisted of the following (expressed in thousands):

Land	\$	469,129
Docks and wharves		649,354
Warehouses and sheds		24,244
Cranes and shiploaders		67,456
Buildings and other facilities		798,131
Infrastructure		<u>1,342,606</u>
Historical cost of leased property		3,350,920
Less accumulated depreciation		<u>(1,399,540)</u>
Book value of leased property	\$	<u><u>1,951,380</u></u>



## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

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The future minimum rental income under noncancelable operating leases having an initial term in excess of one year is as follows (expressed in thousands):

2016	\$	311,547
2017		330,634
2018		329,747
2019		329,835
2020		324,434
2021–2025		1,273,258
2026–2030		634,183
2031–2035		273,892
2036 and thereafter		864,454
Total	\$	<u>4,671,984</u>

#### (12) Investment in Joint Venture

##### *Intermodal Container Transfer Facility Joint Powers Authority (ICTF)*

The Department and the Harbor Department of the City of Los Angeles (the Ventures) entered into a joint venture agreement to form ICTF for the purposes of financing and constructing an intermodal container transfer facility (the Facility) to transfer cargo containers between trucks and railroad cars. The Facility has been leased to Southern Pacific, now merged with Union Pacific (the Tenant). The Facility was developed by the Tenant who assumed operational responsibility for the Facility. The Ventures' share net income and equity distributions from ICTF equally. The Department's share of the ICTF's net position at September 30, 2015 totaled \$5.7 million. Separate ICTF financial statements for the year ended June 30, 2015 can be obtained from the Department.

#### (13) Commitments and Contingencies

The Department is subject to claims and lawsuits arising from the normal course of business. The City Attorney's office evaluates these claims on a regular basis. Department management may make provision for probable losses if deemed appropriate on advice of legal counsel. To the extent that such provision for damages is considered necessary, appropriate amounts are reflected in the accompanying financial statements.

Based upon information obtained from the City Attorney with respect to remaining cases, it is the opinion of management that the estimated liability for unreserved claims and suits will not have a material impact on the financial statements of the Department.

Claims expenditures and liabilities are reported when it is probable that a loss has been incurred and the amount of that loss, including those incurred but not reported, can be reasonably estimated. Based on an opinion from legal counsel, the Department did not need to report a litigation claim liability for fiscal year, 2015.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

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Contract commitments and purchase orders for which materials or services were not received at September 30, 2015 aggregated \$96.9 million.

**(a) Risk Management**

The Department currently carries an all-risk property insurance program covering loss or damage by fire and other risks (excluding earthquake and flood) with a loss limit of \$1.3 billion. The coverage also includes terrorism exposure. The Department also carries two Builder's Risk insurance programs, which cover property under construction in the Port. One policy, specific to the construction of the Gerald Desmond Bridge replacement, has an overall policy limit of \$781.1 million that includes an earthquake limit of \$65.0 million. The second policy is a master builder's risk insurance program that covers all other Port of Long Beach construction projects currently underway. The coverage limit for each construction project in this program is equivalent to the contract's contract price. The maximum per project coverage, without express underwriter approval, is \$125.0 million, exclusive of earthquake coverage.

To address third-party liability exposure, an excess liability insurance program is carried by the Department with total limits of \$150.0 million in excess of \$1.0 million self-insured retention. The excess liability insurance program covers the Department's operations and includes acts of terrorism within the \$150.0 million limit. In addition, the Department carries specialized insurance policies providing coverage for damage to owned vessels, damage to other vessels, and pollution liability.

The amount of settlements reached by the Department did not exceed the amount of insurance coverage in any of the past three fiscal years.

Following is a summary of insurance coverage for the Department (in thousands):

	<u>2015</u>
Insurance coverage for fire and other risks	\$ 1,323,435
Builder's risk for Gerald Desmond Bridge project	781,122
Builder's risk for other projects	125,000
Comprehensive general liability	150,000
Self-insured retention	1,000

Port tenants, contractors, and vendors are required to carry various types and levels of insurance, including general liability insurance on leased premises. The insurance must include coverage for bodily injury and property damage liabilities, and name the City, its Board of Harbor Commissioners, and the Department's officers and employees as additional insured.

The Department participates in the City's self-insured workers' compensation program. During fiscal years 2015, it made payments to the City's Insurance Fund totaling \$1.9 million, for permanent and temporary Department employees. Amounts in the City's Insurance Fund are accumulated to meet losses as they arise.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

**(b) *Potential Obligations Related to the Alameda Corridor Transportation Authority***

The Alameda Corridor Use and Operating Agreement was executed by the Department, the Harbor Department of the City of Los Angeles (Port of Los Angeles), ACTA, and the Burlington Northern Santa Fe and Union Pacific Railroads (the railroads) in 1998. This agreement provides for a payment of funds, known as a "Shortfall Advance," to be made, under certain circumstances, to ACTA by the Department and the Port of Los Angeles. Revenues generated by use fees and container charges, paid by the railroads, will be used to pay debt service on ACTA financing, to establish and maintain bond repayment and reserve funds, to establish and replenish a reserve account, and to pay ACTA's reasonable expenses relating to administration of the rail corridor.

To the extent that the revenues from use and container charges are not sufficient to meet ACTA's obligations, the Department and the Port of Los Angeles have agreed to advance the funds necessary to make up the difference. This obligation began after completion of the corridor project and is limited to a total of 40% of the total annual debt service, with the Department and the Port of Los Angeles each responsible for one-half or 20% of the total amount due in such calendar year.

Prior to April 1 of each year, ACTA is required to provide a Notice of Estimated Shortfall Advances and Reserve Account Funding (the Notice); estimates included in the Notice are dependent upon the accuracy of the assumptions used in their formulation. It is anticipated that there will be differences between estimates and actual results; the differences may be material. The most recent Notice date March 20, 2015 indicates that there is no projected shortfall for ACTA's fiscal year ending June 30, 2016. Any Shortfall Advance made by the Department and the Port of Los Angeles is reimbursable, with interest, by ACTA.

In 2011 and 2012 the Department funded Shortfall Advances of \$2.95 million each year. The balance reimbursable by ACTA of \$5.9 million for the previously paid Shortfall Advances remained unchanged as of September 30, 2015. ACTA was considering restructuring portions of its debt, though no specific plan has been adopted yet at the end of fiscal year 2015.

**(c) *Gerald Desmond Bridge Replacement Project***

The Gerald Desmond Bridge Replacement Project consists of replacing the existing four-lane Gerald Desmond Bridge, which spans the Port's Main Channel, with a new six-lane bridge. Currently, the Gerald Desmond Bridge is only two lanes in each direction with no shoulder and, depending on tide conditions, is too low to accommodate passage of the largest ships. The new bridge is being built with a cable-stayed design under a design-build contract and will feature three lanes in each direction for improved traffic flow, emergency lanes on both the inner and outer shoulders in each direction to reduce traffic delays and safety hazards from accidents and vehicle breakdowns, a 200-foot vertical clearance to accommodate the world's largest vessels, a reduction in the bridge's steep grades, and a bicycle/pedestrian path with scenic overlooks. Additional improvements include reconstruction of the Terminal Island East Interchange and a new interchange with the 710 Freeway. Construction of the new bridge began in 2014 and is expected to be completed by the end of 2018.

The bridge budget is \$1.467 billion and is a joint effort between Caltrans and the Department. The Department anticipates that funding of the project will come from numerous sources, including, Federal and State grants, and state sources, but local matching funds will also be required.

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

September 30, 2015

Commitments from these funding sources total \$846.2 million and are available as reimbursement for expenditures on the bridge project. As these expenditures are incurred, amounts eligible for reimbursement from the funding sources are recognized as capital grant revenues in the accompanying statement of revenues, expenses, and change in net position. As of September 30, 2015, the Department has incurred approximately \$718.4 million in costs to construct the replacement bridge with an increase of \$147.1 million from September 30, 2014. Of this total amount, approximately \$436.7 million has been recognized as capital grant revenue from inception, with \$72.7 million reported as part of due from other governmental agencies on the statement of net position as of September 30, 2015.

Upon completion of the Gerald Desmond Bridge Replacement Project, the agreement with Caltrans provides for transfer of ownership of the new bridge to Caltrans assuming all conditions of the agreement are met. Additionally, the Department has agreed to pay Caltrans all operation and maintenance costs with respect to the new bridge for a 30-year period commencing on the date ownership of the new bridge is transferred to Caltrans.

#### **(14) Transfers to the City Tideland Operating Fund**

The City Council, by authority of City Charter Chapter XII, Section 1209 (c)(4) as amended, and with the approval of the Board of Harbor Commissioners (the Board), adopted a resolution to transfer 5% of the Department's operating revenue to the City's Tideland Operating Fund. The Department accrued \$17.77 million as transfers during fiscal year 2015 to the City Tideland Fund to be paid in fiscal year 2016.

#### **(15) Environmental Mitigation Credits**

The Department disbursed \$39.4 million in fiscal year 1997 to secure environmental mitigation credits that would allow the Department to complete projects within its complex. The cost incurred in the acquisition of the environmental credits has been classified as a noncurrent asset. The balance of environmental mitigation credits will be adjusted in the future as landfill credits are used for Port development.

Subsequently, an agreement between the Department, the Port of Los Angeles, and several federal and state regulatory agencies provided for the Department's purchase of land located within the wetlands restoration project at the Bolsa Chica Wetlands in Orange County, California. The 38 acres land was purchased for an additional \$11.4 million and transferred to the state in return for environmental mitigation credits to allow for the construction of landfill in the outer harbor area.

The Department has utilized \$9.6 million of environmental credits for completed capital projects within the port boundaries to date utilizing \$2,073,933 in fiscal year 2015. While no further acquisition of environmental credits or utilization of credits has occurred, some existing credits will be used in completing the Middle Harbor project that is underway and projected for completion in fiscal year 2019; other credits will be used in future projects.

#### **(16) Clean Air Action Plan (CAAP)**

In 2006, the Long Beach Board of Harbor Commissioners adopted the Green Port Policy, a commitment to reduce the Port's impact on the environment and the community. In 2006, the Long Beach and Los Angeles Boards of Harbor Commissioners approved the San Pedro Bay Clean Air Action Plan (CAAP), which has led to major air-quality successes at both Ports. Diesel particulate matter, nitrogen oxides and sulfur oxides

## THE HARBOR DEPARTMENT OF THE CITY OF LONG BEACH

### Notes to Financial Statements

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have been reduced by 81% from 2005 levels, based on 2013 emissions studies. The Plan includes the landmark Clean Truck Program (CTP), a successful changeover to a low emission truck fleet; the Green Flag Vessel Speed Reduction Program to reduce air pollution emissions from ships; the building of shore power facilities allowing ships to shut down diesel-fueled auxiliary engines and plug into electric power while at-berth known as cold-ironing and the use of the world's first diesel-electric hybrid tugboats. CAAP revenue is generated predominately from fees paid by drayage truck operators in order to register their trucks and gain access to port terminals. CAAP expenses relate primarily to CTP lease subsidies for certain truck operators, as well the CAAP related administrative costs. The diesel and alternative fuel/LNG trucks financed through CTP 7-year lease subsidy program will come to the end of lease in 2016.

#### (17) Deferred Outflows/Inflows of Resources

The deferrals of accounting gains and losses are related to cumulative bond refunding activity from current year and prior year bonds. The deferred outflows and deferred inflows of resources related to net pension liability are certain changes in total pension liability and fiduciary net position of the pension plan that are to be recognized in future pension expense.

The schedule of deferrals as of September 30, 2015 (expressed in thousands):

##### Deferred outflows of resources:

Loss on debt refunding	\$	5,459
Difference of expected and actual investment for pension plan investment		15,047
Pension contribution between measurement date and valuation date		1,762

##### Deferred inflows of resources:

Gain on debt refunding	\$	4,369
Pension – Change in assumptions		4,967
Pension – Change in experience		5,480

## **(18) Subsequent Events**

The Department has evaluated subsequent events through March 28, 2016, the date the financial statements were available to be issued.

### **(a) *Port Headquarter Building and Civic Center Project***

In January 2016, the Department's Board of Harbor Commissioner's (BHC) authorized the Department to enter into a project agreement with the City of Long Beach and Plenary Edgemoor Civic Partners LLC (PECP) for the Port Headquarters Building, Shared Facilities, Shared Rooms and Shared Civic Plaza of the City of Long Beach Civic Center Project. The total approved project budget is \$235.0 million, comprising PECP project completion payment of \$212.9 million, project support cost of \$14.4 million and the land purchase of \$8.0 million. As of December 7, 2015, the total authorized spending is \$22.4 million and the expenditures incurred totaled \$2.7 million.

A new Memorandum of Understanding (MOU) will establish an agreement between the Port and the City concerning ultimate ownership of the various facilities comprising the Project, the cost sharing mechanisms for the construction, maintenance and replacement cost of such improvements and the general ongoing right and obligation of each party to the other during the term of the Project Agreement. One of several provisions, regarding the condition of the Old Courthouse site, in the MOU addresses the type of risk allocations on the Project. If unknown physical conditions encountered that differ from the Project's Baseline Geotechnical Report those shall be the responsibility of the Project Company up to the first \$1 million. The Port and the City will equally share the cost of the next \$1 million. If costs exceed \$2.0 million, the City and the Port will confer to determine whether additional costs should be covered or the project should be terminated.

After reviewing a number of alternative financing structures, the Port determined a modified Design-Build- Finance-Operate-Maintain structure is appropriate to finance this project. PECP will finance the Port project during construction. The Port Completion Payment in the amount of \$212.9 million, which due at completion, is calculated based on a market driven rate (an interpolated LIBOR swap rate) as of the second week of December 2015.

The Port will acquire the land upon which Port's headquarter is located with a purchase price of \$8.0 million in early 2016. The shared facilities will be owned by the City and Port under a form of joint ownership in accordance with their respective allocation and subject to easements or other right of access of each other. At completion, the Port will make a fixed price Project Completion Payment of \$212.9 million to purchase the Port Headquarters and percentage of shared facilities and room. This payment will be financed through the issue of 20 to 30 years revenue bonds, which are not subject to Alternative Minimum Tax (AMT). The potential cost of this project could be partially offset by the sale of the Port's Interim Administrative Headquarter as well as the sale of the World Trade Center parking lot owned by the Port.

The Project Agreement establishes that the Civic Center site will be available to begin construction in June 2016 and the project completion is targeted in December 2019.

### **(b) *City of Long Beach 2016 Series A Lease Revenue Bonds***

On January 13, 2016, the City issued \$13.2 million of Lease Revenue Bonds. The Bond proceeds were issued to (a) pay for the hazardous materials abatement and demolition of the old County of Los Angeles Courthouse, (b) relocation of 3rd Street and Pacific Avenue storm drain, (c) one-time and construction costs related to the Civic Center Project, and (d) pay a portion of the costs of issuance of the Bonds. Payment for this debt begins in August of 2026.

## **APPENDIX D**

### **THE RAILROADS**

The Railroads have not provided the information contained in this Official Statement and have not reviewed this Official Statement. The information concerning the Railroads contained or referred to in this Official Statement has been obtained from publicly available sources and has not been independently verified. The Authority makes no representations about this information.

#### **Available Information**

BNSF and the parent corporation of Union Pacific currently are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and are required to file reports and other information with the Securities and Exchange Commission (the “SEC”). The reports and other information can be inspected and copied at the public reference facility that the SEC maintains, or may be accessed electronically by means of the SEC’s home page on the Internet (<http://www.sec.gov>). The Authority is not responsible for and makes no representation concerning information filed by BNSF and the parent corporation of Union Pacific.

Each of the Railroads also has covenanted to provide certain financial information for the benefit of holders and beneficial owners of the Series 2016 Bonds. This information is incorporated in documents filed with the SEC. Each of the Railroads has agreed that if in the future it is no longer subject to the informational requirements of Section 13 or 15(d) of the Exchange Act, it will notify the Trustee and will furnish certain financial information and operating data to the MSRB through its EMMA system.

#### **Union Pacific**

Union Pacific Corporation, the parent of Union Pacific, has filed with the SEC the following documents:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2015;
- Quarterly Report on Form 10-Q for the quarter ended March 31, 2016; and
- Current Reports on Form 8-K filed on March 1, 2016, March 10, 2016, April 5, 2016 and April 21, 2016.

Prior to the issuance of the Series 2016 Bonds, Union Pacific Corporation may file other reports required by Section 13 or 15(d) of the Exchange Act, including Current Reports on Form 8-K.

#### **BNSF**

BNSF has filed with the SEC the following documents:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2015; and
- Quarterly Report on Form 10-Q for the quarter ended March 31, 2016.

Prior to the issuance of the Series 2016 Bonds, BNSF may file other reports required by Section 13 or 15(d) of the Exchange Act, including Current Reports on Form 8-K.

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## **APPENDIX E**

### **SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS**

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## SUMMARY OF CERTAIN PRINCIPAL DOCUMENTS

*Presented below are brief summaries of certain provisions contained in the Master Indenture, as amended and supplemented, including by the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Use Permit and the Operating Agreement. Such summaries are not to be considered full statements pertaining thereto. Reference is directed to such documents for the complete text thereof. Copies of such documents are available from the Authority. References in this APPENDIX E to the Federal Loan are no longer applicable following the issuance of the Series 2004 Bonds and the Authority's prepayment of the Federal Loan. See "THE AUTHORITY'S OUTSTANDING BONDS" in this Official Statement.*

### INDENTURE

#### Definitions

The following are definitions of certain terms used in the Official Statement, including the summary of certain provisions of the Master Indenture, as amended or supplemented to date, including by the Tenth Supplemental Indenture and the Eleventh Supplemental Indenture.

*"Accreted Value"* shall mean with respect to any Capital Appreciation Bond, the principal amount thereof plus the interest accrued thereon from its delivery date, compounded at the approximate interest rate thereof on the Compounding Date specified therein. With respect to any Capital Appreciation Bonds, the Accreted Value at any date to which reference is made shall be the amount set forth in the Accreted Value Table as of such date, if such date is a Compounding Date, and if not, shall be determined by straight line interpolation, as calculated by the Trustee, with reference to such Accreted Value Table.

*"Accreted Value Table"* shall mean the table denominated as such, and to which reference is made in a Supplemental Indenture for any Capital Appreciation Bonds issued pursuant to such Supplemental Indenture.

*"Administrative Costs"* shall mean the administrative costs of the Authority as defined in and determined pursuant to the Use and Operating Agreement.

*"Annual Accounting"* shall mean the final accounting annually undertaken by the Authority pursuant to the Master Indenture.

*"Authority"* shall mean the Alameda Corridor Transportation Authority, a joint powers authority established pursuant to the provisions of the JPA Law and the JPA Agreement, a public entity separate and apart from its members.

*"Authority Treasurer"* shall mean the Treasurer of the Authority selected in accordance with the JPA Law and the JPA Agreement.

*"Authorized Authority Representative"* shall mean one or more officials or employees of the Authority designated by the Board to act as an Authorized Authority Representative for the purposes specified in such designation. Except to the extent limited in any such designation, any action required or authorized to be taken by the Board or the Authority in the Master Indenture or in any Supplemental Indenture may be taken by an Authorized Authority Representative.

*"Authorized Denominations"* shall mean, with respect to the Series 2016 Bonds, \$5,000 or any integral multiple thereof.

*“Balloon Indebtedness”* shall mean, with respect to any Series of Bonds, 25% or more of the principal or Accreted Value of which matures on the same date or within a 12-month period, that portion of the principal or Accreted Value of the Bonds of such Series which matures on such date or within such 12 month period. For purposes of this definition, the principal amount or Accreted Value maturing on any date shall be reduced by the amount of such indebtedness which is required, by the documents governing such indebtedness, to be amortized by prepayment or redemption prior to its stated maturity.

*“Board”* shall mean the Governing Board of the Authority, as described in the JPA Agreement.

*“Bond”* or *“Bonds”* shall mean Senior Lien Bonds, First Subordinate Lien Bonds and Second Subordinate Lien Bonds of the Authority issued under and in accordance with the provisions of the Master Indenture but not including the Federal Loan.

*“Bond Insurance Policy”* means each financial guaranty insurance policy issued by a Bond Insurer insuring the payment of the principal or Accreted Value of (but not the redemption price other than mandatory sinking fund redemption) and interest on a Series of Bonds when due.

*“Bond Insurer”* means (i) for the Series 1999 Bonds, MBIA Insurance Corporation or its successors and assigns, (ii) for the Series 2004 Bonds, Ambac Assurance Corporation, or its successors and assigns, (iii) for the Series 2013A Bonds, Assured Guaranty Municipal Corporation, or its successors and assigns, (iv) for the Series 2016B Insured Bonds, Assured Guaranty Municipal Corporation, or its successors and assigns, and (v) for Bonds of any other Series, the bond insurer, if any, named in the Supplemental Indenture providing for the issuance of the Bonds of such Series.

*“Bond Obligation”* shall mean as of any date of calculation (1) with respect to any Outstanding Current Interest Bonds, the principal amount of such Bond and (2) with respect to any Outstanding Capital Appreciation Bond, the Accreted Value thereof.

*“Bondholder,” “holder,” “owner”* or *“registered owner”* shall mean the person in whose name any Bond or Bonds are registered on the books maintained by a Registrar and shall include any Credit Provider or Liquidity Provider to which a Repayment Obligation is then owed, to the extent that such Repayment Obligation is deemed to be a Bond under the provisions of the Master Indenture.

*“Bond Year”* shall mean the period of time commencing on October 1 through and including the September 30 immediately following, so long as any Bonds are Outstanding. Debt Service to be accrued in any Bond Year shall include debt service payable on the immediately following October 1.

*“Business Day”* shall mean a day on which banks located in New York, New York, in Los Angeles, California and in the city in which the principal corporate trust office of the Trustee is located are open, and, for the purpose of determining a Business Day for Bonds that are commercial paper or Variable Rate Indebtedness, a day on which the New York Stock Exchange is open.

*“Capital Appreciation Bonds”* shall mean any Bonds the interest on which is compounded and not scheduled to be paid until maturity, conversion or prior redemption thereof. Capital Appreciation Bonds may be converted to Current Interest Bonds pursuant to a Supplemental Indenture.

*“Code”* shall mean the Internal Revenue Code of 1986, as amended, and the United States Treasury Regulations applicable thereto.

*“Compounding Date”* shall mean the date on which principal and interest on any Capital Appreciation Bond is compounded, as specified in such Capital Appreciation Bond.

“*Construction Fund*” shall mean any of the Construction Funds authorized to be created by the Master Indenture.

“*Consultant*” shall mean any Independent consultant, consulting firm, engineer, architect, engineering firm, architectural firm, accountant or accounting firm, actuary, insurance consultant, or other expert recognized to be well-qualified for work of the character required and retained by the Authority to carry out the duties provided for such consultant in the Master Indenture.

“*Container Charges*” shall mean the charges by that name as more particularly defined in the Use and Operating Agreement which each Railroad is obligated to pay to the Authority pursuant to the Use and Operating Agreement.

“*Contingent Port Obligations*” shall mean an amount equal to 40% of (i) the Annual Amount (as defined in the Use and Operating Agreement) and (ii) the Federal Loan payments due in any year or partial year (which is the maximum amount the Ports may be obligated to pay to the Authority pursuant to the Use and Operating Agreement).

“*Continuing Disclosure Certificate*” shall mean (i) that certain Continuing Disclosure Certificate by the Authority and the Ports dated the date of issuance and delivery of the Series 1999 Bonds, (ii) that certain Continuing Disclosure Certificate dated as of February 1, 2004 by the Authority and the Ports in connection with the issuance by the Authority of the Series 2004 Bonds, (iii) that certain Continuing Disclosure Certificate dated as of February 1, 2013 by the Authority and the Ports in connection with the issuance by the Authority of the Series 2013A Bonds, (iv) that certain Continuing Disclosure Certificate dated as of May 24, 2016 by the Authority and the Ports in connection with the issuance by the Authority of the Series 2016 Bonds, and (v) any other continuing disclosure certificate or certificates by the Authority and the Ports for any other Series of Bonds identified in the Supplemental Indenture pursuant to which such Series of Bonds are issued, as amended from time to time in accordance with the terms thereof.

“*Costs of Issuance*” shall mean all costs and expenses incurred by the Authority in connection with the issuance of one or more Series of Bonds, as more particularly described in a Supplemental Indenture, including, but not limited to, costs and expenses of printing and copying documents, the official statement or the Bonds, bond insurance premiums, if any, underwriters’ compensation and the fees, costs and expenses of rating agencies, the Trustee, counsel, accountants, financial advisors, feasibility consultants, engineering consultants, actuaries and insurance consultants, other consultants, and other financing costs related to any Series of the Bonds.

“*Costs*” or “*Costs of the Project*” shall mean all costs of planning, developing, financing, constructing, installing, equipping, furnishing, improving, acquiring, enlarging and/or renovating the Project and placing the same in service and reasonable contingencies and reserves therefor, and shall include, but not be limited to the following: (1) costs of real or personal property, rights, franchises, easements and other interests in property, and the cost of demolishing or removing structures and site preparation, infrastructure development, and landscaping and acquisition of land to which structures, debris or earth may be removed and the costs and expenses related to such removal; (2) costs of materials and supplies, machinery, equipment, vehicles, rolling stock, furnishings, improvements and enhancements; (3) labor and related costs and costs of services provided, including costs of consultants, advisors, architects, engineers, accountants, actuaries and insurance consultants, planners, attorneys, and financial and feasibility consultants; (4) financing expenses, including capitalized interest and reserves; and (5) such other costs and expenses (including administrative fees and expenses) that can be capitalized under generally accepted accounting principles in effect at the time the cost is incurred by the Authority.

“*Credit Facility*” shall mean a policy of municipal bond insurance, a letter of credit, line of credit, guarantee, standby purchase agreement or other financial instrument which obligates a third party to make payment of or provide funds to the Trustee for the payment of the principal or Accreted Value of and/or interest on and/or the purchase price of any Series of Bonds, but not including any Debt Service Reserve Surety Policy.

“*Credit Provider*” shall mean the issuer of a Credit Facility.

“*Current Interest Bonds*” shall mean the Bonds of any Series, other than Capital Appreciation Bonds, which pay interest at least annually to the owners thereof excluding the first payment of interest thereon.

“*Debt Service*” shall mean, for any period and for any priority level of Bonds, the sum of (1) the interest accrued during such period on all Outstanding Current Interest Bonds except to the extent that such interest is to be paid as capitalized interest from the proceeds of any Bonds and/or from other moneys deposited with the Trustee for such purpose, (2) the aggregate principal amount or Accreted Value of all Outstanding Bonds issued in serial form that matures or is payable in such period, except to the extent payable from the proceeds of Bonds or from other moneys set aside for such purpose, (3) the aggregate amount of all Mandatory Sinking Account Payments required to be made in such period with respect to Outstanding Term Bonds, except to the extent payable from the proceeds of Bonds or from other moneys set aside for such purpose, and (4) all Repayment Obligations due in such period, to the extent such obligations constitute Bonds under the Master Indenture,

provided, however, that for purposes of computing the interest payable on Variable Rate Indebtedness (other than for purposes of the flow of funds within the Revenue Fund pursuant to the Master Indenture), (A) the interest rate for any Synthetic Fixed Rate Debt shall be the fixed interest rate payable by the Authority pursuant to the related Swap or pursuant to such Indebtedness, as applicable, and (B) the interest rate for any other Variable Rate Indebtedness for periods when the actual interest rate for such Variable Rate Indebtedness cannot yet be determined shall be the rate which is the average of The Bond Buyer Revenue Bond Index for the 52 weeks ending with the week preceding the date of calculation, provided that if The Bond Buyer Revenue Bond Index shall cease to be published, the index to be used in its place shall be that index which the Authority (in consultation with the remarketing agent(s) for any Variable Rate Indebtedness then Outstanding) determines most closely replicates it, as set forth in a certificate of an Authorized Authority Representative filed with the Trustee, and

provided further, that for purposes of computing the principal and interest payable on Balloon Indebtedness, during any Bond Year, the principal or Accreted Value due in any period with respect to such Bonds shall be deemed to be the amount of principal or Accreted Value which would be payable in such period if the original principal amount or Accreted Value of such Bonds were amortized from the date of original issuance thereof over the lesser of a period of thirty (30) years or the remaining useful life of the Project on a level debt service basis, except that if the date of calculation is within twelve (12) months of the actual maturity of such Bonds, the full amount of principal or Accreted Value payable at maturity shall be taken into account unless a firm underwriting commitment is in effect to refinance such Bonds; and

provided further, that for purposes of computing the Accreted Value or principal and interest payable on Tender Indebtedness during a Bond Year, Tender Indebtedness shall be treated as if the tender payment were not required; and

provided further, that for purposes of determining the principal amount or Accreted Value due, payment shall be assumed to be made in accordance with any amortization schedule established for such debt.

*“Debt Service Fund”* shall mean each of the Debt Service Funds required to be created pursuant to the Master Indenture.

*“Debt Service Payment Requirement”* shall mean the amount required to make a debt service payment on any Senior Lien Bond, at the times established by and as calculated pursuant to the Master Indenture.

*“Debt Service Reserve Account”* shall mean each of the accounts designated as such and created within the Debt Service Reserve Fund pursuant to a Supplemental Indenture providing for the issuance of a particular Series of Bonds.

*“Debt Service Reserve Fund”* shall mean the trust fund and the accounts therein which are required to be funded for the purpose of providing additional security for Outstanding Bonds issued pursuant to the terms of the Master Indenture.

*“Debt Service Reserve Fund Replenishment Payment”* shall mean any payment required to replenish any one or more Debt Service Reserve Accounts or to pay a Debt Service Reserve Surety Repayment Obligation for the Senior Lien Bonds as provided for and calculated pursuant to the Master Indenture.

*“Debt Service Reserve Requirement”* shall mean, with respect to a Debt Service Reserve Account for any Series of Bonds, an amount equal to the least of (i) Maximum Annual Debt Service for such Series, (ii) 10% of the original principal amount of such Series that have been issued, less the amount of original issue discount with respect to any such Bonds if such original issue discount exceeded 2% on such Bonds at the time of its original sale, and (iii) 125% of the average annual Debt Service on Bonds of such Series for each Bond Year in which Bonds of such Series are Outstanding.

*“Debt Service Reserve Surety Policy”* shall mean an insurance policy, surety bond or surety agreement, or a letter of credit deposited with the Trustee for the credit of a Debt Service Reserve Account within the Debt Service Reserve Fund in lieu of or substitution for all or a portion of the cash or securities on deposit or to be deposited therein.

*“Debt Service Reserve Surety Repayment Obligation”* shall mean an obligation, including the interest thereon, arising from a payment or payments having been made under a Debt Service Reserve Surety Policy constituting all or a portion of a Debt Service Reserve Account and deposited into the Debt Service Fund related thereto to prevent a default on the related Series of Bonds.

*“Dedicated Revenues”* shall mean the Use Fees and Container Charges, Contingent Port Obligations, and the earnings on all funds and accounts held by the Trustee under the Indenture (but not including the Rebate Fund). However, Dedicated Revenues at a particular level of priority shall only include the sum of interest earnings on the Debt Service Funds and Debt Service Reserve Accounts with respect to such level of priority to the extent such earnings are required to be deposited or retained in such Debt Service Funds. Dedicated Revenues shall not include funds to be deposited in or earnings on the moneys held in the M & O Fund or the Reserve Account. For purposes of calculating Dedicated Revenues as a condition to issuing any Series of Bonds under the Master Indenture, the Authority has covenanted with the Series 2012 Lender and with the Series 2004 Bond Insurer (so long as the Series 2004 Bond Insurance Policy is in effect and the Series 2004 Bond Insurer is not in default of its obligation

to make payments thereunder) that for purposes of issuing additional Bonds only, an independent consultant acceptable to the Series 2012 Lender and the Series 2004 Bond Insurer will be required to calculate Dedicated Revenues as follows: (1) in each Bond Year (October 1 - September 30), Contingent Port Obligations shall be 40% of Debt Service on all Outstanding Bonds, calculated as if the proposed Series of Bonds to be issued were Outstanding; and (2) Use Fees and Container Charges shall be the Use Fees and Container Charges that were collected in any twelve (12) consecutive months out of the eighteen (18) consecutive months immediately preceding the date of issuance of the proposed Series of Bonds, increased each January 1 at a rate of 1.5%, or such other minimum rate of fee escalation specified in the Use and Operating Agreement; provided, however, that (i) if the rating of either Port is (A) less than AA- but higher than BBB+ (in the case of Standard & Poor's) or (B) less than Aa3 but higher than Baa1 (in the case of Moody's), then "Contingent Port Obligations" shall be deemed to be 20% (instead of 40%) of each year's Debt Service on all Outstanding Bonds, calculated as if the proposed Series of Bonds to be issued were Outstanding; and (ii) if the rating of either Port is (A) less than A- (in the case of Standard & Poor's) or (B) less than A3 (in the case of Moody's), then "Contingent Port Obligations" shall be deemed to be 0% (instead of 40%) of each year's Debt Service on all Outstanding Bonds, calculated as if the proposed Series of Bonds to be issued were Outstanding.

*"Design-Build Contract"* shall mean the Design Build Contract (Contract No. MCO1CS01) dated October 23, 1998, as amended from time to time, between the Authority and The Tutor Saliba Team, a joint venture comprised of Tutor-Saliba Corporation, O & G Industries, Inc., Parsons Transportation Group and HNTB Design/Build, Inc.

*"DTC"* shall mean The Depository Trust Company, a limited-purpose trust company organized under the laws of the State of New York, and its successors and assigns.

*"Eighth Supplemental Indenture"* dated as of June 1, 2012, between the Authority and the Trustee, as amended and supplemented from time to time in accordance with the Master Indenture.

*"Eleventh Supplemental Indenture"* shall mean the Eleventh Supplemental Trust Indenture dated as of May 1, 2016, between the Authority and the Trustee, as amended and supplemented from time to time in accordance with the Master Indenture.

*"Event of Default"* shall mean any occurrence or event specified as such in the Master Indenture.

*"Federal Lender"* shall mean the U.S. Department of Transportation, acting through the Federal Highway Administration.

*"Federal Loan"* shall mean the loan in the maximum initial principal amount of \$400,000,000 (subject to adjustment by accretion) made or to be made to the Authority by the Federal Lender, pursuant to the Federal Loan Agreement, or any replacement or refinancing thereof with or by an agency of the United States Government, which Federal Loan will be made to pay costs related to the acquisition of land, and designing, engineering, constructing, improving and financing of the Project. The Federal Loan was paid in full with the proceeds of the Series 2004 Bonds. References to the Federal Loan, the Federal Loan Agreement and the Federal Loan Fund are, therefore, no longer effective or applicable.

*"Federal Loan Agreement"* shall mean the Amended and Restated Loan Agreement dated as of October 1, 1998, by and between the Authority and the Federal Lender, as amended and supplemented from time to time as permitted thereby and by the Indenture.

*"Federal Loan Fund"* shall be the fund by that name created pursuant to and as further described in the Master Indenture.



*“Final Compounded Amount”* shall mean the Accreted Value of a Capital Appreciation Bond on its maturity date.

*“First Subordinate Lien Bonds”* shall mean any Bonds, in one or more Series, which rank junior and subordinate to the Senior Lien Bonds and the Federal Loan, and rank senior to the Second Subordinate Lien Bonds, if any. Such First Subordinate Lien Bonds may be Notes that are part of a commercial paper program. The Series 2004 Bonds, the Series 1999B Bonds and the Series 1999D Bonds are First Subordinate Lien Bonds. The Series 2016A Bonds are First Subordinate Lien Bonds.

*“Fiscal Year”* shall mean the period of time beginning on July 1 of each given year and ending on June 30 of the immediately subsequent year, or such other similar period as the Authority designates as its fiscal year by written notice to the Trustee.

*“Government Obligations”* shall mean (1) United States Obligations (including obligations issued or held in book entry form) and (2) prerefunded municipal obligations meeting the following conditions: (a) the municipal obligations are not subject to redemption prior to maturity, or the trustee has been given irrevocable instructions concerning their calling and redemption and the issuer has covenanted not to redeem such obligations other than as set forth in such instructions; (b) the municipal obligations are secured by cash and/or noncallable United States Obligations, which United States Obligations may be applied only to interest, principal and premium payments of such municipal obligations; (c) the principal of and interest on the United States Obligations when due and without any reinvestment thereof (plus any cash in the escrow fund) are sufficient to pay the principal of and interest on the municipal obligations; (d) the United States Obligations serving as security for the municipal obligations are held by an escrow agent or trustee; (e) the United States Obligations are not available to satisfy any other claims, including those against the trustee or escrow agent; and (f) the municipal obligations are rated in the highest rating category of any Rating Agency which then maintains a rating on any of the Bonds; and (g) Resolution Funding Corp. (REFCORP) obligations. Only the interest component of REFCORP obligations which have been stripped by request to the Federal Reserve Bank of New York in book entry form are acceptable.

*“Indenture”* shall mean the Master Indenture, together with each Supplemental Indenture.

*“Independent”* shall mean, when used with respect to any specified firm or individual, that such firm or individual (i) does not have any direct financial interest or any material indirect financial interest in the operations of the Authority or either of the Ports or the Railroads, other than the payment to be received under a contract for services to be performed, and (ii) is not connected with the Authority or either of the Ports or the Railroads, as an official, officer or employee.

*“Initial Amount”* shall mean the principal amount of a Capital Appreciation Bond on the date of issuance and delivery to the original purchaser thereof.

*“Interest Payment Date”* shall mean each April 1 and October 1, beginning April 1, 1999, so long as any Current Interest Bonds are Outstanding.

*“JPA Agreement”* shall mean the Amended and Restated Joint Powers Agreement dated as of December 18, 1996, by and between the City of Long Beach and the City of Los Angeles, as amended by the First Amendment to Amended and Restated Joint Exercise of Powers Agreement, dated as of July 1, 2006.

*“JPA Law”* shall mean Article 1, Chapter 5, Division 7, of Title 1 of the California Government Code (commencing with Section 6500).

*“Liquidity Facility”* shall mean a letter of credit, line of credit, standby purchase agreement or other financial instrument which is available to provide funds with which to purchase Bonds.

*“Liquidity Provider”* shall mean the entity which issues a Liquidity Facility.

*“Mandatory Sinking Account Payment”* shall mean with respect to Bonds of any Series and maturity, the amount required by a Supplemental Indenture to be deposited in a Debt Service Fund for the payment of Term Bonds of such Series and maturity.

*“Master Indenture”* shall mean the Master Trust Indenture dated as of January 1, 1999 between the Authority and the Trustee.

*“Maximum Annual Debt Service”* shall mean for each Series of Bonds the greatest Debt Service in any Bond Year during the period beginning with the current Bond Year and ending with the Bond Year in which the last Outstanding Bonds of such Series mature by their terms.

*“M & O Charges”* shall mean the M & O Charges as defined in the Use and Operating Agreement (and as limited by the Use and Operating Agreement), which the Railroads are obligated to pay to the Authority pursuant to the Use and Operating Agreement. M & O Charges shall not be deemed to be Revenues or Dedicated Revenues under the Master Indenture.

*“M & O Fund”* shall mean the fund by that name and the accounts therein created pursuant to the Master Indenture.

*“Net Proceeds”* shall mean insurance proceeds collected as a result of damage to or destruction of all or any portion of the Project or any title insurance or proceeds received in lieu of any insurance or title matter, or condemnation award or amounts received by the Authority from the sale of all or any portion of the Project under the threat of condemnation, less expenses (including the Authority’s attorneys’ fees and expenses and any fees and expenses of the Trustee) incurred in the collection of such proceeds or award, whether or not the property that is the subject of the condemnation or title matter is owned by the Authority or the Ports. Net Proceeds shall not include the proceeds of any business interruption insurance.

*“Ninth Supplemental Indenture”* shall mean the Ninth Supplemental Trust Indenture, dated as of February 1, 2013, between the Authority and the Trustee, as amended and supplemented from time to time in accordance with the Master Indenture.

*“Notes”* shall mean Bonds (including commercial paper) issued under the provisions of the Master Indenture which have a maturity of one year or less from their date of original issuance.

*“Operating Committee”* shall mean the committee comprised of representatives of the Railroads and the Ports, established pursuant to the Use and Operating Agreement.

*“Outstanding”* when used with respect to Bonds shall mean all Bonds (except as provided by the Supplemental Indentures) which have been authenticated and delivered under the Master Indenture, except:

- (a) Bonds canceled or purchased by the Trustee for cancellation or delivered to or acquired by the Trustee for cancellation;
- (b) Bonds deemed to be paid in accordance with the Master Indenture;

(c) Bonds in lieu of which other Bonds have been authenticated under the Master Indenture;

(d) Bonds that have become due (at maturity or on the date fixed for redemption or purchase, acceleration or otherwise) and for the payment of which sufficient moneys, including interest accrued to the due date, are held by the Trustee or a Paying Agent;

(e) Bonds which, under the terms of the Supplemental Indenture pursuant to which they were issued, are deemed to be no longer Outstanding; and

(f) for purposes of any consent or other action to be taken by the holders of a specified Bond Obligation under the Master Indenture, Bonds held by or for the account of the Authority, the City of Los Angeles, the City of Long Beach or by any person controlling, controlled by or under common control with the Authority.

“*Paying Agent*” or “*Paying Agents*” shall mean, with respect to any Bonds or Series of Bonds, the Trustee or such banks, trust companies or other financial institutions or other entities designated in a Supplemental Indenture as the place where such Bonds shall be payable.

“*Permit*” shall mean the Use Permit dated as of October 12, 1998, by and between the Ports and the Authority, which allows the Authority to construct the Project and perform its duties under the Use and Operating Agreement.

“*Permitted Investments*” shall mean any of the following, as further described and limited in the Master Indenture:

- A. United States Treasury Bills, Bonds, and Notes, or “when issued” securities of the United States Government for such securities, or those for which the full faith and credit of the United States are pledged for payment of principal and interest.
- B. Registered state warrants or treasury notes or bonds of the State of California or any other of the 49 states of the United States of America, including bonds, payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the state or by a department, board, agency, or authority of the state, so long as such warrants, notes, or bonds are rated “A” or higher by Moody’s and Standard & Poor’s.
- C. Bonds, notes, warrants, or other evidences of indebtedness of any local agency within the State of California or any other of the 49 states of the United States of America, including bonds, payable solely out of the revenues from a revenue producing property owned, controlled, or operated by the local agency, or by a department, board agency, or authority of the local agency, so long as such warrants, notes, or bonds are rated “A” or higher by Moody’s and Standard & Poor’s, or pre-refunded bonds, notes, warrants or other evidences of indebtedness of any local agency within the state so long as such pre-refunded obligations are rated in the highest rating category for such issues as rated by Moody’s and Standard & Poor’s.
- D. Obligations issued by or guaranteed by the Government National Mortgage Association (GNMA), the Federal Farm Credit Bank System (FFCB), the Federal Home Loan Bank Board (FHLB), the Federal National Mortgage Association (FNMA), Federal Home Administration, Export Import Bank of the United States, Federal Financing Bank, Farmers Home Administration, Federal Home Loan Mortgage Corporation, Federal

Housing Administration, Private Export Funding Corporation, Resolution Funding Corporation, Student Loan Marketing Association or any other instrumentality or agency of the United States.

- E. Bills of exchange or time drafts drawn on and accepted by a commercial bank, which has an unsecured, uninsured and unguaranteed obligation rating of “Prime-1” or “A3” or better by Moody’s and “A-1” or “A” or better by Standard & Poor, otherwise known as banker’s acceptances.
- F. Commercial paper ranked “P1” by Moody’s Investor Services and “A1” by Standard & Poor’s and issued by corporations that are organized and operating within the United States having assets in excess of \$500,000,000 and having an “A” or better rating, if any, on its long term debentures as provided by Moody’s and Standard & Poor’s.
- G. Negotiable certificates of deposit (“NCD”) issued by a nationally or state-chartered bank or state or federal savings and loan association. To be eligible for purchase the NCD must be issued by:
  - 1. A California bank rated “A/B” or better by the rating service of Keefe, Bruyette and Woods, (Keefe)(or equivalent);
  - 2. A major national or regional bank outside of California rated “B” or better by Keefe, (or equivalent);
  - 3. A domestic branch of a foreign bank rated I for country rating, II or better for peer-group rating, and II or better for dollar access by Keefe; or
  - 4. A savings and loan association operating in California rated “A/B” or better by Keefe.
- H. Repurchase Agreements with the following terms and conditions:
  - 1. Transactions shall be limited to the primary dealers and banking institutions rated “A” or better by Moody’s and Standard & Poor’s. The maturity of repurchase agreements shall not exceed 90 days. The market value of securities used as collateral for repurchase agreements shall be monitored daily by the Treasurer and will not be allowed to fall below 102% of the value of the repurchase agreement plus the value of collateral in excess of the value of the repurchase agreement (haircut). In order to conform with provisions of the Federal Bankruptcy Code which provide for the liquidation of securities held as collateral for repurchase agreements, the only securities acceptable as collateral shall be securities that are direct obligations of, or that are fully guaranteed as to principal and interest by, the United States or any agency of the United States.
  - 2. Not more than 50% of the funds held by the Trustee may be invested in repurchase agreements and a security interest satisfactory to the Authority shall always be maintained in the securities subject to a repurchase agreement.
- I. Local Agency Investment Fund as established by the State Treasurer for the benefit of local agencies up to the maximum permitted by State law.

- J. Los Angeles County Treasurer's Investment Pool as prescribed by California Government Code.
- K. Money Market Funds which invest solely in U.S. Treasury Securities and U.S. Government Agency securities, and repurchase agreements relating to the above obligations. To be eligible, these Money Market Funds must have an investment advisor with not less than five years experience, be registered with the SEC, have the highest ranking available as provided by not less than two nationally recognized statistical rating organizations, and have assets in excess of \$500 million.
- L. Bonds or Notes of Corporations incorporated in the United States having ratings of single A or better by Moody's and Standard & Poor's.
- M. Guaranteed Investment Contracts and Investment Agreements acceptable to the Bond Insurer with issuers of a double A rating or better by Moody's and Standard & Poor's. Such contracts are to be of no more than 5 years maturity.
- N. Any mortgage pass-through security, collateralized mortgage obligation or mortgage-backed certificate with a maximum of five years to maturity. Securities eligible for investment under this subdivision shall be issued by an issuer having an "A" or higher rating for the issuer's debt by Moody's and Standard & Poor's and rated in a rating category of "AAA."

"POLA" shall mean the City of Los Angeles acting by and through its Board of Harbor Commissioners.

"POLB" shall mean the City of Long Beach acting by and through its Board of Harbor Commissioners.

"Port Advances" shall mean the amounts advanced or paid by POLA or POLB in connection with the Project, to the extent such amounts are defined and described in the Use and Operating Agreement.

"Port Representative" shall mean one or more officials or employees of POLA or POLB designated by POLA or POLB, respectively, to act as a Port Representative for the applicable Port under the Indenture.

"Ports" shall mean the POLA and the POLB.

"Principal Payment Date" shall mean for Current Interest Bonds, each October 1, beginning October 1 of the respective years designated in the Supplemental Indenture providing for the issuance of the Bonds of such Series, so long as any Current Interest Bonds are Outstanding, and for Capital Appreciation Bonds, October 1 of any year in which the Final Compounded Amount of any Capital Appreciation Bond is due and payable.

"Project" shall mean the consolidated rail transportation corridor known as the Alameda Corridor Project as defined in the Alameda Corridor Final Environmental Impact Statement, as approved by the Federal Highway Administration on January 24, 1996 and the Federal Railroad Administration on January 25, 1996 and the Record of Decisions for that Project, along with any extensions, expansions, related improvements and replacements thereof duly approved for construction by the Railroads, the Ports and the Authority. Various portions of the Project shall be owned by the Ports and the Railroads, which have granted to the Authority the rights of access and to construct and operate the Project pursuant to

(i) the UP C&M Agreement (as defined in the Use and Operating Agreement), (ii) the BNSF C&M Agreement (as defined in the Use and Operating Agreement), (iii) the Permit, and (iv) the Use and Operating Agreement.

*“Railroads”* shall mean BNSF Railway Company, a Delaware Corporation, and the Union Pacific Railroad Company, a Delaware corporation, and their respective successors and assigns under the Use and Operating Agreement, and any other railroad or railroads which become a party to the Use and Operating Agreement.

*“Rating Agency”* shall mean a nationally recognized rating agency providing a rating for any Outstanding Bonds.

*“Rebate Fund”* shall mean any fund created by the Board pursuant to a Supplemental Indenture in connection with the issuance of any Tax Exempt Bonds for the purpose of complying with the Code and providing for the collection and holding for and payment of amounts due to the United States of America.

*“Record Date”* shall mean March 15 for any April 1 Interest Payment Date or September 15 for any October 1 Interest Payment Date.

*“Redemption Account”* shall mean any of the Redemption Accounts permitted to be created pursuant to the Master Indenture and created in a Supplemental Indenture.

*“Refunding Bonds”* shall mean any Bonds issued pursuant to the Master Indenture to prepay, refund or defease all or a portion of any Outstanding Bonds or the Federal Loan.

*“Registrar”* shall mean, with respect to any Bonds, the bank, trust company or other entity designated in a Supplemental Indenture to perform the function of Registrar under the Master Indenture or any Supplemental Indenture, and which entity has accepted the position in accordance with the Master Indenture.

*“Repayment Obligations”* shall mean an obligation, including the interest thereon, arising under a written agreement of the Authority and a Credit Provider pursuant to which the Authority agrees to reimburse the Credit Provider for amounts paid through a Credit Facility to pay debt service on any Bonds and/or an obligation, including interest thereon, arising under a written agreement of the Authority and a Liquidity Provider pursuant to which the Authority agrees to reimburse the Liquidity Provider for amounts paid through a Liquidity Facility to purchase Bonds.

*“Requisition”* shall mean each of the forms of requisition attached to the Master Indenture, pursuant to which the Trustee shall make the payments required pursuant to paragraphs THIRD, SEVENTH, TENTH and TWELFTH, of the flow of funds within the Revenue Fund, and payments from the Reserve Account, the Construction Funds and the M & O Fund pursuant to the Master Indenture.

*“Reserve Account”* shall mean the Reserve Account created pursuant to and as further described in and administered pursuant to the Master Indenture.

*“Reserve Account Investments”* shall mean those securities and other investments more particularly described in the Master Indenture.

*“Reserve Account Target”* shall mean the amount designated as such pursuant to the Use and Operating Agreement, as such amount is adjusted from time to time pursuant to the Use and Operating Agreement.

“*Revenue Fund*” shall mean the fund of that name established pursuant to and further described in and administered pursuant to the Master Indenture.

“*Revenues*” shall mean the Use Fees and Container Charges, Shortfall Advances, proceeds of rental interruption insurance received by the Authority (or the Trustee on behalf of the Authority), the earnings on all funds and accounts held by the Trustee under the Indenture (provided that Revenues at a particular level of priority shall only include the interest earnings on the Debt Service Funds and the Debt Service Reserve Accounts with respect to such level of priority to the extent such earnings are required to be deposited or retained in such Debt Service Funds or Debt Service Reserve Accounts) and grants and other amounts received under contracts or agreements with governmental or private entities and permitted to be applied as Revenues, but not including funds to be deposited or retained in or earnings on the moneys held in the M & O Fund, the Reserve Account, the Rebate Fund, any Net Proceeds, or proceeds from borrowings (including the Federal Loan), or any amounts expended by the Railroads for the maintenance and operation expenses for the Non-Rail Components or the Drill Track (as such terms are defined in the Use and Operating Agreement).

“*Second Subordinate Lien Bonds*” shall mean any Bonds, in one or more Series, which rank junior and subordinate to the Senior Lien Bonds, the First Subordinate Lien Bonds and the Federal Loan. Such Second Subordinate Lien Bonds may be Notes that are part of a commercial paper program. The Series 2016B Bonds are Second Subordinate Lien Bonds.

“*Senior Lien Bonds*” shall mean any Bonds, in one or more Series, which have the highest rank and a first priority on the Trust Estate and are senior and superior to the Federal Loan. Such Senior Lien Bonds may be Notes that are part of a commercial paper program. The Series 1999A Bonds, the Series 1999C Bonds, the Series 2012 Bonds and the Series 2013A Bonds are Senior Lien Bonds.

“*Series*” shall mean Bonds designated as a separate Series by a Supplemental Indenture.

“*Series 1999 Bonds*” shall mean the Series 1999A Bonds, the Series 1999B Bonds, the Series 1999C Bonds and the Series 1999D Bonds.

“*Series 1999A Bonds*” shall mean the “Alameda Corridor Transportation Authority Tax-Exempt Senior Lien Revenue Bonds, Series 1999A” authorized pursuant to the Master Indenture and the First Supplemental Resolution dated as of January 1, 1999.

“*Series 1999B Bonds*” shall mean the “Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Bonds, Series 1999B,” authorized pursuant to the Master Indenture and the Second Supplemental Trust Indenture dated as of January 1, 1999.

“*Series 1999C Bonds*” shall mean the “Alameda Corridor Transportation Authority Taxable Senior Lien Revenue Bonds, Series 1999C,” authorized pursuant to the Master Indenture and the Third Supplemental Trust Indenture dated as of January 1, 1999.

“*Series 1999D Bonds*” shall mean the “Alameda Corridor Transportation Authority Taxable Subordinate Lien Revenue Bonds, Series 1999D,” authorized pursuant to the Master Indenture and the Fourth Supplemental Trust Indenture dated as of January 1, 1999.

“*Series 2004A Bonds*” shall mean the “Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2004A” authorized pursuant to the Master Indenture and the Sixth Supplemental Trust Indenture dated as of February 1, 2004.

“*Series 2004B Bonds*” shall mean the “Alameda Corridor Transportation Authority Taxable Subordinate Lien Revenue Refunding Bonds, Series 2004B” authorized pursuant to the Master Indenture and the Seventh Supplemental Trust Indenture dated as of February 1, 2004.

“*Series 2004 Bonds*” shall mean the Series 2004A Bonds and the Series 2004B Bonds.

“*Series 2012 Bonds*” shall mean the “Alameda Corridor Transportation Authority Taxable Senior Lien Revenue Refunding Bonds, Series 2012” authorized pursuant to the Master Indenture and the Eighth Supplemental Trust Indenture dated as of June 1, 2012.

“*Series 2012 Lender*” shall mean the United States Department of Transportation, acting through the Administrator of the Federal Railroad Administration or any subsequent registered owner of the Series 2012 Bonds.

“*Series 2013A Bonds*” shall mean the “Alameda Corridor Transportation Authority Tax-Exempt Senior Lien Revenue Refunding Bonds, Series 2013A,” authorized pursuant to the Master Indenture and the Ninth Supplemental Trust Indenture dated as of February 1, 2013.

“*Series 2016 Bonds*” shall mean the Series 2016A Bonds and the Series 2016B Bonds.

“*Series 2016A Bonds*” shall mean “Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A” authorized pursuant to the Master Indenture and the Tenth Supplemental Trust Indenture dated as of May 1, 2016.

“*Series 2016A Costs of Issuance Fund*” shall mean the fund by that name created pursuant to the Tenth Supplemental Indenture and into which money shall be deposited to pay Costs of Issuance with respect to the Series 2016A Bonds.

“*Series 2016A Debt Service Fund*” shall mean the fund by that name created pursuant to the Tenth Supplemental Indenture and into which money shall be deposited to pay debt service on the Series 2016A Bonds.

“*Series 2016A Debt Service Reserve Account*” shall mean the account by that name created in the Debt Service Reserve Fund pursuant to the Tenth Supplemental Indenture.

“*Series 2016A Rebate Fund*” shall mean the fund by that name created and maintained pursuant to the Tenth Supplemental Indenture.

“*Series 2016B Bond Insurance Policy*” shall mean the municipal bond insurance policy issued by the Series 2016B Bond Insurer insuring, as provided therein, the payment when due of the principal of and interest on the Series 2016B Insured Bonds.

“*Series 2016B Bond Insurer*” shall mean Assured Guaranty Municipal Corp., a New York stock insurance company, and its successors and assigns. The Series 2016B Bond Insurer shall constitute a Bond Insurer as such term is defined in the Master Indenture.

“*Series 2016B Bonds*” shall mean the “Alameda Corridor Transportation Authority Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B” authorized pursuant to the Master Indenture and the Eleventh Supplemental Trust Indenture dated as of May 1, 2016.



“*Series 2016B Costs of Issuance Fund*” shall mean the fund by that name created pursuant to the Eleventh Supplemental Indenture and into which money shall be deposited to pay Costs of Issuance with respect to the Series 2016B Bonds.

“*Series 2016B Debt Service Fund*” shall mean the fund by that name created pursuant to the Eleventh Supplemental Indenture and into which money shall be deposited to pay debt service on the Series 2016B Bonds.

“*Series 2016B Debt Service Reserve Account*” shall mean the account by that name created in the Debt Service Reserve Fund pursuant to the Eleventh Supplemental Indenture.

“*Series 2016B Insured Bonds*” shall mean the Series 2016B Bonds maturing on October 1, 2034 and bearing interest at 3.00%, October 1, 2035 and bearing interest at 4.00%, October 1, 2035 and bearing interest at 5.00% and yielding 2.71%, October 1, 2036 and bearing interest at 3.125%, October 1, 2036 and bearing interest at 5.00% and yielding 2.75%, October 1, 2037 and bearing interest at 4.00% and October 1, 2037 and bearing interest at 5.00% and yielding 2.77%.

“*Series 2016B Rebate Fund*” shall mean the fund by that name created and maintained pursuant to the Eleventh Supplemental Indenture.

“*Seventh Supplemental Indenture*” shall mean the Seventh Supplemental Trust Indenture dated as of February 1, 2004, between the Authority and the Trustee, as amended and supplemented from time to time in accordance with the Master Indenture.

“*Shortfall Advances*” shall mean the payments by that name more particularly defined and described in the Use and Operating Agreement which the Ports are obligated to pay to the Authority pursuant to the Use and Operating Agreement.

“*Sixth Supplemental Indenture*” shall mean the Sixth Supplemental Trust Indenture dated as of February 1, 2004, between the Authority and the Trustee, as amended and supplemented from time to time in accordance with the Master Indenture.

“*Standard & Poor’s*” shall mean Standard & Poor’s Ratings Services, a Division of The McGraw Hill Companies, Inc., its successors and assigns.

“*Substantial Completion*” shall have the meaning ascribed to such term in the Use and Operating Agreement. The Authority shall certify in writing to the Trustee the date of Substantial Completion at the time Substantial Completion occurs.

“*Supplemental Indenture*” shall mean any document supplementing or amending the Master Indenture or providing for the issuance of Bonds and entered into as provided in the Master Indenture.

“*Swap*” shall mean any financial arrangement in effect or to be in effect between the Authority and a Swap Provider which arrangement provides, with respect to certain designated Bonds that each of the parties shall pay to the other an amount or amounts calculated as if such amount were interest accruing during the term of the arrangement at a specified rate (whether fixed or a variable rate or measured against some other rate) on the designated indebtedness, and payable from time to time or at a designated time or times. The Bond Insurer for the Series 2004 Bonds and the Series 1999 Bonds shall have the right to approve any Swap applicable to a Series of Bonds that it insures.

“*Swap Provider*” shall mean the provider of a Swap pursuant to a contract that is rated in one of the two highest rating categories therefor.

“*Synthetic Fixed Rate Debt*” shall mean Variable Rate Indebtedness issued by the Authority which: (i) is combined with a Swap that creates a substantially fixed-rate maturity or maturities for a term not exceeding such maturity or maturities, or (ii) consists of an arrangement in which two inversely related variable-rate securities are issued in equal principal amounts with interest based on off-setting indices resulting in a combined payment which is economically equivalent to a fixed rate.

“*Tax Exempt Bonds*” shall mean any Bonds the interest on which is excluded from gross income for federal income tax purposes under the Code.

“*Tender Indebtedness*” shall mean any Bonds or portions of Bonds a feature of which is an option, on the part of the Bondholders, or an obligation, under the terms of such Bonds, to tender all or a portion of such Bonds to the Authority, a Paying Agent or other fiduciary or agent for payment or purchase and requiring that such Bonds or portions of Bonds be purchased if properly presented.

“*Tenth Supplemental Indenture*” shall mean the Tenth Supplemental Trust Indenture dated as of May 1, 2016, between the Authority and the Trustee, as amended and supplemented from time to time in accordance with the Master Indenture.

“*Term Bonds*” shall mean Bonds payable at or before their specified maturity date or dates from Mandatory Sinking Account Payments established for that purpose and calculated to retire such Bonds on or before their specified maturity date or dates.

“*Trust Estate*” shall mean all of the moneys and rights described as such in the Granting Clause of the Master Indenture.

“*Trustee*” shall mean U.S. Bank National Association until a successor replaces it and, thereafter, shall mean such successor.

“*Underwriter*” shall have the meaning ascribed thereto in the Continuing Disclosure Certificate.

“*United States Obligations*” shall mean direct and general obligations of the United States of America, or obligations that are unconditionally guaranteed as to principal and interest by the United States of America. “United States Obligations” shall include any stripped interest or principal portion of United States Treasury securities and any stripped interest portion of Resolution Trust Corporation securities.

“*Use and Operating Agreement*” shall mean the Alameda Corridor Use and Operating Agreement, dated as of October 12, 1998, by and among the Authority, the Ports and the Railroads, as amended by any amendments and supplements permitted under the Indenture.

“*Use Fees*” shall mean the fees by that name more particularly defined and described in the Use and Operating Agreement which the Railroads are obligated to pay to the Authority as set forth in the Use and Operating Agreement.

“*Variable Rate Indebtedness*” shall mean any Bond or Bonds the interest rate on which is not, at the time in question, fixed to maturity. Variable Rate Indebtedness shall include Bonds which bear a fixed rate of interest and which are combined with a Swap that creates an interest rate for the payment of such Bonds that is not fixed to maturity.

## **The Master Indenture**

*The following is a summary of certain provisions of the Master Indenture. Such summary is only a brief description of limited provisions of such document and is qualified in its entirety by reference to the full text of the Master Indenture.*

### ***Granting Clause; Pledge of Revenues***

To secure the payment of the interest, principal or Accreted Value and premium, if any, on the Bonds and the Federal Loan and the performance and observance by the Authority of all the covenants, agreements and conditions expressed or implied in the Master Indenture or contained in the Bonds, the Authority pledges the Revenues and assigns to the Trustee and grants to the Trustee for the benefit of the owners of the Bonds and the Federal Lender, liens on and security interests in all right, title and interest of the Authority in and to all moneys, instruments, and rights to which the Authority is entitled relating to the Project and to the construction, use or operation thereof, including the following (all of which collectively shall be deemed to be the “Trust Estate” under the Master Indenture): (a) the Revenues, subject to application as provided in the Master Indenture, (b) with respect to the Federal Lender, moneys and securities held in the Federal Loan Fund, and with respect to the owners of any Bonds, all moneys and securities held from time to time by the Trustee or any Paying Agent in the funds or accounts held thereunder or in any funds and accounts created pursuant to a Supplemental Indenture (other than any Rebate Fund), (c) earnings on amounts included in provisions (a) and (b) above, (d) the Authority’s rights to payment or otherwise under the Use and Operating Agreement, the Permit, the Design-Build Contract and other contracts, agreements, memoranda of understanding, instruments, documents, payment or performance bonds and insurance policies relating to the Project or to the construction, use or operation thereof, (e) any liquidated or actual damages or insurance proceeds received by the Authority from any source pursuant to the Use and Operating Agreement (including the Ports or the Railroads) or otherwise arising from the Project or the construction, use or operation thereof, (f) Net Proceeds, (g) the proceeds of any business interruption insurance or other insurance relating to the Project or the construction, use or operation thereof, and (h) any and all other funds, assets, rights, properties or interests therein, which may from time to time hereafter be pledged or assigned to the Trustee as additional security thereunder, which liens and security interests shall be (i) a first and senior priority for the benefit of the owners of the Senior Lien Bonds, (ii) a second priority for the benefit of the Federal Lender, (iii) a third priority for the benefit of the owners of the First Subordinate Lien Bonds, and (iv) a fourth priority for the benefit of the owners of the Second Subordinate Lien Bonds; but provided that funds deposited in the M & O Fund and funds in the Reserve Account shall not be pledged to or secure payment of the Bonds or the Federal Loan. Any additional security, including any Credit Facility, provided for specific Bonds or a specific Series of Bonds may, as provided by a Supplemental Indenture, secure only such specific Bonds or Series of Bonds and, therefore, shall not be included as security for all Bonds under the Master Indenture, and moneys and securities held in trust as provided in the Master Indenture exclusively for Bonds which have become due and payable and moneys and securities which are held exclusively to pay Bonds which are deemed to have been paid under the Master Indenture relating to defeasance of the Bonds shall be held solely for the payment of such specific Bonds.

### ***Assignment of Moneys and Rights***

The Authority assigns, and transfers to the Trustee, without recourse, all of its rights in the Trust Estate and any other rights or remedies granted to the Authority, including, without limitation, rights and remedies against the Ports and the Railroads, provided that the Trustee’s exercise of any rights and remedies under the Use and Operating Agreement shall not impair either of the Railroad’s rights to use the Rail Corridor, so long as such Railroad continues to pay Use Fees, Container Charges, M & O Charges and other amounts owed by such Railroad under the Use and Operating Agreement.

### ***Bonds Secured by Pledge and Lien on Revenues***

The Senior Lien Bonds shall be secured by a pledge of Revenues and a first lien on the Trust Estate. The Authority represents and states that it has not previously created any pledge, charge or lien on or any security interest in the Trust Estate prior to or on a parity with the lien on the Senior Lien Bonds, and the Authority covenants that, until all the Senior Lien Bonds authorized and issued under the provisions of the Master Indenture and the interest thereon shall have been paid or are deemed to have been paid, it will not, except as specifically provided in the Master Indenture, grant any prior or parity pledge of or any lien on or security interest in the Trust Estate or any of the other security which is pledged or given pursuant to the Granting Clause of the Master Indenture, or create or permit to be created any charge or lien thereon or any security interest therein ranking prior to or on a parity with the charge or lien of the Senior Lien Bonds from time to time Outstanding under the Master Indenture.

The First Subordinate Lien Bonds shall be junior and subordinate in all respects to the Senior Lien Bonds and shall be secured by a pledge of Revenues and shall be secured by and have a priority with respect to the Trust Estate as is set forth in the Granting Clause of the Master Indenture. The Authority covenants that except as provided in the Master Indenture, until all of the First Subordinate Lien Bonds authorized and issued under the Master Indenture and the interest thereon shall have been paid or are deemed to have been paid, it will not grant any prior or parity pledge or lien on or security interest in the Trust Estate of the same priority level for the First Subordinate Lien Bonds as is set forth in the Granting Clause of the Master Indenture.

The Second Subordinate Lien Bonds shall be junior and subordinate in all respects to the Senior Lien Bonds and the First Subordinate Lien Bonds and shall be secured by a pledge of Revenues and shall be secured by and have a priority with respect to the lien on the Trust Estate as is set forth in the Granting Clause of the Master Indenture. The Authority covenants that except as provided in the Master Indenture, until all of the Second Subordinate Lien Bonds authorized and issued under the Master Indenture and the interest thereon shall have been paid or are deemed to have been paid, it will not grant any prior or parity pledge or lien on or security interest in the Trust Estate of the same priority level for Second Subordinate Lien Bonds as is set forth in the Granting Clause of the Master Indenture.

### ***Establishment of Funds and Accounts under the Master Indenture***

The Master Indenture establishes a Revenue Fund, a Reserve Account, an M & O Fund, a Federal Loan Fund and a Debt Service Reserve Fund, consisting of a Debt Service Reserve Account for each Series of Bonds to be established pursuant to the Supplemental Indenture for such Series. The Master Indenture further provides that at the time of the issuance of any Series of Bonds which are to be used to pay Costs of the Project, there shall be created a Construction Fund for such Series pursuant to the Supplemental Indenture.

The Master Indenture provides that at the time of the issuance of each Series of Bonds, the Authority shall create a Debt Service Fund for such Series and within each such Debt Service Fund an Interest Payment Account and a Principal Payment Account, all of which shall be maintained, disbursed and accounted for in accordance with the provisions of the Master Indenture. The Master Indenture permits the Authority, at the time of issuance of each Series of Bonds, to create a Capitalized Interest Fund for the applicable Series, which shall be maintained, disbursed and accounted for in accordance with the Supplemental Indenture providing for the issuance of such Series of Bonds. Each Debt Service Fund and Capitalized Interest Fund shall be held by the Trustee. In addition, to provide for the redemption of any Bonds which are subject to optional or mandatory redemption, including Mandatory Sinking Account Payments, the Trustee or a Paying Agent, as applicable, shall, if required in the applicable Supplemental Indenture, establish within each Debt Service Fund it holds an account designated the "Redemption

Account” which shall be maintained, disbursed and accounted for in accordance with the provisions of the Master Indenture. The Master Indenture also permits the establishment of additional funds, accounts and subaccounts for a particular Series of Bonds pursuant to the Supplemental Indenture.

***Deposits into Debt Service Funds; Withdrawals from Debt Service Funds***

The Trustee shall, at least ten Business Days prior to each Principal Payment Date or Interest Payment Date on any Current Interest Bonds, or as otherwise directed in any Supplemental Indenture, give the Authorized Authority Representative notice by telephone, promptly confirmed in writing, of the full amount required to be deposited with the Trustee to pay the amount required to be paid on such Principal Payment Date or Interest Payment Date in respect of such Bonds, if the amount then on deposit in the respective Debt Service Fund therefor is insufficient to pay the amounts due on such Bonds on such Principal Payment Date or Interest Payment Date. If, on any Principal Payment Date or Interest Payment Date, the Trustee does not have sufficient amounts in the Debt Service Funds (without regard to any amounts which may be available in the respective Debt Service Reserve Accounts) to pay in full with respect to Bonds of all Series of the same priority all amounts of principal and/or interest or the Final Compounded Amount due on such date, the Trustee shall allocate the total amount which is available to make payment on such date (without regard to any amounts in the respective Debt Service Reserve Account) as follows: first to the payment of past due interest on Bonds of any Series of the same priority, in the order in which such interest came due, then to the payment of past due principal on Bonds of any Series of the same priority, in the order in which such principal came due, then to the payment of interest then due and payable on the Bonds of each Series of the same priority due on such payment date and, if the amount available shall not be sufficient to pay in full all interest on the Bonds of the same priority then due, then *pro rata* among the Series of the same priority according to the amount of interest then due and second to the payment of principal and the Final Compounded Amount then due on the Bonds and, if the amount available shall not be sufficient to pay in full all principal and the Final Compounded Amount on the Bonds then due, then *pro rata* among the Series according to the principal amount and the Final Compounded Amount then due on the Bonds.

On or before each Interest Payment Date for any Outstanding Series of Current Interest Bonds, the Trustee shall transfer from the Debt Service Fund to the Interest Account for such Series an amount which, together with amounts on deposit therein and available for such purpose, is sufficient to make the interest payment due on such Current Interest Bonds on such Interest Payment Date. On or before each Principal Payment Date for any Outstanding Series of Bonds, including any mandatory redemption date from Mandatory Sinking Account Payments for Term Bonds of a Series of Bonds, the Trustee shall transfer from the Debt Service Fund to the Principal Account for such Series an amount which, together with amounts on deposit therein and available for such purpose, is sufficient to make the principal or the Final Compounded Amount payment due on such Bonds on such Payment Date.

On or before each date on which Bonds of any Series shall become subject to optional or mandatory redemption (other than from Mandatory Sinking Account Payments) in accordance with the provisions of any Supplemental Indenture, the Trustee shall pay the principal and Accreted Value of, redemption premium, if any, and interest on each Series of Bonds on the redemption dates therefor as established under the applicable Supplemental Indenture. All money remaining in a Debt Service Fund on the final payment or maturity date for a Series of Bonds, in excess of the amount required to make provisions for the payment in full of principal or Accreted Value of, redemption premium, if any, and interest payable on such Bonds or the payment of amounts required to be rebated, pursuant to the Code, to the United States of America with respect such Bonds, shall be deposited in the Revenue Fund.

No deposit need be made into the respective Debt Service Fund for any Series of Bonds if (i) and to the extent there shall be moneys on deposit in the Interest Account or the related Capitalized Interest

Fund from the proceeds of the corresponding Series of Bonds reserved as capitalized interest to be used to pay interest thereon on the next Interest Payment Date, and (ii) the amount contained therein is at least equal to the estimated interest to become due and payable on the Interest Payment Dates falling within the next six months upon such Series of Bonds then Outstanding, and (iii) there shall be in such Debt Service Fund moneys sufficient to pay the principal and Final Compounded Amount of such Series of Bonds then Outstanding and maturing by their terms or subject to mandatory redemption within the next twelve months.

### ***Debt Service Reserve Fund***

Each Supplemental Indenture providing for the issuance of a Series of Bonds shall require as a condition of issuance that an amount and/or a Debt Service Reserve Surety Policy be deposited in the Debt Service Reserve Account for such Series so that, together with any Debt Service Reserve Surety Policy, the amount on deposit in such Debt Service Reserve Account will be equal to the Debt Service Reserve Requirement for such Series. Any cash to be deposited in a Debt Service Reserve Account may be derived from proceeds of the related Series of Bonds or any other legally available source of funds. Moneys held in each Debt Service Reserve Account and any subaccounts therein shall be used for the purpose of paying principal and interest or the Final Compounded Amount on Outstanding Bonds of the related Series of Bonds.

A Debt Service Reserve Surety Policy shall be acceptable in lieu of a deposit of cash or securities into a Debt Service Reserve Account, or may be substituted for amounts on deposit in a Debt Service Reserve Account, only if at the time of such deposit (i) such Debt Service Reserve Surety Policy extends to the maturity of the related Series of Bonds, or if the Authority has agreed by Supplemental Indenture that it will replace such Debt Service Reserve Surety Policy prior to its expiration with another Debt Service Reserve Surety Policy which shall have no adverse effect on the ratings, if any, then in effect on the Bonds, or with cash; (ii) the face amount of the Debt Service Reserve Surety Policy, together with amounts on deposit in the Debt Service Reserve Account, including the face amount of any other Debt Service Reserve Surety Policy benefiting such account, is at least equal to the Debt Service Reserve Requirement for the related Series of Bonds; and (iii) the Bond Insurer for the Series 1999 Bonds consents to the provider of any Debt Service Reserve Surety Policy for any Series 1999 Bonds that it insures.

Moneys held in each Debt Service Reserve Account shall be used for the purpose of paying the Final Compounded Amount of, and principal of and interest (including Mandatory Sinking Account Payments for any Current Interest Bonds or any Capital Appreciation Bonds) on the related Series of Bonds as follows. If, on any Principal or Interest Payment Date for any Current Interest Bonds or the date on which the Final Compounded Amount is due for any Capital Appreciation Bonds, the amounts in the related Debt Service Fund available therefor are insufficient to pay in full the amount then due on such Bonds, moneys held in the related Debt Service Reserve Account shall be used and withdrawn by the Trustee for the payment of the Final Compounded Amount, and principal and interest then due and payable thereon. If amounts in a Debt Service Reserve Account consist of both cash and one or more Debt Service Reserve Surety Policies, the Trustee shall make any required payments from amounts in such Debt Service Reserve Account first from any cash held or invested in such Debt Service Reserve Account, prior to making a draw upon any such Debt Service Reserve Surety Policies. In addition, any moneys in a Debt Service Reserve Account may be used to repay a Debt Service Reserve Surety Repayment Obligation.

The Trustee shall annually, prior to October 1 of each year and at such other times as the Authority shall request, value the Debt Service Reserve Fund (including the separate Debt Service Reserve Accounts therein) on the basis of the current market value thereof, provided that cash

investments shall be marked to market. For purposes of determining the amounts on deposit in the Debt Service Reserve Fund, any Debt Service Reserve Surety Policy held by, or the benefit of which is available to, the Trustee in connection with any Debt Service Reserve Account shall be deemed to be a deposit in the face amount of the Debt Service Reserve Surety Policy or the stated amount of the Debt Service Reserve Surety Policy, provided, that, if the amount available under a Debt Service Reserve Surety Policy has been reduced as a result of a payment having been made thereunder or as a result of the termination, cancellation or failure of such Debt Service Reserve Surety Policy and not reinstated or another Debt Service Reserve Surety Policy provided, then, in valuing the relevant Debt Service Reserve Account, the value of such Debt Service Reserve Surety Policy shall be reduced accordingly. Upon each such valuation, the Trustee shall prepare a written certificate setting forth the Debt Service Reserve Requirement for each Debt Service Reserve Account as of such valuation date and the value of each Debt Service Reserve Account and deliver a copy thereof to the Authority. If, upon any valuation of the Debt Service Reserve Accounts, the value of any Debt Service Reserve Account exceeds the Debt Service Reserve Requirement for the corresponding Series of Bonds then Outstanding, the amount in excess of the Debt Service Reserve Requirement may upon the written election of the Authority, be deposited in the corresponding Debt Service Fund for the related Series of Bonds, unless an Event of Default exists under the Indenture, in which event the excess amount shall be retained in such Debt Service Reserve Account. If, upon any valuation of a Debt Service Reserve Account at cost value, the value is less than the applicable Debt Service Reserve Requirement, the Authority shall replenish such amounts within twelve (12) months after the date of such valuation, in accordance with the provisions of the Master Indenture described in paragraphs SECOND, SIXTH and NINTH of the Flow of Funds.

Any moneys in the Debt Service Reserve Fund shall be invested and reinvested by the Trustee at the written direction of an Authorized Authority Representative in Permitted Investments. Investments in the Debt Service Reserve Fund shall not have maturities that extend beyond ten years from the date of the investment (except for investment agreements with respect to a Debt Service Reserve Account in excess of the corresponding Debt Service Reserve Requirement which are approved by the Bond Insurer (if any) for the related series of Bonds so long as the related Bond Insurance Policy issued by such Bond Insurer is in effect); provided that no such investment in any Debt Service Reserve Account may have a maturity in excess of the final maturity date of the related Series of Bonds. Earnings on each Debt Service Reserve Account, to the extent not required to be transferred to a Rebate Fund, shall be (i) transferred to the respective Capitalized Interest Fund for the related Series of Bonds or (ii) transferred to the Debt Service Fund for such Series of Bonds to be applied as a credit against the Authority's obligation to make its next interest payments; in each case only if no amount has been withdrawn from the related Debt Service Reserve Account as a result of a prior deficiency in any Debt Service Fund and such withdrawal has not been repaid.

All money remaining in the Debt Service Reserve Account on the final payment date of the related Series of Bonds in excess of the amount required to make provisions for the payment in full of the interest and/or the principal or Final Compounded Amount of all such Bonds shall be transferred to the Revenue Fund.

#### ***Receipt and Deposit of Revenues; Payments from Revenue Fund***

The Authority covenants and agrees that so long as any Bonds are Outstanding, all Revenues shall be paid by the Railroads, the Ports or any third parties directly to the Trustee and deposited pursuant to in the Revenue Fund and shall, immediately upon receipt thereof, become subject to the lien thereon and pledge of the Master Indenture. Such sums shall be set aside through transfers or payments from the Revenue Fund and made by the Trustee at such times and subject to the limitations set forth below in the order of priority described previously in this Official Statement (for purposes of this SUMMARY OF

CERTAIN PRINCIPAL DOCUMENTS, the “Flow of Revenue Funds”). See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds” in the front of this Official Statement.

With respect to the Revenue Fund, the Master Indenture provides that promptly after the end of each Bond Year following Substantial Completion the Authority shall perform a final accounting of the Revenues paid from the Flow of Revenue Funds and shall prepare a projection of the Revenues to be available during the ensuing Bond Year to make the payments required pursuant to FIRST through TWELFTH of the Flow of Revenue Funds, calculated by the Authority in accordance with the Master Indenture and generally accepted accounting principles (the “Annual Accounting”). If the Authority determines that there are Revenues from Use Fees and Container Charges remaining at the end of the Bond Year then ended, after payment of the amounts required pursuant to FIRST through TWELFTH of the Flow of Revenue Funds (the “Existing Excess Revenues”), the Authority shall make provision from the Existing Excess Revenues for any payments due with respect to FIRST through TWELFTH during the commencing Bond Year that are not anticipated to be covered by Use Fees and Container Charges during such Bond Year, based upon the projection contained in the applicable Annual Accounting, and thereafter any Existing Excess Revenues shall be applied to the extent of Existing Excess Revenues first to pay the amounts then outstanding pursuant to THIRTEENTH, FOURTEENTH, FIFTEENTH and SIXTEENTH of the Flow of Revenue Funds, applicable to the Bond Year that then ended.

Nothing in the Master Indenture shall preclude the Authority from making the payments described in subparagraphs FIRST through SEVENTEENTH of the Flow of Revenue Funds from sources other than Revenues. In addition, Revenues derived from Shortfall Advances shall be applied only to make the payments required in Paragraphs FIRST through TENTH of the Flow of Revenue Funds.

***Debt Service Payment Requirement and Debt Service Reserve Fund Replenishment Payments for Senior Lien Bonds***

The timing of certain debt service payments for the Senior Lien Bonds and the timing of the payments to replenish the Debt Service Reserve Accounts and to pay any Debt Service Reserve Surety Repayment Obligations for Senior Lien Bonds are governed by the definitions set forth in the following two paragraphs. The timing of the debt service payments for the First Subordinate Lien Bonds and the Second Subordinate Lien Bonds and the timing of the payments to replenish the Debt Service Reserve Accounts and to pay any Debt Service Reserve Surety Repayment Obligations for First Subordinate Lien Bonds or Second Subordinate Lien Bonds is provided for in the Flow of Revenue Funds as previously described in this Official Statement. See “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds” in this Official Statement.

The “Debt Service Payment Requirement” for the Senior Lien Bonds shall be the amounts consisting of (A)(i) with respect to the Outstanding Current Interest Senior Lien Bonds (except for Senior Lien Bonds constituting Variable Rate Indebtedness) one sixth (1/6) of such amounts as shall be sufficient, if deposited, on a monthly *pro rata* basis to pay the aggregate amount of interest becoming due and payable on the next Interest Payment Date for all such Outstanding Current Interest Senior Lien Bonds (excluding any interest for which there are moneys deposited in the Debt Service Funds or Capitalized Interest Funds from the proceeds of Senior Lien Bonds or other source and reserved as capitalized interest to pay such interest until the next Interest Payment Date), until the requisite amount of interest becoming due on the next Interest Payment Date on all such Outstanding Current Interest Senior Lien Bonds (except for such Senior Lien Bonds constituting Variable Rate Indebtedness) is on deposit in such account, and (ii) the aggregate amount of interest, estimated by an Authorized Authority Representative in his or her reasonable judgment, to accrue during that month on the Outstanding Variable Rate Indebtedness of such Senior Lien Bonds; provided, however, that the amounts of such deposits into the Debt Service Funds for any month may be reduced by the amount by which the deposit



in the prior month for interest estimated to accrue on Outstanding Variable Rate Indebtedness of Senior Lien Bonds exceeded the actual amount of interest accrued during that month on said Outstanding Variable Rate Indebtedness of Senior Lien Bonds and further provided that the amounts of such respective deposits into the Debt Service Funds for any month shall be increased by the amount by which the respective deposits in the prior month for interest estimated to accrue on Outstanding Variable Rate Indebtedness of Senior Lien Bonds was less than the actual amounts of interest accrued during that month on said Outstanding Variable Rate Indebtedness of Senior Lien Bonds, and (B)(i) one-sixth (1/6) of the aggregate semi-annual amount of any Senior Lien Bond becoming due and payable on Outstanding Senior Lien Bonds having semi-annual maturity dates or semi-annual Mandatory Sinking Account Payments due within the next six months, plus (ii) one-twelfth (1/12) of the aggregate yearly amount of any Senior Lien Bond to become due and payable on the Outstanding Senior Lien Bonds having annual maturity dates or annual Mandatory Sinking Account Payments due within the next twelve months; provided that if the Board irrevocably determines by resolution that any principal payments on the Senior Lien Bonds shall be refunded on or prior to their respective due dates or paid from amounts on deposit in a Debt Service Reserve Account established and maintained for any Series of Senior Lien Bonds, no amounts need be set aside toward such principal to be so refunded or paid. If, during the twelve-month period (or six month period with respect to such Senior Lien Bonds having semi-annual Mandatory Sinking Account Payments) immediately preceding a Mandatory Sinking Account Payment date, the Authority has purchased Term Bonds of such Series and maturity subject to such Mandatory Sinking Account Payment with moneys in the Debt Service Funds or, during said period and prior to giving said notice of redemption, Term Bonds of such Series of Senior Lien Bonds and maturity have been deposited with the Trustee or fiscal agent for such Senior Lien Bonds for cancellation, or Term Bonds of such Series of Senior Lien Bonds and maturity were at any time purchased or redeemed (other than from Mandatory Sinking Account Payments) by the Trustee or fiscal agent for such Series of Senior Lien Bonds from the Redemption Fund, such Term Bonds so purchased or deposited or redeemed shall be applied, to the extent of the full principal amount thereof, to reduce amounts required to be deposited in the Debt Service Funds. All Term Bonds purchased from the Debt Service Funds or deposited by the Authority with the Trustee or Paying Agent for such Series of Senior Lien Bonds shall be allocated first to the next succeeding Mandatory Sinking Account Payment for such Series of Senior Lien Bonds and maturity of Term Bonds, then as a credit against such future Mandatory Sinking Account Payments for such Series of Senior Lien Bonds and maturity of Term Bonds as may be specified in a written instruction of the Authority. All Term Bonds redeemed by the Trustee or Paying Agent for such Series of Senior Lien Bonds from amounts in the Redemption Fund shall be credited to such future Mandatory Sinking Account Payments for such Series of Senior Lien Bonds and maturity of Term Bonds as may be specified in a written request of the Authority.

The "Debt Service Reserve Fund Replenishment Payment" for Senior Lien Bonds shall be (i) one-twelfth (1/12th) of the aggregate amount of each unreplenished prior withdrawal of moneys from such Debt Service Reserve Account(s) until the balance in such Debt Service Reserve Account(s) is at least equal to the applicable Debt Service Reserve Requirement and (ii) one-twelfth (1/12) of any Debt Service Reserve Surety Repayment Obligation until the aggregate amount of such Debt Service Reserve Surety Repayment Obligation is fully repaid. Such Debt Service Reserve Fund Replenishment Payments shall first be applied to pay any Debt Service Reserve Surety Repayment Obligation until all such Debt Service Reserve Surety Repayment Obligations have been repaid, and then to make deposits of moneys into the Debt Service Reserve Accounts established for the Senior Lien Bonds. If there shall be a deficiency of moneys available to make Debt Service Reserve Fund Replenishment Payments, then available moneys shall be applied on a pro rata basis with respect to each Debt Service Reserve Account.

Money set aside and placed in the Debt Service Funds for the Bonds shall remain therein until from time to time expended for the aforesaid purposes thereof and shall not be used for any other purpose whatsoever, except that any such money so set aside and placed in the Debt Service Funds may be

temporarily invested as provided in the Master Indenture but such investment shall not affect the obligation of the Authority to cause the full amount required to be available in the Debt Service Funds at the time required to meet payments of the Accreted Value or principal of and interest on Bonds for which it is accumulated.

### ***Other Funds and Accounts in the Master Indenture***

The Reserve Account. Subject to the priorities for the application of Revenues set forth in the Master Indenture and the terms of the Use and Operating Agreement, the Trustee shall transfer from available Revenues in the Revenue Fund, any amounts required to be transferred into the Reserve Account at the times specified pursuant to the Flow of Revenue Funds. No funds derived from Shortfall Advances shall be deposited in the Reserve Account. It is intended that the Reserve Account shall be a revolving fund such that the annual transfers into the Reserve Account shall be in an amount to meet the Reserve Account Target to the extent of available Revenues. Moneys in the Reserve Account shall be used and disbursed up to the amount available in the Reserve Account to pay the obligations specified in the Use and Operating Agreement. The Trustee shall make payments or disbursements from the Reserve Account upon receipt from the Authority of a Requisition signed by an Authorized Authority Representative. The Reserve Account shall be funded over time in accordance with the Use and Operating Agreement from the Use Fees and Container Charges remaining each year after payment of the amounts in paragraphs FIRST through TENTH of the Flow of Revenue Funds until the Reserve Account reaches (or is restored to) the then current Reserve Account Target. See “—USE AND OPERATING AGREEMENT” hereto for a description of the funding of and withdrawals from the Reserve Account.

Construction Funds. Each Construction Fund shall be held by the Trustee as provided in the Master Indenture and applicable Supplemental Indenture. All moneys in each Construction Fund shall be (i) held and disbursed to pay Costs of the Project pursuant to the Master Indenture or (ii) transferred to one or more Debt Service Funds for any Series of Bonds pursuant to written instructions of an Authorized Authority Representative. As a condition to any transfer from a Construction Fund to a Debt Service Fund there shall be provided to the Trustee an opinion of Bond Counsel to the effect that such transfer will not cause the interest on any Tax Exempt Bonds to be taxable for federal income tax purposes.

M & O Fund. The Authority shall cause the Railroads to pay directly to the Trustee for deposit in the M & O Fund all M & O Charges due under the Use and Operating Agreement, as such amounts are certified to the Trustee by an Authorized Authority Representative. Such funds in the M & O Fund shall be applied at such times and in such amounts pursuant to Requisitions therefor as may be necessary to pay the annual costs of operating, maintaining and repairing the Rail Corridor and the Port-Owned Tracks (each as defined in the Use and Operating Agreement), as such annual costs of the Project are more particularly identified and described in the Use and Operating Agreement.

Federal Loan Fund. From funds deposited in the Federal Loan Fund, on each April 1 and October 1 after Substantial Completion, the Trustee shall make the principal and interest payment due on the Federal Loan as required by the Federal Loan Agreement. The amounts to be so paid shall be established pursuant to a certification signed by an Authorized Authority Representative.

### ***Investments***

Moneys held by the Trustee in the Debt Service Reserve Fund, the Debt Service Fund, the Construction Funds, the M & O Fund or any other fund or account established and held by the Trustee pursuant to the Master Indenture or any Supplemental Indenture (but not including the Reserve Account) shall be invested and reinvested as directed by the Authority in Permitted Investments, subject (except in the case of the Debt Service Reserve Fund as set forth in the Master Indenture) to any additional

restrictions set forth in the Supplemental Indenture creating such fund or account. The Authority shall direct such investments by written certificate (upon which the Trustee may conclusively rely) of an Authorized Authority Representative or by telephone instruction followed by prompt written confirmation by an Authorized Authority Representative; in the absence of any such instructions, the Trustee shall, to the extent practicable, invest in money market funds composed of or secured by U.S. Treasury Securities and U.S. Government Agency securities which are Permitted Investments. Permitted Investments shall mature not later than such times as shall be necessary to provide moneys when needed for payments to be made from such funds and accounts. The Trustee shall sell and reduce to cash a sufficient amount of any such investments whenever the cash balance in any such funds is insufficient to pay the amounts due therefrom. The Trustee shall not be liable for any loss resulting from its compliance with the written directions of the Authority or as a result of liquidating investments to provide funds for any required payment, transfer, withdrawal or disbursement from any fund or account in which such investments are held. The Trustee may buy or sell any Permitted Investment thereunder through its own (or any of its affiliates') investment department.

The Authority acknowledges in the Master Indenture that to the extent regulations of the Comptroller of the Currency or other applicable regulatory entity grant the Authority the right to receive brokerage confirmations of security transactions as they occur, the Authority will not receive such confirmations to the extent permitted by law. The Trustee will furnish the Authority periodic statements showing all investment transactions made by the Trustee thereunder. The Trustee or any of its affiliates may act as sponsor, advisor or manager in connection with any investments made by the Trustee thereunder.

Earnings on the various funds and accounts created under any Supplemental Indenture shall be deposited as provided in such Supplemental Indenture, except that (i) during the continuation of an Event of Default earnings on such funds and accounts (to the extent not required to be deposited in any Rebate Fund) shall be deposited into the Debt Service Fund created under the respective Supplemental Indenture, and (ii) earnings on the Debt Service Reserve Accounts (to the extent not required to be deposited in a Rebate Fund) shall be applied as described in the Master Indenture.

### ***Covenants of the Authority***

Payment of Principal, Accreted Value and Interest. The Authority covenants and agrees that it shall duly and punctually pay or cause to be paid from the Trust Estate and to the extent thereof the principal or Accreted Value of, premium, if any, and interest on every Bond at the place and on the dates and in the manner set forth in the Master Indenture, in the applicable Supplemental Indenture and in the Bonds specified, according to the true intent and meaning thereof, and that it shall faithfully do and perform all covenants and agreements in the Master Indenture and in the Bonds contained, provided that the Authority's obligation to make payment of the principal or Accreted Value of, premium, if any, and interest on the Bonds shall be limited to payment from the Trust Estate and any other source which the Authority may specifically provide for such purpose, and further subject to the limitations and conditions set forth in the Master Indenture. No Bondholder shall have any right to enforce payment from any other funds of the Authority, the Ports or the Railroads.

Construction, Installation and Equipping of Project. Subject to the terms of the Design-Build Contract, the Permit and the Use and Operating Agreement, the Authority shall construct, install and equip or cause to be constructed, installed and equipped, the Project with all practicable dispatch and such construction, installation and equipping shall be made in an expeditious manner and in conformity with the law so as to complete the same as soon as possible.

Maintenance and Operation of Project. Subject to the terms of the Permit and the Use and Operating Agreement, the Authority shall maintain and preserve or cause to be maintained and preserved the Project in good order, condition and repair at all times and shall cause the Project to be operating as a fully equipped and operational rail corridor. Furthermore, the Authority shall operate the Project or cause the Project to be operated so that in no event shall more than 20% of the cargo transported by the Railroads on the Rail Corridor (as defined in the Use and Operating Agreement) in any year move to or from facilities which are not included within the meaning of “port facilities” under Section 142(a)(2) of the Code.

Compliance with Documents; Collection of Revenues. For so long as any Bonds are Outstanding pursuant to their terms:

(a) each of the Authority and the Trustee shall at all times maintain and diligently enforce all their respective rights under the Use and Operating Agreement, the Permit, the Master Indenture, any Supplemental Indenture, the Federal Loan Agreement and all other contracts, instruments and other items in the Trust Estate (subject to and consistent with the assignment of certain rights to the Trustee set forth in the Master Indenture), and shall, subject to the terms of the Master Indenture, promptly, assist in the collection of and prosecute the collection of all receipts, earnings and revenues to which the Authority is entitled to under all of the same and shall promptly and diligently enforce its rights against the Railroads, the Federal Lender, the Ports or other person who does not pay such receipts, earnings and revenues as they become due under all of the same;

(b) the Authority shall not do or permit anything to be done, or omit or refrain from doing anything, in any case where any such act done or permitted to be done, or any such omission of or refraining from action, would or might substantially impair or materially adversely affect the liens on or security interests in the Trust Estate or would substantially impair or materially adversely affect in any manner the pledge of Revenues or the liens on or security interests granted in the Trust Estate or the rights of the Bondholders or the Federal Lender; and

(c) the Authority will not alter or modify or agree or consent to alter or modify the Use and Operating Agreement or the Permit unless, it first obtains (i) an opinion of counsel or an opinion of an expert that such proposed amendment will not result in a material impairment of such Bondholders’ security for their Bonds or an impairment of the rights of the Federal Lender under the Federal Loan Agreement and provides such opinion to the Trustee; provided, however, that no such opinion is required if the consent of the applicable Bondholders or the Federal Lender, as applicable, is first obtained in accordance with the Master Indenture; and (ii) the consent of the Bond Insurer for the Series 1999 Bonds only with respect to any proposed amendment that would result in a material impairment of the security for the applicable Series of Bonds or materially adversely affect such Bond Insurer’s obligations under any Bonds Insurance Policy for the Series 1999 Bonds.

Payment of Claims. In accordance with the terms of the Design-Build Contract, the Permit and the Use and Operating Agreement, and the other contracts and agreements, as applicable, the Authority shall pay and discharge or cause to be paid and discharged any and all lawful claims for labor, materials or supplies which, if unpaid, might become a charge or lien upon the Project or the Trust Estate or any part thereof or which might impair the security of the Bonds or the Federal Loan.

Against Encumbrances. The Authority shall not make any pledge of or place any charge or lien upon the Project or any part thereof or upon the Trust Estate, and, except as provided in the Master Indenture, shall not issue any bonds, notes or obligations payable from Revenues and secured by a pledge of or charge or lien upon Revenues senior or equal to the pledge, charge and liens thereon in favor of the Bonds.

Against Sale or Other Disposition of Project. Except for the purpose of paying the principal or, Accreted Value of, premium (if any) on and interest on the Bonds, the Authority shall not encumber, sell or otherwise dispose of the Project or any part thereof essential to its proper operation or to the maintenance of Revenues. The Authority shall not enter into any agreement which impairs the operation of the Project or any part thereof necessary to secure adequate Revenues for the payment of the interest on, premium (if any) on and principal or Accreted Value of the Bonds, or which would otherwise impair the rights of the holders of the Bonds with respect to Revenues.

Tax Covenant. With respect to the Tax-Exempt Senior Lien Bonds, the Tax-Exempt Subordinate Lien Bonds and any other Bonds issued under the Master Indenture the interest on which is excluded from gross income for federal income tax purposes, the Authority covenants that it shall not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the interest payable with respect to such Bonds under Section 103 of the Code. Without limiting the generality of the foregoing, the Authority agrees to comply with the provisions of the Tax Certificate (as defined in any Supplemental Indenture relating to such Bonds). This covenant shall survive payment in full or defeasance of such Bonds.

### ***Insurance; Application of Insurance Proceeds***

(a) Insurance Following Substantial Completion. Not later than the date of Substantial Completion, the Authority shall obtain or cause to be obtained and shall continuously keep in force for so long as any Bonds are Outstanding the following insurance with respect to the Project:

(i) Property Insurance. The Authority shall maintain or cause to be maintained a policy or policies of property insurance on the Project insuring against loss or damage by fire, lightning, explosion, windstorm, riot, aircraft, vehicle damage, smoke, vandalism and malicious mischief and such other perils as are normally covered by such policies. The Authority shall also obtain coverage protecting against loss or damage by flood and earthquake (if and only to the extent available on the open market from reputable insurance companies at a reasonable cost). Such policy or policies shall have limits of not less than the lesser of (i) maximum probable loss with respect to the Project as determined by Independent insurance consultant; or (ii) the principal amount of all Bonds then Outstanding plus the unpaid balance on the Federal Loan. Each such policy shall contain a clause making all losses payable to the Trustee and the Authority as their interests may appear, and all proceeds thereof shall be paid to the Trustee for the purpose of repairing or replacing the damaged property or redeeming Outstanding Bonds as provided in the Master Indenture. Each such policy shall name the Ports as additional insureds.

(ii) Liability Insurance. The Authority shall maintain or cause to be maintained a commercial general liability insurance policy or policies to protect the Authority, the Trustee and the officers, agents and employees of each from liability for damages from bodily injury or property damage caused by or arising from the acts or omissions of such parties or occasioned by reason of the construction, condition or operation of the Project with limits of not less than twenty-five million dollars (\$25,000,000) per occurrence. The commercial general liability insurance policy or policies may be subject to deductible clauses customary for such types of insurance policies. As an alternative to obtaining the insurance required by this subsection (b)(ii), the Authority may provide other kinds of insurance or methods or plans of protection including self-insurance, provided that any such alternative is approved by an Independent insurance consultant. Each such policy shall name the Ports as additional insureds.

(iii) Business Interruption Coverage. The Authority shall maintain or cause to be maintained business interruption insurance to cover loss, total or partial, of the use of the Project as a result of any of the hazards covered by the casualty insurance required by subsection (a) above in an

amount not less than the total Debt Service payable on all Outstanding Bonds for any period of one (1) year following Substantial Completion. Each such policy may be subject to a deductible clause in an amount customary and reasonable for such policies; provided, however, in no event shall any such deductible exceed the limit set forth in the Use and Operating Agreement. Each such policy shall be in a form reasonably satisfactory to the Trustee and shall contain a clause making all losses payable to the Trustee. Any proceeds of such insurance shall be paid to the Trustee and deposited in the respective Debt Service Funds to be applied in accordance with the Master Indenture. Each such policy shall name the Ports as additional insureds.

(e) Evidence and Payment of Insurance. On October 1 in each year following the year in which Series 1999 Bonds are issued, the Authority shall deliver to the Trustee a schedule setting forth the insurance policies or self-insurance then in effect, the names of the insurers which have issued the policies, the limits of such policies and the property and risks covered thereby. No insurance policy required by the Master Indenture shall be permitted to expire or be canceled so long as any Bonds remain Outstanding under the Master Indenture. Furthermore, each insurance policy required under the Master Indenture shall state that coverage shall not be suspended, voided or canceled by either party, except after 60 days' prior written notice has been given to the Authority.

In accordance with the Use and Operating Agreement, the payment of any premium or deductible with respect to any insurance policy required by subsections (a)(i) and (iii) shall constitute M & O Charges and be paid from amounts deposited in the M & O Fund. The payment of any premium or deductible with respect to any insurance policy required by subsection (a)(ii) shall constitute an Administrative Cost and be paid from Revenues in accordance with the Flow of Revenue Funds or from other available funds of the Authority.

The Trustee shall not be responsible for the adequacy of any insurance provided by the Authority under the Indenture or for the form or content of any insurance provided by the Authority.

### ***Eminent Domain***

If all or a portion of the Project is taken by eminent domain proceedings or conveyance in lieu thereof, the Authority shall create a special account entitled the "Net Proceeds Account" and deposit the Net Proceeds received as a result of such taking or conveyance into such account and shall within a reasonable period of time after the receipt of such amounts, use such proceeds to (1) replace the Project or portion thereof that was taken or conveyed, (2) redeem Bonds, or (3) create an escrow fund pledged to pay specified Bonds and thereby cause such Bonds to be deemed to be paid as provided in the Master Indenture.

### ***Additional Bonds***

The Master Indenture permits Bonds, including Refunding Bonds, to be issued from time to time under the Master Indenture for the purpose of providing funds for Costs of the Project, including Bonds to complete the Project, or for the purpose of refunding Bonds previously issued or the Federal Loan, provided that prior to or simultaneously with the original delivery of each such Series of Bonds there shall be filed with the Trustee certain certificates of an Authorized Authority Representative and documents, including but not limited to (i) for Bonds (other than Refunding Bonds) a certificate stating that none of the Events of Default set forth in the Master Indenture have occurred and remain uncured and the Authority is in compliance with certain of the covenants under the Master Indenture, and (ii) an opinion of counsel that no other consents under the Federal Loan or otherwise are required for the issuance of the Bonds.

The Authority has covenanted with the Series 2004 Bond Insurer, the Series 2012 Lender and the Series 2013A Bond Insurer that it will not issue additional Bonds unless it complies with certain requirements and tests as described in the front of this Official Statement. The Master Indenture also permits the issuance of Refunding Bonds (which are either Senior Lien Bonds or First Subordinate Lien Bonds) without requiring that such tests for the issuance of additional Bonds be met if the Bonds being issued are for the purpose of refunding any then Outstanding Bonds and such refunding bonds will be issued to refund Bonds or the Federal Loan of an equal or higher priority level under the Master Indenture, and (1) there is delivered to the Trustee, (A) a certificate of an Authorized Authority Representative showing that Maximum Annual Debt Service (and maximum annual debt service on the Federal Loan, if applicable) after the issuance of such Refunding Bonds of that level of priority will not exceed Maximum Annual Debt Service (and maximum annual debt service on the Federal Loan, if applicable) prior to the issuance of such Refunding Bonds, or (B) in the case of any refunding of the Federal Loan, a certificate of an Authorized Authority Representative showing that the debt service on the Refunding Bonds to be issued will not exceed the debt service on the portion of the Federal Loan to be refunded. Pursuant to the Eighth Supplemental Indenture, the Authority has covenanted with the Series 2012 Lender that, as a further condition to the issuance of Refunding Bonds without the consent of the Series 2012 Lender, there will also be delivered to the Series 2012 Lender a certificate that, following the issuance of such Refunding Bonds either (X) aggregate Debt Service on all Senior Lien Bonds Outstanding through the final maturity of the Series 2012 Bonds shall not be increased, or (Y) Dedicated Revenues, calculated as described in the front of this Official Statement under "SECURITY AND SOURCES OF PAYMENT OF THE BONDS – Additional Bonds – Calculation of Dedicated Revenues," are equal to at least 125% of Debt Service on Senior Lien Bonds in each Bond Year in which a Series 2012 Bond is Outstanding.

The Eleventh Supplemental Indenture amends the Master Indenture to set forth conditions the Authority must satisfy before issuing any additional Second Subordinate Lien Bonds after the Series 2016B Bonds are issued. See "Supplemental Indentures - Amendments to Master Indenture" below.

### ***Defeasance***

Bonds or portions thereof (such portions to be in integral multiples of an authorized denomination) which have been paid in full or which are deemed to have been paid in full shall no longer be secured by or entitled to the benefits of the Indenture, except for the purposes of payment from moneys or Government Obligations held by the Trustee or a Paying Agent for such purpose. When all Bonds which have been issued under the Master Indenture have been paid in full or are deemed to have been paid in full, and all other sums payable under the Master Indenture by the Authority, including repayment of the Federal Loan or the establishment of alternative arrangements to the Federal Loan Fund for the repayment of the Federal Loan, and further including all necessary and proper fees, compensation and expenses of the Trustee, each Registrar and each Paying Agent, have been paid or are duly provided for, then the right, title and interest of the Trustee in and to the Trust Estate and any other assets pledged to or securing the Bonds thereunder shall thereupon cease, terminate and become void, and thereupon the Trustee shall cancel, discharge and release the Indenture, shall execute, acknowledge and deliver to the Authority such instruments as shall be requisite to evidence such cancellation, discharge and release and shall assign and deliver to the Authority any property and revenues at the time subject to the Indenture which may then be in the Trustee's possession, except funds or securities in which such funds are invested and are held by the Trustee or a Paying Agent for the payment of the Accreted Value or principal of, premium, if any, and interest on the Bonds or the Federal Loan, if applicable.

A Bond shall be deemed to be paid and for all purposes of the Indenture when payment of the Accreted Value or principal, and interest and premium, if any, either (a) shall have been made or caused to be made in accordance with the terms of the Bonds and the Indenture or (b) shall have been provided

for by irrevocably depositing with the Trustee in trust and setting aside exclusively for such payment, (i) moneys sufficient (as verified by an Independent certified public accountant) to make such payments and/or (ii) noncallable Government Obligations, maturing as to Accreted Value or principal, premium (if any) and interest in such amounts and at such times as will ensure (as verified by an Independent certified public accountant) the availability of sufficient moneys to make such payments. At such times as Bonds shall be deemed to be paid under the Indenture, such Bonds shall no longer be secured by or entitled to the benefits of the Indenture, except for the purposes of payment from such moneys or Government Obligations.

Any deposit under clause (b) of the foregoing paragraph shall be deemed a payment of such Bonds. Once such deposit shall have been made, the Trustee shall notify all holders of the affected Bonds that the deposit required by (b) above has been made with the Trustee and that such Bonds are deemed to have been paid in accordance with the Master Indenture. No notice of redemption shall be required at the time of such defeasance or prior to such date as may be required by the Supplemental Indenture under which such Bonds were issued. The Authority may at any time, prior to issuing such notice of redemption as may be required by the Supplemental Indenture under which such Bonds were issued, modify or otherwise change the scheduled date for the redemption or payment of any Bond deemed to be paid under the terms of the foregoing paragraph in accordance with the terms of the Bonds or the Master Indenture subject to (a) receipt of an approving opinion of Bond Counsel that such action will not adversely affect the tax-exempt status with respect to the interest on any Bond then Outstanding and (b) receipt of a certification of a nationally recognized accounting firm that there are sufficient moneys and/or Government Obligations to provide for the payment of such Bonds. Notwithstanding anything in the Master Indenture regarding defeasance to the contrary, moneys from any trust or escrow established for the defeasance of Bonds may be withdrawn and delivered to the Authority so long as the requirements of subparagraphs (a) and (b) above are met prior to or concurrently with any such withdrawal.

### ***Events of Default***

Each of the following events shall constitute and is referred to in the Master Indenture as an “Event of Default”:

(a) a failure to pay the principal of any Current Interest Bonds or the Accreted Value of any Capital Appreciation Bonds or premium, if any, on any Series of the Bonds, when the same shall become due and payable at maturity or upon redemption, which failure to pay shall be deemed an Event of Default only with respect to such Series of Bonds and all other Bonds of an equal or lower priority;

(b) a failure to pay any installment of interest on any Series of Current Interest Bonds when such interest shall become due and payable, which failure to pay shall be deemed an Event of Default only with respect to such Series of Current Interest Bonds and all other Current Interest Bonds of an equal or lower priority;

(c) a failure to pay the purchase price of any Bond when such purchase price shall be due and payable upon an optional or mandatory tender date as provided in a Supplemental Indenture, which failure to pay shall be deemed an Event of Default only with respect to such Series of Bonds and all other Bonds of an equal or lower priority;

(d) a failure by the Authority to observe and perform any covenant, condition, agreement or provision (other than as specified in paragraphs (a), (b) and (c) above) that are to be observed or performed by the Authority and which are contained in the Master Indenture or a Supplemental Indenture, which failure shall continue for a period of thirty (30) days after written



notice specifying such failure and requesting that it be remedied, shall have been given to the Authority by the Trustee, which notice may be given at the discretion of the Trustee and shall be given at the written request of holders of 25% or more of Bond Obligation of any affected Series of Bonds then Outstanding, unless the Trustee or the holders of 25% or more of Bond Obligation of such Series of Bonds in a Bond Obligation amount not less than the Bond Obligation amount of such Series of Bonds the holders of which requested such notice, shall agree in writing to an extension of such period prior to its expiration; provided, however, that the Trustee and the holders of such Bond Obligation amount of such Series of Bonds shall be deemed to have agreed to an extension of such period if corrective action is initiated by the Authority within such period and is being diligently pursued until such failure is corrected; and

(e) bankruptcy, reorganization, arrangement, insolvency or liquidation proceedings, including without limitation proceedings under Chapter 9 or 11 of the United States Bankruptcy Code (as the same may from time to time be hereafter amended), or other proceedings for relief under any federal or state bankruptcy law or similar law for the relief of debtors are instituted by or against the Authority or either of the Ports and, if instituted against the Authority or either of the Ports, said proceedings are consented to or are not dismissed within sixty (60) days after such institution.

### ***Remedies***

Upon the occurrence of any Event of Default, and subject to the Bond Insurer's rights with respect to that Series of Bonds that such Bond Insurer has insured as set forth in the Indenture, the Trustee in its discretion may, and upon the written direction of the holders of 25% or more of the Bond Obligation of the Bonds then Outstanding whose Bonds are in default under (a), (b) or (c) above, and receipt of indemnity to its satisfaction, shall cause a replacement trustee, having the qualifications set forth in the Master Indenture for replacement Trustees to be substituted as the Trustee for the First Subordinate Lien Bonds and, if necessary, shall cause a separate replacement trustee, having the qualifications set forth in the Master Indenture for replacement Trustees to be substituted as the trustee for the Second Subordinate Lien Bonds, and the provisions of the Master Indenture shall equally apply to the replacement trustees and the Trustee (each, a "Default Trustee"). Each such Default Trustee may, and upon the written direction of the holders of 25% or more of the Bond Obligation of Bonds in default for which the Default Trustee serves as trustee, and receipt of indemnity to its satisfaction, shall, in its own name as the trustee of an express trust:

(i) by mandamus, or other suit, action or proceeding at law or in equity, enforce all rights of the applicable Bondholders, and require the Authority to carry out any agreements with or for the benefit of the applicable Bondholders and to perform its or their duties under the JPA Agreement or the Use and Operating Agreement or any other law to which it is subject and the Indenture, provided that any such remedy may be taken only to the extent permitted under the applicable provisions of the Indenture;

(ii) bring suit upon the applicable Bonds in default or with respect to a default under the Use and Operating Agreement, the Federal Loan Agreement, the Design-Build Contract or the Permit;

(iii) commence an action or suit in equity to require the Authority to account as if it were the trustee of an express trust for the applicable Bondholders of their Bonds in default; or

(iv) by action or suit in equity enjoin any acts or things which may be unlawful or in violation of the rights of the applicable Bondholders of their Bonds in default.

Any Default Trustee shall be under no obligation to take any action with respect to any Event of Default unless such Default Trustee has actual knowledge of the occurrence of such Event of Default.

Anything in the Indenture to the contrary notwithstanding, holders of a majority in Bond Obligation of each priority level of Bonds then Outstanding shall have the right, at any time, by an instrument in writing executed and delivered to the respective Default Trustee, to direct the time, method and place of conducting all remedial proceedings available to the respective Default Trustee under the Indenture to be taken in connection with the enforcement of the terms of the Indenture or exercising any trust or power conferred on the respective Default Trustee by the Indenture; provided that such direction shall not be otherwise than in accordance with the provisions of the law and the Indenture and that there shall have been provided to the respective Default Trustee security and indemnity satisfactory to the respective Default Trustee against the costs, expenses and liabilities to be incurred as a result thereof by the respective Default Trustee.

No Bondholder shall have any right to institute any suit, action or proceeding in equity or at law for the exercise of any trust or power hereunder, or any other remedy hereunder or on such Bonds, unless such Bondholder or Bondholders previously shall have given to the respective Default Trustee written notice of an Event of Default as hereinabove provided and unless also holders of 25% or more of the Bond Obligation of the applicable priority level of Bonds then Outstanding (which could include such Bondholders) shall have made written request of the respective Default Trustee to do so, after the right to institute such suit, action or proceeding shall have accrued, and shall have afforded the respective Default Trustee a reasonable opportunity to proceed to institute the same in either its or their name, and unless there also shall have been offered to the respective Default Trustee security and indemnity satisfactory to it against the costs, expenses and liabilities to be incurred therein or thereby, and the respective Default Trustee shall not have complied with such request within a reasonable time; and such notification, request and offer of indemnity are declared in every such case, at the option of the respective Default Trustee, to be conditions precedent to the institution of such suit, action or proceeding; it being understood and intended that no one or more of the Bondholders shall have any right in any manner whatever by his, her or their action to affect, disturb or prejudice the security of the Indenture, or to enforce any right hereunder or under the Bonds, except in the manner herein provided, and that all suits, actions and proceedings at law or in equity shall be instituted, had and maintained in the manner herein provided and for the equal benefit of all Bondholders.

Notwithstanding any other provision in the Indenture, the right of any Bondholder to receive payment of the principal of and interest on such Current Interest Bond or the Accreted Value of such Capital Appreciation Bond or the purchase price thereof, on or after the respective due dates expressed therein and to the extent of the Revenues and other security provided for the Bonds, or to institute suit for the enforcement of any such payment on or after such respective date, shall not be impaired or affected without the consent of such Bondholder.

If an Event of Default shall occur and be continuing, all amounts then held or any moneys received by the respective Default Trustees, by any receiver or by any Bondholder pursuant to any right given or action taken under the provisions of the Master Indenture (which shall not include moneys provided through a Credit Facility, which moneys shall be restricted to the specific use for which such moneys were provided), after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the expenses, liabilities and advances incurred or made by the respective Default Trustees (including attorneys' fees and disbursements), shall be applied (i) to payment of all unpaid interest on and principal or Accreted Value of the Senior Lien Bonds until fully paid, then (ii) to payment of all unpaid interest on and principal of the Federal Loan, then (iii) to payment of all unpaid interest on and principal or Accreted Value of the First Subordinate Lien Bonds until fully paid, and then (iv) to payment of all unpaid interest on and principal or Accreted Value of the Second Subordinate Lien

Bonds until fully paid. Within each of the priorities for repayment set forth in (i), (iii) and (iv) above, moneys shall be applied to first, to the payment to the persons entitled thereto of all installments of interest then due on the Bonds, with interest on overdue installments, if lawful, at the rate per annum as provided in any Supplemental Indenture, as the case may be, in the order of maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment, and (ii) second, to the payment to the persons entitled thereto of the unpaid principal amount or Accreted Value of any of the Bonds which shall have become due with interest on such Bonds at such rate as provided in a Supplemental Indenture from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full Bonds on any particular date determined to be the payment date, together with such interest, then to the payment ratably, according to the amount of principal and interest or Accreted Value due on such date, in each case to the persons entitled thereto, without any discrimination or privilege.

### ***Trustee, Paying Agents; Registrar***

The Trustee accepts and agrees to execute the trusts specifically imposed upon it by the Indenture, but only upon the additional terms set forth below, to all of which the Authority agrees and the respective Bondholders agree by their acceptance of delivery of any of the Bonds. If an Event of Default has occurred and is continuing, the Trustee shall exercise its rights and powers and use the same degree of care and skill in their exercise as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

The Trustee shall perform the duties set forth in the Indenture and no implied duties or obligations shall be read into the Indenture against the Trustee. Except during the continuation of an Event of Default, in the absence of any negligence on its part or any knowledge to the contrary, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed, upon certificates or opinions furnished to the Trustee and conforming to the requirements of the Indenture.

The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that: (1) the Trustee shall not be liable for any error of judgment made in good faith by a responsible officer of the Trustee unless the Trustee was negligent in ascertaining the pertinent facts; and (2) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it from Bondholders or the Authority in the manner provided in the Master Indenture.

### ***Modification of the Master Indenture***

The Authority may, from time to time and at any time, upon notice to any affected Bond Insurer so long as any Series of Bonds insured by such Bond Insurer is Outstanding, without the consent of or notice to the Bondholders, execute and deliver a Supplemental Indenture supplementing and/or amending the Master Indenture or any Supplemental Indenture as follows:

- (a) to provide for the issuance of a Series or multiple Series of Bonds under the provisions of the Master Indenture and to set forth the terms of such Bonds and the special provisions which shall apply to such Bonds;
- (b) to cure any formal defect, omission, inconsistency or ambiguity in, or answer any questions arising under, the Master Indenture or any Supplemental Indenture, provided such supplement or amendment is not materially adverse to the Bondholders or the Bond Insurer;

(c) to add to the covenants and agreements of the Authority in the Master Indenture or any Supplemental Indenture other covenants and agreements, or to surrender any right or power reserved or conferred upon the Authority, provided such supplement or amendment shall not adversely affect the interests of the Bondholders;

(d) to confirm, as further assurance, any interest of the Trustee in and to the Revenues or in and to the funds and accounts held by the Trustee or any other agent or in and to any other moneys, securities or funds of the Authority provided pursuant to the Indenture or to otherwise add additional security for the Bondholders;

(e) to evidence any change made in the terms of any Series of Bonds if such changes are authorized by the Supplemental Indenture at the time the Series of Bonds is issued and such change is made in accordance with the terms of such Supplemental Indenture;

(f) to comply with the requirements of the Trust Indenture Act of 1939, as from time to time amended;

(g) to modify, alter, amend or supplement the Master Indenture or any Supplemental Indenture in any other respect which is not materially adverse to the Bondholders or the Bond Insurer;

(h) to provide for uncertificated Bonds or for the issuance of coupons and bearer Bonds or Bonds registered only as to principal;

(i) to qualify the Bonds or a Series of Bonds for a rating or ratings by a nationally recognized rating agency;

(j) to accommodate the technical, operational and structural features of Bonds which are issued or are proposed to be issued, including, but not limited to, changes needed to accommodate commercial paper, auction bonds, variable rate or adjustable rate bonds, discounted or compound interest bonds or other forms of indebtedness which the Authority from time to time deems appropriate to incur;

(k) to accommodate the use of a Credit Facility or Liquidity Facility for specific Bonds or a specific Series of Bonds, provided that such supplement or amendment is not materially adverse to the Bondholders; or

(l) to comply with the requirements of the Code as are necessary, in the opinion of Bond Counsel, to prevent the federal income taxation of the interest on any Tax Exempt Bonds, including, without limitation, the segregation of the Revenues into different funds.

Except for any Supplemental Indenture entered into pursuant to the provisions described above or in the next paragraph below, subject to the terms and provisions contained in the Master Indenture and the approval of any affected Bond Insurer so long as any Series of Bonds insured by such Bond Insurer is Outstanding, the holders of not less than a majority in aggregate Bond Obligation of each Series of Bonds then Outstanding shall have the right from time to time to consent to and approve the execution by the Authority of any Supplemental Indenture deemed necessary or desirable by the Authority for the purposes of modifying, altering, amending, supplementing or rescinding, in any particular, any of the terms or provisions contained in the Master Indenture or in a Supplemental Indenture; provided, however, that, unless approved in writing by the holders of all the Bonds then Outstanding or unless such change affects less than all Series of Bonds and the following paragraph is applicable, nothing herein contained shall

permit, or be construed as permitting, (i) a change in the scheduled times, amounts or currency of payment of the principal or Accreted Value of, premium on or, interest on any Outstanding Bonds or (ii) a reduction in the principal amount or Accreted Value or redemption price of any Outstanding Bonds or the rate of interest thereon; and provided that nothing herein contained, including the provisions below, shall, unless approved in writing by the holders of all the Bonds then Outstanding, permit or be construed as permitting (iii) the creation of a lien (except as expressly permitted by the Master Indenture) upon the Revenues created by the Master Indenture, ranking prior to or on a parity with the liens created by the Master Indenture, (iv) except with respect to additional security which may be provided for a particular Series of Bonds, a preference or priority of any Bond or Bonds over any other Bond or Bonds with respect to the security granted therefor under the Granting Clause of the Master Indenture and the priorities established pursuant to, or (v) a reduction in the aggregate principal amount or Accreted Value of Bonds the consent of the Bondholders of which is required for any such Supplemental Indenture. Nothing herein contained, however, shall be construed as making necessary the approval by Bondholders of the execution of any Supplemental Indenture as authorized in the previous paragraph, including the granting, for the benefit of particular Series of Bonds, security in addition to the Trust Estate. Copies of any amendments that the Series 1999 Bond Insurer approves shall be sent to Standard & Poor's.

The Authority may, from time to time and at any time, execute a Supplemental Indenture which amends the provisions of an earlier Supplemental Indenture under which a Series or multiple Series of Bonds were issued. If such Supplemental Indenture is executed for one of the purposes set forth in the first paragraph above, no notice to or consent of the Bondholders shall be required, provided that notice of such amendment shall be given to any affected Bond Insurer so long as any Series of Bonds insured by such Bond Insurer is Outstanding. If such Supplemental Indenture contains provisions which affect the rights and interests of less than all Series of Bonds Outstanding and is not described in the first paragraph above, then the provisions of the Master Indenture described in this paragraph shall control and, subject to the terms and provisions contained in this paragraph and the approval of any affected Bond Insurer so long as any Series of Bonds insured by such Bond Insurer is Outstanding, the holders of not less than 51% in Bond Obligation amount of the Outstanding Bonds of all Series which are affected by such changes shall have the right from time to time to consent to any Supplemental Indenture deemed necessary or desirable by the Authority for the purposes of modifying, altering, amending, supplementing or rescinding, in any particular, any of the terms or provisions contained in such Supplemental Indenture and affecting only the Bonds of such Series; provided, however, that, unless approved in writing by the holders of all the Bonds of all the affected Series then Outstanding, nothing herein contained shall permit, or be construed as permitting, (i) a change in the scheduled times, amounts or currency of payment of the principal or Accreted Value of, premium on or interest on any Outstanding Bonds of such Series or (ii) a reduction in the principal amount, Accreted Value or redemption price of any Outstanding Bonds of such Series or the rate of interest thereon. Nothing herein contained, however, shall be construed as making necessary the approval by Bondholders of the adoption of any Supplemental Indenture as authorized in the first paragraph above, including the granting, for the benefit of particular Series of Bonds, security in addition to the Trust Estate. Copies of any amendments that the Series 1999 Bond Insurer approves shall be sent to Standard & Poor's.

### ***Credit Providers***

If a Credit Facility is provided for a Series of Bonds or for specific Bonds, the Authority may, in the Supplemental Indenture under which such Bonds are issued, provide any or all of the following rights to the Credit Provider as the Authority shall deem to be appropriate:

- (1) the right to make requests of, direct or consent to the actions of the Trustee or to otherwise direct proceedings all as provided in the Master Indenture to the same extent and in

place of the owners of the Bonds which are secured by the Credit Facility and for such purposes the Credit Provider shall be deemed to be the Bondholder of such Bonds;

(2) the right to act in place of the owners of the Bonds which are secured by the Credit Facility for purposes of removing a Trustee or appointing a Trustee under the Master Indenture; and

(3) the right to receive notices of estimates of Shortfall Advances in the form and at such times as provided in the Use and Operating Agreement.

### ***Continuing Disclosure***

The Authority covenants that it will comply with and carry out all of the provisions of the Continuing Disclosure Certificate applicable to the Authority. Notwithstanding any other provision of the Indenture, failure of the Authority to comply with the Continuing Disclosure Certificate shall not be considered an Event of Default under the Indenture; however, the Trustee (at the request of any Underwriter or the Holders of at least 25% aggregate Bond Obligation of Outstanding Bonds to which such Continuing Disclosure Certificate applies shall), or any Bondholder or Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Authority to comply with its obligations and the Continuing Disclosure Certificate. For purposes of the foregoing covenant, “Beneficial Owner” means any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Bonds for federal income tax purposes.

### **Supplemental Indentures**

*The following is a brief summary of certain provisions of the Tenth Supplemental Trust Indenture and the Eleventh Supplemental Trust Indenture (collectively, the “Supplemental Indentures”). Such summary is only a brief description of limited provisions of these documents and is qualified in its entirety by reference to the full text of such Supplemental Indentures.*

### ***Terms of the Series 2016 Bonds***

The Tenth Supplemental Indenture sets forth the terms of the Series 2016A Bonds and the Eleventh Supplemental Indenture sets forth the terms of the Series 2016B Bonds. Most of such terms are described in the front of this Official Statement under “DESCRIPTION OF THE SERIES 2016 BONDS.”

### ***Establishment of Funds and Accounts***

The Tenth Supplemental Indenture establishes the following funds and accounts: the Series 2016A Debt Service Reserve Account, the Series 2016A Debt Service Fund (which shall contain an Interest Account, a Principal Account and a Redemption Account), the Series 2016A Costs of Issuance Fund and the Series 2016A Rebate Fund.

The Eleventh Supplemental Indenture establishes the following funds and accounts: the Series 2016B Debt Service Reserve Account, the Series 2016B Debt Service Fund (which shall contain an Interest Account, a Principal Account and a Redemption Account), Series 2016B Costs of Issuance Fund and the Series 2016B Rebate Fund.

Cost of Issuance Funds. The Trustee shall make payments or disbursements from the Series 2016A Cost of Issuance Fund and the Series 2016B Costs of Issuance Fund upon receipt from the Authority of a Requisition meeting the requirements set forth in the Master Indenture. Pursuant to the Master Indenture, amounts on deposit in the Series 2016A Costs of Issuance Fund and the Series 2016B Costs of Issuance Fund shall be invested and reinvested by the Authorized Authority Representative in Permitted Investments. Subject to the Master Indenture, earnings on each such Fund shall be retained in such Fund. Upon the Trustee's receipt of written instructions from an Authorized Authority Representative, all amounts remaining on deposit in such Funds shall be transferred to the applicable Debt Service Fund.

#### ***Debt Service Reserve Accounts***

The Tenth Supplemental Indenture and the Eleventh Supplemental Indenture provide that as a condition of issuance of the Series 2016 Bonds, there shall be deposited in the Series 2016A Debt Service Reserve Account and the Series 2016B Debt Service Reserve Account, respectively, either cash or a Debt Service Reserve Surety Policy in an amount equal to the Debt Service Reserve Requirement for the Series 2016A Bonds and the Series 2016B Bonds, respectively. Any amounts in such Debt Service Reserve Accounts in excess of the applicable Debt Service Reserve Requirement shall be transferred to the applicable Debt Service Fund, unless an Event of Default exists under the Indenture, in which event the excess amount shall be retained in the Series 2016A Debt Service Reserve Account or the Series 2016B Debt Service Reserve Account, as applicable, in accordance with the Master Indenture.

#### ***Tax Certificates; Rebate Funds***

The Tenth Supplemental Indenture establishes the Series 2016A Rebate Fund and the Eleventh Supplemental Indenture establishes the Series 2016B Rebate Fund each of which shall be administered by the Authority. The Tenth Supplemental Indenture and the Eleventh Supplemental Indenture each obligate the Authority to execute a Tax Certificate with respect to the Series 2016 Bonds, and provides that, notwithstanding any other provision contained therein relating to the deposit of investment earnings on amounts on deposit in any fund or account thereunder at the written direction of the Authority, any earnings which are subject to federal tax or rebate requirement, as provided in the Tax Certificate, shall be deposited in the Series 2016A Rebate Fund or the Series 2016B Rebate Fund, as applicable, for that purpose.

#### ***Amendments to Master Indenture***

The Eleventh Supplemental Indenture amends and replaces clause (c) of Section 2.09 of the Master Indenture as follows:

“(c) the Authority may issue Second Subordinate Lien Bonds from time to time for the purpose of refunding Bonds previously issued under this Master Indenture or for the purpose of providing funds for Costs of the Project, provided that prior to or simultaneously with the original delivery of each Series of Bonds there shall be delivered to the Trustee:

(1) a certificate, dated as of a date between the date of pricing of the Second Subordinate Lien Bond proposed to be issued and the date of delivery of such Second Subordinate Lien Bonds, prepared by an Authorized Authority Representative showing that estimated Dedicated Revenues, as calculated by the Authority in accordance with Section 2.09 of this Master Indenture and generally accepted accounting principles, for each Bond Year from the date of issuance of such Second Subordinate Lien Bonds through the date of final maturity of all Second Subordinate Lien Bonds will be at least equal to 105% of Debt Service for each Bond

Year on all Outstanding Bonds, calculated as if the proposed Series of Second Subordinate Lien Bonds were then Outstanding; or

(2) a certificate, dated as of a date between the date of pricing of the Second Subordinate Lien Bonds proposed to be issued and the date of delivery of such Second Subordinate Lien Bonds, prepared by an Authorized Authority Representative showing that Maximum Annual Debt Service on all Outstanding Second Subordinate Lien Bonds after the issuance of such Second Subordinate Lien Bonds will not exceed Maximum Annual Debt Service on all Outstanding Second Subordinate Lien Bonds prior to the issuance of such Second Subordinate Lien Bonds.”

### ***Rights of the Series 2016B Bond Insurer***

The Eleventh Supplemental Indenture sets forth certain covenants of the Authority in favor of the Series 2016B Bond Insurer with respect to the Series 2016B Insured Bonds. For additional information concerning these covenants and the terms of the Series 2016B Bond Insurance Policy, see “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS -- Rights of the Series 2016B Bond Insurer” in the front of this Official Statement.

## **USE PERMIT**

*The following is a summary of certain provisions of the Use Permit entered into among POLA, POLB and the Authority. This summary is not to be considered a full statement of the terms of such Use Permit and accordingly is qualified by reference thereto and is subject to the full text thereof. Capitalized terms used in this summary and not defined in the front portion of this Official Statement have the meanings set forth in the Use Permit.*

### **Background, Term and Ownership**

POLA and POLB (together, the “Owner”) and the Authority have executed a Use Permit dated as of October 12, 1998 (the “Permit”), whereby the Authority has acquired certain interests in real property (the “Property”) owned by POLA, POLB or the Owner for the purposes specified below. The Permit allows the Authority to use the Property, which will continue to be owned by POLA, POLB or the Owner, for the construction, development, maintenance and operation of the Project. The Permit provides that all improvements constructed on the Property shall belong to the Authority for so long as the Permit is in effect. The Ports have the right to cause the Authority to transfer to the Ports title to property required for the Rail Corridor that is owned by the Authority. In such event the property in question would become subject to the provisions of the Permit.

The Permit term is the period of time commencing on the last date the Permit has been executed by POLA, POLB and the Authority (*i.e.*, December 15, 1998) and terminating on the earlier of (i) fifty years after the commencement of the Permit date, (ii) the cessation of existence of the Authority or (iii) the termination of the Operating Agreement; but in the case of (iii), only if any ACTA Financing (as defined in the Operating Agreement) has been fully paid or fully provided for. Upon expiration or earlier termination of the Permit, the Authority shall vacate the Property and reimburse the Owner for and indemnify, defend and hold harmless the Owner against all damages incurred by the Owner as a result of any delay by the Authority in vacating the Property. All improvements shall be surrendered to the Owner upon the expiration or earlier termination of the Permit.



## **Permitted Use**

The Authority shall use the Property for (i) construction and development of the Project, and those uses which are incidental to such construction and development and (ii) rail freight transportation, as more generally described in and as limited by the Operating Agreement, and for no other purpose whatsoever without the Owner's prior written consent. Except as otherwise provided in the Permit, the Owner intends for the Authority's permitted uses of the Property to encompass all interests the Owner acquired and currently holds in the Property.

## **Fees and Taxes**

The Permit requires the payment of a nominal ten dollar annual fee (the "Permit Fee"), payable by the Authority to POLA and POLB in equal one-half shares. The Permit Fee shall be increased every five years, based upon increases in the Consumer Price Index. The Authority shall also be responsible for all Real Property Taxes (as defined in the Permit) not paid by the Railroads or other third party, personal property taxes, license and permit fees and utilities related to the Property.

## **Defaults and Breach**

A "Default" is defined as the occurrence of any of the following events: (i) the Authority abandons construction of the Project or fails to proceed with construction of the Project as required under the Permit; (ii) the Authority fails to perform any of its obligations under the Permit or fails to comply with or perform any of the terms, covenants or conditions under the Permit; (iii) an event of default occurs under the Federal Loan (as defined in the Permit) or any ACTA Financing; (iv) the Authority makes a general assignment or general arrangement for the benefit of creditors; (v) a petition for adjudication of bankruptcy or for reorganization or rearrangement is filed by or against the Authority and is not dismissed within thirty days; (vi) a trustee or receiver is appointed to take possession of substantially all of the Authority's assets located at the Property or of the Authority's interest in the Permit and such possession is not restored to the Authority within thirty days; (vii) substantially all of the Authority's assets located at the Property, or the Authority's interest in the Permit, is subjected to attachment, execution or other judicial seizure which is not discharged within thirty days or (viii) any change in the entities comprising the Authority. At any time after a Default by the Authority occurs under the Permit, the Owner may, but is not obligated to, cure such Default at the Authority's cost.

A "Breach" is defined as the occurrence of one or more of the above Defaults and the failure of the Authority to cure such Default within thirty days after written notice from the Owner to the Authority; provided, however, that if the nature of the Authority's Default is such that more than thirty days are reasonably required for its cure, then the Authority shall not be deemed to be in Breach if the Authority commences such cure within said thirty day period and thereafter diligently and in good faith prosecutes such cure to completion.

The Owner shall not be deemed to be in default in the performance of any obligation required to be performed by it under the Permit unless and until it has failed to perform such obligation within thirty days after notice by the Authority to the Owner specifying wherein the Owner has failed to perform such obligation; provided, however, that if the nature of the Owner's obligation is such that more than thirty days are required to perform such obligation, then the Owner shall not be deemed to be in default if it commences such performance within such thirty day period and thereafter diligently and in good faith prosecutes such cure to completion.

## Remedies

On the occurrence of a Breach by the Authority, the Owner may exercise any and all rights or remedies permitted by law, except that (a) no merger of the Permit shall be deemed to occur as a result thereof; and (b) the Owner shall have no power to terminate the Permit by reason of any such Breach on the part of the Authority if: (i) such termination would impair the ability of the Authority to pay principal of and interest on any ACTA Financing or the Federal Loan or (ii) such termination would materially adversely affect the Authority's rights under the Operating Agreement to collect, hold and expend ACTA Revenues (as defined in the Operating Agreement) and to exercise its other rights thereunder. So long as any ACTA Financing or Federal Loan remains outstanding, the Owner shall have no right to offset any amounts due to the Authority from the Owner under the Operating Agreement against amounts due to the Owner from the Authority pursuant to the Permit.

## USE AND OPERATING AGREEMENT

*The following is a summary of certain provisions of the Alameda Corridor Use and Operating Agreement (the "Operating Agreement") entered into among the Authority, the Railroads, POLA and POLB. This summary is not to be considered a full statement of the terms of such Operating Agreement and accordingly is qualified by reference thereto and is subject to the full text thereof.*

*Since the date of execution of the initial Operating Agreement, certain changes were made to the Flow of Funds (i.e. the order of priority in which revenues generated by Use Fees and Container Charges will be allocated and disbursed each year) pursuant to terms in the Operating Agreement. These changes are described in the front portion of this Official Statement under the heading "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds."*

## Certain Definitions

*The following terms used in this summary have the meanings set forth below. Each capitalized term not otherwise defined in this summary shall have the meaning set forth elsewhere in the Official Statement or the Operating Agreement.*

"ACTA Financing" means the financing of the Project by the Authority (i.e., the Authority's financings other than the Federal Loan, Port Advances, Property Assembly Reimbursement and the Benefit Amount), which may include the Bonds and/or a series of debt offerings or financings and multiple tranches or levels of priority of indebtedness that may consist of short term, interim and long term financings or refinancings of prior financings (including, without limitation, refinancing of the Federal Loan under the Master Trust Indenture) or obligations to credit enhancers or swap or other hedge providers if incurred in connection with such financings or refinancings.

"Annual Amount" means the amount necessary each year to pay the following items (to the extent the following items are scheduled, budgeted or otherwise expected to be due and payable that year): (a) interest and principal due during such year with respect to the ACTA Financing; (b) the amounts necessary to pay debt service on sums held in or debt incurred to fund any debt service reserve fund established in connection with the ACTA Financing ("Required Debt Service Reserve"), plus any amount necessary to replenish the Required Debt Service Reserve after draws thereon; and (c) the fees and charges of third party trustees, administrators, rating agencies, auditors, independent consultants, financial advisors, underwriters, attorneys or custodians incurred by Owner or the Authority in connection with the ACTA Financing, fees and costs incurred to obtain and renew letters of credit, bond insurance and other forms of credit enhancement facilities for the ACTA Financing and any amounts necessary to make any

rebate payments to the United States or to otherwise comply with the provisions of the Internal Revenue Code.

*“ATSF Purchase Agreement”* means that certain Agreement for Sale of Certain Real Property in the Los Angeles Harbor Subdivision Rail Line between MP 27.6 and MP 28.3 and Other Interests at Redondo Junction of The Atchison, Topeka and Santa Fe Railway Company to City of Los Angeles and City of Long Beach, dated as of December 22, 1994, by and between the Owner, as purchaser, and the former The Atchison, Topeka and Santa Fe Railway Company, as seller.

*“Benefit Amount”* means an amount equal to 40% of the difference between the present value of the amount that will be paid using tax-exempt financing for a portion of the financing for the Project and the amount that would have been paid had taxable financing been used for such portion of the financing for the Project. The Benefit Amount shall be computed by the Authority on or about the date of issuance of such tax-exempt financing and the discount rate shall be the tax-exempt interest rate on such financing on that date (*“Tax Exempt Rate”*). The Benefit Amount shall bear interest, compounded semi-annually, at the Tax Exempt Rate from the date of issuance of the tax exempt financing, which interest shall be added to the balance of the Benefit Amount and likewise bear interest until paid. POLA and POLB shall allocate between themselves the Benefit Amount and shall notify the Authority in writing of such allocation prior to Substantial Completion.

*“BNSF C&M Agreement”* means that certain Right of Entry and Construction Agreement dated as of the date of the Operating Agreement (as the same may be amended from time to time, to the extent not inconsistent with the provisions of the Operating Agreement), by and among BNSF, the Authority and Owner.

*“Bonds”* shall mean revenue bonds or other evidences of indebtedness issued by the Authority from time to time pursuant to the Master Trust Indenture.

*“Capital Expenses”* means the costs and expenses incurred in making any capital improvements or betterments, or replacements to the extent that costs and expenses of replacements are determined to be Capital Expenses in accordance with the guidelines to be adopted by the Operating Committee, to (i) the Rail Corridor other than the Non-Rail Components, and (ii) subject to the other provisions of the Operating Agreement, the Port-Owned Tracks.

*“Corridor Dispatcher”* shall mean the person or entity responsible for dispatching service for all train movements on and within the Rail Corridor, on all Port-Owned Tracks and to all Port Facilities from and after Substantial Completion.

*“Corridor Maintenance Contractor”* shall mean the person or entity responsible for inspection, maintenance and repair of, and making capital replacements and improvements to, the Rail Corridor and all Port-Owned Tracks (including, without limitation, the Non-Rail Components).

*“Drill Track”* means a single track rail line constructed pursuant to and in accordance with the provisions of the UP C&M Agreement, any support structures to the extent they support the Drill Track and the real property on and along which such rail line is located, generally running adjacent and parallel to parts of the Rail Corridor.

*“Federal Loan”* means the \$400 million loan made to the Authority by the U.S. Department of Transportation, acting through the Federal Highway Administration, pursuant to an Amended and Restated Loan Agreement dated as of October 15, 1998, or any replacement or refinancing thereof with or by an agency of the United States Government.

*“Flow of Funds”* means the order of priority in which revenues generated by Use Fees and Container Charges will be allocated and disbursed each year. Such order of priority is described in the Official Statement under the heading “SECURITY AND SOURCES OF PAYMENT FOR THE BONDS—Flow of Funds.”

*“Local Train”* means any train on which at least 80% of the railcars are delivered to or picked up from industries which are located between the northerly boundary of the Ports and the point that the mainline tracks owned by a particular Railroad diverge from the northerly end of the Rail Corridor. For purposes of this definition, (i) one platform of at least 40-feet or one well of at least 40-feet shall equal one railcar, and (ii) railcars carrying Toyota (or related company) automobiles originating at or being delivered to the Toyota Distribution Facility during the exclusive service period (which period is the shorter of (A) through December 31, 2006 or, if the main Toyota lease is extended, through the expiration date of such extended lease, but in no event later than December 31, 2016, or (B) for so long as such facility exists at that location) shall be considered originating from or delivered to an industry located north of the Ports.

*“Manuel Sidings”* means the three sidings near the Sepulveda Boulevard Bridge and located generally in the vicinity of the track identified as “Manuel 3” on Page 3 of the Map.

*“Map”* means the map (consisting of four pages) attached to the Operating Agreement as Exhibit A.

*“Master Trust Indenture”* means that certain Master Trust Indenture to be entered into by the Authority and a third party trustee, which provides the terms and conditions upon which the Authority may issue revenue bonds or other evidences of indebtedness for the purpose of financing all or a portion of the Project, as amended, supplemented, or amended and restated from time to time.

*“Net Project Costs”* has the meaning set forth in Section 7.3(l) of the Operating Agreement.

*“Non-Rail Components”* means the walls, retaining walls, embankments, support structures and drainage facilities of and for the trench portion of the Rail Corridor, and the structural portions of the bridges and overpasses over the trench portion of the Rail Corridor. The term Non-Rail Components shall not include (i) public streets, roadways or highways along the Rail Corridor, (ii) the surface pavement of streets on the bridges and overpasses over the trench portion of the Rail Corridor, and (iii) the lighting, drainage and fence structures located on the bridges and overpasses over the trench portion of the Rail Corridor (and the maintenance, repair and replacement of such items shall not be the responsibility of the parties to the Operating Agreement or paid for with M&O Charges, Use Fees, Container Charges, Port Advances or from the Reserve Account).

*“North End Grade Separation”* means that certain rail-to-rail grade separation, by which BNSF’s San Bernardino Subdivision Tracks will cross over the Rail Corridor Tracks and the Los Angeles River in the location shown on Page 1 of the Map, thereby eliminating the at-grade rail crossing that currently exists in the vicinity of Redondo Junction.

*“Operating Committee”* means a committee comprised of representatives of POLA, POLB, UP and BNSF, which committee is established by such entities for the specific purposes described in the Operating Agreement. The Operating Committee shall be comprised of one representative (and one alternate for each representative) designated by each of POLA, POLB, UP and BNSF. POLA, POLB, UP and BNSF each shall designate in writing their respective representatives (and alternates) on the Operating Committee no later than December 31, 1998. Each such party may change its representative (and/or its alternate) on the Operating Committee from time to time by delivering written notice of such

change to the other parties to the Operating Agreement in accordance with the terms of the Operating Agreement. If (i) any two parties to the Operating Agreement who then are members of the Operating Committee merge, or if one such party otherwise acquires another party, the resulting entity shall have only one vote on the Operating Committee, (ii) any Railroad is permitted to assign less than all of its rights under the Operating Agreement in accordance with the provisions of the Operating Agreement, the assignee shall not have a vote on the Operating Committee, and (iii) Owner assigns all of its rights under the Operating Agreement to a single entity, then such entity or assignee shall have only one vote on the Operating Committee (provided, however, a transfer or lease of, or the grant of a license, permit or other rights to, or grant of a security interest in, the Rail Corridor to the Authority, or another entity in connection with any financing of the Project, shall not by itself be deemed or construed as an assignment by Owner of its rights under the Operating Agreement, and shall not permit such entity to have a vote or any other rights on the Operating Committee).

*“Overdue Rate”* means a rate per annum equal to the “prime rate” plus 5%, but in no event greater than the maximum rate permitted to be charged under the law of the State of California as of the date the payment in question was due under the Operating Agreement. As used in the preceding sentence, “prime rate” means the rate announced from time to time by the Los Angeles main office of Bank of America as its “reference rate”. If Bank of America no longer announces a “reference rate,” then the Operating Committee shall promptly adopt a substitute benchmark for determining the Overdue Rate similar to the Bank of America “reference rate”.

*“Owner”* means, collectively, POLA and POLB.

*“Port”* means, individually, each of the seaports located on San Pedro Bay in the County of Los Angeles commonly known as the Port of Long Beach and the Port of Los Angeles, and *“Ports”* means, collectively, both of such seaports.

*“Port Advances”* means the following amounts: (i) Net Project Costs advanced by POLA or POLB (either directly or through the Authority) prior to Substantial Completion that have not already been reimbursed to POLA or POLB from the proceeds of the financings or grants received by the Authority; (ii) Shortfall Advances made by either POLA or POLB; (iii) amounts, if any, voluntarily advanced by POLA or POLB (either directly or through the Authority) in excess of the Shortfall Advances to pay all or a portion of the Annual Amount, the Federal Loan or any other obligation or liability of the Authority with respect to the Project; (iv) amounts, if any, voluntarily advanced by POLA and POLB after Substantial Completion, in excess of Shortfall Advances, to cover administrative expenses of the Authority that have not already been reimbursed to POLA or POLB from the proceeds of the financings or grants received by the Authority; and (v) any amounts advanced by either POLA or POLB to fund the Reserve Account in certain years in which less than \$4 million in revenues from Use Fees and Container Charges are deposited in the Reserve Account. Port Advances shall bear interest from the date advanced at a rate per annum equal to the interest rate on six month U.S. Treasury Bills, which rate shall be adjusted each January 1 and July 1, effective for the outstanding Port Advances on such date.

*“Port Facilities”* means all existing or future terminals, yards and facilities owned or leased by, or located on property owned by, Owner, POLA or POLB (or any successor or assignee of any of the foregoing) and located within the Port areas (as such Port areas are shown on Page 4 of the Map), including the Intermodal Container Transfer Facility (outlined on Page 3 of the Map), as such facilities may be expanded or contracted from time to time.

*“Port-Owned Tracks”* means all Track and Track Support Structures now or in the future owned jointly or separately by POLA and/or POLB (or any successor or assignee of either or both of the foregoing), located within the Port areas shown on Page 4 of the Map, whether or not located within the

Rail Corridor, provided, however, that neither the Drill Track nor Track located within a Port Facility shall be considered part of the Port-Owned Tracks. "Port-Owned Tracks" also shall include (i) the Manuel Sidings and the portion of the UP San Pedro Branch used to access the Manuel Sidings, but only if the Manuel Sidings are used for holding or storing trains as part of the Rail Corridor pursuant to the Operating Agreement, and (ii) the portion of the UP San Pedro Branch between Thenard Crossing and the Port areas shown on Page 4 of the Map. Except as provided in clause (ii) of the preceding sentence, the UP San Pedro Branch shall not be deemed to be Port-Owned Tracks under the Operating Agreement unless Owner expressly so agrees.

"*Port Rail Agreements*" means, collectively, (i) that certain Permit to Use Tracks Agreement dated as of December 1, 1997, by and among POLA, BNSF, Southern Pacific Transportation Company and Union Pacific, (ii) that certain San Pedro Bay Harbor Rail Operating Agreement dated as of December 1, 1997, by and between POLA and Pacific Harbor Line, Inc., (iii) that certain Use of Tracks Agreement dated as of June 1, 1998, by and among POLB, Union Pacific and BNSF, and (iv) that certain Long Beach Rail Operating Agreement dated as of June 1, 1998, by and between POLB and Pacific Harbor Line, Inc., as each of such agreements may be extended or amended from time to time.

"*Project*" means the construction and development of the project described in that certain Plan adopted by the Authority on January 14, 1993, as modified and shown on the Conceptual Design Layout (Alternative 2.1B) (copies of which have been date stamped December 22, 1994 and initialed by each of POLA, POLB, Southern Pacific Transportation Company, The Atchison, Topeka and Santa Fe Railway Company and Union Pacific), prepared by Daniel, Mann, Johnson & Mendenhall in joint venture with Moffatt & Nichol, Engineers (including the Tracks and Track Support Structures for the Rail Corridor, the Non Rail Components, and streets, roadways and highways and street, roadway, highway and railway overpass facilities), as updated and, to the extent shown thereon, superseded by the Track Schematic Drawings, and as the same may be amended from time to time, to the extent not inconsistent with the Track Schematic Drawings and the provisions of the Operating Agreement (provided that if any such amendment to the Plan made after the date of the Operating Agreement, other than an amendment required by law or an amendment required by a governmental entity or agency other than Owner or the Authority, will increase the total amount of Net Project Costs by an amount in excess of \$50 million, then such amendment must first be approved by the Operating Committee and, if disapproved by the Operating Committee, such amendment nevertheless may be made if Owner and the Authority agree that the amount in excess of said \$50 million will be paid entirely from sources other than Use Fees and Container Charges).

"*Property Assembly Reimbursement*" means the sum of \$200 million, to be refunded by the Authority to POLA and POLB as reimbursement for a portion of amounts expended by POLA and POLB to acquire the property and related rights and interests necessary for the Project, which amount shall not bear interest or otherwise be adjusted for the passage of time. POLA and POLB shall allocate between themselves the Property Assembly Reimbursement and shall notify the Authority in writing of such allocation prior to Substantial Completion. Notwithstanding the foregoing, POLA and POLB have authorized the Authority to deduct thirty-four percent (34%) of any amount it otherwise would pay either POLA or POLB for the Property Assembly Reimbursement and immediately deposit such amount in the Reserve Account, regardless of whether such payment causes the Reserve Account to exceed the Reserve Account Target.

"*Pro Rata Portion*" means, with respect to any of the Railroads, a percentage equal to the relationship of such Railroad's use (including Repositioning and Crossing Movements) of the Rail Corridor and the Port-Owned Tracks to the total use of the Rail Corridor and the Port-Owned Tracks by all of the Railroads (including Repositioning and Crossing Movements) during a given time period. Use

shall be measured by gross ton miles or by train miles depending upon the nature of the costs or expenses subject to proration, as more particularly set forth in the Operating Agreement.

“*Rail Corridor*” means a multiple main track, high density, predominantly 40 mile per hour mainline railroad system (including the Track and Track Support Structures and identified rail connections for each of the Railroads) with centralized traffic control which permits bi-directional operation on each main track and provides for maximum train-handling capacity, together with the real property on which such railroad system is located, as generally shown on the Conceptual Design Layout described above in the definition of “Project,” as updated and, to the extent shown thereon, superseded by the Track Schematic Drawings (provided that (i) “maximum train-handling capacity” shall not be construed to require any Railroad to upgrade its locomotives in order to meet such standard in operating on the Rail Corridor, and (ii) “predominantly 40 miles per hour” shall not be construed to require that the entire Rail Corridor and every connection thereto be designed and constructed to accommodate rail operations at speeds of 40 miles per hour). If constructed, the Rail Corridor will be constructed in accordance and conformance with the provisions and standards set forth in the UP C&M Agreement (or, with respect to any portion of the Rail Corridor constructed on property owned by BNSF, in accordance with the provisions and standards set forth in the BNSF C&M Agreement) and will be generally located in the right-of-way Owner acquired from Southern Pacific Transportation Company running generally along and parallel to Alameda Street beginning, in the north, for each Railroad, at the point that such Railroad leaves the mainline tracks or trackage rights owned or held by such Railroad (other than the Rail Corridor itself), which point, for each Railroad, is shown on Page 1 of the Map, and ending, in the south, at the Anaheim Street grade separation in the City of Long Beach and at the northerly entrance to the Badger Avenue Bridge in the City of Long Beach. The Rail Corridor shall include:

- (a) the improvements described on Exhibit B attached to the Operating Agreement (provided, however, capital replacement of the North End Grade Separation shall be governed by separate agreements between BNSF and the commuter agencies which will operate over the North End Grade Separation, and provided further, however, for purposes of maintenance, repair and dispatching, the North End Grade Separation shall not be considered part of the Rail Corridor);

- (b) the connections and crossings identified in Section 3.1(a)(i)(B) and Section 3.1(a)(i)(C) of the UP C&M Agreement;

- (c) a Track connection between the Rail Corridor and a Track leading to Watson Yard, up to the property line of Owner’s property, as that Watson Yard Track connection is described in the ATSF Purchase Agreement (as such description is updated and modified in the BNSF C&M Agreement);

- (d) a Track connection between the Rail Corridor and BNSF’s main line Tracks near Redondo Junction, up to the property line of Owner’s property, as that Track connection is described in the ATSF Purchase Agreement (as such description is updated and modified in the BNSF C&M Agreement); and

- (e) The Rail Corridor shall not include any street, roadway or highway structures or improvements over or adjacent to the Rail Corridor (provided that this sentence shall not be deemed to exclude from the definition of Rail Corridor any (x) maintenance, access or service roads constructed on or adjacent to the Rail Corridor property for the primary purpose of providing access to or maintaining the Track and other components of the Rail Corridor, or (y) the structural portion of bridges and overpasses over the trench portion of the Rail Corridor

(which structural portions constitute part of the Non-Rail Components), all of which shall be part of the Rail Corridor). The Rail Corridor shall not include the Drill Track.

“*Railroad*” means, individually, BNSF or Union Pacific, and “*Railroads*” means, collectively, all of BNSF and Union Pacific, and the assignees of the foregoing permitted pursuant to the Operating Agreement, together with any other Class I or financially responsible and experienced regional railroad that in the future may be granted rights by Owner to use the Rail Corridor pursuant to the Operating Agreement.

“*Repositioning and Crossing Movement*” means one of the following continuous movements across the Rail Corridor (*i.e.*, not including switching on the Rail Corridor) for the purpose of repositioning of locomotives, railcars and equipment, or moving the same across the Rail Corridor, only:

(i) movements over the Rail Corridor only north of 25th Street (and, with respect to Union Pacific, including J Yard), or the connection of Union Pacific’s Wilmington Branch to the Rail Corridor, and not to or from any Port Facility;

(ii) movements over the Rail Corridor only south of the Dolores Yard/Intermodal Container Transfer Facility connection track (as outlined on Page 3 of the Map) at Dominguez Junction between a Port Facility and a rail origin or destination south of Dominguez Junction (which shall include for BNSF only movements to Watson Yard (as shown on Page 3 of the Map) and then to an industry or yard located on BNSF’s Harbor Subdivision south of 25th Street);

(iii) movements across the Rail Corridor that both originate and terminate on the Drill Track or adjacent yards;

(iv) movements across the Rail Corridor between Union Pacific’s Wilmington Branch, and Dolores Yard;

(v) turning of locomotives and railcars by Union Pacific using the Watson Yard connection track as described in that certain Use of Tracks Agreement dated as of December 22, 1994 among Southern Pacific Transportation Company, BNSF and Owner; and

(vi) movements between the Dow Chemical Facility and Mead Yard (as outlined on Page 3 of the Map);

provided that in each case the Railroad conducting the Repositioning and Crossing Movement shall not hold, store, position or leave trains, railcars, locomotives or other equipment on, or otherwise block, any of the main line tracks of the Rail Corridor. In no event shall Repositioning and Crossing Movements be used to move railcars or containers that otherwise are required by the Operating Agreement to use the Rail Corridor to another rail line in order to avoid using the Rail Corridor.

“*STB*” means the Surface Transportation Board.

“*Substantial Completion*” means the earlier of (i) completion of construction of the Rail Corridor to such an extent that there is sufficient capacity to permit Union Pacific and BNSF to operate Through Trains on an efficient basis between the Ports and the northerly limits of the Rail Corridor at then current and reasonably anticipated volumes of traffic at the train speeds shown on the Track Schematic Drawings, except (x) as described on Exhibit A-1 attached to the Operating Agreement (and the parties hereto acknowledge that if construction of the Rail Corridor otherwise has been completed in accordance with this clause (i), the fact that one or more of the projects described on Exhibit A-1 attached to the Operating



Agreement are not then complete shall not preclude Substantial Completion from being deemed to have occurred), and (y) the fact that local switching activities may be conducted on one of the mainline tracks of the Rail Corridor at the Permitted Switching Locations shall not be taken into account for purposes of this clause (i); or (ii) such earlier date, if any, on which all of the parties to the Operating Agreement agree that Railroads will commence joint rail operations of Through Trains on the Rail Corridor between 25th Street and West Thenard. Substantial Completion of the Rail Corridor shall mean and include the construction of the crossings and connections described in clause (b) of the definition of "Rail Corridor," on the terms set forth in the UP C&M Agreement, and the construction of the connection Tracks described in clauses (c) and (d) of the definition of "Rail Corridor" beyond the property line of Owner's property on the terms set forth in the BNSF C&M Agreement.

*"Through Train"* means any train movement commencing or terminating at a Port Facility, together with Union Pacific's "Dolores Hauler" (pursuant to the Project environmental impact report) and existing unit trains to or from any oil refineries served from the Rail Corridor (pursuant to the Project environmental impact report), excluding, however, any Repositioning and Crossing Movements and/or Local Trains.

*"Toyota Distribution Facility"* means the Toyota Distribution Facility as outlined on Page 3 of the Map.

*"Track"* means all railroad related improvements, including all tracks (including main line tracks, spur tracks, lead tracks, passing tracks and storage tracks) and all rail-related facilities (including rails and fastenings, switches, frogs, bumpers, ties, ballast, roadbed, signaling devices and systems, traffic control systems, interlocking devices and plants, crossing warning devices, crossing surfaces, signal pole lines, and signal communication facilities and equipment).

*"Track Schematic Drawings"* means those certain track schematic drawings dated 12 January 1998 (with a date code of 1 October 1998 along the lower right margin) and initialed by each of POLA, POLB, the Authority, BNSF and Union Pacific, a copy of which is attached to each of the UP C&M Agreement and the BNSF C&M Agreement.

*"Track Support Structures"* means those properties, improvements and structures for use or support of the Track, including rail bridges, rail tunnels, culverts and other structures, subgrade, embankments, walls (including sound walls but excluding support structures for street, roadway or highway bridges), dikes, pavements and drainage facilities, and maintenance, access and service roads.

*"UP C&M Agreement"* means that certain Amended and Restated Construction and Maintenance Agreement dated as of the date of the Operating Agreement (as the same may be amended from time to time, to the extent not inconsistent with the provisions of the Operating Agreement), by and between Union Pacific and the Owner, governing the construction of the Rail Corridor and the Drill Track.

*"UP San Pedro Branch"* means the railroad rights of way and adjoining land and improvements located in the County of Los Angeles, State of California, commonly known as the Union Pacific San Pedro Branch, approximately between Milepost 3.08 in the north and Milepost 21.71 in the south.

*"West Thenard"* means the rail junction shown on Page 3 of the Map.

## **Background**

The Owner, the Railroads and the Authority entered into the Operating Agreement on October 12, 1998. The Operating Agreement supersedes that certain Memorandum of Understanding for Joint

Operating Agreement (Alameda Transit Corridor) dated as of December 22, 1994, previously executed by Owner and the Railroads. In general, the Operating Agreement governs the administration, operation and maintenance of, and the payment of fees and expenses related to, the Rail Corridor.

### **Access to and Use of the Rail Corridor**

The Operating Agreement grants to each of the Railroads access to certain Port Facilities, to the Rail Corridor and to all Port-Owned Tracks for the purpose of providing freight rail service to and from the Ports. Access is granted to each Railroad on an equal and nondiscriminatory basis, subject to certain exceptions specified in the Operating Agreement. The Operating Agreement also grants certain non-exclusive overhead trackage rights to each of the Railroads in connection with their use of the Rail Corridor.

Upon Substantial Completion, and provided that the Railroads have obtained all necessary approvals and consents from the STB (and any other federal agency with jurisdiction), each Railroad shall use the Rail Corridor for all Through Train movements. The Railroads shall also have the right to use the Rail Corridor for the movement of Local Trains, subject to the restrictions and limitations set forth in the Operating Agreement (such as the requirement that no more than 20% of the cargo transported by all Railroads on the Rail Corridor in any year move to or from facilities which are not included within the meaning of “port facilities” under Section 142(a)(2) of the Internal Revenue Code of 1986, as amended). The fees that will be charged to the Railroads in connection with their use of the Rail Corridor are described below (see “Use Fees, Container Charges and M&O Charges” below).

Each Railroad shall provide, at its sole cost and expense, its own equipment and crews for all train movements on the Rail Corridor and on all Port-Owned Tracks (subject to the Port Rail Agreements and other existing agreements to which either or both of the Railroads are parties). Each Railroad is also responsible for providing whatever security services or measures it deems necessary or desirable for its property and equipment, and all cargo, railcars and equipment in its possession and control. Except as expressly provided in various other agreements with the Railroads, neither Owner nor the Authority shall have any obligation (a) to inspect, maintain, refuel, service or repair any equipment used by the Railroads, to clear any derailed trains, or to provide refueling, servicing or repair facilities or equipment to the Railroads in connection with the Railroads’ use of the Rail Corridor or Port-Owned Tracks; (b) to provide security services or measures to protect any property or equipment owned or used by the Railroads from theft, vandalism or damage; or (c) to inspect, maintain, service, dispatch, operate or repair the Rail Corridor, the Port-Owned Tracks, or the UP San Pedro Branch.

### **The Operating Committee**

The Operating Agreement creates an Operating Committee to administer the operation of the Rail Corridor. The Operating Committee will initially be comprised of one representative (and one alternate for each representative) from each of POLA, POLB, Union Pacific and BNSF. Unless otherwise specified in the Operating Agreement, any decision to be made by the Operating Committee shall require the affirmative votes of a majority of the members of the Operating Committee. If a majority of the members of the Operating Committee is unable to agree upon any decision or any action to be taken under the Operating Agreement, then any member of the Operating Committee shall have the right to submit such matter to mediation.

Among the Operating Committee’s responsibilities are the following: (a) acting to expedite completion of certain construction projects to the extent that they have not been completed by Substantial Completion; (b) establishing performance standards and rail operating procedures for the Rail Corridor; (c) adopting rules and regulations to implement the standards and procedures set forth in the Operating

Agreement relating to dispatching, maintenance, capital expenditures and operation of the Rail Corridor (and, subject to the provisions of the Port Rail Agreements, the Port-Owned Tracks); (d) selecting the Corridor Dispatcher and the Corridor Maintenance Contractor (and any other contractors as may be necessary from time to time to provide security, communications, inspection, maintenance, construction, repair and other services for the Rail Corridor), and specifying the terms of the agreements with such entities; (e) monitoring the Corridor Dispatcher's compliance with the standards adopted by the Operating Committee, and meeting with the Corridor Dispatcher to address any problems; (f) preparing (or causing to be prepared) and approving an annual budget for inspection, maintenance, repairs and capital improvements and replacements to the Rail Corridor; (g) adjusting, every five years following Substantial Completion, the amount of funds to be maintained in the Reserve Account; and (h) deciding whether funds in the Reserve Account should be used to pay certain M&O Charges (to the extent such M&O Charges have not been paid by the Railroads and sufficient funds are not otherwise available therefor) or certain capital improvements that benefit fewer than all of the Railroads.

The California Fair Political Practices Commission ("FPPC") recently issued an advice letter finding that the Operating Committee is a "local government agency" for purposes of the California Political Report Act and, as such, is required to adopt a conflict-of-interest code for its members or be included within an existing conflict-of-interest code. The Ports and the Railroads are currently evaluating the advice letter, including the impact, if any, that the application of the Political Reform Act would have on the current functions of the Operating Committee. For additional information concerning this matter, see the "THE RAIL CORRIDOR AND RELATED PROJECTS - Maintenance and Operation of the Rail Corridor" in the front of this Official Statement.

## **Use Fees, Container Charges and M&O Charges**

### ***Authority's Right to Collect Fees***

The Operating Agreement grants to the Authority (or any trustee for Bonds issued by the Authority) the sole right and obligation to receive, hold and expend in accordance with the terms of the Operating Agreement all M&O Charges, Use Fees, Container Charges and Port Advances and all other funds, assets or amounts to which the Authority may be entitled under the Operating Agreement ("ACTA Revenues"). Except as expressly provided in the Operating Agreement, no entity shall have any right to receive, hold and expend ACTA Revenues to which the Authority is entitled under the Operating Agreement.

The Railroads, POLA and POLB have agreed to take all actions as may be necessary or appropriate to effectuate the payment and receipt of the ACTA Revenues to be received by the Authority pursuant to the Operating Agreement. Furthermore, POLA and POLB will not do or permit anything to be done, or omit or refrain from doing anything (including the exercise of their rights to terminate a Railroad's rights under the Operating Agreement after the occurrence of a material default or breach by such Railroad; see "Default and Remedies" below) in any case where any such act done or permitted to be done, or any such omission of or refraining from action, would or might be a ground for cancellation or termination of the Operating Agreement or which otherwise would interfere with the Authority's right to receive the ACTA Revenues.

The Operating Agreement gives the Authority the right to pledge, assign and transfer without recourse all of its rights (subject to the terms of the Operating Agreement) to receive all or a portion of the ACTA Revenues, and any other rights or remedies as granted to the Authority under the Operating Agreement, to a third party trustee or other fiduciary in connection with the ACTA Financing. Upon receipt of a written notice from the Authority that it has assigned its rights to payments of all or any portion of the ACTA Revenues to such a trustee or fiduciary, POLA, POLB and the Railroads each shall

make all such payments directly to the trustee or fiduciary until receipt of further payment instructions signed by both the Authority and such trustee or fiduciary.

All payments by the Railroads and Owner under the Operating Agreement, including, without limitation, payments of the ACTA Revenues, shall be an absolute obligation of the Railroads or Owner, as applicable, and shall be made when due without deduction, setoff, reduction or any defenses of any kind or character unrelated to the mathematical calculation of amounts. The Railroads and Owner expressly disclaim any interest in the ACTA Revenues and waive any defenses to enforcement by the Authority of any claim to such amounts and agree not to challenge the Authority's rights to such amounts.

### ***Use Fees and Container Charges***

The Operating Agreement establishes the Use Fees and Container Charges to be paid to the Authority by the Railroads for their use of the Rail Corridor. Such Use Fees and Container Charges will be assessed and collected beginning upon the date of commencement of Through Train operations over the Rail Corridor north of West Thenard and south of 25th Street after Substantial Completion (excluding test or training trips by trains).

Each Railroad shall pay to the Authority Use Fees, which shall be charged on (i) all Through Trains, regardless of whether the Through Train uses the Rail Corridor (unless such Through Train cannot use the Rail Corridor because of a complete blockage of all through tracks comprising the Rail Corridor for more than five consecutive days); (ii) all Local Trains which actually use all or any portion of the Rail Corridor; and (iii) all rail cars and/or containers, as the case may be, which originate or terminate at a Port Facility but which are included on a Local Train which does not use the Rail Corridor (other than rail cars carrying Toyota (or related company) automobiles originating in the continental United States and terminating at the Toyota Distribution Facility during a certain exclusive service period).

In addition, commencing April 15, 2002, each Railroad shall pay to the Authority Container Charges on each Waterborne Container that originates or terminates at the Ports and which is moved by rail into or out of Southern California (*i.e.*, the counties of Kern, San Bernardino, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, Riverside, San Diego and Imperial) by such Railroad (unless such Waterborne Container already has been assessed the Use Fee). Payment of Container Charges shall be made to the Authority regardless of whether the containers have traveled on the Rail Corridor. However, if there is a complete blockage of all through tracks comprising the Rail Corridor for more than five consecutive days, then Container Charges shall not be assessed on those Waterborne Containers that are shifted to transport by truck as a result of the complete blockage.

On or before the last day of each month, each Railroad shall pay to the Authority its Use Fees and Container Charges for the preceding month, based upon the actual number of containers and railcars transported by or on behalf of such Railroad during the immediately preceding month for which the payment of a Use Fee or Container Charge would apply. Any payment not made when due shall bear interest at the Overdue Rate until paid (in addition to all of the Authority's other remedies for such non-payment; see "Default and Remedies" below). The Authority shall monitor, or hire a third party to monitor, the railcars and containers that are subject to Use Fees and Container Charges.

The Railroads shall continue to be assessed the Use Fees and Container Charges at their full rates (*i.e.*, unadjusted for changes in annual debt service on any ACTA Financing) until the earlier to occur of the following ("Use Fees Termination Date"): (i) April 15, 2062 (being the date sixty (60) years after the April 15, 2002 commencement of Through Train operations over the Rail Corridor north of West Thenard and south of 25th Street after Substantial Completion), and (ii) the date that Net Project Costs and the amounts and obligations in the definition of Flow of Funds (see "SECURITY AND SOURCES OF

PAYMENT FOR THE BONDS – Flow of Funds” in this Official Statement) have been repaid in full (including repayment in full of any ACTA Financing and the Federal Loan and the funding of the Reserve Account to the then current target amount for the Reserve Account). Use Fees and Container Charges shall not be assessed and collected for any freight traffic movements after the Use Fees Termination Date.

The Use Fees, the Container Charges and the Shortfall Advances, if any, by POLA and POLB, (see “Shortfall Advances” below) will be used (i) to pay Net Project Costs and (ii) to pay the other expenses, and fund, maintain and replenish the reserves relating to the Project and the use and operation of the Rail Corridor. The Flow of Funds governs the order of priority for allocation and disbursement of Use Fees and Container Charges.

### ***M&O Charges***

Commencing on Substantial Completion, and subject to certain limitations specified in the Operating Agreement, each Railroad shall be charged a Pro Rata Portion (based on its use of the Rail Corridor and the Port-Owned Tracks) of the maintenance and operation expenses (the “M&O Charges”) relating to the Rail Corridor and the Port-Owned Tracks. The M&O Charges include, collectively, (i) the annual cost of operating, maintaining and repairing the Rail Corridor and the Port-Owned Tracks (including any storage tracks), (ii) taxes (including property or possessory interest taxes assessed against Owner, the Authority or the Railroads with respect to the Rail Corridor), (iii) premiums for the casualty insurance and business interruption insurance described in the Operating Agreement with deductibles determined by the Operating Committee (which deductibles shall not, however, violate the requirements of the Master Trust Indenture, the Federal Loan and the ACTA Financing) and relating solely to the Rail Corridor and the Port-Owned Tracks (but not any casualty insurance premiums relating to automobiles, trucks or other wheeled equipment owned or leased by Owner or the Authority and not used solely in connection with operation or maintenance of the Rail Corridor or Port-Owned Tracks, which premiums shall be the responsibility of Owner or the Authority, as the case may be), (iv) costs of dispatching (including communication and signaling), (v) the cost of maintaining and repairing communications facilities, signals and interlockers, (vi) security costs, (vii) debris removal, (viii) costs of maintaining and repairing rails, ties, ballast, undercutting, drainage and surfacing, and other repairs, and (ix) the costs and expenses of the entities or parties responsible for inspecting, dispatching, securing, maintaining and/or repairing the Rail Corridor and/or the Port-Owned Tracks (including without limitation, the Corridor Dispatcher and the Corridor Maintenance Contractor) (and a charge for the reasonable overhead of such entities or parties).

M&O Charges shall not include replacement costs except to the extent that the Operating Committee determines that such costs are not properly included in Capital Expenses. In addition, each Railroad shall individually be responsible, at its sole cost and expense, for maintaining, repairing and operating facilities, signals, structures and property that are exclusively used or operated by such Railroad or which exclusively benefit such Railroad.

With respect to the Port-Owned Tracks, if and to the extent that the Port Rail Agreements provide for the maintenance, repair or replacement of the Port-Owned Tracks, or the dispatching, switching and operation thereon, the Port Rail Agreements shall control with respect to the payment of the costs and expenses for such matters for so long as such agreements are in effect. In such event, the Railroads shall not be required to pay M&O Charges under the Operating Agreement with respect to the maintenance, repair, replacement, dispatching or switching operations of the Port-Owned Tracks because the Railroads are obligated to make payments for such matters under the Port Rail Agreements.

M&O Charges incurred in the maintenance and repair of Track and Track Support Structures of the Rail Corridor and the Port-Owned Tracks shall be pro-rated between the Railroads based on gross ton

miles. All other M&O Charges shall be pro-rated between the Railroads based on train miles. The resulting amounts, collectively, shall be the Pro Rata Portions owed by each Railroad.

The annual plan and budget prepared by the Operating Committee shall set forth the estimated M&O Charges for the coming calendar year. These budgeted M&O Charges shall be divided by the number of full or partial calendar months in such calendar year to obtain a monthly amount (the “Monthly Amount”). If the Operating Committee has not approved a plan and budget for the coming calendar year by January 1 of such year, then the Monthly Amount shall be calculated using the previous year’s plan and budget.

If the Operating Committee modifies the budgeted M&O Charges during a year, the Monthly Amount shall be adjusted to reflect the revised budget, with any increase or decrease in the budget spread over the remainder of the year. If an item or items to be funded through M&O Charges is scheduled to be performed before sufficient funds have accumulated through payment of the Monthly Amount, then the Operating Committee may require an accelerated payment of M&O Charges to fund such item(s).

For the first two months of the calendar year in which Substantial Completion occurs, Union Pacific shall pay 2/3, and BNSF shall pay 1/3, of the Monthly Amount. For the third month of the calendar year in which Substantial Completion occurs, and each month thereafter of such calendar year, each Railroad’s respective share of the Monthly Amount for such month shall be an amount equal to (i) the applicable Monthly Amount, multiplied by (ii) such Railroad’s Pro Rata Portion during the already completed months of such calendar year. For the first two months of each calendar year after the calendar year in which Substantial Completion occurs, each Railroad shall pay an amount equal to (i) the applicable Monthly Amount, multiplied by (ii) such Railroad’s Pro Rata Portion during the immediately preceding calendar year. For all subsequent months of the calendar year in question, each Railroad’s respective share of the Monthly Amount for such month shall be determined based upon such Railroad’s Pro Rata Portion during the already completed months of that calendar year.

Any payment of M&O Charges not made when due shall bear interest at the Overdue Rate until paid (in addition to all of the Authority’s other remedies for such non-payment; see “Default and Remedies” below).

All M&O Charges shall be paid by the Railroads to the Authority (unless the Authority assigns its rights to receive such amounts to a trustee or other fiduciary in connection with the ACTA Financing) and placed by the Authority in a separate fund established by the Authority. The Authority shall use such fund for the sole purpose of promptly paying the M&O Charges. Except as otherwise expressly provided in the definition of M&O Charges, none of the Authority, POLA or POLB shall be responsible for the payment of any M&O Charges.

### **Shortfall Advances**

If during any calendar year after Substantial Completion (or the partial calendar year in which Substantial Completion occurs) the Annual Amount payments due during such calendar year (or the initial partial year) and the Federal Loan payments due during such calendar year (or the initial partial year) (collectively, the “Required Annual Payment”) are not paid in full, then POLA and POLB will advance to the Authority, from any legally available source, funds (“Shortfall Advances”) sufficient to pay the positive difference between the Required Annual Payment due with respect to such year and the amount of other funds available to be applied against the Required Annual Payment in such year (exclusive of all reserves and other funds specifically pledged for other purposes). However, in no event shall the Shortfall Advances required to be made with respect to a calendar year (or the initial partial

calendar year) exceed in the aggregate an amount equal to 40% of the total Annual Amount and Federal Loan payments due in such calendar year (or the initial partial calendar year).

Each of POLA and POLB shall be separately responsible for one-half of the Shortfall Advances due in a year, with neither entity responsible for the contribution required of the other. In no event shall POLA or POLB individually be required to pay in any calendar year (or partial year) an amount in excess of 20% of the Required Annual Payment due in such calendar year or the initial partial year.

The Shortfall Advances shall be allocated to fund shortfalls for such year in the following items and in the following order of priority: first, to the Annual Amount (other than any portion or tranche subordinated to the Federal Loan), second to the Federal Loan, and third, to any subordinated portion or tranche of the ACTA Financing.

In the event POLA or POLB fails to pay a Shortfall Advance in the year such payment is due, then the amount of such unpaid Shortfall Advance (the "Unpaid Shortfall") shall continue to accrue and be payable by POLA or POLB (as the case may be) on the first day of the following fiscal year. The obligation of POLA or POLB (as the case may be) to pay the Unpaid Shortfall shall be in addition to its obligation to pay Shortfall Advances. In the event such Unpaid Shortfall triggers a reamortization of the Federal Loan and causes an increase in the amount due on the Federal Loan for the following year, such increase shall be allocated entirely to the entity which has not paid for purposes of determining POLA's and POLB's respective Shortfall Advance, if any, for such following year. In the event such increase is included in the entity's Shortfall Advance for such subsequent year, then the amount of such entity's Unpaid Shortfall for the prior year shall be reduced by the amount of such increase.

If any portion or tranche of the ACTA Financing is subordinated as permitted by the Operating Agreement, then for the purposes of calculating Shortfall Advances only, the Annual Amount shall be deemed to include such subordinated portion or tranche and Shortfall Advances shall be applied thereto in the order of priority set forth above for Shortfall Advances.

The obligation of POLA and POLB to make Shortfall Advances shall continue even though Use Fees may be abated as the result of a complete blockage of all through tracks comprising the Rail Corridor for more than five consecutive days. The proceeds of any business interruption insurance with respect to such an abatement of Use Fees (and, if applicable, Container Charges) that are applied to the Required Annual Payment shall be taken into account in determining the amount of Shortfall Advances due.

### **Reserve Account**

Prior to Substantial Completion, the Authority shall establish a separate revolving fund/account in the Authority's name (the "Reserve Account"), which shall be used by the Authority to pay when due the following: (i) annual maintenance and capital improvements and replacements of the Non-Rail Components, together with capital replacement of any rail bridge over the Rail Corridor (but only if (A) one of the Railroads actually is using the rail bridge at the time the capital replacement is needed, and (B) a third party, at its cost, is not providing the maintenance and/or capital improvement or replacement of such rail bridge) (collectively, "Non-Rail Maintenance and Capital Improvement Charges"); (ii) Capital Expenses; (iii) costs or fees charged by the financial institution or firm at which the Reserve Account is established for maintaining the Reserve Account and investing any funds therein; and (iv) if approved by the Operating Committee (or if both Railroads are in default under the Operating Agreement, then the Authority) to pay M&O Charges if and only to the extent such charges have not been paid by the Railroads and sufficient funds are not otherwise available therefor.

If the Reserve Account has insufficient funds to cover Capital Expenses and/or Non-Rail Maintenance and Capital Improvement Charges, then each Railroad shall pay its Pro Rata Portion on a gross ton mile basis of such Capital Expenses and/or Non-Rail Maintenance and Capital Improvement Charges.

Subject to the limits described in the following paragraph, the Reserve Account shall be funded over time from the Use Fee and Container Charge revenues remaining each year in accordance with the Flow of Funds until the Reserve Account reaches (or is restored to) the then-current target amount for the Reserve Account ("Reserve Account Target"). Once the Reserve Account Target has been met, Use Fee and Container Charge revenues shall be added to the Reserve Account only to the extent necessary to restore the balance therein to the then-current Reserve Account Target.

Until all amounts (including interest, if any) outstanding with respect to the Federal Loan, the ACTA Financing, Port Advances, the Property Assembly Reimbursement and the Benefit Amount have been paid in full, (i) no more than \$10 million of Use Fees and Container Charges generated each year may be deposited in the Reserve Account, and (ii) the Reserve Account Target shall not exceed \$90 million (except that these two restrictions shall not apply to deposits in the Reserve Account from the Property Assembly Reimbursement, or to income or interest earned on the Reserve Account). Furthermore, to the extent any amounts are withdrawn from the Reserve Account to pay M&O Charges, such amounts shall be replenished solely from payments of the Monthly Amount made by the Railroads and not from Use Fee and Container Charges.

In certain circumstances specified in the Operating Agreement, POLA and POLB may be required to contribute funds to the Reserve Account to ensure that at least \$4 million is deposited in the Reserve Account during certain periods.

The Reserve Account Target for the first five year period after Substantial Completion is \$15 million. Every five years following Substantial Completion, the Operating Committee shall adjust the Reserve Account Target for the upcoming five-year period so that it will be equal to one-fifth of all costs potentially covered by the Reserve Account (including M&O Charges) that are projected to be incurred during the upcoming five-year period, taking into account all relevant factors. However, in no event shall the Reserve Account Target be reduced below \$15 million.

Amounts placed in the Reserve Account shall be invested in accounts or investments selected by the Authority in accordance with the Authority's Investment Policy. Any income or interest earned on amounts in the Reserve Account shall be added to the Reserve Account (even if the addition of such amounts would result in the amount in the Reserve Account to exceed the then-current Reserve Account Target) and shall be available for application to the purposes specified above for the Reserve Account.

## **Defaults and Remedies**

### ***Defaults***

Any of the following events shall be deemed a default by a Railroad under the Operating Agreement: (i) failure to pay any sums payable under the Operating Agreement (including M&O Charges, Capital Expenses, Use Fees or Container Charges) within 15 days after receipt of notice of such failure; or (ii) failure to perform any other obligation under the Operating Agreement or under any rule, regulation or procedure adopted by the Operating Committee within 45 days after receipt of written notice by Owner or by the Authority, provided that if such Railroad commences to cure such failure but such failure cannot be cured within such 45-day period despite diligent pursuit of such cure, such Railroad



shall be entitled to an extension of 45 days to cure such default if such Railroad continues to diligently pursue such cure.

Any of the following events shall be deemed a default by Owner under the Operating Agreement: (i) failure to pay any sums payable under the Operating Agreement (including Shortfall Advances) within 15 days after receipt of notice of such failure; or (ii) failure to perform any other obligation under the Operating Agreement or under any rule, regulation or procedure adopted by the Operating Committee within 45 days after receipt of written notice by the Authority or by any Railroad, provided that if Owner commences to cure such failure but such failure cannot be cured within such 45-day period despite diligent pursuit of such cure, Owner shall be entitled to an extension of 45 days to cure such default if Owner continues to diligently pursue such cure.

The failure by the Authority to perform any of its obligations under the Operating Agreement within 45 days after receipt of written notice by any Railroad or by Owner shall be deemed a default under the Operating Agreement by the Authority, provided that if the Authority commences to cure such failure but such failure cannot be cured within such 45-day period despite diligent pursuit of such cure, the Authority shall be entitled to an extension of the period of time necessary to cure such failure if the Authority continues to diligently pursue such cure.

### ***Remedies***

In the event of a default or breach of any of the terms of the Operating Agreement, the non-defaulting party(ies) shall have all remedies available at law or in equity, including actual damages and/or specific performance. Any party to the Operating Agreement may bring an action against a defaulting party to recover damages suffered as a result of the default. However, only the Authority may bring an action to recover Use Fees, Container Charges, Shortfall Advances, M&O Charges, or other sums required to be paid to the Authority under the terms of the Operating Agreement. In addition, any payment that is not made when due under the Operating Agreement shall bear interest at the Overdue Rate until such payment is made.

After the occurrence of a material default or breach of the terms of the Operating Agreement by a Railroad and the failure of such Railroad to cure such material default or breach within the applicable cure period, Owner and the Authority (in addition to any other remedies they may have) each shall have the right either to terminate such Railroad's rights under the Operating Agreement to operate on the Rail Corridor and Port-Owned Tracks, or require such Railroad to transfer all of its rights under the Operating Agreement to another Railroad on terms and conditions acceptable to Owner and the Authority but which do not discriminate against any other Railroad. However, to the extent required under applicable law, such termination or transfer shall not take effect until it has been approved by any judicial or regulatory body with jurisdiction over such matters. In addition, if the amounts and obligations listed in the definition of Flow of Funds have not been paid in full, then Owner and the Authority may only exercise such transfer right and may not terminate the Operating Agreement.

In the event of a claim or dispute arising out of the Operating Agreement, as amended, or the Settlement Agreement, the disputing parties shall make good faith efforts to resolve the dispute through negotiation for a period of 30 days after receipt of written notice of the claim or dispute, which notice shall reference certain provisions of the Operating Agreement. After expiration of such 30 day period for negotiation, any disputing party may request non-binding mediation regarding such claim or dispute. In the event a claim or dispute submitted to mediation is not resolved by mediation, any subsequent lawsuit based upon such claim or dispute shall be initiated in Superior Court in the County of Los Angeles.

## Assignment

Except as expressly permitted by the Operating Agreement, no party may assign its rights or delegate its duties under the Operating Agreement without the written consent of the other parties. The Operating Agreement expressly permits the following assignments: (a) The Authority may assign its rights and remedies under the Operating Agreement to a third party trustee or other fiduciary in connection with the ACTA Financing; (b) A Railroad may transfer all of its rights under the Operating Agreement to another Railroad if required by Owner or the Authority after a material breach or default by the transferring Railroad; (c) Owner may assign its rights (without any modification thereof) under the Operating Agreement to the Authority or another joint powers authority or government or public entity in which POLA and POLB are members (which entity must agree in writing to perform all of the obligations of Owner under the Operating Agreement); (d) POLA and POLB may transfer, lease or grant a license, permit or other rights in or to the Rail Corridor property to the Authority or another entity without assigning their rights under the Operating Agreement, (e) Owner may assign any of its obligations (without any modification thereof) under the Operating Agreement to an entity reasonably acceptable to the Railroads (which entity must agree in writing to perform all of the obligations of Owner under the Operating Agreement); (f) Owner may permit other Class I railroads, or financially responsible and experienced regional railroads, to use the Rail Corridor, provided that such use shall be on all of the terms and conditions of the Operating Agreement; (g) Any Railroad may assign all (but not less than all) of its rights under the Operating Agreement to another Railroad or to any other Class I railroad or a financially responsible and experienced regional railroad, without Owner's consent, provided that such other Railroad or railroad assumes all of the assigning Railroad's obligations under the Operating Agreement; (h) Any Railroad may assign all (but not less than all) of its rights under the Operating Agreement to its successor entity pursuant to a merger or reorganization, without Owner's consent, provided that the successor entity assumes all of the obligations of that Railroad under the Operating Agreement; and (i) Owner may, subject to the terms of the Port Rail Agreements, grant to a third party such trackage rights or operating easements over the Rail Corridor and the Port-Owned Tracks as may be necessary to gather, distribute and switch rail cars within the Port areas (as such Port areas are shown on Page 4 of the Map) and to and from the "Manuel Sidings," provided that such third party shall be subject to all of the terms and conditions of the Operating Agreement.

**APPENDIX F**  
**DTC AND ITS BOOK-ENTRY SYSTEM**

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## APPENDIX F

### DTC AND ITS BOOK-ENTRY SYSTEM

*The information provided in this APPENDIX F has been provided by DTC. No representation is made by the Authority or the Underwriters as to the accuracy or adequacy of such information provided by DTC or as to the absence of material adverse changes in such information subsequent to the date hereof.*

The Depository Trust Company, New York, New York (“DTC”), will act as securities depository for the Bonds. The Series 2016 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Series 2016 Bond will be issued for each maturity of the Series 2016 Bonds and will be deposited with DTC.

DTC, the world’s largest depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Securities Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com) and [www.dtc.org](http://www.dtc.org).

Purchases of the Series 2016 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2016 Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series 2016 Bond (“Beneficial Owner”) is in turn to be recorded on the Direct Participants’ and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct Participant or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2016 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. BENEFICIAL OWNERS WILL NOT RECEIVE CERTIFICATES REPRESENTING THEIR OWNERSHIP INTERESTS IN THE SERIES 2016 BONDS, EXCEPT IN THE EVENT THAT USE OF THE BOOK-ENTRY SYSTEM FOR THE SERIES 2016 BONDS IS DISCONTINUED.

To facilitate subsequent transfers, all Series 2016 Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co. or such other name as may be

requested by an authorized representative of DTC. The deposit of the Series 2016 Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2016 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2016 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the Series 2016 Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Series 2016 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the Record Date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2016 Bonds are credited on the Record Date (identified in a listing attached to the Omnibus Proxy).

Principal, sinking fund and interest payments on the Series 2016 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Trustee's Agent, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC (nor its nominee), the Authority, or the Trustee, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Series 2016 Bonds at any time by giving reasonable notice to the Authority or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, the Series 2016 Bonds are required to be printed and delivered as described in the Indenture.

The Authority may decide to discontinue use of the system of book-entry transfers of the Series 2016 Bonds through DTC (or a successor securities depository). In that event, the Series 2016 Bonds will be printed and delivered as described in the Indenture.

The Authority cannot and does not give any assurances that DTC will distribute to Participants, or that Participants or others will distribute to the Beneficial Owners, payments of principal of and interest and premium, if any, on the Series 2016 Bonds paid or any redemption or other notices or that they will do so on a timely basis or will serve and act in the manner described in this Official Statement. The Authority is not responsible or liable for the failure of DTC or any Direct Participant or Indirect

Participant to make any payments or give any notice to a Beneficial Owner with respect to the Series 2016 Bonds or any error or delay relating thereto.

The foregoing description of the procedures and record keeping with respect to beneficial ownership interests in the Series 2016 Bonds, payment of principal of and interest and other payments with respect to the Series 2016 Bonds to Direct Participants, Indirect Participants or Beneficial Owners, confirmation and transfer of beneficial ownership interest in such Series 2016 Bonds and other related transactions by and between DTC, the Direct Participants, the Indirect Participants and the Beneficial Owners is based solely on information provided by DTC. Accordingly, no representations can be made concerning these matters and neither the Direct Participants, the Indirect Participants nor the Beneficial Owners should rely on the foregoing information with respect to such matters but should instead confirm the same with DTC or the Participants, as the case may be.

SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE BONDS, AS NOMINEE OF DTC, REFERENCES HEREIN TO THE BONDHOLDERS OR REGISTERED HOLDERS OF THE SERIES 2016 BONDS, SHALL MEAN CEDE & CO., AS AFORESAID, AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE SERIES 2016 BONDS.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Authority believes to be reliable, but the Authority takes no responsibility for the accuracy thereof.

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## **APPENDIX G**

### **PROPOSED FORMS OF BOND COUNSEL AND SPECIAL TAX COUNSEL OPINIONS**

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## PROPOSED FORM OF BOND COUNSEL OPINION

[Closing Date]

Alameda Corridor Transportation Authority  
3760 Kilroy Airport Way, Suite 200  
Long Beach, CA 90806

*Re: Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien  
Revenue Refunding Bonds, Series 2016A and Tax-Exempt Second Subordinate  
Lien Revenue Refunding Bonds, Series 2016B*

We have served as Bond Counsel in connection with the issuance by the Alameda Corridor Transportation Authority (the “Authority”) of its \$34,280,000 Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A (the “Series 2016A Bonds”) and \$556,860,000 Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B (the “Series 2016B Bonds” and, together with the Series 2016A Bonds, the “2016 Bonds”).

The 2016 Bonds are being issued pursuant to the Joint Exercise of Powers Act, California Government Code Section 6500 and following (as it may be amended and supplemented, the “Joint Powers Act”) and pursuant to a Master Trust Indenture, dated as of January 1, 1999, between the Authority and U.S. Bank National Association, as trustee (the “Trustee”) (as previously amended and supplemented, the “Master Indenture”), and as further amended and supplemented by a Tenth Supplemental Trust Indenture, dated as of May 1, 2016 (the “Tenth Supplemental Indenture”) and an Eleventh Supplemental Trust Indenture, dated as of May 1, 2016 (the “Eleventh Supplemental Indenture” and, together with the Tenth Supplemental Indenture and the Master Indenture, the “Indenture”). Except as otherwise indicated, capitalized terms used in this opinion and defined in the Indenture will have the meanings given in the Indenture.

In our capacity as bond counsel, we have examined (i) copies, certified to us as being true and complete copies, of the proceedings of the Authority for the authorization and issuance of the Series 2016 Bonds; (ii) the Indenture; and (iii) such other documents, records, agreements, opinions and certificates as we have considered necessary for the purposes of this opinion. In this connection we have also examined such certificates of public officials and officers of the Authority as we have considered necessary for the purposes of this opinion. We have also made such other investigations of fact and law as we have deemed necessary to render this opinion.

We have, with your approval, assumed the genuineness of all signatures, the authenticity of all items submitted to us as originals and the conformity with originals of all items submitted as copies.

On the basis of such examination, our reliance upon the assumptions contained herein and our consideration of those questions of law we considered relevant, and subject to the limitations and qualifications in this opinion, we are of the opinion that:

1. The 2016 Bonds have been duly authorized and issued and constitute legally valid and binding obligations of the Authority, enforceable against the Authority in accordance with their terms and the terms of the Indenture.
2. The Indenture has been duly executed and delivered by the Authority and constitutes the legally valid and binding obligation of the Authority, enforceable against the Authority in accordance with its terms. The 2016 Bonds, assuming due authentication by the Trustee, are entitled to the benefits of the Indenture.
3. The 2016 Bonds are special limited obligations of the Authority payable solely from and are secured by a pledge of and lien on the Trust Estate, which consists primarily of Revenues. Neither the State of California, the Authority nor any other political subdivision is obligated to pay the principal of, premium, if any, or interest on the 2016 Bonds except to the extent of the Authority's obligation to pay from the Trust Estate, and neither the faith and credit nor the taxing power of the State of California or any political subdivision thereof is pledged to the payment of the principal of, premium, if any, or interest on the 2016 Bonds.

The opinions set forth above assume that the Trustee has duly authenticated the 2016 Bonds and are subject to (a) applicable bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting creditors' rights generally (including, without limitation, fraudulent conveyance laws) and (b) the effect of general principles of equity, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance or injunctive relief, regardless of whether considered in a proceeding in equity or at law.

In rendering all such opinions, we assume, without independent verification, and rely upon: (i) the accuracy of the factual matters represented, warranted or certified in the proceedings and documents we have examined, and (ii) the due and legal authorization, execution and delivery of those documents by, and the valid, binding and enforceable nature of those documents upon, any parties other than the Authority.

We express no opinion as to any provision in the Indenture or the 2016 Bonds with respect to the priority of any pledge or security interest, indemnification, contribution, choice of forum or governing law.

No opinion is expressed herein on the accuracy, completeness or sufficiency of the Official Statement or other offering material relating to the Bonds.

We express no opinion as to any provision of the Indenture requiring written amendment or waivers of the Indenture insofar as it suggests that oral or other modifications, amendments or waivers could not be effectively agreed upon by the parties or that the doctrine of promissory estoppel might not apply.

We express no opinion as to any federal or State tax consequences of the ownership of, receipt of interest on, or disposition of the 2016 Bonds.

This opinion is furnished by us as Bond Counsel to the Authority and may be relied upon by you only in connection with the issuance by the Authority of the 2016 Bonds. It may not be used or relied upon by you for any other purpose or by any other person, nor may copies be delivered to any other person, without in each instance our prior written consent. This opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters. This opinion speaks only as of the date hereof and we assume no obligation to update or supplement this opinion to reflect any facts or circumstances that arise after the date of this opinion and come to our attention, or any future changes in laws.

Respectfully submitted,

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## PROPOSED FORM OF OPINION OF SPECIAL TAX COUNSEL

May 24, 2016

Alameda Corridor Transportation Authority  
Long Beach, California

*RE: \$34,280,000 Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A and \$556,860,000 Alameda Corridor Transportation Authority Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B*

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Ladies and Gentlemen:

We are acting as Special Tax Counsel in connection with the issuance by the Alameda Corridor Transportation Authority (the “Authority”) of its Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A (the “Series 2016A Bonds”) and its Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B (the “Series 2016B Bonds”) and together with the Series 2016A Bonds, the “Series 2016 Bonds”). In that connection, we have reviewed the record of proceedings related to the issuance of the Series 2016 Bonds, including the Master Trust Indenture, dated as of January 1, 1999 (as amended and supplemented, the “Master Indenture”), including as supplemented by a Tenth Supplemental Indenture, dated as of May 1, 2016 (the “Tenth Supplement”) and an Eleventh Supplemental Indenture, dated as of May 1, 2016 (the “Eleventh Supplement,” and the Master Indenture as previously amended and supplemented and including as supplemented by the Tenth Supplement and the Eleventh Supplement, the “Indenture”), each by and between the Authority and U.S. Bank National Association, as trustee (the “Trustee”), a Tax and Nonarbitrage Certificate (the “Tax Certificate”) executed by the Authority in connection with the issuance of the Series 2016 Bonds, and such other documents, records, agreements and certificates as we have considered necessary or appropriate for us to render these opinions. We have also made such other investigations of fact and law as we have deemed necessary. We have, with your approval, assumed the genuineness of signatures and that all items submitted to us as originals are authentic and that all items submitted as copies conform to the originals. In rendering the opinions herein, we have assumed the accuracy of the approving opinion of O’Melveny & Myers LLP, Bond Counsel, delivered on even date herewith, relating to the validity of the Series 2016 Bonds (the “Approving Opinion”).

On the basis of our examination of the documents we deemed necessary to render the opinions herein, our reliance upon the assumptions contained herein and our consideration of those questions of law we consider relevant, and subject to the limitations and qualifications set forth herein, we are of the following opinions:

1. The Internal Revenue Code of 1986, as amended (the “Code”) sets forth certain requirements which must be met subsequent to the issuance and delivery of the Series 2016 Bonds for interest thereon to be and remain excluded from gross income for federal income tax purposes. Noncompliance with such requirements could cause the interest on the Series 2016 Bonds to be included in gross income for federal income tax purposes retroactive to the date of issue of the Series 2016 Bonds. Pursuant to the Indenture and the Tax Certificate, the Authority has covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Series 2016 Bonds from gross income for federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority has made certain representations and certifications in the Indenture and the Tax Certificate. We have not independently verified the accuracy of those certifications and representations.

Under existing law, assuming compliance with the tax covenants described herein and the accuracy of the aforementioned representations and certifications, interest on the Series 2016 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code. We are also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Interest on the Series 2016 Bonds is, however, included in the adjusted current earnings of certain corporations for purposes of computing the alternative minimum tax imposed on such corporations.

2. Interest on the Series 2016 Bonds is exempt from personal income taxes of the State of California under present state law.
3. Bond Counsel is further of the opinion that the excess of the principal amount of any maturity of the Series 2016 Bonds over the price at which a substantial amount of such maturity of the Series 2016 Bonds was sold to the public (excluding bond houses, brokers or similar persons or organizations acting in the capacity of underwriters or wholesalers) (each, a “Discount Bond” and collectively, the “Discount Bonds”) constitutes original issue discount which is excluded from gross income for federal income tax purposes to the same extent as interest on the Series 2016 Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount. The accrual of original issue discount may be taken into account as an increase in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Discount Bonds, even though there will not be a corresponding cash payment.

In rendering the opinions regarding the federal income tax treatment of interest on the Series 2016 Bonds above, we have relied upon representations and covenants of the Authority in the Tax Certificate concerning the use of the facilities refinanced with the proceeds of the Series 2016 Bonds, the investment and use of the proceeds of such Bonds and the rebate, to the extent required, to the federal government of certain earnings thereon. In addition, we have assumed that all such representations are true and correct and that the Authority will comply with all such covenants. We express no opinion with respect to the exclusion of the interest on the Series



2016 Bonds from gross income under Section 103(a) of the Code for federal income tax purposes in the event that any of such representations are untrue or the Authority fails to comply with such covenants.

Except as stated in the paragraphs 1 through 3 above, we express no opinion as to any other federal, state or local tax consequences of the ownership or disposition of the Series 2016 Bonds. Furthermore, we express no opinion as to any federal, state or local tax law consequences with respect to the Series 2016 Bonds, or the interest thereon, if any action is taken with respect to the Series 2016 Bonds or the proceeds thereof upon the advice or approval of other counsel.

We call attention to the fact that the opinions expressed herein and the exclusion of interest on the Series 2016 Bonds from gross income for federal income tax purposes may be affected by actions taken or omitted or events occurring or not occurring after the date hereof. We have not undertaken to determine, or to inform any person, whether any such actions are taken, omitted, occur or fail to occur.

Our opinions expressed herein are rendered only with regard to the matters expressly opined on above and do not consider or extend to any documents, agreements, representations or other material of any kind not specifically opined on above. No other opinions are intended nor should they be inferred. This opinion letter is issued as of the date hereof, and we assume no obligation to update, revise or supplement this opinion letter to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law, or in interpretations thereof, that may hereafter occur, for any reason whatsoever.

This opinion is furnished by us as Special Tax Counsel in connection with the issuance of the Series 2016 Bonds and may be relied upon by you only in connection with such issuance. It may not be used or relied upon by you for any other purpose.

Respectfully submitted,

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## **APPENDIX H**

### **FORM OF THE CONTINUING DISCLOSURE CERTIFICATE**

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## CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate (this “**Certificate**”) is executed and delivered, effective May 24, 2016, by the Alameda Corridor Transportation Authority (the “**Authority**”); the City of Long Beach, acting by and through its Board of Harbor Commissioners (“**POLB**”); and the City of Los Angeles, acting by and through its Board of Harbor Commissioners (“**POLA**”), in connection with the issuance by the Authority of its Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Refunding Bonds, Series 2016A (the “**Series 2016A Bonds**”) and its Alameda Corridor Transportation Authority Tax-Exempt Second Subordinate Lien Revenue Refunding Bonds, Series 2016B (the “**Series 2016B Bonds**” and together with the Series 2016A Bonds, the “**Bonds**”). The Series 2016A Bonds were issued pursuant to the terms of a Master Trust Indenture dated as of January 1, 1999, by and between the Authority and U.S. Bank National Association (formerly, U.S. Bank Trust National Association), as trustee (the “**Trustee**”), as previously amended and supplemented (the “**Master Indenture**”), and as further amended and supplemented by that certain Tenth Supplemental Trust Indenture dated as of May 1, 2016 by and between the Authority and the Trustee (the “**Tenth Supplemental Trust Indenture**”). The Series 2016B Bonds were issued pursuant to the terms of the Master Trust Indenture, as further amended and supplemented by that certain Eleventh Supplemental Trust Indenture dated as of May 1, 2016 by and between the Authority and the Trustee (the “**Eleventh Supplemental Trust Indenture**”, and together with the Tenth Supplemental Trust Indenture and the Master Indenture, the “**Indenture**”).

The Authority, POLB and POLA hereby covenant as follows:

SECTION 1. Purpose of the Certificate. This Certificate is being executed and delivered by the Authority, POLB and POLA for the benefit of the Owners and Beneficial Owners (as defined below) of the Bonds and in order to assist the Underwriters (as defined below) in complying with the Rule (as defined below).

SECTION 2. Definitions. In addition to the definitions set forth in the Indenture and the Official Statement (as defined below), which apply to any capitalized terms used in this Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“**1999 Bonds**” means the Authority’s: (i) Alameda Corridor Transportation Authority Tax-Exempt Senior Lien Revenue Bonds, Series 1999A, (ii) Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Bonds, Series 1999B, (iii) Alameda Corridor Transportation Authority Taxable Senior Lien Revenue Bonds, Series 1999C, and (iv) Alameda Corridor Transportation Authority Taxable Subordinate Lien Revenue Bonds, Series 1999D.

“**2004 Bonds**” means the Authority’s: (i) Alameda Corridor Transportation Authority Tax-Exempt Subordinate Lien Revenue Bonds, Series 2004A, and (ii) Alameda Corridor Transportation Authority Taxable Subordinate Lien Revenue Bonds, Series 2004B.

“**Annual Report**” means the annual report filed by the Authority pursuant to, and as described in, Sections 3 and 4 of this Certificate.

“**Beneficial Owner**” means any person who (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including

persons holding Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Bonds for federal income tax purposes.

“**Commission**” means the Securities and Exchange Commission, or any successor body thereto.

“**Dissemination Agent**” means any person appointed in writing by the Authority to act as the Authority’s agent in complying with the filing requirements of the Rule. As of the date of this Certificate, the Authority has not appointed a Dissemination Agent.

“**EMMA**” means the Electronic Municipal Market Access system for municipal securities disclosure (<http://emma.msrb.org>) or any other dissemination agent or conduit required, designated or permitted by the Commission.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

“**Filing Date**” has the meaning given to it in Section 3(a) of this Certificate.

“**Listed Events**” means any of the events listed in Section 5 of this Certificate.

“**MSRB**” means the Municipal Securities Rulemaking Board established in accordance with the provisions of Section 15B(b)(1) of the Exchange Act, or any other entity designated or authorized by the Commission to receive reports pursuant to the Rule.

“**Official Statement**” means the final official statement dated May 11, 2016, of the Authority relating to the Bonds.

“**Rule**” means Rule 15c2-12(b)(5) adopted by the Commission under the Exchange Act, as the same may be amended from time to time.

“**Underwriters**” means the original underwriters of the Bonds required to comply with the Rule in connection with the offering of the Bonds on the effective date of this Certificate.

### SECTION 3. Provision of Annual Reports.

(a) The Authority, on behalf of itself and POLB and POLA, shall, or shall cause the Dissemination Agent to, not later than April 1 (or June 1, with respect to POLB’s obligations under this Certificate, on and after the date that the 1999 Bonds and the 2004 Bonds are no longer Outstanding) of each year in which any of the Bonds are outstanding (the “**Filing Date**”), commencing April 1, 2017, with respect to the report for the fiscal year ending in 2016, provide an Annual Report consistent with the requirements of Section 4 of this Certificate. Each Annual Report may be submitted as a single document or as separate documents comprising a package, and may include by reference other information as provided in Section 4 of this Certificate; provided that the audited financial statements of the Authority, POLB and POLA may be submitted separately from the balance of such Annual Report and later than the date required above for the filing of such Annual Report if they are not available by that date.

(b) Not later than 15 Business Days prior to the Filing Date, the Authority shall provide such Annual Report to the Dissemination Agent (if one has been appointed). If the Authority is unable to file such Annual Report with the MSRB through EMMA by the Filing Date, the Authority shall file a notice with the MSRB through EMMA in substantially the form of Exhibit A to this Certificate.

(c) POLB and POLA shall each provide to the Authority:

(1) Not later than March 1 (or May 1, with respect to POLB's obligations under this Certificate, on and after the date that the 1999 Bonds and the 2004 Bonds are no longer Outstanding) after the end of each of its respective fiscal years, commencing with the fiscal year ending in 2016, the applicable information described in Section 4(b) and Section 4(c) of this Certificate.

(2) At any other time any information requested by the Authority with respect to other disclosure obligations.

(3) Prompt notice of any change in POLB's or POLA's, as applicable, fiscal year.

(4) Notice of each of the following, as applicable, in sufficient time for the Authority to meet its obligations under Section 5 of this Certificate: (i) any bankruptcy, insolvency, receivership or similar event of POLB or POLA, (ii) the consummation of any merger, consolidation or acquisition involving POLB or POLA, (iii) the sale of all or substantially all of the assets of POLB or POLA other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, and/or (iv) the appointment of a receiver, fiscal agent or similar officer for POLB or POLA in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of POLB or POLA, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision over substantially all of the assets or business of POLB or POLA.

(5) Prompt notice that the obligation of POLB or POLA, as the case may be, under this Certificate has been assumed in full by some other entity and evidence that such entity shall be responsible for compliance with this Certificate in the same manner as if it were POLB or POLA, as the case may be.

(d) If the Authority's fiscal year changes or the Authority receives notice from POLB or POLA that POLB's or POLA's fiscal year changed, the Authority shall give notice of such change in the same manner as for a Listed Event under Section 5 of this Certificate.

(e) The Dissemination Agent (if one has been appointed) shall (i) determine each year prior to the Filing Date and (ii) file a report with the Authority certifying that the Annual Report has been filed with the MSRB through EMMA pursuant to this Certificate, stating the date it was provided.

SECTION 4. Content of Annual Reports. The Annual Reports shall contain or include by reference the following:

(a) Information Relating to the Authority.

(1) The audited financial statements of the Authority for the Fiscal Year most recently ended, prepared in accordance with generally accepted

accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the Authority's audited financial statements are not available by the Filing Date, the Annual Reports shall contain unaudited financial statements in a format similar to the financial statements contained in the final official statement relating to the Bonds, and the audited financial statements shall be filed in the same manner as the Annual Reports when they become available.

(2) To the extent not included in the audited financial statements of the Authority, the Annual Report shall contain or include by reference (i) for the most recently completed calendar year, as described in the Official Statement under the heading "THE RAIL CORRIDOR AND RELATED PROJECTS - Maintenance and Operation of the Rail Corridor - M & O Charges," the Monthly Amount (as defined in the Official Statement) and the amount the Railroads (as defined in the Official Statement) paid for insurance premiums, and (ii) information for the most recently completed fiscal year or calendar year, as applicable, in form and substance substantially similar to the information in the following tables set forth in the Official Statement:

(I) Table 1 – "Alameda Corridor Transportation Authority – Outstanding Senior Lien and First Subordinate Lien Bonds (as of March 31 of each reporting year);"

(II) Table 5 – "Schedule of Use Fees;"

(III) Table 6 – "Use Fees and Container Charges;"

(IV) Table 7 – "Ports of Long Beach and Los Angeles and Authority Container Throughput" (providing only Authority information);

(V) Table 8 – "Alameda Corridor Transportation Authority – Container Charges and Use Fees;"

(VI) Table 9 – "Alameda Corridor Transportation Authority – Container Charge and Use Fee Revenue;"

(VII) Table 10A – "Alameda Corridor Transportation Authority – Statements of Revenues, Expenses and Changes in Net Position;"

(VIII) Table 12 – "Historical Authority Revenue Debt Service Coverage;" and

(IX) Table 13 – "Historical Dedicated Revenue Debt Service Coverage," together with information concerning the Second Subordinate Lien Bonds in a similar format as Table 13, Debt Service Coverage for all Bonds, total Debt Service on all Bonds, and Financing Fees.

(b) Information Relating to POLB.

(1) The audited financial statements of POLB for the Fiscal Year most recently ended, prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If POLB's audited financial



statements are not available by the Filing Date, the Annual Reports shall contain unaudited financial statements in a format similar to the financial statements contained in the final official statement relating to the Bonds, and the audited financial statements shall be filed in the same manner as the Annual Reports when they become available.

(2) To the extent not included in the audited financial statements of POLB, the Annual Report shall contain or include by reference (i) the outstanding principal amount of POLB's Harbor Revenue Bonds and (ii) information for the most recently completed fiscal year, calendar year or twelve month period, as applicable, in form and substance substantially similar to the information in the following tables set forth in the Official Statement:

- (I) Table C-1 – "Port of Long Beach Operating Revenues;"
- (II) Table C-2 – "Port of Long Beach Leading Revenue Producers;"
- (III) Table C-3 – "Port of Long Beach Revenue Tonnage Summary;"
- (IV) Table C-4 – "Port of Long Beach Revenue Tonnage by Cargo Type;"
- (V) Table C-6 – "Port of Long Beach Container Traffic" (Calendar Year);
- (VI) Table C-7 – "Port of Long Beach Container Traffic" (Fiscal Year); and
- (VII) Table C-8 – "Port of Long Beach Comparative Summary Statements of Revenues and Expenses."

(c) Information Relating to POLA.

(1) The audited financial statements of POLA for the Fiscal Year most recently ended, prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If POLA's audited financial statements are not available by the Filing Date, the Annual Reports shall contain unaudited financial statements in a format similar to the financial statements contained in the final official statement relating to the Bonds, and the audited financial statements shall be filed in the same manner as the Annual Reports when they become available.

(2) To the extent not included in the audited financial statements of POLA, the Annual Report shall contain or include by reference (i) the outstanding principal amount of POLA's Parity Obligations (as defined in the Official Statement) and (ii) information for the most recently completed fiscal year or calendar year, as applicable, in form and substance substantially similar to the information in the following tables set forth in the Official Statement:

- (I) Table B-1 – "Port of Los Angeles Major Permittees (Tenants);"

- (II) Table B-2 – “Port of Los Angeles Summary of Revenues, Expenses and Net Assets;”
- (III) Table B-3 – “Port of Los Angeles Revenue Tonnage by Cargo Type;”
- (IV) Table B-4 – “Port of Los Angeles Container Traffic” (Calendar Year);
- (V) Table B-5 – “Port of Los Angeles Container Traffic” (Fiscal Year); and
- (VI) Table B-6 – “Port of Los Angeles Shipping Revenue Breakdown.”

Any or all of the items listed above may be included by specific reference to other documents, including official statements or other disclosure documents of debt issues of the Authority, POLB, POLB or related public entities, which have been filed with the MSRB through EMMA or the Commission. If the document included by reference is a final official statement, it must be available on EMMA. The Authority shall clearly identify each such other document so included by reference. The contents, presentation and format of the Annual Reports may be modified from time to time as determined in the judgment of the Authority to conform to changes in accounting or disclosure principles or practices and legal requirements followed by or applicable to the Authority, POLB or POLA or to reflect changes in the business, structure, operations, legal form of the Authority, POLB or POLA or any mergers, consolidations, acquisitions or dispositions made by or affecting the Authority, POLB or POLA; provided that any such modifications shall comply with the requirements of the Rule.

SECTION 5. Reporting of Listed Events. The Authority shall file, in a timely manner, but not more than ten (10) business days after its occurrence, with the MSRB through EMMA, notice of the occurrence of any of the following events with respect to the Bonds:

- (a) Principal and interest payment delinquencies;
- (b) Non-payment related defaults, if material;
- (c) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (d) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (e) Substitution of credit or liquidity providers, or their failure to perform;
- (f) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
- (g) Modifications to rights of Bond Holders, if material;
- (h) Bond calls, if material, and tender offers;
- (i) Defeasances;

- (j) Release, substitution or sale of property securing repayment of the Bonds, if material;
- (k) Rating changes;
- (l) Bankruptcy, insolvency, receivership or similar event of the Authority, POLB or POLA;
- (m) The consummation of a merger, consolidation or acquisition involving the Authority, POLB or POLA or the sale of all or substantially all of the assets of the Authority, POLB or POLA, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; or
- (n) Appointment of a successor or additional trustee or change of name of a trustee, if material.

Note to subsection (l) of this Section 5: For the purposes of the event described in subsection (l) of this Section 5, the event is considered to occur when any of the following occurs: the appointment of a receiver, fiscal agent or similar officer for the Authority, POLB or POLA in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Authority, POLB or POLA, as applicable, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision over substantially all of the assets or business of the Authority, POLB or POLA, as applicable.

SECTION 6. Termination of Reporting Obligation. The Authority's, POLB's and POLA's obligations under this Certificate shall terminate upon the defeasance, prior redemption or payment in full of all of the Bonds or when the Authority, POLB or POLA, as the case may be, is otherwise no longer an obligated person within the meaning of the Rule with respect to the Bonds. If the Authority's, POLB's or POLA's, as the case may be, obligations under this Certificate are assumed in full by some other entity, such person shall be responsible for compliance with this Certificate in the same manner as if it were the Authority, POLB or POLA, as the case may be, and the Authority, POLB or POLA, as the case may be, shall have no further responsibility under this Certificate. The Authority shall provide timely notice to the MSRB of the termination of the Authority's, POLB's or POLA's, as the case may be, obligations under this Certificate pursuant to an assumption of its or their obligations under this Certificate.

SECTION 7. Dissemination Agent. The Authority may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Certificate, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent may resign by providing sixty (60) days written notice to the Authority. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the Authority pursuant to this Certificate.

SECTION 8. Amendment; Waiver. Notwithstanding any other provision of this Certificate, the Authority, POLB and POLA may amend this Certificate, and any provision of this Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Section 3(a), Section 4, or Section 5, it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;

(b) The undertakings, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Owners of the Bonds in the same manner as provided in the Indenture for amendments to the Indenture with the consent of Owners of the Bonds, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Owners or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of this Certificate, the Authority shall describe such amendment in its next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or, in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the Authority. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under Section 5, and (ii) the Annual Report for the year in which the change is made shall present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

SECTION 9. Additional Information. Nothing in this certificate shall be deemed to prevent the Authority, POLB or POLA from disseminating any other information, including the information then contained in the Authority's, POLB's or POLA's official statements or other disclosure documents relating to debt issuance, using the means of dissemination set forth in this Certificate or any other means of communication, or including any other information in any Annual Report notice of occurrence of a Listed Event, in addition to that which is required by this Certificate. If the Authority, POLB or POLA chooses to include any information in any Annual Report or notice of occurrence of Listed Event in addition to that which is specifically required by this Certificate, neither the Authority, POLB nor POLA shall have any obligation under this Certificate to update such information or include it in any future Annual Report or notice of a Listed Event.

SECTION 10. Documents Provided to the MSRB. All documents provided to the MSRB shall be in electronic format and accompanied by identifying information, all as prescribed by the MSRB. Notice of the Listed Events described in Section 5 need not be given under this Section any earlier than the notice of the underlying event is given to Holders of the Bonds pursuant to the Indenture.

SECTION 11. Default. In the event of a failure of the Authority, POLB or POLA to comply with any provision of this Certificate, any Owner or Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandamus or

specific performance by court order, to cause the Authority, POLB or POLA, as the case may be, to comply with its obligations under this Certificate. A default under this Certificate shall not be deemed an Event of Default under the Indenture, and the sole and exclusive remedy under this Certificate in the event of any failure of the Authority, POLB or POLA to comply with this Certificate shall be an action to compel performance, and no person or entity shall be entitled to recover monetary damages under this Certificate.

SECTION 12. Duties, Immunities and Liabilities of the Dissemination Agent. The Dissemination Agent shall have only such duties as are specifically set forth in this Certificate, and the Authority agrees, to the extent permitted by law, to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys' fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. The obligations of the Authority under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

SECTION 13. Beneficiaries. This Certificate shall inure solely to the benefit of the Authority, POLB, POLA, the Dissemination Agent, the Underwriters, the Owners and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

SECTION 14. Counterparts. This Certificate may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

SECTION 15. Governing Law. This Certificate shall be governed by the laws of the State of California and the federal securities laws.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound, have caused this Continuing Disclosure Certificate to be executed as of the date first above written.

ALAMEDA      CORRIDOR      TRANSPORTATION  
AUTHORITY

By: \_\_\_\_\_  
John Doherty  
Chief Executive Officer

ATTEST:  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

The foregoing document is hereby approved as to form:

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: Co-General Counsel  
Date: \_\_\_\_\_

CITY OF LONG BEACH, acting by and through its Board  
of Harbor Commissioners

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

The foregoing document is hereby approved as to form:

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

CITY OF LOS ANGELES, acting by and through its Board  
of Harbor Commissioners

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

The foregoing document is hereby approved as to form:

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

(SIGNATURE PAGE TO ACTA CONTINUING DISCLOSURE CERTIFICATE)

**EXHIBIT A**

**FORM OF NOTICE OF  
FAILURE TO FILE ANNUAL REPORT**

Obligated Person: Alameda Corridor Transportation Authority

Name of Issue: Alameda Corridor Transportation Authority Tax-Exempt  
Subordinate Lien Revenue Refunding Bonds, Series 2016A  
Alameda Corridor Transportation Authority Tax-Exempt Second  
Subordinate Lien Revenue Refunding Bonds, Series 2016B

Issuance Date: May 24, 2016

NOTICE IS HEREBY GIVEN that the ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY (the “**Authority**”) has not provided an Annual Report with respect to the above named Bonds as required by Section 3 of the Continuing Disclosure Certificate dated as of May 24, 2016, executed and delivered by the Authority; the City of Long Beach, acting by and through its Board of Harbor Commissioners; and the City of Los Angeles, acting by and through its Board of Harbor Commissioners. [The Authority anticipates that the Annual Report will be filed by \_\_\_\_\_.]

Dated: \_\_\_\_\_

ALAMEDA CORRIDOR TRANSPORTATION  
AUTHORITY

By: \_\_\_\_\_  
Title: \_\_\_\_\_

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## **APPENDIX I**

### **SPECIMEN MUNICIPAL BOND INSURANCE POLICY**

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## MUNICIPAL BOND INSURANCE POLICY

ISSUER:

Policy No: -N

BONDS: \$ in aggregate principal amount of

Effective Date:

Premium: \$

ASSURED GUARANTY MUNICIPAL CORP. ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the

United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. has caused this Policy to be executed on its behalf by its Authorized Officer.

ASSURED GUARANTY MUNICIPAL CORP.

By \_\_\_\_\_  
Authorized Officer

A subsidiary of Assured Guaranty Municipal Holdings Inc.  
31 West 52nd Street, New York, N.Y. 10019  
(212) 974-0100

Form 500NY (5/90)

## **APPENDIX J**

### **REPORT OF THE PORTS' INDEPENDENT CONSULTANT**

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AND



# San Pedro Bay Long-term Unconstrained Cargo Forecast

Contract No.: HD-8429

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Final Report

Report Prepared For:



February 2016





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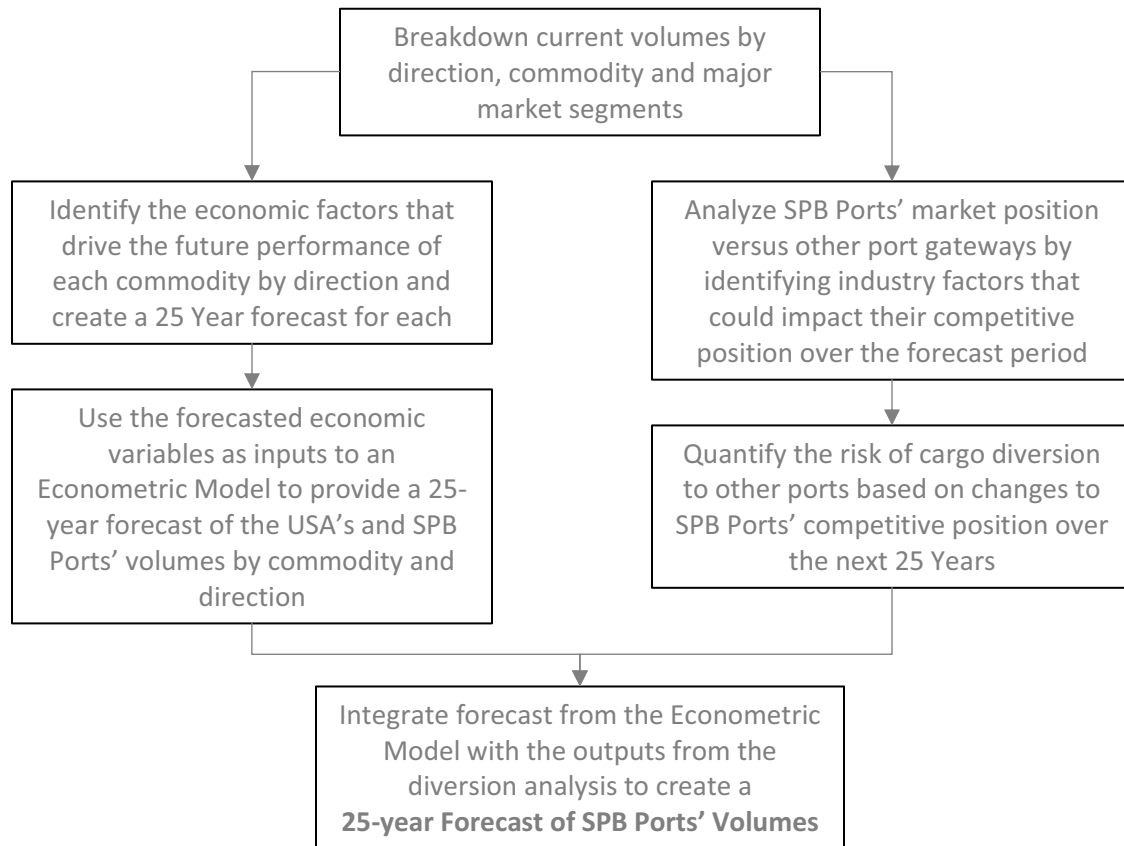
## Key Terms and Acronyms

Term or Acronym	Description
SPB	San Pedro Bay
MOE	Mercator International and Oxford Economics
IPI	Rail movements of intact ocean containers to inland destinations
Local	Containers that utilize terminals' truck gates to exit or arrive and do not go on to a rail ramp for on-carriage
Trans-loading	Sub-set of local movements where the cargo generated by a number of international containers is unloaded, mixed and loaded to domestic vans for delivery to inland destinations
ACTA	Alameda Corridor Transit Authority
BC	British Columbia
International	Cargo movements between U.S. ports and foreign countries
Domestic	Cargo movements between U.S. mainland ports and off-shore states/territories
FCT	Fairview Container Terminal
NSA	Northwest Seaport Alliance
U.S.	United States
NEA	North East Asia
SEA	South East Asia
ISCME	India Subcontinent Middle East
AAPA	American Association of Port Authorities
CAGR	Compound Annual Growth Rate
GDP	Gross Domestic Product
PIERS	The Port Import/Export Reporting Service
TEU	Twenty Foot Equivalent Unit
WTO	World Trade Organization

## Executive Summary

### Overview of Forecasting Methodology

This report provides a 25-year forecast of container and non-container cargo volumes moving through the Ports of Los Angeles and Long Beach, collectively referred to herein as the San Pedro Bay Ports, or SPB Ports. The processes for creating long-term forecasts for both types of cargo are similar, and the methodology used is outlined in the following diagram:



The process outlined above was used with three sets of macro-economic assumptions to produce three different volume forecasts, which are denoted as:

- **Expected (E):** This scenario was based on economic assumptions that are viewed to be the most likely to be achieved over the forecast period. Specifically, an average US GDP growth rate of around 2.45% from 2015-2040, and a continued gradual liberalization of global trade agreements.
- **High (H):** In this scenario, a more aggressive set of assumptions was used – an extra 0.3pp in average GDP growth from 2015-2040. This is achieved via a combination of a more positive near-term outlook, and more positive structural conditions for growth in the long-run. Additionally, more ambitious progress in global trade liberalization was assumed.
- **Low (L):** This version of the macro-based volume forecast utilized a more conservative set of economic assumptions – a lower rate of labor productivity growth, and ultimately GDP growth weaker by 0.45pp per annum relative to baseline. In the short term, this is driven by a shock to global trade emanating in emerging markets, and in the longer-term a slower rate of technical



progress and productivity growth. Finally, a more protectionist global trade atmosphere was assumed, in response to the weaker global outlook.

For the cargo types that were identified as being at risk of diversion due to changes in SPB Ports' competitiveness, further analysis was completed that quantified this risk based on three sets of assumptions, which are identified in this report as:

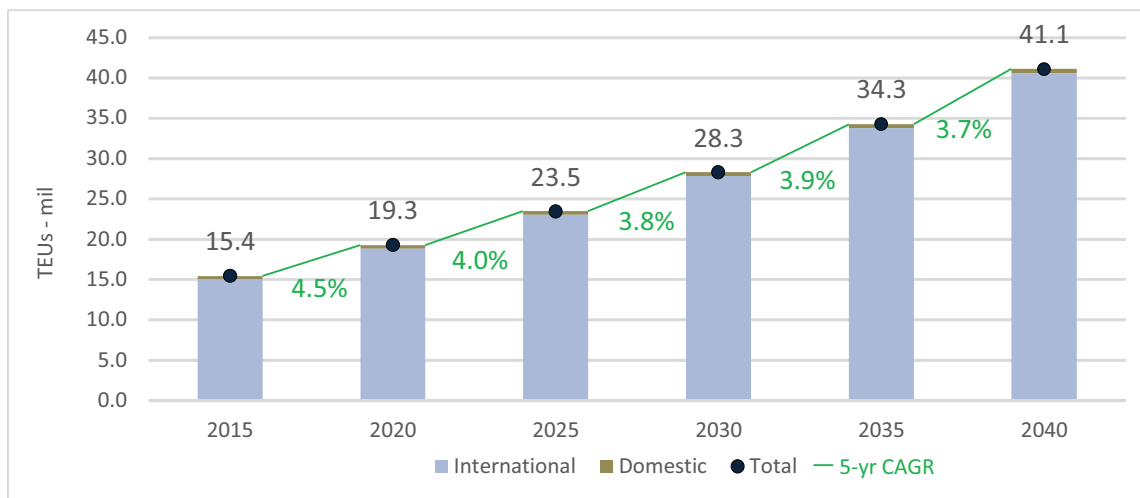
- **Base Case** – Most likely amount of volume to be diverted (Identifies IPI volume that is expected to be lost to Atlantic, Gulf and British Columbian ports due changes in expected cost structures)
- **Upside** – The least amount of volume to be diverted (Only identifies a small amount of IPI volume that is expected to be lost to ports in British Columbia)
- **Downside** – This case generated the greatest amount of volume that could be diverted (Analysis for this case included assumptions that caused SBP Ports' competitiveness to erode, as compared to base case, which caused additional IPI movement to be diverted to Atlantic, Gulf and British Columbia ports)

Therefore, nine separate forecast scenarios were created for the cargo types that were assessed to have a material risk of diversion. However, the scenario that used the Expected economic assumptions in combination with the Base Case competitive assumptions is considered to generate the most likely outcome. Finally, the cargo forecasts provided in this report are unconstrained; that is, they are demand-based forecasts that do not account for practical constraints on the ability of individual terminals in the Ports to accommodate the projected cargo. While an unconstrained forecast can show continuing growth in the demand for cargo to move through the SPB Ports, actual future volumes will be limited by the physical and operational capacity of the Ports.

## Container Forecast – Key Findings

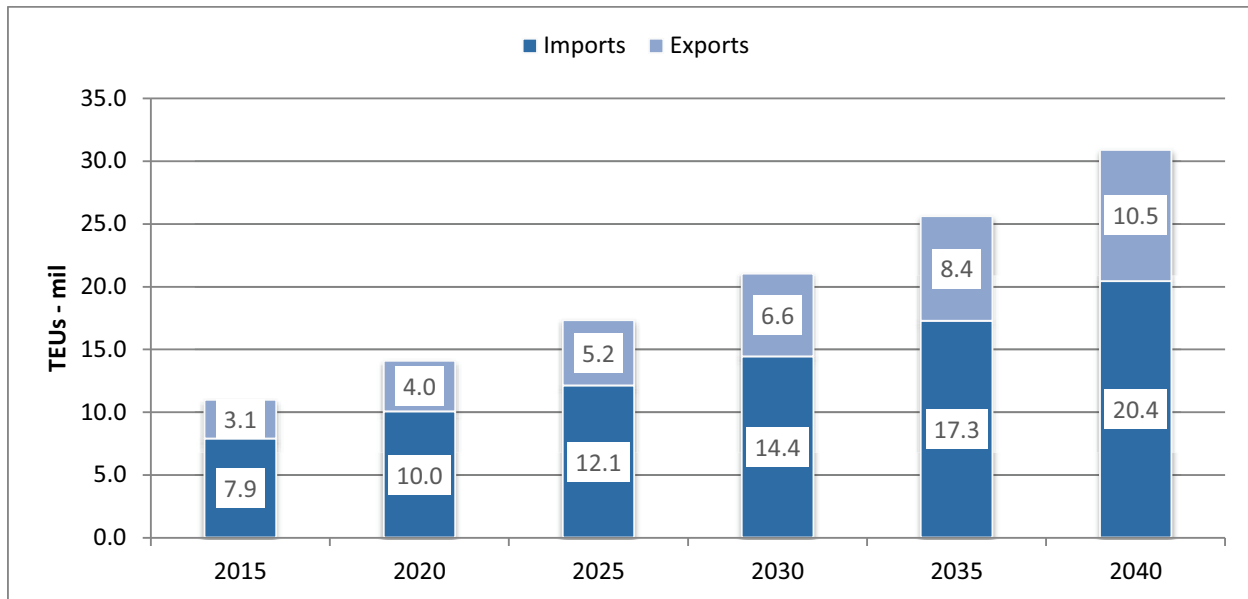
In 2014, 15.2 million TEUs moved through SPB Ports. This volume is equal to just over 31% of the combined throughput of all seaports located in the U.S. and Canada (herein referred to as ‘North America’), making it the largest container gateway in North America. The Base Case forecast that relied on the Expected economic assumptions, which is denoted as the “**E-Base Case**”, projected that by 2040, SPB Ports’ container throughput would rise to 41.1 million TEUs, which produces a CAGR of 4.0% over the forecast period. The chart below provides an overview of the E-Base Case forecast results by major movement type.

### **E-Base Case Forecast of International and Domestic Container Movements for SPB Ports in 5 year Increments**



The chart above shows the importance of international volume to SPB Ports, as it accounts for 98% of this port area’s container throughput. In analyzing the SPB Ports’ international market by direction, it is clear that loaded import movements are the driver of this gateway’s volume, because it generates more than twice as many loaded moves, versus exports, and will continue to do so over the forecast period, as shown in the following chart.

***E-Base Case Forecast of SPB Ports' Loaded International Moves by Direction in 5 year Increments***

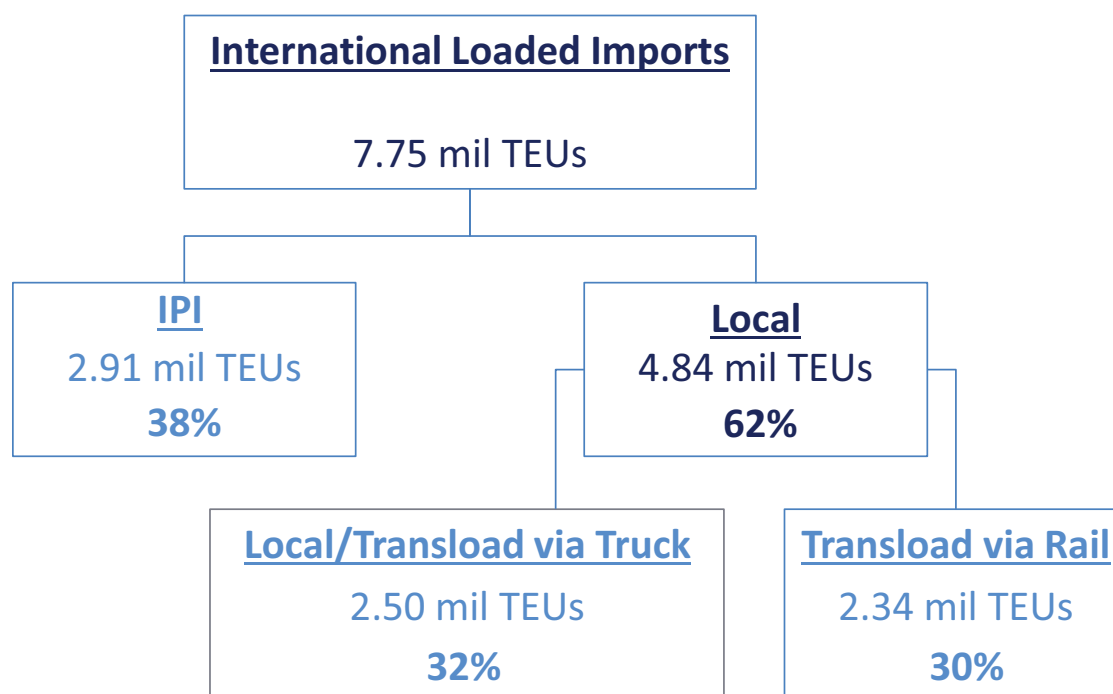


As loaded international imports are the primary driver of SPB Ports' international container volume performance over the forecast period, the composition of this market was analyzed, with three primary segments identified, which are described below:

- **Inland Point Intermodal (IPI):** Containers that are directly moved from the arrival port to an interior point via rail
- **Local/Trans-loads via Truck:** Containers that leave the port by truck to facilities for unloading and distribution to/consumption by the local population, or to manufacturing/processing plants within the port's hinterland
- **Trans-loads via Rail:** Containers that are moved to cargo handling facilities near the discharge port for unloading, after which these goods are mixed with items from other containers and loaded in to domestic vans, which are moved to final destination by rail

The following diagram provides a breakdown of SPB Ports' 2014 loaded import container volume by the three segments discussed above, as well as the market share associated with each one.

Composition of SPB Ports' 2014 Loaded International Imports by Primary Market Segments



The breakdown above shows that while IPI volume is the largest individual segment, the other two are not significantly smaller, and thus each segment accounts for an important share of SPB Ports' international container volume.

In order to determine if the SPB Ports are likely to experience any significant diversion of volume, each of the three segments was analyzed to identify the main drivers that cause importers to choose particular inbound gateway ports for each segment. These main drivers of port selection were then reviewed further to assess each segment's susceptibility to diversion, and a summary of these findings are shown below:

- **Local/Trans-loads Movements via Truck** – These cargo flows are considered to have very little susceptibility to diversion, because the additional inland costs associated with moving boxes into SPB Ports' catchment areas via an alternative gateway port will outweigh any port or terminal cost savings. In addition, the relatively large population of the SPB Ports' local market makes this gateway an essential call for ocean carriers
- **Trans-load Movements via Rail** – Import movements that are trans-loaded and delivered to their final destinations by intermodal rail service are relatively unlikely to be divertible to other ports because the SPB gateway offers greater sailing frequencies, lower ocean shipping costs, and shorter transit times from Asia versus all-water alternatives. Moreover, BCOs using trans-load facilities in Southern California have access to a greater number of intermodal train services to more inland markets than are available from the PNW and BC gateway ports
- **IPI** – *Containers that move directly by rail to reach their final destinations are considered to be highly divertible, as there are a number of gateway ports along the Pacific Coast that are positioned to handle these volumes, and the increased availability of services between Asia and*

*East/Gulf Coast ports enables all-water routings to be viable alternatives for the lower-value, less time-sensitive commodities moving to a number of inland destinations east of the Mississippi River Valley.*

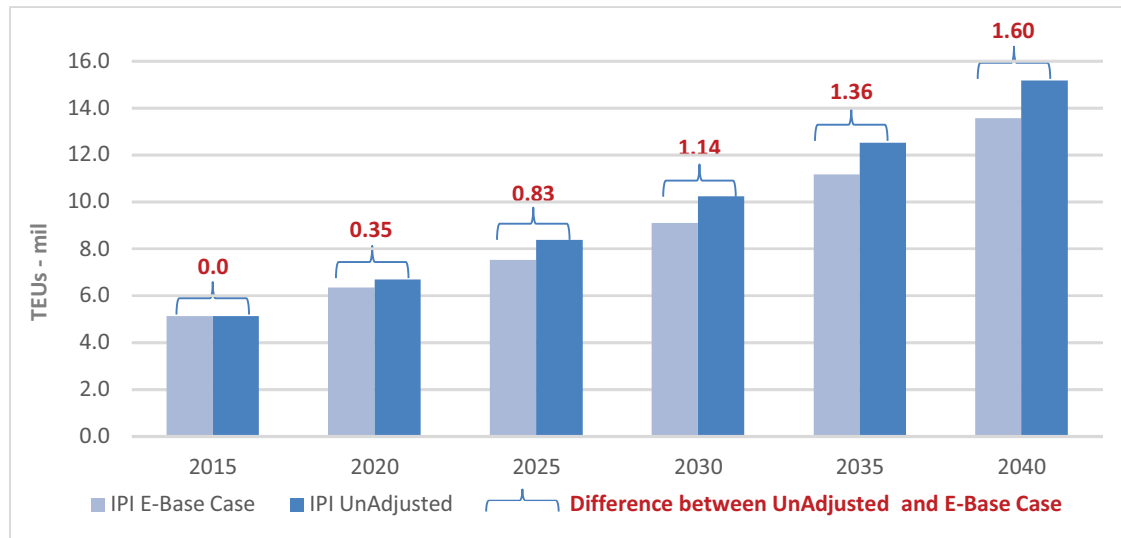
Consequently, IPI volume is the segment with the greatest relative risk of share loss for the SPB Ports. In order to evaluate how SPB Ports' competitive position for its existing IPI volumes could evolve over the next 25 years, analysis was done which identified and assessed the following factors/trends with potential impact on the gateway's position.

#### **Summary of Key Competitive Factors**

- **Panama Canal Expansion** – The completion of the new locks at the Panama Canal will allow vessels with capacities of up to 14,000 TEUs to be deployed on all-water services between Northeast Asia and Atlantic/Gulf Coast ports, thereby enabling ocean carriers to substantially lower their slot costs on this route
- **Slower Growth in Vessel Capacities to SPB Ports** – If the growth of import volumes to Southern California's ports slows, then carriers will be less likely to increase vessels sizes used on Asia – California services, which could lower the slot cost advantage that Transpacific deployments and SPB Ports currently have over all-water services and East Coast ports
- **Increased Terminal Handling Costs** – Should terminal handling costs increase faster in SPB Ports than in competing ports, this could result in higher terminal service charges to carriers and reduce the gateway's attractiveness
- **New Terminal Capacity in British Columbia, particularly at Prince Rupert** – The container terminal at Prince Rupert will add a second berth during 2016, which will allow it to handle additional services and a greater number of IPI movements to destinations in the U.S., and a third berth is planned to become available within the next seven years. In the same timeframe, two terminals in Vancouver are being expanded.

The impacts of each of these factors were analyzed to determine how SPB Ports' competitiveness for IPI movements is likely to change over the forecast period. The results of this competitive-factors analysis was used to quantify how SPB Ports' IPI volumes are expected to change over the 25-year forecast period. The following chart contrasts the total (both directions, including loads and empties) IPI volumes that SPB Ports would capture in an unadjusted scenario, versus those from the E-Base Case.

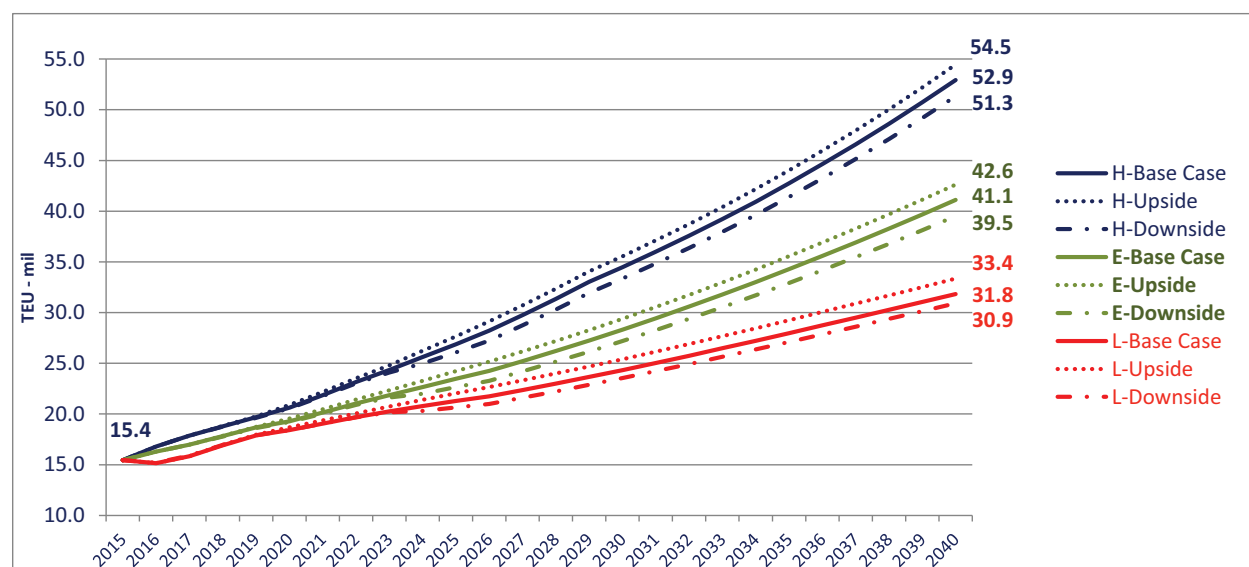
### **Contrast of Results for SPB Ports Total IPI Volume from an Unadjusted Forecast and the E-Base Case**



The previous chart shows that while initially, diversions have a limited impact to SPB Ports' IPI volumes, by the end of the 25-year period, the volume in this segment is expected to be 1.6 million TEUs lower than if there was no impact from the competitive factors studied.

The overview section of this report noted that three separate sets of economic assumptions were used to create a range of forecasts for SPB Ports' loaded volume based on macro-modeling techniques. Additionally, each of the forecasts that were generated by the macro-model was adjusted to take in to account the outputs of the diversion analysis associated with IPI movements. By combining the results of these analyses, nine separate volume forecasts were produced, which produced a range of results to be considered. The results of all the container forecasts are summarized in the chart below:

**Summary of SPB Ports' Total Throughput Based on Integrating the Results from the Three Sets of Economic Assumptions and Diversion Analysis**



## Non-container Forecast – Key Findings

Given the wide variety of commodities transported in ocean containers, container terminal operators in SPB Ports are exposed to a relatively broad cross section of the North American economy. However, non-container terminals generally handle a limited number of commodities, because the different cargo-types in this sector require specialized handling and storage infrastructure. Therefore, non-container terminals are typically designed to handle one of the following cargo-types:

- Liquid Bulk
- Dry Bulk
- Breakbulk
- Roll-on Roll-off (RoRo) -- Vehicles

A summary of SPB Ports' 2014 non-container volumes for each of the four cargo-types is shown in the following table, based on data provided by the area's two port authorities, as well as on information from PIERS and U.S. Census.

**Summary of SPB Ports 2014 Non-container Volume by Cargo-Type**

CARGO TYPE	IMPORT	EXPORT
	M.TONS - MIL	M.TONS - MIL
LIQUID BULK*	30.3	3.4
DRY BULK	0.4	7.3
BREKBUK	2.7	
RORO	0.6	0.05
<b>Total</b>	<b>34.1</b>	<b>10.8</b>

\* Does not include pipeline volumes

Liquid bulk movements generate 75% of volume included in the table above. The next largest cargo type is dry bulk and accounts for 17% of the total.

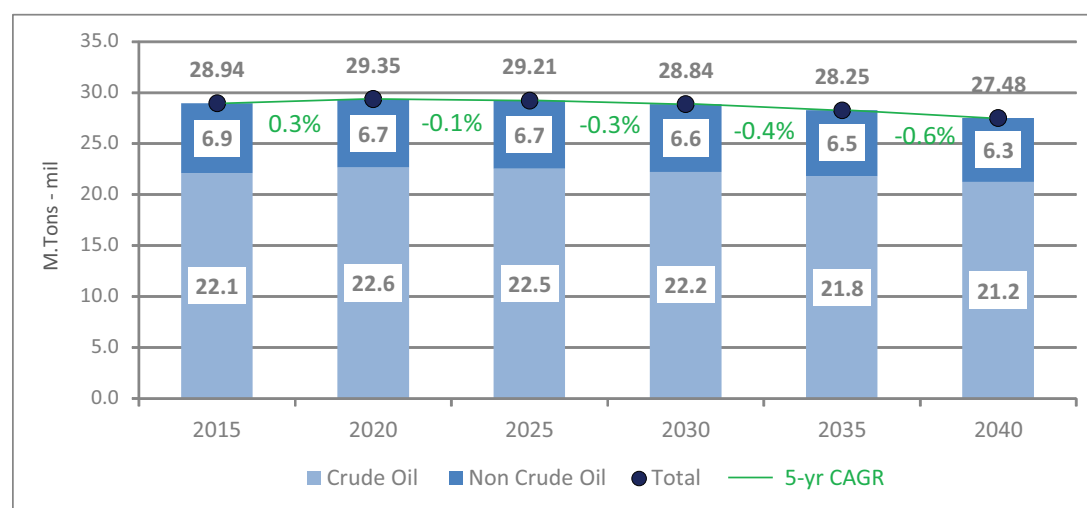
For each of these non-container cargo-types, a limited number of individual commodities generating the majority of the volume in that cargo-category were identified, and these high-volume commodities were then analyzed to determine the risk of diversion to other ports. The Mercator/OE diversion analysis determined that none of the high-volume commodities were at risk of shifting to other ports for a variety of reasons, such as the location of nearby production facilities, or because the importer/exporter has an economic interest in the marine terminal. Therefore, three forecasts were completed for each high volume commodity, based on the same macro-modelling techniques and economic assumptions that were used for the container forecast.

A summary of the non-container commodity forecasts that were based on the “Expected” economic assumptions are provided below and these are grouped by commodity type and direction. Information is also shown on the factors underpinning these forecasts.

### ***LIQUID BULK – Imports***

This cargo-type is comprised of two high-volume commodities, which are Crude Oil and “Non-Crude” Oil shipments, and the import forecast for these products are shown in the chart below.

#### ***Forecast of SPB Ports’ High-Volume Liquid Bulk Commodities Import Volume in 5 year Increments***



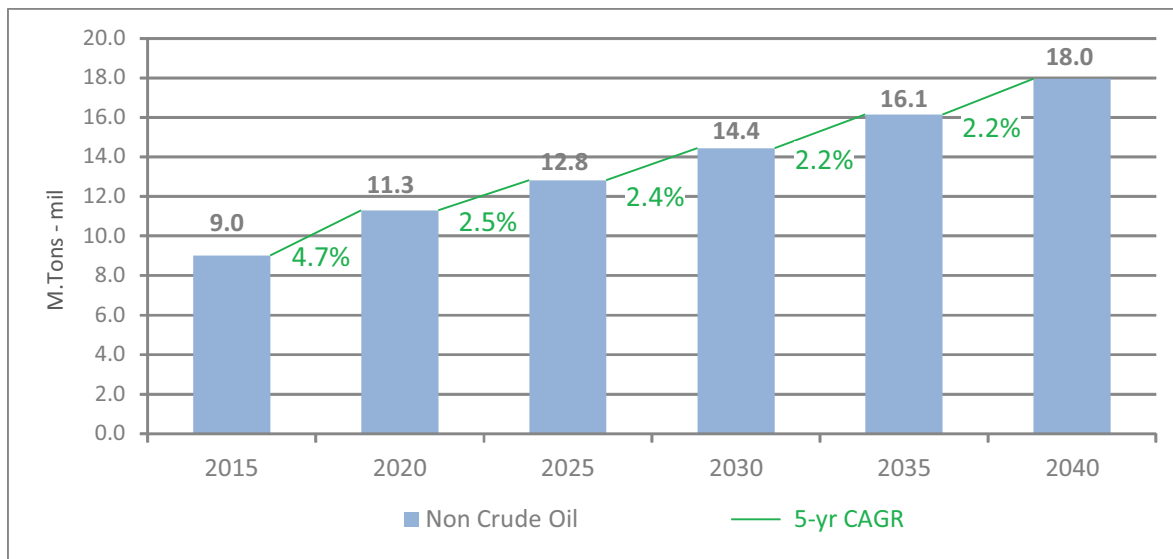
The increase in domestic and Canadian oil production has caused a drop in the importation of crude oil. Also, conservation efforts are causing a drop in production of Non Crude Oil, or refined products. While these trends have already had a major impact on inbound volume levels across U.S. ports, they are expected to continue to cause a slight decline in SPB’s volume of liquid bulk cargoes after 2020.

### ***LIQUID BULK – Exports***

There is only one high-volume commodity associated with liquid bulk exports, which is Non Crude Oil. This commodity is comprised of refined products that are exported from the local refineries in Southern California. A summary of the Non Crude Oil volume levels over the forecast period is shown below.



### Forecast of SPB Ports' High-Volume Liquid Bulk Commodities Export Volume in 5 year Increments

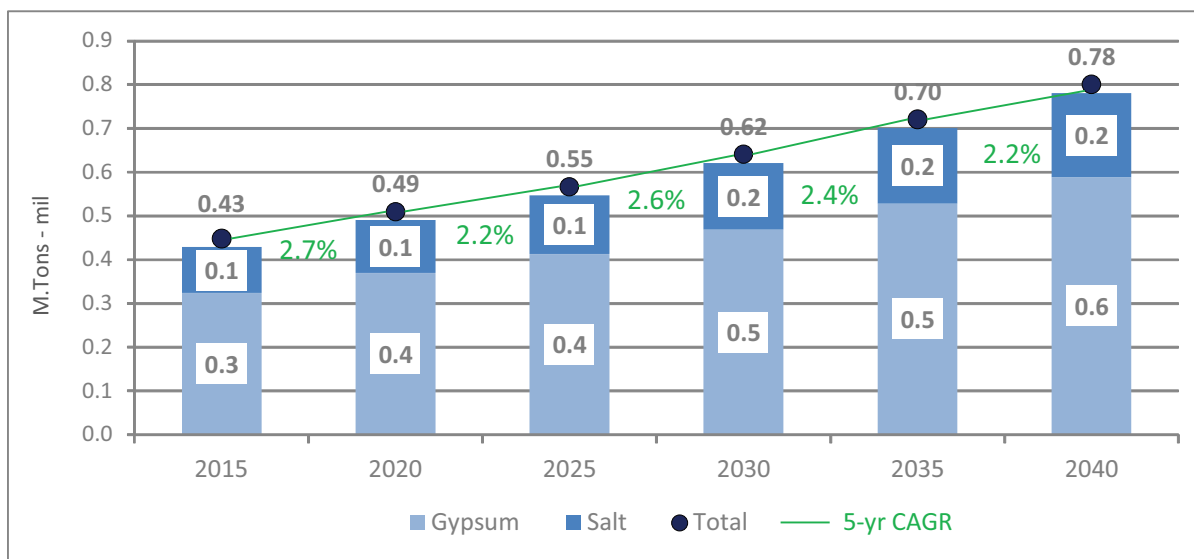


The forecast projects that refineries served by SPB Ports liquid bulk terminals will experience a falling share of the U.S. market, and continued gains in efficiency and conservation, in combination with the increased availability of domestic supplies of crude oil, are expected to allow a larger share of the country's and SPB Ports' refined products to be exported. The forecasted growth in the exports of refined oil based products will also be driven by U.S. government rules that limit the ability of producers to export crude oil, but allow refined products to be sold overseas.

### DRY BULK – Imports

Gypsum and salt are the two high-volume commodities being imported through the Dry Bulk terminals of SPB Ports, and a forecast of the volume levels for this cargo-type over the forecast period is shown below.

### Forecast of SPB Ports' High-Volume Dry Bulk Commodities Import Volume in 5 year Increments

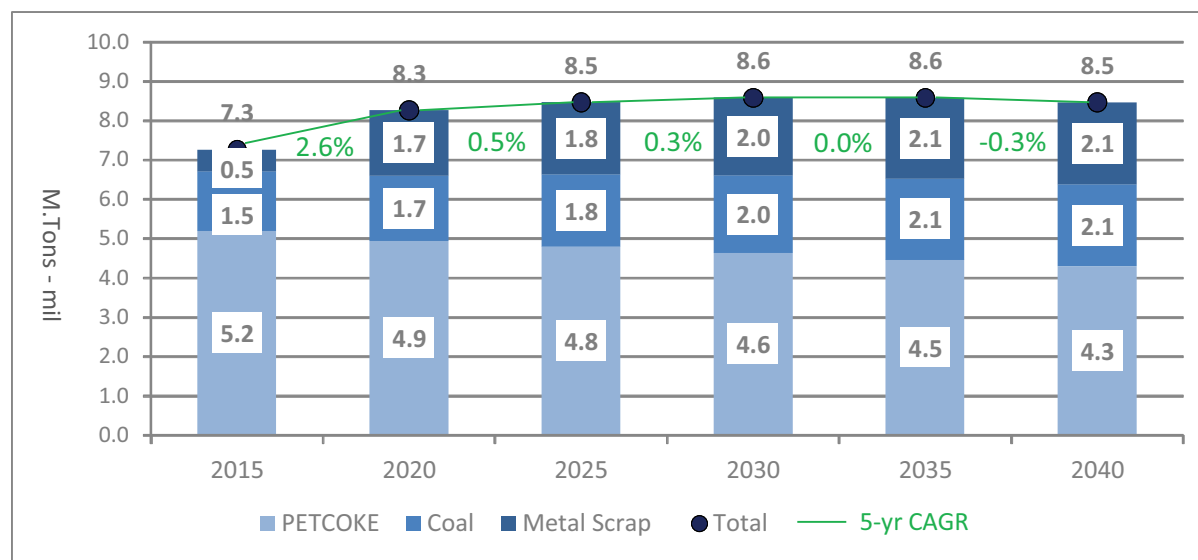


Gypsum accounts for the largest portion of dry bulk imports and this commodity is expected to continue to do so over the forecast period. Therefore, gypsum will likely be the driver of growth for SPB Ports' dry bulk imports over the forecast period. As gypsum is a major input to the construction industry, the continued growth in residential, commercial, and industrial construction in Southern California will support the volume forecast shown in the chart above.

### **DRY BULK – Exports**

Dry Bulk exports are comprised of three high-volume commodities and these are identified in the chart below, along with forecasts of their volume through SPB Ports over the next 25 years.

#### **Forecast of SPB Ports' High-Volume Dry Bulk Commodities Export Volume in 5 year Increments**

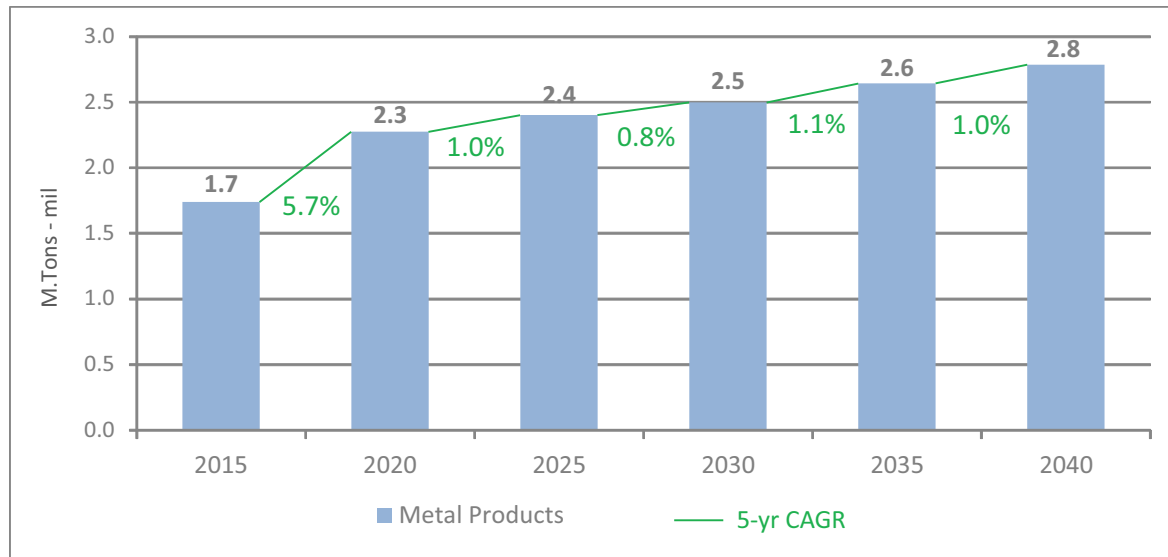


Both petroleum coke ("PetCoke") and coal exports will be driven by energy requirements in Asia. However, while the supply of PetCoke is expected to be stable over the forecast period, as it is a by-product of the oil refining process and refining activity at facilities in and around the SPB Ports area are not projected to experience any significant changes in their production levels, a modest decline in the U.S. and San Pedro Bay's PetCoke exports are projected, driven by a modest growth in domestic demand for PetCoke.

### **BREAKBULK – Imports**

The only high-volume commodity being imported through SPB Ports' breakbulk terminals is metal products, and a summary of the forecasted volume for this cargo is provided in the following chart.

### **Forecast of SPB Ports' High-Volume Breakbulk Commodities Import Volume in 5 year Increments**

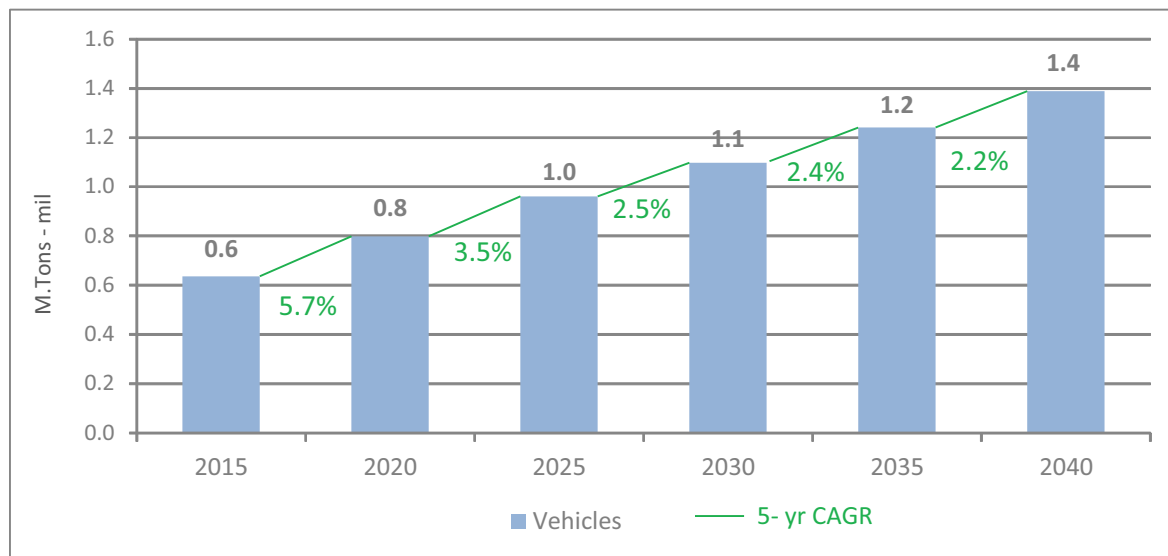


The near-term growth in metal products will also be driven by a rebound in construction and manufacturing activity in Southern California, Southern Nevada, and Arizona, but in the long-term, these areas will experience a lower rate of growth.

### ***RORO – Imports***

Vehicles are the only high volume commodity currently moving through SPB Ports' RoRo terminals. A forecast of this cargo's volume is shown below.

### **Forecast of SPB Ports' High-Volume RoRo Commodities Import Volume in 5 year Increments**

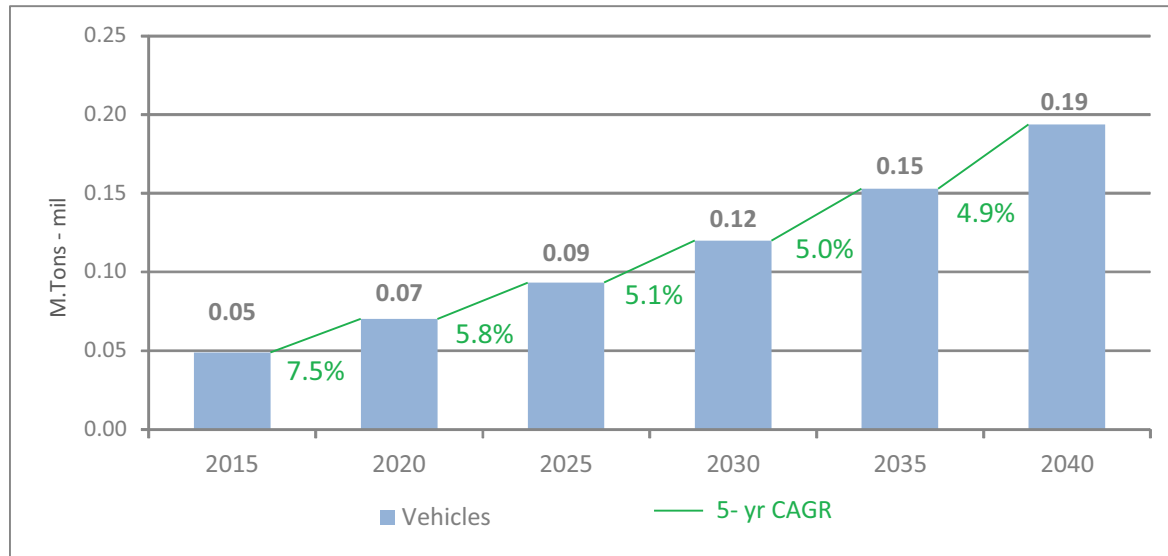


The recession from the Global Financial Crisis caused a significant decline in the sales of new passenger vehicles between 2008 and 2010 in the U.S., which caused the average age of cars in the U.S. to rise. The forecast above reflects consumers replacing older vehicles and a strengthening of the overall economy in the near-term, after which a more normal rate of growth is expected.

### ***RORO – Exports***

Vehicles are also the primary commodity being exported through SPB Ports' RoRo facilities. While import demand determines at which ports RORO vessels call, export vehicles are an important source of incremental volume for terminal operators. A forecast of vehicle export through SPB Ports' RoRo terminals is shown below.

#### ***Forecast of SPB Ports' High-Volume RoRo Commodities Export Volume in 5 year Increments***



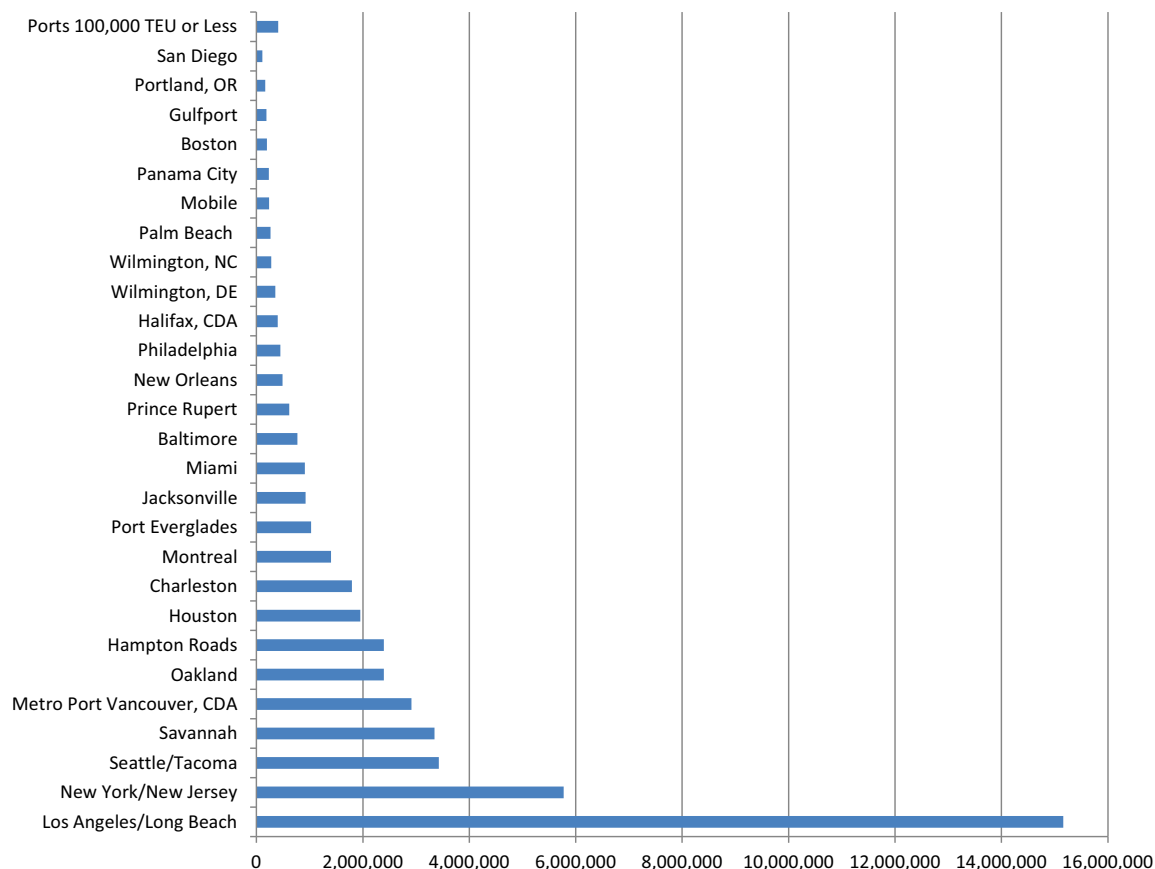
Continued increases in the percentage of Asia population that own passenger cars is expected to drive strong growth in the number of vehicles that are exported through SPB Ports' RoRo terminals.

# 1 CONTAINER MARKET

## 1.1 Overview of North American Container Market

The SPB Ports' container throughput is nearly three times higher in North America as any other port area in this geography, as can be seen in the chart below.

Figure 1: 2014 North American Container Volumes in TEUs – AAPA Data



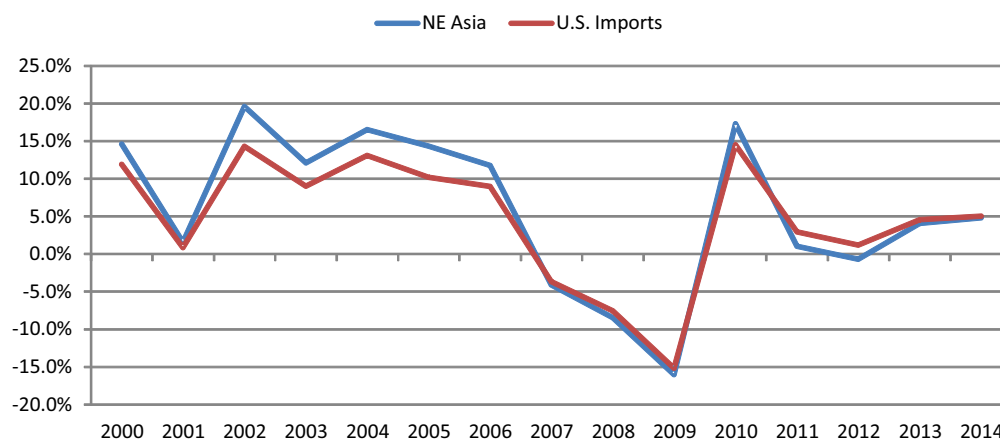
If SPB Ports only served the local Southern California market, the port complex would be expected to handle only 8% of the total North American container volumes.<sup>1</sup> However, in 2014, these ports handled just over 31% of North America's port's container throughput.

The reason that SPB Ports have been able to capture such a larger share of the North American container market is that these ports support cost-competitive supply chains for importers and exporters in a number of North America markets outside of California via both railroad service and through trans-loading goods between international containers and 53' domestic vans. While the SPB Ports' ability to serve areas outside of California has been an important factor underpinning the port complex's disproportionate share of the North American container market, the growth in the outsourcing of

<sup>1</sup> Market size is approximated by population, with the population of the local Southern California market being defined at the 3-digit zip code level, and including all zip code areas between and including 919 to 939.

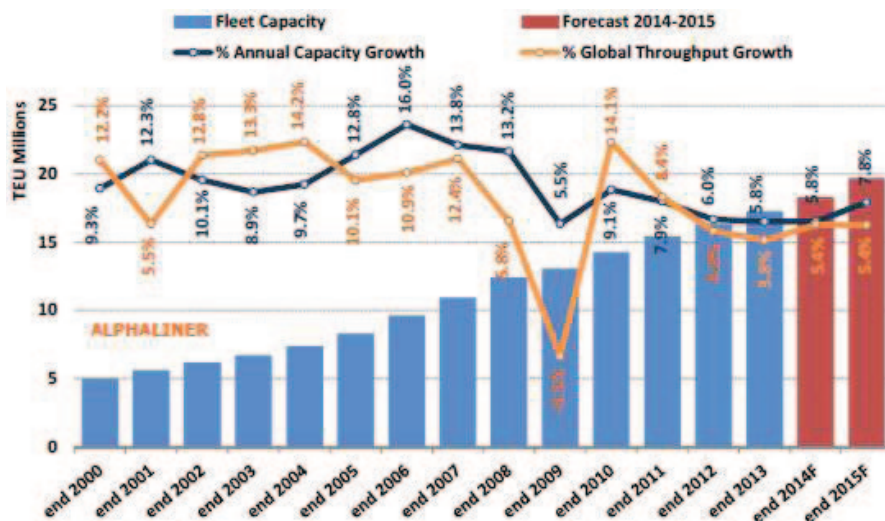
manufacturing to Asia, and in particular China after it became part of the WTO in late 2001, was a key driver impacting the evolution of SPB's market position. This is due to the fact that a very high fraction of the manufacturing that previously took place in North America was outsourced to North East Asia, and as a result, the volume of imports from North East Asia expanded at a much higher rate than the overall market from 2002 to 2006, as illustrated in the chart below.

Figure 2: Import Loaded Volume Growth - PIERS



The SPB Ports also benefitted indirectly by the offshoring and offshore outsourcing practices by European manufacturers. During this period the volume of goods imported to Europe from North East Asia grew at similarly accelerated levels. As trade between Asia and both North America and Europe grew rapidly, the volume of global container movements increased at a rate that was much higher than the capacity of the global container fleet, as shown below.

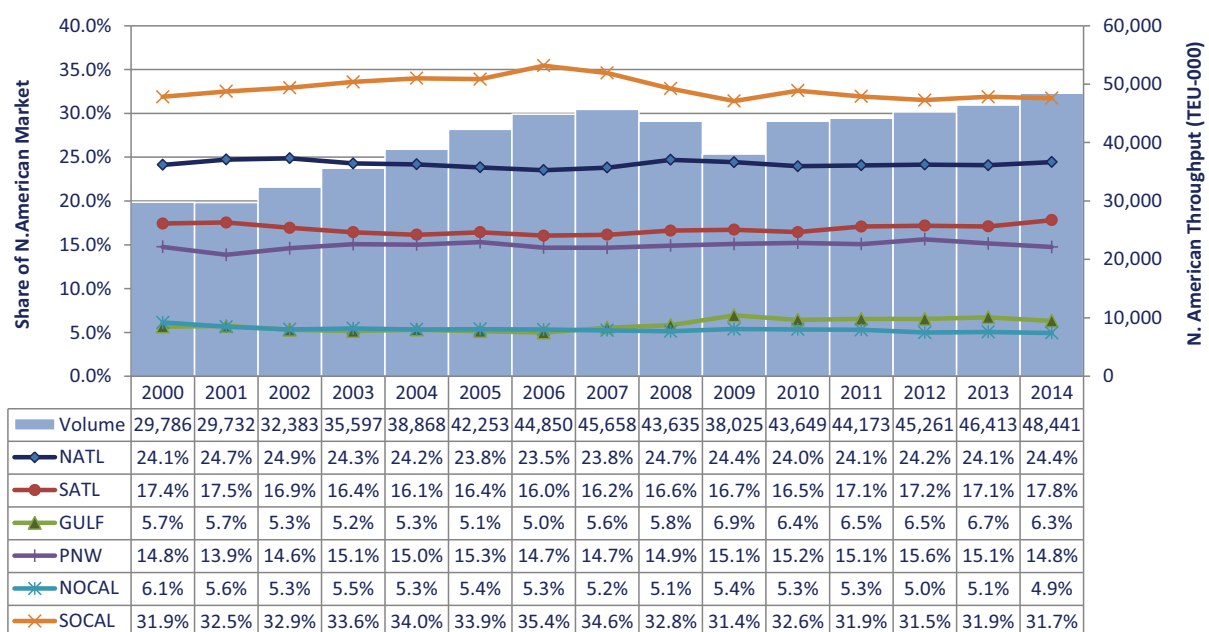
Figure 3: Summary of Global Container Demand and Capacity – ALPHALINER



The imbalance between the growth rates of both the global container trade and the capacity of the global container vessel fleet impacted carrier's deployment practices between 2002 and 2008. Because West Coast strings could serve local markets as well as Central and Eastern U.S./Canada markets via intermodal landbridge routes with as few as 5 ships, versus 8-9 ships required for fixed day of the week

all-water vessel services via the Panama Canal, carriers chose to meet the demands of rising Asia-North America volumes by creating new Asia – Pacific Coast services (instead of increasing the number of all-water Asia – Atlantic Coast services). The growth in SPB Ports’ share of the North American container market’s rapid increase in trade with NE Asia coupled with the lack of new container ship capacity can be seen in the chart below.

Figure 4: Analysis of North America Port Areas Share Development – AAPA Data



The Global Financial Crisis, which began in August 2007, caused the United States, as well as a number of large European economies to fall into a deep recession during 2008/09. This led to a contraction in global container volumes, but ocean carriers had already ordered a significant amount of new container capacity for delivery from 2009 through 2011. The drop in volume led ocean carriers to delay deliveries of new ships where possible, add ships to existing strings to implement slow steaming strategies, and lay up a large number of vessels.

By 2010 these capacity reduction deployment strategies coupled with a recovery in container volumes allowed supply and demand to return to a manageable balance for a short period. Since 2010, however, ocean carriers have continued to take delivery on a large number of new ships, while volume growth in a number of larger trade-lanes has been well below historical levels. The continuing imbalance between supply and demand provided a pool of excess capacity that allowed a number of ocean carriers to establish new services between Asia and U.S. Atlantic Coast ports through both the Panama and Suez Canals. These new all-water strings enabled ocean carriers to capture volumes that would otherwise have been routed via SPB Ports and domestic inland transportation companies.

By the end of 2012 the SPB Ports’ share of the North American container market had stabilized at around 31.5%, as the introduction of new all-water services between Asia and the North American Atlantic Coast slowed.

In the near future, however, SPB Ports' share of the North American market will be threatened by market forces associated with the opening of the new locks at the Panama Canal in 2016. The larger locks will allow carriers to deploy higher capacity vessels on strings connecting Asia to North American markets via Atlantic Coast ports, and the use of higher capacity vessels will enable ocean carriers to lower slot costs. Carriers will need to offer lower rates in order to attract new volumes to the all-water routes, and the lower slot costs associated with larger vessels will make it possible for them to do so.

In order to develop a long-term volume forecast for SBP Ports, a reviewed of historical container imports and exports by major commodity groups and an identification of the primary drivers of container volumes and growth rates was were completed. Insights from this exercise were integrated with Oxford's econometric models to develop a 25-year forecast of loaded container imports and exports by commodity and origin/destination.

The team then reviewed the SPB Ports' current market share for the each commodity group and determined the fractions currently being handled from the international and domestic markets. This review found the international accounted for the vast majority of SPB Ports' container throughput and this category volume was further broken down into the following segments:

- Local/Trans-load via Truck
- IPI movements
- Trans-load via Rail

Once the volumes were apportioned to one of the above markets, SPB Ports' competitive position was assessed for each commodity group in order to develop a long-term outlook over the forecast period. In turn, this market assessment was used in combination with Oxford's container forecast to develop the SBP Ports' projected share of the United States' loaded container market. In order to complete the forecast process, Mercator reviewed the historical relationship between loaded imports/exports and empty movements in these ports and used this analysis to forecast empty container volumes over the forecast period.

## 1.2 Macroeconomic and Trade Scenarios for the U.S.

### 1.2.1 Objective

This section sets out the Expected forecast for the U.S. economy, as well as alternative 'Low' and 'High' scenarios for the years to 2040. These forecasts are based on detailed assumptions on the level of U.S. trade with the rest of the world under each of the three macroeconomic scenarios. Special attention is focused in particular on implications for the "visible trade-elasticity" of GDP growth. The analysis section of the report is broken in to the following parts:

- First, a methodology was developed for analyzing the behavior of the visible-trade-to-GDP ratio<sup>2</sup>
- Second, a view was developed of the U.S. economy in the Expected economic forecast

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<sup>2</sup> Oxford's work is based on a methodology published by the Bank of England (*Why has world trade grown faster than world GDP?* Bank of England Quarterly Bulletin Autumn 2004).



- Third, we assess the implications of the Expected economic outlook for the trade-GDP ratio, and by extension, the trade elasticity of growth
- The fourth section describes a high growth scenario for the U.S. economy, along with the associated trade metrics
- Section five does the same for a Low macro-economic scenario
- A final section compares results

## 1.2.2 Modeling the Trade/GDP ratio

The visible trade/GDP ratio is simply the sum of visible imports and exports divided by total GDP (in this case constant prices were used, not nominal). This measure is sometimes regarded as the “degree of openness” of an economy. A rising trade/GDP ratio would evidently be associated with trade elasticity of greater than one, and a falling ratio associated with elasticity less than one. Several possible factors are thought to impact the visible trade/GDP ratio, each of which is considered briefly below.

### 1.2.2.1 Real GDP per Capita

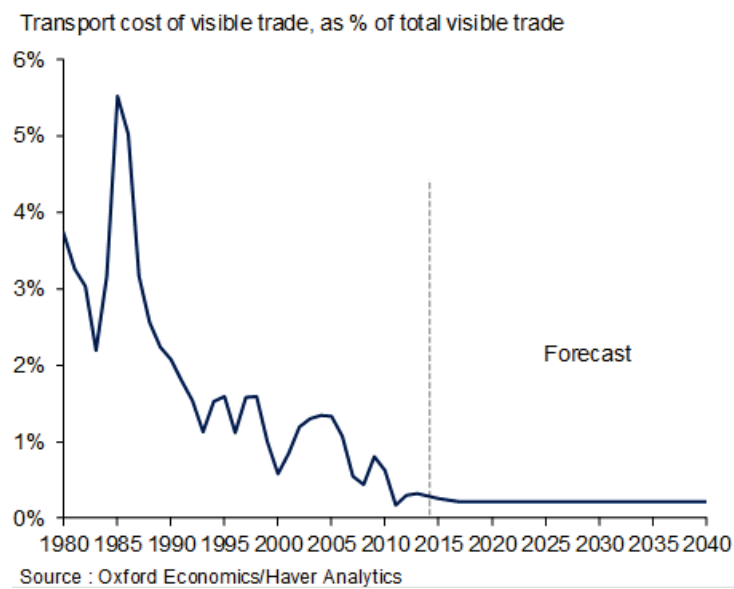
As countries become richer, on a per capita basis, their citizens are able to afford a greater range of consumer goods, including those produced abroad. At the same time, a rising capital stock enables specialization, allowing firms to expand production more economically, producing for overseas consumers. Periods of especially fast economic growth will therefore tend to be associated with higher trade elasticity. In the 1990s, technological progress and productivity growth drove particularly rapid growth in U.S. GDP per capita (1.9% per annum). By contrast, from 2000-2014 slowing productivity growth and the onset of the Great Recession meant average GDP per capita growth was less than half the 1990s rate, a little over 0.9%.

### 1.2.2.2 Transport Costs

The wedge between the cost of producing a good and the price faced by a consumer depends in large part on the cost of transport. Lower transport costs, whether due to technical progress, cheaper fuel, or some other factor such as routing decisions, will boost both imports and exports.

It has been calculated that total transport costs as the percentage difference between total visible trade measured on a “free on board” basis (excluding any transport costs) and on a national accounts basis (which includes these costs) fell from 3.8% to 2.6% between 1980 and 1990, and then on to 0.6% by 2000 and 0.3% in 2014.

Figure 2: U.S.-transport Cost of Visible Trade



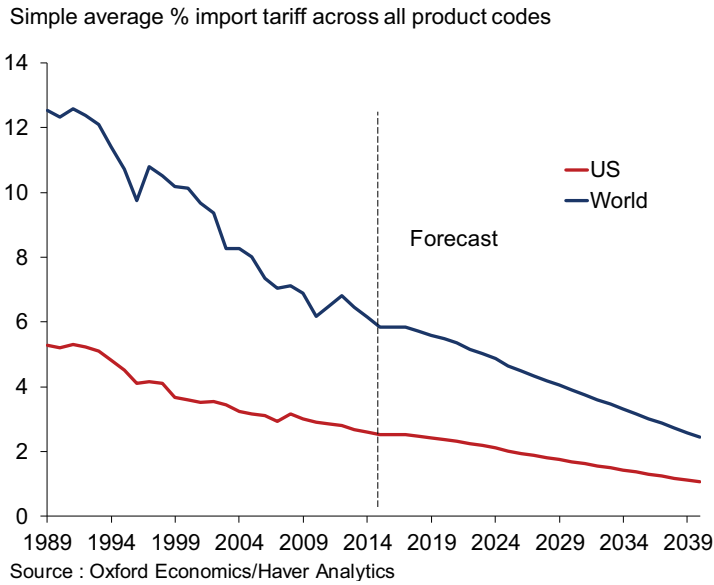
### 1.2.2.3 Trade Policy

A second driver of the wedge between producer and consumer costs is any tariff imposed either by the government of the exporting country (relatively rare) or by that in the importing country (still very common).

Used for this variable is the average tariff rate on goods imports imposed by the U.S. (simple average across all product codes, as reported by the World Bank). Data for this variable only starts in 1989, when the average U.S. tariff on imported goods was 5.3%, falling to 3.7% a decade later, and 2.7% in 2013<sup>3</sup>.

<sup>3</sup> Using the average world tariff instead of the average US tariff when estimating the visible trade/GDP ratio has the same effect, reflecting the fact that the average world and US tariffs have generally been lowered in tandem.

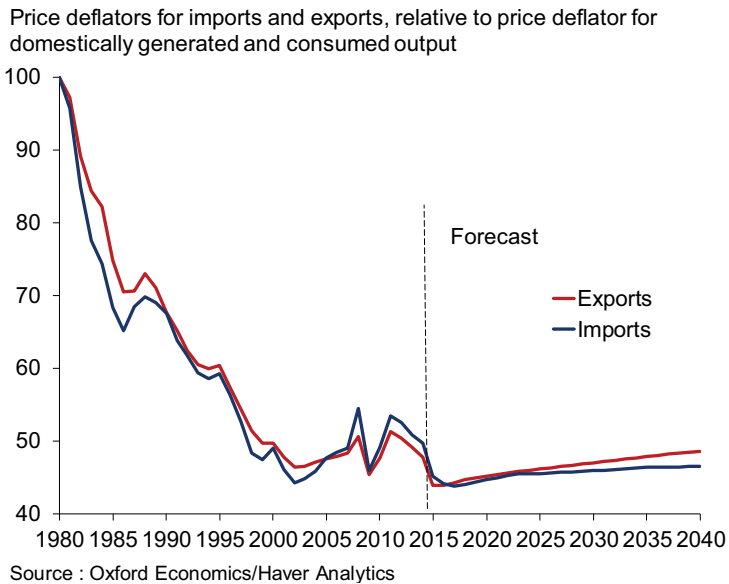
Figure 3: U.S. and World Average Tariffs



#### 1.2.2.4 Price Effects

If domestic producers are able to produce goods more cheaply than similar firms in other countries (assuming unchanged exchange rates), exports of those goods should increase, all else being equal. The converse will also be true. An increased divergence in energy costs between the U.S. and other advanced economies in recent years has helped tip this factor towards increased U.S. exports, especially in energy intensive goods. This was measured by the ratio of the deflators of goods exports and domestically generated and consumed GDP, and the comparable measure for imports.

Figure 4: U.S.- Relative Goods Prices

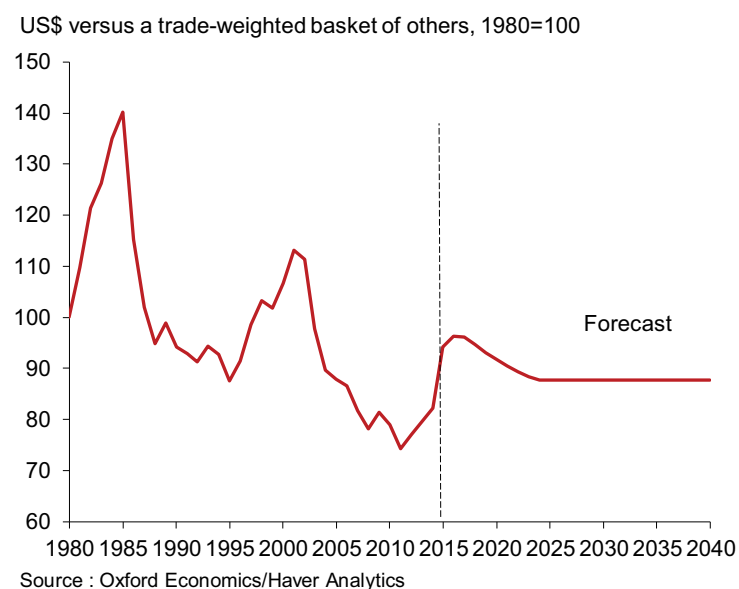


### 1.2.2.5 Exchange Rate Effects

Several economic theories suggest exchange rates should respond to relative prices over the long term, and cancel out such competitive differences. But in practice exchange rates often remain out of kilter with such “equilibria” for long periods of time. As such, it is worth considering these impacts separately.

Specifically here it was decided to use an “effective” exchange rate, that is, one that tracks the dollar against other currencies based on the relative weights of U.S. trade with each specific country. A higher value implies a stronger dollar against the basket of other currencies.

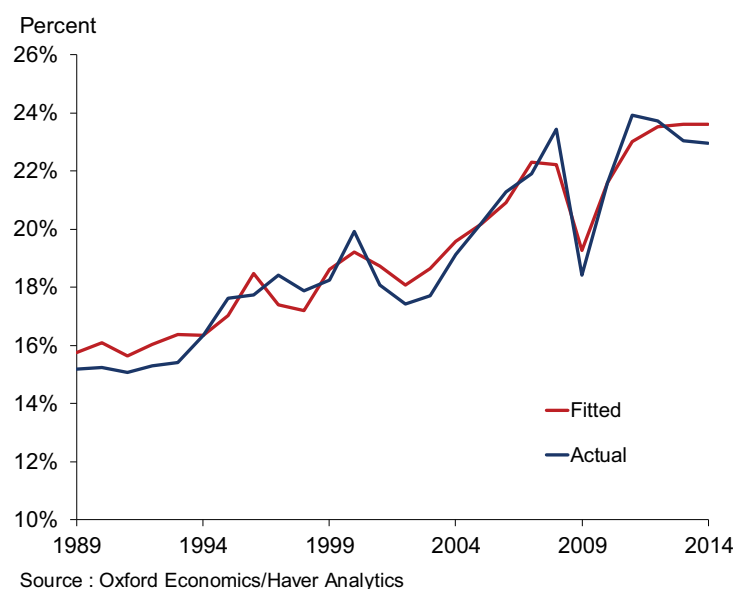
Figure 5: U.S.: Effective exchange rate



### 1.2.2.6 Model Performance

As illustrated in the chart below, the outcome of this econometric modeling exercise delivered a close fit between the “fitted” trade/GDP ratio as estimated by our equation, and the actual ratio as implied by the historical data. This provides a good degree of confidence in the applicability of this methodology to forecasting the trade/GDP ratio, and by extension the trade elasticity of growth in our scenarios.

Figure 6: U.S.: (imports + Exports) / GDP

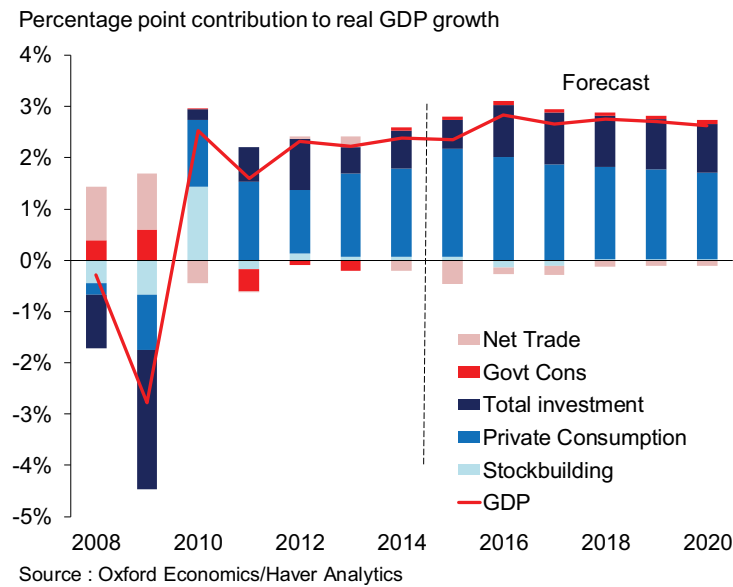


### 1.2.3 Expected Economic Outlook for the U.S.

The forecast horizon in this project is 2040, and as such one might expect the focus to be solely on long-term growth prospects. But since the near-term outlook influences long-term levels significantly, we look at two separate time periods – the near term (roughly speaking from now to 2020, or when the U.S. economy is expected to be back to its long-term trend growth rate), and the long-term, i.e. from 2020-2040, when cyclical factors are unknown, and forecasts must therefore rely on structural factors.

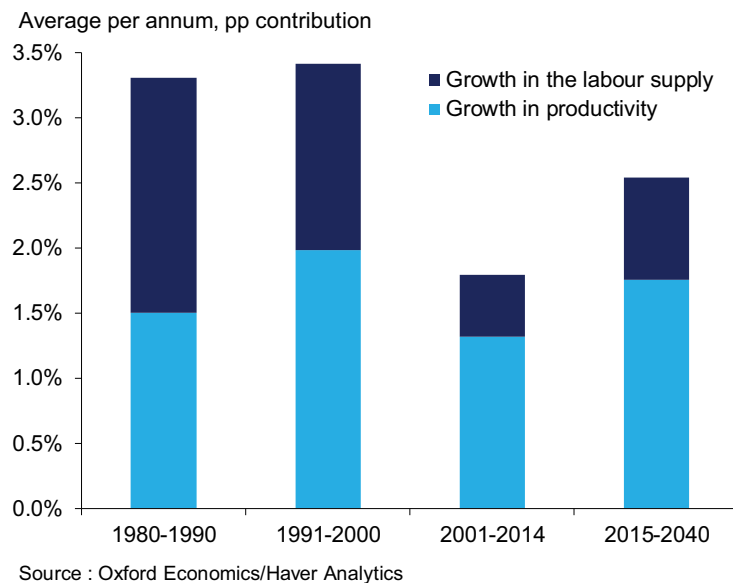
The US economy continues to grow robustly, with domestic demand strengthening thanks to a tightening labour market, weak price pressures, and a recovering housing market. These positive factors are feeding into a more optimistic corporate sector, driving business investment higher. The recent start of the Fed's tightening cycle has done little to impact on domestic confidence, given that the cost of borrowing will remain low for some time to come. That said, the external sector is currently less optimistic than the domestic sector, given a stronger dollar, while the impact of lower oil prices will dent investment in the sector in the US (at the same time as boosting consumer purchasing power). Nevertheless, with signs that wage growth is starting to recover, we expect a solid rate of economic growth in the US over the coming few years - averaging 2.7% per annum from 2016-2020.

**Figure 7: U.S.: GDP Grown in the Near-term**



Our current estimate is that the U.S. will reach close to normal levels of capacity utilization by the end of this decade, and barring any further cyclical shocks, future prospects will then be driven by structural factors. From 2020-2040 the estimate for U.S. growth is 2.4% per annum, which is consistent with stable inflation and unemployment. This consists of 1.75% per annum growth in average output per hour and just less than 0.8% per annum growth in the labor supply (including both demographic and labor market participation effects).

**Figure 8: U.S.: Contributions to GDP Growth, Supply-side**



This is somewhat faster than in the past 15 years (1.8% per annum). Labor supply should grow more quickly in the decades to come, as the improving economic outlook encourages the unemployed to remain looking for work rather than dropping out - the proportion of inactive persons rose around 3 percentage points from 2001 to 2014. However, in light of slower population growth, the contribution of

labor supply to future GDP growth will be weaker than in the 1980s and 1990s. In addition, firms will get better output growth per worker than through the 2001-2014 period – both as a result of better demand conditions, but also as increased confidence allows them to invest in new technology.

#### **1.2.4 Trade/GDP and Trade Elasticity in our Expected Scenario**

In order to arrive at the forecast for visible trade though (and by extension the trade elasticity of GDP) we need to specify our trade/GDP ratio. This starts with the underlying projections for the individual variables that feed into our trade ratio equation (outlined in section 2.2 of this paper).

With total GDP expected to grow by an average of 2.55% per year to 2040, and population growth of 0.8% a year, GDP per head will grow at an average of 1.75%. This is around 0.2 percentage points slower than during the 1990s, but substantially faster than during the 2000-2014 period.

In light of an earlier start to monetary policy tightening we expect the U.S. dollar to continue to gradually appreciate in the next couple of years, impinging upon export prospects (imports rise proportionately less for a given change in the exchange rate). On relative prices, two factors seem likely to drive a slight deterioration in competitiveness relative to recent years – firstly the stabilizing (rather than widening) differential in energy costs faced by U.S. firms versus other advanced economies, and secondly faster U.S. wage growth.

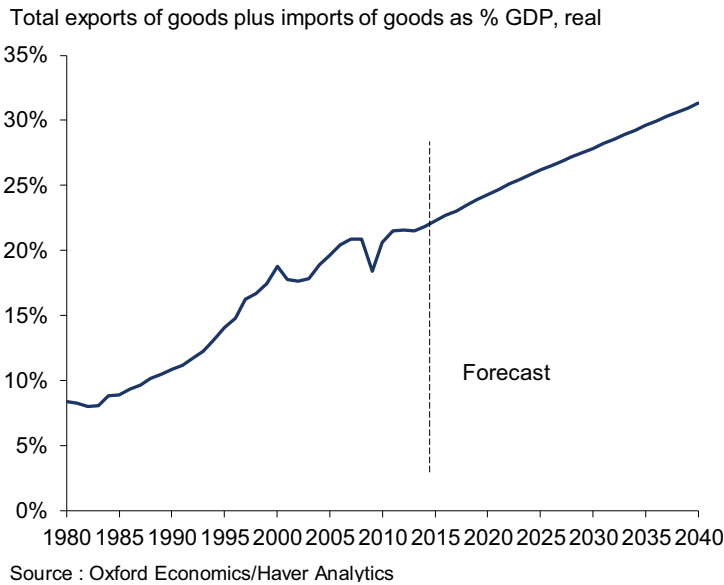
But in the medium to longer-term (i.e. from around 2020 onwards) as other economies get back towards trend, these factors should become neutral. As such, over our forecast horizon as a whole, exchange rate and relative price effects on the trade/GDP ratio are likely to be pretty much neutral.

Transport costs seem likely to be pretty stable over the coming couple of decades. Oxford's forecast is that oil prices will rebound only gradually in the decades ahead thanks to declining advanced economy demand and increasing U.S. supply. With oil prices only increasing marginally faster than export prices, and modest technical progress continuing (far slower than in the 1990s), we expect the cost of goods transport to nudge down gradually from 0.3% of total visible trade to 0.2% by 2040.

Finally, Oxford assumed a very gradual lowering of tariff barriers in the U.S. (on imports) and in the rest of the world (on U.S. exports overseas). From 2.7% and 6.5% respectively we expect these two rates to fall to 1.0% and 2.3% by 2040.

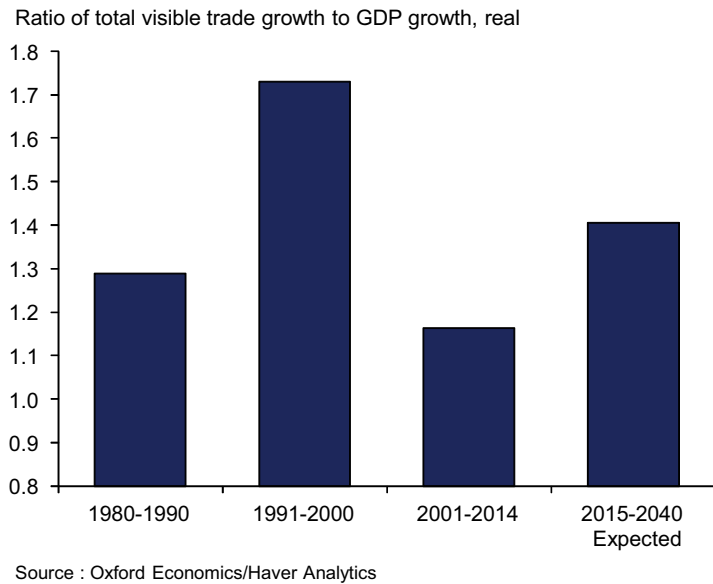
Plugging these projections into Oxford's macro equation for the trade/GDP ratio produces a steady increase in the ratio over the coming 25 years – rather slower than during the 1990s, but more impressive than the past few years of economic turmoil.

Figure 9: U.S.: Visible Trade to GDP Ratios



As a result, trade elasticity is likely to be around 1.4 over the forecast period as a whole (i.e. for each additional \$1 in real GDP, the total of visible imports and exports will increase by around \$1.4).

Figure 10: Elasticity of U.S. Trade to GDP



The factors that impact on trade elasticity will be discussed in the context of modeling a related concept in the following section. However, it is worth noting that the expected trade elasticity is substantially stronger than during the years since 2000 (which include a period of global crisis and rising transport costs, both of which has since gone into reverse). But at the same time trade elasticity will be much weaker than during the global trade boom of the 1990s, when especially rapid trade liberalization and improvements in transport costs (largely due to containerization) contributed to faster trade growth.



### 1.2.5 High and Low Macro-economic Scenarios

This forecast considered the impact of High and Low economic scenarios on the trade elasticity.

#### 1.2.5.1 High Macro-economic Scenario

This scenario is driven by both short-term and medium- to long-term considerations. In the short term Oxford applied an “animal spirits” shock to confidence that boosts business investment and job creation in the remainder of this decade (funded by record cash piles held by U.S. corporations, and the still-historically-low cost of borrowing). In turn households react by boosting consumer spending and driving faster housing market activity, which fuels further activity in the sector, and job creation. GDP growth is 1-2 percentage points stronger in the remainder of this decade than in the Expected.

This surge in near-term confidence is buttressed by two positive policy developments – first a more ambitious pace of trade liberalization, including full adoption of TTIP, and second the relaxation of restrictions banning oil exports from the U.S. More ambitious trade liberalization would push average U.S. tariffs to zero by 2040 (versus 1% in the Expected) while the non-tariff measures from TTIP would boost U.S. GDP per head by 0.4% (according to CEPR<sup>4</sup>). Permitting oil exports from the U.S. would actually raise domestic energy costs a little, thereby harming competitiveness of U.S. goods exports. But Brookings<sup>5</sup> estimates that the impact on GDP per capita would be substantial (0.7%), as U.S. oil firms increase investment and production to take advantage of new export opportunities.

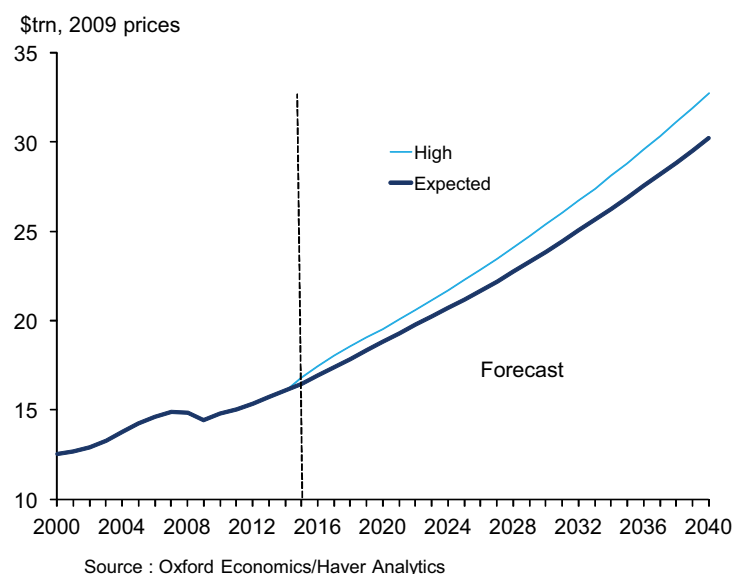
Finally, Oxford supplemented the confidence and policy shocks with an improved long-term productivity performance. The Expected scenario assumes labor productivity in the U.S. grows at 1.75% per annum, faster than the period since 2000 (1.3% on average per year) but somewhat slower than during the 1990s. As such, the forecasting team simulated the impact of a 0.2 percentage point boost to labor productivity throughout the forecast period.

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<sup>4</sup> *Reducing Transatlantic barriers to trade and investment: an economic assessment*, CEPR, March 2013

<sup>5</sup> 8 facts about U.S. Crude Oil exports, Brookings Institution, September 2014

Figure 11: U.S. GDP, for High and Expected Scenarios



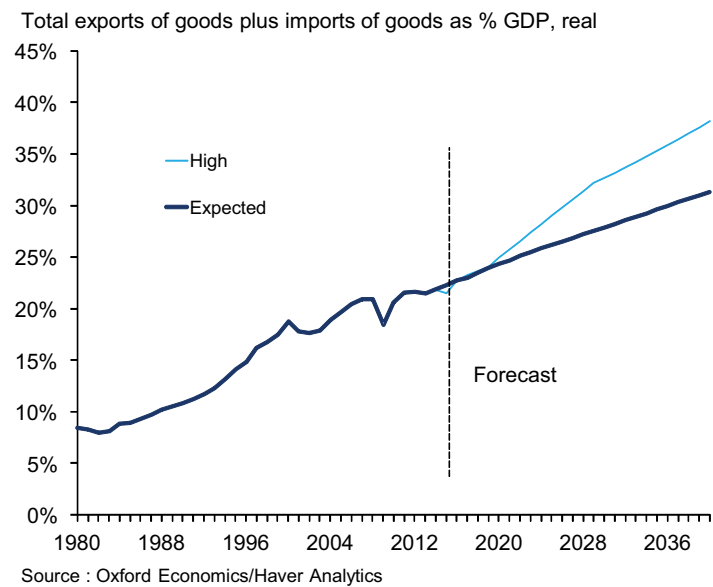
This combination of shocks increases average GDP growth over the 2015-2040 horizon from 2.4% in the Expected to 2.7%, and yields an additional 8% or so of GDP by 2040 (\$2.6 trillion).

#### 1.2.5.2 Implications of our High Scenario for trade/GDP and Trade Elasticity

However, the impact on visible trade derives not only through the impact of the scenario assumptions on GDP, but also on the relationship between GDP and trade. There are a number of important effects in this respect, including the impact of faster growth in GDP per capita on import demand (especially pertinent during the consumption surge this scenario envisages in 2015-2020). In addition, lower tariffs stimulate more trade, while the productivity advantage of U.S. firms again allows them to compete a little more effectively.

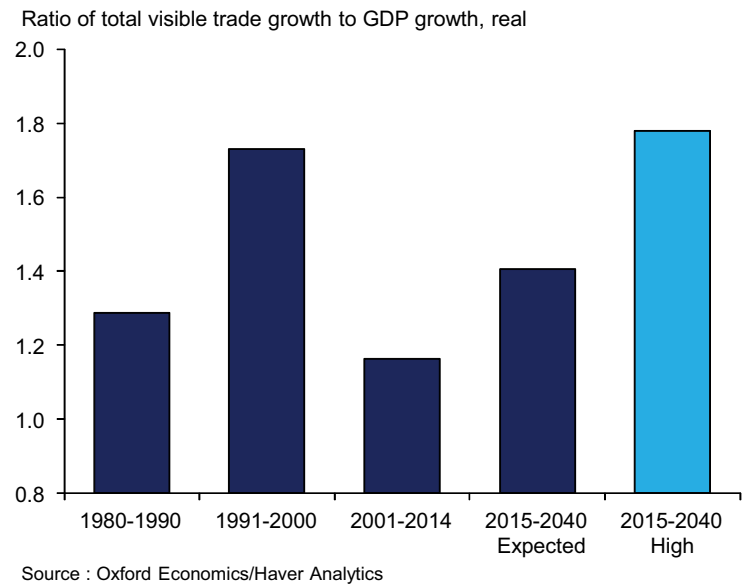
Combining these impacts yields a sharply higher trade/GDP ratio in the coming decade or so (after an initial dollar appreciation induced dip), and though the pace of growth in the ratio eases after 2030 or so, the ratio is still climbing faster than in the Expected (i.e. even after this point, trade elasticity is higher than in the Expected scenario).

Figure 12: U.S.: Visible trade to GDP ratios for the High and Expected Scenarios



This implies that over the 2015-2040 period as a whole, trade elasticity in this scenario (1.77) just about tops the rates seen during the 1990s (1.73).

Figure 13: Elasticity of U.S. trade to GDP



1.2.5.3 Low Macro-economic Scenario

For the Low scenario, a similar approach was taken, which incorporated a combination of negative shocks to the economy that impact demand in the short-term and impact supply potential and market access in the longer-term.

In the near term the “risk off” scenario was applied as recently published as part of Oxford’s Global Investor Scenario Service, which looks at possible risks in the global financial markets. This scenario

essentially assumes that an air of nervousness and risk-aversion takes hold in financial markets, leading to a drying up of credit for highly-indebted firms and governments.

Though U.S. firms and government carry relatively light debt burdens compared to those in other advanced economies, the U.S. would suffer from the slump in global spending such a scenario would trigger. This would lower U.S. GDP growth by 1-2 percentage points in 2015-2016, as well as forcing the dollar stronger against the most indebted economies. Part, but by no means all, of the loss in GDP growth relative to Expected is made up in the latter years of the decade.

More fundamentally, it was hypothesized that a marked slowdown in technological progress would set in. “Game-changing” technologies such as the automobile, personal computer, or internet clearly have an impact on productivity, but they are difficult (if not impossible) to forecast with accuracy. Oxford’s practice has always been to apply a degree of caution to projecting productivity growth, discounting averages from recent decades. However, given the possibility technological improvements will be far more modest in the future than in the past, some feel that there is a risk of a substantially slower rate of productivity growth in the medium to long term.

As such productivity growth was lowered by 0.5% versus the Expected forecast from 2020 onwards in this scenario, with a corresponding impact on GDP growth (and since population growth is assumed to be unaffected, GDP growth per capita). Finally, with weaker U.S. growth in the near term, and signs of weaker productivity growth in the medium term, it was assumed that U.S. trade policy becomes more defensive. Rather than continuing to cut tariffs, the U.S. government starts to gradually raise them, reaching 3.5% by 2040.

GDP growth is around 2% per annum over the forecast horizon in this scenario, 0.45 percentage points slower than in the Expected forecast. By 2040, GDP is \$4 trillion below the Expected level.

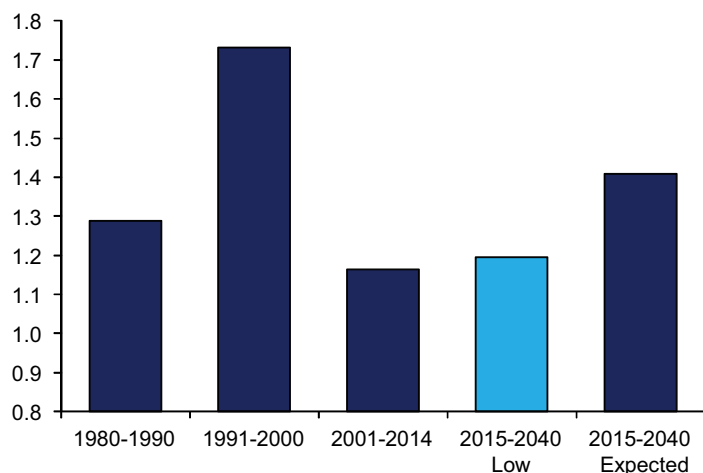
#### ***1.2.5.4 Implications of our Low Economic Scenario for Trade/GDP and Trade Elasticity***

Again though, there are impacts from the scenario on the trade/GDP elasticity also. Weaker productivity growth makes it more difficult for U.S. firms to compete in export markets, while an increased protectionism undermines both imports and exports. Slower GDP per capita growth means slower consumer spending and imports.

Figure 14: U.S. GDP, Low and Expected Scenarios

### Elasticity of US trade to GDP

Ratio of total visible trade growth to GDP growth, real

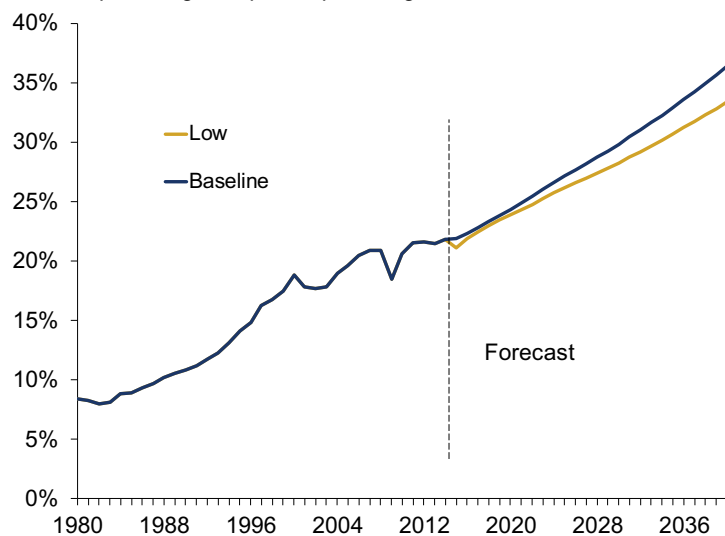


Source : Oxford Economics/Haver Analytics

Overall, Oxford's estimate for the visible trade/GDP ratio in this scenario is for it to grow only very marginally in the coming couple of decades. Indeed, the path looks very similar to the average of the past ten years or so, during which the global economy has endured the largest recession since the 1930s. This is reflected in the implied trade elasticity of GDP growth, which is just 1.2.

Figure 15: Elasticity of U.S. trade to GDP

Total exports of goods plus imports of goods as % GDP, real



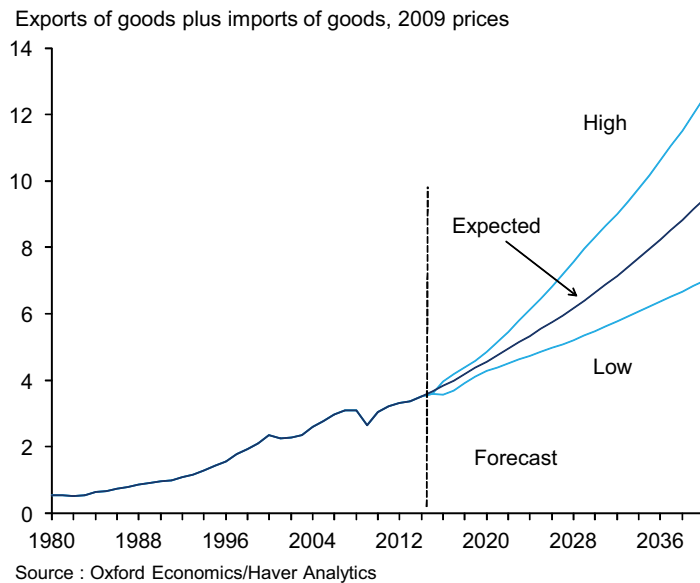
Source : Oxford Economics/Haver Analytics

### 1.2.6 Implications for Visible Trade

Combining the two elements of our calculation – the path for GDP in real dollars, and the trade/GDP ratio (or implied elasticity) yields three different paths for U.S. visible trade. In the Expected scenario, the visible trade growth estimate averages 3.9% per annum, whereas under the High and Low scenarios,

visible trade growth averages 5.1% and 2.7% per annum, respectively. For comparison, the average rate of visible trade growth from 1980-2014 was 5.4%.

**Figure 16: U.S.: Total Visible trade, All Scenarios**



## 1.3 Assessment of SPB Ports Competitiveness for Container Movements

### 1.3.1 Objective

As discussed earlier in this report, SPB Ports have historically had the largest share of North America's container market because they are:

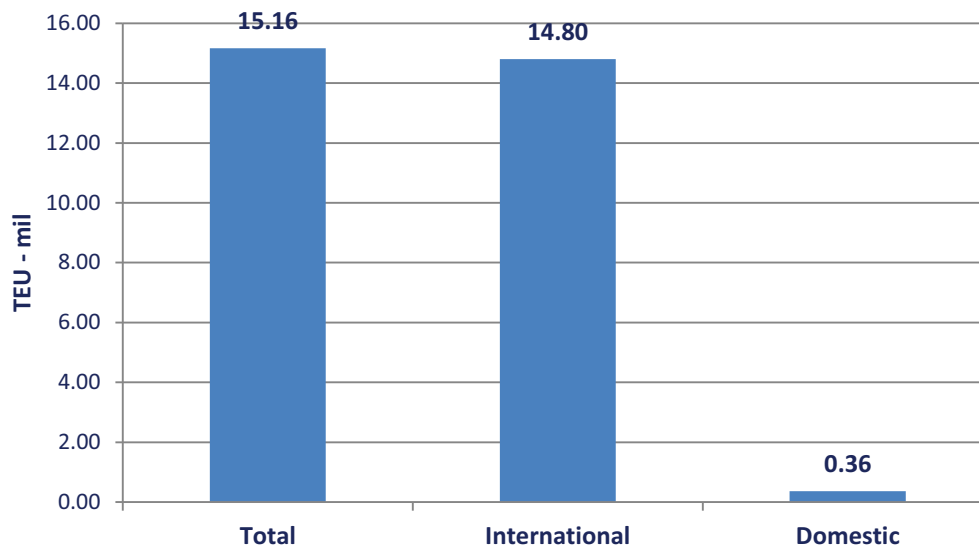
- the nearest port complex to the large local population inhabiting Southern California
- geographically proximate to large productions centers in Asia, particularly those in China
- able to efficiently handle container movements to/from areas well outside these ports' shared local catchment area by rail for intact containers and through trans-loading cargo to domestic vans for on-carriage.

While SPB Ports have maintained their position as the leading container gateway in North America, this area has lost share since peaking in 2006. This loss of share resulted from cargo diversion. This section of the report will provide information on the composition of SPB Ports' volume and identify the diversion risk associated with different volume segments. Based on a number of competitive scenarios, additional analysis identifying the amount of container traffic that could potentially be shifted from SPB Ports to other ports is presented.

### 1.3.2 Analysis of SPB Ports Container Volume Composition

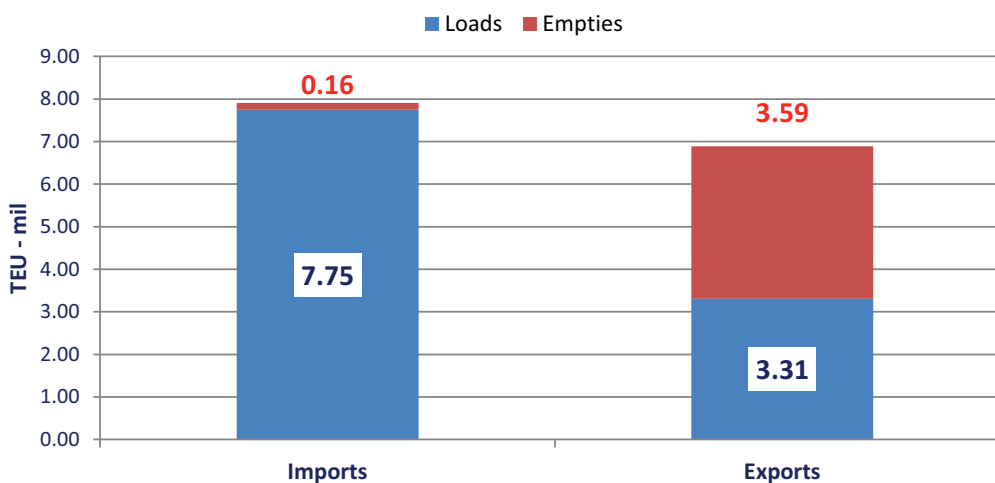
SPB Ports serve as a major gateway for international container movements and as the primary gateway for shipments to/from Hawaii. While SPB Ports handle a significant amount of the container movements between the U.S. Mainland and Hawaii/Guam International movements generates the vast majority SPB Ports' throughput, as shown in the following chart.

Figure 17: Breakdown of SPB Ports 2014 Volume between International and Domestic Markets



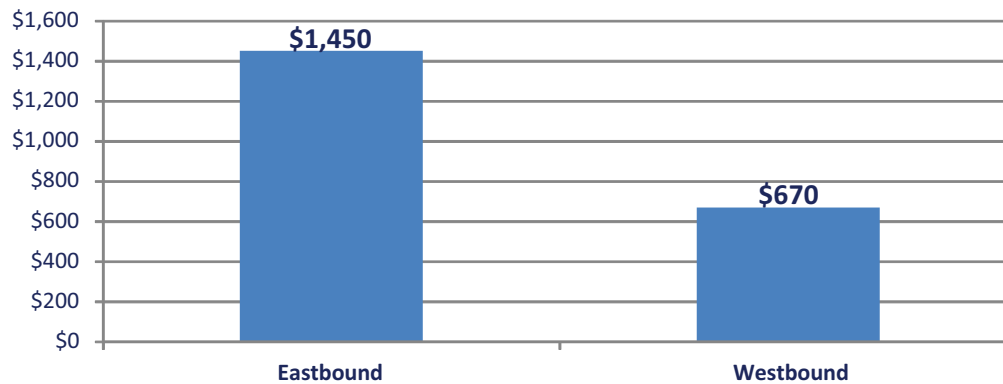
The breakdown of SPB Port volumes above shows that the vast majority of this area's throughput is comprised of international movements. The following chart provides a breakdown of SPB Ports' international movements.

Figure 18: Breakdown of SPB Ports' 2014 International Volume by Direction



The breakdown of SPB Ports' international movements above shows that loaded import movements generate more than twice as much throughput as compared to international loaded exports. The dominant position of loaded imports makes this movement type the clear driver of SPB Ports' international volume. Based on the dominant volume position of loaded imports, export movements of loads and empties are primarily used to reposition containers back to an origin area. The impact of using loaded exports to reposition boxes to the origin foreign area can be seen in the following transpacific rate comparison by direction.

Figure 19: Comparison of Asia/US West Coast 40' Spot Rates by Direction - Dry Boxes - Shanghai Exchange June 2015

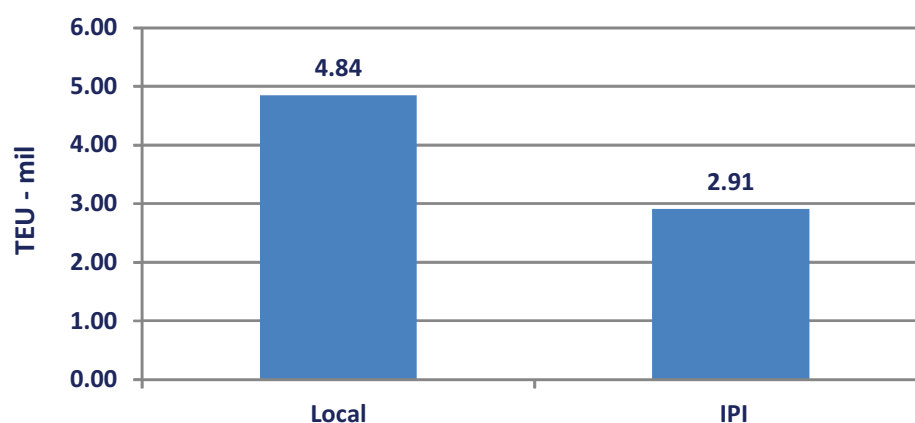


The revenue associated with a 40' westbound move is less than half of that in the eastbound trade. The current westbound (export) rate does not cover all of the costs associated with moving a box back to Asia, thus ocean carriers are using the revenue generated to offset the cost of repositioning an empty. Therefore, the ability of SPB Ports to attract and retain international loaded import movements will be the key to this area's overall volume performance. This category of volume is made up of two primary movement types, which are described below:

- **Local Movements** – container volume that arrives, or departs terminals via truck to a point of unloading/loading in a port's local catchment area
- **IPI Movements** – container volume that utilizes intermodal rail service to/from inland points that are outside of a port's local catchment area

A review of SPB Ports' loaded import volume by the two market segment identified above is provided in the following chart. This chart is based on a review of ACTA data, which was used to identify the portion these ports' combined volume that leaves the local catchment area by rail.

Figure 20: Breakdown of SPB Ports' 2014 Loaded Import Volume by Market Segment



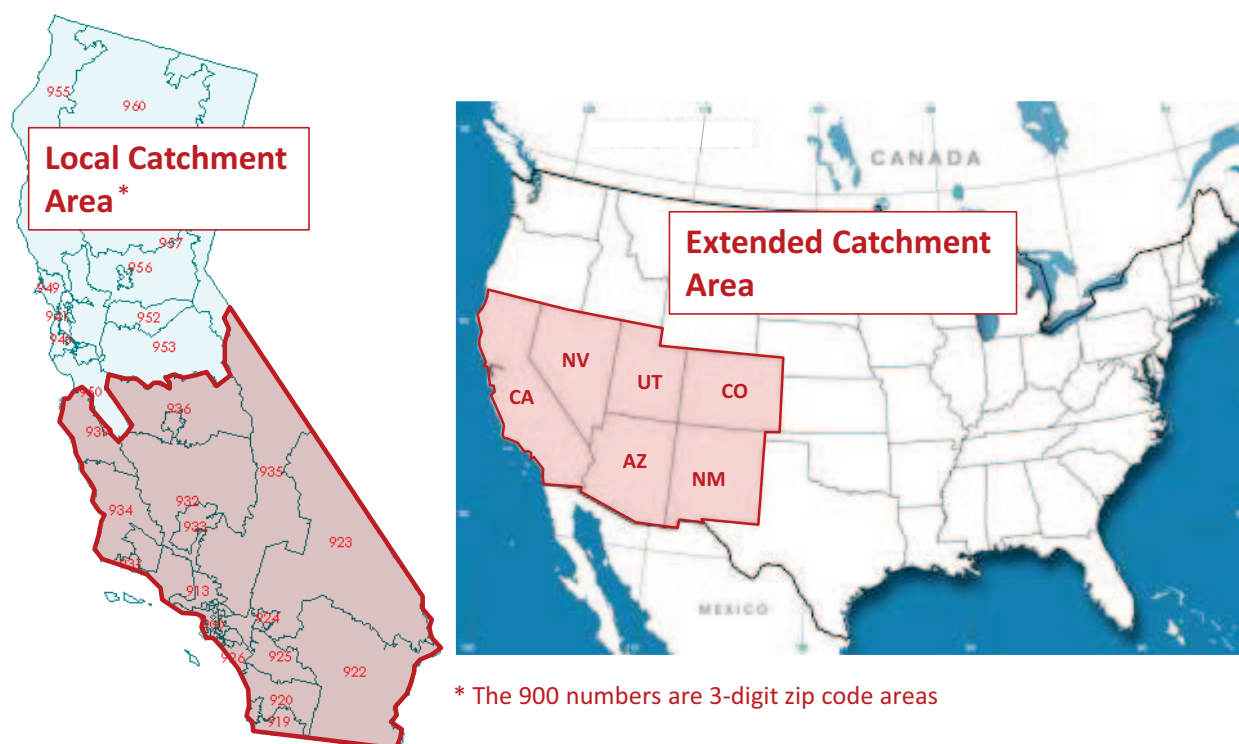
The reason it important to disaggregate loaded imports in to these two segments is that they have very different susceptibility to diversion, which will be discuss later in this report.



While the table above identifies that SPB Ports handle over 4.8 million TEUs of loaded imports for the local market, there is a sub-segment of this volume where containers are delivered to cargo handling facilities near the port where the cargo is unloaded, mixed and then reloaded in domestic vans for on-carriage to inland destinations. This distribution methodology is generally known as trans-loading and it is not easy to parse out the trans-load volumes from the local movements that are being delivered to their final destination.

In order to estimate the number of import containers that are handled through SPB Ports' terminals as local movements and then trans-loaded in to domestic vans for shipment out of Southern California by rail, SPB's primary and secondary catchment areas have been defined (see maps below).

**Figure 21: SPB Ports' Local and Extended Catchment Areas**



Most of the services that call SPB Ports also call at the Port of Oakland, thus the local market area (which accounts for about approximately 8% of the U.S. market, based on population), is based on the geographic areas in California that are closer on over-the-road mileage to SPB Ports. However, there are other areas that SPB Ports serves which are beyond this port area's local catchment area and are considered to be part of an extended market, as shown in the extended market catchment area map. The reasons for including the states that comprise the extended market are outlined below:

- **Northern California** – As noted above most of the carriers that call SPB Ports also stop at the Port of Oakland, but a number of importers discharge all of their containers with goods for consumption across California in SPB Ports - particularly those that are trans-loaded, because the bulk of state's population is in Southern California, making it the preferred distribution point for the state and points east

- **Nevada/Utah/Arizona/Colorado/New Mexico** – These states are land-locked, and while some intact container movements go through Oakland, nearly all of the goods that are trans-loaded are handled through SBP Ports, as this is where most importers have located their distribution facilities

SPB Ports’ extended catchment area accounts for approximately 18% of the U.S. total population. This is considered an important measure as the following table shows that the shares of a number of commodities that move through this port area via truck are much higher than what would be expected based on the population. The commodities identified in red in the table below have share of the U.S. imports market that are well in excess of what would be expected based on the population in the extended catchment area.

**Figure 22: Review of SPB Ports 2014 | Local Import Volume by Commodity**

<b>Commodity Group</b>	<b>U.S.</b>	<b>SPB Ports Gate</b>	<b>% of Total</b>	<b>TEU Above 18%</b>
<i>General Retail</i>	<i>3,644,589</i>	<i>1,105,635</i>	<i>30%</i>	<i>449,609</i>
<i>Apparel/Footwear</i>	<i>2,205,410</i>	<i>901,642</i>	<i>41%</i>	<i>504,668</i>
<i>Furniture</i>	<i>1,912,610</i>	<i>568,250</i>	<i>30%</i>	<i>223,980</i>
<i>Home Construction</i>	<i>1,573,605</i>	<i>465,055</i>	<i>30%</i>	<i>181,806</i>
<i>Electric Machinery</i>	<i>749,481</i>	<i>269,792</i>	<i>36%</i>	<i>134,885</i>
<i>Other Transport Equipment</i>	<i>660,156</i>	<i>244,885</i>	<i>37%</i>	<i>126,057</i>
<i>Non-Electric Machinery</i>	<i>1,202,980</i>	<i>251,215</i>	<i>21%</i>	<i>34,678</i>
<i>Steel/Iron Manufacturing</i>	<i>306,201</i>	<i>85,089</i>	<i>28%</i>	<i>29,972</i>
Food Products	2,201,474	358,176	16%	0
Chemicals and related products	1,348,299	114,036	8%	0
Passenger Vehicles	959,779	155,598	16%	0
Metal manufactures	800,898	96,926	12%	0
Wine and Spirits	439,509	45,094	10%	0
Rubber/Plastic	365,210	44,052	12%	0
Construction	297,986	41,502	14%	0
Non-metallic mineral manufactures	159,956	24,505	15%	0
Misc	158,221	22,656	14%	0
Paper MFG	131,611	23,113	18%	0
Pharmaceuticals	111,539	13,914	12%	0
Animal Feed	54,726	12,304	22%	0
<b>Grand Total</b>	<b>19,284,240</b>	<b>4,843,437</b>	<b>25%</b>	<b>1,685,656</b>

The column in the table above labeled “TEU Above 18%” calculates the amount volume that is in excess of what would be consumed by the population in the extended catchment area for import commodities moving through SPB Ports that have shares of total U.S. market above 18%. Based on this analysis it is estimated that 1.69 million, or 21.8% (= 1.69 / 7.75) of SPB Ports’ loaded imports move beyond the six-state extended catchment area via trans-loading.

However, SPB Ports’ extended catchment area covers a large geographic region, and some of the states in the extended catchment area would also receive import cargo that has been trans-loaded by rail. The states of CO, UT, AZ and NM are better served by rail and these states account for 5.37% of the local

catchment area's population. Based on the population of these states it is estimated that 658,095 TEUS of the import commodities via SPB Ports are being trans-loaded to domestic and being delivered to the four states identified above by intermodal rail. Therefore, it was found that 30.2% ( $30.2\% = (1,685,656 + 658,095) / 7,749,423$ ) of SPB Ports' loaded imports are trans-loaded in to domestic equipment and shipped out of the area by rail.

The number of SPB Ports' import container being trans-loaded to domestic vans and being moved out of the California by rail is important for two reasons:

- In December of 2012 Cambridge Systematics found for the period of July 2010 through June 2011, that 27 percent of SPB Ports loaded imports were trans-loaded in to domestic vans and shipped out of the local area by rail, thus this report's estimate of 30.2% is seen to be reasonable, assuming a limited amount of share growth
- Import cargo that is trans-loaded and railed to inland destinations is seen to be more susceptible to diversion to other port areas.

### 1.3.3 SWOT Analysis of SPB Ports

A SWOT for SPB container business is provided in this section and much of this analysis is based on the review of SPB Ports' terminal and rail infrastructure, which can be found in Appendix 6: Comparison of SPB Ports Infrastructure to Competitors.

#### Key Strengths

- Greater proximity to NE Asia than all East Coast and Gulf Coast ports, which allows ocean carriers to operate NE Asia vessel services with fewer ships than for all-water deployments
- Comparable proximity to SE Asia ports versus South Atlantic/Gulf Coast ports
- Largest local population base/import traffic base of all West Coast ports and second largest regional catchment area (PSW region) in North America
- Size of local/PSW population base, coupled with geographic location, attracting and retaining trans-load operations
- Channel depths and terminal infrastructure capable of handling the largest container vessels in the world fleet
- Ownership stakes in thirteen port terminal concessions held by fourteen global carriers
- Majority of SPB Ports' marine terminals have larger on-dock rail transfer facilities than nearly all other U.S./CAN gateway ports
- Superior rail routes between port complex and South Central/Southeast states, relative to all other West Coast ports
- Competitive rail routes between port complex and most Midwest/Ohio Valley states, relative to all other West Coast ports
- More vessel and train services than all other U.S./CAN gateway ports

#### Key Weaknesses

- Alameda Corridor fee and PIERPASS fee increase the cost of routing intermodal cargoes through SPB Ports
- Harbor Maintenance Tax disadvantages SPB Ports (and other U.S. ports) versus Canadian ports, for routing of intermodal cargoes

- Geographic location limits SPB Ports as intermodal gateway for traffic from/to Europe, South America, Africa
- Rail main line congestion in SPB metropolitan region, relative to Canadian ports
- BNSF and UP intermodal rail rates to key Midwest markets are reportedly much higher than CN rates via Vancouver and Prince Rupert to those same markets
- More restrictive environmental regulations than in other ports outside of California ports

### Opportunities

- Leverage SPB Ports' superior harbor/terminal infrastructure to attract more Transpacific strings using ultra-large ships
- Facilitate successful implementation of automation technologies at SPB terminals to improve service reliability
- Greater pricing/service support from BNSF and UP to avoid further volume losses to BC ports
- Enhancements in rail transfer infrastructure to support improved intermodal service levels

### Threats

- Additional terminal capacity at Prince Rupert and Vancouver
- Upsizing of ships in NE Asia – U.S. East Coast all-water vessel services via the Panama Canal after 2016
- Potential for SPB marine terminals' charges to increase at a faster rate than facilities at competing gateways
- Potential for UP and/or BNSF to raise intermodal transport rates at a much faster pace than their competitors in Canada – and/or for rail service/reliability levels on either of these railroads deteriorate due to capacity pressures
- Potential for Alameda Corridor fee to increase significantly
- Potential for more BCO shifting of cargo sources away from China/SE Asia to Latin America/Africa/Subcontinent

Each of the threats identified above will be further evaluated to assess their respective impacts on SPB Ports' share of the North America container market.

## 1.4 Identification of Existing SPB Ports' Market Segments That are Divertible to Other Ports

Earlier in this report the composition of SPB Ports' container volume was discussed and the following conclusions were reached:

- SPB Ports handles two main categories of container movements: Domestic (Hawaii/Guam) and International
- International movements account for the vast majority of SPB Ports throughput
- Loaded imports movements are the primary driver of SPB Ports' volume performance
- There are two primary market segments associated with loaded import movements and one significant sub-segment and these are listed below with their 2014 volume:
  - **IPI** – 2.91 million TEUs
  - **Local** – 4.84 million TEUs

▪ **Total Trans-loads via Rail** - 2.34 million TEUs

International movements account for the vast majority of SPB Ports' container throughput and loaded imports moves are the dominant direction. It is expected that loaded imports will continue to be driver of overall international volume because both loaded and empty export moves are only being used to reposition containers back to their origin area.

Based on a review of the major events that are likely to occur over the forecast period, the following competitive factors have been identified as having the potential to materially change the competitive position of SPB Ports' over the timeframe being studied. Also included in the table is an estimation of the impact of these on different cargo segments.

**Figure 23: Summary of Major Industry Events Affecting SPB Ports Competitiveness**

Competitive Factors
<p><b>Panama Canal Expansion :</b> The completion of the new locks at the Panama Canal will allow vessels with a capacity of up to 13,000 TEUs to pass through it. In turn, carriers will deploy larger vessels that will provide them with lower slot costs on this route</p> <p><b>New Capacity at Prince Rupert/Vancouver:</b> The container terminal at Prince Rupert will add a 2<sup>nd</sup> berth during 2016. In addition, Vancouver's Deltaport terminal is in the process of increasing its intermodal capacity. Both expansions will create risks for portions of SPB Ports' IPI traffic</p> <p><b>Slow Growth In Vessel Capacity to SPB Ports:</b> If import volume growth to Southern California's ports slows, then carriers will be less likely to increase vessel sizes in Asia – California services at a comparable rate to vessel services in all-water or BC/PNW services, which could cause the slot-cost advantage of SPB Ports to diminish versus other ports and routes</p> <p><b>Increased Terminal Handling Costs:</b> Should terminal handling costs increase faster at terminals in SPB Ports than at its competitors, this could translate to higher rates and a loss of competitiveness for discretionary volumes</p>

In order to assess SPB Ports' ability to retain their existing loaded international imports, it is important to recognize that the market segments identified above have significantly different levels of susceptibility to be diverted and these are described below:

- **Domestic Movements** – This category of volume is seen to be difficult to transfer to other ports, because carriers handle exports of domestic goods to support these islands' essential needs and the suppliers of these items have developed their supply chain to utilize existing domestic operations in Southern California
  - Also, a larger portion of this market is handled by freight consolidators, and the vast majority of this group's operations are located proximate to SPB terminals
- **International Local/trans-loads** – This segment is seen to have very little susceptibility to diversion, because the additional inland cost associated with moving boxes to SPB Ports' catchment areas via an alternative port would outweigh any port or terminal cost savings
  - Also the concentration of population around these ports makes it an essential call for ocean carriers
- **Trans-loaded Movements via Rail** - Volumes delivered to inland destinations by rail not seen to be divertible to other ports because:

- **Lower Ocean Shipping Costs:** Based on the Shanghai Freight Exchange, spot rates as of June 4th, 2015 were \$1455 FEU to WC ports versus \$3,115 FEU to EC ports
- **Shorter Transit Times:** Transit times from Asia to SPB Ports are 11 to 14 days faster than to East and Gulf ports
- **Access to Greater Number of Services:** SPB Ports currently receive first-inbound calls from 28 Transpacific vessel strings, versus
  - 17 for NY/NJ
  - 20 for Savannah
  - 2 for Houston
- **Market Access:** Using SPB Ports as a gateway for trans-loading allows importers the option to supply their operations in the Southern California local catchment area, or across a number of larger markets in the Midwest, Southeast, and Gulf Coast
- **IPI – Import movements that leave SPB Ports by rail** are seen to be highly divertible, as there are a number of port areas along the Pacific Coast that are well positioned to handle this volume and the increased availability of services between Asia and East/Gulf ports makes all-water routing a viable alternative for certain inland destinations.

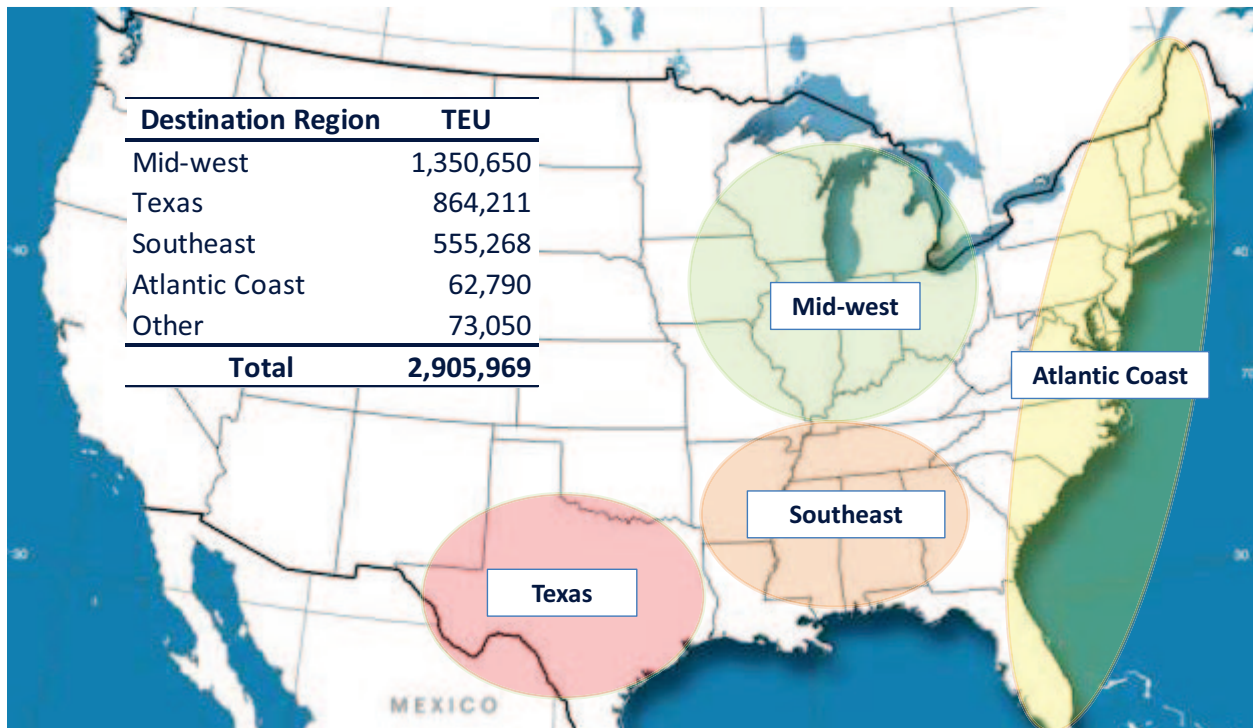
While a significant portion of SPB Ports’ throughput is seen to have a low risk of diversion, import containers that utilize rail services to reach inland destinations have been identified as having the greatest risk of diversion. Volumes associated with this market segment are analyzed in the following section.

#### 1.4.1 Analysis of SPB Ports’ IPI Volumes

As SPB Ports’ IPI volumes are susceptible to diversion, and as international imports were identified as being the primary driver of volume for this port area, it is important to quantify these volumes. The data in the graphic below disaggregate SPB Ports’ 2014 intermodal volumes by destination region. The volumes shown below have been derived through an analysis of U.S. Census data, Port data, and ACTA data.

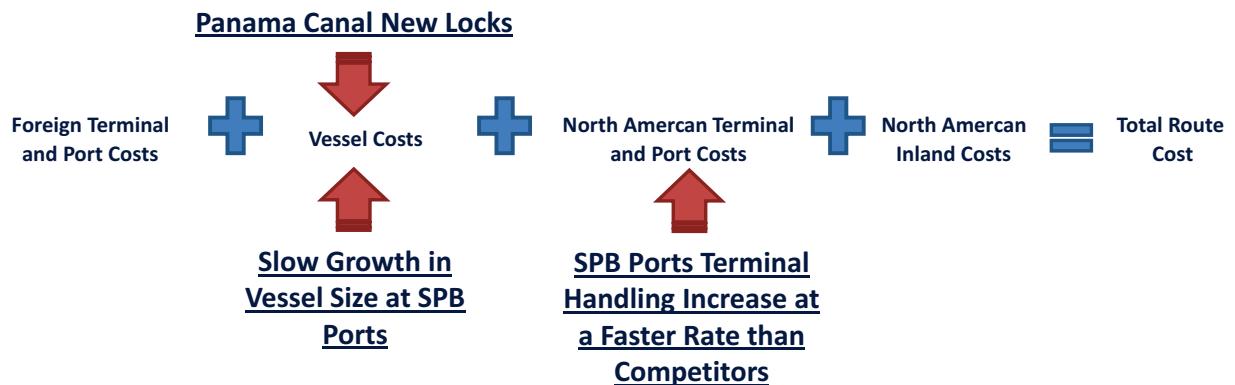


Figure 24: SPB Ports Import Volume by IPI Destination – TEUs



Three destination regions account for 95% of the volume associated with this market segment. In reviewing the destination regions, it was determined that movements to the Atlantic Coast are not at risk of diversion, as it is already substantially cheaper to utilize all-water services to locations in this region, thus the use of SPB Ports as an intermodal gateway to this region is driven by transit time sensitivities rather than cost. However, three of the four competitive factors cited earlier in this document are expected to affect SPB Ports’ ability to retain existing IPI movements in the face of declining all-water costs. The three competitive factors that are expected to impact these volumes (Panama Canal expansion, slow growth in vessel size at SPB Ports, and differential growth rates of terminal costs) are depicted along with the route cost component that will be impacted in the following graphic.

Figure 25: Overview of Ocean Carriers Route Costs



### 1.4.2 Analysis of Current Route Costs to High Volume IPI Destinations

In order to identify the degree to which the competitive factors associated with route costs are likely to impact import costs associated with rail movements now being handled on services calling SPB Ports, analysis was undertaken to identify the high volume markets served through this port area. The results of this work are depicted in the table below.

Figure 26: 2014 High Volume\*IPI Destinations via SPB Ports for Imports from Asia – TEUs

LOCATIONS	DESTINATION REGION	SPB Ports
CHICAGO	MIDWEST	685,806
OHIO VALLEY	MIDWEST	280,030
DALLAS, TX	TEXAS	457,902
DETROIT, MI	MIDWEST	66,607
HOUSTON	TEXAS	349,880
MEMPHIS/NASHVILLE, TN	SOUTHEAST	291,697
ATLANTA	SOUTHEAST	116,981
<b>Total</b>		<b>2,248,904</b>

\* Atlantic Coast and low volume destinations are not considered in this analysis

Approximately 2.25 million TEUs, or 29% of SPB Ports' loaded imports are destined for the inland locations shown in the table above, and these volumes are at risk of diversion due to their proximity to Atlantic/Gulf coast ports, as highlighted in the following map.

Figure 27: Identification of Atlantic/Gulf Coast Ports Competing for High Volume IPI Locations



The map above indicates that three ports – NY/NJ, Savannah, and Houston – are the preferred all-water gateways to three respective interior regions, but smaller volumes also move through secondary ports in each coastal zone (such as Hampton Roads, Charleston, and Mobile).



An inventory of services on the Asia-California route and all-water Panama Canal route was compiled. The average vessel size for each of these services has been calculated, and is shown in the table below.

**Figure 28: Summary of Current Average Vessel Size by Route**

All-water services				
	SPB Ports	NY/NJ	Savannah	Houston
<b>Current</b>	<b>8000</b>	<b>5000</b>	<b>5000</b>	<b>5000</b>

The Asia-California route has a significantly advantage over each of the all-water strings in terms of average vessel size because larger vessels enjoy economies of scale that generate significantly lower slot costs. These costs are part of the total route costs which are summarized in the following table along with transit times.

**Figure 29: Current Route Cost Comparison**

				E/B Costs Per 40ft					
		Vessel Size	Import				DIF. SPB - All-	Transit	DIF.
Inland Destination	Port Gateway	Category	US Port <sup>1</sup>	E/B Slot	Inland	Total	water	Time	SPB - All- water
Chicago	SPB	8000	\$455	\$410	\$1,200	\$2,065	\$185	19	14
	NY/NJ	5000	\$380	\$1,000	\$500	\$1,880		33	
Detroit	SPB	8000	\$455	\$410	\$1,275	\$2,140	\$300	22	12
	NY/NJ	5000	\$380	\$1,000	\$460	\$1,840		34	
Cincinnati/Ohio Valley	SPB	8000	\$455	\$410	\$1,365	\$2,230	\$370	22	12
	NY/NJ	5000	\$380	\$1,000	\$480	\$1,860		34	
Memphis/Nashville	SPB	8000	\$455	\$410	\$1,250	\$2,115	\$162	20	12
	Savannah	5000	\$403	\$1,000	\$550	\$1,953		32	
Atlanta	SPB	8000	\$455	\$410	\$1,150	\$2,015	\$287	22	7
	Savannah	5000	\$403	\$1,000	\$325	\$1,728		29	
Dallas	SPB	8000	\$455	\$410	\$780	\$1,645	\$5	20	11
	Houston	5000	\$370	\$970	\$300	\$1,640		31	
Houston	SPB	8000	\$455	\$410	\$940	\$1,805	\$465	20	10
	Houston	5000	\$370	\$970	\$0	\$1,340		30	

1) Includes Rail lift

The route cost information above is based on estimates of existing rail and terminal costs, as well as the slot cost associated with the average size of vessels deployed on each route. Moving a container to each of these destinations is already less expensive via all-water routes (from an ocean carrier's perspective), but the transit times are longer by 7 to 14 days. The fact that all-water services already have a cost advantage, as compared to routes over SPB Ports suggest that transit time requirements outweigh costs in the movements currently using SPB Ports as an intermodal gateway. Therefore, it is assumed that an ocean carrier would need to offer an importer a financial incentive to switch to an all-water rout.

Based on the assumption that ocean carriers would need to offer an importer a price break to switch to an all-water service, analysis on how the three competitive factors are expected to change the costs of moving to the IPI destination was completed in order to determine the risk of diversion for the less time-sensitive commodities.

#### **1.4.2.1 Outlook for Changes in Asia-California Average Vessel Size**

In April of 2013 Mercator completed a container vessel size forecast for SPB Ports and the analysis in this forecast was reviewed and adjusted, as discussed below.

The average capacity of the Transpacific vessels calling SPB Ports in mid-2015 was nearly 8,100 TEUs, which is about 900 TEUs larger than was projected in early 2013. Also, there were 28 Transpacific services calling SPB ports, as compared to the 32 that were projected to call by 2015 in the 2013 study. Nonetheless, the amount of capacity that California actually receives is relatively close to the amount forecasted in 2013 (currently 212,000 TEUs/wk vs. the forecasted 230,900 TEUs/wk).

Ocean carriers have been able to deploy larger vessels by reducing the number of weekly sailings they provide the market, which has enabled carriers to achieve lower slots costs on this route. Carriers have also supported the deployment of larger vessels by increasing the number of partners in their alliances – in particular, the combining of the New World Alliance and Grand Alliance into the G-6 arrangement, as well as the addition of Evergreen to the CYKH Alliance.

Since the completion of the prior container fleet forecast, multiple ocean carriers have ordered ships with capacities in excess of 18,000 TEUs, presumably for deployment into the Asia – Europe trade lane (even considering that the Benjamin Franklin, which has a stated capacity of 18,000 TEUs, has made some test calls at west coast ports, but this is seen as a temporary situation and this vessel will be move to the Asia – Europe trade once it sister vessels are delivered to CMA). These recent orders (along with expected new orders of similarly sized ships) will undoubtedly lead to cascading of 10,000-16,000 TEU ships from the Asia Mideast (AME) trade to other corridors, such as Asia – California. The table below reflects how the cascade of 10,000-16,000 TEU ships could impact the number and capacity of Transpacific services to California considering the larger alliances that are in place.

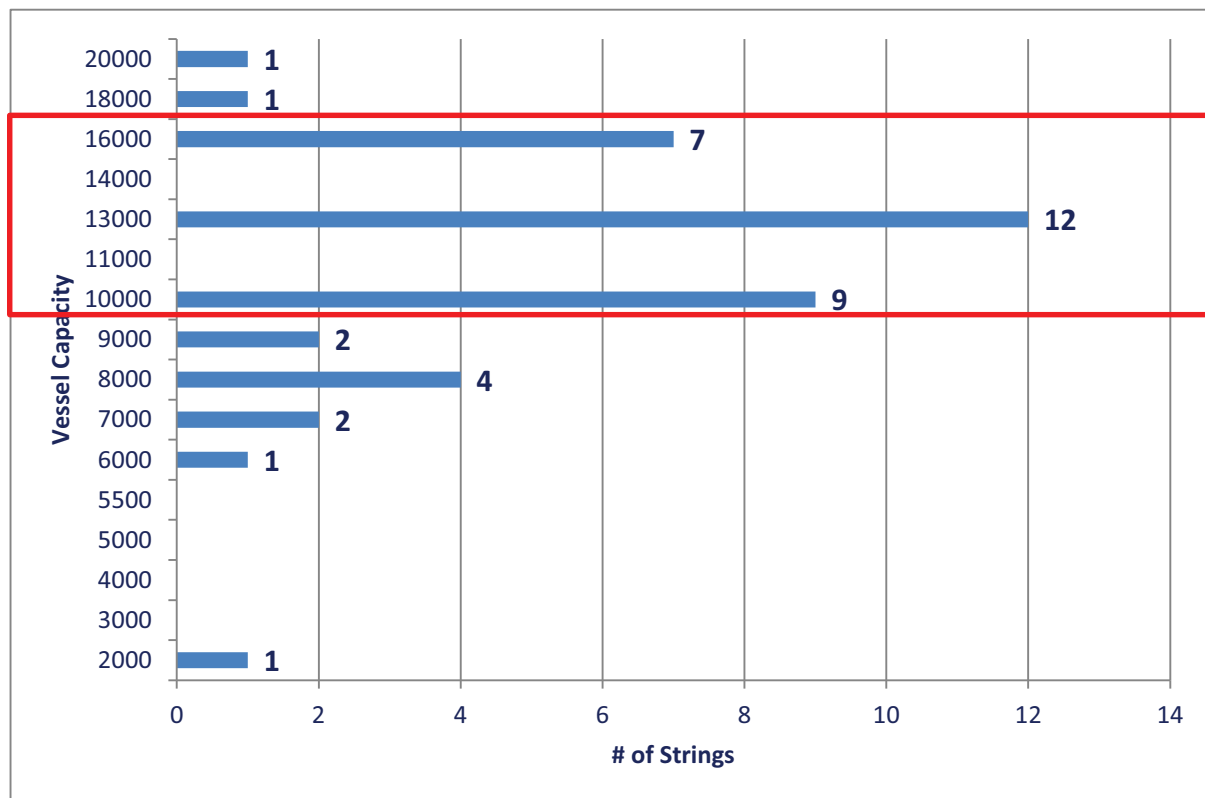
Figure 30: Updated Container Fleet Forecast for SPB Ports – Base Case

TEU Class	TEU Nominal	TEU Effective	Number of Sailings			Original 2030
2012	2015	2030				
2000	2650	2050	2	1	1	1
3000	3500	2750	1	1		
4000	4250	3120	3	2		2
5000	5090	3960	3	3		
5,500	5720	4780	5	0		
6000	6500	5100	3	5	1	2
7000	7340	6000	4	1	2	2
8000	8200	6850	4	7	4	9
9000	9600	7335	3	3	2	2
10000	10370	8680		3	9	10
11000	11430	10020	1	2		
13000	12850	11520			12	12
14000	13640	12290				
16000	15910	14400			7	4
18000	17850	15720			1	
20000	19080	17820			1	1
<b>Service Count</b>			29	28	40	45
<b>Nominal</b>			187,310	209,930	471,660	472,450
<b>Effective</b>			150,715	170,455	411,920	401,034
<b>AVG Nominal</b>			6,459	7,498	11,792	10,499
<b>AVG Effective</b>			5,197	6,088	10,298	8,912

This forecast also reflects Mercator’s view that by 2030, there will be one more service using ships even larger than 16,000 TEUs.

While the base case above indicates that Asia-California services will have an average vessel capacity of about 11,000 TEUs, there are a number smaller niche services, like Matson’s Hawaii/Guam/China string, that collectively suppress the average vessel size. The following chart shows Mercator’s forecast of the number and size of Transpacific strings that are expected to call at SPB Ports in 2030.

Figure 31: Summary of the Number of Asia - California Services by Size Category for 2030



It is expected that 28 of the 40 services will deploy vessels with a capacity that is between 10,000 and 16,000 TEUs. Looking at the cluster of services that are in this size range, it is likely that a significant number of ocean carriers will base their slot economics on 13,000 TEU vessels. Therefore, 13,000 TEU vessels will be used as the basis for an High scenario, and the competitive impact of this class of vessels being deployed in services calling SPB Ports will be analyzed.

For the downside scenario, it was assumed carriers would continue to only utilize vessels with a capacity of 16,000 TEUs and higher in the AME trade and that the changes in alliance structures would also make it difficult to support the deployment of high capacity vessels in the Transpacific. These events would result the average size of vessel calling SPB Ports to be 10,000 TEUs, which is the same level as was projected in the 2013 SPB fleet.

#### 1.4.2.2 Analysis of Future Vessel Size for Asia – Atlantic/Gulf Services via the Panama Canal

Currently, the Panama Canal can only accommodate vessels with a capacity of up to 5,500 TEUs, and all of the services using this route between Asia–Atlantic/Gulf Coast ports have a nominal capacity of approximately 5,000 TEUs. As discussed earlier, once the Panama Canal’s new locks are operational in 2016, the Canal will be able to accommodate vessels with a capacity up to 13,000 TEUs.

Once ocean carriers are able to deploy larger vessels through the Panama Canal, they will begin to do so rather quickly. Furthermore, by 2030 almost all of the Asia-Atlantic/Gulf strings will utilize the highest capacity vessels they can by:

- Combining exiting Panama strings

- Removing Suez strings and routing the displaced volume on larger Panama services

However, while the Panama Canal will be able to handle vessels with a capacity of 13,000 TEUs, not all the ports currently being called by Asia-Atlantic/Gulf strings can accommodate vessels of this size, due to water depth and/or air draft issues. In order to forecast the size of vessels that will be calling at the Atlantic and Gulf ports, an inventory of each of these ports' existing constraints was compiled, and the largest container vessels currently being handled was also determined.

**Figure 32: Constraints for Alternative All-water Ports**

	All-water services		
	NY/NJ	Savannah	Houston
Water Depth	50 ft	42 ft	40 ft
Air Draft	215 ft by 2017	185 ft	No Constraint
Max Vessel Size based on Current Constraints	18,000	8,500	6,500

There is potential for both Savannah and Houston to accommodate larger vessels, but doing so requires significant channel dredging. Consequently, there is a potential downside to the base case scenario, which limits vessel sizes (thereby impacting slot costs) based on port constraints.

- **Downside Assumptions in terms of SPB Ports' Competitiveness** – If the vessel size constraints that limit Savannah and Houston are lifted, these ports will become more competitive vis-à-vis SPB ports. Assuming that both Savannah and Houston are able to have their channels dredged to 47ft by 2030, thereby allowing these ports to handle 10,000 TEU vessels, the carriers calling these ports would enjoy lower slot costs (assuming that they do, in fact, deploy 10,000 TEU ships on strings calling these ports).
- **Upside Assumptions in terms of SPB Ports' Competitiveness** – Though unlikely, it is possible that ocean carriers could choose to allocate their 13,000 TEU vessels to deployments that do not call NY/NJ. As an upside scenario, the average vessel size on Asia - NY/NJ strings is limited to just 10,000 TEUs. Under this assumption, slot costs will be higher than the base case scenario, which envisions the average vessel size at 13,000 TEUs. The upside scenario further assumes that neither the Savannah River nor the Houston ship channel will be dredged, and, therefore, these ports will receive vessels of the same size as is forecasted under the base case.

The following table summarizes the average vessel size assumptions for SPB ports (this is based on the analysis in section 4.2.1) and alternative gateway ports in the Atlantic and Gulf.

Figure 33: Summary of Vessel Size Assumptions

	All-water services			
	SPB Ports	NY/NJ	Savannah	Houston
<b>Current</b>	<b>8000</b>	<b>5000</b>	<b>5000</b>	<b>5000</b>
Base Case	11000	13000	8500	6500
Upside	13000	10000	8500	6500
Downside	10000	13000	10000	10000

It is important recognize that there are a number of smaller niche services (like Matson's Asia string and direct services to/from Japan) that call at SPB Ports, which are not practical on the all-water route. The continued use of these niche strings to SPB Ports will depress the average size of vessel to this port area.

### 1.4.3 Impact of Changes in Terminal Costs

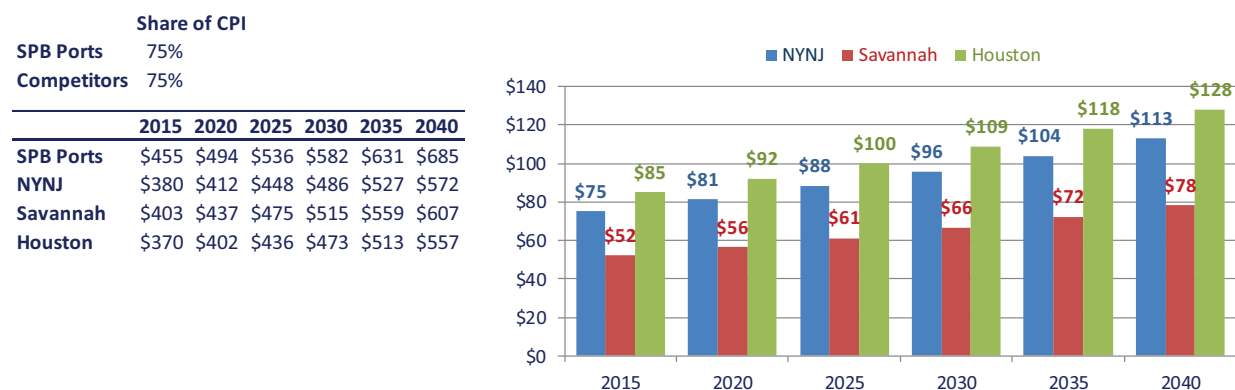
Terminal cost is another factor that has the potential to change the competitive position of SPB Ports vis-à-vis Atlantic and Gulf Coast ports for high-volume IPI destinations. Terminal expenses are a significant component of ocean carriers' route costs, and labor costs comprise a significant share of terminal costs.

It is the normal practice for contracts between ocean carriers and terminal operators to include an annual rate escalation clause. These are typically based on the labor cost increases that are part of the ILA and ILWU union contracts and inflation, with prices linked to the U.S. consumer price index (CPI).

In reviewing the historical performance of these escalator clauses in relation to changes in CPI, Mercator found that terminal charges normally increase at a rate that is about 75% of inflation. The table below shows how terminal rates would change for SPB Ports and their primary competitors assuming that the CPI increased at an average annual rate of 2.2% over the forecast period and assuming that terminal operators' charges grow at 75% of that amount.

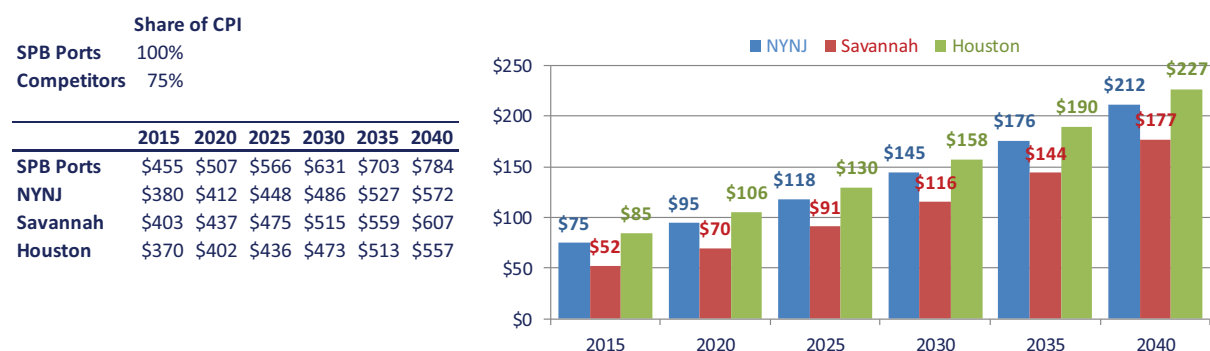
The graphic below shows how the differential between terminal costs for SPB Ports' and its competitors' are likely to evolve under the assumption that all ports' costs increase at the same rate. Because each of the ports' terminal handling costs is increasing at the same rate, the differential grows more quickly for Houston and NY/NY than for Savannah because Savannah is growing from a lower price point. The assumptions set out above will serve as the **base case** for this competitive factor. Should SPB Ports' terminal costs increase at a faster rate than its competitors, it would create a larger, more detrimental differential for the Los Angeles and Long Beach gateway.

Figure 34: Forecasted Changes in Terminal Handling Costs –Base Case



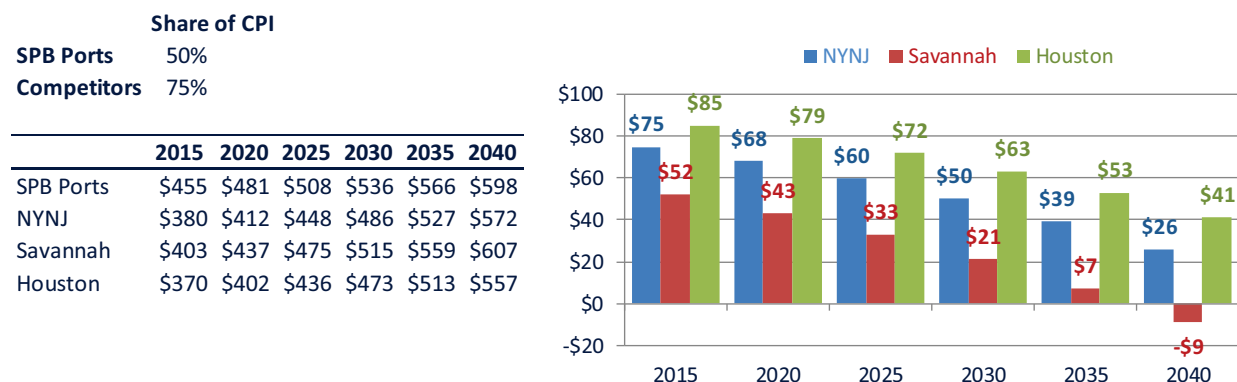
The table and chart below reflect how carriers' terminal rates and terminal handling cost differentials would evolve over the forecast period, assuming that CPI increased at 2.2% over the forecast period and that SPB Ports' terminal operators charges grow at 100% of the inflation rate while its competitors rates increased at 75% of the inflation rate. The assumptions set out above will serve as a **downside scenario** for this competitive factor.

Figure 35: Forecasted Changes in Terminal Handling Costs –Downside Scenario



The introduction of automation at SPB Ports' terminals would create a situation in which SPB ports' costs grow at a slower rate than its competitors, thereby enhancing this gateway's competitiveness. The table below reflects how terminal rates would change over the forecast period based on the assumption that SPB Ports' terminal operators charges grow at 50% of CPI (which remains at 2.2% per annum) while its competitors' costs increase at a rate which is fixed at 75% of CPI.

Figure 36: Terminal Handling Costs - Upside Scenario



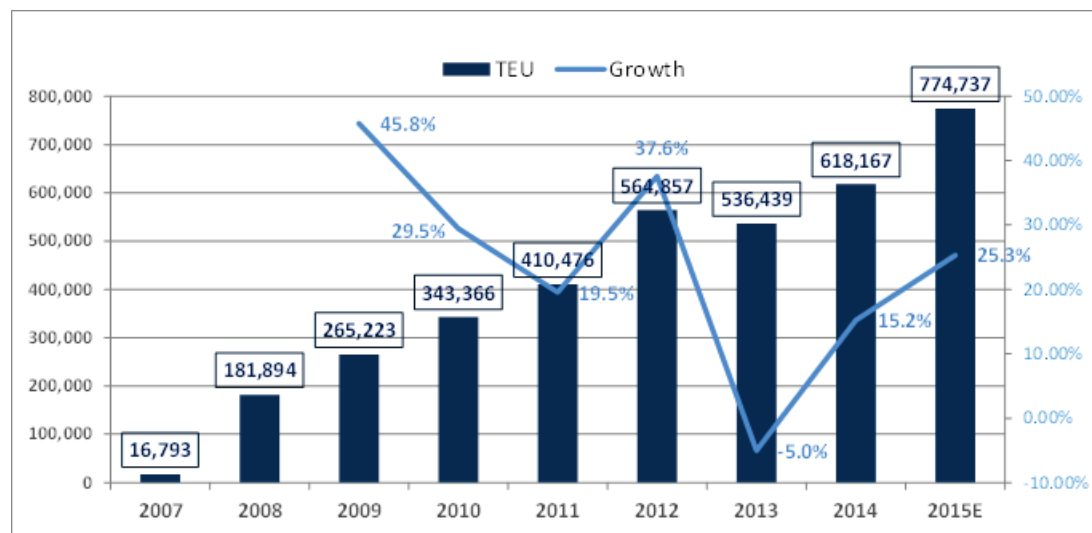
Under this *upside scenario*, the cost differentials between SPB Ports and each of their competitors decline throughout the forecast period. The differential between SPB Ports and NY/NJ is reduced to just over one-third of its current level while the differential between SPB Ports and Houston is slightly more than halved. By contrast, the differential to Savannah turns negative, meaning that this port is not in a position to attract IPI volume from SPB Ports.

#### 1.4.4 Impact of BC Ports on SPB Ports' IPI Volumes

The container terminal at Prince Rupert was developed primarily as an alternative gateway for high volume IPI destinations in the U.S. that had traditionally been served through U.S. West Coast ports. The CN Railroad's involvement in the development of Prince Rupert as an IPI gateway is seen to be a key reason this port has been able to attract ocean carriers, as it provided them lower rates than they were receiving from railroads in the U.S. CN's decision to target IPI volumes that had used ports on the U.S. West Coast was primarily driven by its desire to add new business to an underutilized rail line from this port.

Prince Rupert has experienced a very strong ramp up in volume since it opened in 2007, as shown on the following chart.

Figure 37: Overview of Prince Rupert's Volume Development





The development of Prince Rupert's IPI volume to the U.S. caused a number of carriers that did not have access to services calling Prince Rupert – but did have services calling Vancouver – to make Vancouver their first inbound stop to allow shippers to take advantage of lower Canadian rail rates by using this port as a gateway for IPI movements destined for U.S. markets.

The data in the table below show that BC ports' overall penetration rate for rail volumes moving to U.S. destinations is approximately 16%.

**Figure 38: 2014 Transpacific Loaded Imports to Select Inland Regions – TEUs**

Destination					
Region	SBP Ports	Other CA	PNW Ports	BC Ports	Total
Midwest	1,061,989	5,466	350,233	260,260	<b>1,677,948</b>
Ohio Valley	280,030	747	115,321	18,620	<b>414,718</b>
Southeast	292,999	197	6,800	129,130	<b>429,126</b>
<b>Total</b>	<b>1,635,018</b>	<b>6,410</b>	<b>472,353</b>	<b>408,010</b>	<b>2,521,792</b>
<b>Share</b>	<b>65%</b>	<b>0%</b>	<b>19%</b>	<b>16%</b>	<b>100%</b>

Sources: US Census and Stats Canada

As identified above, the primary advantage BC Ports provide to rail movements to/from locations in the U.S. is lower route costs, as enumerated in the table below.

**Figure 39: Route Cost Comparison**

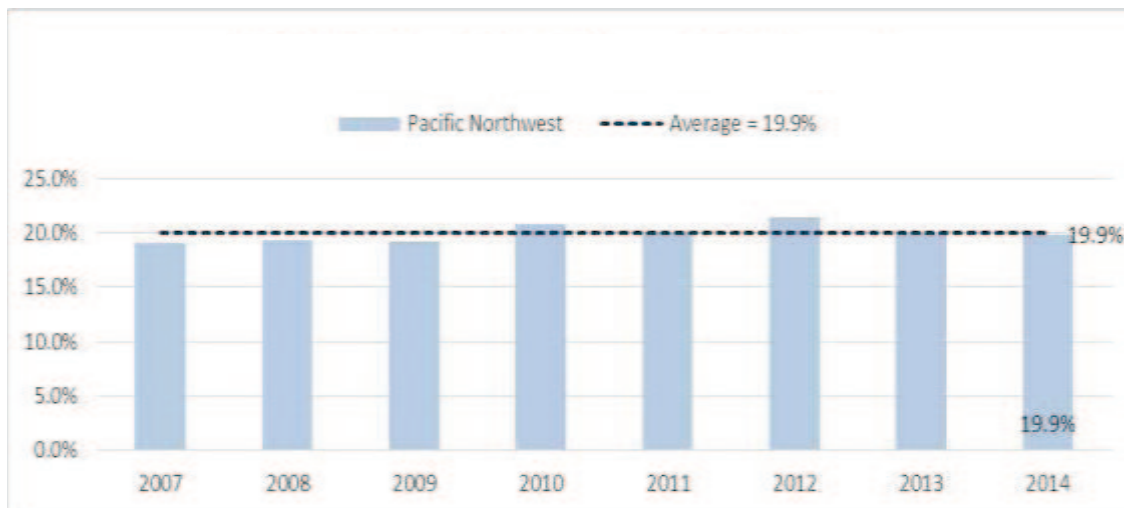
Inland Destination	Port Gateway	Vessel Size Category	E/B Costs Per 40ft				DIF. SPB - BC Ports
			Import US Port <sup>1</sup>	E/B Slot	Inland	Total	
Chicago	SPB Ports	8000	\$455	\$410	\$1,200	<b>\$2,065</b>	
	P.Rupert	6000	\$258	\$362	\$1,000	<b>\$1,620</b>	\$445
	Vancouver	6000	\$296	\$330	\$1,115	<b>\$1,741</b>	\$324
Cincinnati/Ohio Valley	SPB Ports	8000	\$455	\$410	\$1,365	<b>\$2,230</b>	
	P.Rupert	6000	\$258	\$362	\$1,200	<b>\$1,820</b>	\$410
	Vancouver	6000	\$296	\$330	\$1,275	<b>\$1,901</b>	\$329
Memphis/Nashville	SPB Ports	8000	\$455	\$410	\$1,250	<b>\$2,115</b>	
	P.Rupert	6000	\$258	\$362	\$1,230	<b>\$1,850</b>	\$265
	Vancouver	6000	\$296	\$330	\$1,300	<b>\$1,926</b>	\$189
Atlanta	SPB Ports	8000	\$455	\$410	\$1,150	<b>\$2,015</b>	
	P.Rupert	6000	\$258	\$362	\$1,130	<b>\$1,750</b>	\$265
	Vancouver	6000	\$296	\$330	\$1,200	<b>\$1,826</b>	\$189

1) Includes Rail lift

Using BC Ports as an intermodal gateway is cost-effective across the board but is significantly less expensive for movements to destinations in the U.S. Midwest.

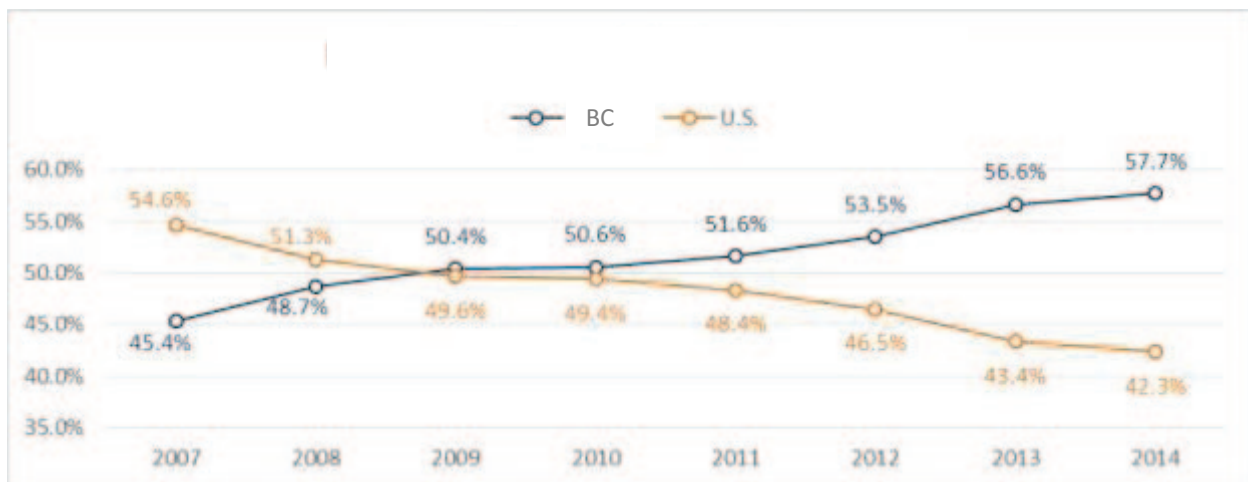
While there is a cost advantage associated with routing containers to the Midwest and Southeast over BC Ports versus SPB Ports, most of IPI volume that has been attracted from the U.S. West Coast has come from ports in the Pacific Northwest. In the chart below, we see that to the extent that there has been volatility in the Pacific Northwest's share of Asian imports, there is no clear trend. This means that since the recession, the Pacific Northwest has maintained a constant share of Asian imports.

Figure 40: Pacific Northwest Ports' Share of North America's Container Imports from Asia



While the PNW's share has remained constant, the Canadian share of port throughput has increased markedly. Given that the local markets associated with each of the PNW ports have grown at similar rates, it can be concluded that the shift in share was due to diversion of IPI traffic.

Figure 41: BC vs. U.S. Split of PNW Port Area's Throughput, 1999-2014



While the bulk of BC Ports' IPI volume was captured from the PNW Port area, Prince Rupert does now receive calls from two services (M2's TP8 and COSCO's CEN) that had previously made their first inbound call at terminals in SPB. Additionally, if ocean carriers offer lower pricing through BC Ports, importers are seen to have no impediments re-routing IPI movements from Asia – California strings to services that call at BC Ports. Therefore, it is likely that SPB Ports' have already lost most, if not all, of the IPI volumes to BC Ports that they are likely to lose unless further pricing incentives are made.

In this regard, it is important to consider that both Prince Rupert's FCT and Vancouver's Deltaport terminal, which is the primary intermodal gateway for Vancouver, have been experiencing high utilization levels in recent years, which is seen as a barrier to attracting any significant new IPI volumes. That said, the following initiatives are underway to increase these ports respective capacities:

- FCT – As discussed in appendix 6 the Port Authority and the new concession-holder, Dubai Ports World (DPW), are working together to add a second berth, enabling the facility to handle an additional 450,000 TEUs/year by the second half of 2017
- Deltaport – Global Container Terminals GCT will be adding more working tracks and adding new rail-mounted gantries, adding over 600,000 TEUs/year of capacity, also in the latter part of 2017

FCT's expansion, though slightly less in absolute incremental capacity than the Deltaport project, is potentially more significant in terms of the competitive dynamics between the West Coast ports, because it will enable DPW to handle ship lines other than COSCO and Hanjin. It is projected that other carriers will modify their existing Asia – PNW strings to call Prince Rupert as their first inbound call (rather than start new deployments) to capitalize on FCT's second berth as soon as possible (assuming that CN provides them with attractive rail rates). Therefore, FCT is expected to capture volumes first from Seattle/Tacoma, as well as from Vancouver.

However, certain carriers can also be expected to shift some Asia – U.S. Midwest traffic flows now routed through SPB Ports to these modified Asia – PNW strings because CN's rail charges are known to be significantly less than BNSF and UP rail rates. It is also likely that a limited number of ocean carriers will follow the lead of COSCO and the M2 and make Prince Rupert the first port of call on services that had previously called SPB first.

The preceding analysis has suggested that the ports of Seattle/Tacoma and Metro Vancouver will likely bear the brunt of volume loss to Prince Rupert when the latter's second berth becomes operational, and because carriers will shift import intermodal volumes from what had been the first inbound call (in Puget Sound or Queen Charlotte Sound) to the new first-inbound call. In order to determine if there is sufficient U.S. intermodal import volume moving through Vancouver and PNW Ports to support three new calls at FCT, Mercator prepared a table comparing the IPI volumes of three generic Asia – PNW services versus the total IPI volumes in 2014 to the regions competitively served via Prince Rupert.

**Figure 42: IPI Volume Available for Diversion from PNW Ports**

	US TEU/WK	Calls	US TEU/year	Midwest	Ohio Valley	Southeast
New Service A-PNW	1,380	52	71,760	43,092	7,527	21,141
New Service B-PNW	1,380	52	71,760	43,092	7,527	21,141
New Service C-PNW	1,380	52	71,760	43,092	7,527	21,141
Total			215,280	129,276	22,581	63,424
Available from Vancouver and PNW Ports				500,000	115,000	82,000

As the chart suggests, if the carriers operating these three strings are using ships with nominal capacities of 7,500 TEU, and about 20% of the effective capacity is discharged at Prince Rupert, these lines would be diverting over 25% of the Puget Sound/Vancouver traffic to the U.S. Midwest, 20% of the Ohio Valley traffic, and over 75% of their Southeast-destined (i.e. Memphis/Atlanta) flows.

This analysis above indicates that there is enough existing IPI volume in Vancouver and PNW Ports to support adding a first inbound call at Prince Rupert to three existing PNW/Vancouver services. As noted earlier, COSCO's CEN string goes on to California, after stopping in Prince Rupert, and thus is discharging containers at FCT that would otherwise be handled by terminals in SPB Ports. The table below provides

an estimate of the amount of loaded U.S. import volumes by IPI location that a new service would handle, which has Prince Rupert as its first inbound call and then goes directly to California.

**Figure 43: IPI Volume Available for Diversion from SPB Ports**

	US TEU/WK Calls	US TEU/year	Midwest	Ohio Valley	Southeast
New Service D-California	1,800 /52	93,600	56,160	4,680	32,760

Based on the analysis of the amount of IPI volume available for diversion, the following assumptions will be used to develop competitive scenarios:

- For Vancouver/PNW services that add Prince Rupert as their first inbound call:
  - All the volume generated to the Midwest and Ohio Valley will come from existing movements over Vancouver and PNW ports, and thus SPB Ports will not be materially affected
  - As SPB Ports handle the vast majority of volume to the Southeast, 50% of the movements generated will be diversions from SPB Ports
- For services that add a first call at Prince Rupert but go directly from there to California, all of the volume to the Midwest, Ohio Valley and Southeast will come from existing movements over SPB Ports

Based on the analysis and assumptions described in this section, the following scenarios have been developed in order to quantify the impact of this competitive factor.

**Figure 44: Summary of Scenarios on the Impact of Additional Capacity at BC Ports**

Scenario	Description of Scenario
Base	Prince Rupert adds 3 new calls, 2 of which are existing PNW strings and one goes directly to California
Upside	Prince Rupert adds 3 new calls, all of which are existing PNW strings
Downside	Prince Rupert adds 4 new calls, 2 of which are existing PNW strings and the other 2 go directly to California after calling Prince Rupert

#### 1.4.5 Review of Diversion Risk for Trans-load Cargo that is Moved beyond the Extended Catchment Area

In section 1.3.2, 1.69 million TEUs of SPB Ports loaded import volume was identified as being trans-loaded from international containers to domestic vans for delivery by rail to areas beyond the six-state extended catchment area. As trans-loaded cargo that is railed out of the extended catchment area is seen to have similar characteristics to IPI rail volume, there is a potential to divert a portion of this market segment to other ports that act as rail gateways.

However, further analysis revealed that the following three additional factors could motivate importers use SPB Ports as a gateway for trans-loaded cargo. Routing trans-load traffic over SPB Ports:

- Minimizes ocean transportation costs and on-the-water transit times
- Provides the ability to deliver goods to numerous markets in the United States
- Lowers inland transport cost by reducing the number of units moved to inland destinations

While the inland savings that are generated by the reduction of inland movements by trans-loading cargo from international containers to high capacity domestic equipment can be achieved at other ports, Southern California's large population generates a high volume of domestic movements from other areas in the country. The volume of inbound movements in domestic equipment is an advantage, as it provides a larger supply of domestic equipment to trans-load operators in this region, as compared to other Pacific Coast ports.

The population density around SPB Ports also means that this is a key market for high volume retailers, and this group uses trans-loading as a bridge between their international and domestic distribution networks. Therefore, nearly all high volume retailers have placed trans-loading operations in Southern California, which allows them to deliver imported goods to this critical market while providing the opportunity to cost-effectively supply other large markets.

The desires to minimize ocean transport costs and transit time by companies that trans-load goods in Southern California are seen as a key advantages over Atlantic/Gulf Coast ports, because:

- Based on the Shanghai Freight Exchange, spot rates as of June 4th, 2015 were \$1,455 FEU to West Coast ports versus \$3,115 FEU to East Coast ports
- Transit times from Asia to SPB Ports are 11 to 14 days faster than to East and Gulf ports

SPB Ports also receive calls from 28 Transpacific vessel strings, versus

- 17 for NY/NJ
- 20 for Savannah
- 2 for Houston

If it is assumed that the cost differentials for both trans-loading cargo and inland transport remain relatively constant between Southern California and East and Gulf Coast locations, then only a change in the comparative costs that importers pay to ocean carriers has the potential to shift importers' decisions on which port area to use as a gateway for trans-load volumes. However, as it takes several more vessels to maintain an all-water string to/from Asia versus a Californian string, it is unlikely that there will be a sustainable shift in the pricing differential between transpacific and all-water services.

It is concluded, therefore, that there is little risk of a large portion of SPB Ports' trans-load volume being diverted to other ports.

## 1.5 Estimate of the Volume Impact of Competitive Scenarios

### 1.5.1 Objective

In the previous section, the four competitive factors impacting SPB Port volumes were identified and evaluated in such a manner as to generate a base case as well as an upside and downside scenario for each. These scenarios were developed to test how the competitive factors are expected to impact SPB Ports' competitiveness under different market conditions. In this section, the volume implications of each of these competitive factor scenarios will be quantified.

#### 1.5.1.1 Impact of Changes Vessel Sizes and Terminal Rates on Route Cost Competitiveness

The Panama Canal's new locks will open in 2016 and enable vessels with capacities of up to 13,000 TEUs to use this route, but not all the ports on the U.S. East and Gulf Coasts will be able to handle this size of vessel. Concurrently, the size of vessels calling SPB Ports is expected to change over time based on the growth of the Asian import market and that gateway's share of the overall North American market. The table below brings together Mercator's forecast of how vessel sizes could change in response to the new locks at the Panama Canal and changes in the size of vessels ocean carriers use on Asia-California services.

Figure 45: Summary of Average Vessel Size Assumptions

All-water services				
	SPB Ports	NY/NJ	Savannah	Houston
<b>Current</b>	<b>8000</b>	<b>5000</b>	<b>5000</b>	<b>5000</b>
Base Case	11000	13000	8500	6500
Upside	13000	10000	8500	6500
Downside	10000	13000	10000	10000

The other competitive factor that has a direct impact on route costs is the difference between terminal rates, and the table below summarizes three scenarios for terminal costs in 2030 (this year was used as it is the same year that was used for the vessel size scenarios shown above).

Figure 46: Summary of Changes in Terminal Handling Rates

	SPB Ports	NY/NJ	Savannah	Houston
<b>Current</b>	<b>\$455</b>	<b>\$380</b>	<b>\$403</b>	<b>\$370</b>
Base Case	\$582	\$486	\$515	\$473
Upside	\$536	\$486	\$515	\$473
Downside	\$631	\$486	\$515	\$473

For inland destinations that have been identified as being at risk of diversion, route costs were recalculated based on the base case assumptions identified above for how vessel and terminal cost are expected to change. The current and base case route cost differentials between SPB Ports and the most competitive alternative gateway for each destination are summarized in the table below. The data in this table show that the differential between SPB ports and the following destinations are expected to increase by less than 10% from current levels:

- Nashville
- Atlanta
- Dallas
- Houston

**Figure 47: Summary of Route Cost Differentials for Base Case Assumptions**

Destinations	Current Route Cost Difference		Base Case Route Cost Difference		Change in Route Cost %
	\$ SPB - Alternative	% SPB / Alternative	\$ SPB - Alternative	% SPB / Alternative	
<b>Chicago</b>	\$185	110%	\$442	126%	16%
<b>Detroit</b>	\$300	116%	\$557	134%	17%
<b>Ohio Valley</b>	\$370	120%	\$627	138%	18%
<b>Memphis/Nashville</b>	\$162	108%	\$269	114%	6%
<b>Atlanta</b>	\$287	117%	\$394	123%	7%
<b>Dallas</b>	\$5	100%	\$89	105%	5%
<b>Houston</b>	\$465	135%	\$549	141%	7%

For destinations where route costs increase by less than 10%, no loss of volume to alternative gateways is expected, as carriers will not see enough savings to justify sharing a portion of the savings with importers in order to incentivize them to utilize all-water routes. However, based on the assumptions used for this scenario, it is anticipated that the following destinations' route cost differentials would increase to a level at which some diversion is likely:

- Chicago
- Detroit
- Ohio Valley

As it is already less expensive to move Asian imports to the three IPI destinations listed above via all-water routes, IPI volume must be gaining greater total cost advantage from using SPB Ports than it would save via all-water routing. Therefore, it is not projected that the change in the base case route costs will cause all the current volume to shift away from using SPB Ports as an intermodal gateway; for

some cargo, SPB Ports will continue to be more advantageous. However, commodities with values that are lower than the overall average for North American imports are viewed to be more susceptible to being diverted to all-water routes, because transportation costs represents a larger share of their landed costs. The table below provides volume by commodity grouping, as well as the average values per TEU for each of the inland destinations that have been identified as being at risk of losing cargo as it is diverted through alternative gateways.

**Figure 48: Identification of Potent Divertible Volume for the Base Case Scenario**

Commodity Group	Chicago		Ohio Valley		Detroit		Total		Time	Diversion	Volume
	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	Sensitive	Impact	Loss TEU
<i>Furniture</i>	66,091	\$12,620	19,369	\$13,170	3,350	\$12,516	88,810	\$12,736	YES	25%	22,203
<i>Animal Feed</i>	851	\$14,774	9	\$31,216			860	\$14,951	NO	75%	645
<i>Wine and Spirits</i>	161	\$6,857	54	\$59,616	3	\$17,107	218	\$20,094	YES	25%	54
<i>Non-metallic mineral manufactu</i>	3,632	\$21,864	2,086	\$16,729	878	\$22,272	6,596	\$20,295	NO	75%	4,947
<i>Other Transport Equipment</i>	13,941	\$18,762	12,578	\$27,482	400	\$15,152	26,919	\$22,783	YES	25%	6,730
<i>Home Construction</i>	51,333	\$23,573	9,833	\$32,968	892	\$48,521	62,058	\$25,420	YES	25%	15,514
<i>Food Products</i>	11,267	\$26,178	714	\$23,950	129	\$46,043	12,109	\$26,259	YES	25%	3,027
<i>Steel/Iron Manufacturing</i>	7,989	\$30,018	2,775	\$31,956	440	\$29,605	11,203	\$30,482	NO	75%	8,402
<i>General Retail</i>	156,325	\$31,943	34,403	\$32,935	4,236	\$50,612	194,964	\$32,523	YES	25%	48,741
<i>Construction</i>	8,285	\$35,202	3,201	\$30,110	495	\$88,080	11,981	\$36,026	YES	25%	2,995
<i>Metal manufactures</i>	46,549	\$36,241	18,788	\$40,767	3,154	\$53,986	68,491	\$38,300	NO	75%	51,368
<i>Chemicals and related products</i>	33,663	\$39,054	16,328	\$38,327	1,987	\$52,743	51,977	\$39,349	NO	75%	38,983
<i>Rubber/Plastic</i>	13,892	\$41,821	9,201	\$35,327	1,390	\$60,284	24,484	\$40,429	NO	75%	18,363
Misc	2,461	\$46,716	1,087	\$49,357	180	\$80,287	3,728	\$49,107			
Passenger Vehicles	55,762	\$47,357	36,545	\$68,784	28,690	\$39,230	120,996	\$51,902			
Apparel/Footwear	27,232	\$45,125	25,705	\$63,256	4,793	\$62,988	57,730	\$54,681			
Non-Electric Machinery	66,295	\$63,492	33,530	\$60,759	7,219	\$71,332	107,043	\$63,164			
Pharmaceuticals	5,192	\$95,531	1,118	\$30,877	41	\$46,765	6,351	\$83,835			
Paper MFG	14	\$24,498	49	\$108,149			63	\$89,449			
Electric Machinery	39,140	\$127,383	17,205	\$95,080	3,204	\$153,219	59,550	\$119,440			
<b>Grand Total</b>	<b>610,074</b>	<b>\$41,761</b>	<b>215,926</b>	<b>\$48,744</b>	<b>51,201</b>	<b>\$51,989</b>	<b>794,880</b>	<b>\$44,311</b>		<b>28%</b>	<b>221,973</b>

The commodity groupings shown in red have an average value per TEU that is lower than the overall North American average making them candidates for diversion to all-water routes. However, some of the lower-value commodity groupings (such as general retail) are considered to be time sensitive, thus more resistant to diversion, thus for commodities these commodities only 25% of their volume is seen to be divertible. However, for commodities that are identified as not time sensitives 75% of their volume is seen to be divertible traffic.

For the base case approximately 222,000 TEUs, or 8% of the SPB 2014 import IPI volume, is expected to be diverted based on the assumptions in this scenario.

The downside assumptions were used to estimate future route costs via both the SPB Ports and the most competitive alternative gateway. The current and future differential between these are shown below.



Figure 49: Summary of Route Cost Differentials for Downside Assumptions

Destinations	Current Route Cost Difference		Downside Case Route Cost Difference		Change in Route Cost %
	\$	%	\$	%	
	SPB - Alternative	SPB / Alternative	SPB - Alternative	SPB / Alternative	
Chicago	\$185	110%	\$497	129%	20%
Detroit	\$300	116%	\$612	137%	21%
Ohio Valley	\$370	120%	\$682	141%	21%
Memphis/Nashville	\$162	108%	\$418	123%	15%
Atlanta	\$287	117%	\$543	134%	17%
Dallas	\$5	100%	\$265	118%	17%
Houston	\$465	135%	\$725	160%	26%

Under the downside scenario, the price differentials for all the destinations are expected to increase by more than 10%. Therefore, all the IPI locations were included in the following commodity value analysis. The data in the table below summarizes the volumes of at-risk commodity movements. The potential diversion impact was set at 25% for time sensitive volumes, and 75% for commodities that are not time sensitive.

Figure 50: Identification of Potent Divertible Volume for the Downside Scenario

Commodity Group	Chicago		Ohio Valley		Detroit		Dallas		Houston		Memphis/Nashville		Atlanta		Total	Time	Diversion	Volume	
	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	TEU	\$/TEU	\$/TEU	Sensitive	Impact	Loss TEU	
Furniture	66,091	\$12,620	19,369	\$13,170	3,350	\$12,516	58,210	\$13,145	23,859	\$12,028	34,919	\$12,087	11,373	\$13,197	211,266	\$12,656	YES	25%	52,817
Wine and Spirits	161	\$6,857	54	\$59,616	3	\$17,107	124	\$6,455	14	\$17,715	0	\$29,048	10	\$10,479	286	\$15,136	YES	25%	7
Animal Feed	851	\$14,774	9	\$31,216	0		56	\$45,072	273	\$13,278	77	\$44,224	95	\$7,475	1,416	\$17,518	NO	75%	1,062
Non-metallic mineral manufactures	3,632	\$21,864	2,086	\$16,729	878	\$22,272	1,663	\$14,339	2,058	\$13,113	903	\$22,756	1,021	\$23,101	11,847	\$18,781	NO	75%	8,885
Other Transport Equipment	13,941	\$18,762	12,578	\$27,482	400	\$15,152	15,489	\$17,975	11,697	\$20,109	10,281	\$16,359	3,363	\$20,490	58,098	\$19,947	YES	25%	14,014
Home Construction	51,333	\$23,573	9,833	\$32,968	892	\$48,521	35,746	\$19,880	18,539	\$20,048	25,528	\$23,496	7,186	\$38,002	127,178	\$23,666	YES	25%	31,795
Food Products	11,267	\$26,178	714	\$23,950	129	\$46,043	2,018	\$17,699	3,343	\$30,462	885	\$30,070	388	\$19,296	33,165	\$26,190	NO	75%	24,874
General Retail	156,325	\$31,943	34,403	\$32,935	4,236	\$50,612	121,495	\$23,769	51,264	\$22,564	55,353	\$28,797	15,664	\$36,507	365,457	\$28,606	YES	25%	91,364
Steel/Iron Manufacturing	7,989	\$30,018	2,775	\$31,956	440	\$29,605	1,217	\$17,765	2,323	\$35,743	712	\$25,541	1,475	\$20,077	12,723	\$29,152	NO	75%	9,543
Paper MFG	14	\$24,498	49	\$108,149	0		116	\$12,734	30	\$12,084	30	\$25,116	2	\$20,600	1,720	\$33,937	NO	75%	1,290
Construction	8,285	\$35,202	3,201	\$30,110	495	\$88,080	5,998	\$30,929	6,531	\$29,298	2,471	\$39,287	1,103	\$46,667	23,751	\$34,212	NO	75%	17,813
Metal manufactures	46,549	\$36,241	18,788	\$40,767	3,154	\$53,986	21,755	\$27,320	39,477	\$28,224	14,940	\$39,389	7,758	\$46,398	122,241	\$34,775	NO	75%	91,681
Rubber/Plastic	13,892	\$41,821	9,201	\$35,327	1,390	\$60,284	4,108	\$32,447	8,491	\$28,177	3,602	\$37,318	4,369	\$35,167	37,747	\$36,657	NO	75%	28,310
Chemicals and related products	33,663	\$39,054	16,328	\$38,327	1,987	\$52,743	14,367	\$33,428	31,807	\$31,108	13,821	\$39,632	5,268	\$47,599	96,713	\$36,885	NO	75%	72,535
Apparel/Footwear	27,232	\$45,125	25,705	\$63,256	4,793	\$62,988	29,017	\$48,221	21,888	\$27,558	24,039	\$42,037	7,486	\$63,048	143,983	\$47,063			
Misc	2,461	\$46,716	1,087	\$49,357	180	\$80,287	1,420	\$29,899	1,535	\$46,271	761	\$58,468	295	\$71,444	7,754	\$47,137			
Passenger Vehicles	55,762	\$47,357	36,545	\$68,784	28,690	\$39,230	27,263	\$38,907	5,843	\$39,701	41,305	\$38,500	21,350	\$58,348	168,855	\$47,404			
Non-Electric Machinery	66,295	\$63,492	33,530	\$60,759	7,219	\$71,332	47,458	\$40,367	49,278	\$34,734	36,762	\$59,987	18,871	\$74,123	207,491	\$54,169			
Pharmaceuticals	5,192	\$95,531	1,118	\$30,877	41	\$46,765	1,391	\$35,680	520	\$32,038	1,378	\$73,703	992	\$45,111	9,926	\$70,308			
Electric Machinery	39,140	\$127,383	17,205	\$95,080	3,204	\$153,219	19,221	\$98,372	12,483	\$75,758	23,932	\$103,735	8,913	\$108,179	104,906	\$107,685			
Grand Total	527,754	\$41,975	215,926	\$49,571	51,201	\$54,795	348,774	\$31,121	267,391	\$28,882	233,407	\$41,000	90,184	\$52,456	1,734,636	\$39,512	26%	76%	446,053

Slightly more than 446,000 TEUs of IPI volume that moved over SPB Ports in 2014, or just over 15% of these ports loaded imports, are at risk of being diverted if the assumptions in the downside scenario are realized.

Finally, the assumptions developed for the upside assumptions were used to estimate future route costs via SPB Ports and their competitors. The data in the table below show the current and expected future cost differential between SPB Ports and the least cost alternative gateway.

Figure 51: Summary of Route Cost Differentials Based on the Upside Assumptions

Destinations	Current Route Cost Difference		Upside Case Route Cost Difference		Change in Route Cost %
	\$	%	\$	%	
	SPB - Alternative	SPB / Alternative	SPB - Alternative	SPB / Alternative	
Chicago	\$185	110%	\$325	119%	9%
Detroit	\$300	116%	\$440	126%	10%
Ohio Valley	\$370	120%	\$510	130%	10%
Memphis/Nashville	\$162	108%	\$202	111%	2%
Atlanta	\$287	117%	\$327	119%	3%
Dallas	\$5	100%	\$22	101%	1%
Houston	\$465	135%	\$482	136%	2%

The assumptions associated with this scenario do not cause any of the cost chains via SPB Ports to increase by more than 10%, suggesting that diversion risk is minimal in the upside case.

The table below provides an overview of how SPB Ports' import IPI volume is expected to change based on the analysis above for each of the scenarios, as well as estimates on the how the shift of imports volume away from SPB Ports to all-water services would impact these ports export volume based on the assumption that ocean carriers will want to maintain existing loaded IPI exports over SPB Ports as doing so lowers repositioning costs, thus only empty export rail volume will be affected by inbound cargo diversion.

Figure 52: Volume Impact of Changes in SPB Ports' Route Cost Competitiveness

Inland Point	Base			Downside			Upside		
	IMP LDS	EXP MTYS	Total	IMP LDS	EXP MTYS	Total	IMP LDS	EXP MTYS	Total
Chicago	170,366	130,500	300,866	135,709	103,953	239,663			
Ohio Valley	60,298	46,188	106,486	55,524	42,532	98,056			
Detroit	14,298	10,952	25,250	13,166	10,085	23,251			
Dallas				89,686	68,699	158,385			
Houston				68,758	52,669	121,427			
Memphis/Nashville				60,019	45,975	105,994			
Atlanta				23,190	17,764	40,954			
<b>Total</b>	<b>221,973</b>	<b>170,031</b>	<b>392,005</b>	<b>446,053</b>	<b>341,677</b>	<b>787,730</b>			<b>0</b>
	Share of SPB INTL - 2.9%			Share of SPB INTL - 5.8%			Share of SPB INTL - 0%		

### 1.5.1.2 Impact of New First Inbound Calls at Prince Rupert

Analysis on how the additional capacity generated by a new berth at Prince Rupert FCT is projected to impact SPB Ports' IPI volume was reviewed in an in section 1.4.4 This analysis was used to produce a base case, upside, and downside scenario with regard to the cargo diversion potential under each scenario. The data in the table below summarizes the volume and share impacts of carriers diverting traffic as Prince Rupert becomes the first inbound port of call.

**Figure 53: Volume Impact of Prince Rupert's New Capacity on SPB Ports**

Inland Point	Base			Downside			Upside		
	IMP LDS	EXP MTYS	Total	IMP LDS	EXP MTYS	Total	IMP LDS	EXP MTYS	Total
Chicago	56,160	43,019	99,179	112,320	86,037	198,357			
Ohio Valley	4,680	3,585	8,265	9,360	7,170	16,530			
Memphis/Nashville	53,900	41,287	95,187	86,660	66,382	153,042	31,710	24,290	56,000
<b>Total</b>	<b>114,740</b>	<b>87,891</b>	<b>202,631</b>	<b>208,340</b>	<b>159,588</b>	<b>367,928</b>	<b>31,710</b>	<b>24,290</b>	<b>56,000</b>
	Share of SPB INTL - 1.4%			Share of SPB INTL - 2.5%			Share of SPB INTL - 0.3%		

The table above also includes estimates on the how the shift of import IPI volume away from SPB Ports to FCT would impact these ports' export volume, based on the same assumption used for how exports would be affected by a loss of route cost competitiveness.

## 1.6 Base Case Forecast for U.S. and San Pedro Bay Container Traffic

### 1.6.1 Objective

In this section the methodology used to forecast container movements from Oxford's macroeconomic numbers is described and used to project container traffic to and from the U.S., and into SPB Ports.

### 1.6.2 Forecasting Methodology for U.S. Container Traffic

The methodology for forecasting container imports into the U.S. consists of a three-stage process, which is described below:

1. Total demand by commodity in the U.S. was projected
2. Then the share of each commodity produced domestically (the residual being imported) was determined
3. Finally the share of each commodity sourced from different regions of the world was determined

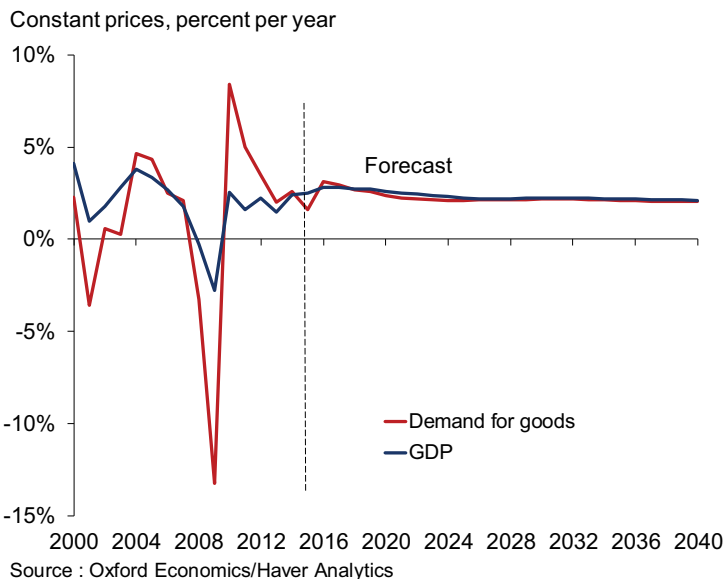
In order to forecast total demand for goods in the US, we use an "input-output" approach (set out in more detail in appendix 9). Total demand comprises the demand for goods as an input for a different sector to produce a dollar of output - "intermediate demand" - plus the "final demand" for goods (for example, for firms to use as investment, or households to consume, or for exporting). By combining our forecasted growth rate for specific industrial and service sectors in the US, and our forecasted growth rates for the final components of GDP, with the respective demand for different types of goods that each sector/final demand component implies, we generate a total demand forecast.

Goods demand fluctuates far more with economic cycles than overall GDP given the propensity for firms to slash investment during economic downturns, and then expand aggressively during the up-cycle. In contrast overall GDP remains more stable, thanks to the non-discretionary nature of consumer

expenditures (consumer spending constitutes around 70% of GDP in the US). Over the longer run though, our projection implies that total goods demand will grow broadly in line with overall GDP (around 0.1-0.2 percentage points per annum slower).

Within this there are a couple of competing factors though. Firstly as the US economy becomes more service oriented, one might expect goods demand to grow more slowly than overall GDP. This is true to an extent. But most service sectors also use a substantial goods input (e.g. hospital equipment and pharmaceutical products in the health sector, ICT equipment in business services and so on). So intermediate goods demand might grow a little slower as the economy moves towards service sectors, but it will continue to grow nevertheless. On the other hand though, we expect investment spending to rise as a percentage of GDP over our forecast horizon. The share of investment spending in GDP fell from an average of around 22% during the three decades or so to 2007 to just 18% in 2009 (rebounding since to 19.5% in 2015Q2). We expect this share to return towards its long-run average in the coming decades, and given the nature of capital investment (i.e. principally consisting of physical goods), this will underpin goods demand.

Figure 54: Growth in GDP and Total Demand for Goods

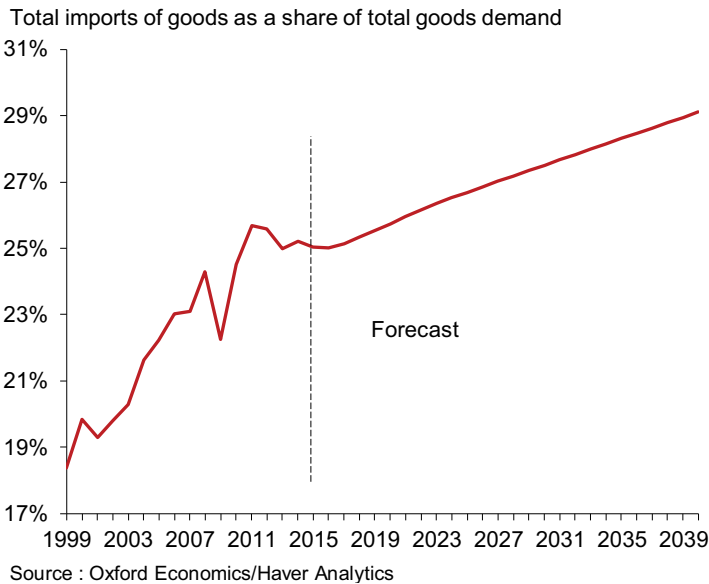


After a forecast for total goods demand in the US is available, an estimate of what proportion of total demand is likely to be met by imports is made using a range of historical data across various metrics. These shares are then forecasted forward, and applied to our forecasts of total demand for goods by National Accounts sectors. From here, the growth rates of imports in each national accounts sector are reweighted to match up with the composition of the container breakdown as taken from the US trade census<sup>6</sup>. More details are set out in our methodological appendix.

<sup>6</sup> Ideally we would use a totally consistent breakdown in both the total demand forecast and the container forecast without the need for a reweighting. However differences in the availability of data between the chosen container categories and the National Accounts prevent this. A number of product categories map directly 1-1 between the

By and large import penetration is expected to continue to rise in the United States, but at a slower pace than in the past. We expect total imports to rise to just below 30% of total goods demand by 2040, around 5pp higher than in 2014. This is a substantially slower pace of import penetration than over the past 15 years, over which period import penetration has risen by 7pp (although at a far slower rate since 2007).

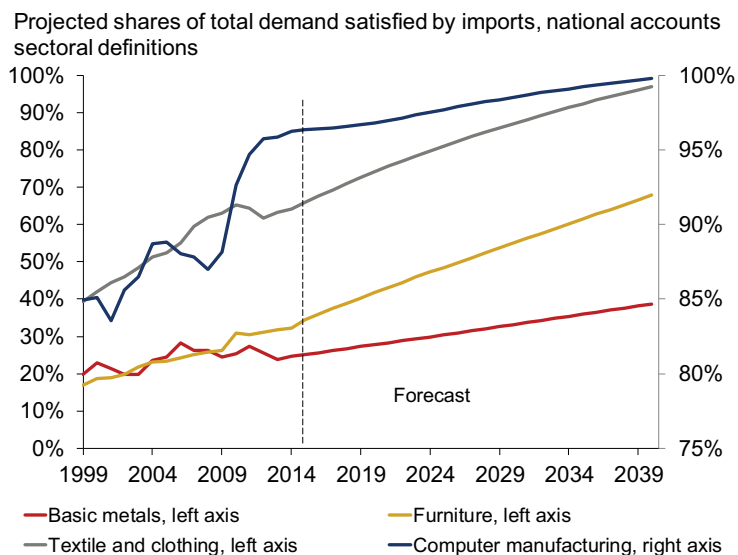
Figure 55: Total import penetration of goods demand



In this context, a few key reasons why we expect slower growth in import penetration are worth noting. First, although import penetration has plenty of scope to increase in some sectors, in others there is much less room for import growth. For example, in 2014 imports satisfied about 96% of total computer demand, up from 85% in 2004. Clearly, there isn't much further this ratio can rise. Meanwhile in textiles and clothing, the ratio has risen from 48% in 2004 to 63% in 2014. A continuation of the previous rate of import penetration growth would see the import share top 100% in the late 2020s, which clearly cannot happen. A slower rate of import penetration will directly translate into slower import growth, for a given rate of total demand expansion.

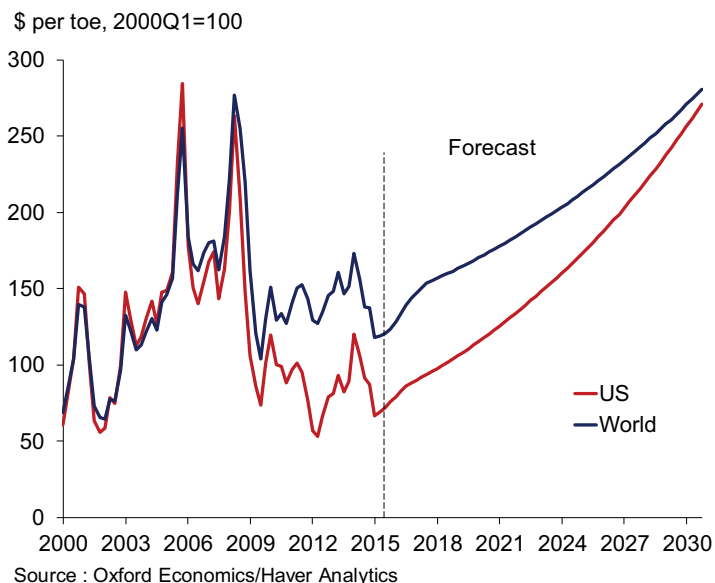
two sets of definitions, but in other cases the container categories are a more complex grouping of National Accounts definitions. Details are set out in an appendix.

Figure 56: U.S. and World gas Prices



Secondly, a large part of the offshoring of US production over the past couple of decades has arisen because of the competitive advantage enjoyed by lower-cost economies. However, with US firms enjoying cheaper energy as a result of the shale gas boom (natural gas being more difficult to export than oil, and therefore greater differentials in gas prices around the globe), this competitive advantage has narrowed substantially.

Figure 57: U.S. and World gas prices



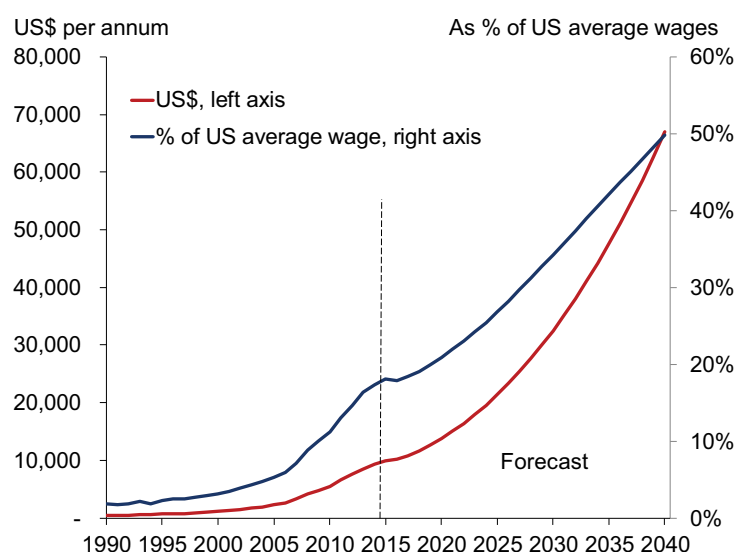
Finally, it is also worth bearing in mind that although as of 2015, average wages in emerging market economies remain at a fraction of US levels, this will not remain the case through the duration of our forecast. FigureFigure 58 shows Oxford's forecast for the average earnings of an urban resident in China in US\$ terms and relative to the average wage across the US economy (we compare earnings for urban

residents in China as opposed to rural residents, since manufacturing offshoring has typically been to new and growing cities in China, rather than to rural areas).

Although average urban earnings in China are only around 10% of US average earnings in 2015, we expect this to rise to 50% by 2040. Two key drivers are likely to underpin this – firstly the demographic slowdown in China (partly population aging, and partly the increasingly limited scope for rural-urban migration). This will help drive average wage growth of 7-8% per annum on average, 3-4pp faster than in the US. Secondly, we expect a gradual, but substantial, appreciation of the yuan over the coming decade or two, from around 6.2/\$ in Q2 2015 to a long-run equilibrium of 5.2 by 2040.

Of course, this particular comparison is only between the US and China, but nevertheless illustrates a point that is true to a greater or lesser degree in respect to the comparison between advanced economies and emerging economies more generally – faster wage growth in the latter will erode the advantage in offshoring production compared to previous decades.+

**Figure 58: Average annual earnings in Urban China, \$ and as % of US average wages**



Source : Oxford Economics/Haver Analytics

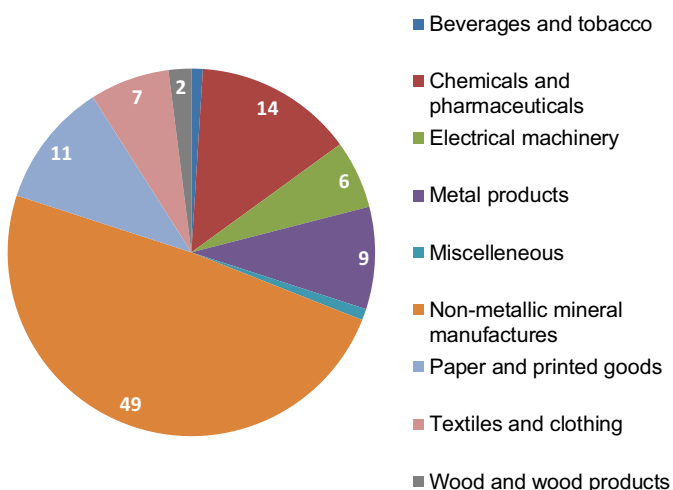
As noted, we do not forecast import penetration directly in the sectors in the container breakdown as extracted from the US trade census. Rather we forecast the flow of imports in the national accounts sectors (using total demand and import penetration), and then apply the growth rates in appropriate types of goods to the sector classifications taken from the trade census.

For most categories there is a close matching between the national accounts and the US trade census breakdowns (for example in furniture, food, apparel/footwear, electrical machinery and some others, there is a simple 1-1 matching). For some others there is a greater variety of goods types from the national accounts breakdown to the US trade census breakdown. The most obvious category in this respect is the general retail sector, the 2014 breakdown of which is set out below. For these sectors, imports into the US are a composite of the respective national account sectoral imports projections.

Nevertheless, because we do not forecast import penetration directly in the US trade census categories, we do not present these projections here.

**Figure 59: General Retail imports by national accounts sector**

Percent of total container imports of general retail products, 2014



Source : Oxford Economics/Haver Analytics

**Figure 60: Most important categories in total container imports**

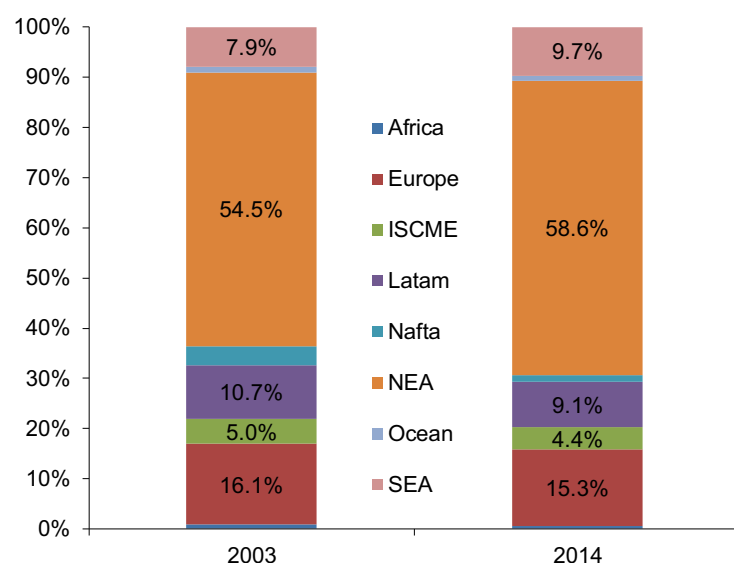
US Position	Category	%	SPB Position	Category	%
1	Furniture	18.6	1	Gen Retail	22.0
2	Electric Machinery	10.8	2	Apparel/Footwear	14.9
3	Animal Feed	10.7	3	Furniture	11.7
4	Food Products	10.1	4	Home Construction	8.8
5	General Retail	8.1	5	Non-Electric Machinery	7.7
6	Apparel/Footwear	7.6	6	Electric Machinery	5.8
7	MISC	6.4	7	Passenger Vehicles	5.5
8	Paper MFG	5.4	8	Food Products	5.4
9	Home Construction	4.3	9	Other Transport Equipment	4.3
10	Construction	4.0	10	Metal Manufactures	3.8

Finally, having a forecast for the total demand for each good type in the US, and a projection for the share of demand in each good type satisfied by imports, Oxford estimates and forecasts trends in source regions likely to be providing each good type to the US.

A key area of interest in this respect is North East Asia (NEA), or more specifically China, which has become an increasingly important source of goods imports into the United States. Within this though there are likely to be some shifts in the types of goods being sourced from within each region – for example, we expect China to lose competitive advantage at the most labor-intensive end of the manufacturing supply chain, in particular to lower-costs economies in South East Asia (such as Vietnam and Cambodia). But China will increasingly compete with advanced economy manufacturers in the middle and upper end of the value chain, eating into the market share of Europe. The share of imports from the Indian sub-continent and the Middle East (ISCME) has fallen from 5% in 2003 to 4.4% in 2014, reflecting a lower reliance on imported fuel products and chemicals.



Figure 61: Share of USA Container Import by Foreign Region



Source : Oxford Economics/Haver Analytics

### 1.6.3 Base Case Container Forecast of U.S. Imports

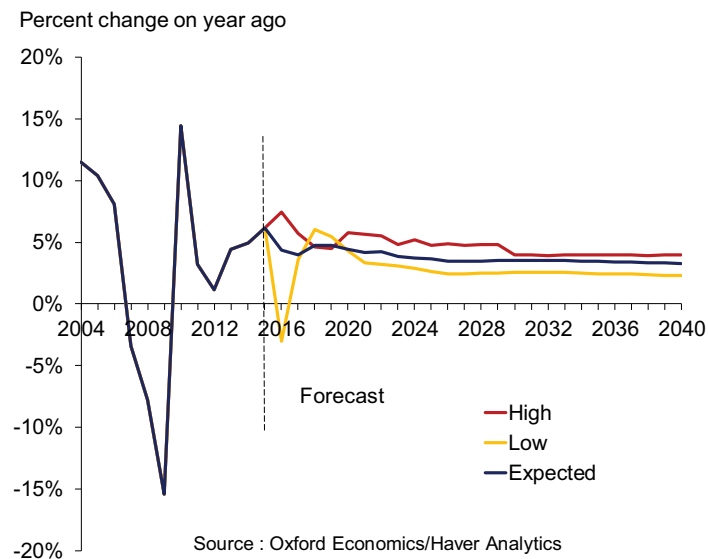
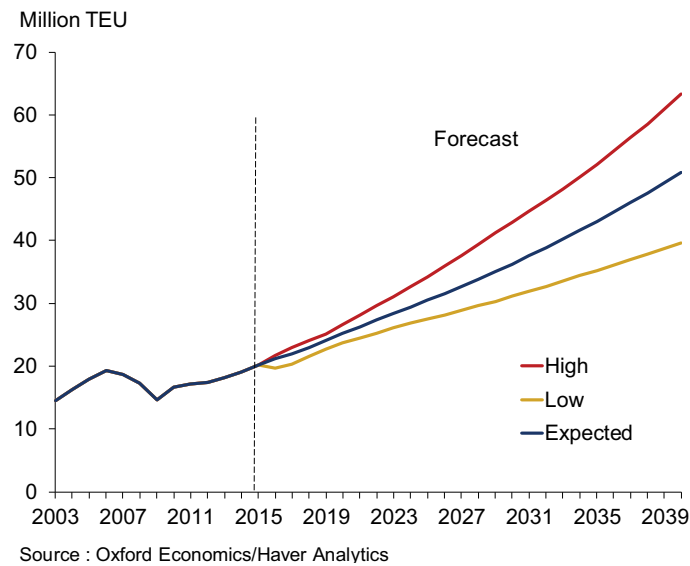
Total container imports grew by almost 10% per annum from 2003-2006, before falling by 25% between 2006 and 2009, as the global financial crisis impacted world trade. Import traffic recovered quite sharply in 2010, before the Eurozone crisis of 2011-2012 again cooled global growth, including in the US. As the Eurozone has stabilized (and since recovered), and the US recovery has gathered pace, US container arrivals have grown by an average of over 4.5% per annum through 2013-2014

Looking ahead, import growth in 2016 will be affected by base effects from an especially strong 2015 Q1 (when non-fuel goods imports grew by an annualized 8.4%, the strongest since the 2010 rebound). An easing to more sustainable quarterly rates will depress the annual rates temporarily, but from 2016-2020 on average we expect container import growth of 4.4% per annum. Over the longer run, from 2020-2040, we expect container import growth of 3.6% per annum.

This implies total container imports into US ports rise from just over 20m TEU in 2014 to 50.8m by 2040, a compound annual growth rate of 3.7% over the whole forecast horizon 2015-2040.

For illustration, we also set out in Figure 62 the overall path of container imports into the US, and the associated annual growth rate in the scenarios. It is worth noting that the “kink” downwards in the high growth scenario growth rate around 2029 reflects the fact that under this scenario part of the positive driver is liberalization in global trade in goods. Specifically, we expect the effective tariff rate on US goods imports and exports to reach zero by 2029. At this point the gains to trade growth from trade liberalization are exhausted, and there is a tick down in annual trade growth. This is also a feature of the exports forecast, and is also reflected in the SPB equivalents.

Figure 62: Total U.S. Container Imports for the Three Macro-economic Scenarios



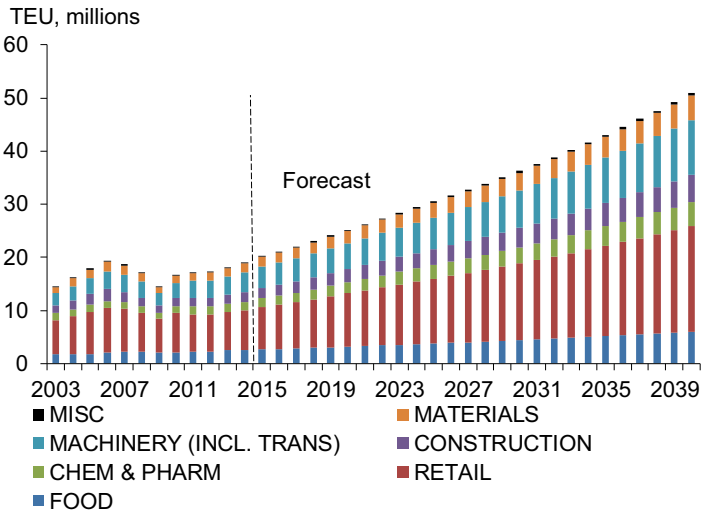
The remainder of this section focuses on the base case (or “expected”) path for imports. A subsequent section discusses the breakdown of imports (and exports) in the high and low scenarios.

The import forecast covered 20 individual commodities, but for the purposes of easy visualization of the results they were group as follows:

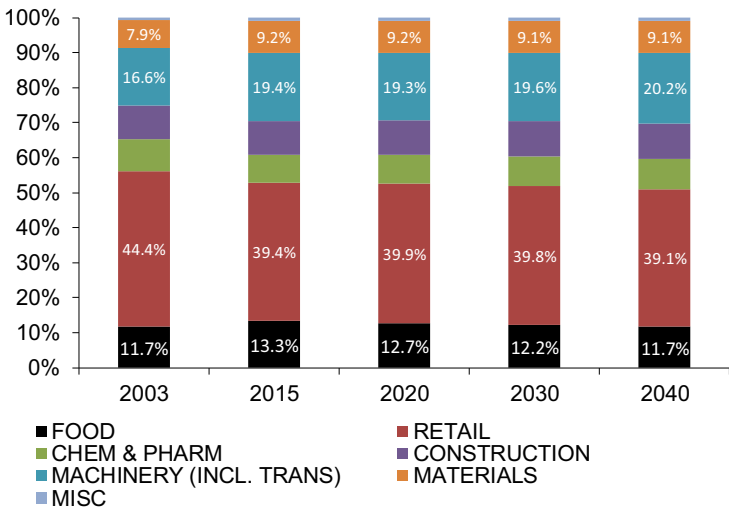
- **Food** = Animal Feed + Food + Wines and Spirits
- **Retail** = Apparel + Furniture + General Retail
- **Chem & Pharm** = Chemicals + Pharmaceuticals
- **Construction** = Construction + Housing Construction
- **Machinery (incl Trans)** = Electrical Machinery + Non Electrical Machinery + Passenger Vehicles + Other Transport Machinery
- **Materials** = Metal Manufactures + Non Metallic Mineral Manufactures + Paper + Rubber & Plastic + Steel
- **Misc** = Miscellaneous

Chemicals and pharmaceuticals are expected to be the fastest growth sector in imports over this period, with an average growth rate of 6.8% in 2015-2020, and just over 4% in the longer run. Container imports of construction goods and machinery should also grow by just short of 6% in the near term, and over 4% in the longer run. By contrast, we expect slower growth in retail items – 5.1% in the period to 2020, and just over 3% in the longer-run. Much of the slower performance of retail imports is due to less room for increased penetration.

Figure 63: U.S. Container Imports by Commodity Grouping



Source : Oxford Economics/Haver Analytics



Source : Oxford Economics/Haver Analytics

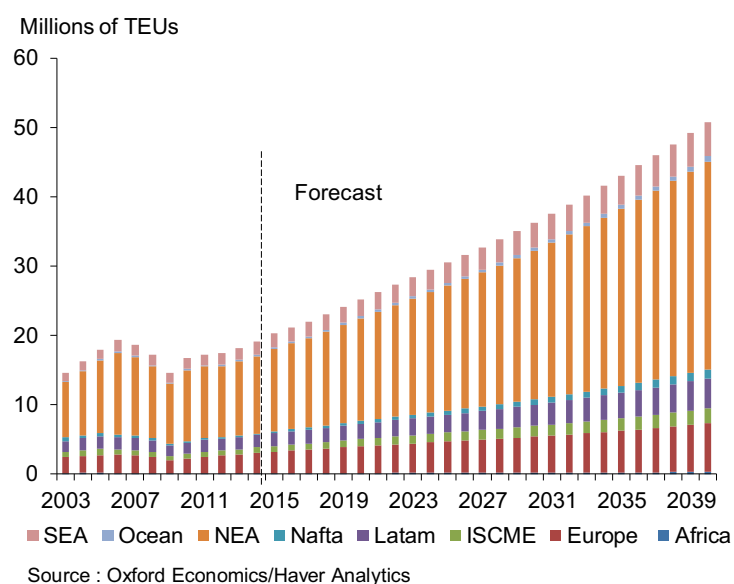
Once we have forecasted the share of total demand that will be satisfied by imports, and therefore have an overall path for container imports of various commodities, we then estimated equations to determine the share of each of our twenty goods categories that would be supplied from each of our

eight geographical regions<sup>7</sup>. We estimated an import share for each commodity for each region, using a range of macroeconomic factors such as the exchange rate versus \$US, relative energy costs, consumer price growth (a good proxy for wages, for which it is somewhat harder to find reliable cross-country data), and the price of that region's exports.

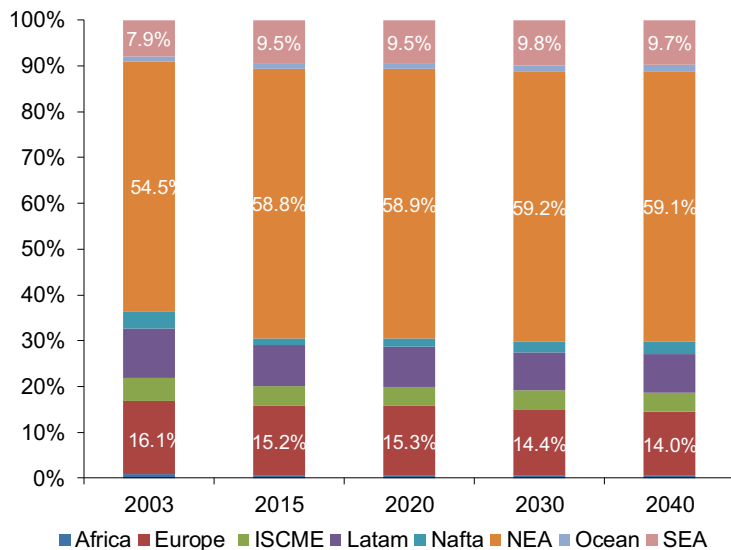
It is worth bearing in mind though that most of our regions do display a degree of economic heterogeneity. For example, by necessity our Europe grouping incorporates not only “old Europe”, but also Central and Eastern Europe, Turkey and Russia. In this context the relationship between macroeconomic variables and that region's share of US imports has to account for the fact that different countries within the region might be competing at different ends of the value chain *within a given sector*. For example, apparel might reasonably be considered “low value-added” as a broad sector, but there are in reality a range of goods in this sector from the mass market to the top-end. Clothing and footwear produced in the UK or Italy may well be less cost-sensitive than clothing and footwear produced in Portugal or Turkey. As such may be a degree of “cost resistance” in some sectors when estimated at our aggregate level, even if overall the “mass market” production will continue to shift to cheaper locations.

Nevertheless, taking this consideration into account our analysis suggests that imports from NAFTA and Oceania will grow faster than average over coming decades – by 5.4% and 4.6% respectively from 2020-2040. Europe will be the slowest growing region in terms of container shipments to the US, with higher wage costs and a gradual appreciation of the Euro meaning a loss of share over the long-term.

**Figure 64: U.S. Imports by Origin Region**



<sup>7</sup> Reminder, our eight regions are: Africa, Europe, Indian sub-continent and Middle East (ISCME), Latin America, NAFTA, North East Asia (NEA) and South East Asia.

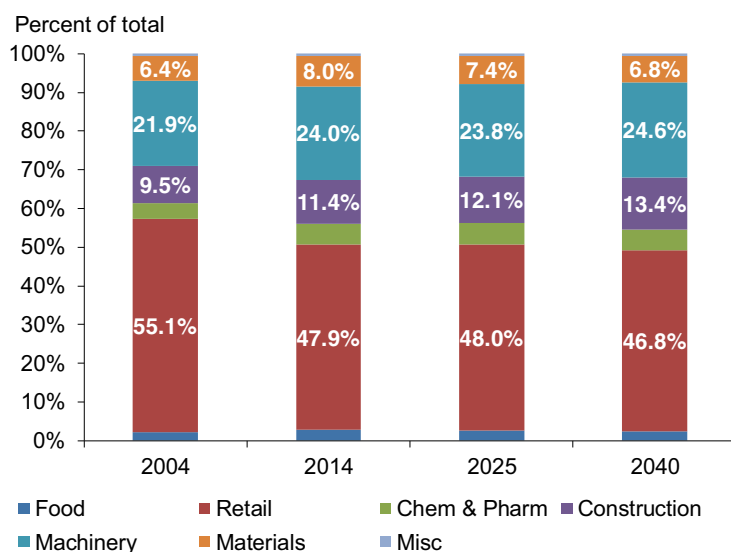


Source : Oxford Economics/Haver Analytics

That said, both NAFTA and Oceania currently account for a very small share of US container imports, so a faster growth rate for each of these regions will only make a modest difference to their overall shares (2.5% and 1.4% by 2040 respectively). South East Asia should also gain export share modestly. With North East Asia's share of total imports holding steady (albeit with some important shifts within this), the main loser in terms of share will be Europe, down to 14% of US container imports by 2040, down from 15.2% in 2015, and 16.1% in 2003.

However, in addition to gradual shifts in the geographical sourcing of goods imports, there are also important developments within the composition of each region's exports into the US (or equivalently, the US's imports from each region). For example, over the long run we expect NEA economies to shift up the value chain. As such, construction goods and machinery will form an increasing share of NEA's exports to the US over the long run, with materials and retail goods less important.

Figure 65: US imports from NEA by commodity group

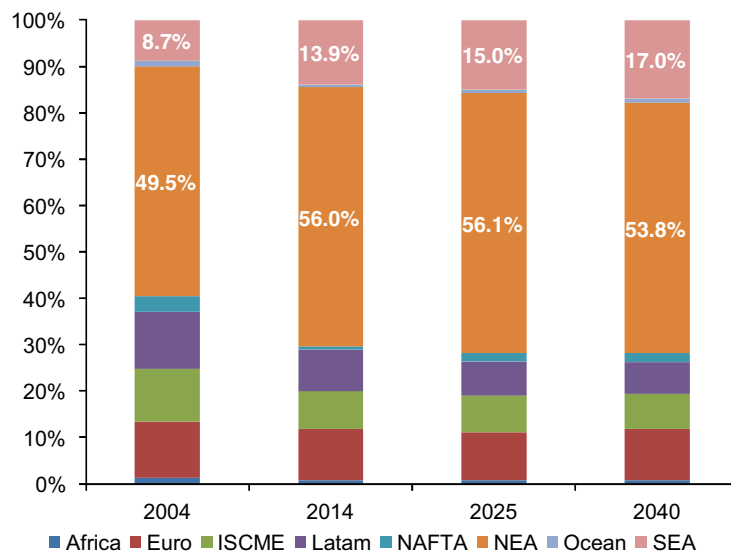


Source : Oxford Economics/Haver Analytics

An alternative way to look at this is to assess from *where the US is likely to be sourcing various types of goods*. In Figure 96 we show each regions' share of US imports of lower value added manufactured goods. Obviously there is a degree of uncertainty in this respect since any given sector produces high end and low end items within a broad product group, but we have below grouped; non-metallic minerals manufactures, apparel, paper, metal products and steel.

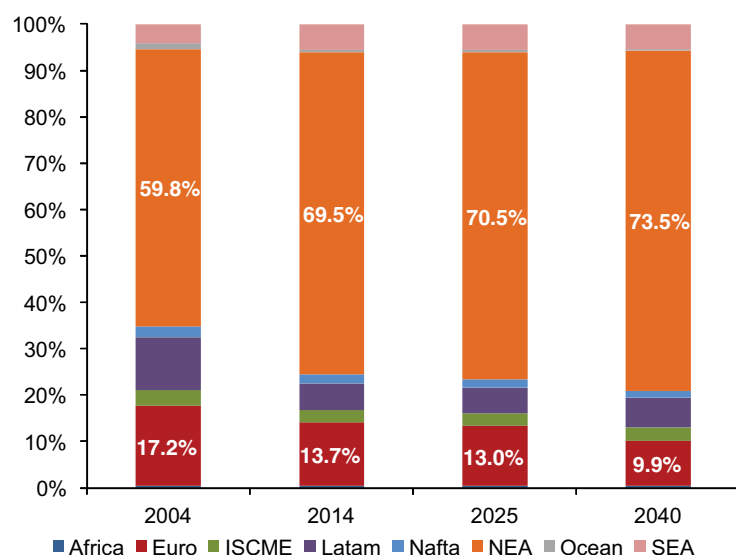
In the coming decade, NEA's share of this group of products holds up reasonably well, thanks to a weaker Yuan and the persistence of the region's wage advantage. Over the longer run though we expect a stronger Yuan and an ever-narrower wage gap erode the region's share of the most cost-competitive sectors. By contrast, we expect the SEA region to continue taking market share in global markets for low-cost manufactured goods.

**Figure 66: US imports of low value added manufactures by source region**



Likewise, denoting “higher value added” goods is subjective, but below we show the combined share of construction goods (including home construction), passenger vehicles and other transport equipment and pharmaceuticals (on the grounds that pharmaceuticals typically involve a greater degree of intellectual capital and more processing than raw chemicals). NEA's share in this grouping is set to rise around 1pp over the coming decade, and a further 3pp over the longer run. We expect the main loser in this respect to be Europe, which will lose a comparable share of the US market.

Figure 67: US imports of higher value added manufactures by source region



Source : Oxford Economics/Haver Analytics

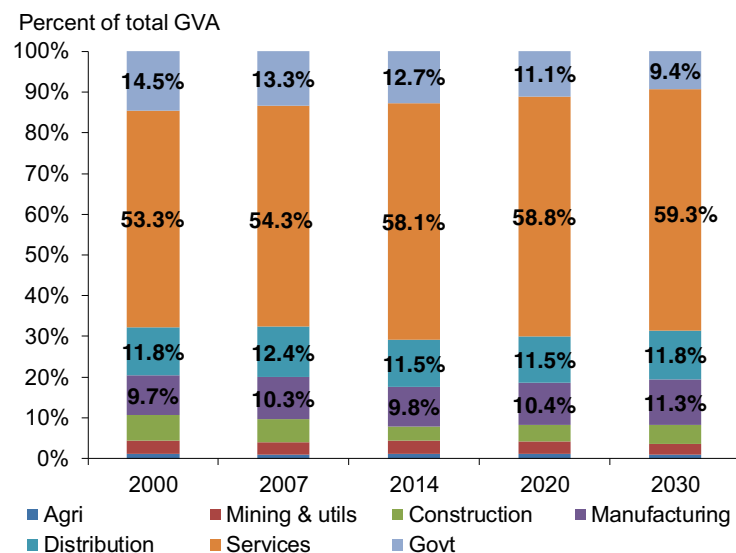
#### 1.6.4 Forecasting San Pedro Bay Shares of U.S. Container Imports

In order to project the flow of containers into San Pedro Bay ports, the relationship between the share of containers going into SPB versus the US as a whole was estimated, as were the key economic variables. This analysis was performed for each commodity/region combination (160 equations in total). A more detailed methodology is set out in our methodology annex along with discussion of the equivalent exports methodology.

Key to projecting forward the behavior of the SPB share of each commodity/region combination is an understanding of the drivers of import demand in the SPB area. We used a range of factors in estimating these shares, but of particular importance is the changing structure of the SPB economy over the coming decades and the region's relative importance to the overall US. To put it another way, if a growing share of US retail activity is taking place in the SPB area, we might reasonably expect a growing share of total container imports of general retail goods into the US to come into SPB ports. Additionally, we incorporated a time trend where appropriate to try and capture developments that are not readily explicable by available economic data.

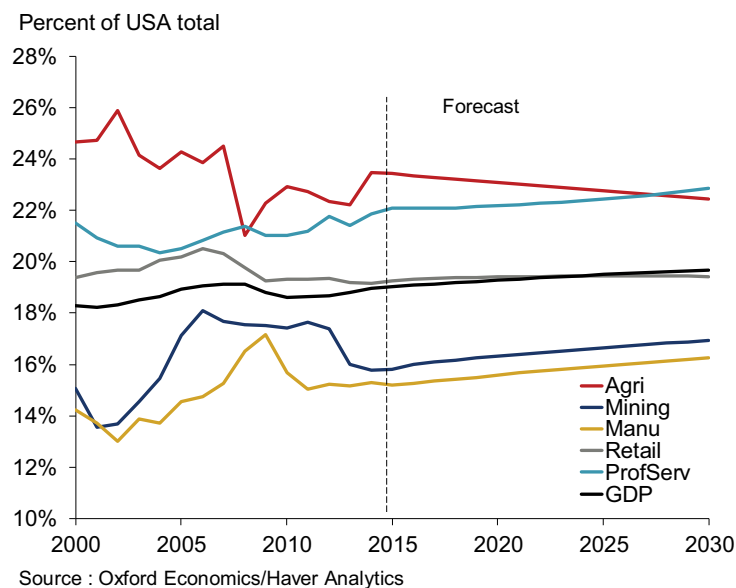
As a starting point therefore it is useful to consider the structure of the SPB catchment area economy, and its relative importance to the overall US economy over the coming couple of decades. In line with the wider US economy, we expect the manufacturing sector to modestly gain share of GDP over the coming couple of decades, as the boost from cheap energy continues to aid competitiveness. The services sector will also grow in importance, accounting for just below 60% of total US GVA by 2030. In contrast, the agriculture, mining & utilities and government sectors will continue to decline (in mining's case, the growth of shale activity will be offset by continued decline in "traditional" mining sectors, and the fact that utility demand will grow less quickly than overall GDP).

Figure 68: Composition of the San Pedro Bay Catchment area economy



That said, a range of factors mean that the SPB catchment area is likely to enjoy faster economic growth in a several sectors than the national economy overall. The composite states have a younger population than at the national level, and as such a greater degree of population growth is likely over our forecast period. Consequently labor force growth is likely to be stronger, supporting employment and potential growth across sectors. Indeed, the only sector in which our forecasts imply a loss of share is the agricultural sector, and even here the loss is modest.

Figure 69: SPB area economy relative to US overall



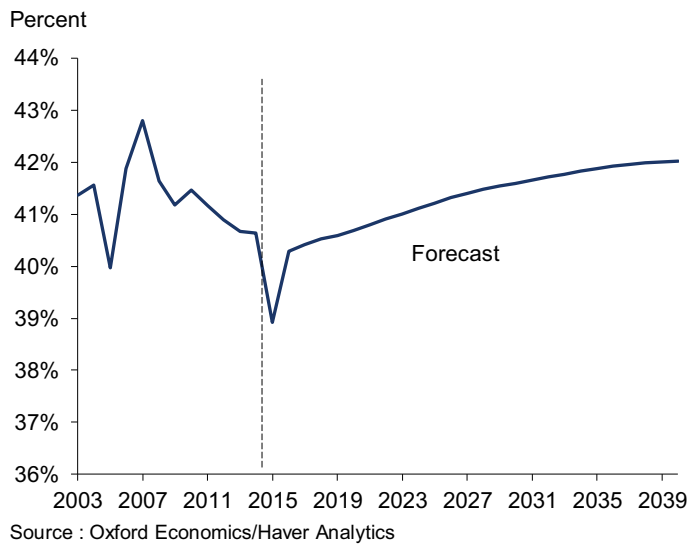
Structural economic factors therefore imply that the share of US container imports arriving into SPB ports is set to grow over our forecast period. There is likely to be volatility in the share during the 2015-2016 period, in light of the operational issues that took place in 2015 Q1. As such we have taken the guidance of Mercator with respect to the path of SPB container arrivals and departures for 2015 and



2016. Subsequent to this we have applied our own forecasts for SPB’s share of each region/commodity US container import series to project SPB arrivals by region/commodity.

Aggregating up these individual series into an overall SPB arrivals number produces the trend set out in Figure 101. Over the medium to longer term we expect a gradual increase in SPB area share of total US container arrivals. In the sections that follow, we look in more depth at the detail underpinning some of these shifts, and their implications for container arrivals into SPB ports.

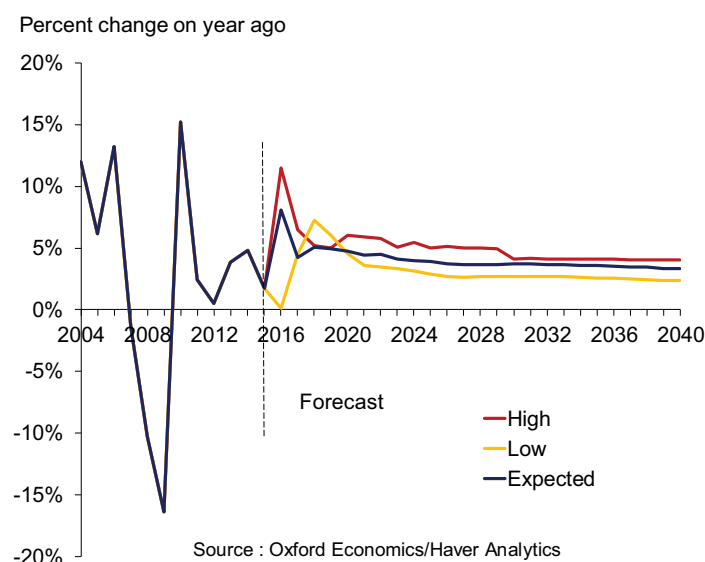
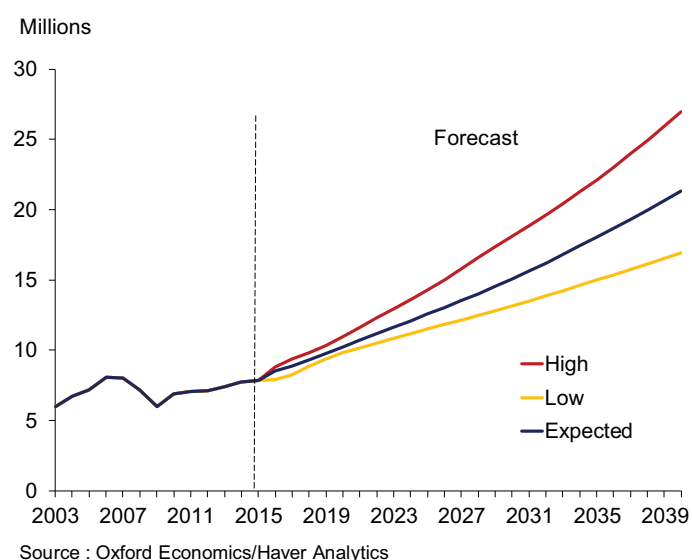
**Figure 70: SPB Ports Share of U.S. Imports**



### 1.6.5 Container Forecast for SPB Imports

Since on balance we expect SPB to take an increasing share of US container imports over the coming decades, total container arrivals into SPB ports grow at a slightly faster rate than the national average in our forecast. Mercator’s view on the prospect for a rebound in 2016 following the disruptions in 2015 implies growth in arrivals of 8.1% next year, with the macroeconomic drivers taking over thereafter. Our forecast for average annual container growth through 2015-2020 is 5.7%, and 3.75% from 2021-2040. Total containers into SPB ports will rise to 21.4m by 2040, up from 7.4m in 2014.

Figure 71: Total Container Imports into SPB Ports



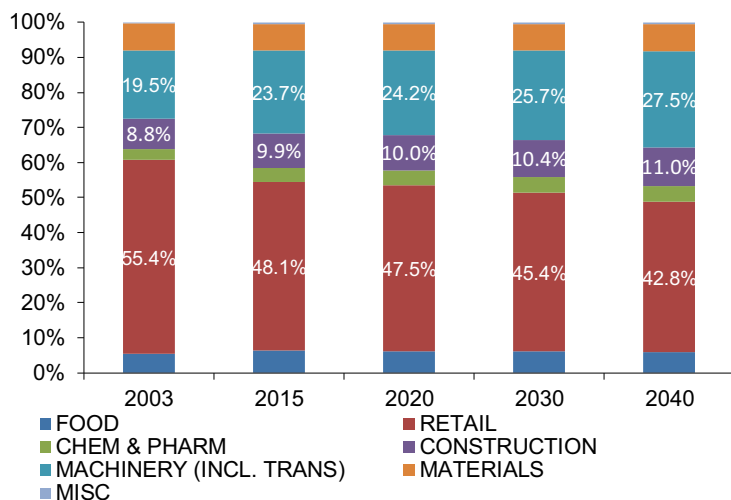
The commodity and regional breakdown of container imports into the SPB ports will depend on two factors – first, the pattern of commodity demand in the SPB catchment area, and the extent to which SPB ports act as a gateway from certain regions in the rest of the world into the rest of the US (this seems more plausible in the case of Asia-Pacific regions).

The remainder of this section focuses on the base case (or “expected”) path for SPB imports. A subsequent section discusses the breakdown of exports (and imports) in the high and low scenarios.

As is the case at the US level, we expect a falling share of container imports into SPB to certain retail items, falling from 48% to 43% from 2015 to 2040. By contrast machinery and construction items are likely to increase their shares, by 4 percentage points and 1 percentage points respectively.

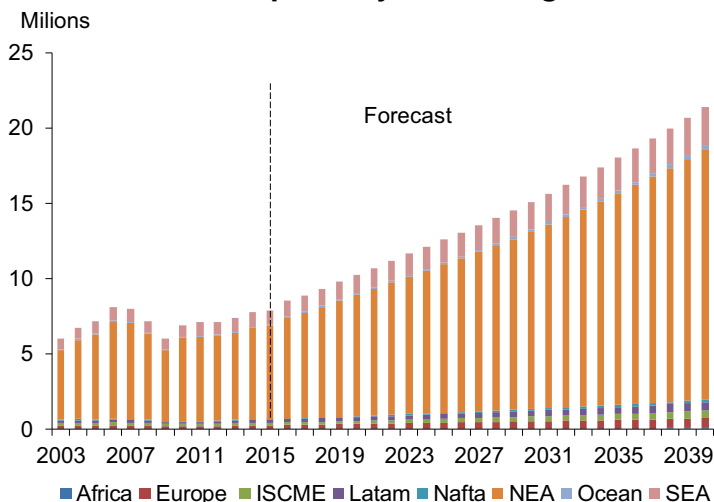
Figure 72: SPB Ports Imports by Commodity

### SPB container imports, by commodity



Source : Oxford Economics/Haver Analytics

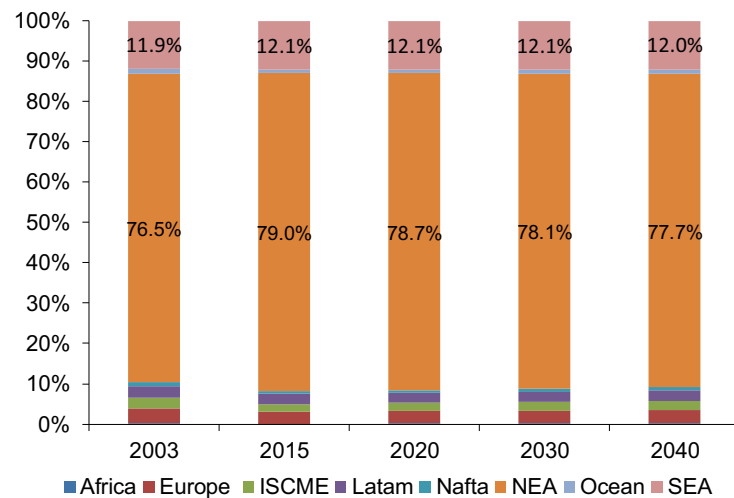
### SPB container imports by source region



Source : Oxford Economics/Haver Analytics

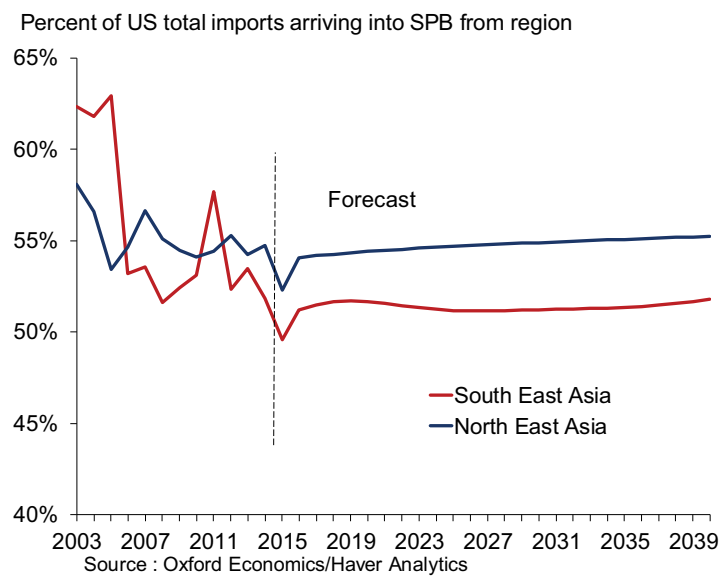
As one might expect, SPB import arrivals are more heavily weighted towards Asia-Pacific regions than the national average, with almost 79% of arrivals coming from Northeast Asia (NEA), and a further 12% from South East Asia (SEA). We expect NEA's share to decline modestly through our forecast period, in slight contrast to our forecast for U.S.-level container arrivals. However, this is not because container arrivals into SPB from NEA grow more slowly than is the case for the U.S. – at around 4% per year from 2015-2040, SPB container arrivals from NEA grow about 0.4 percentage points faster than at the national level. Rather this is because imports from other regions grow more rapidly, from NAFTA and Africa in particular, from whence we expect container arrivals to grow by 6% and 7.5% respectively.

Figure 73: SPB Container Imports by Region



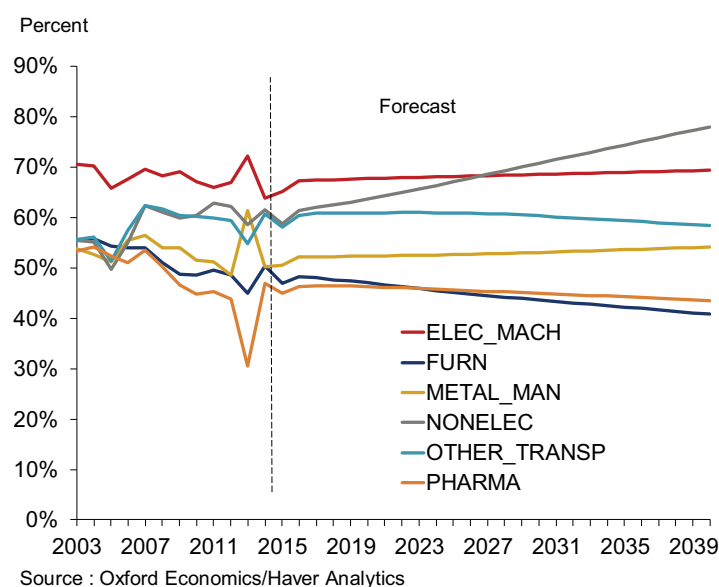
Source : Oxford Economics/Haver Analytics

Figure 74: SPB shares of US imports by Region



Source : Oxford Economics/Haver Analytics

Figure 75: SPB shares of US imports by Commodity



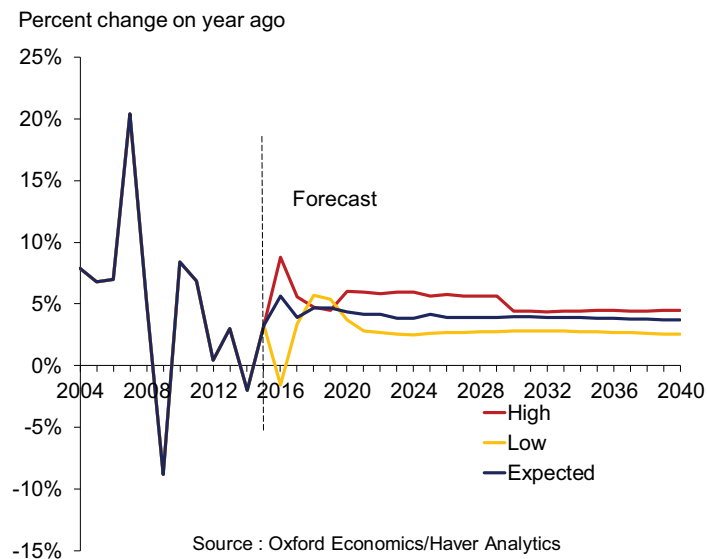
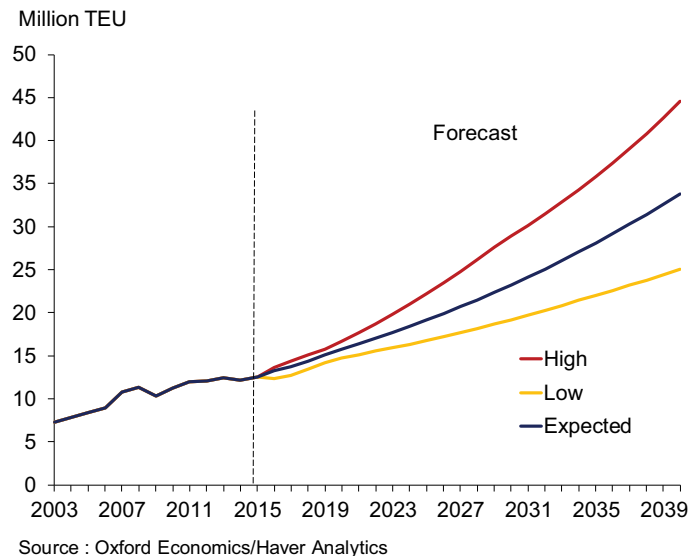
The projections for the composition of SPB imports imply a fairly stable geographical breakdown across source regions (see Figure 73). This is because *in aggregate* our estimate of the share SPB ports receive of U.S. imports from both North East Asia and South East Asia are broadly stable (see figure 74), and these regions are expected to increase their exports to the US at comparable rates. However, there will be more noticeable changes in the SPB shares of US imports of different commodities – for example from North East Asia, the SPB share of total US imports of pharmaceuticals, furniture, and other transport equipment are forecast to ease, while SPB shares of electrical and non-electrical machinery and metal products imports are expect to rise (Figure 75).

### 1.6.6 Base Case Container Forecast for U.S. Exports

With the United States having gained a greater degree of international competitiveness through the past few years, the macroeconomic forecast looking ahead is for export performance to be a little stronger than imports. This is reflected in the outlook for TEU container exports, which are expected to rise 4.7% per year on average through the 2015-2020 period, and 3.9% per annum from 2020-2040. This takes the projection for total container exports from the U.S. from 12.1m in 2014 to 33.8m by 2040.

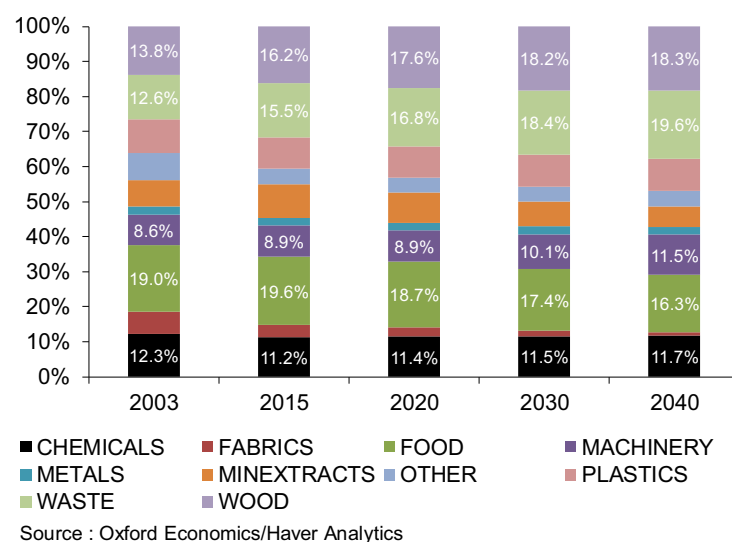
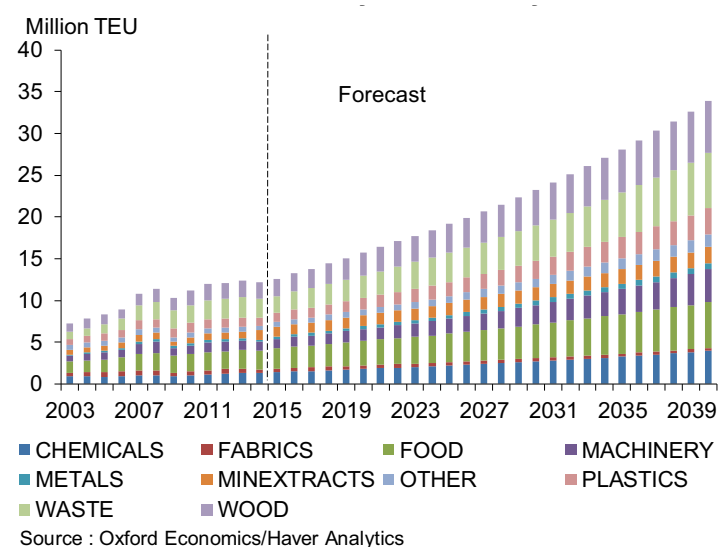
Again, we set out for illustration in Figure 76 the aggregate level of container exports from the U.S. in our three scenarios, but in the subsequent text in this section we focus on the expected case.

Figure 76: Container Exports from U.S.



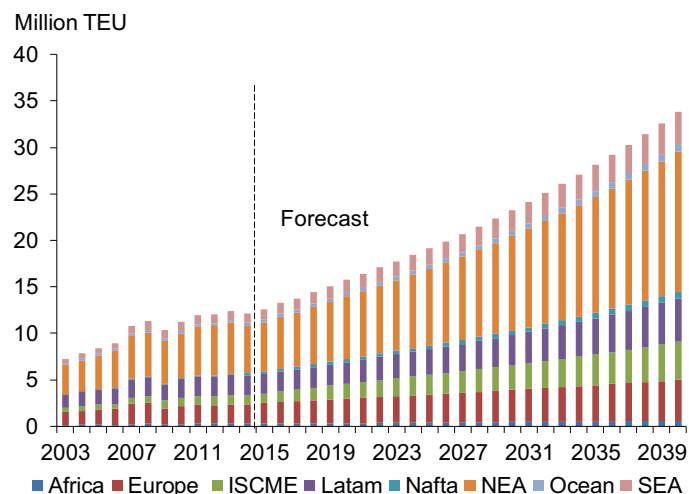
Over the forecast horizon, it is expected that relatively energy-intensive products will increase their share of US exports, with the share of container shipments containing chemicals rising by around 0.5 percentage points by 2040, and the machinery share increasing by just over 1.5 percentage points. Wood products have also become increasingly important through the recent past, and the estimation methodology implies this is set to continue over the next couple of decades, with the wood share increasing by 2 percentage points to 18.3% by 2040. Finally, based on the assumptions set out in the methodology section on waste exports, we expect containers of waste items to grow from 15.5% in 2015 to 19.6% by 2040. By contrast, fabrics will account for just 1% of exports by 2040, down from 3.5% in 2015, and food's share of exports is set to fall by around 3 percentage points, to just over 16%.

Figure 77: U.S.'s Container Exports by Commodity

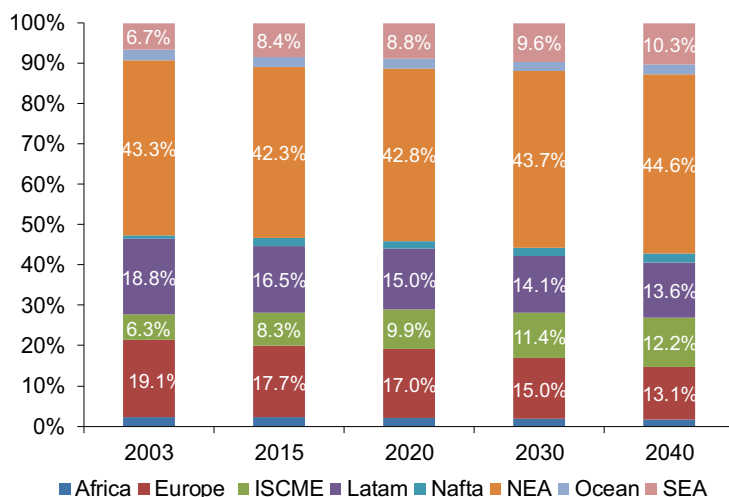


A similar pattern is expected in the regional share of US exports as on the inbound side. Europe will account for a decreasing share of US exports, as import demand in these mature economies grows less rapidly than in the emerging markets. Just 13% of container exports will be bound for Europe by 2040, down from almost one-fifth in 2003. By contrast the importance of NEA and SEA as trading partners for the US is expected to continue to rise, with the share of each increasing by 2-2.5 percentage points between 2015 and 2040. The fastest growth will be in shipments to the Indian Sub-Continent and Middle East region (ISC/ME) though, as India's economic growth rate continues to outstrip China (goods import growth in India is expected to average 6% over the 2015-2040 period, compared to 5% in China). ISC/ME's share of US container exports will rise from 8.3% in 2015 to over 12% by 2040.

Figure 78: U.S. Container Exports by Destination Region



Source : Oxford Economics/Haver Analytics



Source : Oxford Economics/Haver Analytics

### 1.6.7 SPB Share of U.S. Container Exports

The SPB area's share of total US container exports will vary in line with two drivers – firstly, the SPB area's success in capturing market share for US exports in each region/commodity combination (determined as in the imports forecast by variables including the relative weight of the SPB economy in that sector and a time trend), and secondly, the relative growth rates of demand in each region/commodity. To put this second point another way, even if the SPB area were losing market share in NEA, then if exports to NEA were growing faster than the US's export market overall, and the SPB area had a larger share of its exports headed to this region than US ports on average (for geographical reasons), then in overall terms SPB would gain share of total US exports. Since around 75% of SPB's exports currently go to NEA (see Figure 98), around 30pp higher than at the US level, this will clearly mitigate towards an increasing SPB share of total US container exports.

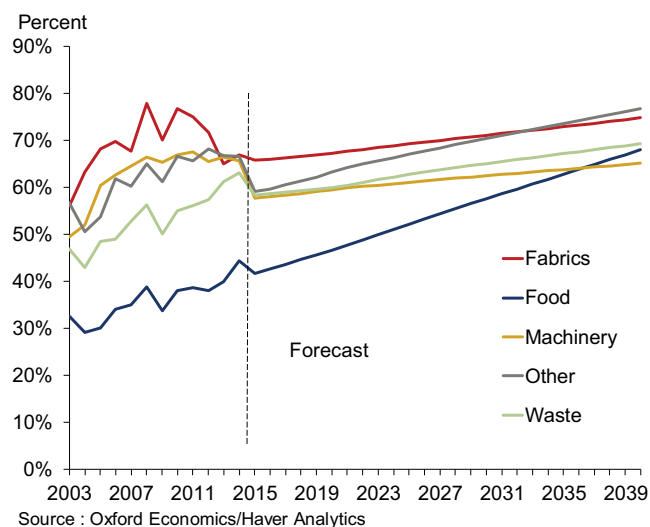
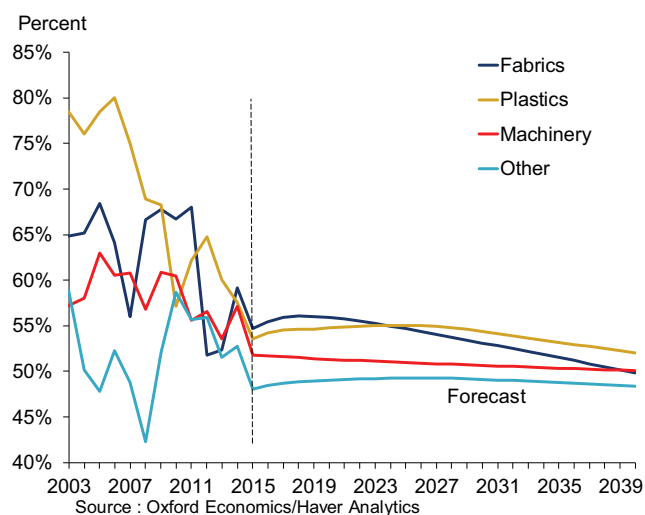
Similarly, we expect the SPB ports to capture an increased share of traffic to NEA destinations over the coming couple of decades. Developments in the SPB area economy are pertinent in this respect again.



We expect the SPB economy to account for a growing share of activity across a number of sectors over our forecast horizon (see Figure 99), and this will mean a growing volume of exports directly from the regional economy (as well as those passing through the region from other parts of the US en-route to NEA region).

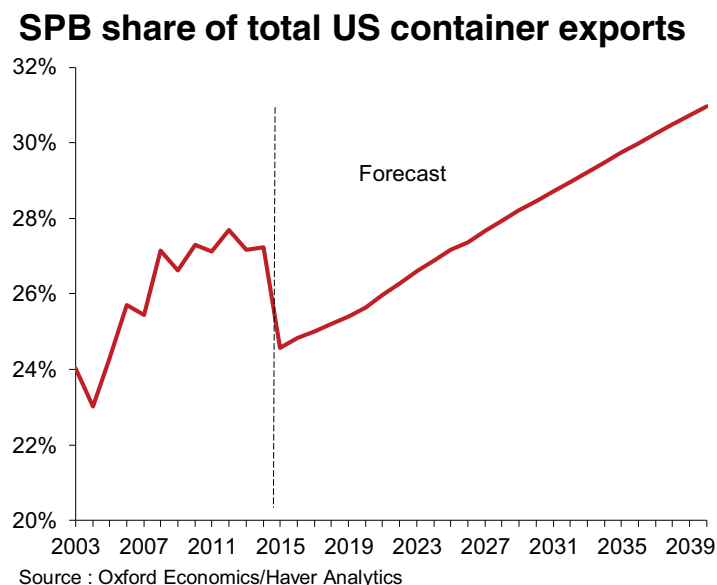
However, by contrast our projections imply an at-best stable share of exports to SEA. For these commodity/region groupings the modest downward trend in the historical time series offsets the stimulus of rising activity in the producing sectors over our forecast horizon. The particular volatility of the SEA data (as well as the more general shortness of our time series, with only 11 data points) makes these shares in particular difficult to model, and subject to uncertainty.

**Figure 79: SPB ports' share of total US exports to South East Asia, selected commodities**



Compiling the long-term projection for each commodity/region combination, projecting forward and aggregating suggests that the SPB share is likely to rise into the long-term, regaining its 2014 level by around 2024, and rising towards 31% thereafter (again, year-to-date results have been used by Mercator to provide an estimate the likely movement of SPB's share of total US exports in 2015-2016).

Figure 80: SPB Ports Share of U.S. Container Exports

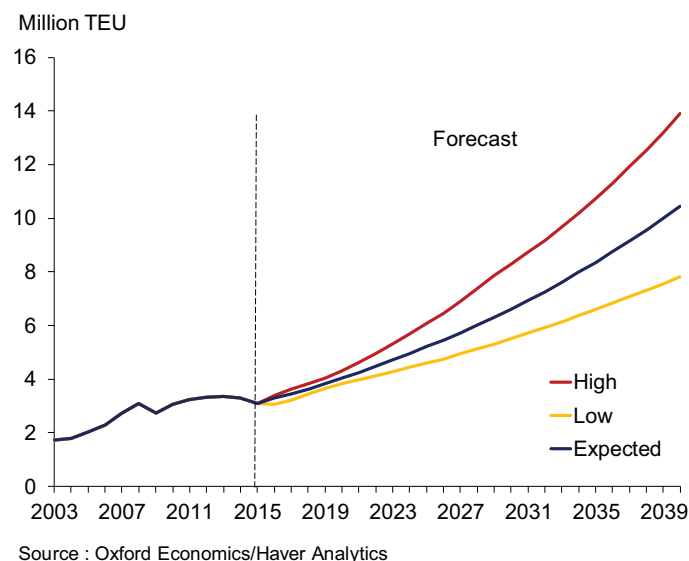


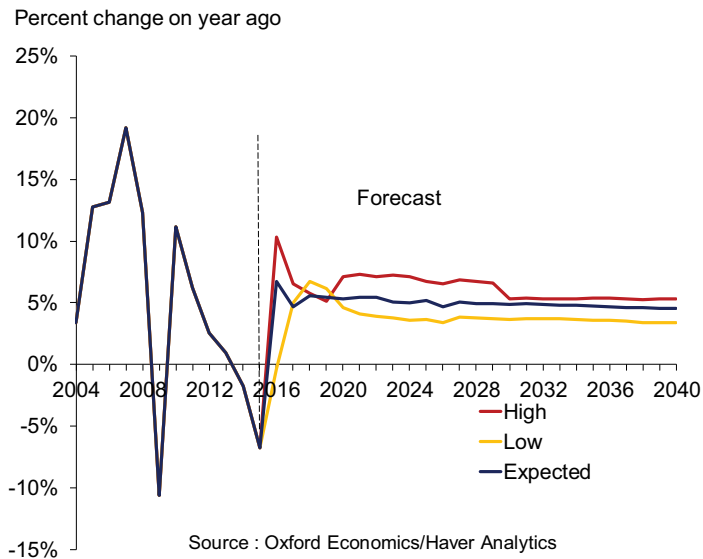
#### 1.6.8 SPB Ports Container Exports

In common with the US, container export growth from SPB has been quite volatile over the past decade, even when accounting for cyclical economic swings. Given the long-run forecast for container shipments at the national level by region/commodity, and our projection for the shares SPB will handle, we estimate that SPB's export of TEUs will grow on average by 5.5% per annum from 2016-2020, and nearly 5% per annum from 2021-2040. This will result in container exports from SPB reaching 10.5m by 2040.

As in previous sections, we set out in Figure 81 our forecast for total TEU exports from SPB ports in the three macroeconomic scenarios, but in the remainder of this section we focus on the expected case.

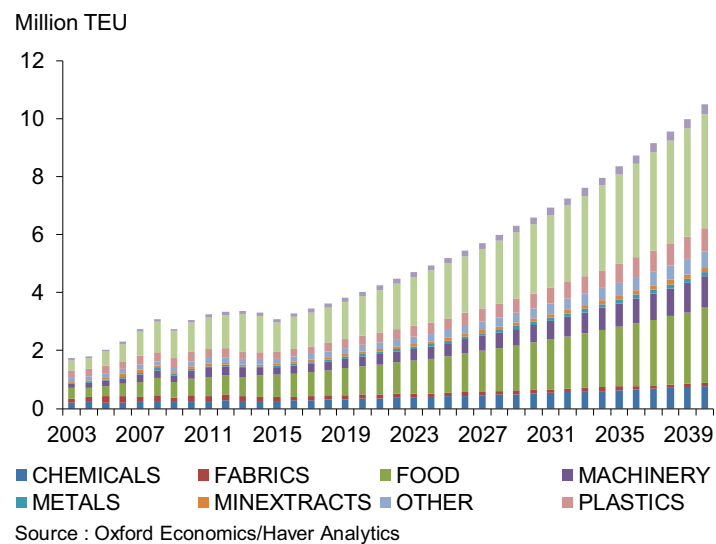
Figure 81: Container Exports from SPB Ports

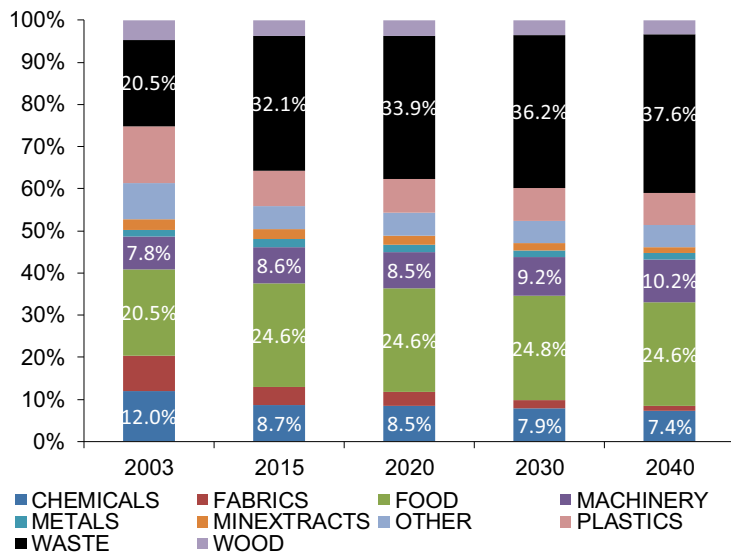




As at the national level, it is expected that machinery and waste will account for an increasing share of exports from SPB Ports – machinery rising to just over 10% of total shipments, and waste rising by 5 percentage points to reach 37.5% of total container exports. .

**Figure 82: SPB Ports Exports by Commodity Group**

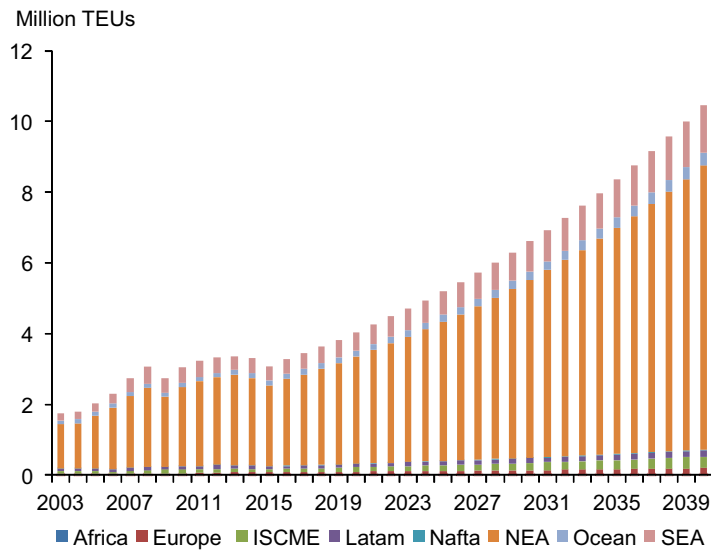




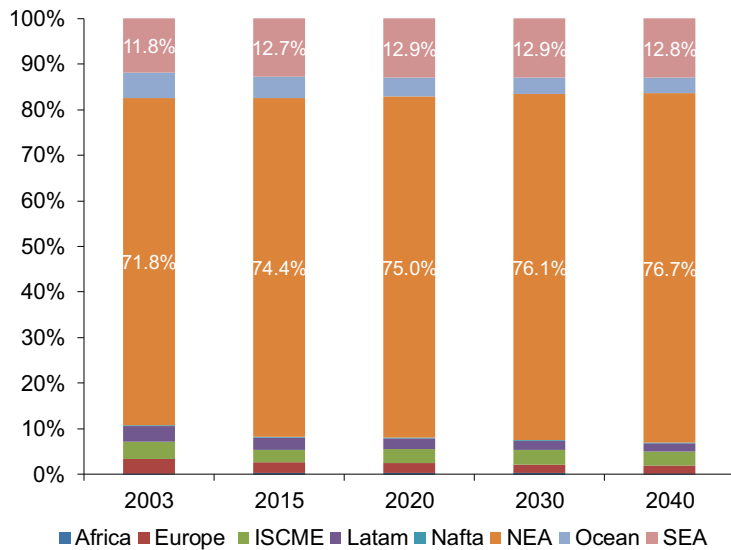
Source : Oxford Economics/Haver Analytics

As at the national level, NEA will account for a rising share of SPB exports. The proportion of SPB's exports going to this region will rise by around 2 percentage points over the period to 2040. The SPB Ports currently have a much lower exposure to ISC/ME, but we expect this share to rise by around 0.5 percentage points, from 2.5% in 2015 to 3% by 2040.

Figure 83: SPB Ports Exports by Destination Regions



Source : Oxford Economics/Haver Analytics

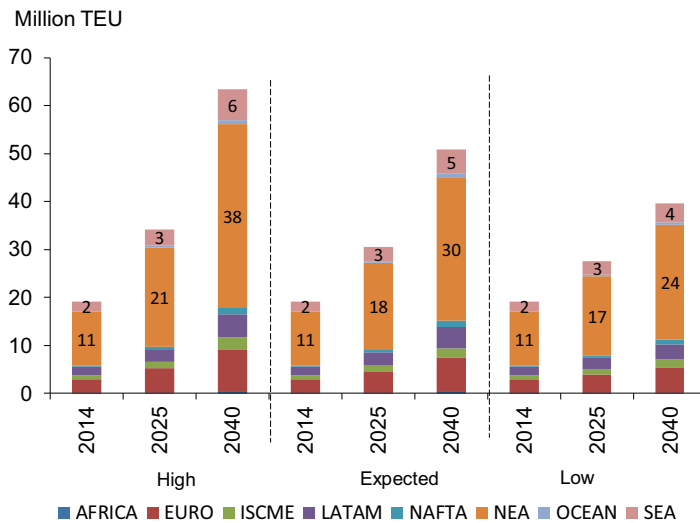


Source : Oxford Economics/Haver Analytics

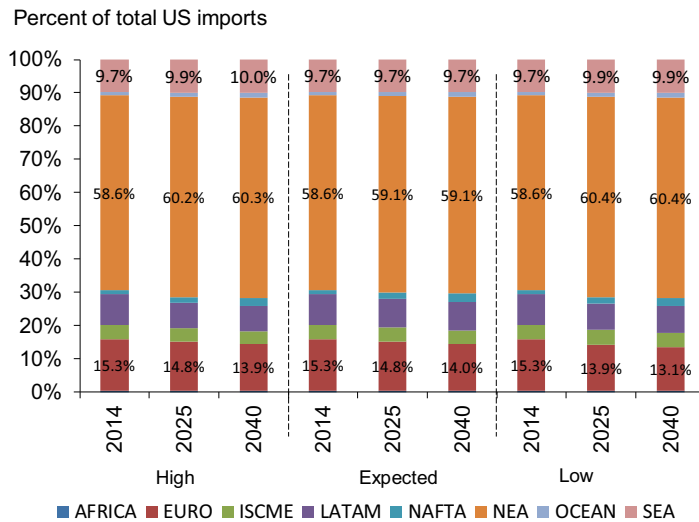
### 1.6.9 Impact of High and Low Macro-economic Scenarios on Container Volumes

This section briefly identifies the impact that the high and low macro-economic scenarios have on the composition of container imports and exports at the U.S. and San Pedro Bay levels. The aggregate paths for total imports and exports at both the U.S. and SPB levels were set out in Figure 62, Figure 71, Figure 76 and Figure 81, but information on how these scenarios affect the geographical sourcing of imports and the destinations of exports is analyzed below.

Figure 84: U.S. Container Imports by Region and Scenario



Source : Oxford Economics/Haver Analytics



Source : Oxford Economics/Haver Analytics

When considering how the geographical split of U.S. and SPB container imports/exports changes across different scenarios, it is important to recall what is driving the scenarios in the short and longer term. In the short-term, the scenarios are driven by macro-economic factors that affect all parts of the world in different measure (as taken from Oxford Economics' Global Scenarios Service), but in the long-term the scenarios are largely driven by different possible paths for the U.S. economy, and in particular the likely rate of U.S. productivity growth. See section 1.2.5 for more detail.

The key driver of the high macro-economic scenario versus the assumptions used in the expected case is that there is a faster-than-expected rebound in investment spending (particularly so in the advanced economies), which in turn stimulates faster consumer spending growth. Through the latter years of this decade though there is a cyclical slowdown in investment, while consumer spending is permanently higher thanks to the levels effect on wages. The assumption used in the high macro-economic scenario thus disproportionately benefits NEA (or more particularly, China) compared to other parts of the world economy (in particular those with a greater specialisation in investment goods such as Europe) because China's trade with the U.S. is more heavily tilted to the consumer sector. China's share of U.S. imports is therefore higher than the expected scenario over the long run.

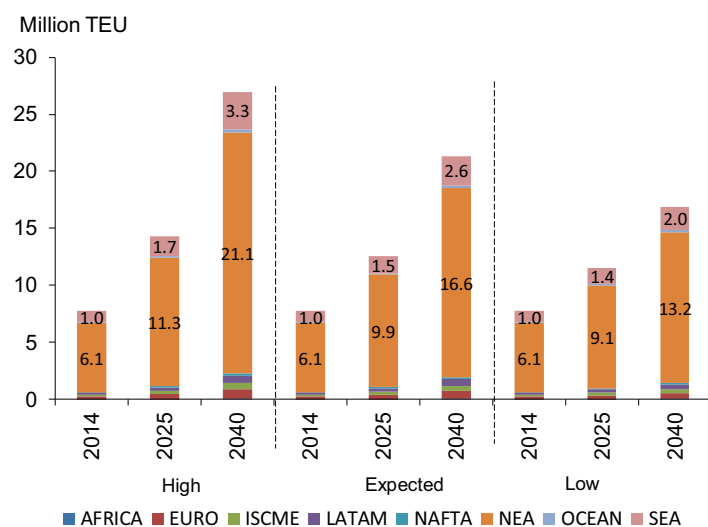
For the low scenario, it was found that the most likely negative risk to world growth in the current conjuncture is an adverse reaction in emerging markets to the Federal Reserve's tightening cycle. This would impact global trade and investment, but less severely on advanced economy consumer spending. So U.S. imports from China are less negatively impacted than imports from advanced economies, which have a greater specialization in investment goods. Again, China's share of U.S. imports rises versus the expected macro-economic scenario. Similar trends in the high and low scenarios for the forecast of imports are also observed with respect to the SEA shares, given the increased role for this region in providing manufactured goods, particularly at the lower end of the value chain such as apparel.

It is of course possible to construct scenarios in which China/NEA share of U.S. imports falls relative to the expected scenario. For example, a sharp rise in cost pressures in Chinese manufacturing would result in a loss of competitiveness, and share of U.S. imports. But given the overcapacity in many Chinese industrial sectors, this is not a risk that we consider particularly likely. Similarly, a sharp rise in oil prices

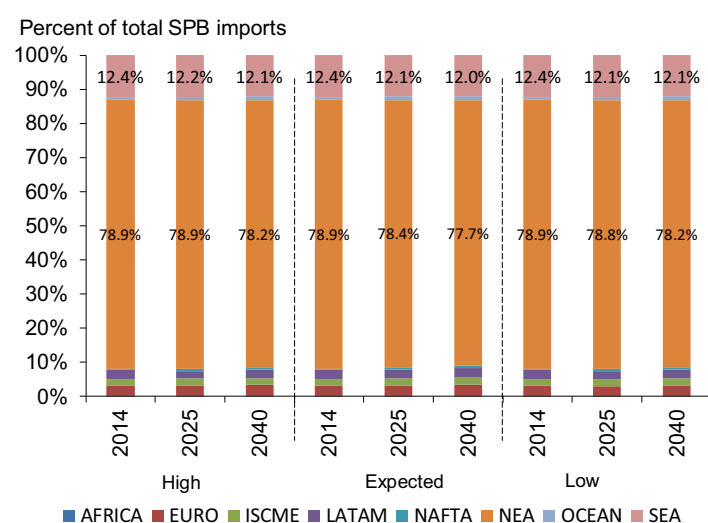
could raise global transport costs, again undermining China's ability to compete in U.S. markets versus closer emerging market regions. Again though, this does not strike us as an especially likely risk.

These trends are echoed at the SPB level, perhaps unsurprisingly so given that the SPB ports attract a larger share of overall import traffic between the U.S. and NEA region than they do for U.S. imports from the rest of the world.

**Figure 85: SPB Container Imports by Region and Scenario**



Source : Oxford Economics/Haver Analytics

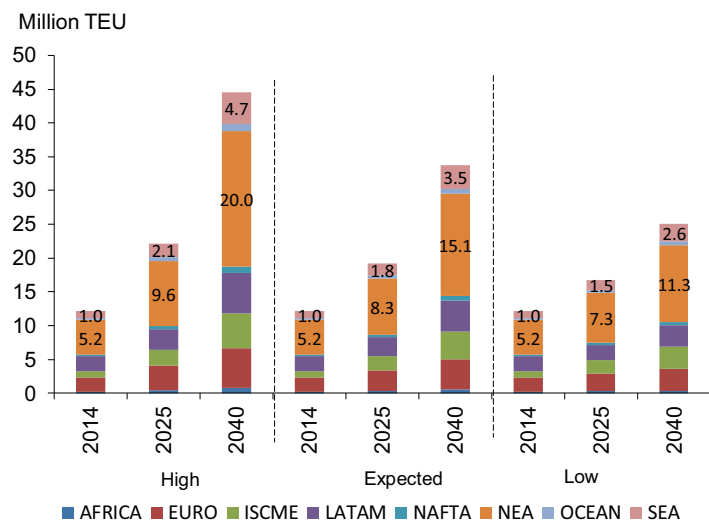


Source : Oxford Economics/Haver Analytics

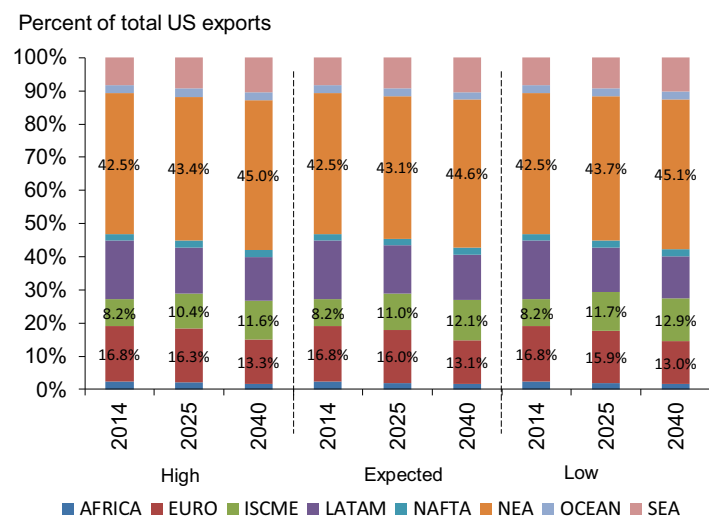
Changes in the geographical composition of U.S. and SPB exports across the three scenarios are considered here. Again, the NEA region typically gains share in both the high and low scenarios, although less markedly so than in the case of imports, and mainly in the low scenario. For the low scenario U.S. exports to the NEA region suffer less than shipments to other emerging market regions, given the relatively limited extent to which Chinese firms have been able in recent years to accumulate dollar-denominated debt compared to other emerging market firms (the key short-term “risk-trigger”).

Possibly of more interest is the ISCME region though, where the export response is more noticeable than for U.S. imports. This is because the region is less sensitive to the potential shock from rising Federal Reserve interest rates (the key short-term driver of the downside scenarios), given the lower degree of public and private debt in these economies. As such this region's demand for U.S. exports suffers less in the downside scenario than does demand in SEA and Latin America, where debt burdens are typically higher. On the other hand though, the region produces far less investment or consumer goods than other regions, and as such benefits less from the upside to global trade embedded in the high scenario than other regions do.

**Figure 86: US container exports by region and scenario**



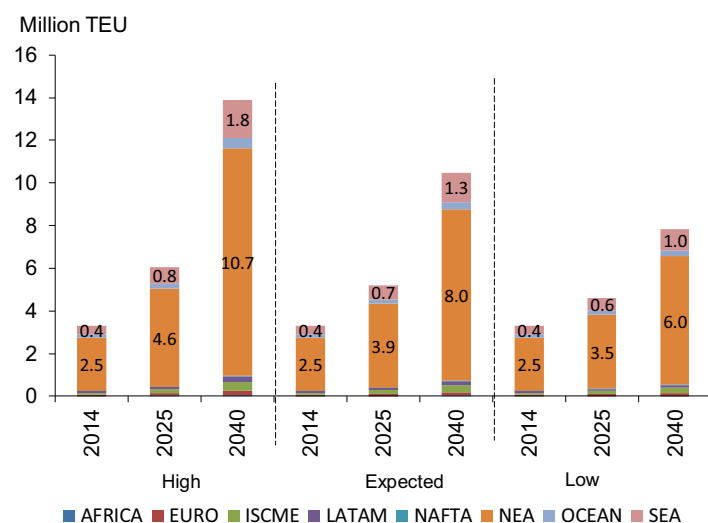
Source : Oxford Economics/Haver Analytics



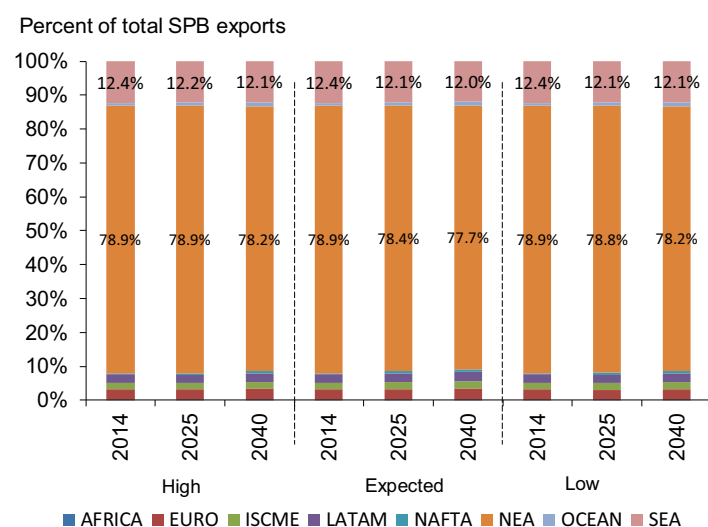
Source : Oxford Economics/Haver Analytics



Figure 87: SPB container exports by region and scenario



Source : Oxford Economics/Haver Analytics



Source : Oxford Economics/Haver Analytics

## 1.7 Integrated Base Case Forecast

### 1.7.1 Objective

In this section, the projected volume impacts of the competitive factor volume adjustment scenarios are integrated with the base case SPB Ports volume forecast of loaded international containers in order to form an adjusted forecast of international loaded import and export volumes. This adjusted forecast of loaded inbound and outbound volumes is then used to generate a forecast of empty container repositioning moves.

In addition, this section will also incorporate a forecast of SPB Ports' domestic volumes to provide a complete view of SPB Ports' total volume potential.

## 1.7.2 Forecast of International Container Volume

### 1.7.2.1 Loaded Volume Forecast

The following table provides a summary of the loaded volume generated by the base case macro-economic assumptions.

Figure 88: Unadjusted Base Case Loaded Volume Forecast

Year	Loaded Imports TEU		Loaded Exports TEU		Total TEU		LD IMP	LD EXP
	All USA	SPB Ports	All USA	SPB Ports	All USA	SPB Ports	SPB Ports/ All USA	SPB Ports/ All USA
2014	19,065,802	7,748,129	12,142,680	3,305,750	31,208,482	11,053,879	40.6%	27.2%
2015	20,244,198	7,879,847	12,535,937	3,080,959	32,780,136	10,960,806	38.9%	24.6%
2016	21,132,545	8,515,751	13,245,015	3,288,345	34,377,561	11,804,096	40.3%	24.8%
2017	21,966,540	8,876,960	13,763,769	3,441,669	35,730,309	12,318,629	40.4%	25.0%
2018	23,009,203	9,324,520	14,408,917	3,632,734	37,418,120	12,957,254	40.5%	25.2%
2019	24,103,089	9,783,914	15,081,664	3,830,746	39,184,754	13,614,660	40.6%	25.4%
2020	25,175,989	10,245,058	15,738,742	4,034,886	40,914,731	14,279,944	40.7%	25.6%
2021	26,227,744	10,700,748	16,389,359	4,255,022	42,617,103	14,955,770	40.8%	26.0%
2022	27,332,712	11,181,516	17,073,458	4,486,061	44,406,171	15,667,578	40.9%	26.3%
2023	28,390,809	11,643,719	17,725,166	4,713,404	46,115,976	16,357,124	41.0%	26.6%
2024	29,446,957	12,108,805	18,405,355	4,947,432	47,852,312	17,056,237	41.1%	26.9%
2025	30,527,904	12,583,523	19,165,995	5,205,416	49,693,898	17,788,938	41.2%	27.2%
2026	31,578,587	13,047,393	19,913,228	5,448,231	51,491,816	18,495,624	41.3%	27.4%
2027	32,673,797	13,526,226	20,690,146	5,723,570	53,363,943	19,249,796	41.4%	27.7%
2028	33,814,098	14,024,483	21,497,057	6,006,503	55,311,155	20,030,985	41.5%	27.9%
2029	35,004,305	14,540,782	22,341,084	6,301,491	57,345,388	20,842,273	41.5%	28.2%
2030	36,247,587	15,079,307	23,224,218	6,606,840	59,471,805	21,686,147	41.6%	28.4%
2031	37,534,891	15,638,081	24,140,852	6,930,231	61,675,743	22,568,313	41.7%	28.7%
2032	38,857,365	16,211,957	25,086,552	7,265,973	63,943,917	23,477,930	41.7%	29.0%
2033	40,216,855	16,801,308	26,062,536	7,616,068	66,279,391	24,417,377	41.8%	29.2%
2034	41,619,324	17,409,243	27,072,904	7,981,408	68,692,228	25,390,651	41.8%	29.5%
2035	43,056,867	18,031,410	28,112,749	8,360,105	71,169,616	26,391,514	41.9%	29.7%
2036	44,528,552	18,667,329	29,182,326	8,752,283	73,710,878	27,419,612	41.9%	30.0%
2037	46,042,175	19,318,691	30,286,326	9,157,430	76,328,501	28,476,121	42.0%	30.2%
2038	47,589,875	19,982,567	31,420,129	9,576,149	79,010,003	29,558,716	42.0%	30.5%
2039	49,163,131	20,654,701	32,578,223	10,008,555	81,741,354	30,663,256	42.0%	30.7%
2040	50,770,987	21,339,792	33,783,019	10,460,766	84,554,006	31,800,558	42.0%	31.0%

The data in the table above show that SPB Ports' share of loaded imports for the United States will increase slightly over the forecast period, while exports will see a much greater gain. That said, the volume of loaded exports are forecasted to remain well below import movements, thus loaded imports will remain the head-haul direction over the entire forecast period and continue to be the driver of total export volume.

### 1.7.2.2 Application of Competitive Factor Adjustment to Base Case Macro Forecast

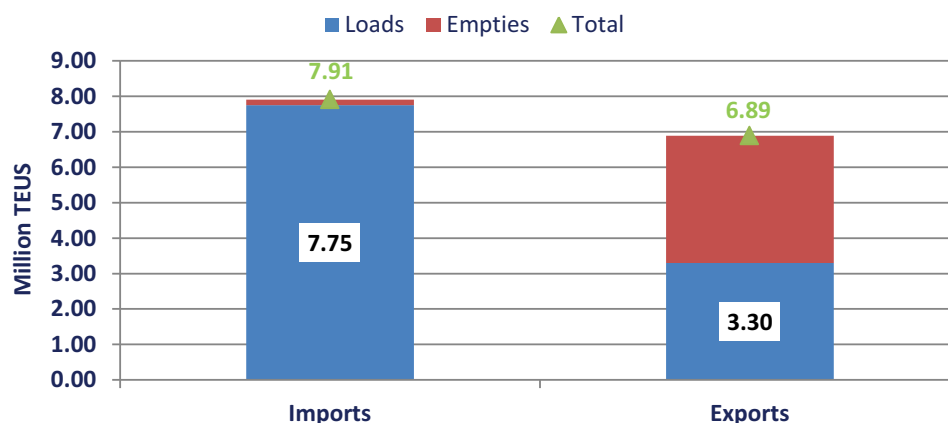
In order to integrate the competitive factor volume adjustment scenarios with the unadjusted loaded volume forecast the following assumptions were used:

1. **Changes in SPB Ports Competitiveness versus All-water Services:** The impact of this competitive factor on select IPI locations is projected to begin to occur in 2018, which is two years after the new locks at the Panama Canal are expected to open, because:
  - a. It will take some time for ocean carriers to deploy larger vessels through the Panama Canal and convince importers to switch to these services for the IPI locations identified as being at risk of diversion
  - b. The switch to all-water services will happen over a period of several years, as ocean carriers continue increasing the size of vessels in their all-water services in response to organic volume growth and increased use by importers bringing goods into IPI locations
  - c. The reduction in loaded import IPI volume will cause a corresponding drop in rail exports, but this drop will only affect empty container repositioning volumes, as ocean carriers will want to retain loaded exports from these location
    - i. The amount of rail empties that are lost due to rerouting to all-water routes will also take into account that some rail empties that are generated by import volumes via SPB Ports are currently being re-routed to other ports in order to take advantage of lower inland repositioning costs
2. **Increased Capacity at Prince Rupert's Container Terminal:** The opening of FCT's second berth in the second half of 2017 is expected to allow this facility to capture new services in 2020, which will cause SPB Ports to lose IPI volume in the following manner:
  - a. All the SPB Ports' volume that is expected to shift to Prince Rupert will do so once it attracts new first inbound calls
  - b. Empty export volumes will also shift to Prince Rupert with the attraction of new first inbound call.

### 1.7.2.3 Calculation of International Empty Movements

The normal practice for calculating the number of export empties involves subtracting loaded exports from loaded imports under the assumption that the system must be balanced in order to avoid a situation in which empty containers accumulate in the importing country while new boxes would need to be manufactured to serve the demands of net exporters. Such a balance is not achieved in SPB Ports where the total import volume is higher than the total export volume, as shown below.

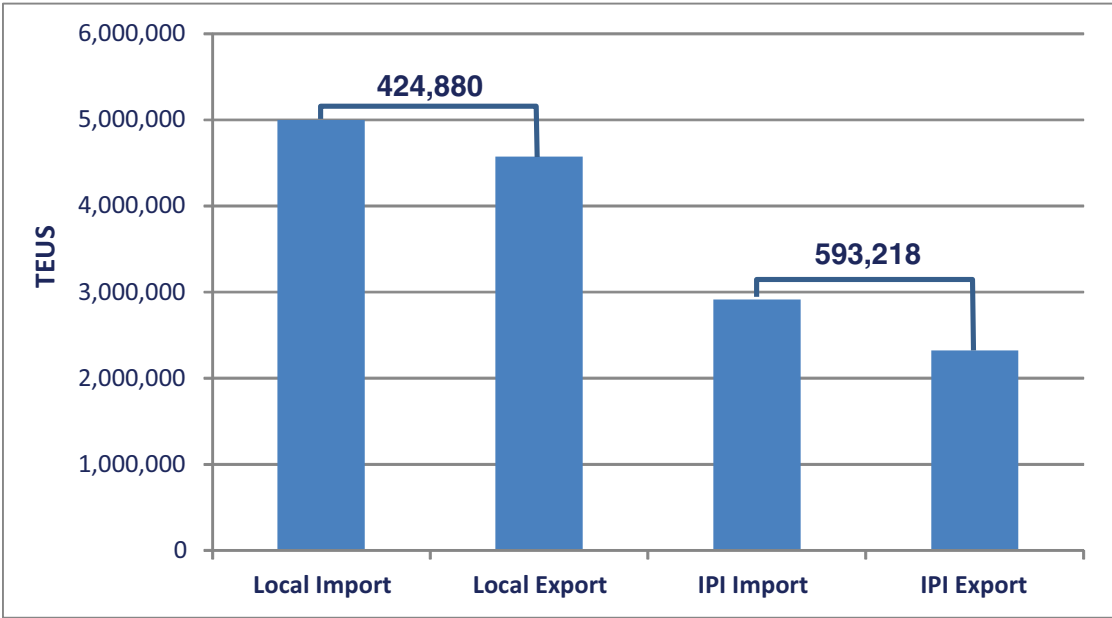
Figure 89: Review of SPB Ports Directional Balance for International Volume



As indicated above, only 2% of the SPB Port’s inbound containers are empties, which is to be expected, given the directional imbalance between inbound and outbound volumes of loaded boxes. The majority of the inbound empty movements are understood to be refrigerated containers, reflecting not only that westbound volumes of refrigerated commodities are higher than eastbound volumes of same, but also that the ocean freight rates for the westbound flows are high enough to support empty repositioning eastbound.

The chart below shows how this imbalance between total imports and exports is spread between local and IPI movements.

Figure 90: SPB Ports 2014 Imbalance of International by Movement Type



The chart highlights that ocean carriers are repositioning a significant volume of the inbound containers they move through SPB Ports out of country through other gateways. However, 91% of inbound Gate moves are returned as export loads and empties. This means that 9% of inbound containers are repositioned through other gateways. This ratio is in line with North American norms. The reason ports can see an imbalance is that there are often timing issues that cause a small percentage imbalance between import and export moves. This happens during periods of growth when containers brought in during time period 1 exit the country in time period 2. Additionally, almost all the services calling SPB Ports go on to stop in Oakland, and this port handled near 200,000 more export TEUs than import TEUs. Therefore, it is felt that the additional export moves Oakland handles are generated by import boxes that arrive at terminals in SPB.

The deficit in IPI movements is caused by the repositioning of import rail shipments via SPB Ports through ports along the Atlantic and Gulf Coasts. The primary reason that ocean carriers are routing boxes that arrived at SPB Ports through alternative ports is to take advantage of lower rail transport costs, thus lowering inland costs associated with repositioning boxes.

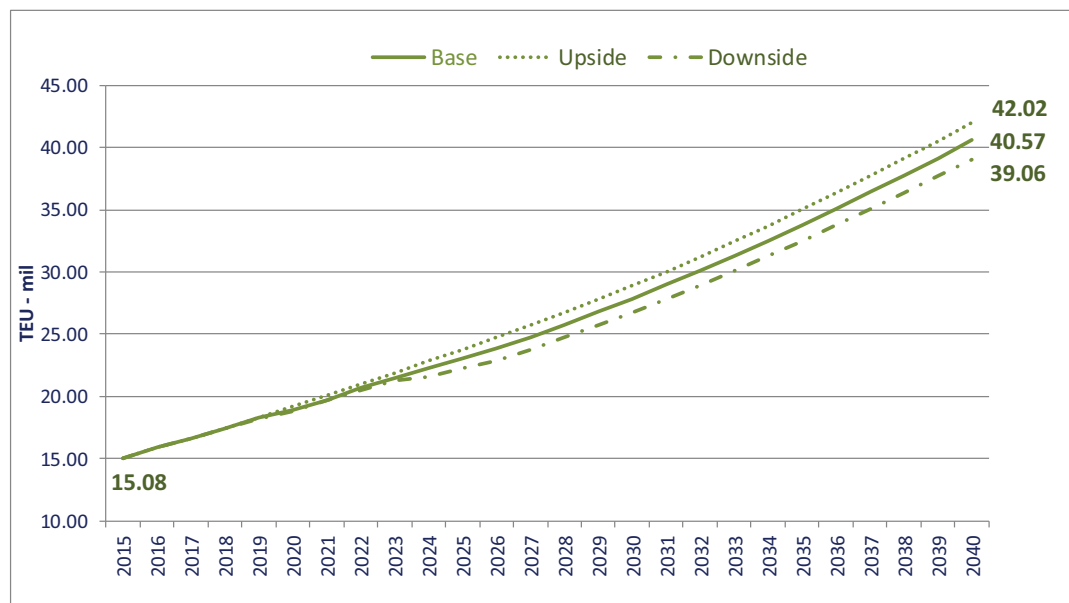
It is believe that the conditions that caused the imbalances between SPB Ports' total import and export volume by movement type will remain in place over the forecast period. Thus the following assumptions were used to calculate empty repositioning volumes, based on existing ratios:

1. **Local - Export Empties:** 63% (3.1 mil local empty exports / 4.8 mil local loaded imports) of loaded import moves via SPB Ports' gates will be returned as empties
2. **Rail – Export Empties:** 18% (0.5 mil rail empty exports / 2.9 mil local loaded imports) of loaded IPI imports will move out of the port area as empties
3. **Local – Import Empties:** This category of empties will grow in-line with loaded local exports for SPB Ports
4. **Rail – Import Empties:** This category of empties will grow in-line with loaded IPI exports for SPB Ports

The assumptions outlined above have been combined with the forecast of loaded import and export volumes generated under the base case macroeconomic assumptions to produce the following projection of SPB Ports' international volumes through 2040.

Figure 91: Summary of SPB Ports' International Volume Forecast - Expected Macro-economic Assumptions

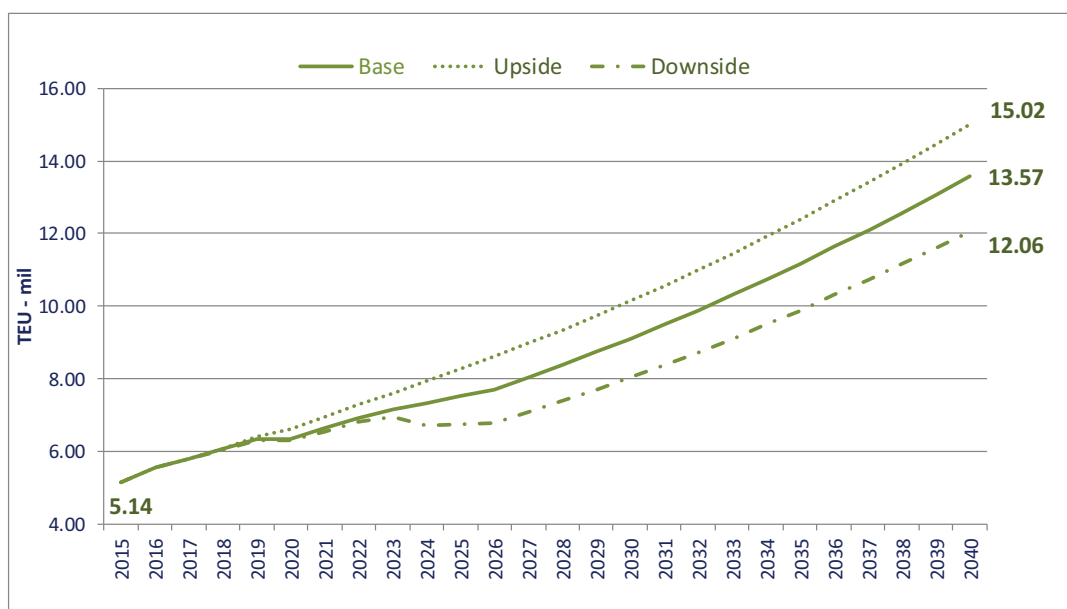
Year	TEU Mil			Growth Rate		
	Base	Upside	Downside	Base	Upside	Downside
2015	15.08	15.08	15.08			
2016	15.91	15.91	15.91	5.5%	5.5%	5.5%
2017	16.60	16.60	16.60	4.3%	4.3%	4.3%
2018	17.43	17.46	17.41	5.0%	5.2%	4.9%
2019	18.29	18.34	18.24	4.9%	5.0%	4.8%
2020	18.88	19.16	18.83	3.2%	4.4%	3.2%
2021	19.74	20.05	19.66	4.5%	4.7%	4.4%
2022	20.64	20.99	20.53	4.6%	4.7%	4.4%
2023	21.45	21.91	21.24	3.9%	4.3%	3.5%
2024	22.23	22.83	21.61	3.7%	4.2%	1.7%
2025	23.05	23.79	22.27	3.7%	4.2%	3.1%
2026	23.82	24.72	22.88	3.4%	3.9%	2.8%
2027	24.77	25.70	23.80	4.0%	4.0%	4.0%
2028	25.76	26.73	24.76	4.0%	4.0%	4.0%
2029	26.79	27.79	25.75	4.0%	4.0%	4.0%
2030	27.85	28.89	26.78	4.0%	4.0%	4.0%
2031	28.97	30.04	27.85	4.0%	4.0%	4.0%
2032	30.12	31.23	28.96	4.0%	3.9%	4.0%
2033	31.30	32.45	30.11	3.9%	3.9%	3.9%
2034	32.53	33.72	31.29	3.9%	3.9%	3.9%
2035	33.79	35.02	32.51	3.9%	3.9%	3.9%
2036	35.08	36.35	33.76	3.8%	3.8%	3.8%
2037	36.41	37.72	35.04	3.8%	3.8%	3.8%
2038	37.77	39.13	36.35	3.7%	3.7%	3.8%
2039	39.15	40.56	37.69	3.7%	3.7%	3.7%
2040	40.57	42.02	39.06	3.6%	3.6%	3.6%
<b>CAGR</b>	<b>4.0%</b>	<b>4.2%</b>	<b>3.9%</b>			



A summary of SPB Ports' IPI volume over the forecast period is provided below as this market is where the volume adjustments were made due to the analysis of changes in these ports competitiveness.

**Figure 92: Volume Forecast of SPB Ports' IPI Volume – Expected Macro-economic Assumptions**

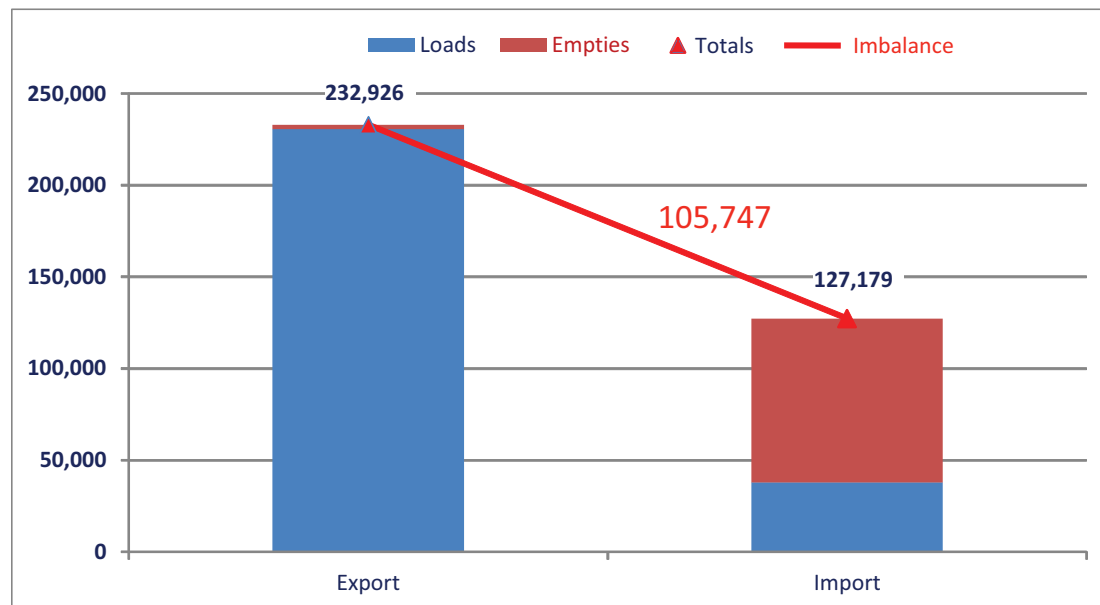
Year	TEU Mil			Growth Rate		
	Base	Upside	Downside	Base	Upside	Downside
2015	5.14	5.14	5.14			
2016	5.54	5.54	5.54	7.8%	7.8%	7.8%
2017	5.78	5.78	5.78	4.4%	4.4%	4.4%
2018	6.06	6.08	6.03	4.8%	5.2%	4.4%
2019	6.34	6.39	6.29	4.7%	5.1%	4.2%
2020	6.35	6.63	6.30	0.2%	3.7%	0.2%
2021	6.63	6.94	6.55	4.4%	4.8%	3.9%
2022	6.92	7.27	6.81	4.4%	4.8%	4.0%
2023	7.14	7.60	6.93	3.2%	4.5%	1.9%
2024	7.34	7.93	6.71	2.7%	4.3%	-3.3%
2025	7.54	8.28	6.76	2.7%	4.4%	0.7%
2026	7.71	8.61	6.78	2.4%	4.0%	0.3%
2027	8.04	8.97	7.07	4.3%	4.2%	4.4%
2028	8.38	9.35	7.38	4.2%	4.2%	4.3%
2029	8.74	9.73	7.70	4.2%	4.2%	4.3%
2030	9.10	10.14	8.03	4.2%	4.2%	4.3%
2031	9.49	10.56	8.37	4.2%	4.2%	4.3%
2032	9.89	11.00	8.73	4.2%	4.1%	4.3%
2033	10.30	11.45	9.11	4.2%	4.1%	4.3%
2034	10.73	11.92	9.49	4.2%	4.1%	4.2%
2035	11.17	12.40	9.89	4.1%	4.0%	4.2%
2036	11.63	12.90	10.30	4.1%	4.0%	4.2%
2037	12.09	13.41	10.73	4.0%	4.0%	4.1%
2038	12.57	13.93	11.16	4.0%	3.9%	4.1%
2039	13.07	14.47	11.61	3.9%	3.8%	4.0%
2040	13.57	15.02	12.06	3.9%	3.8%	3.9%
<b>CAGR</b>	<b>4.0%</b>	<b>4.4%</b>	<b>3.5%</b>			



### 1.7.3 Forecast of SPB Ports Domestic Volume

SPB Ports' domestic volumes are primarily driven by loaded export volumes to Hawaii, as illustrated in the following chart.

Figure 93: Composition of SPB Ports 2014 Domestic Volume - TEUs



The chart above also shows that there is just over a 100,000 TEU difference between total imports and exports. The difference between domestic export and import volumes is attributed to Matson having a service that moves units to Hawaii and Guam, but then takes the empty boxes generated by this leg of the voyage to Asia, where they are loaded with goods destined for U.S. markets.

Unlike SPB Ports' international market – where growth is tied to the country's overall economic performance – changes in these ports' domestic volumes are driven by demographic and economic trends in Hawaii. Therefore, it is assumed that SPB Ports' domestic loaded exports will grow at the following rates:

- Base Case – 1.5%
- Upside – 2.0%
- Downside – 0.75%

The other volume categories in the domestic market segment are expected to grow at the same rate.



Figure 94: Summary of SPB Ports' Domestic Volume Forecast

Year	TEU / 000			Growth Rate		
	Base	Upside	Downside	Base	Upside	Downside
2015	365.5	365.5	365.5			
2016	371.0	372.8	368.2	1.5%	2.0%	0.75%
2017	376.6	380.3	371.0	1.5%	2.0%	0.75%
2018	382.2	387.9	373.8	1.5%	2.0%	0.75%
2019	387.9	395.6	376.6	1.5%	2.0%	0.75%
2020	393.8	403.5	379.4	1.5%	2.0%	0.75%
2021	399.7	411.6	382.3	1.5%	2.0%	0.75%
2022	405.7	419.9	385.1	1.5%	2.0%	0.75%
2023	411.7	428.2	388.0	1.5%	2.0%	0.75%
2024	417.9	436.8	390.9	1.5%	2.0%	0.75%
2025	424.2	445.6	393.9	1.5%	2.0%	0.75%
2026	430.5	454.5	396.8	1.5%	2.0%	0.75%
2027	437.0	463.6	399.8	1.5%	2.0%	0.75%
2028	443.6	472.8	402.8	1.5%	2.0%	0.75%
2029	450.2	482.3	405.8	1.5%	2.0%	0.75%
2030	457.0	491.9	408.9	1.5%	2.0%	0.75%
2031	463.8	501.8	411.9	1.5%	2.0%	0.75%
2032	470.8	511.8	415.0	1.5%	2.0%	0.75%
2033	477.8	522.0	418.1	1.5%	2.0%	0.75%
2034	485.0	532.5	421.3	1.5%	2.0%	0.75%
2035	492.3	543.1	424.4	1.5%	2.0%	0.75%
2036	499.7	554.0	427.6	1.5%	2.0%	0.75%
2037	507.2	565.1	430.8	1.5%	2.0%	0.75%
2038	514.8	576.4	434.0	1.5%	2.0%	0.75%
2039	522.5	587.9	437.3	1.5%	2.0%	0.75%
2040	530.3	599.7	440.6	1.5%	2.0%	0.75%
<b>CAGR</b>	<b>1.5%</b>	<b>2.0%</b>	<b>0.8%</b>			

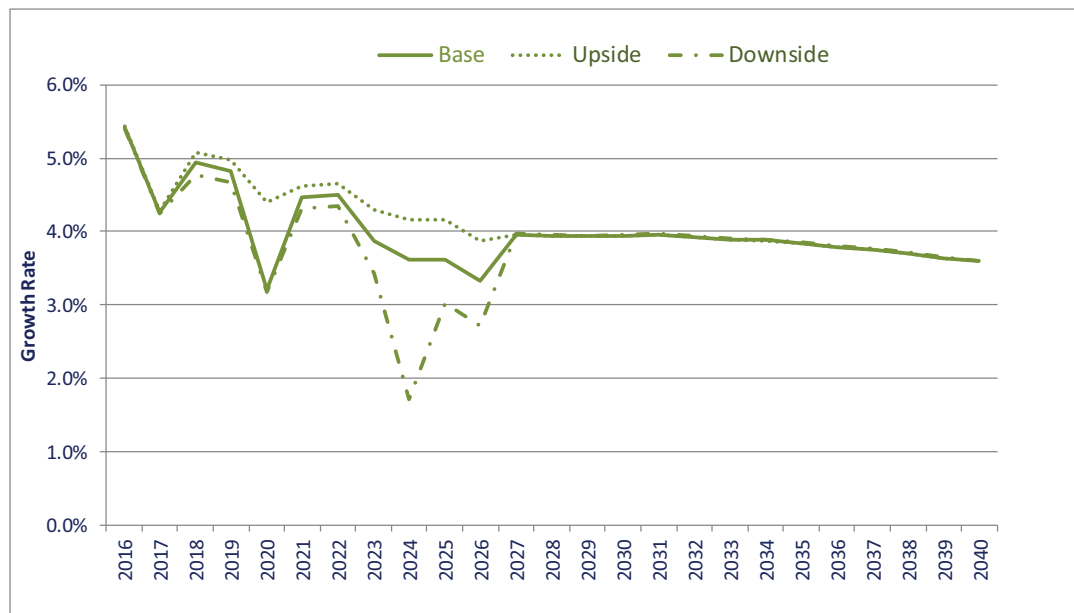
## 1.7.4 Consolidated Forecast for SPB Ports

### 1.7.4.1 Base Case Macro-economic Assumptions

The table and chart below provide a consolidated forecast of SPB ports' container volume based on the projection of loaded international volume from the base case macro-economic assumptions combined with domestic volumes and the estimate of empty movement that would result from directional imbalances. These numbers also incorporate the impact of competitive factor on rail loaded and empty movements over the forecast period.

Figure 95: Summary of SPB Ports' Forecasted Throughput – Expected Macro-economic Assumptions

Year	TEU Mil			Growth Rate		
	Base	Upside	Downside	Base	Upside	Downside
2015	15.4	15.4	15.4			
2016	16.3	16.3	16.3	5.4%	5.4%	5.4%
2017	17.0	17.0	17.0	4.3%	4.3%	4.3%
2018	17.8	17.8	17.8	4.9%	5.1%	4.8%
2019	18.7	18.7	18.6	4.8%	5.0%	4.7%
2020	19.3	19.6	19.2	3.2%	4.4%	3.2%
2021	20.1	20.5	20.0	4.5%	4.6%	4.3%
2022	21.0	21.4	20.9	4.5%	4.6%	4.4%
2023	21.9	22.3	21.6	3.9%	4.3%	3.4%
2024	22.7	23.3	22.0	3.6%	4.2%	1.7%
2025	23.5	24.2	22.7	3.6%	4.2%	3.0%
2026	24.2	25.2	23.3	3.3%	3.9%	2.7%
2027	25.2	26.2	24.2	4.0%	4.0%	4.0%
2028	26.2	27.2	25.2	3.9%	3.9%	4.0%
2029	27.2	28.3	26.2	3.9%	3.9%	3.9%
2030	28.3	29.4	27.2	3.9%	3.9%	3.9%
2031	29.4	30.5	28.3	4.0%	4.0%	4.0%
2032	30.6	31.7	29.4	3.9%	3.9%	3.9%
2033	31.8	33.0	30.5	3.9%	3.9%	3.9%
2034	33.0	34.2	31.7	3.9%	3.9%	3.9%
2035	34.3	35.6	32.9	3.8%	3.8%	3.8%
2036	35.6	36.9	34.2	3.8%	3.8%	3.8%
2037	36.9	38.3	35.5	3.8%	3.7%	3.8%
2038	38.3	39.7	36.8	3.7%	3.7%	3.7%
2039	39.7	41.1	38.1	3.6%	3.6%	3.7%
2040	41.1	42.6	39.5	3.6%	3.6%	3.6%
<b>CAGR</b>	<b>4.0%</b>	<b>4.1%</b>	<b>3.8%</b>			



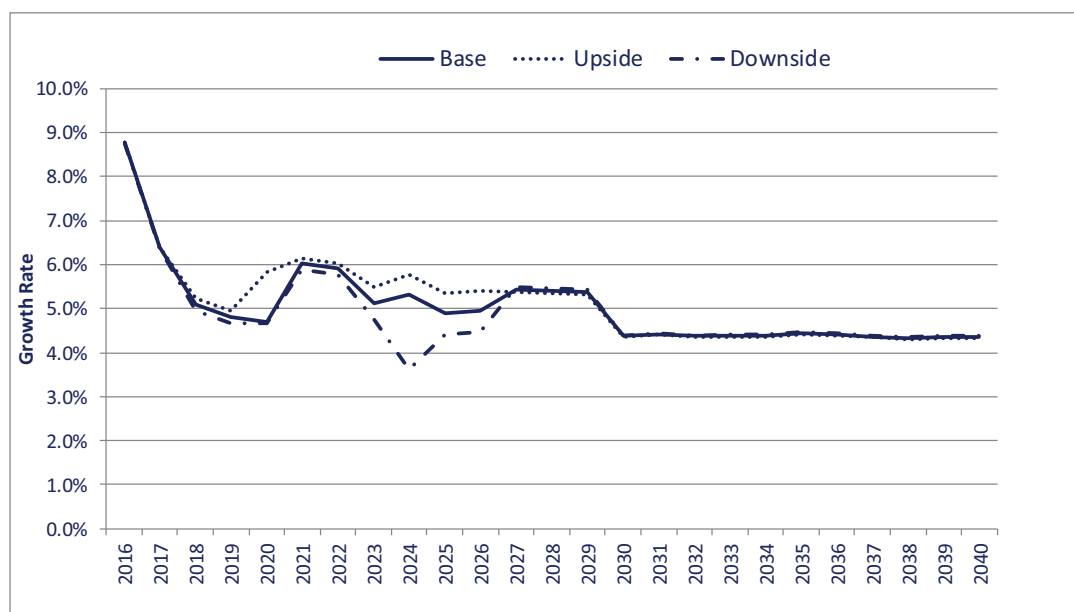
A breakdown of this port area's volume forecast by market segment and movement type can be found in Appendix 2.

### 1.7.4.2 High Macro-economic Scenario

The loaded international volume from the macro-economic assumptions from the Low scenario were used with the projection of domestic volumes and the estimate of empty movement generated from directional imbalances, as well as incorporating the impact of competitive factor on IPI movements.

Figure 96: Summary of SPB Ports' Forecasted Throughput – High Macro-economic Assumptions

Year	TEU Mil			Growth Rate		
	Base	Upside	Downside	Base	Upside	Downside
2015	15.4	15.4	15.4			
2016	16.8	16.8	16.8	8.8%	8.8%	8.7%
2017	17.9	17.9	17.9	6.4%	6.4%	6.4%
2018	18.8	18.8	18.8	5.1%	5.2%	5.0%
2019	19.7	19.7	19.6	4.8%	5.0%	4.7%
2020	20.6	20.9	20.5	4.7%	5.8%	4.7%
2021	21.9	22.2	21.8	6.0%	6.1%	5.9%
2022	23.1	23.5	23.0	5.9%	6.0%	5.8%
2023	24.3	24.8	24.1	5.1%	5.5%	4.7%
2024	25.6	26.2	25.0	5.3%	5.8%	3.6%
2025	26.9	27.6	26.1	4.9%	5.4%	4.4%
2026	28.2	29.1	27.2	5.0%	5.4%	4.5%
2027	29.7	30.7	28.7	5.4%	5.4%	5.5%
2028	31.3	32.3	30.3	5.4%	5.3%	5.5%
2029	33.0	34.1	31.9	5.4%	5.3%	5.4%
2030	34.5	35.5	33.4	4.4%	4.4%	4.4%
2031	36.0	37.1	34.8	4.4%	4.4%	4.4%
2032	37.6	38.7	36.4	4.4%	4.4%	4.4%
2033	39.2	40.4	38.0	4.4%	4.4%	4.4%
2034	40.9	42.2	39.6	4.4%	4.4%	4.4%
2035	42.8	44.0	41.4	4.4%	4.4%	4.5%
2036	44.6	46.0	43.2	4.4%	4.4%	4.4%
2037	46.6	48.0	45.1	4.4%	4.3%	4.4%
2038	48.6	50.0	47.1	4.3%	4.3%	4.4%
2039	50.7	52.2	49.2	4.4%	4.3%	4.4%
2040	52.9	54.5	51.3	4.4%	4.3%	4.4%
<b>CAGR</b>	<b>5.1%</b>	<b>5.2%</b>	<b>4.9%</b>			



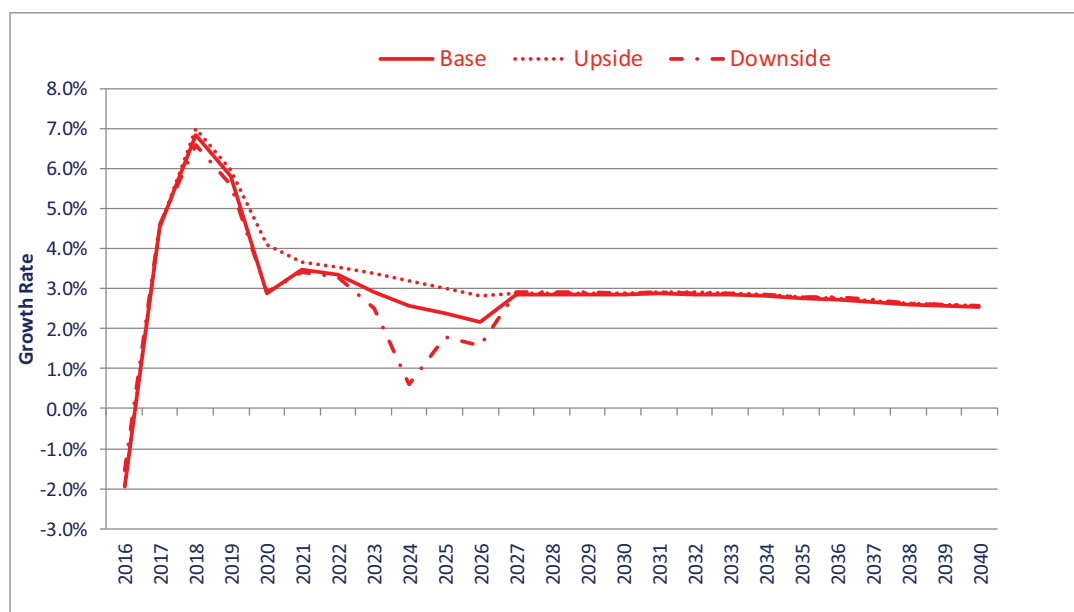
SPB Ports' volume forecast by market segment and movement type can be found in Appendix 3.

### 1.7.4.3 Low Macro-economic Scenario

The impact of the competitive factors were combined with the international loaded movements from the macro-economic assumptions from the high scenario and the projection of domestic volumes, as well as the estimate of empty movement generated from directional imbalances, to produce the follow summary of SPB Ports' projected volume.

Figure 97: Summary of SPB Ports' Forecasted Throughput Based on the Low Macro-economic Assumptions

Year	TEU Mil			Growth Rate		
	Base	Upside	Downside	Base	Upside	Downside
2015	15.4	15.4	15.4			
2016	15.1	15.1	15.2	-1.9%	-1.9%	-1.6%
2017	15.8	15.8	15.9	4.5%	4.5%	4.6%
2018	16.9	16.9	17.0	6.8%	7.0%	6.6%
2019	17.9	18.0	17.9	5.8%	6.0%	5.6%
2020	18.4	18.7	18.4	2.9%	4.1%	2.9%
2021	19.1	19.4	19.0	3.5%	3.6%	3.4%
2022	19.7	20.1	19.7	3.4%	3.5%	3.3%
2023	20.3	20.7	20.2	2.9%	3.4%	2.5%
2024	20.8	21.4	20.3	2.6%	3.2%	0.6%
2025	21.3	22.0	20.7	2.4%	3.0%	1.8%
2026	21.7	22.7	21.0	2.2%	2.8%	1.6%
2027	22.4	23.3	21.6	2.9%	2.9%	2.9%
2028	23.0	24.0	22.2	2.8%	2.9%	2.9%
2029	23.7	24.7	22.9	2.9%	2.9%	2.9%
2030	24.3	25.4	23.5	2.8%	2.9%	2.9%
2031	25.0	26.1	24.2	2.9%	2.9%	2.9%
2032	25.7	26.9	24.9	2.9%	2.9%	2.9%
2033	26.5	27.7	25.6	2.8%	2.9%	2.9%
2034	27.2	28.5	26.4	2.8%	2.9%	2.9%
2035	28.0	29.3	27.1	2.8%	2.8%	2.8%
2036	28.7	30.1	27.9	2.7%	2.8%	2.8%
2037	29.5	30.9	28.6	2.7%	2.7%	2.7%
2038	30.3	31.7	29.4	2.6%	2.6%	2.6%
2039	31.0	32.5	30.1	2.6%	2.6%	2.6%
2040	31.8	33.4	30.9	2.5%	2.6%	2.6%
<b>CAGR</b>	<b>2.9%</b>	<b>3.1%</b>	<b>2.8%</b>			



A detailed breakdown by market segment and movement type can be found in Appendix 4.

## 2 NON-CONTAINER MARKET

### 2.1 Objective

This section of the report is focused on:

- Identification of high volume non-container commodities
- Developing a long-term forecast for each of the high volume commodities identified
- Evaluation of the susceptibility to diversion for each of the high volume commodities
- Assessment of the competitive position of SPB Ports non-container facilities by cargo type
- Evaluation of diversion risk by commodity and terminal type
- Providing a long-term for each high volume commodity
- Identification any potential near-term non-container opportunities for SPB Ports

### 2.2 Identification of SPB Ports Primary Non-container Commodities

The chart below provides a summary of SPB Ports' high volume non-container commodities and their 2014 volume, based on data supplied by these ports' staffs.

Figure 98: Summary of SPB Ports' High Volume Non-container Commodities for 2014

TERMINAL TYPE	COMMODITY	IMPORT	EXPORT
		M.TONS	M.TONS
LIQUID BULK	CRUDE OIL	23,003,349	
	OIL NOT Crude*	7,293,555	3,449,884
DRY BULK	PET COKE		5,150,982
	COAL		1,624,976
	METAL SCRAP		561,447
	GYPSUM	319,457	
	SALT	104,331	
BREAKBULK	METAL PRODS	2,744,894	
RORO	VEHICLES	606,092	45,170

\* Does not include pipeline volumes

The table above shows that import shipments of crude oil generate a large portion of SPB Ports non-container volume, but there are a number of other significant import commodities. Additionally, SPB Ports handles a number of high volume non-container exports, particularly in the dry bulk sector.

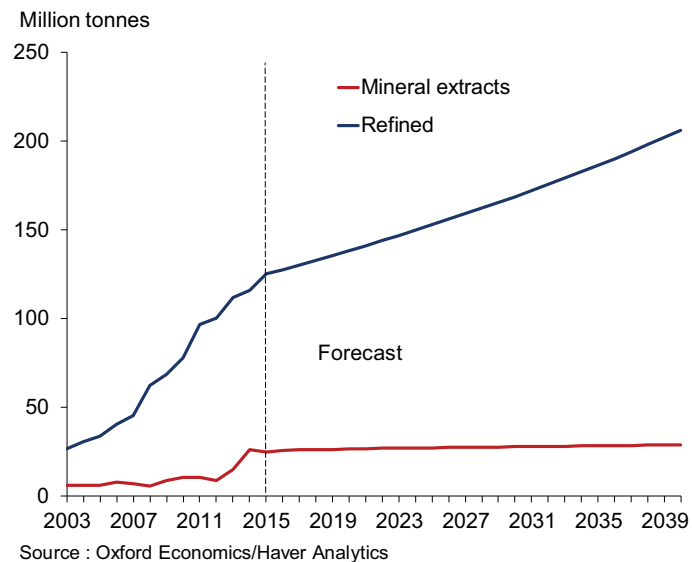
### 2.3 Long-term Volume Forecast for Non-container Movements

#### 2.3.1 Non-container Exports

Unlike the container market, the U.S. currently exports a broadly similar volume of non-containerized commodities as it imports. Over the coming decades it is expect that non-container exports will grow at a substantially higher rate than imports, largely as a result of divergent trends in the fuels sector.

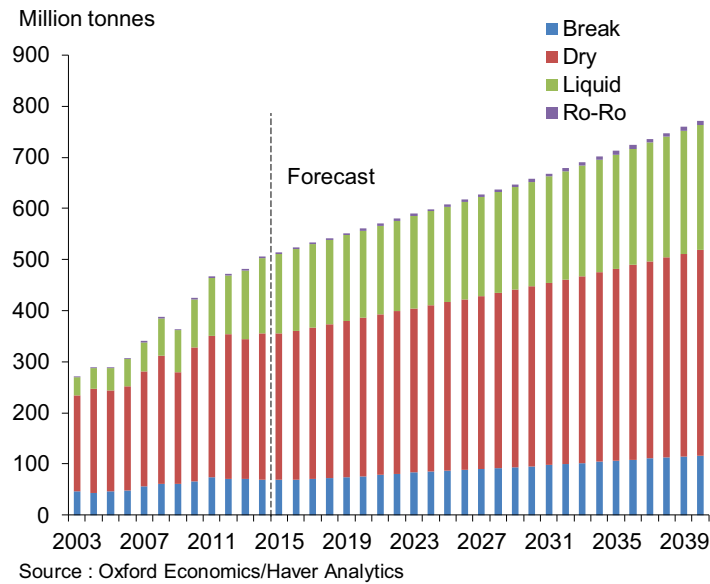
The U.S.'s imports of crude and refined oil are set to ease gradually long-term. However, U.S. restrictions on the export of crude oil means that it is not expected (at least in the base case) that this country's export of this product will increase significantly over the forecast period, but it is anticipated that refined oil exports will continue to grow rapidly during this timeframe. The base forecast is for liquid bulk mineral extracts (incorporating crude oil) to grow by around 0.6% per annum, and refined oil exports by 2% per year.

**Figure 99: US mineral extracts and refined oil exports**



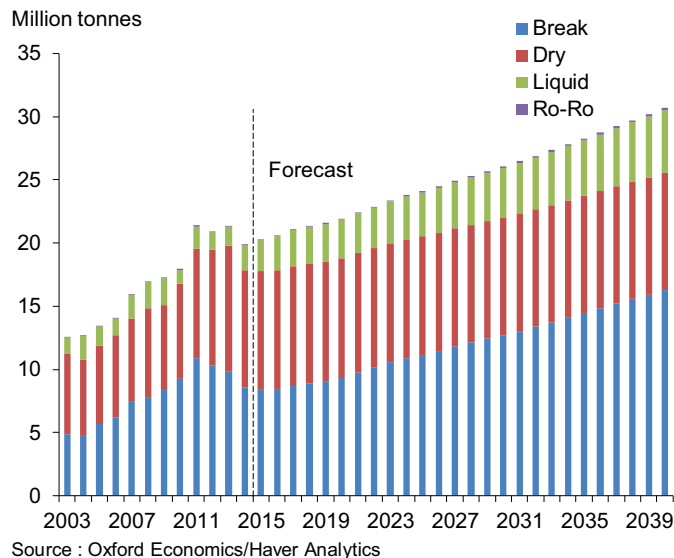
Additionally, it is expected that a modest decline in the U.S.'s exports of petroleum coke (PetCoke), coal and metals extracts will be experienced. The decline in these commodities is projected to around 1.4% per annum from 2015-2040. Dry bulk throughput tonnage will grow more slowly than either liquid bulk exports or break-bulk – which, as in the case of imports, have been grown in line with the appropriate container series.

Figure 100: U.S. Bulk Exports by Cargo Type



Using a comparable methodology to the container forecast, the shares of non-container exports from the U.S. that are expected to originate from SPB ports were projected through the forecast horizon. Aggregating these individual region-commodity combinations to an overall total produces the forecast set out in the following chart. Total non-container exports from the region are expected to grow by an average of around 1.6% per annum, around 0.5pp faster than at the national level.

Figure 101: SPB Ports Non-Container Exports by Type

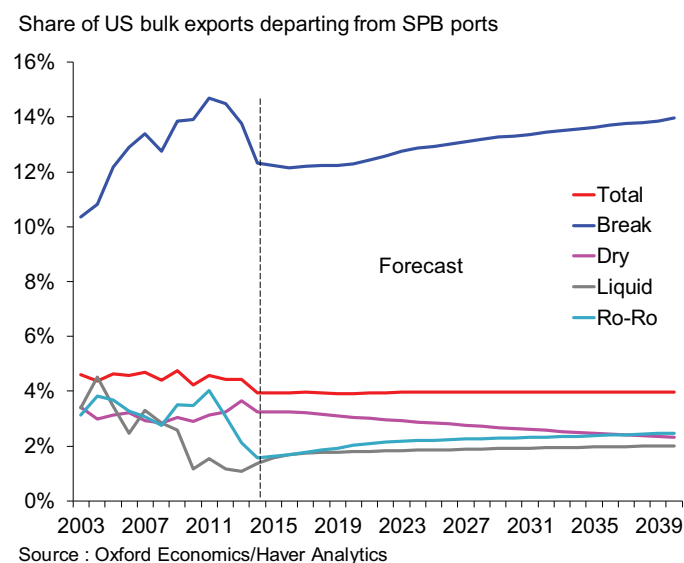


This outperformance is largely due to the fact that breakbulk exports from SPB Ports are likely to grow faster than at the US level over our forecast horizon. However, a “step down” in the SPB share of US total non-container exports is expected in 2015 as a result of the disruption in Q1, but over the forecast

horizon this port are will gain share of both containers and the corresponding breakbulk commodities – reaching 14% by 2040, up from 12.3% in 2014.

That said, the macro modelling suggests that the region will handle a falling share of dry bulk shipping. The SPB region’s agricultural sector will fall from contributing 23.5% of U.S. agricultural output in 2014 to 22% by 2040, while fuel manufacturing will fall from 16% of the U.S. total to 10%. These drivers will reduce the region’s share of dry bulk grains and PetCoke exports over our forecast horizon. The region is expected to produce a growing share of chemical and extraction outputs, but nevertheless in aggregate SPB’s share of total U.S. dry bulk exports will fall over the forecast horizon - from 3.3% in 2014 to 2.3% by 2040.

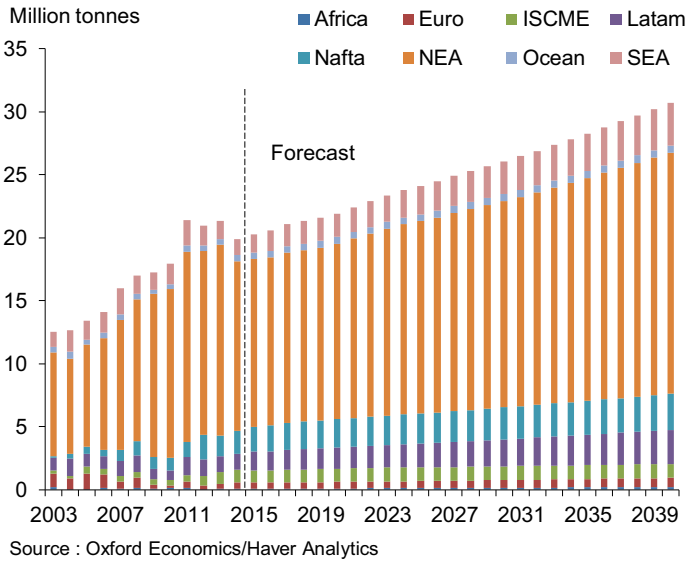
**Figure 102: SPB Ports' Non-container Exports, share of the U.S. Total by cargo Type**



Geographically, NEA expected to experience a modestly falling share of total bulk exports from SPB Ports (falling by 3pp to 62.3% by 2040), while the SEA region increases from 7% to 11%. This is in contrast to the behavior of the NEA share at the U.S. level, and likely reflects the fact that only a small share of fuels (one of the faster growing bulk exports and a key U.S.-China export driver) passes through the SPB Ports.

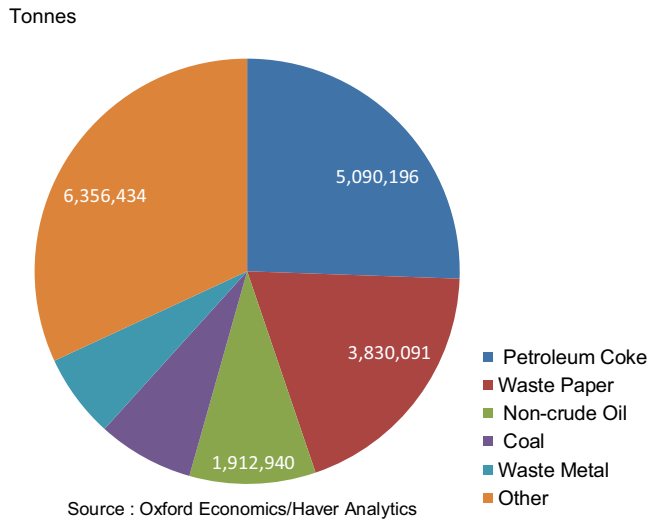


Figure 103: SPB Ports Non-container Exports, by Destination



Finally, before we consider non-container imports, it is worth discussing briefly our methodology for forecasting exports of Petroleum Coke (PetCoke). PetCoke accounts for a relatively small proportion (around 8%) of total US non-container exports by weight, but this proportion is much higher (around a quarter) for the SPB ports. As such, we very briefly here discuss our methodology for PetCoke exports forecasting at the US level.

Figure 104: SPB Bulk Exports by Cargo Type



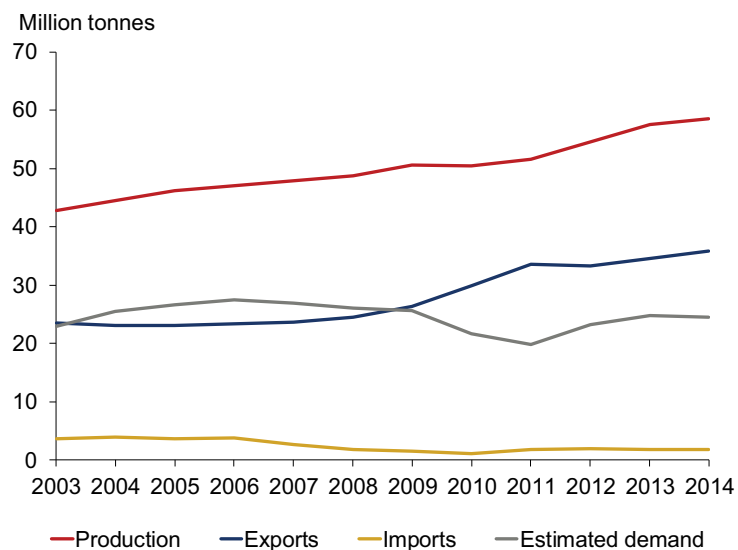
Logically it can be seen that the demand for PetCoke in the U.S. is the difference between total production, imports and exports, as shown below:

$$\text{Domestic demand} = \text{Domestic production} + \text{imports} - \text{exports}$$

An estimate was made of the path in production of petroleum coke using a projection for 1) total oil refining activity, and 2) guidance from the Energy Information Agency over the production of refined products from crude oil.

Specifically, EIA guidance suggests that 1 m.tons of PetCoke is produced when 5.5 barrels of oil are refined. Using the EIA data for the barrels oil being refined per day, and applying this conversion factor yields an estimate of historic PetCoke production within the U.S. Using U.S. Census data for PetCoke imports and exports from 2003 to 2014, and performing the above calculation, an estimate of PetCoke demand in the U.S. was derived over this period (see below).

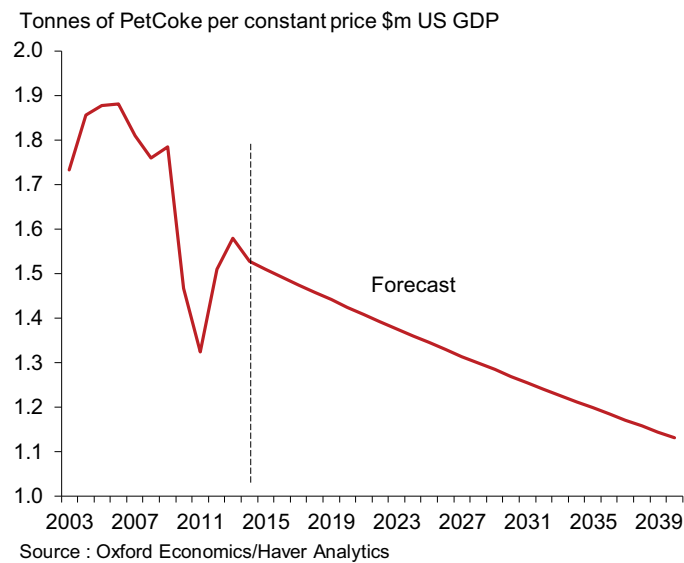
**Figure 105: US PetCoke Demand, Production, Imports and Exports**



Source : Oxford Economics/Haver Analytics

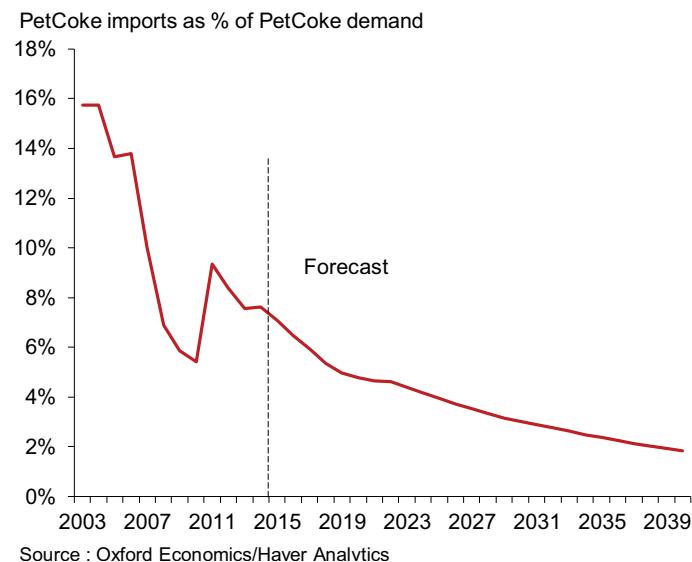
Since PetCoke produces more harmful emissions than other forms of fuel, its relative role in providing energy in the U.S. has declined in recent years. However, demand does seem to have picked up a little in the past couple of years, perhaps in response to lower prices, itself related to the greater volume of refinery activity in the U.S. Provided below is a projection of PetCoke intensity of GDP using the average trend in this variable from the period over based on an of estimate demand (i.e. the period for which we have census data for imports and exports). This implies that by 2040, for every \$m of constant price GDP, we expect 1.1 m.tons of PetCoke to be demanded.

**Figure 106: US PetCoke use relative to GDP**



PetCoke imports were forecasted by first projecting forward the share of demand that is satisfied by imports. This has trended downwards over the long run, and in spite of a rebound through 2011-2012, this trend is expected to continue through the forecast period. Just 2% of PetCoke demand will be accounted for by imports by 2040, with domestic production accounting for the rest.

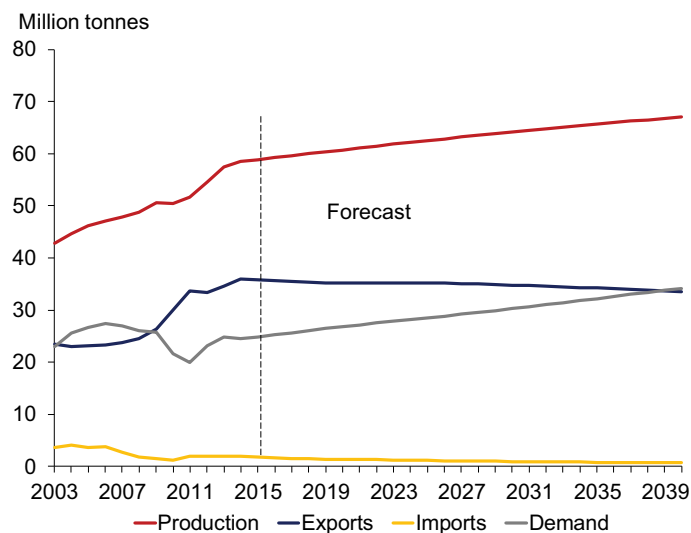
**Figure 107: Imports as a share of US PetCoke demand**



Combining these trends in PetCoke demand, production, and imports, and using exports as the residual produces the forecasts set out in the chart below. It is expected that this commodity will experience a modest increase in demand over the coming couple of decades, rising to 34m tonnes by 2040 (from 25m in 2014). Alongside a gradual decline in imports (to 0.6m, from 1.8m in 2014) much of the increase in

production will be absorbed domestically. Exports of PetCoke are therefore expected to decline gradually through our forecast horizon, at a rate of around 0.3% per annum at the US level.

**Figure 108: US PetCoke demand, production, imports and exports**



Source : Oxford Economics/Haver Analytics

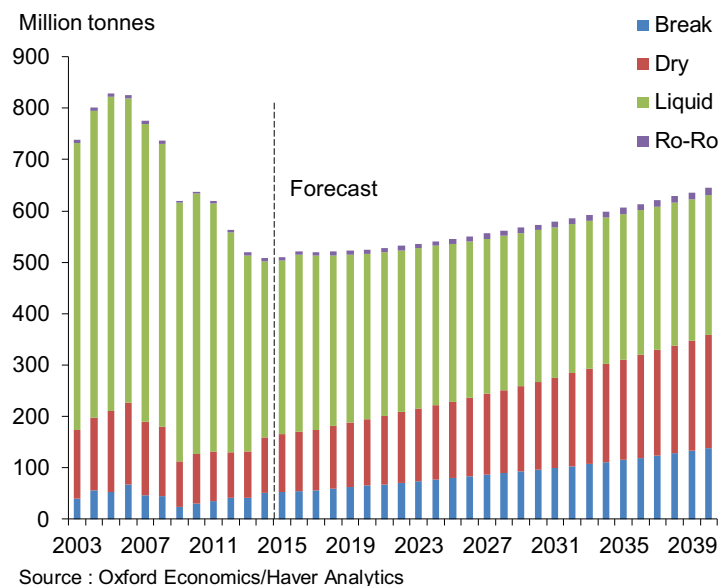
### 2.3.2 Non-container Imports

The methodology to forecast non-container imports follows a similar logic to that deployed in the container projections. Specifically, where there is a product matching between the types of goods carried in containers and those carried in bulk, growth rates derived in the containers work were applied to the appropriate non-container flow. This applies across the non-bulk cargo types (e.g. since food can be carried in both dry bulk and liquid bulk forms, imports/exports from/to the US by region in these bulk categories grow at the same rates as the respective container flow for food).

Of course, in a number of areas this type of matching is not appropriate, and as such a different approach was used. In the cases of oil and refined oil, total imports and exports to/from the U.S. were forecasted forward based on a combination of short-term numbers taken from the Energy Information Agency (for 2015) and the medium- and long-term forecasts from Oxford's macro model. Next projected growth in supply from/exports to partner regions was forecasted using these regions' growth rates in supply/demand for oil.

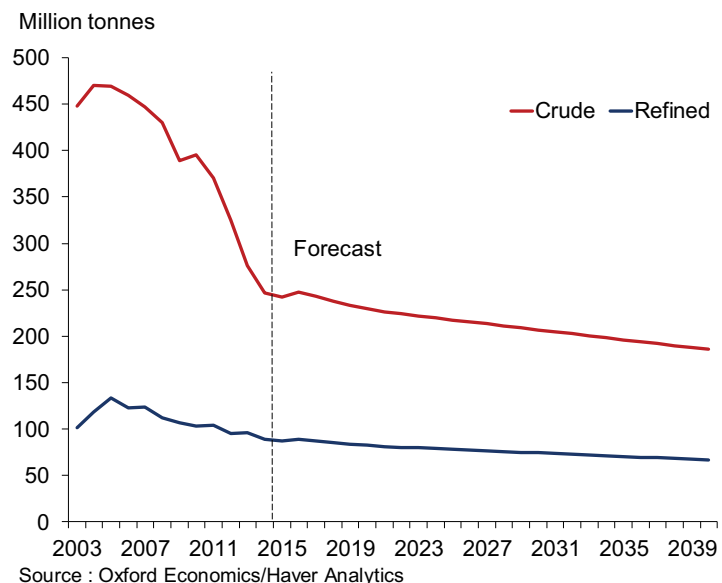
Once the expected paths for non-container imports and exports were forecasted at the U.S. level, projected changes in the shares of each region-commodity-cargo type-flow combination that would be arriving into or departing from SPB ports were calculated. Again, these equations used a range of variables, including the SPB share of U.S. GDP in relevant economic sectors, and time trends. However, as noted earlier, the relatively short time run of data (2003-2014) and the incidence of the global economic downturn, does make estimating these kinds of equations difficult.

Figure 109: U.S. Imports of Bulk Materials



Domestic oil production grew from 5.2m bpd in 2005 to 8 Bulk imports have fallen over most of the last decade, largely as a result of falling liquid bulk arrivals, which fell from over 600m tonnes at peak in 2005 to 343m tonnes in 2014. The great majority of this decline in bulk imports is due to lower imports of crude oil, though refined oil imports have declined as well. Crude oil and refined product imports fell by 220m tonnes and 45m tonnes, respectively, over this period as.7m in 2014.

Figure 110: U.S. Imports of Crude and Refined Oil



Looking ahead it is believed that the bulk of the increases in U.S. oil production have already occurred, as oil prices are projected to remain lower than they have been in the past, which has already caused investment into the sector to fall markedly in the past couple of years, and as such, a far more gradual

decline in oil imports is forecasted – driven as much by ongoing declines in oil-intensity of economic activity in the U.S. as by rising oil production. Similarly, refined oil imports are projected to continue to fall, but at a more gradual rate than in the recent past. Over the long run, an average annual decline in imports of both crude and refined oil of around 1% per annum is forecasted. Overall, liquid bulk is expected to make up just about 42% of total non-containerized imports by 2040, 25pp lower than 2014.

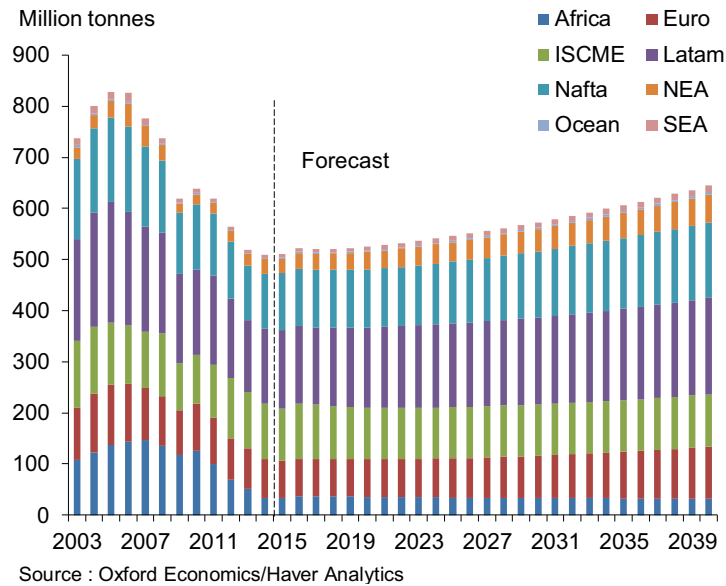
Other principle drivers of bulk import demand include products demanded by the construction sector, which we estimate accounted for around 40% of total dry bulk imports<sup>8</sup> in 2014. After growing by an average of 6% per annum from 2003 (the start of the dataset) to 2006, imports in the dry bulk category fell by almost 50% between 2006 and 2009, as investment in new buildings fell by 40%. Both have since gradually recovered (investment in buildings is up 15% (2014 versus 2009), and dry bulk imports up over 12%. Looking ahead, we expect a long run growth rate of around 3% per annum in total US imports in the dry bulk sector. Dry bulk will therefore rise from 21% of total non-container arrivals into the U.S. by weight in 2014 to 34% by 2040.

Breakbulk cargo is more diversified than dry and liquid bulks, which tend to be dominated by a relatively small number of individual items (the top 10 liquid bulk categories provide over 99% of total liquid bulk imports, and 76% in the case of dry – the corresponding figure in the case of breakbulk is 64%). As such we do not consider individual items in detail here, other than to note that we expect breakbulk categories to grow in line with the corresponding container import product group. This produces an aggregate growth rate of around 4% per annum from 2015-2040 – modestly above our growth forecast for overall U.S. container imports over this period (3.7%). Breakbulk should account for 21% of total non-container imports into the US by 2040, up from just under 10% in 2014.

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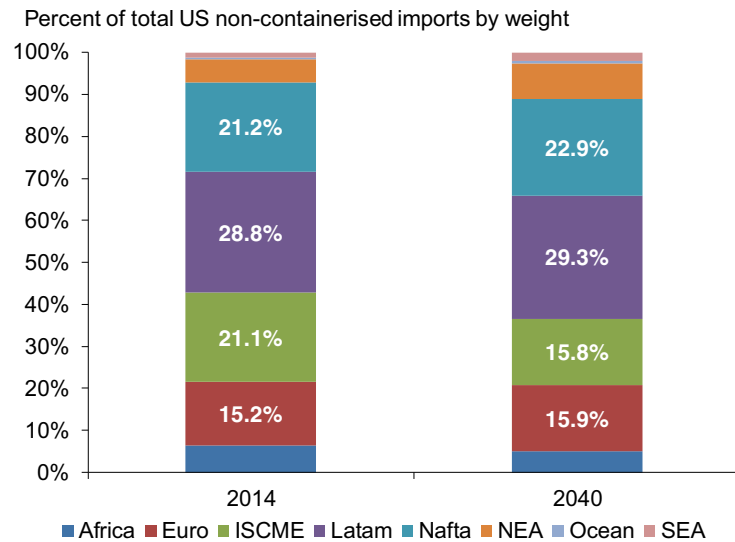
<sup>8</sup> Included in this broad grouping are pebbles and macadam, cement, gypsum, sand, and aluminium ore.

Figure 111: US imports of non-containerized cargo by origin



In light of the changing nature of bulk imports, with a growing concentration in dry bulk and breakbulk, the geographical origins of bulk imports into the U.S. are expected to evolve over the coming couple of decades. Specifically, regions that have typically supplied the U.S. with fuel will come to account for a smaller share of total bulk imports (ISCME is expected to provide 16% of total non-container imports to the US by 2040, down 5pp from 2015). The gains in share will be spread relatively broadly across source regions, with the gains most modest in Europe and strongest in NEA.

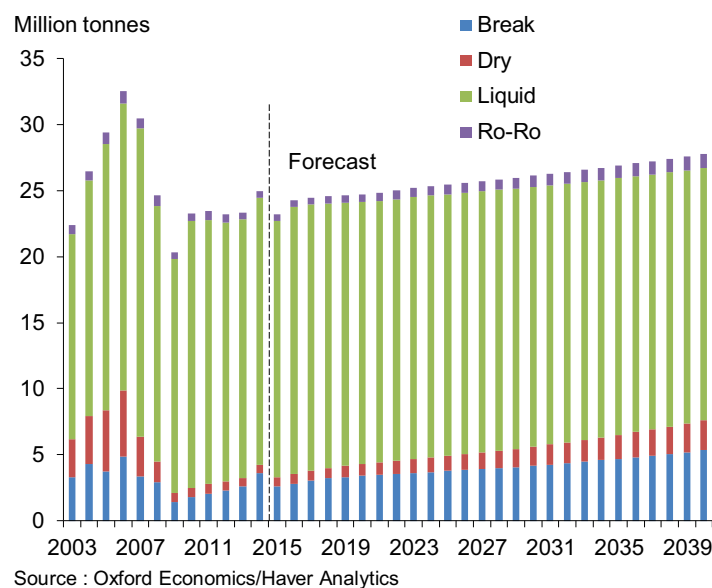
Figure 112: U.S. Imports of Non-container Cargo by Origin



The composition of the SPB Ports' non-container imports is (perhaps unsurprisingly) somewhat different to the composition at the national level. Specifically, liquid bulk makes up a greater proportion of overall imports (around 80%, versus 70% at the national level), and liquid imports have continued to rise through recent years (albeit quite modestly) in stark contrast to the overall U.S. picture.

Developments within the oil sector explain most of this difference. While imports of crude oil at the U.S. level fell by almost 50% from 2005-2014, imports into SPB Ports actually rose by 16% (although this has been relatively stable in the most recent years). While oil-producing regions of the U.S. have been able to reduce imports, this has not been true of the SPB region. The share of U.S. oil imports coming into SPB ports has therefore risen from 2.5% in 2005 to 6.6% in 2014.

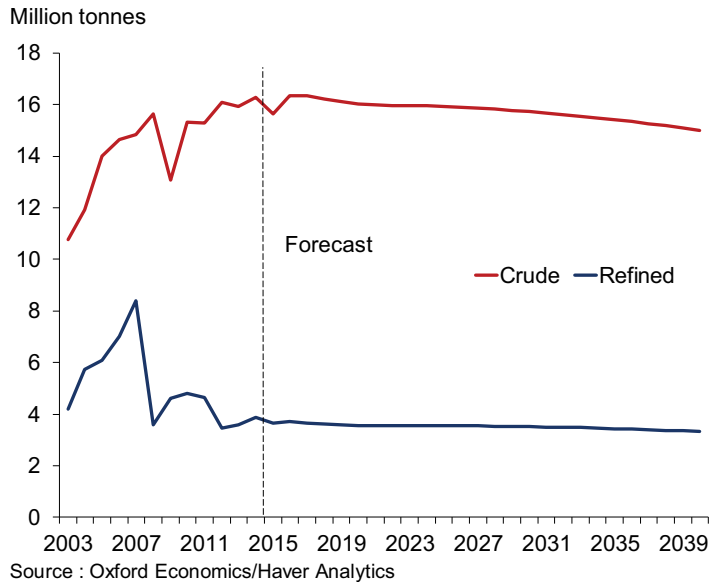
**Figure 113: SPB Ports' Imports of Non-container Cargo by Origin**



Looking ahead, as at the U.S. level, we expect a very gradual easing in oil import demand, driven mainly by an ongoing improvement in energy efficiency. At just 0.3% per annum over the 2015-2040 timeframe in the case of both crude and refined oil, the easing of SPB Ports throughput will be less pronounced than at the U.S. level, though.

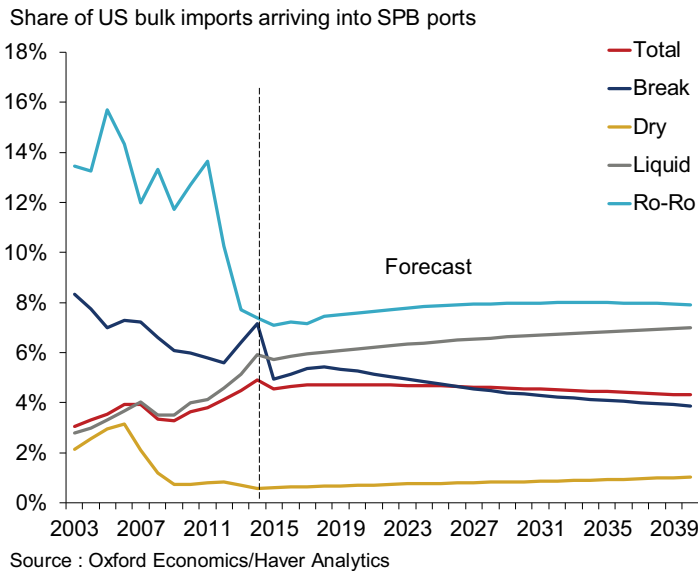


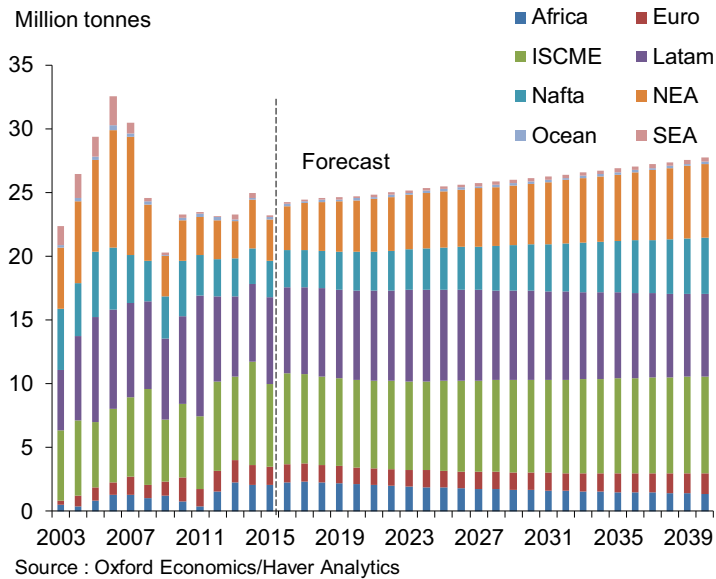
Figure 114: SPB Ports Imports of Crude and Refined Oil



As at the U.S. level, the breakbulk forecasts are in line with corresponding container categories. However, these categories have tended to be the areas where SPB Ports have been losing relative importance in a U.S. context over recent years. As such, the SPB Ports have been losing share of overall U.S. breakbulk imports. Looking ahead a continuation of this trend is expected. The projections for the SPB Ports' shares of other types of bulk, is set out in chart below.

Figure 115: SPB Ports Shares of U.S. Imports by Bulk Cargo Categories





## 2.4 Assessment of High Volume Commodities Susceptibility to Diversion

Port choice for non-container commodities is primarily driven by cost considerations, but the location of production facilities for exports and consumption points for imports can anchor certain volume to a port and nullify competitive threats. The data in the table below identifies each of the SPB Ports' high volume commodities by type of cargo handling facility utilized, and provides some commentary on the risk of diversion to other ports.

Figure 116: Assessment of SPB Ports' High Volume Commodities Susceptibility to Diversion to Other Ports

Terminal Type / Direction	Commodity	2014 m.tons (mil)	<u>Diversion Potential</u> / Explanation
Liquid Bulk / Imports	Crude Oil	23.3	<u>Low</u> - SPB Ports' handles crude oil for refineries that are located within this port area. The last new refinery built in California was Valero's Wilmington, CA facility, which opened in 1980, no new facilities are expected to be built during the forecast period. Therefore, SPB Ports' crude oil imports are seen to have a low risk of diversion as, there are no cost effective alternative based on the location of the refineries they serve.
	Oil Not Crude	7.3	<u>Low</u> - Imports under this category are mainly the same types of products that are being produced by the refineries in this area and supplement their production. Therefore, imports of this commodity are not seen to be divertible as they utilize that same distribution infrastructure as the area's refineries.
Liquid Bulk / Exports	Oil Not Crude	3.4	<u>Low</u> - The products covered by this commodity are primarily produced by the refineries that import crude oil through SPB Ports, thus are not seen at risk of being diverted.
Dry Bulk / Exports	PetCoke	5.2	<u>Low</u> - PetCoke is a byproduct of the oil refining process, thus the volume that is exported through SBP Ports is generated by the same facilities this port area handles import shipments of crude oil for. As it was found that crude oil is not at risk of diversion this commodity is also no seen to be divertible.
	Coal	1.6	<u>High</u> - Coal is mined in a number of interior western states (like Wyoming's Powder River Basin) and moved over Pacific Coast ports primarily to China. As coal exports utilize rail transport to reach port on the Pacific Coast means that exports can utilize any port that provides them with suitable terminal capacity and competitive route costs.
	Metal Scrap	0.6	<u>Low</u> - This commodity generated by population around SPB Ports and as it is a waste product its value cannot support additional transportation cost associated with moving it to other ports, even if they a relatively short distance away.
Dry Bulk/Imports	Gypsum	0.3	<u>Low</u> - Gypsum is used as an input for making cement and wallboard. There are facilities for making these within SPB Ports, thus making the risk of diversion very low.
	Salt	0.1	<u>Low</u> - Morton has a facility located within SPB Ports, which is why the risk of diversion is seen to be low.
Breakbulk / Imports	Metal Products	2.7	<u>Low</u> - The products covered by this commodity tend to be consumed near the port, which limits the diversion potential to near-by ports.
RORO / Imports	Vehicles	0.6	<u>Moderate</u> - While most import vehicles handled through SPB Ports are for the local market there is a percentage that are moved to inland markets and these can be diverted.

## 2.5 Analysis of Competitive Risk of Select Non-container Commodities

In the previous section, the following non-container commodities were identified as having a moderate to high susceptibility to diversion:

- Coal / Dry Bulk- High
- Vehicles / RoRo – Moderate

In appendix 5 analysis of non-container terminals located at SPB Ports is provided by cargo type, and this information was used as part of the analysis below, which reviews:

- Why the commodities listed above are currently utilizing terminals within the SPB Ports
- Identifications potential competitors were required
- Assess the diversion risk to SPB Ports

### 2.5.1 Coal / Dry Bulk

In 2014 Metropolitan Stevedore and Oxbow Carbon (Oxbow) signed a fifteen-year extension to its Pier G lease, which is the only dedicated coal terminal located at SPB Ports. Oxbow's primary businesses are the mining and marketing of energy and bulk commodities such as coal, natural gas, petroleum, and metallurgical and calcined coke. The company also markets petroleum coke.

The lease for the coal terminal includes a minimum annual volume guarantee of 1.9 million tons of coal. The ports' non-container statistics indicate that 1.5 million tons of coal was exported through this port area in 2014. The minimum guarantee makes it unlikely that Oxbow will route a significant portion of its coal exports through other ports.

### 2.5.2 Vehicles / RoRo

SPB Ports has two terminals that handle the vast majority of the vehicles imported through this area and these are listed below with information in the operators:

- **Port of Los Angeles - Berths 195-199:** Operated by Wallenius Wilhelmsen Logistics (WWL) for Nissan
- **Port of Long Beach - Pier B:** Operated by Toyota Distributions Services (TDS)

Additionally, a small number of cars for Mercedes are handled at SSA's breakbulk facility.

As SPB Ports' two primary RoRo facilities are controlled by vehicle producers that use them, thus they are key components in these companies' supply chains.

In reviewing PERS data it was found the SPB Ports received 11.5% of the motor vehicles imports on non-container vessels in 2014. As discussed earlier in this document, the extended catchment area associated with SPB Ports holds 18% of the U.S.'s population, thus it is unlikely that a significant number of the vehicles being imported through SPB Ports are being shipped beyond the catchment area. Therefore, SPB Ports' vehicle imports are seen to have a very low risk of diversion.

## 2.6 Forecast of Non-container High volume Commodities

As it was found that there was very little risk of diversion for all the high volume non-container commodities this section of the report the growth rate identified

Figure 117: Forecast of Crude Oil Imports via SPB Ports

Year	Crude Oil -- M.tons MIL			Crude Oil -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	22.1	22.1	22.1	-4.0%	-4.0%	-4.0%
2016	23.1	24.7	22.7	4.6%	11.9%	2.9%
2017	23.1	25.0	22.8	-0.1%	1.0%	0.3%
2018	22.9	25.0	22.7	-0.7%	0.3%	-0.3%
2019	22.7	25.0	22.6	-0.8%	-0.1%	-0.4%
2020	22.6	25.1	22.4	-0.5%	0.2%	-0.8%
2021	22.6	25.0	22.3	-0.3%	-0.3%	-0.5%
2022	22.5	24.9	22.2	-0.1%	-0.2%	-0.3%
2023	22.5	24.9	22.2	0.0%	-0.1%	-0.3%
2024	22.5	24.9	22.1	-0.1%	-0.1%	-0.3%
2025	22.5	24.8	22.0	-0.1%	-0.2%	-0.3%
2026	22.5	24.7	22.0	-0.2%	-0.4%	-0.4%
2027	22.4	24.6	21.9	-0.2%	-0.4%	-0.4%
2028	22.4	24.5	21.8	-0.3%	-0.5%	-0.5%
2029	22.3	24.4	21.7	-0.3%	-0.6%	-0.5%
2030	22.2	24.2	21.6	-0.3%	-0.6%	-0.5%
2031	22.1	24.3	21.4	-0.4%	0.2%	-0.5%
2032	22.0	24.3	21.3	-0.4%	0.2%	-0.5%
2033	22.0	24.4	21.2	-0.4%	0.2%	-0.5%
2034	21.9	24.4	21.1	-0.4%	0.2%	-0.6%
2035	21.8	24.5	21.0	-0.4%	0.2%	-0.6%
2036	21.7	24.3	20.9	-0.4%	-0.6%	-0.6%
2037	21.6	24.2	20.7	-0.5%	-0.6%	-0.6%
2038	21.4	24.0	20.6	-0.5%	-0.6%	-0.6%
2039	21.3	23.9	20.5	-0.6%	-0.7%	-0.7%
2040	21.2	23.7	20.3	-0.6%	-0.7%	-0.7%

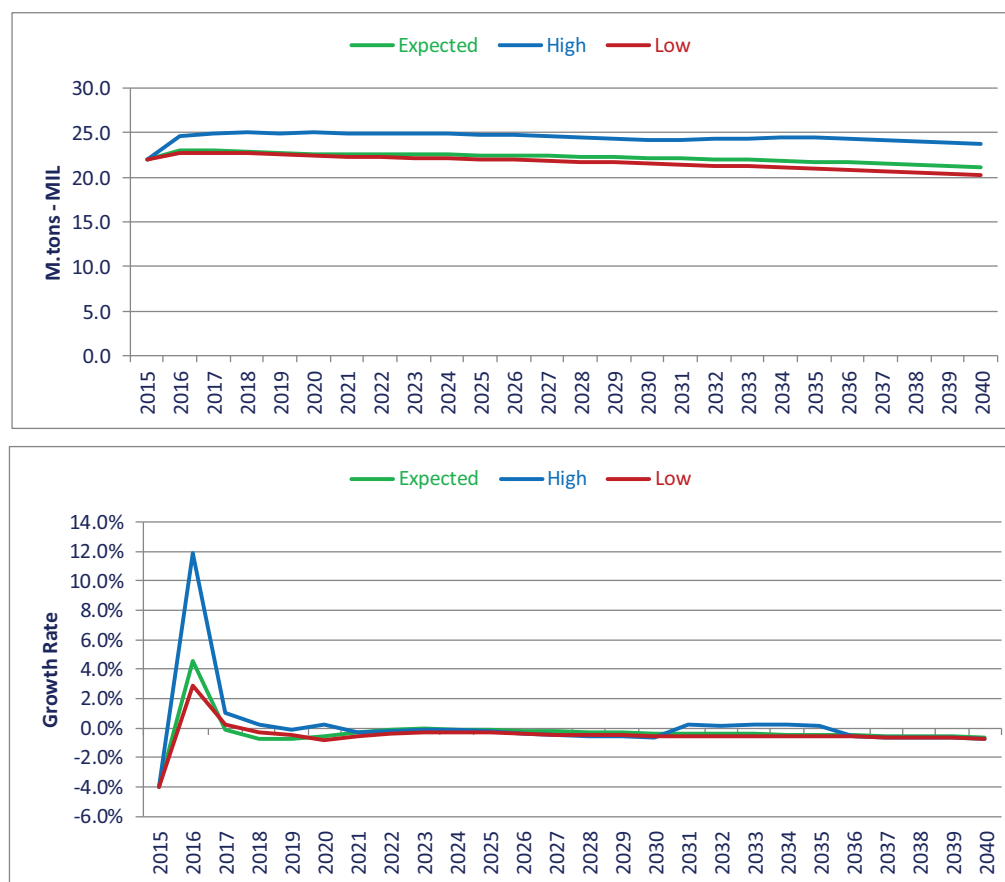


Figure 118: Forecast of Oil Non-Crude Imports via SPB Ports

Year	Oil Non-Crude -- M.tons MIL			Oil Non-Crude -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	6.9	6.9	6.9	-6.0%	-6.0%	-6.0%
2016	7.0	7.2	6.7	1.8%	5.1%	-1.7%
2017	6.9	7.1	6.7	-1.5%	-0.8%	-0.7%
2018	6.8	7.1	6.7	-0.9%	-0.9%	0.0%
2019	6.8	7.0	6.7	-0.8%	-0.9%	-0.2%
2020	6.7	7.0	6.6	-0.5%	-0.4%	-1.0%
2021	6.7	7.0	6.6	-0.1%	0.0%	-0.7%
2022	6.7	7.0	6.5	0.0%	0.2%	-0.6%
2023	6.7	7.0	6.5	0.0%	0.3%	-0.5%
2024	6.7	7.0	6.5	0.0%	0.3%	-0.6%
2025	6.7	7.1	6.4	-0.1%	0.2%	-0.7%
2026	6.7	7.1	6.4	-0.2%	0.1%	-0.7%
2027	6.7	7.1	6.3	-0.2%	0.1%	-0.8%
2028	6.7	7.1	6.3	-0.2%	0.0%	-0.8%
2029	6.6	7.1	6.2	-0.3%	-0.1%	-0.8%
2030	6.6	7.1	6.2	-0.3%	-0.1%	-0.9%
2031	6.6	7.0	6.1	-0.3%	-0.2%	-0.9%
2032	6.6	7.0	6.1	-0.4%	-0.2%	-0.9%
2033	6.5	7.0	6.0	-0.4%	-0.3%	-1.0%
2034	6.5	7.0	5.9	-0.5%	-0.3%	-1.0%
2035	6.5	7.0	5.9	-0.5%	-0.3%	-1.1%
2036	6.4	6.9	5.8	-0.7%	-0.5%	-1.2%
2037	6.4	6.9	5.7	-0.6%	-0.4%	-1.2%
2038	6.4	6.9	5.7	-0.6%	-0.4%	-1.2%
2039	6.3	6.8	5.6	-0.6%	-0.4%	-1.2%
2040	6.3	6.8	5.5	-0.6%	-0.4%	-1.2%

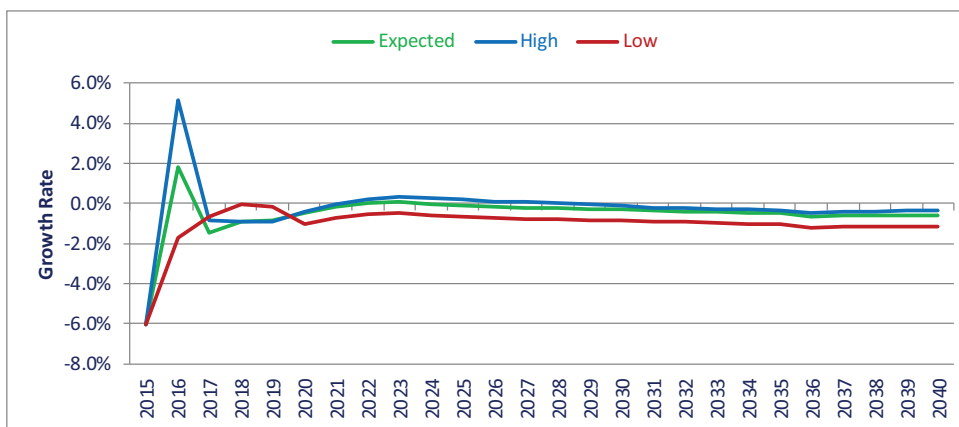
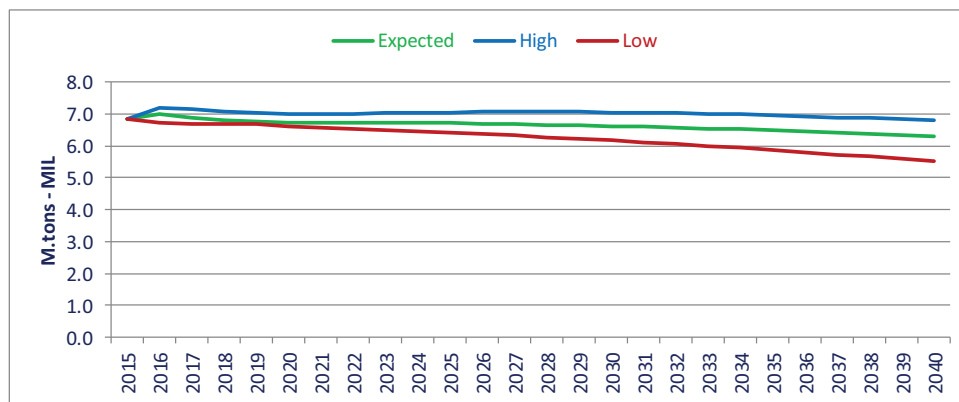


Figure 119: Forecast of Gypsum Imports via SPB Ports

Year	Gypsum -- M.tons MIL			Gypsum -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	0.32	0.32	0.32	1.0%	1.0%	1.0%
2016	0.33	0.34	0.31	3.3%	6.9%	-4.5%
2017	0.34	0.36	0.32	2.9%	5.3%	3.3%
2018	0.35	0.37	0.33	2.4%	2.6%	4.9%
2019	0.36	0.38	0.35	2.6%	2.6%	3.6%
2020	0.37	0.40	0.35	2.4%	3.7%	2.2%
2021	0.38	0.41	0.36	2.3%	3.7%	1.4%
2022	0.39	0.42	0.36	2.1%	3.3%	1.0%
2023	0.39	0.44	0.37	2.1%	3.0%	1.3%
2024	0.40	0.45	0.37	2.2%	3.6%	1.3%
2025	0.41	0.47	0.38	2.4%	3.5%	1.4%
2026	0.42	0.49	0.38	2.6%	4.0%	1.6%
2027	0.43	0.51	0.39	2.6%	3.9%	1.6%
2028	0.45	0.53	0.40	2.6%	3.9%	1.6%
2029	0.46	0.55	0.40	2.5%	3.8%	1.5%
2030	0.47	0.56	0.41	2.5%	2.9%	1.5%
2031	0.48	0.58	0.41	2.5%	2.9%	1.5%
2032	0.49	0.59	0.42	2.5%	2.9%	1.5%
2033	0.50	0.61	0.43	2.4%	2.9%	1.5%
2034	0.52	0.63	0.43	2.4%	2.9%	1.4%
2035	0.53	0.65	0.44	2.4%	2.9%	1.4%
2036	0.54	0.67	0.44	2.3%	2.9%	1.3%
2037	0.55	0.68	0.45	2.2%	2.8%	1.2%
2038	0.56	0.70	0.45	2.2%	2.7%	1.2%
2039	0.58	0.72	0.46	2.1%	2.8%	1.1%
2040	0.59	0.74	0.46	2.1%	2.8%	1.1%

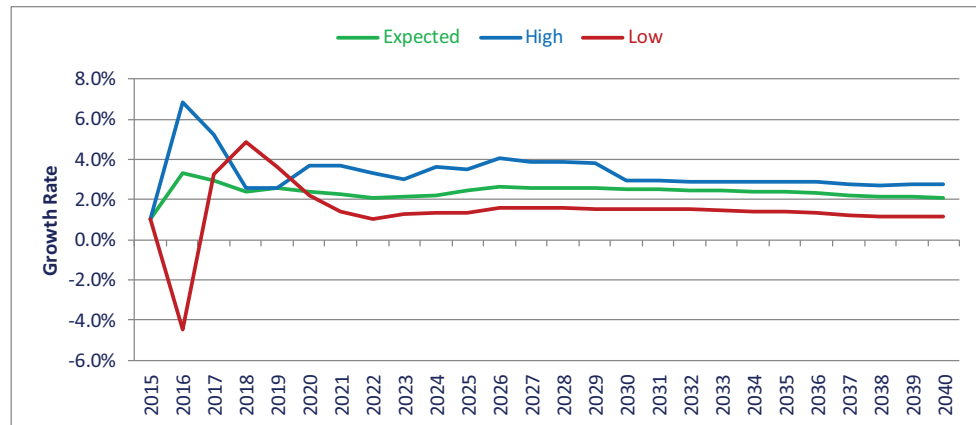
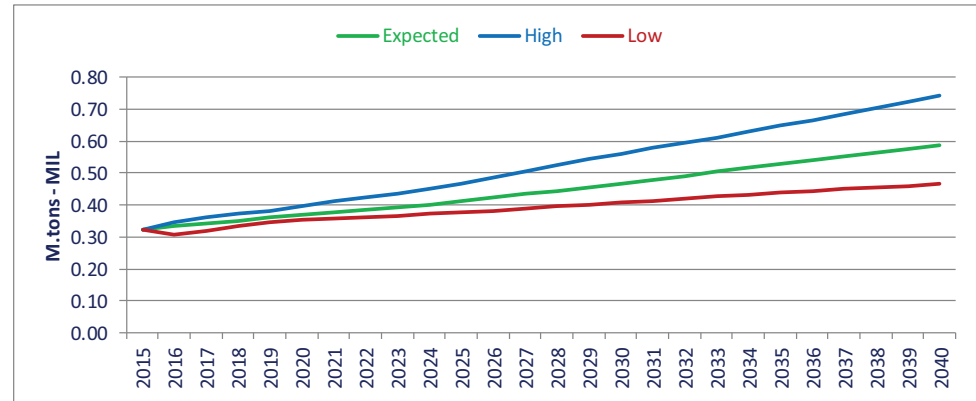


Figure 120: Forecast of Salt Imports via SPB Ports

Year	Salt -- M.tons MIL			Salt -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	0.11	0.11	0.11	1.0%	1.0%	1.0%
2016	0.11	0.11	0.10	3.3%	6.9%	-4.5%
2017	0.11	0.12	0.10	2.9%	5.3%	3.3%
2018	0.11	0.12	0.11	2.4%	2.6%	4.9%
2019	0.12	0.12	0.11	2.6%	2.6%	3.6%
2020	0.12	0.13	0.12	2.4%	3.7%	2.2%
2021	0.12	0.13	0.12	2.3%	3.7%	1.4%
2022	0.13	0.14	0.12	2.1%	3.3%	1.0%
2023	0.13	0.14	0.12	2.1%	3.0%	1.3%
2024	0.13	0.15	0.12	2.2%	3.6%	1.3%
2025	0.13	0.15	0.12	2.4%	3.5%	1.4%
2026	0.14	0.16	0.13	2.6%	4.0%	1.6%
2027	0.14	0.17	0.13	2.6%	3.9%	1.6%
2028	0.15	0.17	0.13	2.6%	3.9%	1.6%
2029	0.15	0.18	0.13	2.5%	3.8%	1.5%
2030	0.15	0.18	0.13	2.5%	2.9%	1.5%
2031	0.16	0.19	0.14	2.5%	2.9%	1.5%
2032	0.16	0.19	0.14	2.5%	2.9%	1.5%
2033	0.16	0.20	0.14	2.4%	2.9%	1.5%
2034	0.17	0.21	0.14	2.4%	2.9%	1.4%
2035	0.17	0.21	0.14	2.4%	2.9%	1.4%
2036	0.18	0.22	0.14	2.3%	2.9%	1.3%
2037	0.18	0.22	0.15	2.2%	2.8%	1.2%
2038	0.18	0.23	0.15	2.2%	2.7%	1.2%
2039	0.19	0.24	0.15	2.1%	2.8%	1.1%
2040	0.19	0.24	0.15	2.1%	2.8%	1.1%





Figure 121: Forecast of Metal Products Imports via SPB Ports

Year	Metal Products -- M.tons MIL			Metal Products -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	1.74	1.74	1.74	-36.7%	-36.7%	-36.7%
2016	1.85	1.92	1.72	6.3%	10.2%	-1.0%
2017	2.02	2.13	1.87	9.3%	11.0%	8.7%
2018	2.16	2.27	2.04	6.9%	6.9%	8.8%
2019	2.24	2.35	2.13	3.8%	3.3%	4.4%
2020	2.27	2.41	2.15	1.5%	2.8%	1.3%
2021	2.30	2.48	2.16	1.3%	2.7%	0.4%
2022	2.34	2.54	2.17	1.4%	2.6%	0.3%
2023	2.36	2.59	2.17	0.9%	1.7%	0.0%
2024	2.38	2.65	2.17	0.9%	2.3%	0.0%
2025	2.40	2.70	2.17	0.9%	1.9%	-0.2%
2026	2.41	2.75	2.15	0.6%	1.9%	-0.5%
2027	2.43	2.80	2.14	0.6%	1.8%	-0.4%
2028	2.45	2.85	2.14	0.8%	2.0%	-0.3%
2029	2.47	2.91	2.14	1.0%	2.2%	-0.1%
2030	2.50	2.96	2.14	1.1%	1.5%	0.1%
2031	2.53	3.00	2.14	1.1%	1.5%	0.1%
2032	2.55	3.05	2.14	1.1%	1.5%	0.1%
2033	2.59	3.10	2.15	1.2%	1.6%	0.2%
2034	2.61	3.14	2.15	1.1%	1.5%	0.1%
2035	2.64	3.19	2.15	1.1%	1.6%	0.0%
2036	2.67	3.24	2.15	1.1%	1.6%	0.1%
2037	2.70	3.29	2.15	1.1%	1.6%	0.0%
2038	2.73	3.34	2.15	1.0%	1.5%	-0.1%
2039	2.75	3.39	2.15	0.9%	1.5%	-0.2%
2040	2.78	3.45	2.15	1.2%	1.8%	0.1%

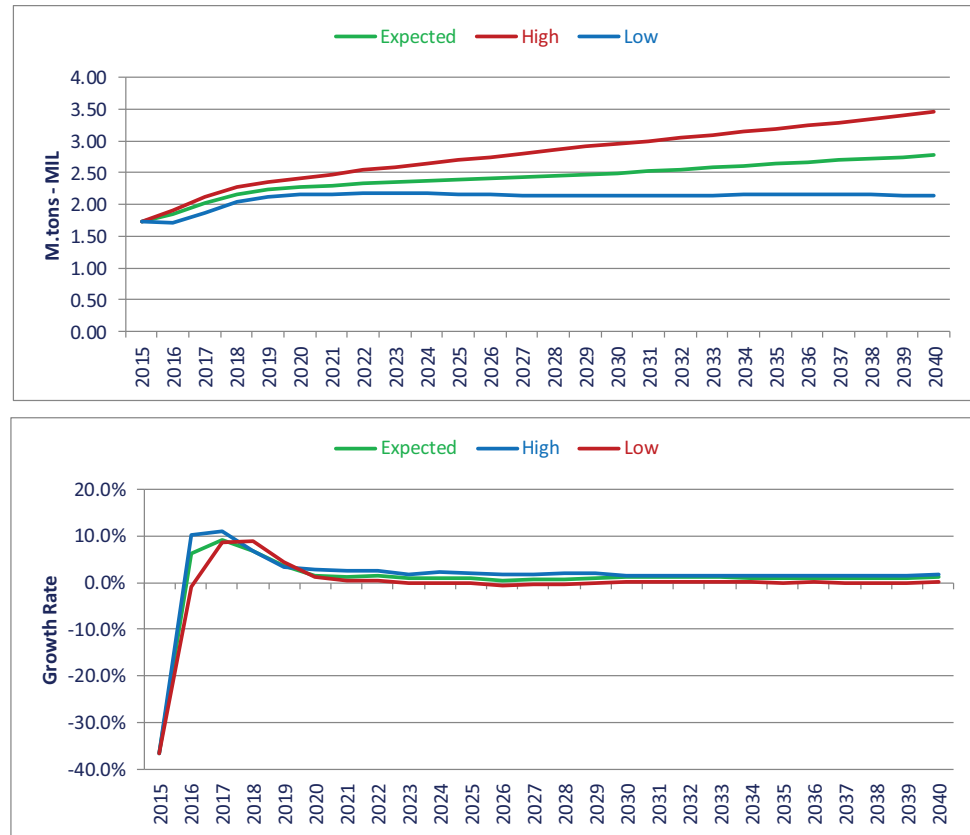


Figure 122: Forecast of Vehicle Imports via SPB Ports

Year	Vehicles -- M.tons MIL			Vehicles -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	0.64	0.64	0.64	4.8%	4.8%	4.8%
2016	0.67	0.70	0.62	6.3%	9.8%	-2.2%
2017	0.68	0.72	0.62	1.2%	3.3%	0.4%
2018	0.73	0.77	0.68	7.3%	7.4%	8.8%
2019	0.77	0.81	0.72	4.6%	4.4%	5.4%
2020	0.80	0.85	0.74	4.1%	5.4%	3.8%
2021	0.83	0.90	0.77	3.9%	5.4%	3.0%
2022	0.86	0.94	0.79	4.1%	5.4%	3.0%
2023	0.90	0.99	0.81	3.8%	4.7%	3.0%
2024	0.93	1.04	0.83	3.6%	5.0%	2.6%
2025	0.96	1.09	0.85	3.4%	4.5%	2.3%
2026	0.99	1.13	0.87	3.0%	4.4%	1.9%
2027	1.02	1.18	0.88	2.8%	4.1%	1.7%
2028	1.04	1.23	0.90	2.7%	4.0%	1.6%
2029	1.07	1.27	0.91	2.6%	3.9%	1.5%
2030	1.10	1.31	0.92	2.5%	2.9%	1.5%
2031	1.12	1.35	0.94	2.5%	2.9%	1.5%
2032	1.15	1.39	0.95	2.5%	2.9%	1.5%
2033	1.18	1.43	0.96	2.5%	2.9%	1.4%
2034	1.21	1.47	0.98	2.5%	2.9%	1.4%
2035	1.24	1.51	0.99	2.4%	3.0%	1.4%
2036	1.27	1.56	1.01	2.4%	2.9%	1.3%
2037	1.30	1.60	1.02	2.3%	2.9%	1.3%
2038	1.33	1.65	1.03	2.2%	2.8%	1.1%
2039	1.36	1.69	1.04	2.1%	2.7%	1.0%
2040	1.39	1.74	1.05	2.3%	3.0%	1.3%

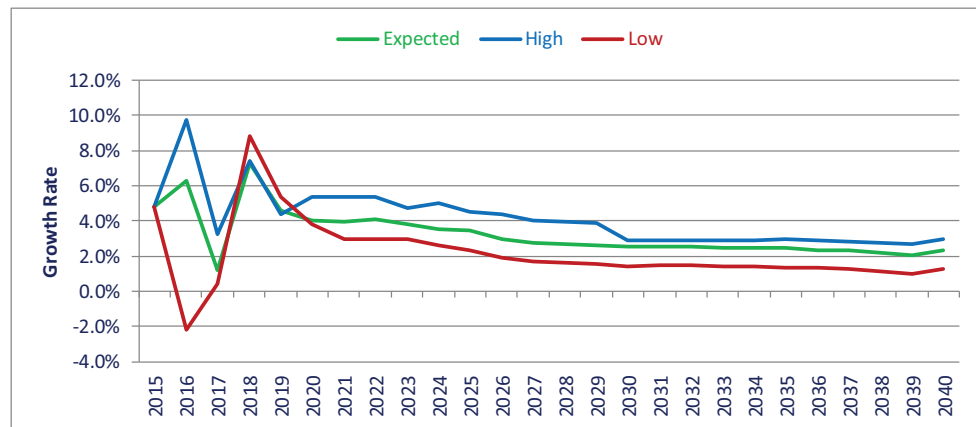
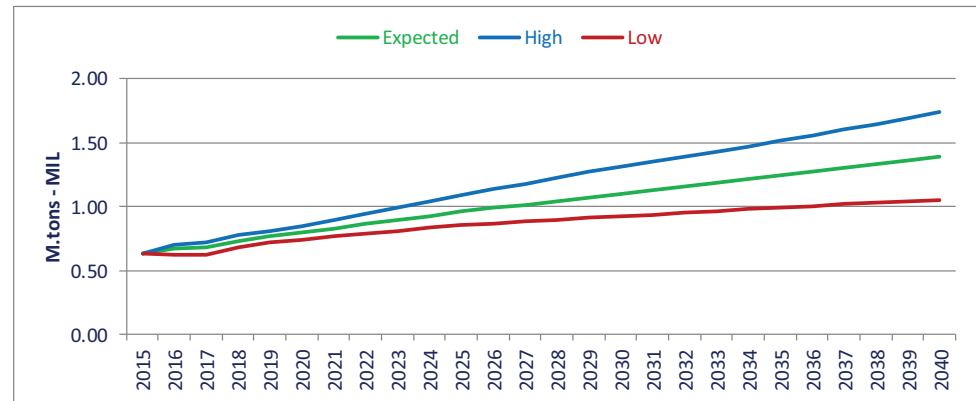


Figure 123: Forecast of Oil Non-Crude Exports via SPB Ports

Year	Oil Non-Crude -- M.tons MIL			Oil Non-Crude -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	9.0	9.0	9.0	23.7%	23.7%	23.7%
2016	10.0	10.3	9.6	10.4%	13.9%	6.5%
2017	10.5	10.9	10.2	5.3%	6.0%	6.2%
2018	10.8	11.2	10.6	2.6%	2.7%	3.5%
2019	11.0	11.4	10.9	2.4%	2.3%	3.1%
2020	11.3	11.7	11.1	2.5%	2.6%	2.0%
2021	11.6	12.1	11.3	2.6%	2.7%	2.0%
2022	11.9	12.4	11.6	2.5%	2.7%	2.0%
2023	12.2	12.7	11.8	2.6%	2.9%	2.0%
2024	12.5	13.1	12.0	2.5%	2.8%	2.0%
2025	12.8	13.5	12.3	2.5%	2.8%	2.0%
2026	13.1	13.8	12.5	2.5%	2.8%	1.9%
2027	13.5	14.2	12.7	2.5%	2.7%	1.9%
2028	13.8	14.6	13.0	2.4%	2.6%	1.8%
2029	14.1	15.0	13.2	2.4%	2.6%	1.8%
2030	14.4	15.4	13.4	2.4%	2.6%	1.9%
2031	14.8	15.7	13.7	2.3%	2.4%	1.7%
2032	15.1	16.1	13.9	2.2%	2.4%	1.7%
2033	15.5	16.5	14.1	2.3%	2.5%	1.7%
2034	15.8	16.9	14.4	2.2%	2.4%	1.7%
2035	16.1	17.3	14.6	2.2%	2.4%	1.6%
2036	16.5	17.7	14.8	2.2%	2.4%	1.6%
2037	16.9	18.1	15.1	2.2%	2.4%	1.6%
2038	17.2	18.6	15.3	2.2%	2.4%	1.6%
2039	17.6	19.0	15.6	2.2%	2.4%	1.6%
2040	18.0	19.5	15.8	2.1%	2.4%	1.6%

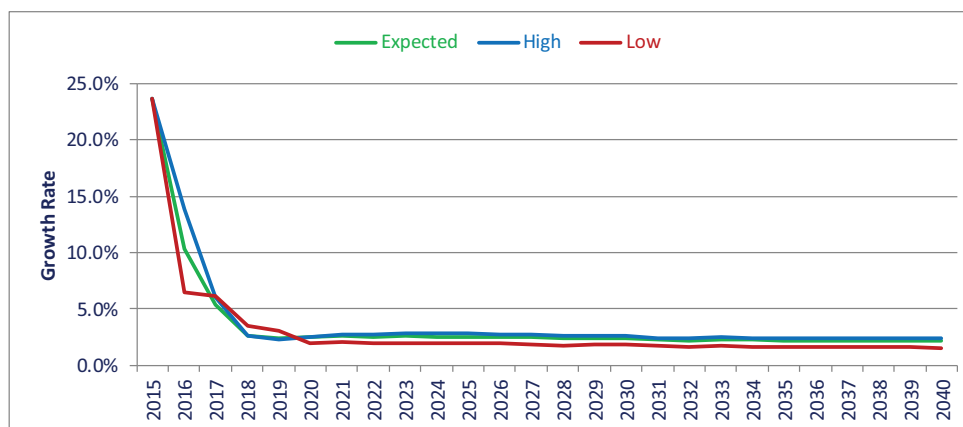
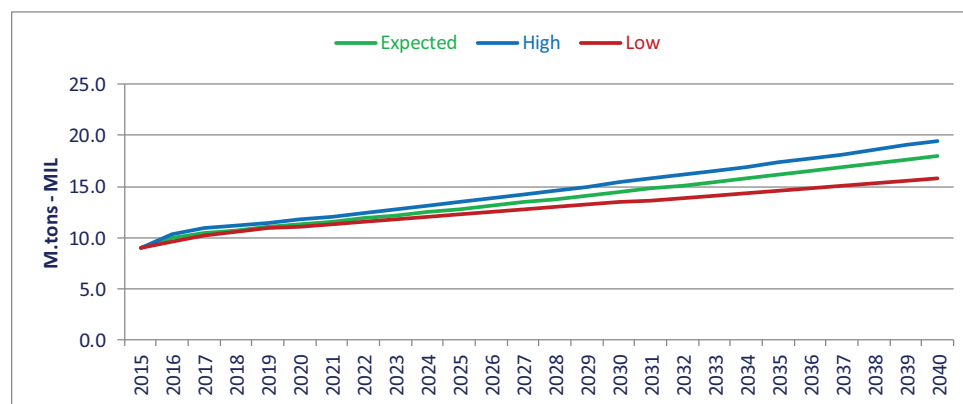


Figure 124: Forecast of PetCoke Exports via SPB Ports

Year	PetCoke -- M.tons MIL			PetCoke -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	5.2	5.1	5.2	0.8%	-0.6%	1.4%
2016	5.1	5.1	5.1	-1.2%	0.1%	-3.2%
2017	5.1	5.1	5.1	-1.0%	-0.3%	0.9%
2018	5.0	5.1	5.1	-1.1%	-0.8%	-0.3%
2019	5.0	5.0	5.1	-1.0%	-1.2%	-0.1%
2020	4.9	5.0	5.0	-0.7%	-0.6%	-1.3%
2021	4.9	4.9	5.0	-0.7%	-0.6%	-1.2%
2022	4.9	4.9	4.9	-0.5%	-0.3%	-1.1%
2023	4.8	4.9	4.8	-0.6%	-0.4%	-1.1%
2024	4.8	4.9	4.8	-0.6%	-0.3%	-1.1%
2025	4.8	4.9	4.7	-0.6%	-0.3%	-1.1%
2026	4.8	4.9	4.7	-0.6%	-0.4%	-1.2%
2027	4.7	4.8	4.6	-0.6%	-0.4%	-1.2%
2028	4.7	4.8	4.6	-0.7%	-0.5%	-1.2%
2029	4.7	4.8	4.5	-0.8%	-0.6%	-1.4%
2030	4.6	4.8	4.5	-0.6%	-0.5%	-1.2%
2031	4.6	4.7	4.4	-0.7%	-0.6%	-1.2%
2032	4.6	4.7	4.3	-0.7%	-0.6%	-1.3%
2033	4.5	4.7	4.3	-0.8%	-0.6%	-1.3%
2034	4.5	4.7	4.2	-0.8%	-0.6%	-1.3%
2035	4.5	4.6	4.2	-0.8%	-0.6%	-1.3%
2036	4.4	4.6	4.1	-0.8%	-0.6%	-1.3%
2037	4.4	4.6	4.1	-0.8%	-0.6%	-1.3%
2038	4.4	4.5	4.0	-0.8%	-0.6%	-1.3%
2039	4.3	4.5	4.0	-0.8%	-0.6%	-1.3%
2040	4.3	4.5	3.9	-0.8%	-0.6%	-1.3%

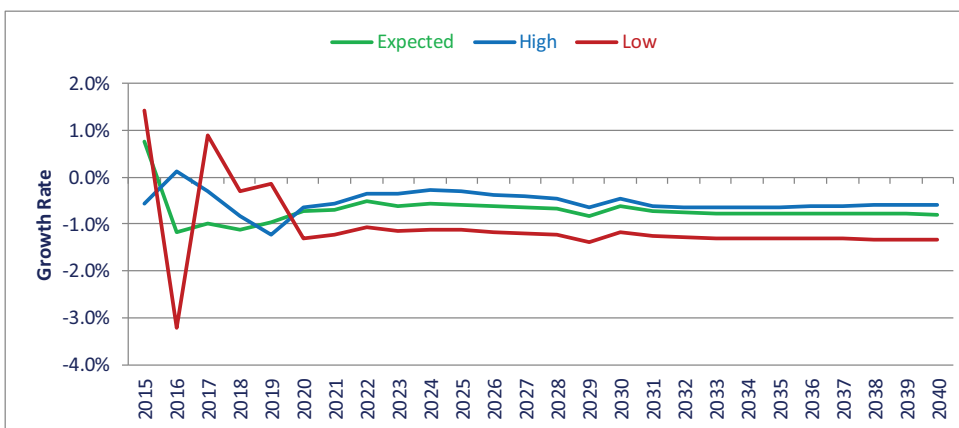
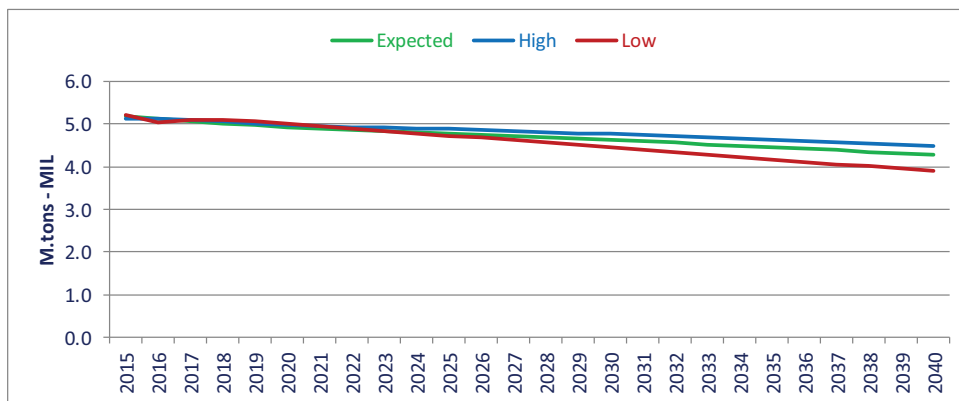


Figure 125: Forecast of Coal Exports via SPB Ports

Year	Coal -- M.tons MIL			Coal -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	1.5	1.5	1.5	-6.6%	-6.6%	-6.6%
2016	1.5	1.6	1.4	0.8%	5.8%	-7.7%
2017	1.6	1.6	1.4	1.5%	2.7%	2.5%
2018	1.6	1.7	1.5	2.2%	1.3%	5.7%
2019	1.6	1.7	1.6	2.2%	1.9%	2.2%
2020	1.7	1.8	1.6	2.4%	4.1%	1.6%
2021	1.7	1.8	1.6	2.3%	4.1%	0.9%
2022	1.7	1.9	1.6	2.1%	3.7%	0.5%
2023	1.8	2.0	1.6	2.0%	4.1%	0.7%
2024	1.8	2.1	1.6	1.9%	4.0%	0.6%
2025	1.8	2.1	1.6	1.8%	3.3%	0.3%
2026	1.9	2.2	1.6	1.8%	3.7%	0.6%
2027	1.9	2.3	1.6	1.7%	3.4%	0.5%
2028	1.9	2.4	1.6	1.4%	3.1%	0.3%
2029	2.0	2.4	1.7	1.3%	2.9%	0.1%
2030	2.0	2.5	1.7	1.2%	1.7%	0.1%
2031	2.0	2.5	1.7	1.1%	1.5%	0.0%
2032	2.0	2.5	1.6	0.9%	1.4%	-0.2%
2033	2.0	2.6	1.6	0.9%	1.4%	-0.2%
2034	2.0	2.6	1.6	0.8%	1.3%	-0.3%
2035	2.1	2.6	1.6	0.6%	1.2%	-0.5%
2036	2.1	2.7	1.6	0.4%	1.0%	-0.7%
2037	2.1	2.7	1.6	0.2%	0.9%	-0.8%
2038	2.1	2.7	1.6	0.2%	0.9%	-0.9%
2039	2.1	2.7	1.6	0.2%	1.0%	-0.9%
2040	2.1	2.8	1.6	0.2%	0.9%	-0.9%

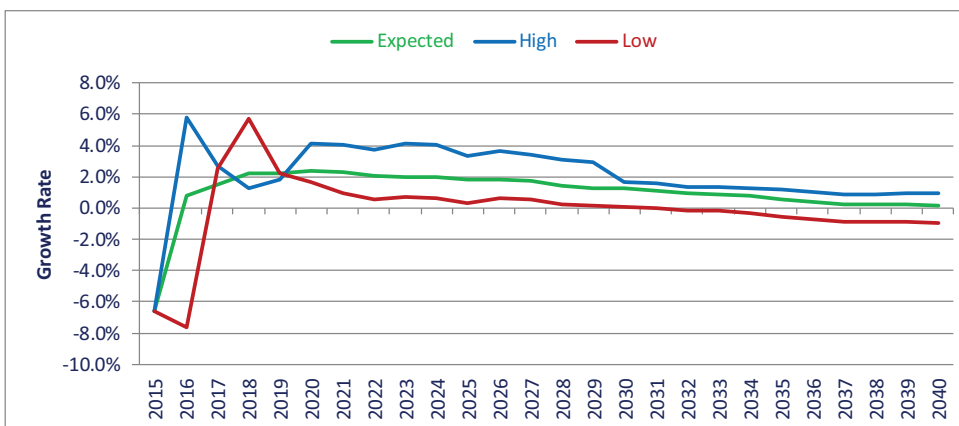
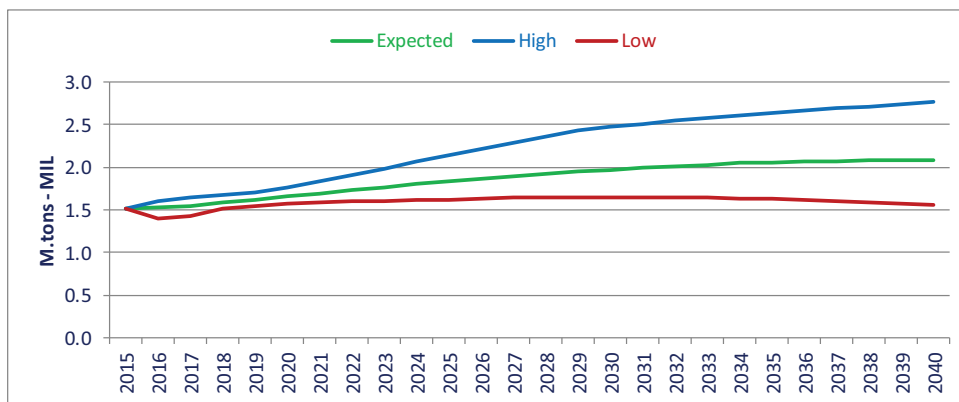
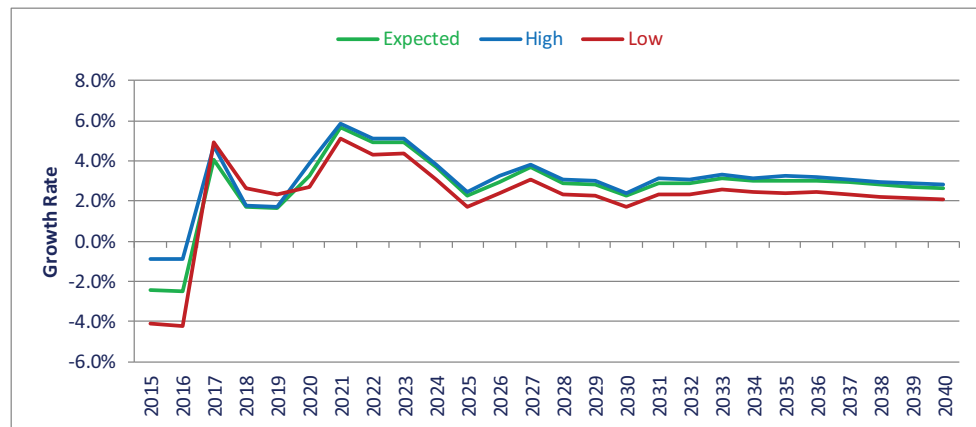
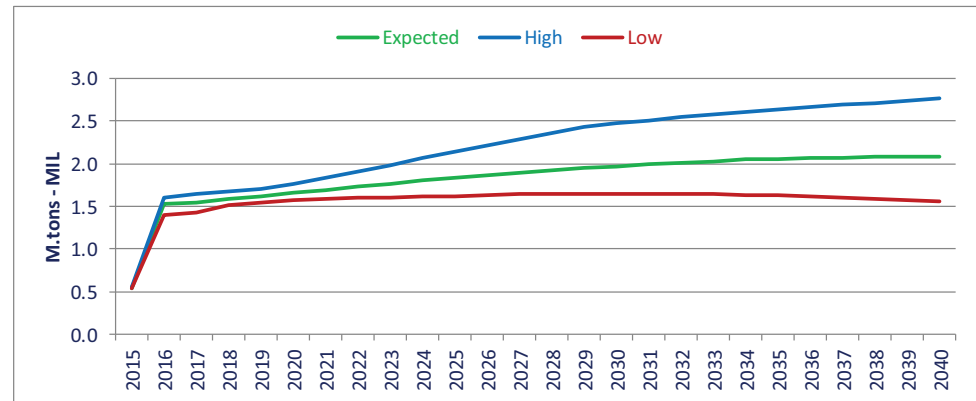


Figure 126: Forecast of Metal Scrap Exports via SPB Ports

Year	Metal Scrap -- M.tons MIL			Metal Scrap -- Growth Rate		
	Expected	High	Low	Expected	High	Low
2015	0.5	0.6	0.5	-2.4%	-0.9%	-4.1%
2016	1.5	1.6	1.4	-2.5%	-0.9%	-4.2%
2017	1.6	1.6	1.4	4.1%	4.7%	4.9%
2018	1.6	1.7	1.5	1.7%	1.7%	2.6%
2019	1.6	1.7	1.6	1.6%	1.7%	2.3%
2020	1.7	1.8	1.6	3.3%	3.9%	2.7%
2021	1.7	1.8	1.6	5.7%	5.9%	5.1%
2022	1.7	1.9	1.6	4.9%	5.1%	4.3%
2023	1.8	2.0	1.6	4.9%	5.1%	4.4%
2024	1.8	2.1	1.6	3.7%	3.8%	3.1%
2025	1.8	2.1	1.6	2.3%	2.4%	1.7%
2026	1.9	2.2	1.6	3.0%	3.2%	2.4%
2027	1.9	2.3	1.6	3.7%	3.8%	3.1%
2028	1.9	2.4	1.6	2.9%	3.1%	2.3%
2029	2.0	2.4	1.7	2.8%	3.0%	2.3%
2030	2.0	2.5	1.7	2.2%	2.4%	1.7%
2031	2.0	2.5	1.7	2.9%	3.2%	2.3%
2032	2.0	2.5	1.6	2.9%	3.1%	2.3%
2033	2.0	2.6	1.6	3.1%	3.3%	2.6%
2034	2.0	2.6	1.6	3.0%	3.2%	2.4%
2035	2.1	2.6	1.6	3.0%	3.3%	2.4%
2036	2.1	2.7	1.6	3.0%	3.2%	2.4%
2037	2.1	2.7	1.6	2.9%	3.1%	2.4%
2038	2.1	2.7	1.6	2.8%	3.0%	2.2%
2039	2.1	2.7	1.6	2.7%	2.9%	2.1%
2040	2.1	2.8	1.6	2.6%	2.8%	2.1%



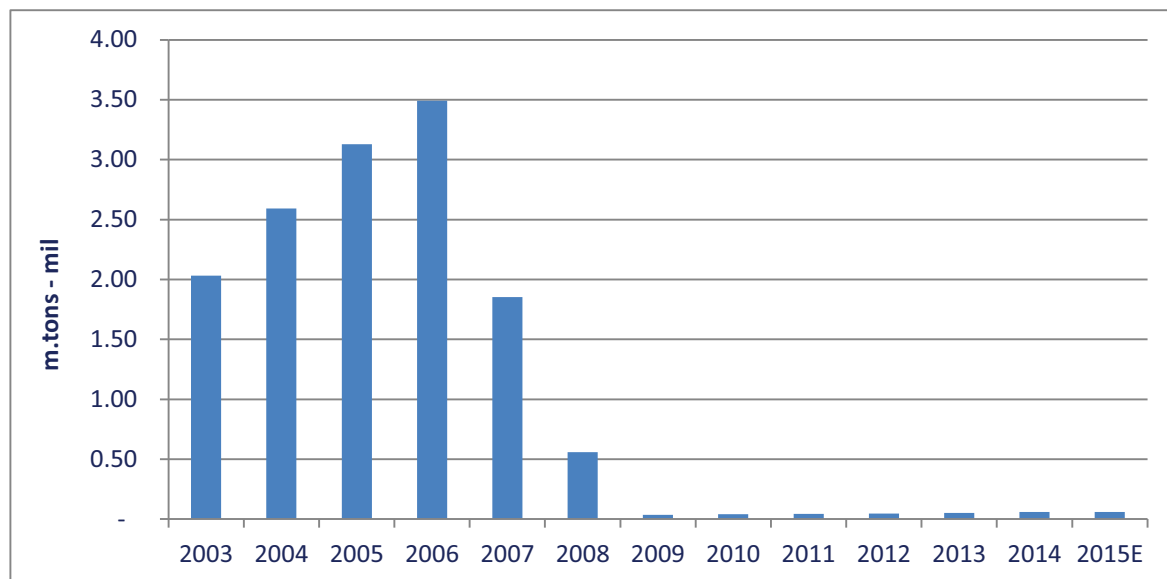
## 2.7 Analysis for the Renewal of Cement Imports

As there has been a multi-year gap in meaningful cement imports through SPB Ports forecasting the timing of the possible resumption of this activity is more speculative than the forecasts for existing cargoes handled by these Ports. As a result, the long-term macro models used to forecast other commodities were deemed inappropriate for forecasting cement imports. Therefore, the analysis in this section first identifies the likely trigger for the resumption of cement imports and then correlates the long-term growth of this commodity's import volume to regional construction activity and the capacity of domestic production sources.

### 2.7.1 Summary of Cement Imports via SPB Ports

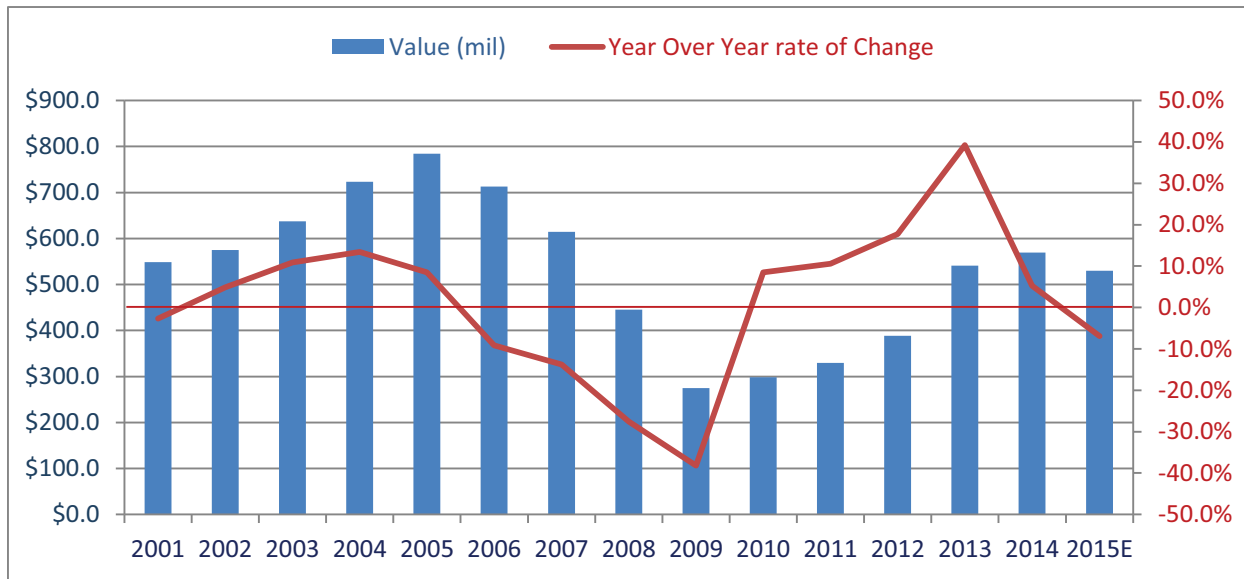
SPB Ports has two marine facilities that are equipped to handle cement imports, and these terminals received significant amounts of imported cement up through 2007, as shown in the following chart:

Figure 127: Imports of Cement via SPB Ports



The decline in cement imports after 2007 is considered to be the result of a contraction in California's construction activity, which is illustrated in the following chart, using the value of authorized building permits in the State as a proxy measure:

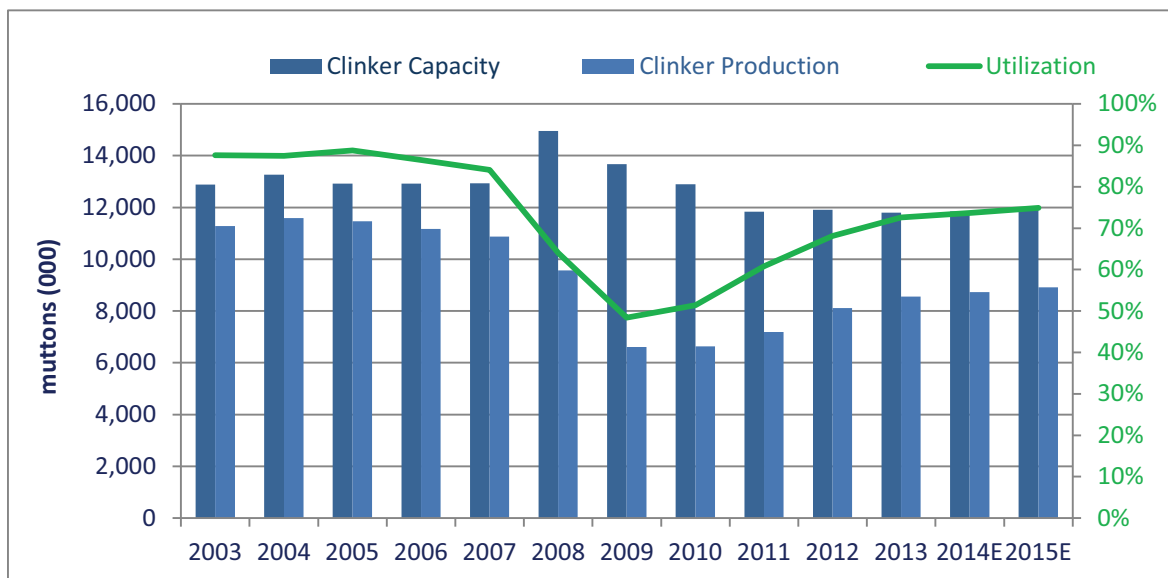
Figure 128: Value of Authorized Building Permits in California



The value of the building permits authorized in California contracted by 65% from its peak in 2005 to its trough in 2009. However, since bottoming out then, the value of authorized building permits in the state has recovered, but the total value is still well below the levels occurring from 2004 to 2006.

California is one of the top three states in the country in terms of clinker production (the material that is ground into Portland cement), and a review of the state's production capacity and output of clinker is shown in the following chart.

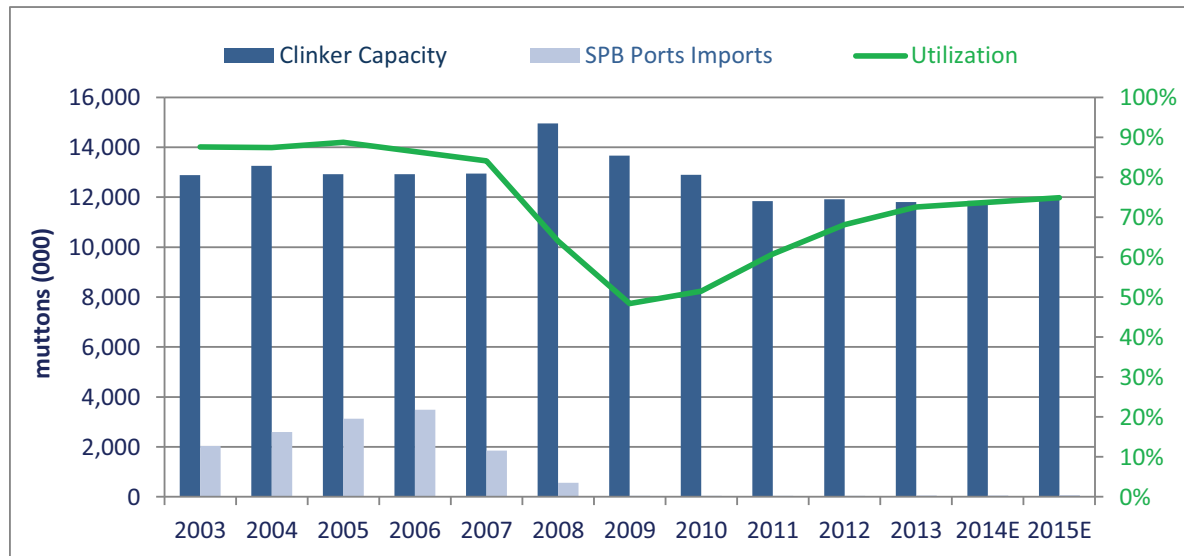
Figure 129: Review of California's Capacity and Production of Clinker





The chart above shows that during the early portion of the previous decade, aggregate utilization levels of California's clinker production facilities was at, or above, 80%. This corresponded to the period when SPB Ports was receiving significant tonnages of imported cement, as illustrated in the following chart.

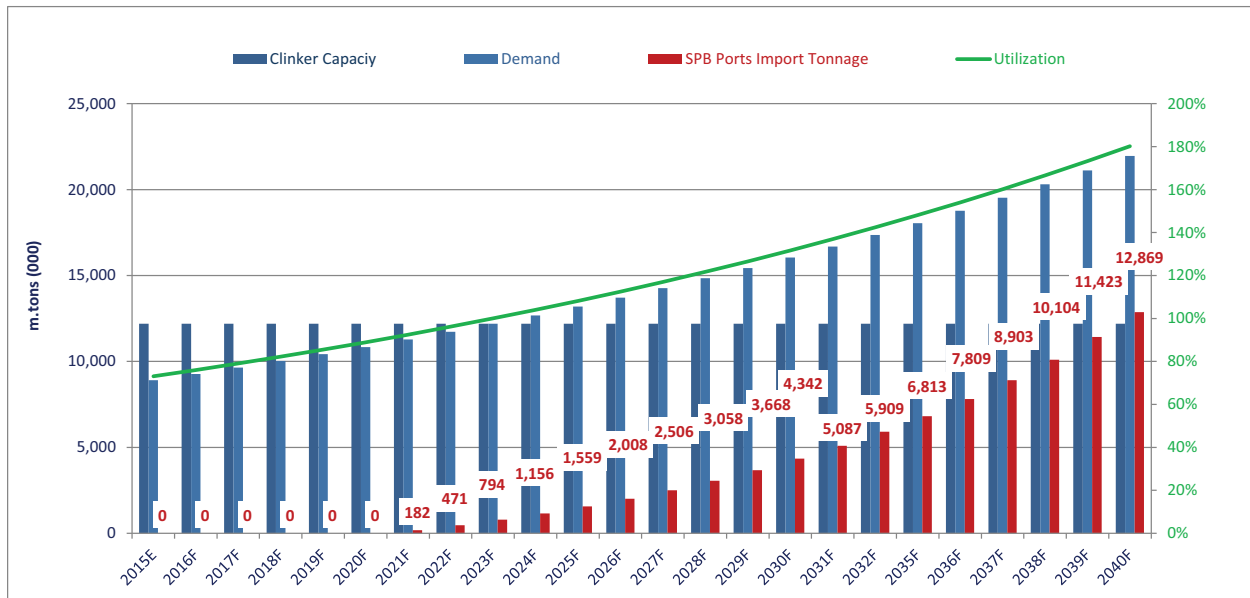
**Figure 130: Overview of SPB Ports Imports of Cement in Relation to California Clinker Production**



Mercator/OE project that California's construction industry will continue to grow and will eventually cause its clinker production facilities to reach an overall utilization level of 90%. Once that occurs, it is expected that cement imports will resume to bridge the gap between domestic supply and increasing demand for this commodity in California. The following chart assumes the following:

- No new clinker production facilities will be opened in California over the forecast period, given environmental concerns
- The number of maintenance days per year for California's clinker production facilities will fall back to historical levels as demand rises, and this will increase the industry's capacity
- Demand for cement in California will grow at a 4% rate
- After clinker production in California reaches the 90% capacity utilization level, additional demand for cement will be met by imports
- 65% of the cement imports into California will be handled by SPB Ports, based on the historical split of shipments between destinations in Northern versus Southern California

Figure 131: Forecast of Cement Imports Throughput SPB Ports



The chart above predicts that demand for cement will drive California’s clinker production industry to a collective utilization rate above 90% by 2021. Furthermore, as the heating process used to produce clinker results in a significant amount of carbon gas emissions, it is not expected that any new production facilities will be opened in the state over the forecast period.

US imports by broad commodity group			
	2004-2014	2015-2020	2021-2040
FOOD	3.7%	3.9%	3.2%
RETAIL	1.4%	5.0%	3.5%
CHEM & PHARM	1.3%	4.9%	3.9%
CONSTRUCTION	2.7%	4.9%	3.8%
MACHINERY (INCL. TRANS)	3.9%	4.8%	3.8%
MATERIALS	4.2%	4.4%	3.5%
MISC	2.9%	5.5%	4.2%
TOTAL	2.5%	4.7%	3.6%

US imports by source region			
	2004-2014	2015-2020	2021-2040
Africa	-1.8%	3.2%	4.1%
Europe	2.0%	4.8%	3.1%
ISCME	1.3%	3.6%	3.5%
Latam	1.0%	3.9%	3.5%
Nafta	-7.4%	11.2%	5.5%
NEA	3.2%	4.8%	3.6%
Ocean	1.9%	6.5%	4.6%
SEA	4.4%	4.4%	3.7%
TOTAL	2.5%	4.7%	3.6%

US exports by commodity			
	2004-2014	2015-2020	2021-2040
CHEMICALS	3.6%	5.3%	4.0%
FABRICS	-1.0%	0.7%	-1.1%
FOOD	4.6%	4.5%	3.2%
MACHINERY	4.7%	5.2%	5.2%
METALS	4.1%	4.8%	4.0%
MINEXTRACTS	6.7%	2.9%	1.9%
OTHER	-0.4%	4.3%	4.1%
PLASTICS	3.4%	5.1%	4.1%
WASTE	8.6%	2.5%	4.7%
WOOD	5.9%	6.5%	4.1%
TOTAL	4.8%	4.4%	3.9%

US exports by destination region			
	2004-2014	2015-2020	2021-2040
Africa	5.4%	2.3%	2.7%
Europe	3.5%	4.7%	2.5%
ISCME	7.2%	7.8%	5.0%
Latam	4.1%	1.7%	3.4%
Nafta	12.5%	5.1%	4.3%
NEA	4.6%	4.5%	4.1%
Ocean	4.6%	3.2%	3.7%
SEA	6.8%	5.8%	4.7%
TOTAL	4.8%	4.4%	3.9%

SPB imports by broad commodity groups			
	2004-2014	2015-2020	2021-2040
FOOD	3.7%	4.4%	3.6%
RETAIL	1.1%	4.4%	3.2%
CHEM & PHARM	5.3%	5.6%	4.2%
CONSTRUCTION	3.4%	5.1%	4.2%
MACHINERY (INCL. TRANS)	4.0%	5.4%	4.4%
MATERIALS	2.1%	4.7%	3.8%
MISC	4.2%	5.6%	4.9%
TOTAL	2.3%	4.8%	3.7%

SPB imports by source region			
	2004-2014	2015-2020	2021-2040
Africa	2.0%	6.6%	7.1%
Europe	0.2%	5.6%	3.8%
ISCME	-0.6%	4.8%	4.4%
Latam	2.0%	3.3%	4.2%
Nafta	-9.5%	20.9%	5.4%
NEA	2.6%	4.7%	3.7%
Ocean	-2.9%	10.4%	5.2%
SEA	2.7%	4.3%	3.7%
TOTAL	2.3%	4.8%	3.7%

<b>SPB exports by commodity</b>			
	<b>2004-2014</b>	<b>2015-2020</b>	<b>2021-2040</b>
<b>CHEMICALS</b>	2.3%	4.2%	4.2%
<b>FABRICS</b>	-1.4%	1.3%	-0.8%
<b>FOOD</b>	6.8%	5.0%	4.9%
<b>MACHINERY</b>	6.4%	4.2%	5.9%
<b>METALS</b>	7.9%	1.7%	4.3%
<b>MINEXTRACTS</b>	2.6%	7.3%	2.7%
<b>OTHER</b>	1.5%	3.5%	4.7%
<b>PLASTICS</b>	0.4%	4.8%	4.6%
<b>WASTE</b>	12.0%	1.6%	5.4%
<b>WOOD</b>	3.1%	5.0%	4.2%
<b>TOTAL</b>	6.0%	3.4%	4.9%

<b>SPB exports by destination region</b>			
	<b>2004-2014</b>	<b>2015-2020</b>	<b>2021-2040</b>
<b>Africa</b>	11.7%	1.4%	3.0%
<b>Europe</b>	2.5%	3.8%	3.5%
<b>ISCME</b>	1.8%	6.5%	5.1%
<b>Latam</b>	5.0%	-1.3%	3.4%
<b>Nafta</b>	1.8%	12.3%	6.0%
<b>NEA</b>	6.4%	3.4%	5.0%
<b>Ocean</b>	4.5%	0.7%	4.0%
<b>SEA</b>	6.3%	4.2%	4.9%
<b>TOTAL</b>	6.0%	3.4%	4.9%

## Appendix 2: Breakdown of SPB Ports' Forecasted Volume – Expected Macro Assumption

### Base Case Adjustments

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports	
	ALL_IMP_TEU	IPI_LDS	LOCAL_LDS	LOCAL_MTY	IPI_MTY	ALL_EXP_TEU	IPI_LDS	LOCAL_LDS	IPI_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY	Total	Overall Growth
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,674,879	3,172,204	5,343,507	151,279	7,888	7,238,122	1,794,807	1,493,538	563,698	3,386,079	370,989	237,630	2,337	38,995	92,028	16,283,989	5.4%
2017	9,043,491	3,306,522	5,570,380	158,333	8,256	7,559,079	1,878,493	1,563,176	587,566	3,529,844	376,554	241,194	2,372	39,580	93,408	16,979,123	4.3%
2018	9,486,827	3,458,477	5,852,513	167,123	8,714	7,948,012	1,982,777	1,649,956	606,653	3,708,626	382,202	244,812	2,407	40,174	94,809	17,817,042	4.9%
2019	9,941,058	3,613,101	6,142,535	176,232	9,189	8,348,615	2,090,854	1,739,892	625,462	3,892,408	387,935	248,484	2,443	40,776	96,232	18,677,608	4.8%
2020	10,243,928	3,614,511	6,434,114	185,624	9,679	8,638,855	2,202,276	1,832,610	526,793	4,077,176	393,754	252,211	2,480	41,388	97,675	19,276,537	3.2%
2021	10,686,574	3,758,876	6,721,741	195,751	10,207	9,052,973	2,322,428	1,932,594	538,512	4,259,439	399,661	255,995	2,517	42,009	99,140	20,139,208	4.5%
2022	11,153,126	3,911,800	7,024,185	206,380	10,761	9,487,904	2,448,531	2,037,530	550,750	4,451,093	405,656	259,835	2,555	42,639	100,627	21,046,686	4.5%
2023	11,566,706	4,024,489	7,314,072	216,839	11,307	9,883,894	2,572,617	2,140,787	535,702	4,634,788	411,740	263,732	2,593	43,278	102,137	21,862,340	3.9%
2024	11,962,432	4,118,097	7,604,862	227,605	11,868	10,271,361	2,700,351	2,247,081	504,873	4,819,056	417,917	267,688	2,632	43,928	103,669	22,651,710	3.6%
2025	12,363,549	4,210,739	7,900,850	239,474	12,487	10,682,729	2,841,161	2,364,255	470,694	5,006,619	424,185	271,703	2,672	44,587	105,224	23,470,464	3.6%
2026	12,748,571	4,294,438	8,190,419	250,644	13,069	11,070,615	2,973,692	2,474,539	432,271	5,190,113	430,548	275,779	2,712	45,255	106,802	24,249,733	3.3%
2027	13,221,008	4,454,529	8,489,438	263,311	13,730	11,552,284	3,123,974	2,599,596	449,119	5,379,595	437,006	279,916	2,752	45,934	108,404	25,210,298	4.0%
2028	13,712,393	4,621,842	8,799,815	276,327	14,409	12,049,532	3,278,401	2,728,101	466,754	5,576,276	443,561	284,114	2,794	46,623	110,030	26,205,487	3.9%
2029	14,221,501	4,795,590	9,120,897	289,898	15,116	12,566,229	3,439,408	2,862,083	484,999	5,779,739	450,215	288,376	2,836	47,323	111,681	27,237,946	3.9%
2030	14,752,389	4,977,370	9,455,224	303,946	15,849	13,102,549	3,606,071	3,000,770	504,113	5,991,596	456,968	292,702	2,878	48,032	113,356	28,311,906	3.9%
2031	15,303,625	5,166,307	9,801,870	318,823	16,625	13,665,533	3,782,580	3,147,651	524,043	6,211,259	463,823	297,092	2,921	48,753	115,056	29,432,980	4.0%
2032	15,870,010	5,360,445	10,157,866	334,269	17,430	14,247,393	3,965,831	3,300,142	544,573	6,436,847	470,780	301,549	2,965	49,484	116,782	30,588,183	3.9%
2033	16,451,896	5,560,233	10,523,018	350,375	18,270	14,850,018	4,156,916	3,459,152	565,713	6,668,236	477,842	306,072	3,010	50,226	118,534	31,779,755	3.9%
2034	17,052,375	5,766,428	10,899,619	367,182	19,146	15,475,852	4,356,321	3,625,086	587,563	6,906,882	485,009	310,663	3,055	50,980	120,312	33,013,237	3.9%
2035	17,667,252	5,977,917	11,284,676	384,604	20,055	16,121,060	4,563,018	3,797,087	610,071	7,150,885	492,284	315,323	3,100	51,745	122,117	34,280,596	3.8%
2036	18,295,943	6,194,729	11,677,573	402,646	20,995	16,785,315	4,777,072	3,975,211	633,177	7,399,856	499,669	320,053	3,147	52,521	123,948	35,580,927	3.8%
2037	18,940,160	6,417,091	12,079,817	421,285	21,967	17,469,129	4,998,205	4,159,225	656,948	7,654,751	507,164	324,853	3,194	53,308	125,808	36,916,452	3.8%
2038	19,597,082	6,643,952	12,489,610	440,548	22,972	18,171,822	5,226,745	4,349,404	681,244	7,914,429	514,771	329,726	3,242	54,108	127,695	38,283,675	3.7%
2039	20,262,658	6,873,624	12,904,584	460,440	24,009	18,891,827	5,462,756	4,545,799	705,882	8,177,390	522,493	334,672	3,291	54,920	129,610	39,676,978	3.6%
2040	20,939,633	7,106,557	13,326,738	481,244	25,094	19,635,203	5,709,577	4,751,189	729,536	8,444,901	530,330	339,692	3,340	55,744	131,554	41,105,166	3.6%

## Upside Adjustments

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports Total	Overall Growth
	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY		
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,674,879	3,172,204	5,343,507	151,279	7,888	7,238,122	1,794,807	1,493,538	563,698	3,386,079	372,817	236,459	2,325	38,803	95,230	16,285,817	5.4%
2017	9,043,491	3,306,522	5,570,380	158,333	8,256	7,559,079	1,878,493	1,563,176	587,566	3,529,844	380,273	238,824	2,348	39,191	99,910	16,982,842	4.3%
2018	9,500,282	3,471,932	5,852,513	167,123	8,714	7,958,319	1,982,777	1,649,956	616,959	3,708,626	387,879	241,212	2,372	39,583	104,712	17,846,479	5.1%
2019	9,969,246	3,641,289	6,142,535	176,232	9,189	8,370,207	2,090,854	1,739,892	647,054	3,892,408	395,636	243,624	2,395	39,979	109,638	18,735,089	5.0%
2020	10,398,204	3,768,787	6,434,114	185,624	9,679	8,757,031	2,202,276	1,832,610	644,969	4,077,176	403,549	246,060	2,419	40,379	114,691	19,558,783	4.4%
2021	10,862,750	3,935,052	6,721,741	195,751	10,207	9,187,924	2,322,428	1,932,594	673,463	4,259,439	411,620	248,521	2,444	40,782	119,873	20,462,294	4.6%
2022	11,352,820	4,111,494	7,024,185	206,380	10,761	9,640,869	2,448,531	2,037,530	703,715	4,451,093	419,852	251,006	2,468	41,190	125,188	21,413,542	4.6%
2023	11,824,207	4,281,991	7,314,072	216,839	11,307	10,081,140	2,572,617	2,140,787	732,948	4,634,788	428,249	253,516	2,493	41,602	130,638	22,333,597	4.3%
2024	12,298,803	4,454,468	7,604,862	227,605	11,868	10,529,021	2,700,351	2,247,081	762,532	4,819,056	436,814	256,051	2,518	42,018	136,227	23,264,638	4.2%
2025	12,784,154	4,631,343	7,900,850	239,474	12,487	11,004,912	2,841,161	2,364,255	792,877	5,006,619	445,550	258,612	2,543	42,438	141,958	24,234,616	4.2%
2026	13,257,986	4,803,853	8,190,419	250,644	13,069	11,460,826	2,973,692	2,474,539	822,482	5,190,113	454,461	261,198	2,568	42,863	147,833	25,173,274	3.9%
2027	13,748,283	4,981,804	8,489,438	263,311	13,730	11,956,177	3,123,974	2,599,596	853,012	5,379,595	463,551	263,810	2,594	43,291	153,856	26,168,011	4.0%
2028	14,258,295	5,167,744	8,799,815	276,327	14,409	12,467,692	3,278,401	2,728,101	884,914	5,576,276	472,822	266,448	2,620	43,724	160,030	27,198,809	3.9%
2029	14,786,849	5,360,937	9,120,897	289,898	15,116	12,999,285	3,439,408	2,862,083	918,055	5,779,739	482,278	269,112	2,646	44,161	166,358	28,268,412	3.9%
2030	15,338,043	5,563,024	9,455,224	303,946	15,849	13,551,160	3,606,071	3,000,770	952,723	5,991,596	491,924	271,804	2,673	44,603	172,845	29,381,127	3.9%
2031	15,910,288	5,772,970	9,801,870	318,823	16,625	14,130,235	3,782,580	3,147,651	988,745	6,211,259	501,762	274,522	2,699	45,049	179,492	30,542,285	4.0%
2032	16,498,179	5,988,614	10,157,866	334,269	17,430	14,728,570	3,965,831	3,300,142	1,025,750	6,436,847	511,797	277,267	2,726	45,500	186,305	31,738,546	3.9%
2033	17,102,179	6,210,516	10,523,018	350,375	18,270	15,348,134	4,156,916	3,459,152	1,063,829	6,668,236	522,033	280,039	2,754	45,955	193,286	32,972,346	3.9%
2034	17,725,432	6,439,484	10,899,619	367,182	19,146	15,991,413	4,356,321	3,625,086	1,103,124	6,906,882	532,474	282,840	2,781	46,414	200,439	34,249,319	3.9%
2035	18,363,518	6,674,183	11,284,676	384,604	20,055	16,654,399	4,563,018	3,797,087	1,143,410	7,150,885	543,124	285,668	2,809	46,878	207,768	35,561,040	3.8%
2036	19,015,954	6,914,740	11,677,573	402,646	20,995	17,336,843	4,777,072	3,975,211	1,184,704	7,399,856	553,986	288,525	2,837	47,347	215,277	36,906,783	3.8%
2037	19,684,410	7,161,341	12,079,817	421,285	21,967	18,039,223	4,998,205	4,159,225	1,227,042	7,654,751	565,066	291,410	2,865	47,820	222,970	38,288,699	3.7%
2038	20,365,993	7,412,864	12,489,610	440,548	22,972	18,760,807	5,226,745	4,349,404	1,270,229	7,914,429	576,367	294,324	2,894	48,299	230,850	39,703,168	3.7%
2039	21,056,473	7,667,439	12,904,584	460,440	24,009	19,499,889	5,462,756	4,545,799	1,313,944	8,177,390	587,894	297,268	2,923	48,782	238,922	41,144,257	3.6%
2040	21,760,761	7,927,685	13,326,738	481,244	25,094	20,264,185	5,709,577	4,751,189	1,358,519	8,444,901	599,652	300,240	2,952	49,269	247,190	42,624,598	3.6%

## Downside Adjustments

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports	
	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY	Total	Overall Growth
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,674,879	3,172,204	5,343,507	151,279	7,888	7,238,122	1,794,807	1,493,538	563,698	3,386,079	368,248	236,459	2,325	38,803	90,661	16,281,248	5.4%
2017	9,043,491	3,306,522	5,570,380	158,333	8,256	7,559,079	1,878,493	1,563,176	587,566	3,529,844	371,010	238,824	2,348	39,191	90,647	16,973,579	4.3%
2018	9,473,244	3,444,894	5,852,513	167,123	8,714	7,937,608	1,982,777	1,649,956	596,248	3,708,626	373,792	241,212	2,372	39,583	90,626	17,784,644	4.8%
2019	9,912,602	3,584,645	6,142,535	176,232	9,189	8,326,818	2,090,854	1,739,892	603,664	3,892,408	376,596	243,624	2,395	39,979	90,598	18,616,015	4.7%
2020	10,213,369	3,583,952	6,434,114	185,624	9,679	8,615,447	2,202,276	1,832,610	503,385	4,077,176	379,420	246,060	2,419	40,379	90,562	19,208,236	3.2%
2021	10,639,226	3,711,528	6,721,741	195,751	10,207	9,016,704	2,322,428	1,932,594	502,244	4,259,439	382,266	248,521	2,444	40,782	90,519	20,038,197	4.3%
2022	11,087,606	3,846,279	7,024,185	206,380	10,761	9,437,716	2,448,531	2,037,530	500,562	4,451,093	385,133	251,006	2,468	41,190	90,469	20,910,455	4.4%
2023	11,448,217	3,906,000	7,314,072	216,839	11,307	9,793,132	2,572,617	2,140,787	444,940	4,634,788	388,021	253,516	2,493	41,602	90,410	21,629,371	3.4%
2024	11,607,650	3,763,315	7,604,862	227,605	11,868	9,999,599	2,700,351	2,247,081	233,110	4,819,056	390,932	256,051	2,518	42,018	90,345	21,998,180	1.7%
2025	11,923,165	3,770,354	7,900,850	239,474	12,487	10,345,395	2,841,161	2,364,255	133,360	5,006,619	393,864	258,612	2,543	42,438	90,271	22,662,423	3.0%
2026	12,217,982	3,763,850	8,190,419	250,644	13,069	10,664,184	2,973,692	2,474,539	25,840	5,190,113	396,817	261,198	2,568	42,863	90,189	23,278,983	2.7%
2027	12,671,816	3,905,338	8,489,438	263,311	13,730	11,131,604	3,123,974	2,599,596	28,438	5,379,595	399,794	263,810	2,594	43,291	90,099	24,203,214	4.0%
2028	13,143,802	4,053,251	8,799,815	276,327	14,409	11,613,991	3,278,401	2,728,101	31,213	5,576,276	402,792	266,448	2,620	43,724	90,000	25,160,585	4.0%
2029	13,632,656	4,206,745	9,120,897	289,898	15,116	12,115,174	3,439,408	2,862,083	33,944	5,779,739	405,813	269,112	2,646	44,161	89,893	26,153,643	3.9%
2030	14,142,392	4,367,373	9,455,224	303,946	15,849	12,635,292	3,606,071	3,000,770	36,855	5,991,596	408,857	271,804	2,673	44,603	89,777	27,186,540	3.9%
2031	14,671,747	4,534,430	9,801,870	318,823	16,625	13,181,514	3,782,580	3,147,651	40,024	6,211,259	411,923	274,522	2,699	45,049	89,653	28,265,185	4.0%
2032	15,215,732	4,706,167	10,157,866	334,269	17,430	13,746,215	3,965,831	3,300,142	43,396	6,436,847	415,012	277,267	2,726	45,500	89,520	29,376,960	3.9%
2033	15,774,585	4,882,922	10,523,018	350,375	18,270	14,331,197	4,156,916	3,459,152	46,892	6,668,236	418,125	280,039	2,754	45,955	89,377	30,523,907	3.9%
2034	16,351,345	5,065,397	10,899,619	367,182	19,146	14,938,862	4,356,321	3,625,086	50,573	6,906,882	421,261	282,840	2,781	46,414	89,226	31,711,468	3.9%
2035	16,942,046	5,252,712	11,284,676	384,604	20,055	15,565,552	4,563,018	3,797,087	54,563	7,150,885	424,420	285,668	2,809	46,878	89,065	32,932,019	3.8%
2036	17,546,006	5,444,792	11,677,573	402,646	20,995	16,210,863	4,777,072	3,975,211	58,724	7,399,856	427,604	288,525	2,837	47,347	88,895	34,184,473	3.8%
2037	18,164,976	5,641,907	12,079,817	421,285	21,967	16,875,338	4,998,205	4,159,225	63,157	7,654,751	430,811	291,410	2,865	47,820	88,715	35,471,125	3.8%
2038	18,796,212	5,843,082	12,489,610	440,548	22,972	17,558,355	5,226,745	4,349,404	67,777	7,914,429	434,042	294,324	2,894	48,299	88,525	36,788,609	3.7%
2039	19,435,849	6,046,815	12,904,584	460,440	24,009	18,258,491	5,462,756	4,545,799	72,546	8,177,390	437,297	297,268	2,923	48,782	88,325	38,131,637	3.7%
2040	20,084,377	6,251,301	13,326,738	481,244	25,094	18,980,076	5,709,577	4,751,189	74,409	8,444,901	440,577	300,240	2,952	49,269	88,115	39,505,030	3.6%



### Appendix 3: Breakdown of SPB Ports' Forecasted Volume – High Macro Assumptions

#### Base Case Adjustments

	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports	Overall
Year	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY	Total	Growth
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,951,954	3,277,733	5,509,694	156,373	8,154	7,477,348	1,855,241	1,543,827	586,891	3,491,388	370,989	237,630	2,337	38,995	92,028	16,800,291	8.8%
2017	9,534,522	3,496,944	5,862,317	166,575	8,686	7,961,802	1,976,275	1,644,545	626,142	3,714,839	376,554	241,194	2,372	39,580	93,408	17,872,877	6.4%
2018	10,018,147	3,667,306	6,165,505	176,151	9,185	8,384,690	2,089,889	1,739,089	648,749	3,906,964	382,202	244,812	2,407	40,174	94,809	18,785,040	5.1%
2019	10,506,274	3,839,140	6,472,331	185,148	9,654	8,796,816	2,196,636	1,827,917	670,869	4,101,393	387,935	248,484	2,443	40,776	96,232	19,691,026	4.8%
2020	10,978,008	3,903,511	6,865,903	198,256	10,338	9,243,972	2,352,149	1,957,327	583,704	4,350,792	393,754	252,211	2,480	41,388	97,675	20,615,734	4.7%
2021	11,617,626	4,120,681	7,273,095	212,756	11,094	9,842,176	2,524,184	2,100,484	608,686	4,608,822	399,661	255,995	2,517	42,009	99,140	21,859,463	6.0%
2022	12,280,289	4,346,151	7,694,348	227,906	11,884	10,463,891	2,703,922	2,250,052	634,156	4,875,762	405,656	259,835	2,555	42,639	100,627	23,149,836	5.9%
2023	12,860,851	4,519,971	8,083,730	244,406	12,744	11,065,426	2,899,682	2,412,952	630,286	5,122,506	411,740	263,732	2,593	43,278	102,137	24,338,018	5.1%
2024	13,504,943	4,705,049	8,524,499	261,747	13,648	11,707,452	3,105,416	2,584,153	616,071	5,401,813	417,917	267,688	2,632	43,928	103,669	25,630,312	5.3%
2025	14,119,994	4,876,816	8,949,258	279,354	14,567	12,339,565	3,314,307	2,757,980	596,303	5,670,975	424,185	271,703	2,672	44,587	105,224	26,883,744	4.9%
2026	14,778,508	5,061,363	9,403,938	297,685	15,522	13,006,018	3,531,791	2,938,958	576,173	5,959,097	430,548	275,779	2,712	45,255	106,802	28,215,075	5.0%
2027	15,528,452	5,323,708	9,870,123	318,037	16,584	13,779,234	3,773,257	3,139,893	611,574	6,254,510	437,006	279,916	2,752	45,934	108,404	29,744,692	5.4%
2028	16,316,302	5,600,374	10,358,904	339,330	17,694	14,589,272	4,025,879	3,350,110	649,043	6,564,241	443,561	284,114	2,794	46,623	110,030	31,349,136	5.4%
2029	17,140,605	5,890,489	10,869,462	361,789	18,865	15,440,341	4,292,338	3,571,843	688,389	6,887,772	450,215	288,376	2,836	47,323	111,681	33,031,161	5.4%
2030	17,851,282	6,139,628	11,310,844	380,946	19,864	16,167,901	4,519,620	3,760,974	719,840	7,167,467	456,968	292,702	2,878	48,032	113,356	34,476,151	4.4%
2031	18,598,319	6,401,951	11,774,115	401,328	20,927	16,937,855	4,761,430	3,962,195	753,198	7,461,033	463,823	297,092	2,921	48,753	115,056	35,999,997	4.4%
2032	19,366,469	6,671,680	12,250,110	422,641	22,038	17,737,135	5,014,298	4,172,617	787,558	7,762,662	470,780	301,549	2,965	49,484	116,782	37,574,384	4.4%
2033	20,167,096	6,953,419	12,745,277	445,186	23,214	18,577,077	5,281,770	4,395,192	823,676	8,076,440	477,842	306,072	3,010	50,226	118,534	39,222,015	4.4%
2034	20,999,005	7,246,307	13,259,373	468,876	24,449	19,455,487	5,562,834	4,629,078	861,362	8,402,213	485,009	310,663	3,055	50,980	120,312	40,939,502	4.4%
2035	21,876,844	7,556,219	13,800,850	494,016	25,760	20,385,531	5,861,101	4,877,279	901,814	8,745,336	492,284	315,323	3,100	51,745	122,117	42,754,660	4.4%
2036	22,783,480	7,877,102	14,358,774	520,465	27,139	21,356,067	6,174,898	5,138,403	943,883	9,098,882	499,669	320,053	3,147	52,521	123,948	44,639,216	4.4%
2037	23,719,599	8,208,796	14,934,218	548,010	28,575	22,363,143	6,501,697	5,410,347	987,568	9,463,530	507,164	324,853	3,194	53,308	125,808	46,589,906	4.4%
2038	24,684,882	8,551,149	15,526,877	576,780	30,075	23,409,389	6,843,029	5,694,385	1,032,888	9,839,087	514,771	329,726	3,242	54,108	127,695	48,609,042	4.3%
2039	25,693,848	8,909,176	16,145,615	607,385	31,671	24,514,709	7,206,138	5,996,544	1,080,857	10,231,169	522,493	334,672	3,291	54,920	129,610	50,731,049	4.4%
2040	26,739,280	9,280,078	16,786,298	639,556	33,349	25,668,695	7,587,813	6,314,152	1,129,572	10,637,158	530,330	339,692	3,340	55,744	131,554	52,938,305	4.4%

## Upside Adjustments

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports Total	Overall Growth
	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY		
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,951,954	3,277,733	5,509,694	156,373	8,154	7,477,348	1,855,241	1,543,827	586,891	3,491,388	372,817	236,459	2,325	38,803	95,230	16,802,118	8.8%
2017	9,534,522	3,496,944	5,862,317	166,575	8,686	7,961,802	1,976,275	1,644,545	626,142	3,714,839	380,273	238,824	2,348	39,191	99,910	17,876,596	6.4%
2018	10,031,602	3,680,761	6,165,505	176,151	9,185	8,394,997	2,089,889	1,739,089	659,055	3,906,964	387,879	241,212	2,372	39,583	104,712	18,814,478	5.2%
2019	10,534,463	3,867,329	6,472,331	185,148	9,654	8,818,408	2,196,636	1,827,917	692,461	4,101,393	395,636	243,624	2,395	39,979	109,638	19,748,507	5.0%
2020	11,132,284	4,057,787	6,865,903	198,256	10,338	9,362,148	2,352,149	1,957,327	701,879	4,350,792	403,549	246,060	2,419	40,379	114,691	20,897,980	5.8%
2021	11,793,802	4,296,857	7,273,095	212,756	11,094	9,977,127	2,524,184	2,100,484	743,637	4,608,822	411,620	248,521	2,444	40,782	119,873	22,182,549	6.1%
2022	12,479,983	4,545,845	7,694,348	227,906	11,884	10,616,856	2,703,922	2,250,052	787,121	4,875,762	419,852	251,006	2,468	41,190	125,188	23,516,691	6.0%
2023	13,118,353	4,777,472	8,083,730	244,406	12,744	11,262,672	2,899,682	2,412,952	827,532	5,122,506	428,249	253,516	2,493	41,602	130,638	24,809,274	5.5%
2024	13,841,314	5,041,420	8,524,499	261,747	13,648	11,965,112	3,105,416	2,584,153	873,731	5,401,813	436,814	256,051	2,518	42,018	136,227	26,243,240	5.8%
2025	14,540,599	5,297,421	8,949,258	279,354	14,567	12,661,747	3,314,307	2,757,980	918,486	5,670,975	445,550	258,612	2,543	42,438	141,958	27,647,897	5.4%
2026	15,287,924	5,570,778	9,403,938	297,685	15,522	13,396,230	3,531,791	2,938,958	966,385	5,959,097	454,461	261,198	2,568	42,863	147,833	29,138,615	5.4%
2027	16,055,728	5,850,984	9,870,123	318,037	16,584	14,183,126	3,773,257	3,139,893	1,015,467	6,254,510	463,551	263,810	2,594	43,291	153,856	30,702,405	5.4%
2028	16,862,204	6,146,276	10,358,904	339,330	17,694	15,007,433	4,025,879	3,350,110	1,067,203	6,564,241	472,822	266,448	2,620	43,724	160,030	32,342,458	5.3%
2029	17,705,952	6,455,836	10,869,462	361,789	18,865	15,873,397	4,292,338	3,571,843	1,121,445	6,887,772	482,278	269,112	2,646	44,161	166,358	34,061,627	5.3%
2030	18,436,936	6,725,282	11,310,844	380,946	19,864	16,616,512	4,519,620	3,760,974	1,168,451	7,167,467	491,924	271,804	2,673	44,603	172,845	35,545,372	4.4%
2031	19,204,982	7,008,613	11,774,115	401,328	20,927	17,402,558	4,761,430	3,962,195	1,217,900	7,461,033	501,762	274,522	2,699	45,049	179,492	37,109,302	4.4%
2032	19,994,638	7,299,849	12,250,110	422,641	22,038	18,218,312	5,014,298	4,172,617	1,268,735	7,762,662	511,797	277,267	2,726	45,500	186,305	38,724,748	4.4%
2033	20,817,379	7,603,702	12,745,277	445,186	23,214	19,075,194	5,281,770	4,395,192	1,321,792	8,076,440	522,033	280,039	2,754	45,955	193,286	40,414,606	4.4%
2034	21,672,062	7,919,364	13,259,373	468,876	24,449	19,971,048	5,562,834	4,629,078	1,376,922	8,402,213	532,474	282,840	2,781	46,414	200,439	42,175,583	4.4%
2035	22,573,111	8,252,485	13,800,850	494,016	25,760	20,918,870	5,861,101	4,877,279	1,435,153	8,745,336	543,124	285,668	2,809	46,878	207,768	44,035,104	4.4%
2036	23,503,491	8,597,113	14,358,774	520,465	27,139	21,907,595	6,174,898	5,138,403	1,495,411	9,098,882	553,986	288,525	2,837	47,347	215,277	45,965,072	4.4%
2037	24,463,849	8,953,046	14,934,218	548,010	28,575	22,933,237	6,501,697	5,410,347	1,557,663	9,463,530	565,066	291,410	2,865	47,820	222,970	47,962,152	4.3%
2038	25,453,793	9,320,061	15,526,877	576,780	30,075	23,998,375	6,843,029	5,694,385	1,621,874	9,839,087	576,367	294,324	2,894	48,299	230,850	50,028,535	4.3%
2039	26,487,663	9,702,992	16,145,615	607,385	31,671	25,122,771	7,206,138	5,996,544	1,688,919	10,231,169	587,894	297,268	2,923	48,782	238,922	52,198,328	4.3%
2040	27,560,407	10,101,205	16,786,298	639,556	33,349	26,297,678	7,587,813	6,314,152	1,758,554	10,637,158	599,652	300,240	2,952	49,269	247,190	54,457,737	4.3%

## Downside Adjustment

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports Total	Overall Growth
	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY		
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,951,954	3,277,733	5,509,694	156,373	8,154	7,477,348	1,855,241	1,543,827	586,891	3,491,388	368,248	236,459	2,325	38,803	90,661	16,797,549	8.7%
2017	9,534,522	3,496,944	5,862,317	166,575	8,686	7,961,802	1,976,275	1,644,545	626,142	3,714,839	371,010	238,824	2,348	39,191	90,647	17,867,333	6.4%
2018	10,004,564	3,653,723	6,165,505	176,151	9,185	8,374,286	2,089,889	1,739,089	638,344	3,906,964	373,792	241,212	2,372	39,583	90,626	18,752,642	5.0%
2019	10,477,819	3,810,685	6,472,331	185,148	9,654	8,775,019	2,196,636	1,827,917	649,072	4,101,393	376,596	243,624	2,395	39,979	90,598	19,629,433	4.7%
2020	10,947,448	3,872,951	6,865,903	198,256	10,338	9,220,564	2,352,149	1,957,327	560,296	4,350,792	379,420	246,060	2,419	40,379	90,562	20,547,433	4.7%
2021	11,570,278	4,073,333	7,273,095	212,756	11,094	9,805,908	2,524,184	2,100,484	572,418	4,608,822	382,266	248,521	2,444	40,782	90,519	21,758,452	5.9%
2022	12,214,769	4,280,631	7,694,348	227,906	11,884	10,413,703	2,703,922	2,250,052	583,967	4,875,762	385,133	251,006	2,468	41,190	90,469	23,013,604	5.8%
2023	12,742,363	4,401,482	8,083,730	244,406	12,744	10,974,664	2,899,682	2,412,952	539,524	5,122,506	388,021	253,516	2,493	41,602	90,410	24,105,048	4.7%
2024	13,150,161	4,350,267	8,524,499	261,747	13,648	11,435,690	3,105,416	2,584,153	344,309	5,401,813	390,932	256,051	2,518	42,018	90,345	24,976,782	3.6%
2025	13,679,610	4,436,432	8,949,258	279,354	14,567	12,002,230	3,314,307	2,757,980	258,969	5,670,975	393,864	258,612	2,543	42,438	90,271	26,075,704	4.4%
2026	14,247,920	4,530,775	9,403,938	297,685	15,522	12,599,587	3,531,791	2,938,958	169,742	5,959,097	396,817	261,198	2,568	42,863	90,189	27,244,325	4.5%
2027	14,979,261	4,774,517	9,870,123	318,037	16,584	13,358,553	3,773,257	3,139,893	190,893	6,254,510	399,794	263,810	2,594	43,291	90,099	28,737,608	5.5%
2028	15,747,711	5,031,783	10,358,904	339,330	17,694	14,153,731	4,025,879	3,350,110	213,502	6,564,241	402,792	266,448	2,620	43,724	90,000	30,304,234	5.5%
2029	16,551,760	5,301,643	10,869,462	361,789	18,865	14,989,286	4,292,338	3,571,843	237,333	6,887,772	405,813	269,112	2,646	44,161	89,893	31,946,858	5.4%
2030	17,241,285	5,529,631	11,310,844	380,946	19,864	15,700,644	4,519,620	3,760,974	252,583	7,167,467	408,857	271,804	2,673	44,603	89,777	33,350,786	4.4%
2031	17,966,442	5,770,073	11,774,115	401,328	20,927	16,453,837	4,761,430	3,962,195	269,179	7,461,033	411,923	274,522	2,699	45,049	89,653	34,832,202	4.4%
2032	18,712,191	6,017,402	12,250,110	422,641	22,038	17,235,958	5,014,298	4,172,617	286,381	7,762,662	415,012	277,267	2,726	45,500	89,520	36,363,161	4.4%
2033	19,489,785	6,276,108	12,745,277	445,186	23,214	18,058,257	5,281,770	4,395,192	304,855	8,076,440	418,125	280,039	2,754	45,955	89,377	37,966,167	4.4%
2034	20,297,975	6,545,276	13,259,373	468,876	24,449	18,918,497	5,562,834	4,629,078	324,372	8,402,213	421,261	282,840	2,781	46,414	89,226	39,637,733	4.4%
2035	21,151,639	6,831,014	13,800,850	494,016	25,760	19,830,023	5,861,101	4,877,279	346,306	8,745,336	424,420	285,668	2,809	46,878	89,065	41,406,083	4.5%
2036	22,033,543	7,127,165	14,358,774	520,465	27,139	20,781,615	6,174,898	5,138,403	369,431	9,098,882	427,604	288,525	2,837	47,347	88,895	43,242,762	4.4%
2037	22,944,416	7,433,613	14,934,218	548,010	28,575	21,769,352	6,501,697	5,410,347	393,778	9,463,530	430,811	291,410	2,865	47,820	88,715	45,144,578	4.4%
2038	23,884,012	7,750,279	15,526,877	576,780	30,075	22,795,923	6,843,029	5,694,385	419,422	9,839,087	434,042	294,324	2,894	48,299	88,525	47,113,976	4.4%
2039	24,867,039	8,082,367	16,145,615	607,385	31,671	23,881,373	7,206,138	5,996,544	447,521	10,231,169	437,297	297,268	2,923	48,782	88,325	49,185,709	4.4%
2040	25,884,024	8,424,822	16,786,298	639,556	33,349	25,013,568	7,587,813	6,314,152	474,445	10,637,158	440,577	300,240	2,952	49,269	88,115	51,338,168	4.4%

#### Appendix 4: Breakdown of SPB Ports' Forecasted Volume – Low Macro Assumptions

##### Base Case Adjustments

	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports	Overall
Year	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY	Total	Growth
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,039,827	2,934,562	4,956,640	141,258	7,366	6,736,895	1,675,917	1,394,604	525,445	3,140,929	370,989	237,630	2,337	38,995	92,028	15,147,711	-1.9%
2017	8,403,797	3,072,685	5,175,096	148,285	7,732	7,052,787	1,759,278	1,463,973	550,177	3,279,360	376,554	241,194	2,372	39,580	93,408	15,833,139	4.5%
2018	9,001,478	3,293,475	5,541,514	158,238	8,251	7,532,974	1,877,369	1,562,241	581,813	3,511,552	382,202	244,812	2,407	40,174	94,809	16,916,655	6.8%
2019	9,530,530	3,481,478	5,872,291	168,001	8,760	7,979,808	1,993,195	1,658,625	606,828	3,721,159	387,935	248,484	2,443	40,776	96,232	17,898,273	5.8%
2020	9,798,609	3,471,546	6,142,128	175,770	9,165	8,219,210	2,085,372	1,735,330	506,359	3,892,150	393,754	252,211	2,480	41,388	97,675	18,411,573	2.9%
2021	10,133,481	3,577,868	6,363,163	182,912	9,538	8,519,644	2,170,100	1,805,835	511,493	4,032,216	399,661	255,995	2,517	42,009	99,140	19,052,785	3.5%
2022	10,467,934	3,683,860	6,584,141	190,024	9,909	8,818,350	2,254,482	1,876,053	515,570	4,172,245	405,656	259,835	2,555	42,639	100,627	19,691,940	3.4%
2023	10,765,583	3,755,490	6,802,679	197,134	10,279	9,089,212	2,338,834	1,946,247	493,403	4,310,729	411,740	263,732	2,593	43,278	102,137	20,266,535	2.9%
2024	11,031,744	3,802,984	7,013,903	204,209	10,648	9,337,993	2,422,770	2,016,093	454,553	4,444,577	417,917	267,688	2,632	43,928	103,669	20,787,653	2.6%
2025	11,275,209	3,839,230	7,213,254	211,687	11,038	9,582,846	2,511,498	2,089,927	410,519	4,570,902	424,185	271,703	2,672	44,587	105,224	21,282,241	2.4%
2026	11,499,054	3,865,072	7,403,653	218,913	11,415	9,812,026	2,597,231	2,161,269	361,972	4,691,554	430,548	275,779	2,712	45,255	106,802	21,741,628	2.2%
2027	11,800,942	3,963,964	7,597,813	227,313	11,853	10,123,771	2,696,882	2,244,194	368,106	4,814,590	437,006	279,916	2,752	45,934	108,404	22,361,720	2.9%
2028	12,112,988	4,066,785	7,798,081	235,825	12,297	10,442,061	2,797,880	2,328,238	374,448	4,941,496	443,561	284,114	2,794	46,623	110,030	22,998,611	2.8%
2029	12,434,103	4,172,845	8,003,884	244,619	12,755	10,770,008	2,902,207	2,415,054	380,838	5,071,909	450,215	288,376	2,836	47,323	111,681	23,654,326	2.9%
2030	12,765,470	4,282,650	8,216,031	253,568	13,222	11,105,468	3,008,380	2,503,405	387,341	5,206,342	456,968	292,702	2,878	48,032	113,356	24,327,906	2.8%
2031	13,108,099	4,396,257	8,435,093	263,033	13,716	11,456,761	3,120,679	2,596,854	394,070	5,345,158	463,823	297,092	2,921	48,753	115,056	25,028,683	2.9%
2032	13,457,701	4,512,061	8,658,615	272,800	14,225	11,817,494	3,236,550	2,693,275	400,869	5,486,800	470,780	301,549	2,965	49,484	116,782	25,745,975	2.9%
2033	13,812,511	4,629,959	8,884,896	282,905	14,752	12,187,320	3,356,439	2,793,040	407,650	5,630,190	477,842	306,072	3,010	50,226	118,534	26,477,672	2.8%
2034	14,173,118	4,749,043	9,115,522	293,261	15,292	12,565,129	3,479,301	2,895,279	414,217	5,776,333	485,009	310,663	3,055	50,980	120,312	27,223,256	2.8%
2035	14,535,364	4,868,967	9,346,727	303,828	15,843	12,947,786	3,604,680	2,999,612	420,650	5,922,843	492,284	315,323	3,100	51,745	122,117	27,975,435	2.8%
2036	14,901,939	4,990,636	9,580,218	314,676	16,408	13,337,947	3,733,383	3,106,712	427,050	6,070,802	499,669	320,053	3,147	52,521	123,948	28,739,554	2.7%
2037	15,269,815	5,112,629	9,814,547	325,658	16,981	13,731,281	3,863,672	3,215,131	433,187	6,219,292	507,164	324,853	3,194	53,308	125,808	29,508,260	2.7%
2038	15,635,333	5,233,585	10,047,439	336,749	17,559	14,125,631	3,995,262	3,324,633	438,865	6,366,871	514,771	329,726	3,242	54,108	127,695	30,275,735	2.6%
2039	16,001,054	5,354,287	10,280,492	348,122	18,152	14,525,995	4,130,190	3,436,912	444,340	6,514,552	522,493	334,672	3,291	54,920	129,610	31,049,541	2.6%
2040	16,371,733	5,475,824	10,517,300	359,846	18,764	14,934,955	4,269,281	3,552,656	448,404	6,664,613	530,330	339,692	3,340	55,744	131,554	31,837,018	2.5%

## Upside Adjustments

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports Total	Overall Growth
	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY		
2015	8,028,953	2,930,068	4,949,756	141,739	7,391	7,051,853	1,681,614	1,399,345	520,670	3,450,223	365,507	234,118	2,302	38,419	90,668	15,446,313	1.9%
2016	8,039,827	2,934,562	4,956,640	141,258	7,366	6,736,895	1,675,917	1,394,604	525,445	3,140,929	372,817	236,459	2,325	38,803	95,230	15,149,539	-1.9%
2017	8,403,797	3,072,685	5,175,096	148,285	7,732	7,052,787	1,759,278	1,463,973	550,177	3,279,360	380,273	238,824	2,348	39,191	99,910	15,836,858	4.5%
2018	9,014,933	3,306,930	5,541,514	158,238	8,251	7,543,281	1,877,369	1,562,241	592,119	3,511,552	387,879	241,212	2,372	39,583	104,712	16,946,093	7.0%
2019	9,558,718	3,509,666	5,872,291	168,001	8,760	8,001,400	1,993,195	1,658,625	628,420	3,721,159	395,636	243,624	2,395	39,979	109,638	17,955,754	6.0%
2020	9,952,885	3,625,821	6,142,128	175,770	9,165	8,337,385	2,085,372	1,735,330	624,534	3,892,150	403,549	246,060	2,419	40,379	114,691	18,693,819	4.1%
2021	10,309,656	3,754,044	6,363,163	182,912	9,538	8,654,595	2,170,100	1,805,835	646,444	4,032,216	411,620	248,521	2,444	40,782	119,873	19,375,871	3.6%
2022	10,667,628	3,883,554	6,584,141	190,024	9,909	8,971,316	2,254,482	1,876,053	668,535	4,172,245	419,852	251,006	2,468	41,190	125,188	20,058,796	3.5%
2023	11,023,084	4,012,992	6,802,679	197,134	10,279	9,286,458	2,338,834	1,946,247	690,649	4,310,729	428,249	253,516	2,493	41,602	130,638	20,737,792	3.4%
2024	11,368,115	4,139,355	7,013,903	204,209	10,648	9,595,653	2,422,770	2,016,093	712,213	4,444,577	436,814	256,051	2,518	42,018	136,227	21,400,582	3.2%
2025	11,695,814	4,259,835	7,213,254	211,687	11,038	9,905,029	2,511,498	2,089,927	732,702	4,570,902	445,550	258,612	2,543	42,438	141,958	22,046,394	3.0%
2026	12,008,469	4,374,488	7,403,653	218,913	11,415	10,202,238	2,597,231	2,161,269	752,184	4,691,554	454,461	261,198	2,568	42,863	147,833	22,665,168	2.8%
2027	12,328,218	4,491,240	7,597,813	227,313	11,853	10,527,664	2,696,882	2,244,194	771,999	4,814,590	463,551	263,810	2,594	43,291	153,856	23,319,433	2.9%
2028	12,658,890	4,612,686	7,798,081	235,825	12,297	10,860,222	2,797,880	2,328,238	792,608	4,941,496	472,822	266,448	2,620	43,724	160,030	23,991,933	2.9%
2029	12,999,451	4,738,192	8,003,884	244,619	12,755	11,203,063	2,902,207	2,415,054	813,893	5,071,909	482,278	269,112	2,646	44,161	166,358	24,684,792	2.9%
2030	13,351,125	4,868,304	8,216,031	253,568	13,222	11,554,078	3,008,380	2,503,405	835,951	5,206,342	491,924	271,804	2,673	44,603	172,845	25,397,127	2.9%
2031	13,714,761	5,002,919	8,435,093	263,033	13,716	11,921,464	3,120,679	2,596,854	858,773	5,345,158	501,762	274,522	2,699	45,049	179,492	26,137,988	2.9%
2032	14,085,870	5,140,230	8,658,615	272,800	14,225	12,298,671	3,236,550	2,693,275	882,046	5,486,800	511,797	277,267	2,726	45,500	186,305	26,896,339	2.9%
2033	14,462,794	5,280,242	8,884,896	282,905	14,752	12,685,436	3,356,439	2,793,040	905,767	5,630,190	522,033	280,039	2,754	45,955	193,286	27,670,263	2.9%
2034	14,846,174	5,422,100	9,115,522	293,261	15,292	13,080,690	3,479,301	2,895,279	929,777	5,776,333	532,474	282,840	2,781	46,414	200,439	28,459,338	2.9%
2035	15,231,631	5,565,233	9,346,727	303,828	15,843	13,481,125	3,604,680	2,999,612	953,989	5,922,843	543,124	285,668	2,809	46,878	207,768	29,255,879	2.8%
2036	15,621,950	5,710,647	9,580,218	314,676	16,408	13,889,474	3,733,383	3,106,712	978,577	6,070,802	553,986	288,525	2,837	47,347	215,277	30,065,410	2.8%
2037	16,014,065	5,856,878	9,814,547	325,658	16,981	14,301,376	3,863,672	3,215,131	1,003,282	6,219,292	565,066	291,410	2,865	47,820	222,970	30,880,507	2.7%
2038	16,404,244	6,002,496	10,047,439	336,749	17,559	14,714,616	3,995,262	3,324,633	1,027,850	6,366,871	576,367	294,324	2,894	48,299	230,850	31,695,228	2.6%
2039	16,794,869	6,148,103	10,280,492	348,122	18,152	15,134,057	4,130,190	3,436,912	1,052,402	6,514,552	587,894	297,268	2,923	48,782	238,922	32,516,820	2.6%
2040	17,192,861	6,296,951	10,517,300	359,846	18,764	15,563,937	4,269,281	3,552,656	1,077,387	6,664,613	599,652	300,240	2,952	49,269	247,190	33,356,451	2.6%

## Downside Adjustments

Year	SPB_IMPORT					SPB_EXPORT					DOM_EXPORTS			DOM_IMPORTS		SPB Ports	Overall
	ALL_IMP_TEU	RAIL_LDS	LOCAL_LDS	LOCAL_MTY	RAIL_MTY	ALL_EXP_TEU	RAIL_LDS	LOCAL_LDS	RAIL_MTY	LOCAL_MTY	ALL_DOM-TEU	LDS	MTY	LDS	MTY	Total	
2015	<b>8,028,953</b>	2,930,068	4,949,756	141,739	7,391	<b>7,051,853</b>	1,681,614	1,399,345	520,670	3,450,223	<b>365,507</b>	234,118	2,302	38,419	90,668	<b>15,446,313</b>	<b>1.9%</b>
2016	<b>8,039,827</b>	2,934,562	4,956,640	141,258	7,366	<b>6,798,342</b>	1,675,917	1,394,604	586,891	3,140,929	<b>368,248</b>	236,459	2,325	38,803	90,661	<b>15,206,416</b>	<b>-1.6%</b>
2017	<b>8,403,797</b>	3,072,685	5,175,096	148,285	7,732	<b>7,128,752</b>	1,759,278	1,463,973	626,142	3,279,360	<b>371,010</b>	238,824	2,348	39,191	90,647	<b>15,903,560</b>	<b>4.6%</b>
2018	<b>8,987,895</b>	3,279,892	5,541,514	158,238	8,251	<b>7,589,506</b>	1,877,369	1,562,241	638,344	3,511,552	<b>373,792</b>	241,212	2,372	39,583	90,626	<b>16,951,194</b>	<b>6.6%</b>
2019	<b>9,502,074</b>	3,453,022	5,872,291	168,001	8,760	<b>8,022,051</b>	1,993,195	1,658,625	649,072	3,721,159	<b>376,596</b>	243,624	2,395	39,979	90,598	<b>17,900,721</b>	<b>5.6%</b>
2020	<b>9,768,050</b>	3,440,986	6,142,128	175,770	9,165	<b>8,273,147</b>	2,085,372	1,735,330	560,296	3,892,150	<b>379,420</b>	246,060	2,419	40,379	90,562	<b>18,420,617</b>	<b>2.9%</b>
2021	<b>10,086,132</b>	3,530,520	6,363,163	182,912	9,538	<b>8,580,568</b>	2,170,100	1,805,835	572,418	4,032,216	<b>382,266</b>	248,521	2,444	40,782	90,519	<b>19,048,967</b>	<b>3.4%</b>
2022	<b>10,402,414</b>	3,618,340	6,584,141	190,024	9,909	<b>8,886,748</b>	2,254,482	1,876,053	583,967	4,172,245	<b>385,133</b>	251,006	2,468	41,190	90,469	<b>19,674,295</b>	<b>3.3%</b>
2023	<b>10,647,094</b>	3,637,002	6,802,679	197,134	10,279	<b>9,135,334</b>	2,338,834	1,946,247	539,524	4,310,729	<b>388,021</b>	253,516	2,493	41,602	90,410	<b>20,170,449</b>	<b>2.5%</b>
2024	<b>10,676,962</b>	3,448,202	7,013,903	204,209	10,648	<b>9,227,749</b>	2,422,770	2,016,093	344,309	4,444,577	<b>390,932</b>	256,051	2,518	42,018	90,345	<b>20,295,643</b>	<b>0.6%</b>
2025	<b>10,834,825</b>	3,398,846	7,213,254	211,687	11,038	<b>9,431,296</b>	2,511,498	2,089,927	258,969	4,570,902	<b>393,864</b>	258,612	2,543	42,438	90,271	<b>20,659,985</b>	<b>1.8%</b>
2026	<b>10,968,465</b>	3,334,484	7,403,653	218,913	11,415	<b>9,619,796</b>	2,597,231	2,161,269	169,742	4,691,554	<b>396,817</b>	261,198	2,568	42,863	90,189	<b>20,985,079</b>	<b>1.6%</b>
2027	<b>11,251,751</b>	3,414,773	7,597,813	227,313	11,853	<b>9,946,558</b>	2,696,882	2,244,194	190,893	4,814,590	<b>399,794</b>	263,810	2,594	43,291	90,099	<b>21,598,103</b>	<b>2.9%</b>
2028	<b>11,544,397</b>	3,498,194	7,798,081	235,825	12,297	<b>10,281,116</b>	2,797,880	2,328,238	213,502	4,941,496	<b>402,792</b>	266,448	2,620	43,724	90,000	<b>22,228,305</b>	<b>2.9%</b>
2029	<b>11,845,258</b>	3,584,000	8,003,884	244,619	12,755	<b>10,626,503</b>	2,902,207	2,415,054	237,333	5,071,909	<b>405,813</b>	269,112	2,646	44,161	89,893	<b>22,877,574</b>	<b>2.9%</b>
2030	<b>12,155,474</b>	3,672,653	8,216,031	253,568	13,222	<b>10,970,710</b>	3,008,380	2,503,405	252,583	5,206,342	<b>408,857</b>	271,804	2,673	44,603	89,777	<b>23,535,040</b>	<b>2.9%</b>
2031	<b>12,476,221</b>	3,764,379	8,435,093	263,033	13,716	<b>11,331,871</b>	3,120,679	2,596,854	269,179	5,345,158	<b>411,923</b>	274,522	2,699	45,049	89,653	<b>24,220,015</b>	<b>2.9%</b>
2032	<b>12,803,422</b>	3,857,783	8,658,615	272,800	14,225	<b>11,703,006</b>	3,236,550	2,693,275	286,381	5,486,800	<b>415,012</b>	277,267	2,726	45,500	89,520	<b>24,921,440</b>	<b>2.9%</b>
2033	<b>13,135,200</b>	3,952,648	8,884,896	282,905	14,752	<b>12,084,524</b>	3,356,439	2,793,040	304,855	5,630,190	<b>418,125</b>	280,039	2,754	45,955	89,377	<b>25,637,849</b>	<b>2.9%</b>
2034	<b>13,472,087</b>	4,048,012	9,115,522	293,261	15,292	<b>12,475,285</b>	3,479,301	2,895,279	324,372	5,776,333	<b>421,261</b>	282,840	2,781	46,414	89,226	<b>26,368,633</b>	<b>2.9%</b>
2035	<b>13,810,159</b>	4,143,761	9,346,727	303,828	15,843	<b>12,873,442</b>	3,604,680	2,999,612	346,306	5,922,843	<b>424,420</b>	285,668	2,809	46,878	89,065	<b>27,108,021</b>	<b>2.8%</b>
2036	<b>14,152,001</b>	4,240,699	9,580,218	314,676	16,408	<b>13,280,328</b>	3,733,383	3,106,712	369,431	6,070,802	<b>427,604</b>	288,525	2,837	47,347	88,895	<b>27,859,933</b>	<b>2.8%</b>
2037	<b>14,494,632</b>	4,337,445	9,814,547	325,658	16,981	<b>13,691,872</b>	3,863,672	3,215,131	393,778	6,219,292	<b>430,811</b>	291,410	2,865	47,820	88,715	<b>28,617,314</b>	<b>2.7%</b>
2038	<b>14,834,463</b>	4,432,715	10,047,439	336,749	17,559	<b>14,106,188</b>	3,995,262	3,324,633	419,422	6,366,871	<b>434,042</b>	294,324	2,894	48,299	88,525	<b>29,374,692</b>	<b>2.6%</b>
2039	<b>15,174,245</b>	4,527,478	10,280,492	348,122	18,152	<b>14,529,177</b>	4,130,190	3,436,912	447,521	6,514,552	<b>437,297</b>	297,268	2,923	48,782	88,325	<b>30,140,718</b>	<b>2.6%</b>
2040	<b>15,516,477</b>	4,620,568	10,517,300	359,846	18,764	<b>14,960,995</b>	4,269,281	3,552,656	474,445	6,664,613	<b>440,577</b>	300,240	2,952	49,269	88,115	<b>30,918,049</b>	<b>2.6%</b>

# Appendix 5: Commodity Breakdown for SBP Ports Container Forecast

## Import Commodities Breakdown for Expected – Base Case

Commodity Groupings	TEUs - Mil						CAGRs					
	2015	2020	2025	2030	2035	2040	15' to 20'	20' to 25'	25' to 30'	30' to 35'	35' to 40'	15' to 40'
Animal Feed	0.02	0.02	0.03	0.03	0.04	0.05	3.1%	4.9%	4.4%	4.1%	3.3%	4.0%
Apparel	1.18	1.46	1.71	1.93	2.16	2.40	4.3%	3.1%	2.5%	2.3%	2.1%	2.9%
Chemicals and related products	0.28	0.38	0.43	0.51	0.63	0.76	6.0%	2.7%	3.4%	4.1%	4.0%	4.0%
Construction	0.08	0.11	0.13	0.17	0.21	0.26	6.0%	3.9%	4.6%	4.4%	4.2%	4.6%
Electric Machinery	0.48	0.70	0.94	1.24	1.62	2.11	7.9%	6.0%	5.6%	5.6%	5.4%	6.1%
Food Products	0.43	0.52	0.63	0.74	0.87	1.00	4.1%	3.7%	3.4%	3.2%	2.9%	3.5%
Furniture	0.94	1.29	1.62	1.98	2.41	2.88	6.5%	4.7%	4.1%	4.0%	3.7%	4.6%
General Retail	1.67	2.02	2.35	2.70	3.11	3.54	3.9%	3.0%	2.8%	2.9%	2.6%	3.1%
Home Construction	0.70	0.90	1.10	1.35	1.66	2.01	5.2%	4.2%	4.1%	4.2%	3.9%	4.3%
Metal manufactures	0.30	0.37	0.38	0.42	0.49	0.57	4.1%	0.5%	2.2%	3.3%	2.7%	2.6%
Miscellaneous	0.04	0.05	0.07	0.08	0.10	0.13	6.4%	4.7%	4.5%	4.9%	5.2%	5.2%
Non-electric Machinery	0.60	0.78	0.99	1.23	1.53	1.89	5.4%	4.8%	4.4%	4.4%	4.3%	4.7%
Non-metallic mineral manufactures	0.04	0.06	0.07	0.09	0.11	0.13	6.0%	3.6%	4.0%	4.4%	3.6%	4.3%
Paper Products	0.02	0.03	0.04	0.05	0.06	0.08	5.2%	6.6%	5.3%	4.7%	4.2%	5.2%
Passenger Vehicles and Parts	0.44	0.53	0.64	0.75	0.88	1.04	3.8%	3.7%	3.3%	3.2%	3.3%	3.5%
Pharmaceuticals	0.03	0.04	0.05	0.07	0.08	0.10	5.4%	4.9%	4.4%	4.3%	3.6%	4.5%
Rubber and Plastic Items	0.11	0.15	0.19	0.24	0.30	0.36	5.4%	5.5%	4.6%	4.3%	4.0%	4.8%
Steel/Iron Manufacturing	0.11	0.13	0.16	0.18	0.21	0.25	3.6%	2.9%	3.0%	3.3%	3.0%	3.2%
Other Transport Equipment	0.34	0.42	0.49	0.57	0.64	0.72	4.4%	3.1%	2.8%	2.6%	2.2%	3.0%
Wine and Spirits	0.05	0.07	0.09	0.11	0.14	0.18	6.4%	5.9%	5.0%	4.6%	4.3%	5.2%
<b>Totals</b>	<b>7.88</b>	<b>10.05</b>	<b>12.11</b>	<b>14.43</b>	<b>17.26</b>	<b>20.43</b>	<b>5.0%</b>	<b>3.8%</b>	<b>3.6%</b>	<b>3.6%</b>	<b>3.4%</b>	<b>3.9%</b>

Export Commodities Breakdown for Expected – Base Case

Commodity Groupings	2015	2020	2025	2030	2035	2040	15' to 20'	20' to 25'	25' to 30'	30' to 35'	35' to 40'	15' to 40'
Chemicals	0.27	0.34	0.42	0.52	0.64	0.77	5.0%	3.9%	4.5%	4.2%	3.9%	4.3%
Fabrics	0.13	0.13	0.13	0.13	0.12	0.11	0.3%	-0.9%	-0.4%	-0.8%	-1.1%	-0.6%
Food Products	0.76	0.99	1.26	1.64	2.07	2.58	5.5%	4.9%	5.4%	4.8%	4.5%	5.0%
Machinery	0.27	0.34	0.45	0.61	0.81	1.07	5.3%	5.6%	6.1%	5.9%	5.8%	5.7%
Metals	0.06	0.07	0.09	0.11	0.13	0.16	4.7%	4.1%	4.6%	4.2%	4.1%	4.3%
Mineral Extracts	0.07	0.09	0.10	0.12	0.14	0.15	4.4%	2.9%	2.8%	2.6%	2.6%	3.0%
Miscellaneous	0.17	0.22	0.27	0.35	0.44	0.54	4.8%	4.5%	5.1%	4.7%	4.4%	4.7%
Plastic Products	0.25	0.33	0.40	0.52	0.65	0.80	5.0%	4.4%	5.1%	4.7%	4.2%	4.7%
Waste Products	0.99	1.37	1.90	2.39	3.08	3.92	6.7%	6.8%	4.7%	5.2%	5.0%	5.7%
Wood Products	0.11	0.15	0.18	0.23	0.29	0.34	6.0%	4.0%	4.7%	4.4%	3.6%	4.5%
Grand Total	3.08	4.03	5.21	6.61	8.36	10.46	5.5%	5.2%	4.9%	4.8%	4.6%	5.0%
<b>Totals</b>	6.16	8.07	10.41	13.21	16.72	20.92	5.5%	5.2%	4.9%	4.8%	4.6%	5.0%



Import Commodities Breakdown for Expected – Upside

Commodity Groupings	TEUs - Mil						CAGRs					
	2015	2020	2025	2030	2035	2040	15' to 20'	20' to 25'	25' to 30'	30' to 35'	35' to 40'	15' to 40'
Animal Feed	0.02	0.02	0.03	0.03	0.04	0.05	3.5%	5.4%	4.5%	4.0%	3.2%	4.1%
Apparel	1.18	1.48	1.73	1.95	2.19	2.43	4.6%	3.1%	2.5%	2.3%	2.0%	2.9%
Chemicals and related products	0.28	0.39	0.49	0.60	0.73	0.89	6.6%	4.6%	4.0%	4.1%	4.0%	4.7%
Construction	0.08	0.11	0.14	0.17	0.22	0.27	6.3%	4.3%	4.7%	4.4%	4.2%	4.8%
Electric Machinery	0.48	0.71	0.95	1.25	1.65	2.14	8.2%	6.0%	5.6%	5.6%	5.4%	6.1%
Food Products	0.43	0.53	0.64	0.76	0.89	1.02	4.4%	3.8%	3.4%	3.2%	2.9%	3.5%
Furniture	0.94	1.31	1.67	2.04	2.48	2.97	6.8%	5.0%	4.1%	4.0%	3.6%	4.7%
General Retail	1.67	2.05	2.44	2.83	3.26	3.71	4.3%	3.5%	3.0%	2.9%	2.6%	3.3%
Home Construction	0.70	0.91	1.14	1.39	1.71	2.07	5.5%	4.5%	4.2%	4.2%	3.9%	4.4%
Metal manufactures	0.30	0.38	0.45	0.53	0.63	0.74	5.0%	3.4%	3.3%	3.5%	3.3%	3.7%
Miscellaneous	0.04	0.05	0.07	0.08	0.11	0.14	6.7%	4.7%	4.6%	4.9%	5.2%	5.2%
Non-electric Machinery	0.60	0.79	1.00	1.25	1.55	1.91	5.6%	4.9%	4.4%	4.4%	4.3%	4.7%
Non-metallic mineral manufactures	0.04	0.06	0.08	0.10	0.12	0.14	6.6%	5.2%	4.5%	4.3%	3.7%	4.8%
Paper Products	0.02	0.03	0.04	0.05	0.07	0.08	5.4%	6.6%	5.3%	4.7%	4.1%	5.2%
Passenger Vehicles and Parts	0.44	0.54	0.65	0.76	0.89	1.05	4.0%	3.8%	3.3%	3.2%	3.3%	3.5%
Pharmaceuticals	0.03	0.04	0.05	0.07	0.08	0.10	5.7%	4.9%	4.4%	4.3%	3.6%	4.6%
Rubber and Plastic Items	0.11	0.15	0.20	0.25	0.30	0.37	5.7%	5.6%	4.6%	4.3%	3.9%	4.8%
Steel/Iron Manufacturing	0.11	0.14	0.17	0.20	0.23	0.27	4.1%	3.9%	3.3%	3.2%	3.0%	3.5%
Other Transport Equipment	0.34	0.43	0.51	0.59	0.68	0.76	4.7%	3.6%	3.0%	2.7%	2.3%	3.2%
Wine and Spirits	0.05	0.07	0.09	0.12	0.14	0.18	6.6%	6.0%	5.0%	4.6%	4.3%	5.3%
<b>Totals</b>	<b>7.88</b>	<b>10.20</b>	<b>12.53</b>	<b>15.02</b>	<b>17.96</b>	<b>21.25</b>	<b>5.3%</b>	<b>4.2%</b>	<b>3.7%</b>	<b>3.6%</b>	<b>3.4%</b>	<b>4.0%</b>

Import Commodities Breakdown for Expected – Downside

Commodity Groupings	TEUs - Mil						CAGRs					
	2015	2020	2025	2030	2035	2040	15' to 20'	20' to 25'	25' to 30'	30' to 35'	35' to 40'	15' to 40'
Animal Feed	0.02	0.02	0.03	0.03	0.04	0.05	3.1%	4.3%	4.4%	4.1%	3.3%	3.8%
Apparel	1.18	1.47	1.68	1.90	2.14	2.37	4.4%	2.8%	2.5%	2.4%	2.1%	2.8%
Chemicals and related products	0.28	0.37	0.38	0.44	0.54	0.66	5.6%	0.5%	2.8%	4.1%	4.1%	3.4%
Construction	0.08	0.11	0.11	0.14	0.18	0.22	5.4%	1.1%	4.2%	4.7%	4.4%	4.0%
Electric Machinery	0.48	0.70	0.93	1.22	1.60	2.08	7.9%	5.7%	5.6%	5.6%	5.4%	6.0%
Food Products	0.43	0.52	0.59	0.68	0.80	0.92	3.9%	2.5%	3.1%	3.2%	2.9%	3.1%
Furniture	0.94	1.28	1.56	1.90	2.31	2.77	6.5%	4.0%	3.9%	4.0%	3.7%	4.4%
General Retail	1.67	2.02	2.26	2.58	2.97	3.38	3.9%	2.3%	2.7%	2.8%	2.6%	2.9%
Home Construction	0.70	0.90	1.07	1.30	1.60	1.95	5.2%	3.6%	4.0%	4.2%	3.9%	4.2%
Metal manufactures	0.30	0.36	0.32	0.33	0.38	0.43	3.7%	-2.5%	1.0%	3.0%	2.4%	1.5%
Miscellaneous	0.04	0.05	0.06	0.08	0.10	0.13	6.5%	4.4%	4.5%	4.9%	5.2%	5.1%
Non-electric Machinery	0.60	0.78	0.98	1.21	1.51	1.86	5.4%	4.5%	4.4%	4.4%	4.3%	4.6%
Non-metallic mineral manufactures	0.04	0.06	0.06	0.08	0.09	0.11	5.7%	1.9%	3.6%	4.4%	3.7%	3.9%
Paper Products	0.02	0.03	0.04	0.05	0.06	0.07	5.1%	5.5%	5.1%	4.7%	4.2%	4.9%
Passenger Vehicles and Parts	0.44	0.54	0.63	0.74	0.87	1.02	3.8%	3.4%	3.3%	3.2%	3.3%	3.4%
Pharmaceuticals	0.03	0.04	0.05	0.07	0.08	0.10	5.5%	4.6%	4.4%	4.3%	3.6%	4.5%
Rubber and Plastic Items	0.11	0.15	0.19	0.24	0.30	0.36	5.4%	5.2%	4.6%	4.3%	4.0%	4.7%
Steel/Iron Manufacturing	0.11	0.13	0.15	0.18	0.21	0.24	3.6%	2.5%	3.0%	3.3%	3.1%	3.1%
Other Transport Equipment	0.34	0.42	0.47	0.54	0.61	0.68	4.3%	2.4%	2.6%	2.6%	2.1%	2.8%
Wine and Spirits	0.05	0.07	0.09	0.11	0.14	0.17	6.4%	5.6%	5.0%	4.6%	4.3%	5.2%
<b>Totals</b>	<b>7.88</b>	<b>10.02</b>	<b>11.67</b>	<b>13.82</b>	<b>16.54</b>	<b>19.58</b>	<b>4.9%</b>	<b>3.1%</b>	<b>3.4%</b>	<b>3.7%</b>	<b>3.4%</b>	<b>3.7%</b>

## Appendix 6: Comparison of SPB Ports Infrastructure to Competitors

### ***SPB Ports' Infrastructure Summary***

As indicated previously, the total throughput of SPB Ports is clearly driven by the level of international import volume, 94% of which originates in Asia. Moreover, 38% of SPB Ports' import volume moves inland by rail service (includes containers handled at on-dock and off-dock intermodal facilities).

As will be discussed in more detail later in this report, several other port complexes compete aggressively with SPB Ports for these intermodal Asian import container flows. The list of the most important of SPB Ports' competitors includes:

- Seattle/Tacoma for U.S. Midwest/Ohio Valley traffic
- Prince Rupert/Vancouver for U.S. Midwest/Ohio Valley/lower Mississippi Valley traffic
- New York/ New Jersey and Hampton Roads for Ohio Valley traffic
- Savannah for Southeast U.S. traffic
- Houston for South Central U.S. traffic

In this section of the report, Mercator compares the terminal and rail infrastructure of SPB Ports to that of its competitors.

Los Angeles has eight functioning container terminals, the newest of which is the APMT Pier 400 facility, which was completed in 2002. All eight of Los Angeles' terminals principally handle liner services that are controlled by the carriers leasing these terminals. These are identified in the table below.

### **Summary of Los Angeles' Container Terminals and Carrier Affiliations**

<b>Terminal/ Berths</b>	<b>Operator</b>	<b>Carrier Affiliations</b>
WBCT/B100-102	Ports America	China Shipping Container Line
WBCT/B121-131	Ports America	Yang Ming
TraPac	TraPac	MOL
Yusen	Yusen	NYK
Seaside	Seaside	Evergreen
Global Gateway	EagleMarine	APL
PIER 400	APMT	Maersk
CUT	CUT	Hyundai
B206-209	Vacant	

Four of the terminals – APMT, CUT, WBCT, and Global Gateway – have on-dock rail transfer facilities of varying capacities. Two terminals – Evergreen and Yusen – share an adjacent near-dock terminal, and the City of Los Angeles Harbor Department is building a new on-dock rail transfer facility for Trapac. Four of the terminals in this port (WBCT, Trapac, Yusen, Evergreen) have older, irregular-shaped facilities making them less efficient than modern terminals with a rectangular design that lends itself to automation.

The Port of Long Beach has six functioning container terminals, one of which (the OOCL facility at Pier F) is being expanded and automated at this time. The others are Pier A (operated by SSA, with MSC as the minority shareholder), Pier C (also operated by SSA, with Matson as the minority shareholder), Pier G (operated by Ports America, with K Line/ITS as the majority shareholder), Pier J (operated by SSA, with COSCO as the minority shareholder), and Pier T (operated by Hanjin's TTI subsidiary, with TIL/MSC as a minority shareholder).

Although MSC, Hanjin, COSCO, and K Line are the main container shipping line users of Pier A, Pier T, Pier J, and Pier G, respectively, the operators of these four terminals all solicit stevedoring work from other shipping lines. When OOCL's expansion project – known as the Middle Harbor Terminal – opens its first phase (in 2016), the operator of this facility (LBCT, a wholly-owned subsidiary of OOCL's parent company) will be aggressively seeking terminal service business from other lines besides OOCL. The only terminal in Long Beach that is focused exclusively on the ships of one carrier is Pier C, which is dedicated to serving only Matson ships.

Collectively, then, the SPB gateway has thirteen separate container terminals (counting the APMT and CUT operations as separate facilities). Key infrastructure parameters for these terminals are displayed in the following table.

#### Infrastructure Attributes of San Pedro Bay Terminals

Port	Operator	Carrier Involvement	Terminal/ Berths	Area hc / ac	Berth Length m / ft	SPPX*	Cranes PPMX*	PM*	Depth m / ft	On-dock Rail Y/N
Los Angeles	Ports America	CSCL	WBCT/B100-102	14 / 101	648 / 2125	8			16.2 / 53	Y
		Yang Ming	WBCT/B121-131	75 / 186	1067 / 3500		5	3	10.7-13.7 / 35-45	Y
	TraPac	MOL	TraPac	70 / 173	1234 / 4050		11		10.7-14 / 35-46	Y <sup>1</sup>
	Yusen	NYK	Yusen	75 / 185	1767 / 5800	4	4	2	10.7-13.7 / 35-45	Y <sup>1</sup>
	Seaside	Evergreen	Seaside	83 / 205	1433 / 4700		8		11.6-13.7 / 38-45	Y
	EagleMarine	APL	Global Gateway	118 / 292	1219 / 4000		12		15.2 / 50	Y
	APMT	Maersk	PIER 400	159 / 393	1582 / 5190	14			16.8 / 55	Y
	CUT	HYMM	CUT	37 / 91	610 / 2000	4			16.8 / 55	Y
	Vacant		B206-209							
Long Beach	SSA	MSC	PIER A	81 / 200	1097 / 3600	10			15.2 / 50	Y
	SSA	Matson	PIER C	28 / 70	549 / 1800			3	12.8 / 42	N
	LBCT	OOCL	PIER F	41 / 102	838 / 2750	2	5		15.2 / 50	Y
	ITS	K-Line	ITS	100 / 246	1945 / 6379	6	11		11-12.8 / 42-52	Y
	SSA	COSCO	Pacific	104 / 256	1799 / 5900	15			12-15.2 / 49-50	Y
	TTI	Hanjin	PIER T	156 / 385	1524 / 5000	14			16.8 / 55	Y
	Vacant		E24-26							

\* SPPX - Super Post-panamax cranes (20+ Rows) / PPMX - Post Panamax (17 to 19 Rows) / PM - Panamax

1) Yusen and Seaside Terminals share and intermodal facility known as the Terminal Island Container Transfer Facility (TICTF)

Several of the terminals in SPB – particularly the Yang Ming portion of WBCT, Yusen, Seaside, and ITS – will need major upgrades (and dredging, in certain instances) in order to be able to handle ultra-large containerships. However, there are a few terminals that can or will be able to handle three such ships concurrently – Pier 400, Pier T, PCT, and the new OOCL Middle Harbor Terminal.

The information on SPB Ports' container terminals versus those of other port areas along the Pacific Coast reveal that there are a few SPB terminals that are far larger than other facilities in region. These include the Pier 400, Global Gateway, and Pier T terminals.

Of greater importance in the competition for discretionary intermodal traffic between the SPB Ports and other Pacific coast ports is the rail transfer infrastructure and rail connectivity of this gateway. In this regard, it should be noted that all of Long Beach's container terminals – aside from Pier C – have an on-dock rail transfer facility (Matson, which handles relatively small intermodal volumes, drays those boxes to/from off-dock intermodal facilities of the UP and BNSF). In Los Angeles, the NYK and Evergreen terminals share a rail transfer facility that they can access with a private road, as do APMT and CUT. The WBCT and Global Gateway terminals have their own rail transfer facilities, and the Port of Los Angeles is close to completing a new on-dock rail transfer facility for the TraPac terminal.

The rail transfer facilities of the SPB terminals vary greatly in the number and length of working tracks and support tracks that they have. Most of them, however, would have more working track capacity and on-dock support track capacity than their Pacific Coast competitors.

In terms of rail connectivity, moving trains between the main lines of the BNSF or UP and the various container terminals in San Pedro Bay involves traversing a complex rail network through a highly developed urban area. The UP's primary route for intermodal trains between the Midwest or South Central states and SPB approaches the Los Angeles Basin from the southeast (coming from El Paso, Tucson, and Yuma) and crosses over the San Jacinto Mountain Range via San Geronimo Pass to San Bernardino (the yellow line in the satellite photo below).

#### UP and BNSF Transcontinental Routes to Los Angeles



BNSF's only route for intermodal trains between the Midwest or South-Central states and San Pedro Bay approaches the Basin from the northeast (coming from a point near Albuquerque, Flagstaff, and Barstow) and crosses over the San Gabriel Mountain Range via Cajon Pass also to San Bernardino. After intersecting with each other in San Bernardino, each railroad's main line runs across the Basin for approximately 60 (UP) – 70 (BNSF) miles to East Los Angeles. In this area, both lines have multiple grade crossings and are frequently congested as a result of having to handle not only the harbor's intermodal trains, but also domestic intermodal trains, inter-state passenger trains, regional commuter trains, and general freight trains.

However, between East Los Angeles and a point immediately north of the SPB Harbor, intermodal trains are able to operate on a dedicated, grade-separated, 20-mile long triple-tracked rail line known as the Alameda Corridor. This Corridor greatly facilitates the movement of trains between the East Los Angeles end-points of the BNSF and UP main lines, although the special-purpose authority that manages the Corridor levies a fee on all intermodal boxes moving through SPB terminals (whether those boxes run the Corridor or not). A map of the Corridor is shown in the next figure.

#### Alameda Corridor between East LA and SPB



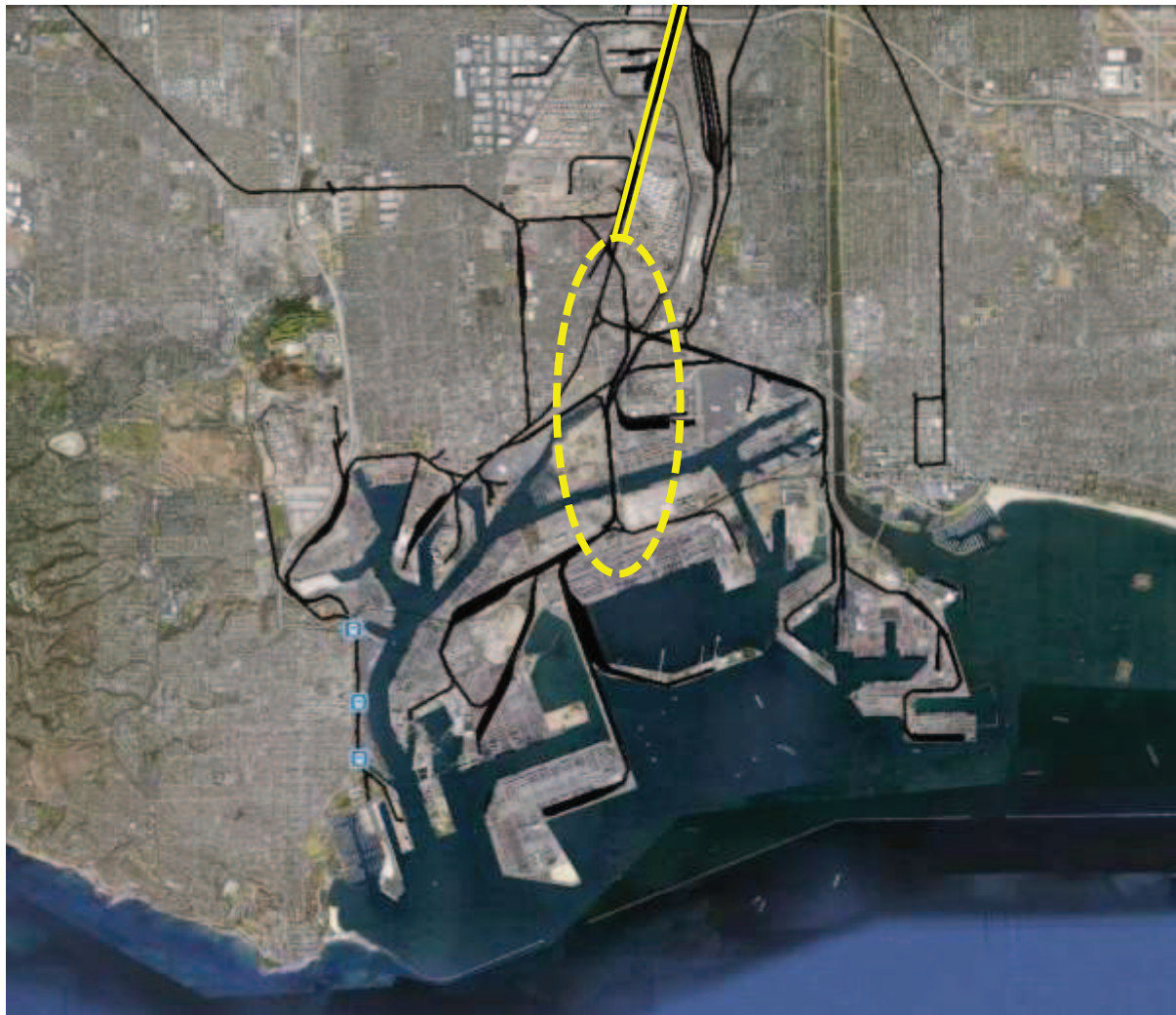


Once trains depart the southern endpoint of the Corridor and head to the rail transfer facilities within the harbor (or vice versa, as trains depart those transfer facilities and head to that Corridor endpoint), they have to traverse through a congested rail network in and around the harbor. One line of the network branches southwest to the TraPac and WBCT terminals, another branches southeast to the Middle Harbor Terminal, Pier E/F, Pier G, and Pier J terminals of Long Beach, and the third runs south across a draw-bridge onto Terminal Island, with further lead tracks branching out to the rail transfer facilities serving the Yusen/Seaside terminals, the APL terminal, Pier 400, and Pier T.

Given the volume of train movements to/from the various intermodal facilities around the harbor, as well as the number of trains hauling non-containerized cargoes to liquid bulk, dry bulk, break-bulk, and RO-RO terminals, there can often be delays to trains arriving into or departing from SPB – especially for the Terminal Island portion of the port complex.

An aerial photograph of this part of the network is displayed in the following figure.

#### Rail Network Between SPB Ports and Alameda Corridor



In conclusion, the SPB port complex will have at least four marine terminals with the infrastructure and capacity to efficiently handle multiple ultra-large ships concurrently and the on-dock rail transfer facilities to efficiently load and unload two or more trains at the same time. These terminals will be highly competitive – in terms of infrastructure, capacity, and operational efficiency. Two of the SPB terminals - TraPac and Middle Harbor – will also be automated, and thus will have competitive variable costs.

Because the local market of Southern California is so much larger than the market elsewhere along the Pacific coast, the SPB port complex also benefits from a higher number of sailings. Presently, SPB receives first-inbound calls from 25 separate Transpacific vessel strings, compared, for example to three first-inbound calls to Prince Rupert (soon to become four, with the new M2 call), and four first-inbound calls to Vancouver.

#### **Northwest Seaport Alliance (Seattle/Tacoma) Infrastructure Summary**

The two port authorities with container terminals in the Puget Sound – Seattle and Tacoma – recently formed a joint venture, the Northwest Seaport Alliance (NSA), to jointly manage their respective cargo-handling facilities, operations, and business. The NSA has four container terminals in Seattle, located within the harbor as shown below. One of these terminals (T-5) is presently vacant, although it had previously been operated by a subsidiary of APL. Neither T-30 (operated by SSA) nor T-46 (operated by TTI) has on-dock rail, and neither can be expanded, because they are hemmed in by a highway and urban development. T-18 (also operated by SSA) has some expansion potential, but it lacks an effective on-dock rail transfer facility. T-30 is expected to be converted to non-container cargo operations in the near future.

#### **Overview of Seattle Container Terminals**





The NSA also has five international-cargo container terminals in Tacoma, about 35 miles to the south of Seattle, and located within the harbor as shown in the following figure. All but one of these terminals (APMT) has an on-dock rail transfer area. The OCT, ITS, and PCT terminals are used mainly by the carriers leasing those terminals (Yang Ming, K Line, and Evergreen, respectively), while WUT is used by its lessor (HMM), as well as by the other G-6 carriers.

Except for WUT, the other four terminals are under-utilized, and three of them (APMT, OCT, and ITS) need extensive refurbishments in order to be able to handle 8,000+ TEU ships. Although horizontal expansion for these terminals would be difficult, all of them can be densified.

Overview of Tacoma Container Terminals



With the exception of SSA’s T-18 terminal, the other terminals of the NSA were originally developed to serve a particular ship line and its vessel sharing partners, and most of these facilities were built more than fifteen years ago. Only a few of them have the infrastructure required to handle very large container ships (of 13,000+ TEU capacity) and only one (T-18) can handle two such ships concurrently. The key physical parameters of these terminals are summarized in the following table.

## Infrastructure Attributes of NSA Terminals

Terminal	Berth Length (m)	Water Depth (m)	Cranes	Area (acres)	Approx Capacity (k-TEU/yr)	On-Dock Rail Trackage (feet)
T-18	1,353	15.2	6X25W 1X24W 3X19W	196	1,275	4 X 1,900'
T-5	884	15.2	6X16W	158	623	6 X 3,000'
T-46	701	15.2	3X22W2 X16W	82	712	None
T-25/30	823	15.2	3X24W3 X18W	70	467	None
APMT	671	15.5	4X18W 1X14W	135	659	Near-dock rail
OCT	343	15.5	3X15W 1X14W	54	348	8 X 2,800'
ITS	823	15.5	1X18W 1X17W 2X16W	93	813	8 X 2,800'
WUT	792	15.5	4X18W 2X24W	123	851	4 X 2,400'
PCT	636	15.5	7X23W	141	915	12 X 2,000'

As mentioned previously, T-30 and T-46 in Seattle have no ability to expand horizontally, and no on-dock rail transfer facilities. Given their locations (with T-46, in particular, adjacent to the city's football and baseball stadiums and its downtown district), these two terminals are ineffective competitors to the terminals of Prince Rupert and Deltaport, and are likely to be repurposed to non-container uses within the next five years. The NSA is also attempting to issue a concession for the refurbishment and operation of the T-5 terminal – the facility's wharf structure needs to be re-engineered and rebuilt in order to be able to support super-Post Panamax gantry cranes.

In Tacoma, OCT and ITS will likely be consolidated into one concession and refurbished, while the facility now leased by APMT (for two more years) will likely be either refurbished as a common-user container terminal or re-purposed to non-container cargoes, after 2017. In addition, WUT will likely be densified during the next five years, with similar programs implemented for T-18 and PCT thereafter.

Thus, the NSA terminals competing for intermodal traffic with Prince Rupert and Vancouver's terminals in the future are likely to be the refurbished ITS/OCT terminal, T-18, a potentially refurbished T-5, a potentially refurbished West Sitcum terminal (now known as the APMT terminal), WUT, and PCT. With the exception of PCT, all of these terminals will likely have enough berth length and wide-outreach gantry cranes to simultaneously handle two ultra-large ships.

Given that there are presently only 12 weekly liner services operating between Asia and the Pacific Northwest region, it is highly unlikely that any one of these 5-6 terminals will need to handle more than two 13,000+ TEU ships at the same time. Thus, even though the Deltaport terminal has sufficient berth

length to work three large ships concurrently, and though the Fairview terminal could eventually have the same capability, that should not be much of a competitive advantage. However, several of NSA's terminals have relatively small intermodal rail transfer facilities.

An even more important parameter of competitiveness between the NSA's terminals and the terminals of BC's ports relates to connectivity between the port/rail transfer facilities serving these terminals and the main lines of the railroads linking these ports with the hinterland regions they are attempting to be gateways to/from.

Train connectivity in Seattle between the marine terminals and the main lines of its two railroads (BNSF/UP) varies by facility and carrier. Although T-5 has an on-dock rail transfer facility with the ability to work an inbound train and a separate outbound train simultaneously, the rail branch line that links the terminal with the main lines of the BNSF and UP railroads has some single-track bottlenecks and curvatures that can delay the expeditious arrival/departure of intermodal trains for the marine terminal and that prevent the concurrent arrival of one train with the departure of another.

#### Rail Access Bottleneck Area for T-5



Given the absence of on-dock rail at T-18, T-46, and T-30, almost all of BNSF's intermodal traffic to/from the Port is handled through its Seattle International Gateway (SIG) Yard terminal, which can be seen in the next figure.

### Rail Connections for Seattle Container Terminals



Since the majority of BNSF intermodal trains use that railroad's Everett – Stevens Pass route across the state to/from Spokane, most trains departing from SIG Yard run south through the Coach Wye to get on the main line north to Everett. Because of track layouts and curvatures in this area, BNSF trains are not able to come off of Harbor Island and directly access the Coach Wye. When T-5 was operational, stack trains moved to/from it via a sharply curved lead track, across a draw-bridge, and thru a congested yard to reach either the UP or BNSF main lines.

Tacoma's terminals also have rail connectivity constraints. All trains departing from or arriving at any of Tacoma's marine terminals have to pass through a rail intersection known as Bullfrog Junction. Moreover, eastbound BNSF trains routed via Everett & Stevens Pass require locomotives to run-around their trains in BN's Tacoma Yard. BNSF's line into Bullfrog Junction is also only single-track, so BNSF cannot arrive a westbound train into the on-dock terminal of either WUT or PCT at the same time that UP is trying to depart an eastbound train from the ITS terminal. The track configuration within the port area here is shown in the satellite photo below.

### Rail Connectivity for Tacoma's Terminals





The aforementioned limitations of this track network result in trains requiring an additional 45 to 60 minutes to enter / exit the port complex.

Beyond the challenges of moving trains between the rail transfer facilities serving NSA terminals and the main lines of the BNSF and UP, the competitiveness of the Puget Sound gateway is also impacted by the configuration of the main line rail networks that connect the gateway with Chicago and other interior markets. It is worth noting that the BNSF is the dominant railroad for intermodal container movements to/from NSA terminals, largely because the UP does not have its own main line across Washington State, but instead has trackage rights on the BNSF main line that runs between Portland and Tacoma. In other words, UP trains operating from NSA terminals to Chicago (or vice versa) have to run 140-167 miles (depending upon whether the train originates in a Tacoma or Seattle yard) due south before switching onto the UP's own main line at Portland and heading east across Oregon.

BNSF, conversely, has three separate main lines that traverse Washington State, as shown in the map below. Two of these lines – the Stampede Pass route and the Stevens Pass route – ascend and descend the Cascade Mountain Range, while the Columbia Gorge route follows the Columbia River, which cuts through the Range. However, this latter route – which is mostly a single-track railroad (like the other two) – is used extensively by slow unit bulk trains and thus has limited capacity available for intermodal trains, and is a much longer route for NSA – Chicago trains.

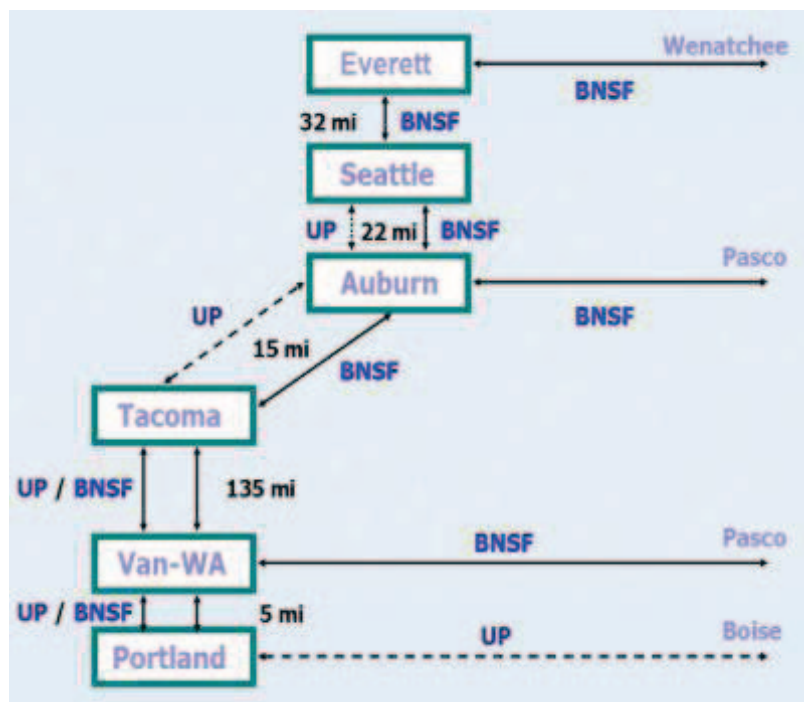
## BNSF Main Lines in Washington State



The Stampede Pass Line is also a slow and circuitous single-track route that needs extensive improvements in order to handle more train volumes, so the Stevens Pass Line is BNSF's preferred route for transit-time sensitive eastbound intermodal trains. However, this latter line has a 9-mile long tunnel at the pass, with a ventilation system that limits its capacity to 25-27 train transits per day.

As indicated earlier, eastbound trains departing from either the Seattle or Tacoma harbor areas have to first utilize the BNSF north-south line in order to access any of the east-west main lines. A schematic of this network is shown in the diagram below:

### Main Line Rail Network of Western Washington



Although UP has its own main line between Tacoma and Seattle, the north-south corridor can often get congested, because in addition to handling the intermodal trains departing from or arriving to the Puget Sound's two container ports, it also handles domestic intermodal trains between this region and the Midwest, interstate passenger trains, regional commuter trains, unit coal and oil trains, and other general freight trains.

In conclusion, the Puget Sound gateway has inferior main line rail connectivity, relative to SPB Ports.

#### Vancouver Infrastructure Summary

In recent years, Port Metro Vancouver (PMV) and its container operators, in partnership with CN, have aggressively pursued Asian imports into the U.S. Midwest that historically have been routed via SPB and/or the Puget Sound.

Vancouver has three dedicated container terminals – Deltaport, Centerm, and Vanterm – as well as a multi-purpose terminal with container-handling capabilities (Fraser Surrey Docks, or FSD).

### Map of Metro Vancouver's Container Terminals Locations

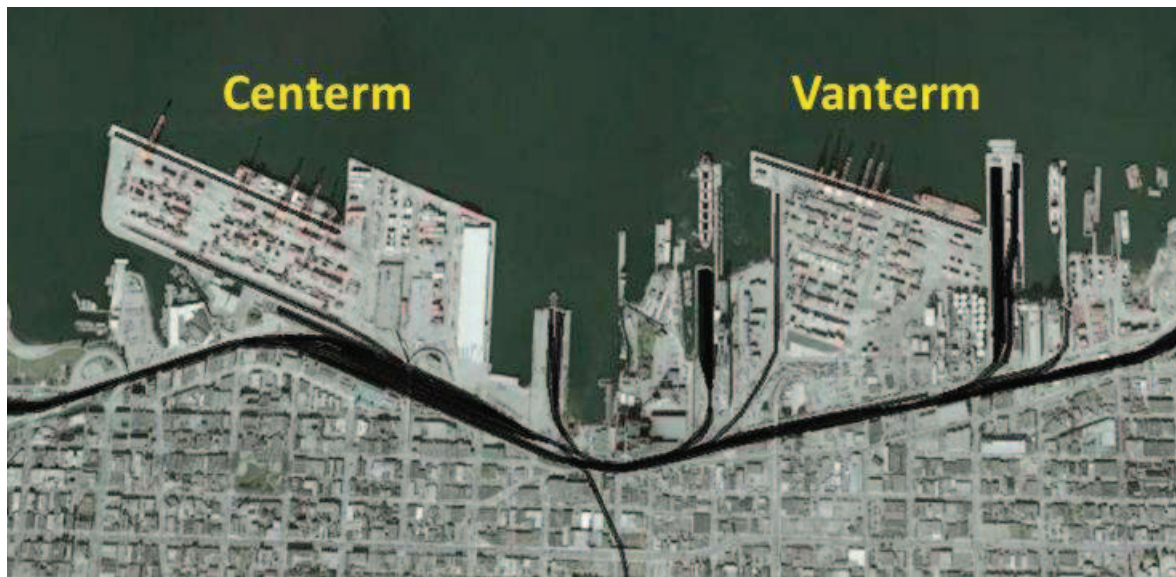


However, FSD is located 35km up the Fraser River, which has only an 11-meter water depth, and consequently can only receive ships of about 4,000 TEUs in size. Given that almost all Asia – Pacific Northwest liner services are now operated with 5,000+ TEU ships, FSD is confined to handling vessel services for the secondary Australian, Latin American, and European trades, and therefore FSD is not a meaningful competitor to SPB Ports.

Centerm (operated by DPW) and Vanterm (operated by GCT) are located within the Burrard Inlet and are located proximate to Vancouver's downtown area. Both Centerm and Vanterm presently have relatively small properties (at 70+ acres apiece) and linear berths of less than 700m. Moreover, both of these terminals abut a densely developed neighborhood within the City of Vancouver, as shown in the following image.



#### Aerial Image of Centerm and Vanterm



This neighborhood and the CP rail line shown in the photo above prevent either terminal from expanding its container yard to the south. While there is an active grain export terminal, and some underutilized finger piers that lie in between the two container terminals could supply land for expansion, but demolition and landfill here (to expand either or both container terminals) would be very expensive and actively opposed by residents

Vancouver's other terminal, Deltaport (also operated by GCT), is located in an agricultural area adjacent to the suburb of Delta, and just south of the mouth of the Fraser River. The photo below shows Deltaport is located at the end of a two-mile-long causeway, built entirely on landfill and adjacent to the largest export coal terminal in North America.

#### Aerial Photograph of Deltaport



Deltaport's 1100-meter linear berth can accommodate three Transpacific ships concurrently (unless all three are 10,000+ TEU ships). This terminal's container yard, although partially bisected by its rail yard, is well suited to handle high volumes of intermodal traffic, as it has eight working tracks, each one 3,500'

long. Given the length of trains that CN and CP prefer to operate, this intermodal transfer area can hold the equivalent of three unit trains concurrently. There are also multiple tracks on the causeway for trains to be held prior to being switched into the working tracks (or conversely, to be assembled, after being pulled from the working tracks)

GCT is also in the process of significantly expanding its intermodal transfer facility, adding over 600,000 TEUs in doing so. Although it would encounter opposition from environmental groups, Deltaport's berth and CY could also be feasibly expanded back towards the mainland.

Deltaport is linked with the transcontinental main lines of the CN and CP with a single-track branch line owned by BC Rail (a subsidiary of the provincial government). The route of this branch line (also known as the Roberts Bank Rail Corridor, or RBRC), as shown below, enables container trains going from or to Deltaport to bypass the more congested rail lines within the central metropolitan area.

#### Map of Deltaport Rail Access



A consortium of government agencies has implemented a program to remove multiple grade-crossings on this line to expedite train movements across it.

Between the Mission City area (a Vancouver suburb) and Kamloops, the CN and CP transcontinental main lines parallel the Fraser River and each other. This configuration has enabled the two railroads to establish a track-sharing agreement, whereby in this 145-mile section, all of the eastbound trains of both carriers use the CP line, while all of the westbound trains use the CN line, which increases the network's capacity for both railroads. However, east and northeast of Kamloops, both the CP and CN have various capacity constraints on their respective main lines that will require significant capital spending to mitigate.

The table below compares key infrastructure attributes of the dedicated container terminals in Vancouver.

#### Summary of Vancouver's Container Terminal Characteristics

Operating Characteristic	Units	Vancouver		
		Deltaport	Vanterm	Centerm
<b>Total Area:</b>	<b>Hec / Arc</b>	85 / 210	31 / 76	29 / 72
<b>Ops Capacity:</b>	<b>TEUS</b>	1,800,000	650,000	650,000
<b>Berths:</b>	<b>M</b>	1 X 1,100	1 X 619	1 X 649
<b>Water Depth:</b>	<b>M / Ft</b>	15.9 / 52	15.5 / 51	15.5 / 51
<b>On-Dock Rail:</b>		Yes	Yes	Yes
<b>Rail Provider:</b>		CN / CP / BNSF	CN / CP / BNSF	CN / CP / BNSF
<b>IM Yard:</b>		8,534m of trackage	2,926m of trackage	2,436m of trackage
<b>Rail Services:</b>		8 working tracks 1037m each	6 tracks at 305m each and 3 at 366m	4 working tracks 609m each
<b>Cranes*</b>		6 X SPPX / 4 X PPMX	3 X SPPX / 1 X PPX / 2 X PM	2 X SPPX / 31 X PPX / 1 X PM

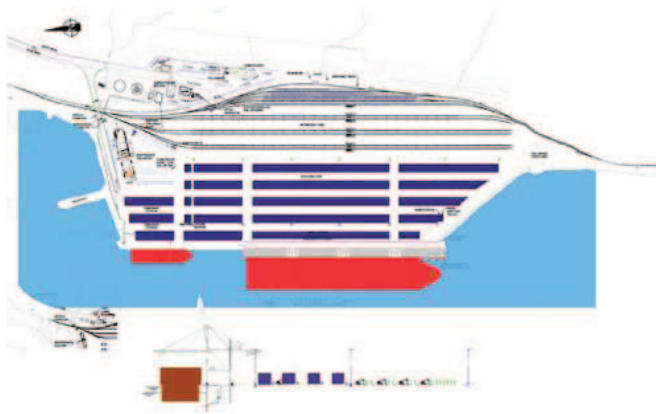
\* **SPPX** - Super Post-panamax cranes (20+ Rows) **PPMX** - Post Panamax (17 to 19 Rows) **PM** - Panamax

With its excellent connectivity to/from the main lines of the CN and CP (largely bypassing the dense parts of the Vancouver metropolitan area, together with its pending increase in intermodal capacity, Deltaport is well positioned to compete with SPB Ports' for rail to/from the locations in the United States.

#### Prince Rupert Infrastructure Summary

Fairview Container Terminal (FCT), which is Prince Rupert only container, was developed by Maher and CN with a clear intent to capture Asia – Midwest traffic away from Pacific coast ports. This terminal presently has a linear berth of only 360 meters, and thus can handle only one line-haul ship at a time. This port's navigation channel and FCT's water depth alongside the berth are both 61 feet, which is more than enough to handle the world's biggest containerships. FCT's total area is only 59.4 acres, which is smaller than all of the terminals in Vancouver, Seattle, SPB Ports, and smaller than all but one terminal in Tacoma.

## Overview of FCT's Existing Infrastructure



<b>Total Area:</b>	24 Hectares (59.4 Acres)
<b>Ops Capacity:</b>	750,000 TEUs
<b>Rail Provider:</b>	Only Served by CN Railroad
<b>Container Yard:</b>	Handle 9,000 TEUs, 72 Reefer plugs
<b>Intermodal Yard:</b>	6100 metres (20,000 feet) of trackage
<b>Rail Services:</b>	7 working tracks, 6 storage tracks 5,182 metres
<b>Equipment:</b>	<b>Cranes:</b> 4 Super Post-panamax cranes; 22 container rows

FCT's intermodal rail transfer facility can hold two trains in its working tracks, along with a train-load of stack-cars on support tracks – it has less capacity than many of the other West Coast terminals, but more than several others. Prince Rupert is served by only one railway operator – CN – whereas the other North American West Coast gateways (LA/Long Beach, Seattle/Tacoma, and Vancouver) are all linked with the U.S. Midwest by two major railroads. Despite this comparative weakness, CN clearly recognizes that its ability to derive significant revenues from FCT depends on its willingness to provide very reliable train service at attractive rates to ocean carriers and their customers.

Unlike most other major container terminals in North America, FCT is located in a very small town (population of about 12,500). As shown in the aerial photo below, FCT is directly connected to the CN's main line between Prince Rupert and Prince George – unlike in most other North American ports, there are no branch lines, spur tracks, or secondary main lines that link the container terminal with the railway's transcontinental main line.



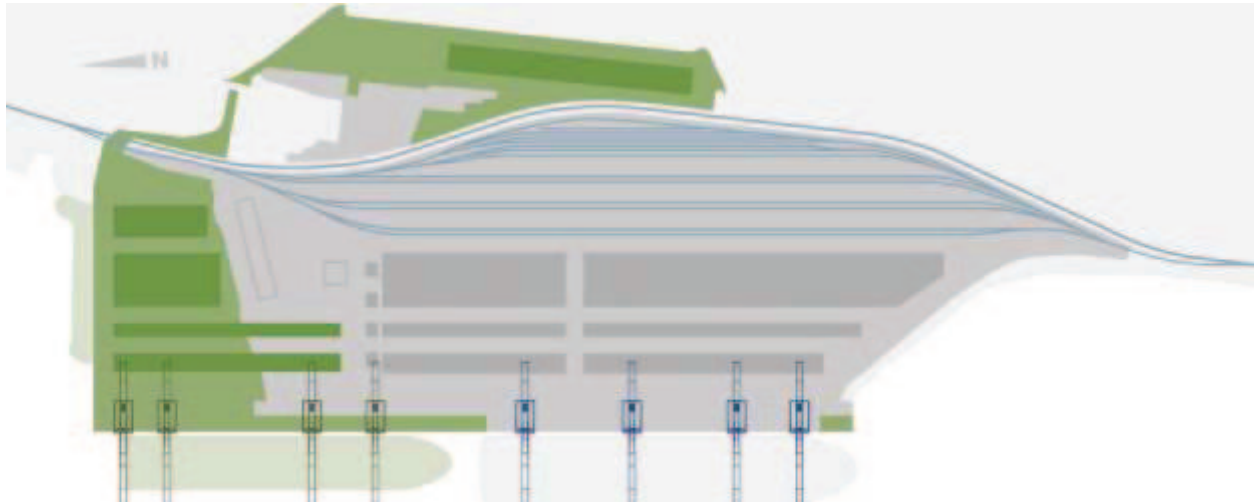
### Map of Prince Rupert Rail Connectivity



In addition to being adjacent to the CN main line, FCT's rail connectivity is enhanced by other attributes of that railway line (besides the fact that it runs through sparsely populated areas almost right to/from the terminal). First, there are only two other principal industrial users at Prince Rupert of the CN main line – an export coal terminal and an export grain terminal – each of which has its own support yard, so there is minimal congestion on the main line in departing intermodal trains from (or arriving them to) FCT. Second, the route from Prince Rupert through Prince George and Jasper to Edmonton has the most gradual ascents and descents and the lowest elevation across the Rocky Mountains of any transcontinental main line in North America – this enables CN to have lower fuel costs than its competing Western railroads.

With the recent sale of the Fairview Container Terminal concession by Deutsche Bank to DP World, the Port Authority of Prince Rupert now has the ability to complete a second phase of expansion for the terminal (which had been long delayed by DB's unwillingness to fund the project). In this second phase, the terminal will add over 400 meters of berth and four more gantry cranes to be able to accommodate two ships concurrently, while also increasing its container yard – a diagram showing this expansion is shown below.

### Diagram of FCT Current Expansion



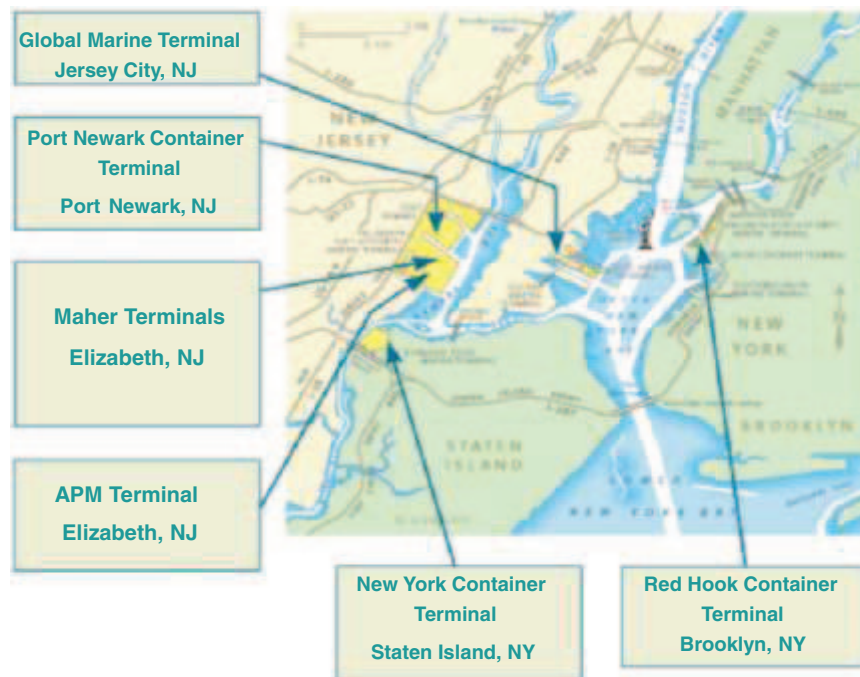
The Port Authority and DPW are indicating that these improvements will add 450,000 TEUs of capacity to FCT. Although DPW will likely shift some traffic from Vancouver, the majority of this incremental space is targeted at the Asia – Midwest traffic that now moves through U.S. West Coast ports.

### **NY/NJ Infrastructure Summary**

The largest port complex on the East Coast of North America competes with the SPB Ports for Asian traffic to/from the Ohio Valley, Michigan, and other parts of the Midwest, especially for cargoes originating or terminating in South East Asian and Indian Subcontinent countries. New York/New Jersey (NY/NJ) receives nine first-inbound calls of Asia services – six via Suez and three via Panama – because it has the continent's second largest local market for imports (after LA/LB).

In terms of its infrastructure, there are six container terminals in this port complex – four in New Jersey and two in New York. The locations of these terminals are displayed in the following figure.

## NY/NJ Container Terminals



The Red Hook terminal in Brooklyn has no on-dock or near-dock rail service, poor highway access, and is effectively confined to handling niche shipping lines and relatively small ships. Four of the other five terminals – Maher, APMT, PNCT, and Global – are (or shortly will be) capable of handling two ultra-large container ships at the same time. The NYCT terminal will need further dredging in order to handle any fully laden super-post Panamax ships.

Four of the port's six terminals are located behind the Bayonne Bridge – PNCT, Maher, APMT, and NYCT. This bridge has an air draft of only 151 feet, which impedes the safe passage under it by conventionally-designed vessels with more than 9500 TEUs of capacity. However, the Port Authority has a construction project underway to raise the deck of this bridge by more than 60' and this project is scheduled for completion by the middle of 2017.

The PNCT concession is owned 50% by MSC (with Ports America holding the balance) and mainly handles the vessel services of that ocean carrier, but also chases after other ship lines. APMT handles the liner services of its affiliate Maersk, but also aggressively pursues the stevedoring business of other carriers, as do both Maher and GCT (which operates Global and NYCT).

Information on the key parameters of these terminals is provided in the table below:

#### NY/NJ Container Terminal Attributes

	Maher	APMT	PNCT	Global	NYCT	Red Hook	Totals
<b>Lift Capacity - 2014-mil</b>	1.85	1.20	0.80	0.88	0.66	0.20	<b>5.59</b>
<b>Terminal Acreage</b>	180 / 445	147 / 363	103 / 255	68 / 167	76 / 187	32 / 80	<b>606 / 1497</b>
<b>No. Berths / Length - m-ft</b>	10 / 3114-10,128	5 / 1829-6000	2 / 1341-4400	2 / 823-2700	3 / 914-3000	1 / 634-2080	<b>8 / 8655-28308</b>
<b>Water Depth</b>	All @ 45ft to 50ft	3 @ 50 ft/ 1 @ 45ft/ 1 @ 40ft	2 @ 50 ft/ 1 @ 40ft	2 @ 50 ft	1 @ 45 ft/ 1 @ 41ft/ 1 @ 35ft	1 @ 42ft	
<b>Total No. Cranes</b>	16	15	7	6	9	4	<b>57</b>
<b>SPPX</b>	9	4	3	6	4		<b>26</b>
<b>Post Panamax</b>	6	8	3		2	1	<b>20</b>
<b>Panamax</b>	1	3	1		3	3	<b>11</b>
<b>Rail Access</b>	On-dock	On-dock	Off-dock	Off-dock	On-dock	On-dock	

As noted above, NYCT and PNCT have near-dock rail transfer facilities, but with private ramps to efficiently access them, while Maher and APMT share an on-dock rail operation. There is a new rail facility is being built for Global.

However, for trains to move between these near-dock rail transfer facilities and the main lines of CSXT and NS that link the port complex with the Ohio Valley and U.S. Midwest (the primary inland regions using intermodal service to/from NY/NJ), they have to traverse through a dense, congested rail network within the tri-state metropolitan area, particularly inside the circled area in the map below. This can typically take up to 3-4 hours, given the number of other trains being operated within the network.



## Rail Main Lines to/from NY/NJ Container Terminals



The CSXT main line linking the port complex with the Ohio Valley and points beyond runs north from the container terminals (as shown in the map above), paralleling the Hudson River to Albany, before heading west to Buffalo. This route has minimal grades, is entirely double-tracked, cleared for double-stack equipment, and enables intermodal trains to operate at relatively high speeds (of 55-60 miles per hour) for most of its length. It provides the NY/NJ port complex with very competitive rail service to/from the Ohio Valley, especially for containers from/to South East Asia. At Syracuse, a secondary main line of CSXT runs north to Montreal, providing that carrier with a direct, fast route between New York Harbor and Canada's second largest city.

### Map of CSXT Main Line between NY/NJ Port and Chicago



The Norfolk Southern (NS) route between the port complex and Ohio is more direct, but has far more curvature and crosses over the Allegheny Mountains in central Pennsylvania. It is also double-tracked and cleared for double-stack railcars, but is a higher-cost, slower route.

### Map of NS Main Line between Port of NY/NJ and Chicago



In conclusion, by 2018 from an infrastructure perspective, the port complex of NY/NJ will have marine terminals that are capable of handling a number of ultra-large container ships at the same time. It is believed that trains can move between main lines and the rail transfer facilities in SPB Ports' operations NY/NJ port complex at a similar level of efficiency. Thus, for container traffic between South East Asia and the Ohio Valley (and to a lesser extent, between South China and the Ohio Valley), the NY/NJ port complex should have rail connectivity that is very competitive with the SPB Ports.

### Summary of Savannah's Infrastructure

Savannah is the fourth largest port in North America and it competes with SPB Ports mainly for Asian imports to Southeast states. There is only one container terminal in the Port of Savannah, at Garden City, and it is operated directly by the Georgia Ports Authority (GPA). The terminal is accessed by a 32-mile navigation channel through the last 21 miles of the Savannah River and across a sandbar in the Atlantic Ocean -- currently, the channel has a depth at MLW (Mean Low Water) of only 42 feet.

#### Overview of Savannah's Container Terminal Access



The GPA has received the approvals required for the Army Corps of Engineers to dredge this channel to 47ft at MLW, but still needs to obtain at least \$400 million in federal funds for the project – until those funds are procured and the project is completed (which could take four years or more), Savannah will only be able to handle ships with capacities of 8500 TEUs or less, and only if their arrivals and departures are during high tides.

Although the Garden City Terminal has multiple gates and different sections, GPA operates it as single, integrated facility – there are no berths or supporting yard acres that are assigned to individual carriers or alliances. Key infrastructure attributes of the terminal are shown in the following table, while an aerial photo of the facility is presented below as well.



Overview of Garden City Infrastructure

Terminal		Garden City
Berth Length	ft	9,693
Depth	ft	42-48
Acreage		1200
Total No. Cranes		27
- SPPX (20+ rows)		16
- PPX		11
- PX		
Channel Depth	ft	42
Air Draft Limit		185
On-Dock Rail		Yes
Capacity - current	'000 TEU	4,800
Capacity - future	'000 TEU	



While a significant portion of the 1200 acres of the complex are not utilized for container marshalling and storage, this facility is still the single largest container terminal in North America, and is clearly capable of handling multiple large containerships concurrently, in terms of its landside infrastructure.

Summary of Houston’s Infrastructure

The Port of Houston receives weekly calls from two all-water vessel services from Asia and thus is competing with SPB Ports for Far East shipments to South Central markets. The port has two dedicated container terminals, which are identified in the map to the below.

Overview of the Port of Houston’s Container Locations



Barbours Cut is the older of the two, having been developed over 40 years ago, and is operated by the Port Authority, with ocean carriers selecting their stevedoring firms. Bayport was opened in 2007 with the Authority managing the facility, but with Ports America and CMA in a JV to undertake the stevedoring and depot operations. Both of these terminals only have channel depths of 40 ft, which limits ship sizes to 6,500 TEUs. While both terminals have near-dock or on-dock intermodal transfer facilities, intermodal movements through the port are relatively small and are limited to shipments between California and Latin America/Europe.

The table below provides information on Houston's container terminal complexes capabilities.

#### Summary of Houston's Terminal Characteristics

Terminal	Unit	Barbours Cut	Bayport
Berth Length	ft	6,000	3,300
Depth	ft	40	40
Acreage		235	193
Total No. Cranes		<b>13</b>	<b>9</b>
- SPPX (20+ rows)		4	3
- PPX		4	6
- PX		5	
Channel Depth	ft	40	40
Air Draft Limit		No	No
On-Dock Rail		Yes	No
Capacity - current	'000 TEU	1,700	900
Capacity - future	'000 TEU	2,500	3,000

## Appendix 7: Review of Non-container Terminals for SPB Ports

### SPB Ports' Liquid Bulk Facilities

This section provides an overview of the primary liquid bulk cargo facilities in SPB Ports. A brief overview of each facility is provided, followed by a summary view on the capabilities of such facilities first for the PLA and then for the PLB.

#### Review of Port of Los Angeles Liquid Bulk Facilities

This port has seven liquid bulk facilities encompassing 117 acres to handle various inbound and outbound liquid commodities. The total capacity of the seven liquid bulk facilities is 8,115,000 barrels. Cargo handling equipment includes tankers, barges, bulk freighters, and storage tanks with rail accessibility. Petroleum products handled at these terminals include: gasoline, blending stocks, MTBE, diesel, naphtha jet fuel, nonenes tetramers, fuel oils, carbon black, crude oil. From the seven facilities, Vopak and Exxon Mobil are the ones with greater total capacity, and Vopak has the greatest land area and total berth length. Table A1 documents the terminal features of the seven PLA liquid bulk facilities.

#### Summary of Port of Los Angeles Liquid Bulk Facilities Operating Characteristic

Terminal Feature	Kinder Morgan	Conoco Phillips	NuStar Energy	Valero	Shell	Vopak	Exxon Mobil
Berths	118-120	148-151	163	164	167-169	187-191	238-240C
Land area (acres)	12.4	13.5	5.8	10.5	9.1	34.7	31.4
Tot. berth length (ft)	825	1,328	400	488	1,238	2,336	903
No. of berths	2	2	1	1	2	2	4
Height (ft)	13	15.2	13.7	13.7	13.0	15	14
Water depth (ft)	35	35	37.5	40	38	35; 45	35
Total capacity (barrels)	570,000	800,000	600,000	947,000	485,000	700,000; 1,700,000	2,313,000
Commodities	Receiving/exporting petroleum products	Receiving refined petroleum products	Marine oil	Fuels and lubricants	Fuels and lubricants	Liquid bulk chemical products	Fuels and lubricants

#### Review of Port of Long Beach Liquid Bulk Facilities

This port has six liquid bulk facilities encompassing 56 acres to handle various inbound and outbound liquid commodities. The total capacity of six liquid bulk facilities surpasses 3,536,190 barrels and the equipment at these locations includes tankers, barges, bulk freighters, pipelines, crude unloading arms, and storage tanks with rail accessibility. Tesoro Logistics Operations controls three from the six facilities

with berths B76-B80 providing the greater capacity, the largest land area and total berth length. The table below documents these terminals operating characteristics.

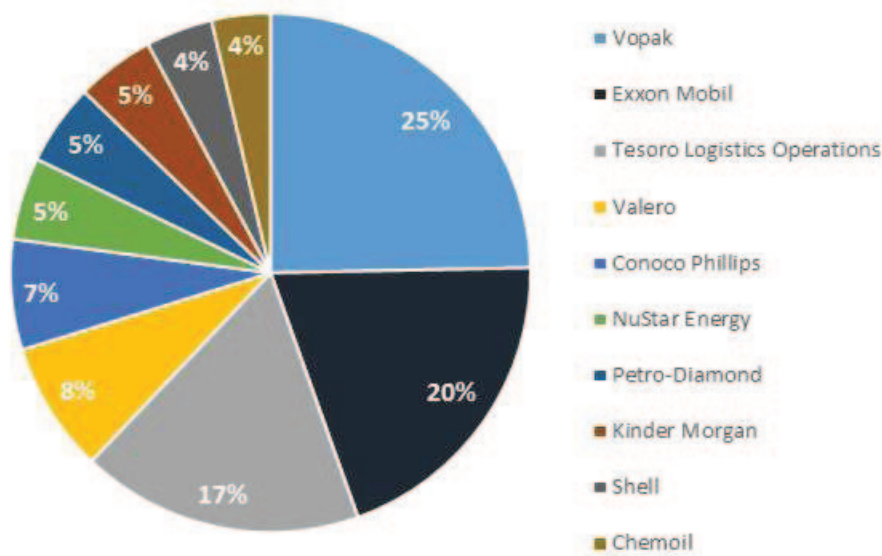
#### Summary of Port of Long Beach Liquid Bulk Facilities Operating Characteristics

Terminal Feature	Chemoil	Petro-Diamond	Tesoro Logistics Operations			Vopak
Berths	F209, G211A	B82, B83	B76-B80	B84-B87	T121	S101
Land area (acres)	5	6	18	11	6	10
Tot. berth length (ft)	800	1,060	2,200	1,980	1,140	700
No. of berths	2	2	5	4	1	1
Height (ft)	19.1	14.4	14.4	16.8	22.4	15.5
Water depth (ft)	40	38	46	52	76	36
Total capacity (barrels)	425,000	590,000	1,800,000	245,000	n/a	476,190
Commodities	Petroleum products and bunker fuel	Gasoline, ethanol, gasoline blend stocks, diesel, biodiesel	Petroleum products	Crude oil, petroleum products, bunker fuel.	Crude oil and petroleum products	Miscellaneous bulk liquid chemicals

#### Overview of SPB Ports Combined Liquid Bulk Capacity

This port area's liquid bulk terminals occupy about 173 acres of land area with storage capacity surpassing 11,651,190 barrels of liquid bulk and 15,398 feet of berth. These terminals serve as primary gateways for Vopak, Exxon Mobil, and Tesoro Logistics Operations.

### Capacity Participation per Company as a Percentage of SPB Total Capacity



### SPB Ports Breakbulk Facilities

This section provides an overview of SPB Ports' breakbulk cargo facilities. A brief overview of each facility is provided, followed by a summary view on the capabilities of such facilities first for the Port of Los Angeles and then for the Port of Long Beach.

#### Review of Port of Los Angeles Liquid Breakbulk Facilities

This port has three breakbulk facilities comprising 76 acres and 6,740 ft of total berth length to handle various inbound and outbound break bulk commodities. Pasha Properties, Stevedoring Services of America, and PLA are the three break bulk terminal operators at Los Angeles. Pasha Properties is the most significant terminal operator with a total berth length of 3,300 ft, a land area of 40 acres, and a transit shed area of 235,000 ft<sup>2</sup>; it also operates the 24 acres terminal on berths 49-53. Stevedoring Services of America, the other breakbulk operator at the Port of Los Angeles and its terminal has a total berth length of 1,340 ft, as well as a transit shed area of 211,290 ft<sup>2</sup> over 12 acres of land. The following table summarizes terminal features of the three Port of Los Angeles' breakbulk facilities.

#### Overview of Port of Los Angeles Breakbulk Facilities

Terminal Feature	Port of Los Angeles	Stevedoring Services of America	Pasha Properties
Berths	49-53	54-55	174-181
Land area (acres)	24	12	40
Tot. berth length (ft)	2,100	1,340	3,300
No. of berths	2	2	3



<b>Height (ft)</b>	14 - 14.6	14 - 14	11.2 - 15
<b>Water depth (ft)</b>	35 - 51	35	35 - 45
<b>Transit shed area (ft<sup>2</sup>)</b>	n/a	211,290	235,000
<b>Shipping lines served</b>	Pasha	NYK, LauritzenCool, CSAV	Pasha
<b>Commodities</b>	Breakbulk, steel	Imported meats, Chilean fruit, kiwis, apples	Steel

### Review of Port of Long Beach's Breakbulk Facilities

This port has five break bulk facilities comprising 91.2 acres and 6,035 ft of total berth length to handle various inbound and outbound break bulk commodities. Crescent Terminal for SSA Marine are the largest facilities with 22 acres of land and an open storage area of 12.2 acres. Overall, the five breakbulk facilities at Long Beach provide 42.2 acres of open storage, 32,550 ft<sup>2</sup> of loading platforms, and more than 894,800 ft<sup>2</sup> of transit shed areas.

The following table summarizes the terminal features of Long Beach's five breakbulk facilities.

### Summary of the Port of Long Beach Breakbulk Facilities Operating Characteristics

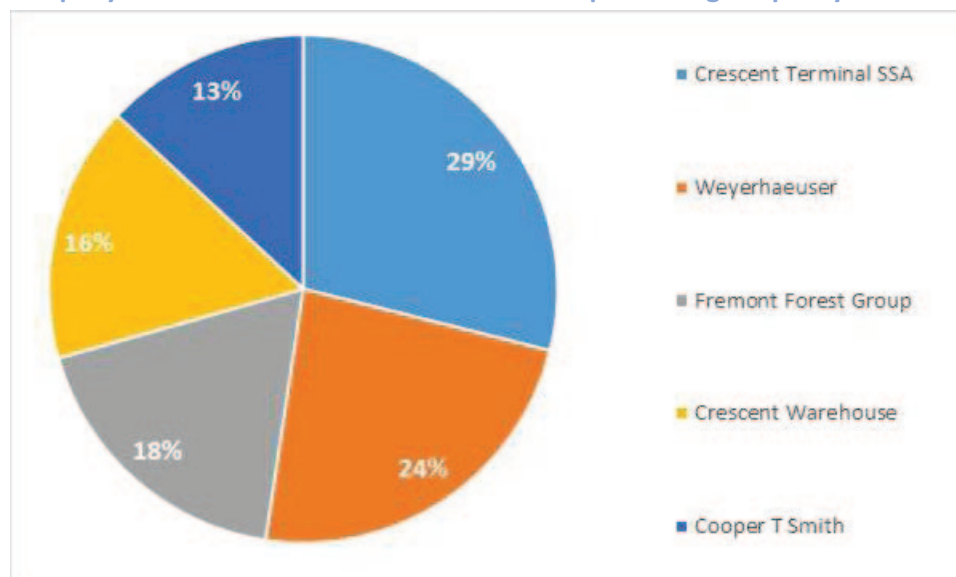
Terminal Feature	Cooper T Smith	Crescent Terminal SSA	Crescent Warehouse	Fremont Forest Group	Weyerhaeuser
<b>Berths</b>	F204 - F205	F206 - F207	D50 - D54	T122	T122
<b>Land area (acres)</b>	21	22	13.3	17	18
<b>Tot. berth length (ft)</b>	1,265	1,200	2,370	600	600
<b>Water depth (ft)</b>	36	32	36	40	35
<b>Wharf Height (ft)</b>	18.5	18.5	10.2 - 17.1	22.6	14.5
<b>Wharf Area (ft<sup>2</sup>)</b>	130,000	57,500	63,645	48,000	48,000
<b>Apron Width (ft)</b>	50	48	30 - 38	40	40
<b>Open Storage (acres)</b>	5.5	12.2	6.9	7.7	9.9
<b>Loading Platform (ft<sup>2</sup>)</b>	9,000	13,800	9,750	n/a	n/a
<b>Transit shed (ft<sup>2</sup>)</b>	180,000	190,000	494,800	15,000	15,000
<b>Commodities</b>	Steel prod, plywood and	Steel prod, plywood, lumber, and	n/a	Lumber and lumber products	Lumber and lumber products

	lumber	machinery			
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### Overview of SPB Ports Combined Liquid Bulk Capacity

Cumulatively, SPB Ports have about 167 acres of land area and 12,775 ft of total berth length. These terminals serve as primary gateways for Crescent Terminal SSA, Weyerhaeuser, and the Fremont Forest Group, as illustrated in chart below.

### Company Share of SPB Ports' Total Break Bulk Open Storage Capacity



### Review of SPB Dry Bulk Facilities

This section provides an overview of SPB Ports' dry bulk cargo. A brief overview of each facility is provided, followed by a summary view on the capabilities of such facilities first for the two ports that comprise the SPB Port area.

### Review of Port of Los Angeles Liquid Dry Bulk Facilities

Los Angeles' has two dry bulk facilities comprising 33.7 acres and 2,179 ft of total berth length to handle various inbound and outbound dry bulk commodities. Berths 165-166 are used by US Borax Inc, who operates California's largest open pit mine and supplies nearly half the world's demand for industrial borates serving customers in 100 countries. This terminal has capacity to store 350,000 metric tons and to transfer cargo to vessels up to 1,000 tons/hour. Berths 210-211 are used by SA Recycling, a scrap metal recycling company handling steel, aluminum, copper, and brass. This terminal has a metal shear and shredder on site and also access to rail facilities near the dock.

The table documents the terminal features of Los Angeles two dry bulk facilities.

### Summary of the Port of Los Angeles' Dry Bulk Facilities Operating Characteristics

Terminal Feature	US Borax Inc.	SA Recycling
Berths	165-166	210-211
Land area (acres)	7	26.7
Tot. berth length (ft)	679	1,500
No. of berths	1	2
Height (ft)	14.2	13.7
Water depth (ft)	37	35
Total transfer capacity (metric tons/hour)	1,000	n/a
Total storage capacity (metric tons)	350,000	n/a
Commodities	Handle industrial borates	Handle all grades of ferrous and non-ferrous scrap metals

### Review of Port of Long Beach's Liquid Dry Bulk Facilities

This port has six dry bulk facilities comprising 86.2 acres and 6,190 ft of total berth length to handle various inbound and outbound dry bulk commodities. Metro Ports, a terminal operator and stevedoring company, is the largest terminal at PLB measured by land area, storage and transfer capacity. This terminal has capacity to store 540,000 metric tons and to transfer cargo to vessels up to 5,000 tons/hour. Table A6 documents the terminal features of the seven PLB dry bulk facilities.

### Summary of the Port of Long Beach's Dry Bulk Facilities Operating Characteristics

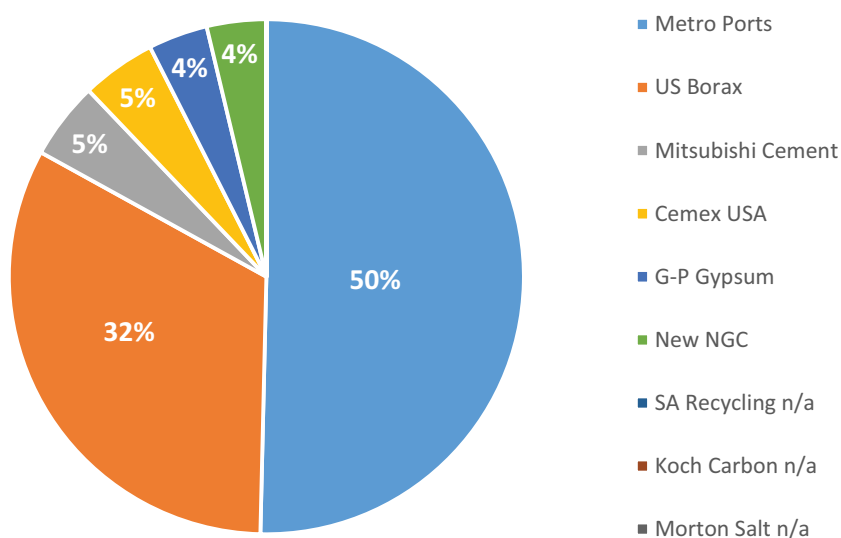
Terminal Feature	G-P Gypsum	Koch Carbon	Metro Ports	Mitsubishi Cement	Morton Salt	New NGC	Cemex USA
Berths	D46	F211	G212-G214	F208	F210	B82	B82
Land area (acres)	9	7	23	4.2	5	19	19
Tot. berth length (ft)	640	1,100	1,900	550	700	650	650
No. of berths	1	1	2	1	1	1	1
Height (ft)	17.2	19.3	18.5 - 18.8	n/a	19	14.6	14.6
Water depth (ft)	40	40	50 – 40	40	40	38	36

<b>Total transfer capacity (metric tons/hour)</b>	900	n/a	3,500-5,000	980	n/a	900	800
<b>Total storage capacity (metric tons)</b>	40,000	n/a	540,000	52,000	n/a	40,000	50,000
<b>Commodities</b>	Gypsum	Petroleum coke, and prilled sulfur	Petroleum coke, coal, potash, borax, sodium sulfate, soda ash, and prilled sulfur.	Bulk cement	Bulk salt	Bulk gypsum	Bulk cement

### Overview of SPB Ports Combined Liquid Bulk Capacity

This port area's has about 120 acres of land area with storage capacity surpassing 1,072,000 of dry bulk and 8,369 ft of berth. These terminals serve as primary gateways for Metro Ports, US Borax, Mitsubishi Cement, and Cemex USA, as illustrated in the table below.

### Capacity Participation per Company as a Percentage of SPB Ports Total Dry Bulk Capacity



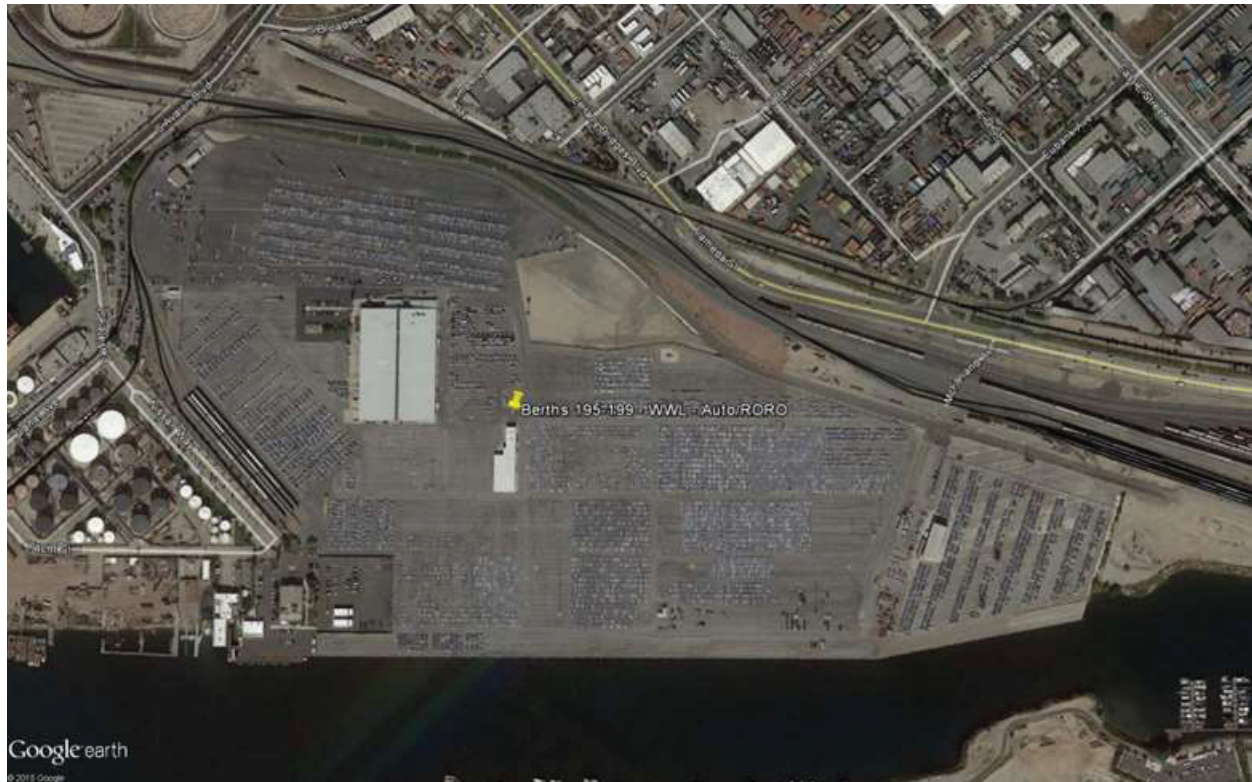
### Review of SPB RoRo Facilities

This section provides an overview of SPB Ports' two primary vehicle import/export facilities, namely Berths 195-199 in the Port of Los Angeles and Port of Long Beach's Pier B. A brief overview of each facility will be provided, along with an aerials photo, followed by a summary level view on the capabilities of the combined facilities.

### Overview of the Port of Los Angeles' – Berths 195-199

Berths 195-199 make up the primary auto facility in the Port of Los Angeles. It has 85 acres of ground storage capacity for vehicles along with 2,250 feet of berth. The facility is leased to and operated by Wallenius Wilhelmsen Logistics (WWL), although it was previously a proprietary facility for Nissan Motors. The terminal is served by both the UP and BNSF railroads, and has 6 loading/unloading rail tracks on-dock with a combined capacity of about 36 multi-level railcars. It is understood that Nissan still serves as the primary customer for the facility, which is estimated to handle approximately 200,000 vehicles per annum.

#### Berths 195-199 WWL Facility Aerial



#### Overview of the Port of Long Beach's – Pier B

Pier B is the primary auto facility in the Port of Long Beach. It has about 100 acres of ground storage capacity for vehicles along with 3,000 feet of berth. The facility is leased to and operated by Toyota Distributions Services (TDS). The terminal has 3 loading/unloading rail tracks on-dock with a combined capacity of about 36 multi-level railcars. It is understood that Toyota utilizes Pier B as its primary import gateway for Toyota Motors on the West Coast, and is estimated to handle approximately 200,000 vehicles per annum.

It should be noted that SSA Marine also receives imports of Mercedes vehicles at its breakbulk terminal and trucks them off to an off-dock storage area.



### Pier B Toyota Facility Aerial



### Overview of SPB Ports Combined Liquid RoRo Capacity

The Berth 195-199 and Pier B facilities constitute the auto terminal capacity of SPB. Together they include about 185 acres of storage capacity, 5,250 feet of berth, and on-dock rail capacity of about 72 multi-level rail cars. Together, these facilities are estimated to handle about 400,000 vehicles per annum.

Volume is primarily leveraged to the businesses of Nissan and Toyota, and to a lesser extent Mercedes. These terminals serve as primary gateways for Nissan and Toyota. As long as these brands do not fall out of favor with US west coast consumers, and production continues to be facilitated in Asia, it should be expected that volume will continue to flow through these facilities.

Assuming a conservative 150 vehicle storage slots per acre, and a 15 day dwell time per vehicle, these two terminals combined should be able to handle close to 700,000 vehicles per annum. This should be adequate to handle the growth of Nissan and Toyota's respective auto imports for the foreseeable future.

Appendix 8: Forecast Tracking Metrics

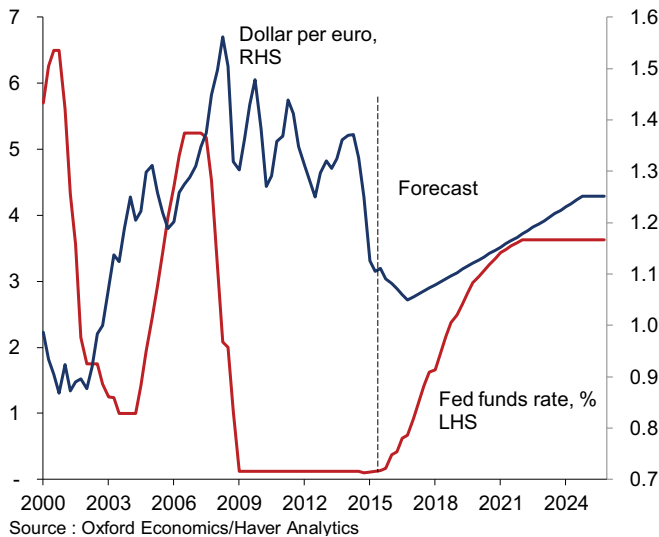
This section briefly sets out how the economic model’s key macro-economic drivers will unfold over the coming decade or two, and what key “metrics” need to be followed to assess if this forecast is on track. As the experience of the past few years shows, economic forecasting is difficult and prone to substantial shocks and uncertainties, but having the Expected view, underpinned by the best possible analysis, data and qualitative insights, is nevertheless necessary for any forecasting exercise. With this in mind, presented in this appendix are the key metrics for tracking the forecast’s primary assumptions on the world’s major economies, and economic variables.

The U.S. Economic Recovery

The key underlying driver for both containerized and non-containerized imports into the U.S. is the pace and durability of the US economic recovery. The US recovery is now broadly self-sustaining, with a tight labor market, tentative signs of wage growth, and a solid rate of non-oil business investment. A first rate hike is expected in December’s Federal Reserve meeting, and a further two during the course of 2016.

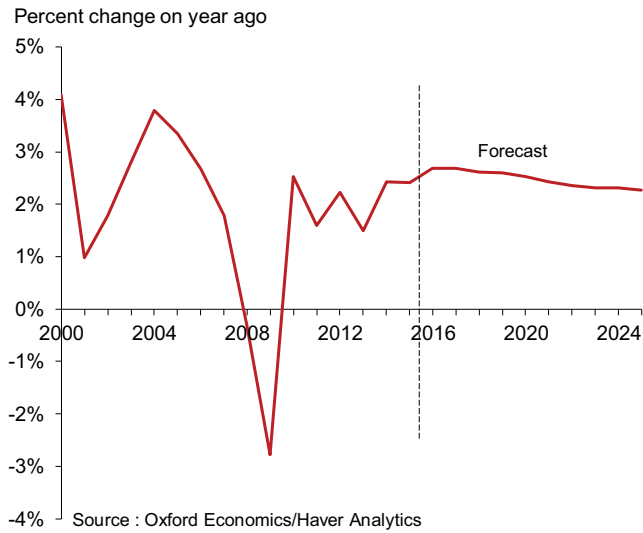
The “new normal” interest rate is likely to be somewhat lower than in the past though, given the slower pace of global economic growth (particularly in emerging markets) and the greater degree of regulation around household credit growth. Alongside this, modest strengthening of the dollar against both the euro and yen in 2016 is expected, but depreciation in later years of this decade as both the ECB and Bank of Japan start their monetary tightening cycles.

US Monetary Policy and Exchange Rates



The forecast for U.S. GDP growth is set out in the chart below. U.S. GDP growth is forecasted to pick up from 2.4% in 2015, to 2.7% in both 2016 and 2017, before easing back to a longer run rate of 2.5% or so in the final years of this decade, and around 2.3% in the longer run. This compares to an average growth rate of around 3% in the decade running up to 2007. Slower population growth has a part to play in this, as well as an assumption that productivity growth is likely to be a little slower than during the pre-crisis decade.

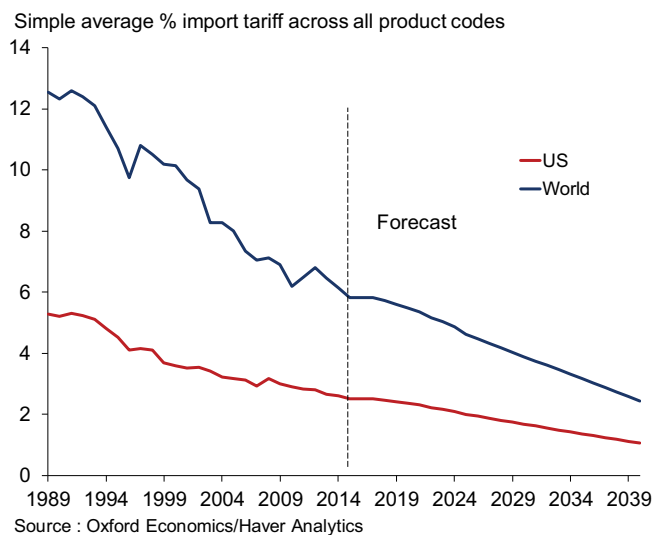
## Review of U.S. GDP Growths



### The Trade-GDP Ratio

The Expected path for trade-GDP ratio is discussed in depth in the main body of the report, so presented here is some additional detail on the specific drivers of this in the expected scenario. One of the key drivers is the average tariff rate on goods imports, which has trended steeply downwards across the world in recent decades, and in the U.S. less steeply (in light of an already more liberal import regime than for the world overall). This trend is expected to continue, in light of ongoing trade integration between different parts of the world economy. The average tariff rate (as measured by the WTO) on imports into the U.S. is expected to fall steadily to 2% by 2025 (from 2.6% in 2014), and just below 5% at the global level (from 6% in 2014).

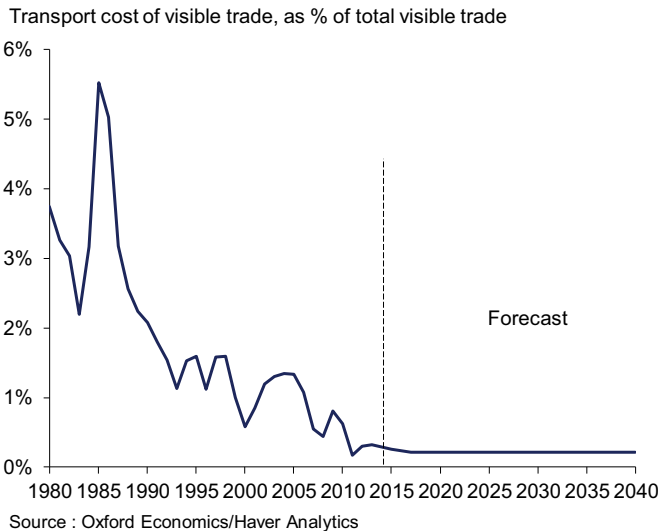
### Average Tariff Rates on Goods





A second key driver of the trade-GDP ratio is the “wedge” between the cost of goods faced by the consumer and the price received by the producer – this reflects transport and logistics costs, insurance and other financial issues around trading. Again, this has trended steeply down in recent years, to the point at which it actually accounts for a very small share (around 0.3%) of total visible trade in the US. There seems little further scope for substantive reductions in this (indeed, this is a reason why the projection for the trade/GDP ratio going forward is less steep than the path seen in recent years). However, shocks to the cost of trade, for example as a result of higher transportation costs or new security, financial or regulatory (non-tariff) measures, could raise the cost of trade, and slow the growth of our trade/GDP ratio relative to the assumptions used in the Expected economic scenario.

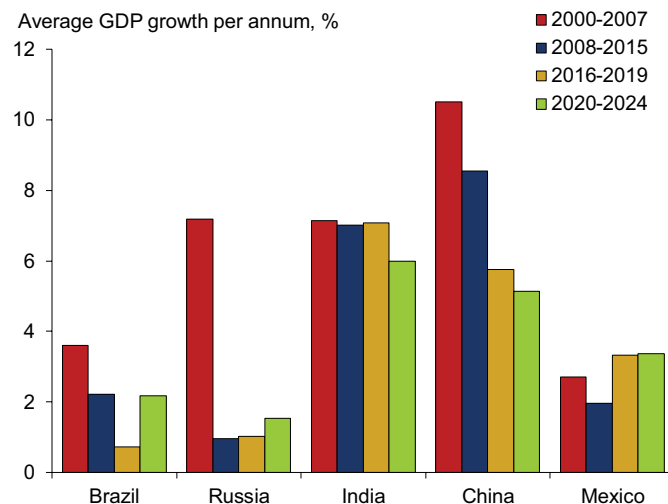
**Cost of Trade for US Importers and Exporters**



**Economic Prospects in the Rest of the World**

Finally, economic prospects in other parts of the world, including major trading partners for the U.S is seen as a key metric for export volume performance. Looking forward, a slower pace of growth in some emerging economies than in recent decades is forecasted. Specifically in China, where the “level shift” of entry into the world trading system has largely been achieved, and the authorities now need to manage a transition to a more sustainable (and less investment-intensive) model of growth. Services activity will play a key role in this respect.

### GDP Growth in the Major Emerging Markets

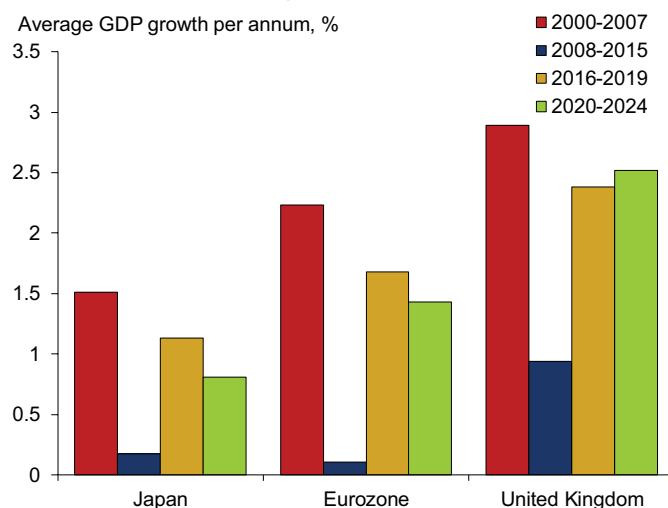


Source : Oxford Economics/Haver Analytics

Additionally, due to the decline in oil prices during the 2014-15, and poor macro-economic policy in recent years, Brazil and Russia both face a year or two more of recession looking forward. Further out, poor competitiveness and a lack of economic diversification imply much slower growth in both of these economies than in the past also. However, outright crisis in either of these economies given measures recently taken to shore up public finances, and contain inflation was found to be unlikely.

On the positive side, a solid rate of growth is expected to continue in both India and Mexico. As a commodity importer, India is benefitting from the decline in oil prices, and tentative moves are being made to improve economic competitiveness, the business environment, and infrastructure investment. In Mexico, deepening trade ties with the US and an ongoing commitment to further improvements in economic policy will support robust growth of around 3% into the medium term.

### GDP Growth in the Major Advanced Economies



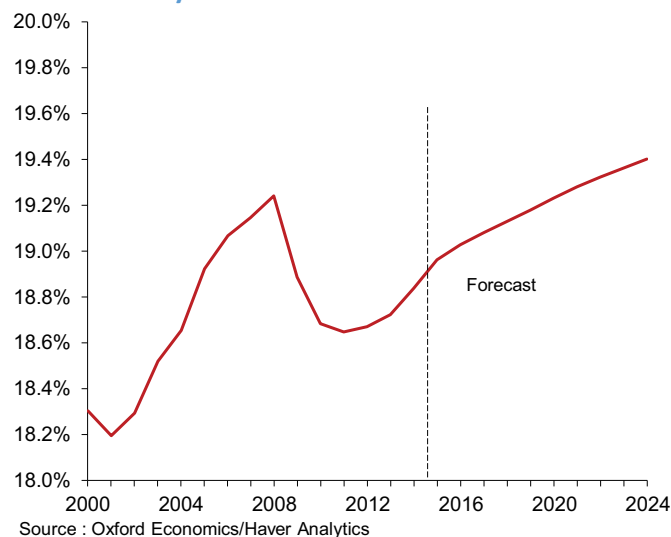
Source : Oxford Economics/Haver Analytics

In the advanced economies, GDP growth is also likely to lag recent historical averages, although by a rather more modest margin than in the emergers. As in the U.S., the recovery in the U.K. now looks largely self-sustaining, and the same is true in parts of the Eurozone. Nevertheless, slower debt accumulation amongst both households and governments will undermine the pace of spending growth.

### **San Pedro Bay Catchment Area Economy**

In main body of this report the outlook for particular sectors of the SPB area economy is discussed and this analysis has not been replicated here. However, at the aggregate economic level, the six states total Gross Regional Production will account for a gradually climbing share of total US GDP – from 18.8% in 2014, to 18.9% in 2015, and on towards 19.2% by 2020.

### **San Pedro Bay Catchment States Share of GDP**



### **GDP Growth in Scenarios**

	GDP growth in scenarios								
	United States			China			Eurozone		
	Expected	Low	High	Expected	Low	High	Expected	Low	High
2014	2.4	2.4	2.4	7.3	7.3	7.3	0.9	0.9	0.9
2015	2.5	2.4	2.6	6.6	6.3	6.6	1.5	1.5	1.5
2016	2.6	1.1	4.5	5.9	3.5	7.3	1.8	0.5	2.7
2017	2.6	1.9	4.1	5.7	5.0	7.3	1.8	1.2	3.0
2018	2.7	3.7	3.0	5.5	7.6	6.0	1.6	2.0	1.7
2019	2.6	3.2	2.5	5.3	6.8	5.5	1.5	1.9	1.5
2020	2.5	2.6	2.4	5.3	5.1	6.0	1.5	1.8	1.7

### Long-term Borrowing Costs in Scenarios

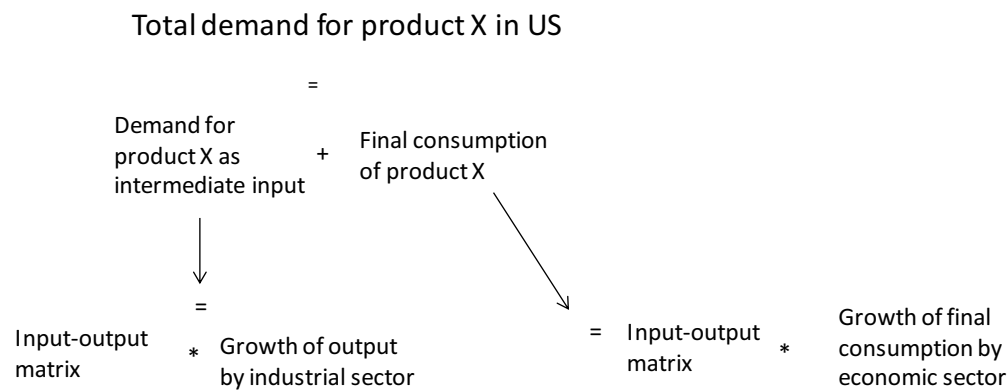
	10-year government bond yield								
	United States			China			Eurozone		
	Expected	Low	High	Expected	Low	High	Expected	Low	High
2014	2.5	2.5	2.5	4.2	4.2	4.2	2.0	2.0	2.0
2015	2.1	2.3	2.1	3.4	3.6	3.4	1.3	1.5	1.3
2016	2.4	3.1	2.6	2.9	3.9	2.8	1.8	2.9	1.7
2017	2.8	1.8	3.4	2.8	2.2	2.7	2.5	1.9	2.6
2018	3.1	1.5	3.8	3.3	2.0	2.9	3.0	2.3	3.4
2019	3.5	2.5	4.1	4.0	2.7	3.2	3.2	2.8	4.2
2020	3.9	3.1	4.0	4.6	3.5	3.3	3.5	2.9	4.6

## Appendix 9: Description of the Input-output Forecast Methodology

The starting point for the container and bulk forecasts was a projection of total demand by commodity in the U.S. economy. This forecast incorporated intermediate demand, i.e. demand for electronics products as an input into the manufacturing of cars, and final demand, e.g. demand for electronics products amongst households.

Intermediate demand by commodity was forecasted using an “input-output” (IO) table, which shows the use of intermediate inputs in the output of each sector. We combined this with Oxford’s standard forecasts for output growth across U.S. industries, to generate total intermediate demand by commodity. Final demand by commodity was also forecasted using the IO table approach, using standard Oxford Economics forecasts for each component of final demand to drive growth in final demand by commodity.

### Calculating Total Demand by Commodity



### Forecasting Import Share of Total Demand

Once forecasts of total demand by commodity in the U.S. were completed, and then projections of the share of total demand for each commodity that will be imported were done. This essentially reflects the extent to which production for meeting U.S. demand has been “offshored” overseas, or in more recent years perhaps “reshored”. In practice, reshoring has been very limited, and focused on specific sectors. As such the more relevant way to think about this is that the *net pace* of offshoring has slowed compared to the 1990s and first decade of this century.

In order to forecast the share of total demand for each commodity satisfied by imports, Oxford first calculated the historic data series for the shares, by using the total demand calculations identified above and “backcasted” through the history, plus data on constant price imports by commodity. Oxford then estimate an equation to fit this share to variables such as relative wages in the U.S. versus the “rest of the world” (ROTW, a GDP-weighted composite measure), relative energy prices versus the ROTW, and the broad-based U.S. exchange rate. Additionally Oxford allow for a time trend as relevant. Oxford then

used its forecast for each relevant macroeconomic driver, and forecast forward the import share for each commodity.

Combining the forecasts derived for total demand with the forecasts for import shares of goods, we then arrive at our forecast for total imports by commodity.

#### **Forecasting Regions' Shares of U.S. Imports**

The next stage in the forecast methodology was to assess the sourcing patterns of each commodity across regions of the world. Using the U.S. Census data by region/commodity, Oxford estimated the relationship between each region's share of U.S. imports of each commodity and macroeconomic drivers, such as that region's effective exchange rate versus ROTW, relative wages versus ROTW, energy costs versus ROTW, and a time trend. The regional variables are calculated as a GDP-weighted average of the composite countries, and the world variables calculated as a GDP-weighted composite of the regions.

Once the relationships driving each region's share of imports across each commodity was calculated, Oxford then forecasted forward these shares again using its own macroeconomic forecasts. Combining these projections with the total imports by commodity forecast, discussed above yields a forecast for each region-commodity combination for U.S. container imports.

#### **Forecasting U.S. Exports by Commodity and Destination Region**

Oxford forecasting methodology for container exports is somewhat different from imports and is described in this section.

First, Oxford forecasted forward total U.S. exports by commodity using its baseline industry forecast for output in the respective industrial sectors. This was then scaled to grow in line with its overall forecast for goods exports from the U.S. Then Oxford forecasted total import demand for each commodity in importing regions using each region's path for constant price goods imports. The weight of each of these region-commodity combinations in total imports into the rest of the world were then applied to the forecasts for exports from the U.S. by commodity.

Oxford then needed to forecast the shares of each region-commodity combination for U.S. exports originating from U.S. ports. We do this by calculating historical shares, and estimating the relationship between these shares and relevant economic drivers. Key in this respect is the SPB catchment area's share of relevant producing industries. Using its forecasts for state-level output by sector, these shares were forecasted forward, yielding container forecasts by region-commodity from SPB Ports.

#### **Forecasting SPB Shares of U.S. Imports and Exports by Commodity and Source/Destination**

Once Oxford derived forecasts of total demand for U.S. imports and exports by commodity and partner region, it forecasted the shares of each commodity-region-direction combination that enters or departs SPB Ports, based on historic shares for U.S. Census data. Oxford methodology mainly used the weight of SPB Ports' catchment area (the states of California, Nevada, Utah, Arizona, New Mexico and Colorado) in relevant US economic variables.

For estimating the drivers of SPB Ports' share of imports, Oxford used variables related to the *consuming* industries and consumer spending. For example, in estimating the proportion of U.S. imports of vehicle parts coming into SPB ports, it uses the six states' share of total US car manufacturing as a key driver, plus overall consumer spending. For estimating SPB Ports' shares of exports, Oxford used variables related to the *production* of relevant goods – e.g. for the vehicle parts exports, again car manufacturing is a key determinate of SPB Ports' share.

Combining these shares with the overall projections for each commodity-region-direction combination yields a forecast for container arrivals/departures for the relevant commodity-region combination to/from SPB Ports.

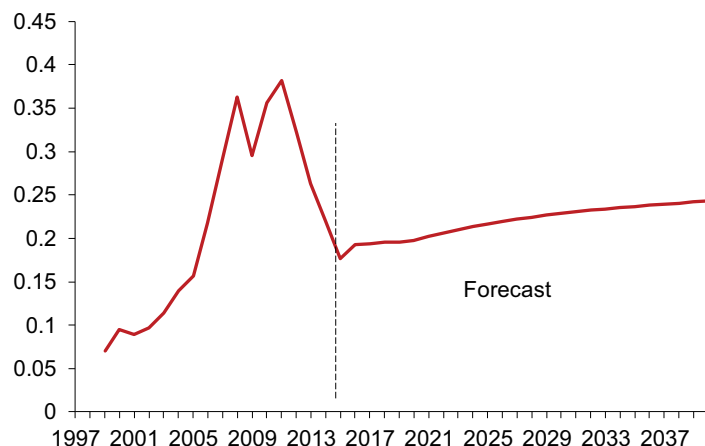
### **Forecasting Waste Exports**

Oxford's methodology for forecasting waste exports was somewhat different to its methodology for other goods exports. For "normal" goods, the importing economy demands the product, however for waste exports the balance of demand is less clear. It is possible that the importing economy demands the waste products because they can be recycled and used as industrial inputs. But it is also true that firms in the exporting economy demand waste processing services, which can be more cost effective in emerging economies than at home.

As such, Oxford forecast total U.S. waste exports using the historical relationship between waste exports and GVA in the U.S. waste intermediation industry. Oxford calculated the "export-intensity" of GVA in the waste sector, i.e. the constant price dollar value of waste exports per constant price dollar of GVA. The export intensity of the sector has risen substantially over the past couple of decades overall, but has fallen back since the start of the current decade. This is shown in the below chart.

### **Export intensity of waste intermediation**

Real \$ exports of waste material per real \$ output of waste intermediation sector



Source : Oxford Economics/Haver Analytics

Oxford analyzed the drivers of this ratio, and found that relative oil prices were the key driver of export-intensity in the waste sector. Specifically, when the cost of oil in the U.S. rises relative to ROTW, it makes more sense to ship waste overseas for processing (and conversely, when the cost of oil falls in the US

relative to ROTW, it makes sense to process waste at home). This reflects the energy-intensive nature of metals and paper recycling. In addition, there is a “dummy” variable in the regression analysis, reflecting the introduction of tighter environmental regulations in China (the key waste export destination) in 2013. Oxford forecasted that the export intensity of the waste sector will rise gradually over the forecast horizon.

Oxford then forecasted forward GVA in the U.S. waste intermediation industry using the input-output method earlier in this appendix (projecting the demand for waste services given the makeup of waste services demand and our sectoral forecasts). By combining the forecast for GVA in the U.S. waste intermediation sector and the projection for export-intensity gives provided a forecast for constant price (i.e. volume) growth in U.S. waste exports.

### **Accounting for Economic Scenarios – High and Low**

Oxford set out its methodology for forecasting constant-price U.S. goods imports and exports in the high and low scenario in section 2. Growth in these series provides a “constraint” for the overall growth of container imports and exports for the high and low macro-economic scenarios.

Oxford then split out imports and exports in line with its view on how each global region’s economy is likely to fare under the upside and downside scenario. Oxford then calculated the share of each region’s imports and exports of the “rest of the world” total (i.e. global imports minus U.S. imports) from 2015-2040, and use this to project forward U.S. imports/exports from/to each region. Then it used the baseline path for the composition of imports/exports to/from each region by commodity to provide the commodity breakdown for the high and low scenario.

### **Forecasting Non-container Import and Export Growth**

Where appropriate (i.e. where the commodity classifications match) Oxford used growth rates from the container forecast as drivers for non-containerized growth. However, in some cases, this is not possible.

The most obvious example is in the case of oil, which is only carried in liquid bulk, not in containers. In addition, Oxford high macro-economic scenario assumes that the current “ban” on exports of crude oil from the U.S. is relaxed, allowing shipments of crude overseas free of the current stipulation that the exporter has to demonstrate that an offsetting import of crude oil is being arranged elsewhere.

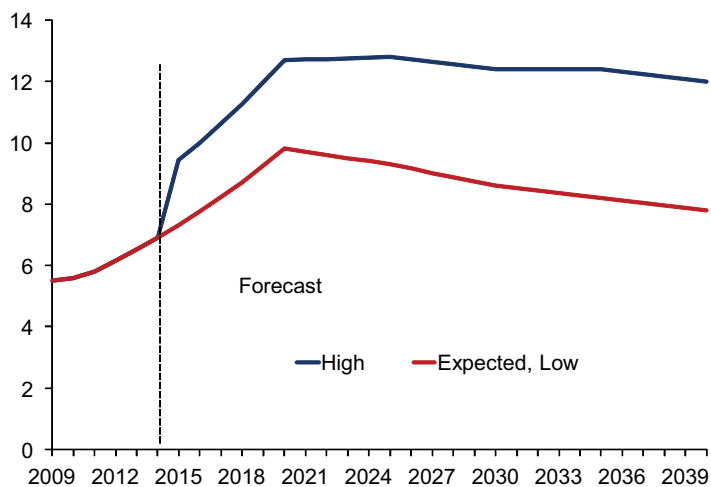
In order to calculate the overall impacts on imports and exports under the two scenarios, Oxford first calculated the overall demand for oil (crude and refined) in the high and low macro-economic scenarios. Assuming an unchanged “oil-intensity” of GDP (i.e. the volume of oil required to generate a constant-price dollar of U.S. economic output) between the three scenarios, Oxford’s projections for GDP in the high and low scenarios provided a forecast for total demand for crude and refined oil.

Oxford then forecasted forward oil production under each scenario. For crude, it used the Brookings numbers for the high scenario, its own baseline forecast for the expected scenario, and an assumption that U.S. oil production would not be impacted by the low macro-economic scenario. For refined oil, Oxford assumed that domestic production moved in line with demand in the high/low scenarios, and again used our existing Oxford Economics macro-economic model forecast for the central projection.



## U.S. Oil Production Scenarios

Million bpd



Source : Oxford Economics/Haver Analytics

Oxford’s forecasts for crude exports for the high scenario were again taken from Brookings “high output” scenario, and its own baseline for the expected/low scenarios (adjusted for lower domestic oil demand). On refined oil, Oxford approach is to assume the same proportion of refined oil production is exported in all three scenarios.

Oxford’s forecasts for imports are then simply given by the identity:

- Imports = Total demand – Domestic Production + Exports

## Appendix 10: Country to Regions Mapping

The tables below map individual countries to the regional groupings presented in the forecast discussion in the main body of the report.

Africa	Algeria	Australia and Oceania	Australia	Europe	Albania			
	Angola		Christmas Island		Andorra			
	Benin		Cocos (Keeling) Islands		Armenia			
	Botswana		Cook Islands		Austria			
	British Indian Ocean Territories		Fiji		Azerbaijan			
	Burkina Faso		French Polynesia		Belarus			
	Burundi		Heard and McDonald Islands		Belgium			
	Cameroon		Kiribati		Bosnia and Herzegovina			
	Cape Verde		Marshall Islands		Bulgaria			
	Central African Republic		Micronesia		Croatia			
	Chad		Nauru		Cyprus			
	Comoros		New Caledonia		Czech Republic			
	Congo (Brazzaville)		New Zealand		Denmark			
	Congo (Kinshasa)		Niue		Estonia			
	Cote d'Ivoire		Norfolk Island		Faroe Islands			
	Djibouti		Palau		Finland			
	Egypt		Papua New Guinea		France			
	Equatorial Guinea		Pitcairn Islands		Georgia			
	Eritrea		Samoa		Germany			
	Ethiopia		Solomon Islands		Gibraltar			
	French Southern and Antarctic Lands		Tokelau		Greece			
	Gabon		Tonga		Hungary			
	Gambia		Tuvalu		Iceland			
	Ghana		Vanuatu		Ireland			
	Guinea		Wallis and Futuna		Italy			
	Guinea-Bissau				Kazakhstan			
	Kenya				Kosovo			
	Lesotho				Kyrgyzstan			
	Liberia				Latvia			
	Libya				Liechtenstein			
	Madagascar				Lithuania			
	Malawi				Luxembourg			
	Mali				Macedonia			
	Mauritania				Malta			
	Mauritius				Moldova			
	Mayotte				Monaco			
	Morocco				Montenegro			
	Mozambique				Netherlands			
	Namibia				Norway			
	Niger				Poland			
	Nigeria				Portugal			
	Reunion				Romania			
	Rwanda				Russia			
	Sao Tome and Principe				San Marino			
	Senegal				Serbia			
	Seychelles				Serbia (Jan 2007 - Dec 2008)			
	Sierra Leone				Serbia and Montenegro (Aug 2003 - Dec 2006)			
	Somalia				Slovakia			
	South Africa				Slovenia			
	South Sudan				Spain			
	St Helena				Svalbard, Jan Mayen Island			
	Sudan				Sweden			
	Sudan (through Jul 2011)				Switzerland			
	Swaziland				Tajikistan			
	Tanzania				Turkey			
	Togo				Turkmenistan			
	Tunisia				Ukraine			
	Uganda				United Kingdom			
	Western Sahara				Uzbekistan			
	Zambia				Vatican City			
	Zimbabwe				(blank)			

ISC/NE	Bhutan	NE Asia	China	LATAM	Anguilla
	Burma		Hong Kong		Antigua and Barbuda
	Maldives		Japan		Argentina
	Syria		Korea, North		Aruba
	Afghanistan		Korea, South		Bahamas
	Bahrain		Macau		Barbados
	Bangladesh		Mongolia		Belize
	Goza Strip Administered by Israel		Taiwan		Bermuda
	India	NAFTA	Canada		Bolivia
	Iran		Greenland		Brazil
	Iraq		Mexico		British Virgin Islands
	Israel		St Pierre and Miquelon		Cayman Islands
	Jordan	SE ASIA	Brunei		Chile
	Kuwait		Cambodia		Colombia
	Lebanon		Indonesia		Costa Rica
	Nepal		Laos		Cuba
	Oman		Malaysia		Curaçao
	Pakistan		Philippines		Dominica
	Qatar		Singapore		Dominican Republic
	Saudi Arabia		Thailand		Ecuador
	Sri Lanka		Timor-Leste		El Salvador
	Syria		Vietnam		Falkland Islands (Islas Malvinas)
	United Arab Emirates				French Guiana
	West Bank Administered by Israel				Grenada
	Yemen				Guadeloupe
					Guatemala
					Guyana
					Haiti
					Honduras
					Jamaica
					Martinique
					Montserrat
					Netherlands Antilles (through Apr 2011)
					Nicaragua
					Panama
					Paraguay
					Peru
					Sint Maarten
					St Kitts and Nevis
					St Lucia
					St Vincent and the Grenadines
					Suriname
					Trinidad and Tobago
					Turks and Caicos Islands
					Uruguay
					Venezuela

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