



U.S. Department of Transportation

Maritime Administration



AAPA Finance Seminar

Port Project Financing

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AAPA Port Financing Toolkit

Goal of the Toolkit Funding Strategy Module

- Funding strategy is a primary consideration of any capital investment decision
 - Ports should evaluate and approach investment opportunities using an approach grounded in prudent due diligence and fundamental credit/investment evaluation
 - It is important for ports to understand the full range of potential capital needs and financial solutions, and not be wed to just one potential solution
- ✓ **The Toolkit offers a full range of funding solutions!**
- The Toolkit can be used to lead a port through a logical and thorough step-by-step process to make sound investment decisions



Project Finance Generally

What is Project Finance?

- Non Recourse – Debt holders can not look to the general obligation or full faith & credit of the project sponsor.
- Capital financing is secured by project operating revenues.
- Construction risk is incorporated into the financing credit.
- Operations & Maintenance risk is incorporated into the financing credit.
- Financial plans typically incorporate a full life cycle cash flow analysis.
- Credit ratings are typically lower due to construction risk, long term revenue uncertainty, and long term O&M cost uncertainty.
- More complex & innovative contracting
- More complex & innovative debt structures

Project Finance Is NOT New in the US

- Forms of concessions such as long term lease & use agreements which support infrastructure financing have been used for ports for decades.
- Private Activity Bonds (PABs) are a form of tax-exempt municipal bond available to US port agencies that have been used for many years to finance public infrastructure with private involvement.
- There is approximately \$6 billion of publicly rated stand-alone (i.e. not tax backed) port revenue bonds outstanding in the US.
- US port revenue bonds are overwhelmingly rated investment grade and most are in the “A” rating category.
- Additionally, ports have financed significant capital via unrated bank loans, asset leases, and governmental loan programs.
- Public-Private Partnership concessions with private equity funds are a relatively new alternative that incorporates project finance.



Project Finance and Public-Private Partnerships

- P3s typically utilize various components of Project Finance, but be careful not to equate Project Finance with a P3 Concession.
- USDOT's definition of a public-private partnership is quite broad.
 - P3s are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.
 - There are many different P3 structures, and the degree to which the private sector assumes responsibility - including financial risk - differs from one application to another.
 - Additionally, different types of P3s lend themselves to the development of new facilities and others to the operation or expansion of existing assets.
- Key is to understand the elements of project delivery alternatives and how Project Finance & P3 techniques can be utilized in various combinations.

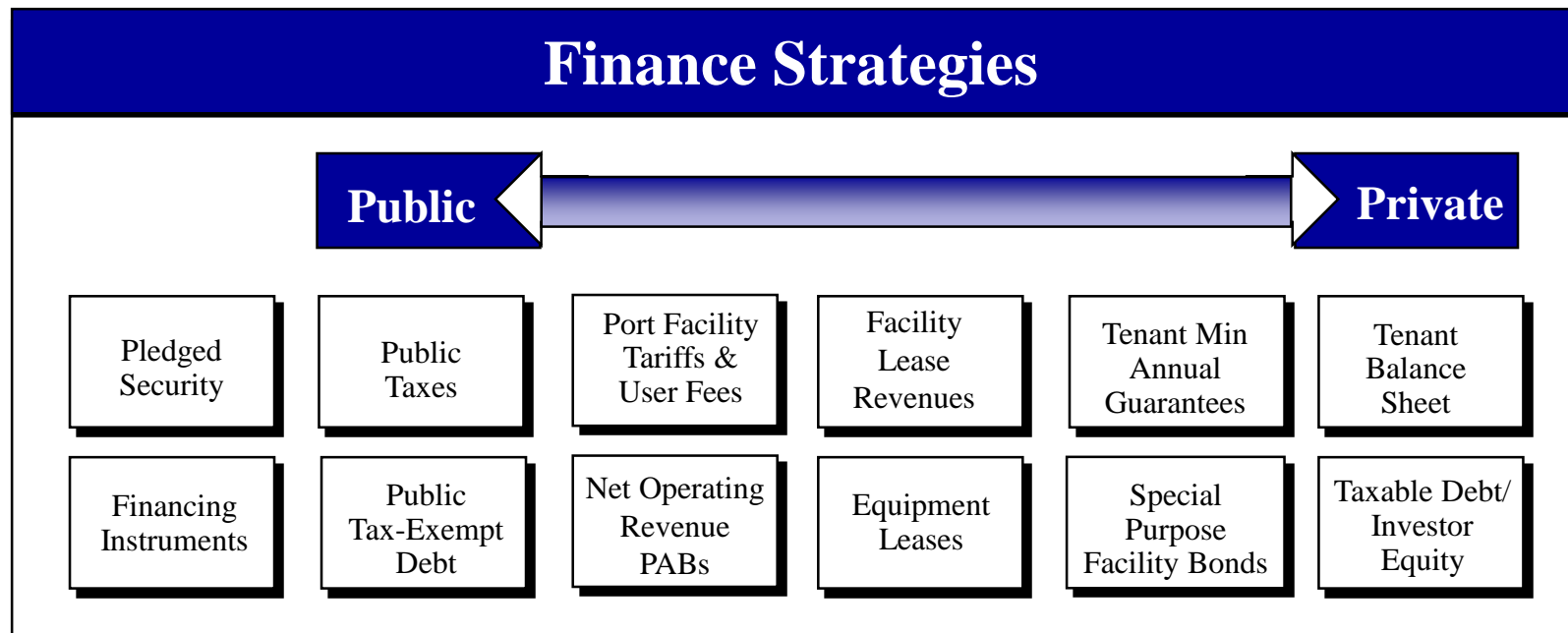
Port Business Models

- U.S. ports have traditionally used capital financing approaches that have corresponded to a variety of operating models
- Each financing approach and operating model have associated attributes with respect to certain key factors

Financing Approach:	Public Agency Tax -Backed	Public Agency Operating Revenues	Public Private Partnership	Private Concession
Operating Model:	Public Operator	Public Operator/ Landlord	Long Term Landlord	Passive Landlord
Primary Management Control:	Public	Public	Public-Private	Private
Typical Contracts & Lease Agreement:	N/A for Grants & Tax Revenues	Multiple Tenants; Variable Contracts Discretionary Terms	Single Tenant; Long Term Must Cover Debt	Single Tenant; Longest Term to Cover Debt & Equity Return
Typical Facilities Financed:	Public Use; Infrastructure such as Roads and Dredging	Private Activity; Docks, Wharves, Cranes, Warehouses, Buildings, etc.	Private Activity; Docks, Wharves, Cranes, Warehouses, Buildings, etc.	Private Activity; Docks, Wharves, Cranes, Warehouses, Buildings, etc.
Sources of Revenues and Security for Debt:	Grants, Gov't Transfers, Taxes	Tariffs, Throughput Fees, Security Fees, Facility Lease Revenue, etc.	Corporate Rental Minimum Guarantee & Throughput Fees	Tariffs/Lease Revenue, etc. Received by Private Concessionaire
Type of Debt:	Agency Revenue Bonds	Agency Revenue Bonds	Agency Special Purpose Conduit Bonds	Corporate Debt & Private Equity
Tax Status/Term:	Gov't Purpose & AMT Tax-Exempt 10-30 years	Gov't Purpose & AMT Tax-Exempt 10-30 years	AMT Tax-Exempt 20-40 years	Taxable Debt 50-99 years
Primary Private Partners:	Shipping Company, Railroads, Private Haulers/Trucks	Shipping Company, Railroads, Private Haulers/Trucks, Terminal Operator	Terminal Operator/ Corporate Guarantor (likely operator parent and/or shipping co.)	Private Equity Concessionaire

Port Finance Alternatives

- Many US seaports issue non-recourse net operating revenue supported debt, typically on a “system” approach as opposed to a single project.
- Compared to P3 concession debt structures, public seaports have typically used very conservative debt practices.
- Many US seaports utilize a variety of tenant lease & use agreements by which private partners might construct, finance and/or operate facilities – the related revenues support various types of debt.



Framework for Evaluating Seaport Finance

Capital Investment Considerations

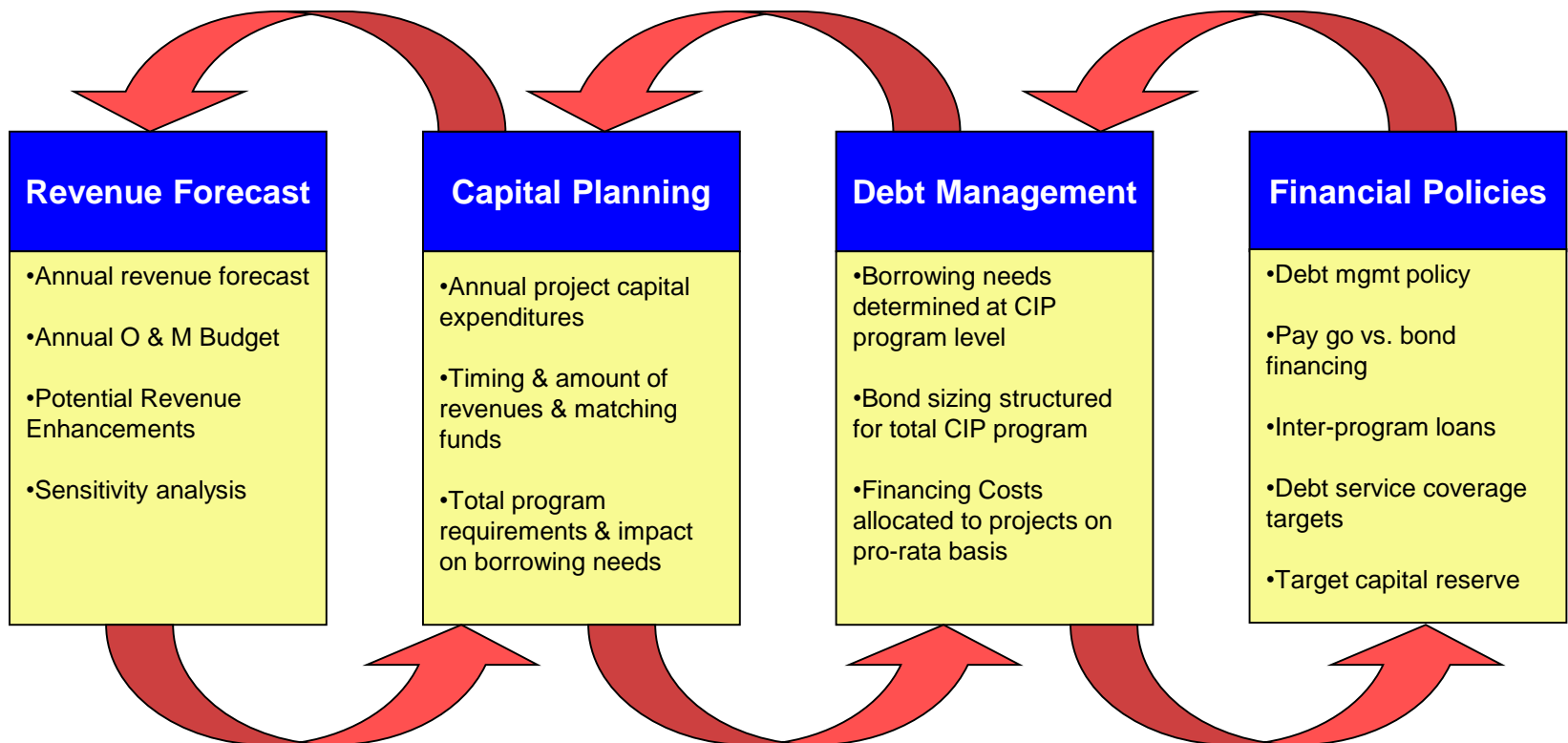
- These issues need to be fully vetted for any financing alternative to be successful, whether “public” or “P3”
 - Physical facilities & current uses, land for development, and any master plan or similar documents
 - Existing tenant lease and use agreements
 - Historical cargo volumes and revenues by type
 - Trade lanes data
 - Market cargo & revenue forecasts
 - Port financial market environment
 - Port operating models
 - Port business / financial models
 - Outstanding bonded indebtedness amounts and terms
 - Pro forma cash flow analysis
 - Financing capacity to address capital needs and new business
 - Creditworthiness assessment
 - Investor and capital markets outreach

Evaluating Project Finance Alternatives

- Identify key project inputs and quantified risk assumptions for projects across various public and P3 delivery alternatives
- Develop a detailed project finance & cash flow model (better than using a net present value analysis)
 - Multiple types of debt can be incorporated
 - More than one security lien can be modelled
 - Nuances such as debt service coverage ratios, debt to equity ratios, and reserve/liquidity balances must be maintained
 - Risk adjustments can be “stressed” against the base case to determine the severity and/or acceptability of impacts
 - Capability to analyze different objectives such as more upfront capital versus increased long term revenue sharing
- Goal is a sustainable plan of finance that minimizes “public” funding

Project Finance Plan Components

- The financial plan should incorporate careful consideration of all the issues and alternatives related to infrastructure development.
- Alternative modeling process allows capital, revenue, and operating inputs to impact financing requirements within stated program policy constraints.



Elements of Credit

Fundamental Creditworthiness Still Matters!

- **Socio-Economic Need**

- Safety
- Environment
- Economic Development

- **Economically Justified**

- Efficient Transportation
- Generates Revenue
- Connecting Key Business/Trade Regions

- **Revenue Study**

- Economic Forecast
- Demand Forecast
- Independent and Credible
- Bond Offering Disclosure

- **Construction & Operating Issues**

- Construction and O&M Cost Risks
- Lump Sum/Fixed Price Contracts
- Financial Strength/Performance of Construction Team

- **Risk Management Plan**

- Environmental Mitigation
- Construction Completion
- Surety Bonds & Insurance

- **Public Support & Public Interest**

- State and Local Political Support
- Federal Agencies
- Public Equity/Funding for EIS, Design and Engineering

Port Debt Alternatives

Project Revenue Bond Considerations

- **Security Sources**

- Net Operating Revenues
- State and Local Taxes
- Asset Backed

- **Bond Lien Structure**

- Senior & Subordinate Debt
- Diversification of Product
- Short-Term/Long-Term Mix

- **Security Requirements**

- Capitalized Interest
- Coverage Ratios
- Reserve Funds



- **Issuance Timing**

- Interim Construction Financing
- Use Public Equity First
- Bond Best Credit First

- **Credit Enhancement**

- Federal Programs
- Tax Supplemental Pledge
- Bond Insurance/Letter of Credit

- **Private Sector Enhancements**

- Tenant Guarantees
- Private Financing
- Private Equity

Port Project Finance Bond Alternatives

- Aside from tax-backed bonds, there are four main security structures that a public seaport can use to issue debt in a long term lease / P3 scenario:
 - Port Net Operating Revenue Bonds
 - Port Asset Backed Debt
 - Port Special Purpose Facility Bonds, backed by lessee/concessionaire revenue and parent guarantee
 - Port Special Purpose Facility Bonds, backed by the net operating revenue of a single terminal concession, i.e. apart from the Port's "System"
- The chosen debt security structure is port and project specific, taking into consideration the unique operating and business characteristics of any given lease / P3.

Private Activity Bond Features

- Private Activity Bonds (PABs) are securities issued by or on behalf of a local government to provide debt financing for projects used most often for a private purpose
- Because of the public purpose, Federal tax law provides that most port capital infrastructure are exempt facilities under the code
- Typically results in reduced financing costs versus conventional private bank financing since interest on the bonds is not subject to federal income taxes (except for the Alternative Minimum Tax, as applicable)
- PABs can be used with a wide range of bond credit and security structures
- PABs be structured and implemented for both public financings as well as P3 financings

Port Net Operating Revenue Bonds

Security for Debt: Port system net operating revenue, with a Minimum Annual Guaranty and/or revenue sharing from the long-term lease counted as part of the Port's operating revenue

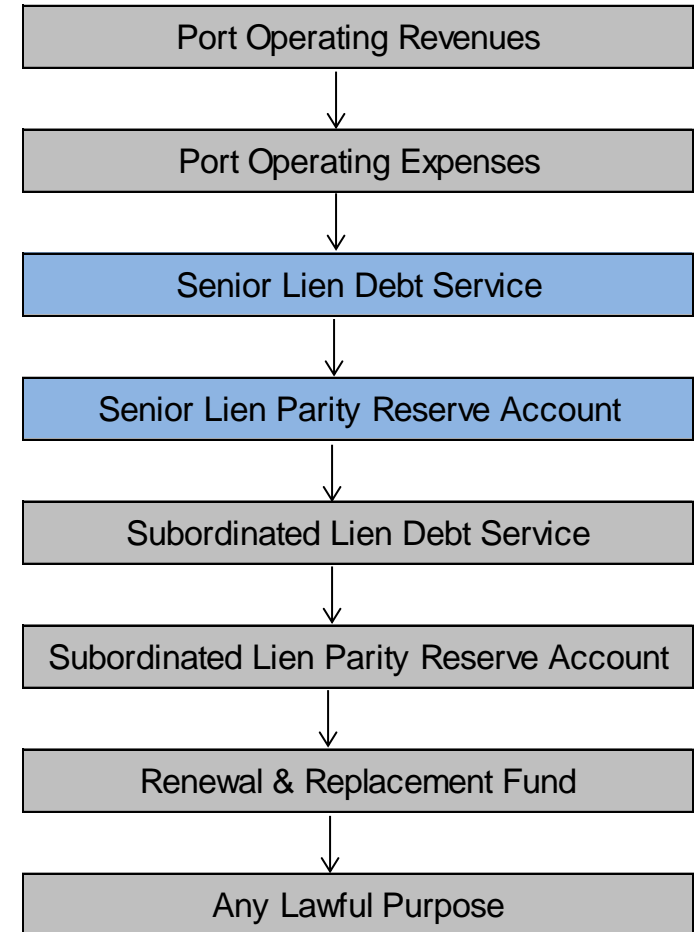
Bond Indenture: Secures revenues for benefit of debt holders. Flow of funds specifies the priority of payments for secured revenues; typically includes provisions for operating expenses, debt service and reserves, renewal & replacement funds, and any lawful purpose. Issuer covenants specified, including:

- *Rate Covenant:* 1.20x-1.50x senior lien debt service coverage, 1.10x-1.25x aggregate debt service coverage
- *Additional Bonds Test:* 1.25x-1.50x senior lien debt service coverage, 1.10x-1.25x aggregate debt service coverage on a historical and/or projected basis

Credit Rating: Depends on various factors analyzed by the rating agencies including, but not limited to: size, cargo diversification, trade lanes, demand and revenue, ongoing capital improvement requirements, debt structure and debt service levels

- U.S. seaport credit ratings are typically in the range from AA to high BBB

Type of Debt: Includes publicly issued bonds, private placements, and government loan programs; with fixed and variable interest rates



Port Asset Backed Debt

Security for Debt: Port system net operating revenue, with a Minimum Annual Guaranty and/or revenue sharing from the long-term lease counted as part of the Port's operating revenue

Bond Indenture: Asset backed debt typically categorized as subordinate debt in the flow of funds. Subordination of debt accomplished via additional hard asset security such as a crane lease or property mortgage

- *Rate Covenant and Additional Bonds Test the same as in the master indenture (see prior page)*

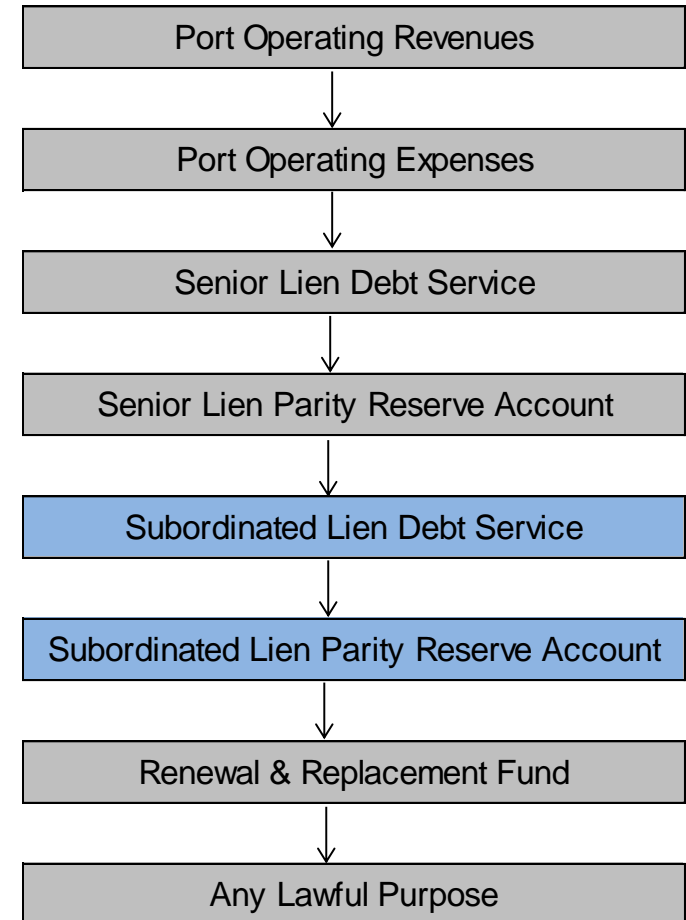
Credit Rating: Given the subordinated repayment position in the flow of funds, credit ratings assigned to such debt are generally at least one notch lower relative to the senior lien debt.

- Due to asset backing, lease transactions are often privately placed and thus unrated.

Term of Debt: Dependent on life of asset

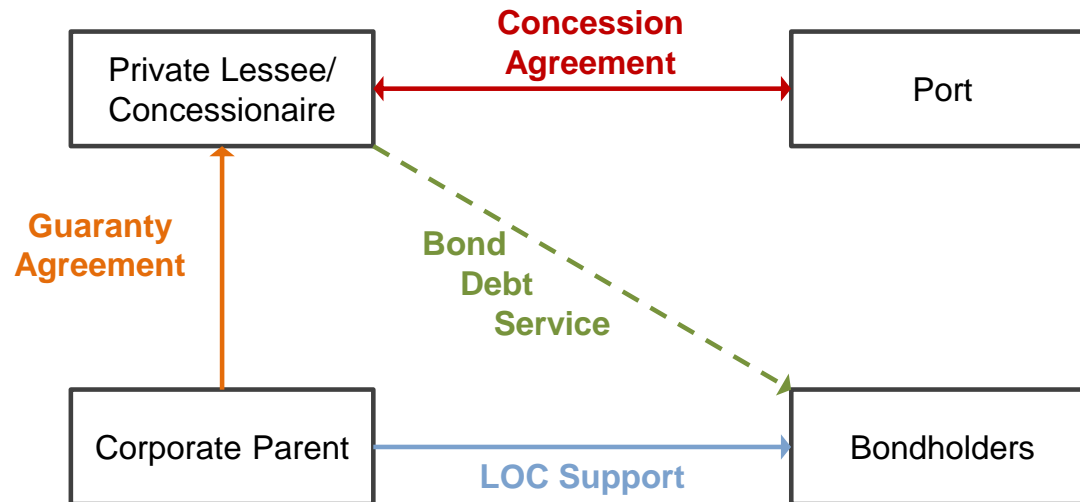
- *Crane Lease:* 15-20 years committed funding; 30 year amortization
- *Property mortgage:* up to 30 years

Type of Debt: Includes publicly issued bonds, private placements, lease financing, and government loan programs (e.g. SIB loans); with fixed and variable interest rates



Port Special Purpose Bonds – Lessee Guarantee

Security for Debt: Payments of special purpose rent received by the Port or the trustee pursuant to an agreement with lessee/concessionaire. Rent/Lease payments supported by a corporate guaranty. Additional bond security can be provided with a LOC backed by lessee/concessionaire corporate guaranty.



Bond Indenture: Secures lease/concession rent/lease payments for benefit of debt holders. Overarching feature from Port's perspective is off-balance sheet debt which is not additive to the Port's system debt

- Covenant requirements vary depending upon strength of credit/guarantee, and may include corporate style parameters for debt and equity in addition to muni market debt service coverage covenants

Credit Rating: Dependent upon the financial strength of the corporate guaranty, as well as the financial strength of the LOC provider

Type of Debt: Includes publicly issued bonds and private placements; with fixed and variable interest rates

Single Terminal Concession: Stand-alone SP Bonds

Security for Debt: Net operating revenue of a single terminal concession

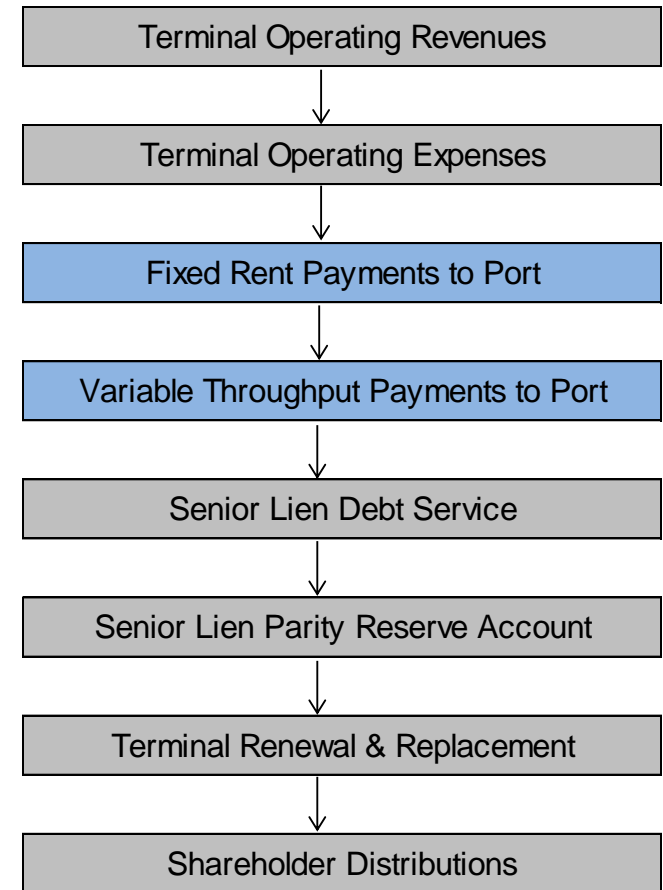
Bond Indenture: Secures concession revenues for benefit of debt holders and also incorporates rent & revenue sharing payments to the Port. Overarching feature from Port's perspective is off-balance sheet debt.

- Rate covenant and ABT levels typically higher for single terminal net revenue pledge versus port system net revenue pledge (e.g. 1.40x-1.75x senior lien debt service coverage for single terminal pledge)

Credit Rating: Ratings depend on the strength of the terminal/concession cash flows and security structure as defined in the financing documents, as well as the terms of the concession agreement. If a single terminal, the size and lack of diversification will likely lead to a BBB rating at best.

Tax Status of Debt: Upfront payments not used for eligible facility capital costs could not use Private Activity Bonds and such costs would be funded from taxable debt or equity

Equity: Concession and financing documents would need to provide for distributions to shareholders to pay taxes and provide a return on investment



Port Financing Case Studies

Tax Backed & Net Operating Revenue

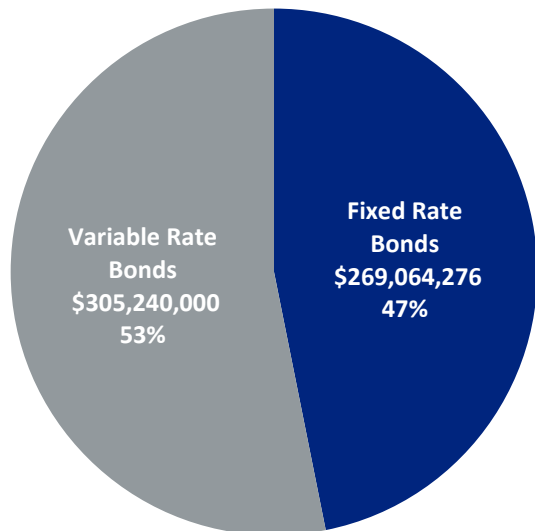
Port of Tacoma Revenue Bonds – Existing Debt Portfolio

	Series	Outstanding Par	Call Date	Purpose	Interest Rate Mode	Coupon	Final Maturity	Credit Enhancement	LOC/DP Expiration Date
GO Bonds (Rated Aa3/AA-)	2006 LTGO	\$ 53,970,000	12/1/2016	Refunding	Fixed Rate	4.000% - 5.500%	12/1/2033	FGIC	N.A.
	2008A LTGO	\$ 80,980,000	6/1/2018	New Money	Fixed Rate	5.000%	12/1/2038	FSA	N.A.
	2008B LTGO (AMT)	\$ 20,775,000	6/1/2018	New Money	Fixed Rate	4.750% - 4.875%	12/1/2038	AG	N.A.
	2016 LTGO	\$ 26,384,000	Prepayable at par any time	Refunding	Fixed Rate Direct Purchase ⁽¹⁾	1.060% - 2.360%	12/1/2025	None	N.A.
	Total	\$ 182,109,000							
SR. REV Bonds (Rated Aa3/AA-)	2006 REV	\$ 45,185,000	12/1/2016	Refunding	Fixed Rate	4.000% - 4.450%	12/1/2034	FGIC	N.A.
	2014A REV	\$ 8,525,276	Prepayable at par any time	Refunding	Fixed Rate Direct Purchase ⁽²⁾	2.500%	12/1/2021	None	N.A.
	2014B REV	\$ 33,245,000	1/24/2018	Refunding	Fixed Rate Direct Purchase ⁽²⁾	2.550%	12/1/2029	None	N.A.
	Total	\$ 86,955,276							
SUB. REV Bonds	2008 REV (AMT)	\$ 83,595,000	Anytime	Refunding	Variable Direct Purchase	4.105% ⁽³⁾	12/1/2036	None	April 2017 ⁽³⁾
	2008B REV (Non-AMT)	\$ 133,000,000	Anytime	New Money	Variable Direct Purchase	4.655% ⁽⁴⁾	12/1/2044	None	May 2018 ⁽⁴⁾
	2014 REV (AMT)	\$ 88,645,000	10/2/2017	Refunding	Variable Direct Purchase	4.701% ⁽⁵⁾	12/1/2035	None	October 2018 ⁽⁵⁾
	Total	\$ 305,240,000							
SUB. CP	Commercial Paper	\$ 82,000,000 ⁽⁶⁾	Anytime (at maturity)	New Money and Refunding	Variable	0.592% ⁽⁶⁾	N/A	BofA LOC	April 2016 ⁽⁶⁾
Total		\$ 656,304,276							

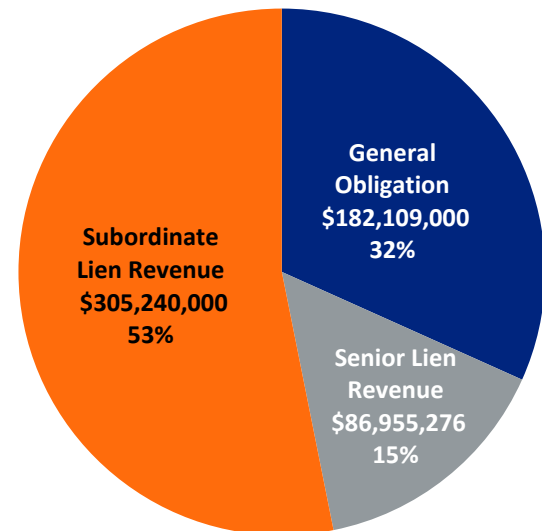
Port of Tacoma Revenue Bonds – Breakdown of Debt Portfolio

- The Port has \$574.3 million in bonds outstanding
 - \$266.5 million (47%) are fixed rate
 - GO Bonds = \$182.1 million
 - Sr. Lien Revenue Bonds = \$87.0 million
 - \$305.2 million (53%) are variable rate
 - All Sub Lien Revenue Bonds
 - \$82 million of outstanding commercial paper

Breakdown by Interest Rate Mode



Breakdown by Credit¹



1. Excludes commercial paper

Port Financing Case Studies

Asset Backed Debt (e.g. Leases)

NCSPA Subordinate Asset Backed Debt

- NCSPA had previously financed land for future expansion using its existing revenue bond structure plus a mortgage security interest in the property.
- The Authority was also considering the purchase of new container cranes.
- NCSPA developed a long term funding strategy for a broad range of capital improvements and wanted to preserve senior lien bond capacity for improvements to operating fixed infrastructure.
- Solution: Subordinate asset backed debt
 - \$20,500,000 Subordinated Revenue Bonds additionally secured by a mortgage interest in the expansion property
 - \$31,906,000 Subordinated Master Lease Agreement additionally secured by an interest in the acquired cranes
 - Subordinated lien on net operating revenues preserved senior lien capacity
 - Additional asset backed security improved creditworthiness and allowed for attractive interest rates.

Port Financing Case Studies

Special Purpose Facility – Corporate Backed

Impala Warehousing (US) LLC

Transaction Overview

- On June 5, 2013, STRH successfully placed \$130MM of Dock & Wharf Bonds and \$70MM of Gulf Opportunity Zone Bonds
- STRH provided financing, through a placement of fixed rate tax-exempt bonds, for a coal transshipment terminal for Trafigura Beheer B.V., a global trading company, enabling the company to access a new source of capital, expand and diversify its US investor base and achieve financing below traditional levels
 - STRH developed an effective project finance structure, introduced the project to the high-yield investor buy-side market, and worked with buy-side analysts to structure the best transaction for both borrower and investors

Summary Terms

Issuers:	Louisiana Public Facilities Authority; The Industrial Development Board of the Parish of Ascension, Louisiana
Rating:	Not Rated
Par Amounts:	\$130,000,000 (Dock & Wharf); \$70,000,000 (GO Zone)
Type:	Revenue Bonds
Maturity:	23-years (July 1, 2036)
Optional Redemption:	July 1, 2023 (10-year par call)
Interest Rates/Yields:	6.50% (AMT - Dock & Wharf); 6.00% (Non-AMT - GO Zone)
Use of Proceeds:	Finance a portion of the cost of the acquisition, construction, reconstruction, refurbishment, improvement and equipping of a marine terminal facility ("Burnside Terminal"); refinance Series 2011 Bonds

\$200,000,000 Tax-Exempt Revenue Bonds



\$130,000,000 - Dock & Wharf Bonds, Series 2013

\$70,000,000 - Gulf Opportunity Zone Bonds, Series 2011



Left Lead - Placement Agent
June 2013

Company Overview

- Impala Warehousing (US) LLC ("Impala US"), an indirect subsidiary of Trafigura Beheer B.V., is a privately-held warehousing and logistics company that specializes in handling metals, minerals and coal
- Impala US purchased Burnside Terminal in 2011 to expand its bulk materials handling and warehousing services enabling the transshipment of coal to international customers
 - Invested in excess of \$280MM to upgrade and refurbish the terminal and anticipates further development

Port Financing Case Studies

Long Term P3 Concession

Maryland Port Administration



- **Project:** 50 year private concession for Seagirt terminal operation and berth expansion
- **Status:** Concession/Lease Agreement approved
Financing and construction completed
Enhanced container operations underway

MPA concession process

- With thorough due diligence, MPA determined the appropriate P3 structure
- Developed a procurement process to match the project and the business model
- Developed financing using tax-exempt debt to increase benefit to MPA
- Developed concession and financial documents

Ports America will enter into a 50 year lease concession with MPA who will receive

- \$140 million upfront payment as reimbursement to Maryland Transportation Authority
- Construction of fourth berth at a cost of \$105 million that will accommodate post-Panamax ships
- Capital reinvestment for the terminal over 50 years
- Ongoing fixed and variable payments to MPA

Equity partner expects reasonable return for revenue, construction and operational risk

Maryland Port Administration

Seagirt successfully closed on January 12, 2010 with \$166.9 million of tax-exempt Series A bonds, \$81.8 million of Private Activity Series B bonds and a \$75 million equity contribution from Highstar Capital

The all-in interest rate was under 6% and the issue was 6 times oversubscribed
Received a rating of Baa3 from Moody's

Sources and Uses				
Sources	Series A Bonds	Series B Bonds	Equity Contribution	Total ⁽⁶⁾
Par Amount of Series 2010 Bonds	\$166,920,000	\$81,755,000	-	\$248,675,000
(Original Issue Discount)	-2,496,249	-1,223,653	-	-3,719,902
Equity Contribution	-	-	<u>\$75,000,000</u>	<u>75,000,000</u>
Total Sources	\$164,423,751	\$80,531,347	\$75,000,000	\$319,955,097
Uses				
Authority Project Costs	\$140,151,028	-	-	\$140,151,028
Terminal Project Costs		\$66,412,602	\$39,542,766	105,955,367
Debt Service Reserve Requirement	15,048,225	7,487,100	-	22,535,325
Capitalized Interest	5,022,018	5,022,018	-	10,044,037
Capital Reserve Account	-	-	7,750,000	7,750,000
Operating Reserve Account	-	-	4,750,000	4,750,000
Deposit to Start-up Operations	-	-	12,525,682	12,525,682
Costs of Issuance and Other	<u>4,202,479</u>	<u>1,609,627</u>	<u>10,431,553</u>	<u>16,243,658</u>
Total Uses	\$164,423,751	\$80,531,347	\$75,000,000	\$319,955,097

Port Financing Case Studies

Blended Approach

Jacksonville Port Authority



- **Project:** Long-Term Landlord 30+ year operating lease for development of new container terminal
- **Status:** Multi-tiered financing strategy implemented 2006-2008
Construction completed 2009
Container operations ongoing

JaxPort long term lease agreement with Mitsui/TRAPAC to finance, build, equip, and operate a new \$300 million container terminal including cranes

Typical concession financing using bank debt was replaced with innovative lower cost public finance structure

Includes fixed rent payments to JaxPort to cover debt service

The success of the lease agreement and the bond financings are attributable to:

- Clear goals and selection of a preferred business model
- Alignment of Jaxport interests to expand terminal capacity and Mitsui goal of operating terminal
- JaxPort willing to serve as conduit issuer, and Mitsui used a parent corporate guaranty

Jacksonville Port Authority

Financing incorporated a multi-tiered plan including:

- 1) JaxPort tax-exempt parity senior revenue bond issue,
- 2) JaxPort conduit special purpose facility bond backed by Mitsui guaranty,
- 3) JaxPort subordinate SIB Loan, with all debt payments the responsibility of TraPac/Mitsui, and
- 4) Mitsui financing of cranes & equipment.

