



# Review of the Virginia Port Authority's Competitiveness, Funding, and Governance



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## **Report No. 446**

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# COMMONWEALTH of VIRGINIA

*Joint Legislative Audit and Review Commission*  
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*Hal E. Greer*  
Director

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December 19, 2013

The Honorable John M. O'Bannon III, Chair  
Joint Legislative Audit and Review Commission  
General Assembly Building  
Richmond, Virginia 23219

Dear Delegate O'Bannon:

House Joint Resolution 621 (2013) directed the Joint Legislative Audit and Review Commission (JLARC) to study the competitiveness, efficiency, and governance structure of the Port of Virginia.

The final report was briefed to the Commission and authorized for printing on October 15, 2013. On behalf of the Commission staff, I would like to thank the staff of the Virginia Port Authority and Virginia International Terminals for their assistance during this review. I would also like to acknowledge the staff at the Department of Treasury and the Virginia Economic Development Partnership, who have been very accommodating to our research team.

Sincerely,

A handwritten signature in cursive script that reads "Hal E. Greer".

Hal E. Greer  
Director

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# JLARC Report Summary:

## Review of the Virginia Port Authority's Competitiveness, Funding, and Governance

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### Key Findings

- To date, the Virginia Port Authority (VPA) has competed successfully against other ports to handle cargo destined for Virginia and the surrounding region and for major Midwest markets (Chapter 2).
  - VPA's plans for future growth in a highly competitive industry appear reasonable and will result in capabilities comparable to those of its competitors, but these strategies will be costly (Chapter 3).
  - VPA's reputation for high prices does not appear to be a problem at this time, but could hinder its ability to compete for some future cargo. Steps should be taken to make sure that its prices are competitive and that its operating costs are managed (Chapter 3).
  - All major East Coast ports have received financial assistance from their states or are cross-subsidized by other operations. Ports in two states—Georgia and South Carolina—have not received financial assistance for on-terminal projects in recent years and have managed to fund these projects with terminal revenues. Georgia and South Carolina have funded off-terminal projects that benefit their ports, but have spent less overall than Virginia in the past 10 years (Chapter 4).
  - At VPA, State funding has been a relatively modest and decreasing proportion of revenue. Going forward, the VPA Board of Commissioners should examine the feasibility of dedicating future State funding to VPA's most necessary and strategic capital projects, financing other needs with terminal revenue (Chapter 4).
  - Legislative changes are needed to ensure greater continuity and stability of the VPA Board of Commissioners and that members have the requisite experience (Chapter 5).
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House Joint Resolution 621 of the 2013 General Assembly session directed the Joint Legislative Audit and Review Commission (JLARC) to “study the competitiveness, efficiency, and governance structure of the Port of Virginia.” Specifically, the mandate directs JLARC staff to evaluate the current competitive position of the Virginia Port Authority (VPA), its efficiency, and its governance model.

This study builds on the findings issued by JLARC in the January 2013 report, *Special Report: Review of Recent Reports on the Virginia Port Authority's Operations*. That report was issued following a request by the House Appropriations Committee Chairman to have JLARC staff review consultant studies issued in 2012 about VPA's performance.

**Report Refers to  
“Port of Virginia” as  
the Virginia Port  
Authority**

Because this study focuses on the operations of those terminals owned or leased by VPA and operated by Virginia International Terminals (VIT), the report uses the term “VPA” instead of “Port of Virginia.” In reference to actions taken by both VPA and VIT, this report uses the term “VPA” to refer to both entities collectively.

**Standard Size for  
Container Shipments**

Containerized cargo is shipped in containers that can be 20 to 53 feet long and eight feet wide, but most containers used in international shipping are 40 feet long. One 40-foot long shipping container counts as two “Twenty-foot Equivalent Units” (TEUs).

## **VIRGINIA’S PORT OPERATIONS HAVE STATEWIDE FINANCIAL AND ECONOMIC IMPACTS**

Virginia’s port operations have significant impacts on the State and local economies. According to the most recent analysis, the direct impact of VPA operations in 2007 was over \$1.9 billion in revenue, \$566 million in employee compensation, and 10,157 jobs. VPA’s operations generate positive economic impacts for the localities that host its terminals, and local economic development officials indicated that VPA’s operations are an integral part of their respective economies. Localities also experience negative impacts related to the environment and their transportation infrastructure, but are unable to levy taxes on VPA-owned property to help offset these impacts. State funds are appropriated to help the cities of Norfolk, Portsmouth, Newport News, and Warren County recoup some of the costs associated with housing terminal operations.

## **VPA HAS COMPETED SUCCESSFULLY AGAINST OTHER PORTS TO HANDLE INCREASING VOLUMES OF SHIPMENTS TO THE EAST COAST**

As shown in the figure on the next page, Virginia operates the third largest container port on the East Coast. The volume of container shipments handled by VPA has grown steadily at a rate that is greater than or comparable to the growth experienced by other East Coast ports. VPA has grown from handling 223,000 container Twenty-foot Equivalent Units (TEUs) in 1983 to 2.1 million TEUs in 2012. VPA experienced a steeper decline in container volumes during the recent global recession than other East Coast ports, but its recovery has been comparable.

East Coast ports compete against one another for container shipments to and from several regions of the country. Over time, VPA has competed successfully against nearby ports to become the largest container port in the central Atlantic region, and this is due to several advantages. VPA is relatively far away from its closest competitors, giving it a secure “captive” market. Its location near the open ocean and its deep, easily navigable harbor also make it more accessible than its closest competitors. VPA’s container terminal facilities and supporting infrastructure are also superior to those of nearby ports.

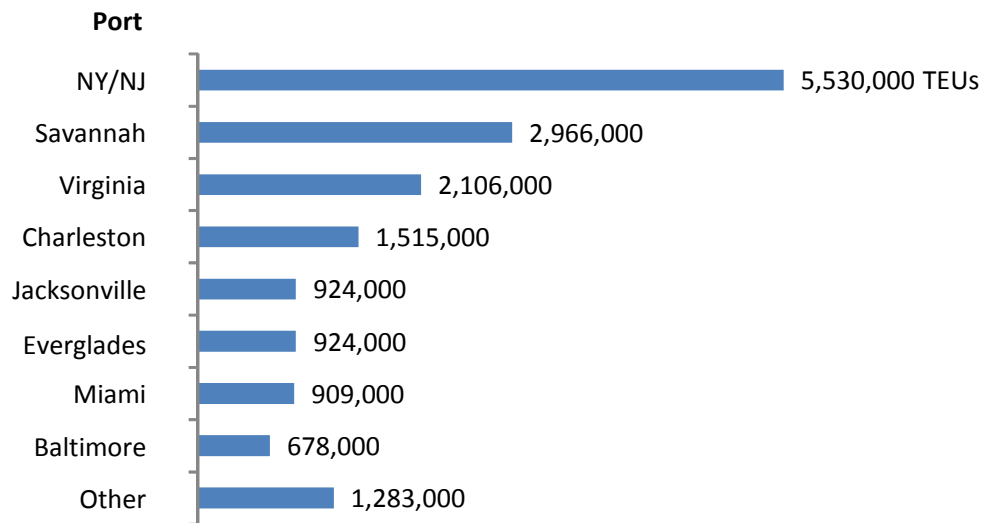
VPA has competed successfully for container shipments destined for inland regions of the U.S. These regions include major markets that can be cost-effectively served via rail by several East and West Coast ports. Specifically, VPA and the Port of New York/New Jersey, a larger port, handle almost the same percentage of the rail volume to and from the four largest markets in the Midwest.



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## VPA Is the Third Largest Container Port on the East Coast (2012)

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Source: JLARC staff analysis of AAPA container trade data, 2012.

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One major factor that has allowed VPA to successfully compete for markets in the Midwest is the high quality of its rail connections. Shippers and ocean carriers that send rail shipments through VPA indicated that the quality of its rail connections are among the best on the East Coast, and VPA and the surrounding area are not as routinely congested as some northern ports.

The speed with which VPA is able to move containers through its terminals, while not the highest among the East Coast ports, exceeds that of its major competitors. There may be opportunities for improving VPA's operational efficiency, but improving on some measures would produce higher operating costs.

### **CHARGING COMPETITIVE PRICES AND MANAGING OPERATING COSTS SHOULD BE VPA PRIORITIES**

VPA has generally maintained good relationships with the businesses that use the port, but ocean carriers consistently identified VPA as having the first or second highest prices for basic port services on the East Coast. Ocean carriers indicated that prices charged by VPA are equal to or above those charged by its closest competitor, the Port of Baltimore. The prices charged by VPA appear to be substantially higher than those charged by the Ports of Charleston and Savannah.

Although VPA currently appears to compete successfully against nearby ports in its regional market, it will need to charge competitive prices to contend for future shipments. Most ocean carriers indicated that higher prices had not caused them to use the port less,



but some did indicate that their future use of the port could be affected if prices remain high. The report includes a recommendation that VPA should evaluate the competitiveness of its prices as it negotiates new contracts with ocean carriers.

VPA staff indicated that its higher prices were necessitated by its higher operating expenses. The report includes a recommendation that the VPA Board of Commissioners prioritize the management of operating costs by establishing a cost management policy that includes clear goals to guide VPA staff. The goals set by the board should be achievable and allow VPA staff the flexibility to continue to pursue strategies for growth.

### **VPA'S PLANS FOR FUTURE GROWTH APPEAR REASONABLE**

East Coast ports are investing in infrastructure improvements to accommodate anticipated increases in container shipments. VPA has made the improvements necessary to accommodate the trend toward larger container vessels, which positions it to compete for future container shipments. VPA's ability to accommodate large vessels ahead of most other East Coast ports is likely to provide it with only a short-term advantage because other ports are investing in improvements that will provide them with comparable capabilities.

In addition to making improvements to serve larger vessels, VPA and other ports are planning major capital investments in new and expanded terminals to enable them to accommodate the projected increase in container volumes. VPA's planned projects are expected to increase its container handling capacity from 3.5 million TEUs to 9.65 million TEUs by 2039. The three other largest East Coast ports are planning similarly large projects that would keep pace with or possibly exceed VPA's capacity.

VPA's strategy of promoting rail shipments destined for inland markets appears reasonable because it allows the port to grow beyond its small regional market. However, higher overall costs for handling rail cargo in addition to incentives VPA offers to attract such cargo reduce profit margins. VPA appears to handle a relatively high volume of rail shipments compared to other East Coast ports. This contributes to the higher operating costs mentioned above.

VPA's strategy of pursuing economic development opportunities also appears reasonable because encouraging businesses to locate or expand in Virginia can generate additional cargo shipments. However, because economic development is an activity that is typically carried out by State and local economic development agencies and is guided by the State's and localities' economic pri-

orities and objectives, VPA's own economic development activities should continue to be secondary to its primary mission of port operations.

### **LIKE VPA, OTHER MAJOR EAST COAST PORTS HAVE BENEFITED FROM STATE FUNDS IN RECENT YEARS**

State funding has been a relatively small portion of VPA revenue for the past 31 years and has grown smaller over time. Annual appropriations from the State's general funds were the primary source of State funding for VPA until 1986, when the General Assembly created the Commonwealth Port Fund (CPF) using a portion of the State's Transportation Trust Fund.

Although general funds are no longer allocated to VPA each year, the CPF continues to be a dedicated, ongoing source of funding for VPA. Consistent with statutory intent, CPF funds have been used primarily to finance VPA's capital needs. CPF funds are a relatively modest proportion of funding for VPA and are likely to continue to decline in comparison to terminal revenue.

All East Coast ports examined in this study received state funding for on-terminal capital needs, off-terminal capital needs, or both (Table, page vi). An ongoing dedicated source of funding like the CPF is unique to Virginia, but other states also use transportation-related taxes and fees to support capital needs at state-owned ports.

The authorities governing two East Coast ports—the Georgia Port Authority and the South Carolina State Ports Authority—currently use state funds for off-terminal capital needs only and finance on-terminal operating and capital needs with terminal revenue. Both of these authorities have recently made significant capital investments in on-terminal infrastructure using terminal revenue.

Stronger financial performance by the Georgia and South Carolina port authorities has likely resulted in increased revenue to pay for on-terminal capital needs. Both reported net operating income for at least the past five years, while VPA has reported operating losses for four of the past five years. It also appears that the Georgia and South Carolina port authorities have been less reliant than VPA on issuing debt in order to finance capital needs. Both have lower operating costs than VPA, which may be explained by their comparatively low dependence on two costly elements: unionized labor and rail cargo.

Although the Georgia and South Carolina port authorities have not received direct financial assistance for on-terminal projects in

recent years, both have benefited from past state assistance with their terminals. The acquisition and construction of the original container terminals were fully funded by their respective states, which may have provided them with financial advantages compared to VPA.

### State Funds Have Been Directed to Capital Needs at East Coast Ports (FY 2004–FY 2013)

East Coast Port	State Funding for Port Capital Needs in Past 10 Years?	State Funding for On-Terminal Projects?	State Funding for Off-Terminal Projects?
Georgia Port Authority	✓	None	✓
Jacksonville Port Authority	✓	✓	✓
Maryland Port Administration	✓	✓	✓
North Carolina State Ports Authority	✓	✓	✓
South Carolina State Ports Authority	✓	None	✓
Virginia Port Authority	✓	✓	✓

Note: Port Authorities in Massachusetts, Pennsylvania, Delaware, and Palm Beach (FL) were excluded from this analysis because they are not major ports of call for containerized cargo. Port authorities in Miami (FL) and Fort Lauderdale (FL) were excluded because they primarily derive revenue from cruise ship operations instead of cargo operations. The Port Authority of New York and New Jersey (PANYNJ) does not appear to receive state funding, but does receive revenue from other entities that constitute PANYNJ, such as the airports and mass transit system. This revenue funds on- and off- terminal capital needs. Because of this unique funding structure, PANYNJ was excluded from this analysis.

Source: JLARC staff analysis of financial documents at VPA and other East Coast ports; JLARC staff interviews with port staff, except those in MD and NC, who declined requests for interviews.

### CPF IS AN IMPORTANT SOURCE OF FUNDING FOR VPA'S FUTURE CAPITAL NEEDS, BUT A PORTION COULD BE USED FOR OFF-TERMINAL PROJECTS

Going forward, terminal revenue could be used as a more significant resource for on-terminal capital needs, with the exception of the development of VPA's most significant capital project, the Craney Island Marine Terminal. This terminal is projected to be necessary for accommodating growth in future shipments to the East Coast. The use of debt issued through CPF bonds provides the most cost-effective source of financing for terminal capacity expansion at Craney Island. However, CPF funds currently used for conducting capital maintenance activities could instead be invested in off-terminal capital infrastructure to facilitate the flow of

cargo into and out of VPA's terminals. The report includes a recommendation that the VPA board should examine the feasibility of reserving the CPF for VPA's most necessary and strategic investments, including existing debt service, the development of the Craney Island Marine Terminal, and road and rail improvements, and use terminal revenue to fund other projects.

### **2013 RESTRUCTURING OF VPA AND VIT WILL PRODUCE BENEFITS, BUT ELIMINATION OF THE VIT BOARD OF DIRECTORS REMOVED A POTENTIALLY USEFUL RESOURCE**

The operations of Virginia's publicly owned or operated port facilities are administered jointly by VPA and VIT. In 2012, the VPA board directed VPA staff to develop a plan to streamline operations and identify potential areas for improved communication, efficiency, and savings between the two organizations. In May 2013, the VPA Board of Commissioners voted in favor of the restructuring plan that was developed by the VPA and VIT executive staff.

The new structure, which organizes staff with similar roles and responsibilities into common divisions, is expected to achieve ongoing administrative savings of a minimum of \$3.3 million (one percent of VPA's and VIT's combined operating expenses in fiscal year 2012). In interviews, VPA and VIT staff, VPA and VIT board members, and port users generally expressed support for the goals of the restructuring plan. One aspect of the restructuring, however, was not viewed favorably by many VPA and VIT staff: the elimination of the VIT Board of Directors. Because the VIT board met monthly and was composed of long-serving members who resided in the Hampton Roads community, it was reportedly well-versed in the State's port operations and VPA's impact on the surrounding localities. It was viewed by VPA and VIT staff as a useful resource on the complexities of Virginia's port operations, and had provided continuity of leadership during a recent period of instability.

The new structure will likely facilitate greater coordination, but it remains to be seen whether it will sufficiently clarify the roles and responsibilities of the two organizations. The report includes a recommendation that the incoming VPA Executive Director, once hired, should review and evaluate the administrative structures of VPA and VIT and provide recommendations to the VPA board regarding any needed modifications.

Clarifying the roles and responsibilities of the VPA board in relation to the VPA and VIT staff should be a component of the VPA board's efforts to restructure the governance and administration of VPA and VIT. Several VPA board members expressed concerns about the managerial approach of other board members and re-

ported a desire for all board members to follow chain of command protocols that would limit board member management of staff to just the VPA Executive Director. The report includes a recommendation that the VPA board amend its bylaws to clarify the roles and responsibilities of the board in relation to VPA and VIT staff.

### **LEGISLATIVE CHANGES COULD ENSURE FUTURE STABILITY FOR VIRGINIA'S PORT OPERATIONS**

Beginning in 2011, the governance and administration of VPA and VIT transitioned from a period of reportedly steady leadership to a period characterized by uncertain and unstable leadership. This began with the Governor's removal and replacement of 10 of the 11 gubernatorially appointed VPA board members in 2011. This action precipitated turnover in executive-level management at both VPA and VIT. These developments were viewed negatively by many port users.

The justification for the Governor's removal and replacement of 10 board members in 2011 was that the port had not performed as well as other East Coast ports through the 2007-2009 recession and that it was not demonstrating that it would recover from the recession in a satisfactory manner. While the VPA statute gives the Governor this authority, and concerns about the port's performance may have been a justifiable reason for exercising it, replacing all but one of the gubernatorial appointees was an unusual and extreme course of action.

Shippers and ocean carriers have the option of using other ports, and unpredictable or unstable governance could negatively impact their use of VPA. Therefore, prescribing the circumstances under which a Governor can remove members of the VPA board appears warranted. In interviews, several of the VPA and VIT board members indicated that they would be in favor of limiting the Governor's ability to remove VPA board members prior to the completion of their term. Other states appear to limit the circumstances under which members of their port authority boards can be removed. The report recommends that the General Assembly may wish to reconsider legislation proposed during the 2013 Session that would have authorized the Governor to replace board members only in instances of "malfeasance, misfeasance, incompetence, or gross neglect of duty."

The complexity of the maritime shipping industry and seaport operations requires board members with experience and expertise necessary to effectively set goals, policies, and objectives and oversee port operations. The VPA statute establishes qualifications for board members, but it does not specify maritime ship-

ping or seaport operations as necessary qualifications. Additionally, while the Code of Virginia requires that each board member have executive experience in one of eight industries, it does not require any board members to have experience in any one industry (§ 62.1-129).

To ensure that the VPA board consists of individuals with the most relevant experience, the report recommends that the General Assembly consider amending the Code of Virginia to include previous expertise in maritime shipping or seaport operations as one of the qualifications for board membership and require that the board be composed of a majority of members who have experience in the areas of maritime shipping or seaport operations; business administration or finance; distribution, warehousing, or manufacturing; transportation; and agriculture, all of which are most applicable to port operations. The recommended qualifications are summarized in the table below. The report also recommends that the General Assembly consider amending the Code to ensure that board members serve staggered terms.

**Recommended Qualifications for VPA Commissioners Appointed by the Governor**

Area of Expertise	Number of Members
Maritime shipping or port operations	2
Business administration or finance	2
Distribution, warehousing, or manufacturing	2
Transportation	1
Agriculture	1
Law, marketing, or mining	3
Total	11

Note: Two board members, the State Treasurer and the CEO of the Virginia Economic Development Partnership, are not appointed but are required by statute to serve as voting members.

Source: JLARC staff analysis.

**VPA BOARD SHOULD DEVELOP SPECIFIC GOALS AND OBJECTIVES TO GUIDE STAFF**

The VPA board has not identified or formalized any long-term goals or objectives to which VPA or VIT staff would be held accountable. This absence of formal goals and objectives could hinder VPA’s and VIT’s ability to strategically and effectively operate VPA’s terminals.

The report recommends that the VPA board focus on developing specific, measurable goals and objectives for VPA and VIT that are consistent with and supportive of the statutory mission. Long-term, measurable goals and objectives could emphasize the importance of operating the terminals in a cost-efficient manner and providing superior cargo handling capabilities and customer service.



# Virginia's Port Operations Are Complex and Have Statewide Financial and Economic Impacts

## In Summary

The Code of Virginia establishes the Virginia Port Authority (VPA) as a political subdivision of the Commonwealth responsible for oversight of the State's port operations. Because Virginia's public agencies, including VPA, are prohibited from contracting with unionized labor, VPA created Virginia International Terminals (VIT) to conduct terminal operations and contract with the International Longshoremen's Association (ILA) to staff terminal operations. VPA owns or leases and VIT operates six terminals that handle various types of international cargo. Revenues generated from terminal operations are the largest source of VPA's income, but VPA also receives some State funding through the Commonwealth Port Fund. Studies conducted for VPA have documented positive employment and revenue impacts at the State and local levels as a result of port operations, making VPA an important component of the State and local economies.

In January 2013, the Joint Legislative Audit and Review Commission (JLARC) issued a special report on certain aspects of the Virginia Port Authority's performance. This report reviewed the findings issued by four different consulting firms that were tasked with reviewing the competitiveness, efficiency, and financial stability of the Virginia Port Authority (VPA) and Virginia International Terminals (VIT). JLARC's *Special Report: Review of Recent Studies of the Virginia Port Authority's Operations* contradicted the consultants' findings, concluding instead that VPA's market performance and outlook are positive and that VPA and its terminals are not only financially sustainable, but on track to generate a profit in the next five years. In light of the questions raised about VPA's performance, the 2013 General Assembly passed House Joint Resolution 621 which requires JLARC to further study the "competitiveness, efficiency, and governance structure of the Port of Virginia" (Appendix A).

The study mandate refers to the "Port of Virginia," which includes both public and private port operations. Because this study focuses on the operations occurring at only those terminals owned or leased by VPA and operated by VIT, this report will use the term "Virginia Port Authority" instead of "Port of Virginia." The terminals owned or leased by the State through VPA constitute a substantial part of the Port of Virginia, and include all of Virginia's facilities for handling the most common form of cargo shipped through Virginia, that which is shipped in standard shipping containers. In reference to actions taken by both VPA

and VIT, this report uses the term “VPA” to refer to both entities collectively.

## **SHIPMENT OF GOODS THROUGH SEAPORTS IS A DYNAMIC AND COMPLEX COMPONENT OF INTERNATIONAL TRADE**

### **Types of Cargo Handled by Seaports**

**Containerized cargo** is shipped in containers that range from 20 to 53 feet long and eight feet wide—the majority of internationally shipped containers are 40 feet long.

**Breakbulk cargo** is shipped in bags, boxes, crates, drums, or barrels.

**Bulk cargo** is unpackaged cargo, such as grain or coal, that is carried in the hull of a ship.

**Roll-on/roll-off cargo** is wheeled cargo, such as automobiles.

Several types of cargo are imported or exported through VPA, but VPA primarily seeks to maximize the amount of “containerized” cargo that it handles. Cargo arriving or departing in containers with a standard measurement of between 20 and 53 feet long and eight feet wide is referred to as “containerized” cargo. Often, the most valuable cargo is shipped in these containers. Handling non-containerized cargo is less profitable because it requires more expensive, labor-intensive operations.

The volume of containerized cargo that is shipped through the U.S. East Coast has grown steadily over the past 30 years. VPA has benefited from this trend, as it currently receives 94 percent of operating revenues from handling containerized cargo. VPA is currently the third largest container port on the East Coast, in terms of container shipments. The volume of containerized cargo shipped through East Coast ports is projected to continue increasing as global trade grows.

### **Maritime Shipping Operations Require Cooperation of Numerous Entities**

In addition to seaports, numerous other entities are involved in maritime international trade: businesses that own the cargo being shipped (shippers); ocean carriers that transport the cargo from one port to another; and the trucking or railroad companies that transport the cargo to and from the port. In some cases, shippers hire third-party logistics providers to manage this process or provide temporary warehousing.

Shippers own the cargo that is shipped to and from the U.S. and contract with ocean carriers who move the cargo either from the shipment’s point of origin to its final destination (door-to-door) or from one port to another port (port-to-port). Under a door-to-door arrangement, the ocean carrier is responsible for contracting with a trucking company or railroad for overland transport. Under a port-to-port arrangement, the shipper is responsible for arranging and paying for landside transportation. Most shipments requiring rail transportation use a door-to-door arrangement, but truck shipments may also fall under this category. Port-to-port arrangements are typically used for shipments that are carried by truck. In either case, the ocean carrier is responsible for shipments while they are at sea and transiting through ports.

Ocean carriers are a port's only direct customer. Ports provide ocean carriers with a few basic services, including loading and unloading ocean vessels, storing containers at the terminal until they can be picked up by truck or railroad or loaded onto an out-bound vessel, and transferring containers to and from the trucks and trains calling on the port. Ocean carriers are billed for these services based on the terms of their contracts with the port. Shippers, railroad companies, and trucking companies are not billed directly for port services and are generally unaware of these costs.

Although ocean carriers are a port's only direct customers, all port users play a role, directly or indirectly, in determining which port is used to handle a shipment. Both shippers and ocean carriers generally route shipments through the port that provides them with the shortest and least costly connection from the shipment's point of origin to its destination.

### **Port Operations Are Labor Intensive and Rely on Unionized Labor for Key Operations**

#### **Regional Variance in Use of ILA Labor**

Southern ports, such as those in Georgia and South Carolina, use ILA labor for fewer tasks. Not only is the use of unionized labor less common in the South, but these ports and their labor mix were established prior to the ILA exerting its existing level of influence on ports' labor decisions.

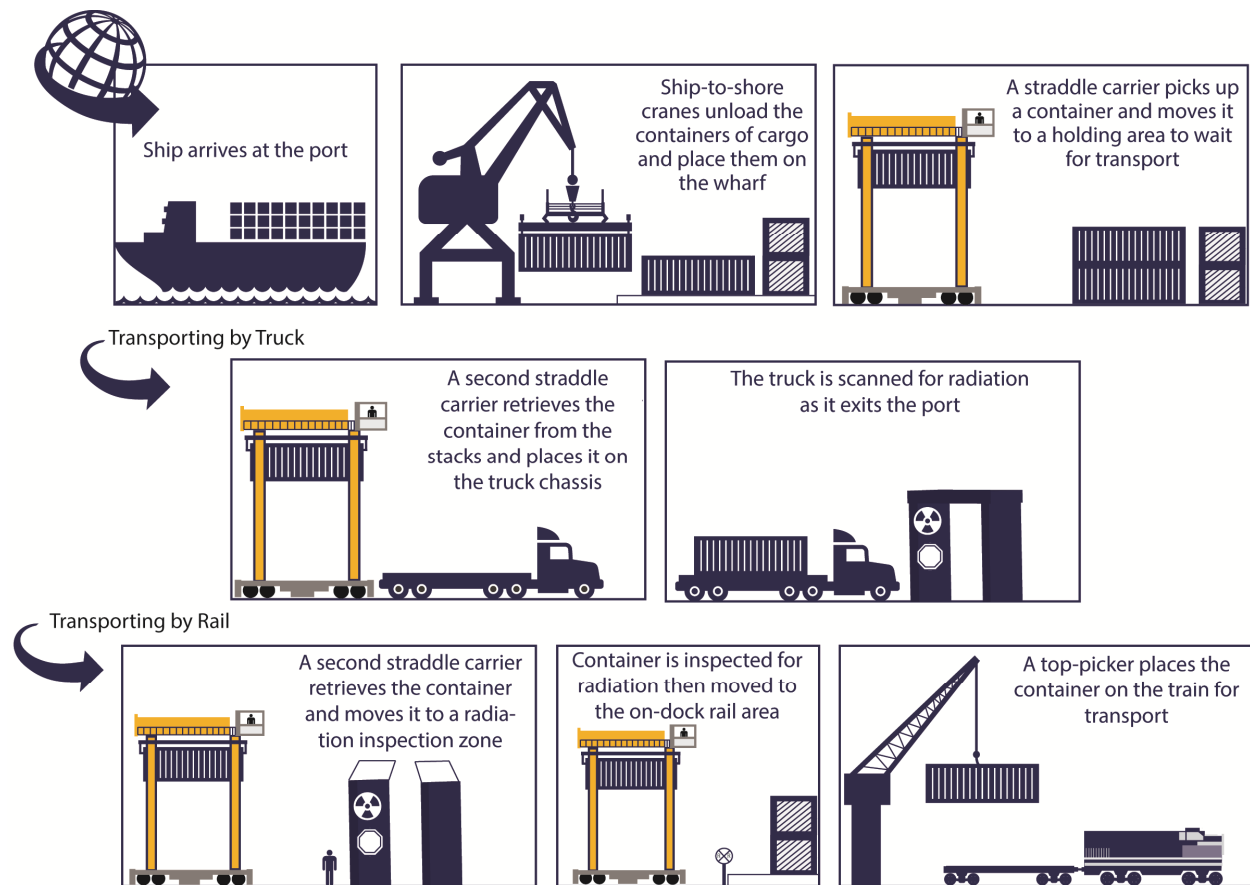
Ports require employees for a multitude of tasks, including guiding ships from the open ocean to the terminals (piloting), docking the ships and manning the cranes that load and unload cargo (stevedoring), manning the equipment that is used to transport the cargo from the wharves to on-terminal storage, and loading the cargo on-to trucks or trains. In Virginia, tasks related to piloting and stevedoring are carried out by employees of separate companies, but employees responsible for handling cargo once it is on the terminal are employed by the port either as actual port employees or as contract employees through the International Longshoremen's Association (ILA) union.

For on-terminal tasks, VPA generally relies on employees who are members of the ILA union, but the mix of ILA labor and non-ILA labor differs from one VPA terminal to another. Like VPA, most major container ports rely on ILA labor for a portion of their operations, and the proportion of ILA employees to port employees varies by port. In general, ports to the south of VPA rely less on union labor than VPA and ports north. (The impact of VPA's use of ILA labor on its operating costs, relative to other East Coast ports, is discussed further in Chapter 3.)

### **STATE'S TERMINALS ARE OWNED OR LEASED BY THE VIRGINIA PORT AUTHORITY AND OPERATED BY VIRGINIA INTERNATIONAL TERMINALS**

A variety of operating structures have been used in ports around the world, and one distinguishing characteristic is the degree of

**Figure 1: Process for Handling Containerized Cargo**



Note: Process varies from port to port based on terminal design and equipment.

Source: JLARC staff analysis of VPA terminal operations, 2013.

public or private involvement in ownership, control, and operations. Some ports are fully owned and operated by a governmental entity, such as a state government. This is the model used by the Georgia Ports Authority. Some ports are fully privatized, although this model is rare. Fully privatized ports operate in New Zealand and the United Kingdom.

Most ports operate under some kind of combination arrangement—government-owned but operated or otherwise controlled by private entities. The operational structure for Virginia’s port operations follows this publicly controlled/privately operated model. The terminals are either owned or leased by the State through VPA, but its operations are managed by Virginia International Terminals (VIT), a limited liability corporation owned by VPA.

## **Virginia Port Authority Was Created to Unify the State's Disparate Terminal Operations**

The State's involvement in the maritime shipping business originated in the 1920s and has evolved into its present form through several State and local initiatives. In 1970 the General Assembly authorized VPA to acquire port facilities from local political subdivisions. Between 1970 and 1983, VPA acquired three terminals—Norfolk International Terminal (NIT), Portsmouth Marine Terminal (PMT), and Newport News Marine Terminal (NNMT)—which unified the State's three main marine terminals under one State entity.

The Code of Virginia (Title 62.1, Chapter 10) establishes VPA as a political subdivision of the Commonwealth responsible for oversight of the State's port operations, with a governing Board of Commissioners and a mission statement to guide its operations. Statute authorizes VPA to issue bonds for the purpose of funding capital improvements (§ 62.1-140). Administrative responsibility for VPA currently resides under the Transportation Secretariat; before 1995 it was under the Commerce and Trade Secretariat.

***VPA Is Governed by a Board of Commissioners.*** The 13 VPA Commissioners serve at the pleasure of the Governor. Two are State officials (the State Treasurer and the President and Chief Executive Officer of the Virginia Economic Development Partnership), and the remaining members are residents of the Commonwealth who are required to have “executive level experience” and represent one of several industries: agriculture, distribution and warehousing, manufacturing, logistics and transportation, mining, marketing, law, finance, or transportation infrastructure. The Code of Virginia provides that “appointments shall be made by the Governor in such a manner as to ensure the widest possible geographical representation of all parts of the Commonwealth” (§ 62.1-129). Of the 11 members appointed by the Governor, six are required to reside in localities that either host or are close to VPA's terminals. Five members must reside elsewhere in the Commonwealth.

According to the VPA board's bylaws, the board meets every other month and its members serve on four standing committees which focus on executive matters; operations; finance; and growth. The Code of Virginia states that the board may exercise “all powers, rights, and duties” conferred on VPA, but it also requires the board to appoint an Executive Director (§ 32.1-129).

***VPA Staff Carry Out Several Functions, Including Security, Capital Improvements, and Business Development.*** VPA employs 83 staff across five separate divisions—Sales and Marketing; Opera-

tions, Engineering, and Maintenance; External Affairs; Human Resources; and Finance. (VIT employees are also organized under these five divisions, as discussed below.) The greatest number of positions are allocated to the operations division. This division is responsible for port security and safety. VPA employs a combination of sworn security personnel as well as non-sworn contract security. In addition to security and safety, the operations division is responsible for overseeing improvements to VPA's facilities and infrastructure. VPA employees in the sales and marketing division are responsible for port promotion, economic development, and business analysis. Employees in the external affairs division are responsible for advertising and public relations. The two remaining divisions—human resources and finance—are dedicated to administrative functions. VPA contracts with third party organizations for a majority of engineering and strategic planning services.

**VPA Owns or Leases Six Terminals.** The six terminals that are overseen by VPA are APM Terminal (APMT), Newport News Marine Terminal (NNMT), Norfolk International Terminals (NIT), Portsmouth Marine Terminal (PMT), the Virginia Inland Port (VIP), and the Port of Richmond. These terminals primarily handle containerized and breakbulk cargo. The VIP is an inland rail terminal in northwestern Virginia. The Port of Richmond handles cargo shipped via a barge service to and from the seaport terminals. Cargo operations at PMT were discontinued in 2011, but VPA leases space at the facility to private companies (Figure 2 and Table 1).

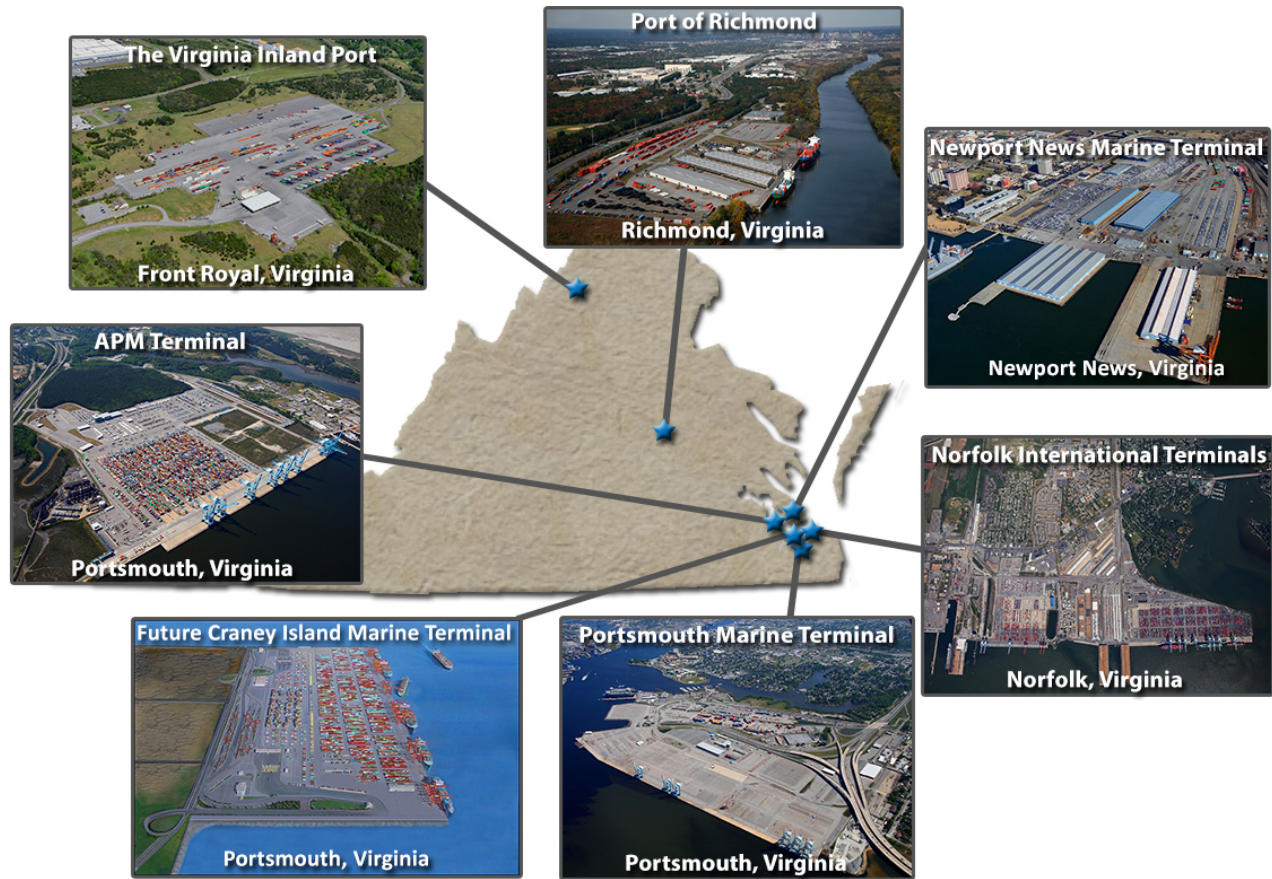
VPA is developing a new marine terminal in the City of Portsmouth, which will be called the Craney Island Marine Terminal. This project will more than double VPA's current capacity to handle containerized cargo and will be completed in two phases through 2039. VPA will be able to begin receiving cargo through the Craney Island Marine Terminal upon the completion of the first phase in 2028.

### **Virginia International Terminals, a Separate Entity, Was Created to Administer Terminal Operations**

In 1982, the VPA board established VIT, a private not-for-profit entity, to administer the daily operations of the State-owned terminals. The creation of VIT was deemed necessary because the Code of Virginia (§ 40.1-57.2) prohibits State agencies from recognizing “any labor union or other employee association as a bargaining agent of any public officers or employees, or to collectively bargain or enter into any collective bargaining contract with any such union or association or its agents.” The creation of VIT as a private entity separate from VPA allows VPA to rely on unionized labor for its terminal operations.



**Figure 2: Locations of VPA's Current and Planned Terminals**



Source: Virginia Port Authority, 2013.

**Table 1: VPA Includes Six State-Operated Terminals, Four Owned by State**

	Size (acres)	Primary Cargo	State-owned?
<b>Norfolk International Terminal</b>	648	Containers	✓
<b>APM Terminal</b>	576	Containers	
<b>Portsmouth Marine Terminal</b>	219	Breakbulk & Roll-on/Roll-off	✓
<b>Virginia Inland Port</b>	161	Containers	✓
<b>Newport News Marine Terminal</b>	140	Breakbulk	✓
<b>Port of Richmond</b>	34	Containers	

Note: Portsmouth Marine Terminal has not operated as a container terminal since 2011. The terminal is currently being leased to private tenants. The Port of Virginia also includes seven other terminals which are either owned or operated by a private company or a local government and not under the purview of the Virginia Port Authority.

Source: JLARC staff analysis of information provided by the Virginia Port Authority and Virginia International Terminals, 2013.



***Until Recently, VIT Was Overseen by a Board of Directors.*** Prior to August 2013, VIT was overseen by a nine-member Board of Directors. Two of the directors were also VPA board members and the VPA Executive Director served as a voting member. The remaining six directors were appointed by the VPA board and were required by VIT's Articles of Incorporation to be residents of the localities in which VPA's terminal operations are conducted. In August 2013, VIT's corporate status was changed from a private not-for-profit company to a limited liability corporation owned by VPA, which resulted in the elimination of the VIT board.

***VIT Staff Are Responsible for Managing Terminal Operations and Negotiations With Port Customers.*** VPA and VIT have worked together to manage and expand the State's port operations via a formal service agreement that outlines their respective roles and responsibilities. According to the service agreement, last amended in 2008, VPA assigned to VIT the responsibilities of managing, operating, and maintaining VPA's terminals, including setting the conditions for use of the terminals (such as pricing), performing sales and marketing functions, and taking responsibility for customer relations.

VIT currently employs 339 staff who are divided across four of the five divisions discussed previously—Sales and Marketing; Operations, Engineering, and Maintenance; Human Resources; and Finance. VIT employees are primarily assigned to the operations division and the sales and marketing divisions. In addition, VIT relies on ILA members to work on the vessels and operate the equipment under the cranes. All terminal equipment is maintained by VIT.

### **VPA'S OPERATIONS AND CAPITAL INVESTMENTS ARE FUNDED WITH REVENUE FROM TERMINAL OPERATIONS AND THE TRANSPORTATION TRUST FUND**

The revenue VPA uses to fund its capital needs and general operating costs, such as personnel costs, comes from a variety of sources, including terminal operations, State appropriations, and federal government grants. State sources of funding include some general funds, but mostly allocations to the Commonwealth Port Fund which constitutes 4.2 percent of all funds paid to the State's Transportation Trust Fund. The proportion of VPA's funding that has come from revenue generated through terminal operations versus State appropriations has fluctuated, but terminal revenue has exceeded State funding for most of VPA's existence. Terminal revenue from VIT accounted for 83 percent of VPA's revenue in 2012. The Commonwealth Port Fund, which accounted for 10 percent of VPA's revenue in 2012, was the next largest source of fund-

ing for VPA. The Commonwealth Port Fund is projected to be approximately \$39 million in FY 2014.

Terminal revenue is generated through terminal operations. Ocean carriers pay fees, which are established by VIT, for services such as vessel docking and handling and storing cargo. Revenue generated by port fees is used by VIT to pay operating expenses, to pay outright for some capital improvements, and to issue debt in the form of terminal revenue bonds for making significant capital improvements, such as equipment purchases. Excess revenue from port fees charged by VIT is transferred to VPA.

VPA finances its significant capital and infrastructure investments by issuing two types of bonds: Commonwealth Port Fund bonds, which are backed by the State through the Transportation Trust Fund, and terminal revenue bonds, which are backed by terminal revenue. VPA also pays debt service for leased terminal equipment. The total amount owed from these categories of debt was \$561 million as of June 30, 2012. All of the bonds issued by VPA have high ratings from the three main bond rating agencies and these ratings are comparable to the revenue bond ratings given to other East Coast port authorities. Chapter 4 provides more detail on VPA's financial structure, including the sources of revenue and expenditures and its level of outstanding debt.

### **VPA GENERATES ECONOMIC BENEFITS, BUT ADVERSELY IMPACTS INFRASTRUCTURE**

The mandate for this study states that “the Port of Virginia is a cornerstone of the Virginia economy and one of the Commonwealth’s most valuable and important state assets.” As evidence, the mandate references a widely cited study which estimates that VPA’s operations are responsible for several hundred thousand jobs and billions of dollars in annual economic impact. JLARC’s 1999 *Review of the Impact of State-Owned Ports on Local Governments* determined that the State’s port operations have provided substantial benefits for citizens of the Commonwealth, especially in the Hampton Roads region.

VPA’s impacts are a result of on-terminal port operations as well as other port service companies that handle the flow of goods through the terminals, transport goods to the terminals for export, and transport imported goods from the terminals to their final destination. Operations of this size and scope contribute to statewide employment levels and yield economic benefits for the State through tax revenue. Localities that host the terminals benefit from the business and employment opportunities generated by port operations.

VPA is generally characterized as beneficial to the State and local economies, but the localities that host the terminals bear the cost of degraded transportation infrastructure and negative environmental impacts, yet are unable to levy taxes on VPA-owned property to recoup these costs.

### **VPA's Operations Generate Jobs, Revenue, and Business Development Opportunities Statewide**

#### **Indirect and Induced Impacts**

Indirect impacts are secondary impacts associated with business-to-business spending for inputs and supplies from other Virginia businesses. Induced impacts result from the income earned and spent by households and businesses and the taxes paid to State and local governments.

A 2008 study prepared by the College of William and Mary's Mason School of Business documents the positive economic impacts of VPA's operations on the State. The total economic impact of VPA's operations includes direct, indirect, and induced impacts of terminal activities. Direct impacts more precisely quantify economic activity than indirect or induced impacts because the revenue, compensation, and employment that stem directly from VPA operations are relatively easy to measure. According to this study, the direct impact of VPA's operations in 2007 was over \$1.9 billion in revenue, \$566 million in employee compensation, and 10,157 jobs. Studies performed in other states on the economic impacts generated by their respective ports have documented similar results.

VPA is regularly used to market the State to businesses looking to locate or expand their operations in the region. Staff at the Virginia Economic Development Partnership (VEDP) stated that some businesses have identified the presence of VPA and its competitive advantages as a key factor in their decision to locate or maintain operations in Virginia. These are primarily businesses that ship goods in or out of VPA's terminals. VPA is not as important in attracting businesses in some high priority industries that do not import or export goods, such as information technology. Attracting manufacturing and retail companies furthers the State's economic development agenda and provides numerous employment opportunities and taxable equipment that generates revenue for local governments.

### **VPA's Operations Benefit Economy of Host Localities**

Representatives from localities that house terminal operations indicate that VPA's operations are an integral part of their respective economies. Norfolk city personnel noted that port-related activities represent one of the largest sectors of their economy. The number of businesses that use VPA in and around Norfolk is significant. Representatives from Norfolk's Department of Development used information provided by the Virginia Employment Commission (VEC) to identify 11,346 employees in 257 businesses that benefit from VPA's presence. The representatives noted that

these numbers are not comprehensive or all inclusive, and that the numbers may, in fact, be greater.

Personnel of the city of Portsmouth reported that VPA's operations are an integral part of its economy, though they estimated that port activities are second or even third to the city's defense and health care industries in terms of the economic benefits provided. Still, APMT, which is privately owned by A.P. Moller-Maersk, is the city's largest taxpayer. APMT generates approximately \$4.5 million in property tax revenue for Portsmouth per year.

### **VPA Mitigates Negative Impacts on Localities That Host Terminals**

In addition to generating economic benefits, VPA's operations also degrade the environment and infrastructure. The localities that house terminal operations are unable to collect property taxes from the State-owned terminals, which could help offset the costs of these negative impacts. According to the Constitution of Virginia, "property owned directly or indirectly by the Commonwealth or any political subdivision thereof" is exempt from State and local taxation (Article X, Section 6). In fiscal year 2012, if the VPA-owned terminals had been taxable, their value would have been approximately \$6.3 million in real property tax revenues.

The Code of Virginia includes a provision that allows the cities of Norfolk, Portsmouth, Newport News, and Warren County to recoup some of the costs associated with housing terminal operations (§ 58.1-3403). The Code states that "a service charge may be levied on property of the Virginia Port Authority regardless of the portion of state-owned property within the county, city or town." This "payment in lieu of taxes" helps to account for the cost of specific governmental services provided by the localities. These services include police and fire protection and collection and disposal of refuse. The charge is also supposed to help defray localities' costs for road maintenance and repair. In fiscal year 2012, the total amount paid by VPA to the four localities for local governmental services was approximately \$1.1 million. Additionally, \$950,000 was appropriated to account for VPA's impact on local roadways. Localities also receive State financial assistance for the maintenance of their secondary roads.

According to an economic impact study prepared by Martin Associates for VPA, in 2009 the activity at VPA's terminals generated tax payments to the local governments by firms and individuals whose jobs are directly dependent upon and supported by marine activity at the terminals. The study estimated that approximately \$65 million in local tax revenue was generated in Norfolk, Newport News, Portsmouth, and Warren in 2009.

VPA has attempted to alleviate some of the negative impacts of its operations. For example, it has initiated projects and programs focused on mitigating the environmental effects of the maritime shipping industry such as exhaust emissions, habitat disruption, and pollution. VPA participates in various projects to conduct its operations in an environmentally sound manner, including using ultra-low-sulfur diesel fuel to cut air emissions by 30 percent, creating habitats to protect wetlands and wildlife, and launching the Green Operators Program to limit air pollution from trucks. Dimmer lights have been installed at terminal berths, and VPA has also rerouted trucks around one of Norfolk's busiest roads, Hampton Boulevard, in an effort to limit traffic, congestion, and noise pollution. In 2009, VPA had the Commonwealth Railway line moved to the median of VA 164 and Interstate 664 to address the negative impacts its previous location had on several Hampton Roads communities.

### **FOCUS ON VPA PERFORMANCE HAS RECENTLY INTENSIFIED AND PROMPTED LEGISLATION**

This JLARC study was requested by the General Assembly after several developments precipitated questions about VPA's performance. Between 2009 and 2012, the VPA Board of Commissioners and the Administration considered, but rejected, multiple proposals from private companies to operate VPA's terminals. In 2012 five different consultants reviewed VPA's performance. These events prompted the 2013 General Assembly to pass legislation aimed at improving VPA's operations, including the joint resolution requiring this study.

### **State Considered Private Sector Proposals for Leasing Terminals**

Before July 1, 2013, under the State's Public-Private Transportation Act, private companies were free to submit unsolicited proposals to VPA to operate its terminals. Between 2009 and 2012, VPA received six different proposals, each of which was either withdrawn by the proposer or rejected by the VPA board. These proposals prompted substantial scrutiny of VPA's performance. The 2013 General Assembly amended the Code of Virginia (HB 2276) to prohibit the State or VPA from accepting "any unsolicited proposal under the Public-Private Transportation Act or the Public-Private Education Facilities and Infrastructure Act regarding the ownership or operation of any seaport or port facility" (§ 62.1-132.19).

### **Recent Legislation Changes Board Composition and Increases Accountability**

The 2013 General Assembly passed additional legislation to improve the governance and operations of VPA and VIT. Specifically,

the legislation amended the Code of Virginia to require the President and CEO of the Virginia Economic Development Partnership to serve on the VPA board, required that one of the members represent the greater Hampton Roads region, that one member (non-voting) would represent the greater metro-Richmond region, and that one member (non-voting) would represent one of the localities surrounding the Virginia Inland Port in Warren County. The legislation requires VPA to submit “a detailed annual operating plan and budget” to the Secretary of Transportation and the Department of Planning and Budget by November 1 of each year.

### **Study Builds On Findings Issued by JLARC in 2013**

This study builds on the findings issued by JLARC staff in the January 2013 report, *Special Report: Review of Recent Reports on the Virginia Port Authority’s Operations*. That report was in response to a request by the House Appropriations Committee Chairman to have JLARC staff review consultant studies issued in 2012 about VPA’s and VIT’s performance.

During 2012, five consulting agencies issued reports on different aspects of VIT’s performance. Two of these reports were issued directly to the Secretary of Transportation. One of the reports issued to the Secretary of Transportation concluded that there were several opportunities for VIT to reduce its costs, particularly administrative and maintenance costs. The second report that was provided to the Secretary of Transportation concluded that VPA’s financial performance was unsustainable and VPA was in a weak competitive position relative to other East Coast ports. The findings of these consultant studies were used by the Administration to assess the merits of the privatization proposals submitted in 2012.

The 2013 JLARC review of these consultant studies concluded that:

- VPA’s market performance and outlook appear to be more positive than suggested by the reports;
- VPA does not appear to be financially unsustainable;
- Administrative expenses could be reduced by eliminating duplicative administrative functions shared by VPA and VIT; and
- VIT and VPA executives are compensated at levels higher than most other port authority executives in the U.S.

This study further reviews the competitiveness and efficiency of VPA and VIT, examines their uses of State funding, and evaluates their administrative and governance structures.





## To Date, VPA Has Successfully Competed Against Other Ports

### In Summary

The Virginia Port Authority (VPA) competes against other ports for cargo shipments to and from the East Coast. VPA serves a regional market that includes Virginia and its neighboring states. VPA has competed against the nearby Ports of Baltimore and Wilmington (NC) for this market due to its advantageous location, waterways, and facilities. VPA also helped establish a new rail service that will expand its reach into neighboring North Carolina, which is the largest market it is positioned to serve. Outside of the region, VPA serves inland markets in the Midwest, and has effectively competed against the Port of New York/New Jersey for these markets due to its high quality rail connections and facilities. VPA has invested \$576 million in improvements to its main sea terminal, including rail facilities, over the past decade, and recently began leasing a new terminal in Portsmouth from a private company for a base rate of \$44 million per year. VPA's investments in new and renovated terminals have improved its ability to compete for cargo. Both of its main terminals are operating efficiently. Other factors that contribute to VPA's competitiveness are the generally good relationships that it maintains with its customers and the incentives that VPA and the State offer to encourage port use, which are comparable to incentives offered in other states.

#### VPA and the Port of Virginia

The Port of Virginia refers to all public and private cargo-handling facilities in the Hampton Roads region. VPA is the State agency responsible for overseeing the port, and most container shipments pass through terminals owned or operated by VPA and its subsidiary, Virginia International Terminals. The term VPA is therefore used interchangeably with the Port of Virginia when referring to competition for container shipments, even when using historical data that includes container shipments which were handled by private terminals.

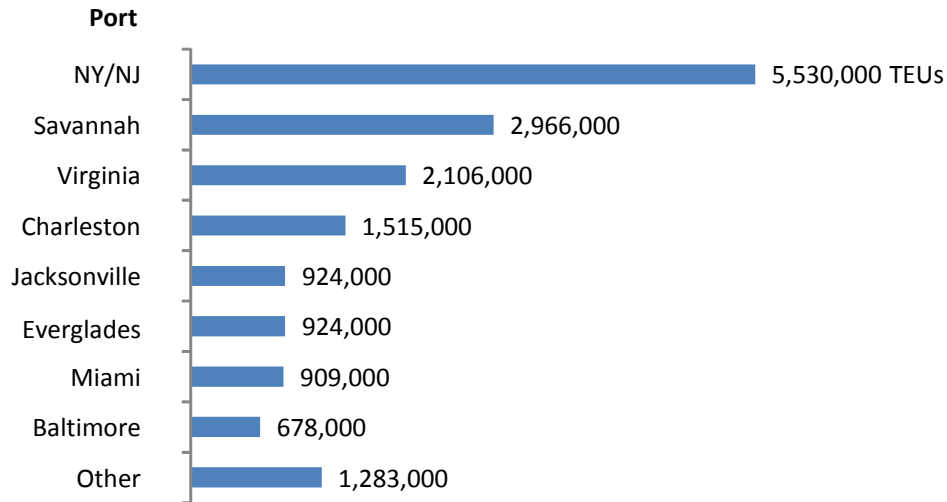
The Virginia Port Authority (VPA) is one of 13 major East Coast ports that compete for cargo shipments to and from different regions of the country. VPA is mainly focused on attracting container shipments because they are the most profitable and have shown the greatest potential for growth.

VPA's success in competing for container cargo can be evaluated in several ways. One common approach for measuring a port's success is to compare the volume of container shipments it handles to the volumes handled by other ports that serve the same regions of the country. VPA's competitiveness can also be assessed by comparing the quality of its facilities, the efficiency of its terminal operations, the strength of its customer relations, and the attractiveness of its incentive programs.

#### VPA IS A MAJOR GLOBAL CONTAINER PORT

VPA is the third largest container port on the East Coast, a position it has occupied since 1998. The only other ports on the East Coast that handle more container trade than VPA are the Ports of New York/New Jersey (NY/NJ) and Savannah (Figure 3). These ports handle more volume than VPA in part because they are positioned to serve much larger regional markets. The Port of

**Figure 3: VPA Is the Third Largest Container Port on the East Coast (2012)**



Note: A Twenty-Foot Equivalent Unit (TEU) is a standard measurement used to quantify the volume of container trade that passes through a port. Shipping containers can be 20 to 53 feet long, but most containers used in international shipping are 40 feet long. One 40 foot shipping container counts as two TEUs.

Source: JLARC staff analysis of AAPA container trade data, 2012.

#### **Largest East Coast Ports & Governing Authorities**

States or localities establish port authorities to oversee port development and to own or operate sea terminals. The port authorities that govern the four largest East Coast ports are:

**Port of NY/NJ**  
Port Authority of NY/NJ

**Port of Savannah**  
Georgia Port Authority

**Port of Virginia**  
Virginia Port Authority

**Port of Charleston**  
South Carolina State Ports Authority

***VPA's recovery from the recession has been comparable to other East Coast ports.***

NY/NJ is the major container port that is best positioned to serve the populous Northeast. The Port of Savannah is one of two ports positioned to serve the fast-growing Southeast. The other major port serving the Southeast, the Port of Charleston, is the fourth largest on the East Coast.

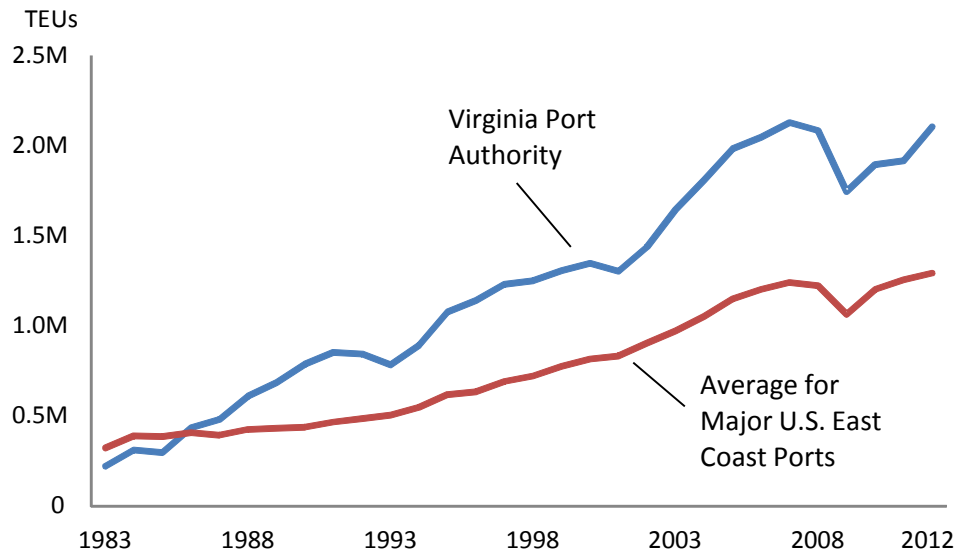
The volume of container shipments handled by VPA has grown steadily at a rate that is greater or comparable to the growth experienced by other East Coast ports. VPA has grown from handling 223,000 container Twenty-Foot Equivalent Units (TEUs) in 1983 to 2.1 million TEUs in 2012 (Figure 4). Although recessions have caused container volumes to fall in some years, the general trend over this 30-year time frame has been steady growth. VPA experienced its highest growth rates from 1983 to 1992, when it grew at an average of 16 percent annually. This was three times the average growth experienced by other East Coast ports over the same time period. In the last 20 years, VPA's growth averaged five percent per year, which was the same as other East Coast ports.

VPA experienced a steeper decline in container volumes during the recent global recession than other East Coast ports. Container volume declined by 18 percent between the start of the recession in 2007 and its end in 2009. By comparison, other East Coast ports experienced an average decline of 14 percent. VPA's recovery from the recession has been comparable to other East Coast ports. Container volumes through VPA have increased 21 percent since 2009, which is the same growth rate experienced by other East Coast ports.

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**Figure 4: VPA Has Experienced Steady Growth in Container Volume Over The Past 30 Years**

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Note: The average for major East Coast ports includes all 13 ports that handled over 100,000 TEUs in 2012, including the Ports of Virginia, Boston, Baltimore, Charleston, Palm Beach, Philadelphia, Everglades (Fort Lauderdale), Jacksonville, Miami, New York/New Jersey, Savannah, Wilmington (DE), and Wilmington (NC).

Source: JLARC staff analysis of AAPA container trade data, 1983-2012.

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### **VPA HAS SUCCESSFULLY COMPETED FOR CONTAINER SHIPMENTS TO AND FROM THE CENTRAL ATLANTIC AND MIDWEST**

East Coast ports compete against one another for container shipments to and from several regions of the country. Competition exists because shippers and ocean carriers have some discretion regarding which ports their shipments are routed through. Ports compete in two types of markets: (1) the regional market surrounding the port and (2) inland markets located away from the coast that can be economically reached by rail, which are also commonly referred to as the “intermodal” markets. However, because each port is positioned to serve different markets, not all East Coast ports directly compete against each other. For example, VPA does not compete for shipments with ports in Florida because these ports do not serve the same regional or inland markets.

Port customers indicated that the cost of landside transportation, including truck and rail services, is the main factor that determines which port they will use. Some port customers indicated that the time required to move a shipment overland is also a key consideration. In cases where differences in trucking and rail costs and time to or from two ports are negligible, port customers indicated that other factors, such as port fees and the quality of ser-

**Central Atlantic Ports &  
Governing Authorities**

**Port of Virginia**  
Virginia Port Authority

**Port of Baltimore**  
Maryland Port Authority

**Port of Wilmington, NC**  
North Carolina Port  
Authority

**Port of Wilmington, DE**  
Diamond State Port  
Corporation

**Port of Philadelphia**  
Philadelphia Regional  
Port Authority

vices provided, may influence their decisions. Container shipments that can be comparably handled by one or more ports are commonly referred to as “discretionary” cargo because customers have discretion regarding which port to use. The Midwest and other inland regions are the major markets for discretionary cargo.

**VPA Has Successfully Competed for Container Trade in Its  
Regional Market**

A port’s regional market is the area within a one-day drive of its sea terminals, and shipments between the port and customers in this market are generally carried by truck. The boundaries of a port’s regional market are determined by the time and cost associated with trucking shipments to and from potential customers. For example, it would take a truck leaving VPA approximately nine hours to reach a customer in Atlanta, Georgia. In contrast, it would take a truck leaving from the Port of Savannah less than half that time to reach Atlanta. Based on the cost of fuel alone, sending a shipment through the Port of Savannah would cost half as much as routing it through VPA. Consequently, Atlanta is part of the Port of Savannah’s regional market and lies outside of VPA’s regional market.

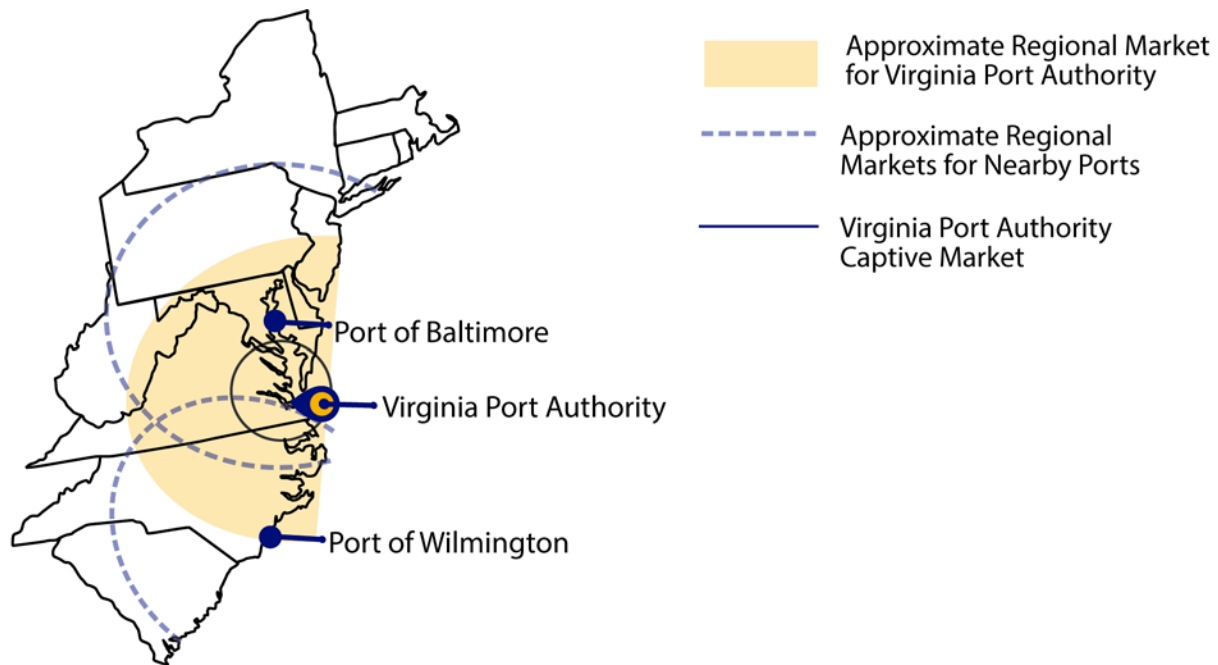
The regional market for VPA is the central Atlantic region consisting of Virginia and neighboring states, including areas within 300 to 500 road miles of VPA’s container terminals in Hampton Roads. Based on input from VPA and port customers, JLARC staff estimate that the majority of customers in the regional market lie within a 300-mile straight line radius of VPA’s terminals (Figure 5). The inner ring of this regional market includes a “captive” market that can only be served economically by VPA, such as Tidewater and Central Virginia. Businesses in the captive market are likely to send their goods through VPA because it would be too costly to transport them to or from another port.

In the outer areas of the regional market, where there are minimal cost differences between using VPA and nearby ports, VPA competes with other ports for container shipments. To the north, VPA competes mainly with the Port of Baltimore for container shipments to and from northern Virginia, Maryland, Delaware, and West Virginia. To the south, VPA competes with the Port of Wilmington (NC) for shipments to and from eastern North Carolina. (VPA also competes against the Ports of Charleston and Savannah for segments of the western North Carolina market, but these ports primarily compete against each other and Wilmington (NC) for this part of the state.)

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**Figure 5: VPA Mainly Competes Against Two Other Ports That Are Positioned to Serve the Central Atlantic Region**

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Note: The figure uses a 300-mile radius to approximate the regional market for each port. Based on input from VPA, ocean carriers, shippers, and other industry sources, this radius represents the area that is within 300 to 500 road miles of VPA and that can be cost-effectively served by truck.

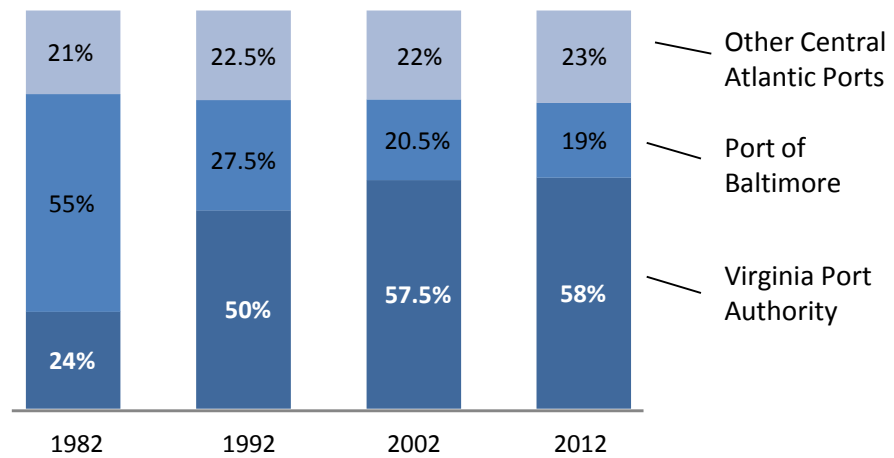
Source: JLARC staff analysis of the Virginia Official State Transportation Map and Google Maps, 2013.

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***VPA Receives the Majority of Container Shipments Passing Through Ports in the Central Atlantic Region.*** Over time, VPA has successfully competed against the Ports of Baltimore and Wilmington to become the largest container port in the central Atlantic region (Figure 6). In 1982 the Port of Baltimore was the leading central Atlantic port, drawing 55 percent of all container shipments passing through the region. VPA attracted only a quarter of these shipments. However, by 1992 VPA had surpassed Baltimore as a destination for half of the region's container trade. In 2012, VPA drew 58 percent of container shipments passing through the central Atlantic region. VPA's share of container volume declined following the recent global recession, but this downward trend reversed in 2012.

***VPA Has Successfully Competed Against Nearby Ports Due to Its Advantageous Location, Waterways, and Facilities.*** VPA has several advantages when competing in its regional market. First, it is located relatively far away from its closest competitors, Baltimore to the north (166 miles away) and Wilmington (NC) to the south (208 miles away), giving it a secure captive market. By contrast,

**Figure 6: VPA's Share of Container Shipments Through Central Atlantic Ports Has Increased Over the Past 30 Years**



Note: Other central Atlantic ports include the Ports of Philadelphia, Wilmington (DE), and Wilmington (NC).

Source: JLARC staff analysis of AAPA container trade data, 1982-2012.

the Port of Baltimore is less than 100 miles away from the Ports of Philadelphia and Wilmington (DE), which gives it a much smaller captive market to rely on.

Another competitive advantage is that VPA is located near the open ocean, making it easily accessible to ocean carriers. Ocean carriers indicated that the speed with which they can move a vessel in and out of a port greatly affects their operating costs, and that a port's distance from the open ocean is one of the major factors that influences travel time. VPA's facilities are closer to the open ocean than the Port of Baltimore, which is located 150 miles up the Chesapeake Bay. One ocean carrier indicated that import containers arriving at VPA can be unloaded up to a day earlier than if they were unloaded in Baltimore, which is a significant advantage.

VPA's deep waterways also provide an advantage over nearby ports. Ocean carriers value ports with deep waterways because they can send larger, more efficient vessels to these ports. The main shipping channel that serves VPA is 50 feet deep, compared to 42 feet for the Port of Wilmington (NC). The Port of Baltimore is served by a 50-foot deep channel, but only one of the four vessel berths at its container terminal has been dredged to this depth.

VPA's sea terminals are capable of handling higher volumes of shipments than terminals at nearby ports, which gives it another advantage. Several shippers indicated that they prefer to use VPA



*Several shippers indicated that they prefer to use VPA instead of nearby competitors because VPA is better equipped to handle the large volumes they ship.*

instead of nearby competitors because VPA is better equipped to handle the large volumes they ship. VPA’s estimated container-handling capacity is 3.5 million TEUs per year. By comparison, VPA’s largest regional competitor is the Port of Baltimore, which has an estimated capacity of 0.8 million TEUs. The Ports of Philadelphia and Wilmington (NC) each have an estimated capacity of 0.5 million TEUs, and the Port of Wilmington (DE) is approximately the same size as these two smaller ports. VPA’s higher number of vessel berths and container cranes VPA’s contribute to its substantially greater capacity (Table 2).

**Table 2: VPA’s Container Handling Capacity Exceeds Those of Other Ports in the Central Atlantic Region**

Port	Estimated Capacity (TEUs, millions)	Container Vessel Berths	Container Cranes
Virginia	3.5	8	22 <sup>b</sup>
Baltimore	0.8	4	11
Wilmington (NC)	0.5	3	7
Philadelphia	0.5	6	7
Wilmington (DE)	n/a <sup>a</sup>	7	3

Note: The above capacity estimates include only terminals that are container focused. For example, VPA numbers only include the capacity of its two dedicated container terminal facilities, the Norfolk International Terminal and the APM Terminal.

<sup>a</sup> No data were available on the capacity of the Port of Wilmington (DE), but based on the physical size of its container terminal and the actual container volumes it handles, its capacity is likely similar to the Ports of Philadelphia and Wilmington (NC).

<sup>b</sup> VPA uses “Super Post-Panamax” cranes, which are capable of servicing the largest ships in the world. The Port of Baltimore also has four of these types of cranes.

Source: JLARC staff analysis of port websites, including facility maps, facility descriptions, annual reports, and planning documents, 2013.

**VPA’s Competitiveness in the Critical North Carolina Market Has Recently Improved.** VPA is one of several ports that competes for the North Carolina market. The North Carolina market is critical to VPA because it is the largest market that VPA is positioned to serve—its retail and wholesale market is 19 percent larger than Virginia’s and its manufacturing and agricultural bases are each over twice as large. VPA primarily competes against the Port of Wilmington (NC) for the eastern half of the state, while Wilmington competes with the Ports of Charleston and Savannah for the western half.

VPA has successfully competed for container shipments to and from eastern North Carolina even though the Port of Wilmington (NC) is closer to many of the shippers in this region. Shippers indicated that they prefer to use VPA over Wilmington because it offers a wider selection of ocean carriers as well as direct connections



to more international markets. Shippers also prefer VPA because its facilities can accommodate larger volumes of containers.

VPA's ability to compete for container shipments to and from western North Carolina was recently improved through the establishment of a rail shuttle service to Greensboro, located in the center of the state. Because rail transportation costs are lower than trucking costs, this service extends VPA's regional market farther into North Carolina by allowing it to be cost competitive with the Ports of Charleston, Savannah, and Wilmington. The new rail service, which VPA initiated with Norfolk Southern, appears to have been successful thus far. VPA staff estimated that 50 percent of the container volume carried by the Greensboro rail service is new volume that was not previously passing through VPA.

### **VPA Has Successfully Competed for Container Shipments to the Midwest Due to the Quality of Its Rail Connections**

The inland regions of the United States include major markets that can be cost-effectively served via rail by several East and West Coast ports. The cost of shipping a container between a port and an inland market determines the markets in which a port can compete. Because these inland markets are served by privately-owned railroads, factors other than distance can influence cost.

Railroads set their prices to maximize use of their assets, and so may offer more or less favorable pricing for shipments passing through different ports. For example, one major railroad reportedly offers favorable prices for shipments that are moved through VPA to maximize the use of "double-stack" trains along its network. Double-stack trains carry two containers per rail car instead of one, reducing the cost per trip and increasing profit. Railroad pricing decisions may favor one port over another even if the favored port is farther away from the customer.

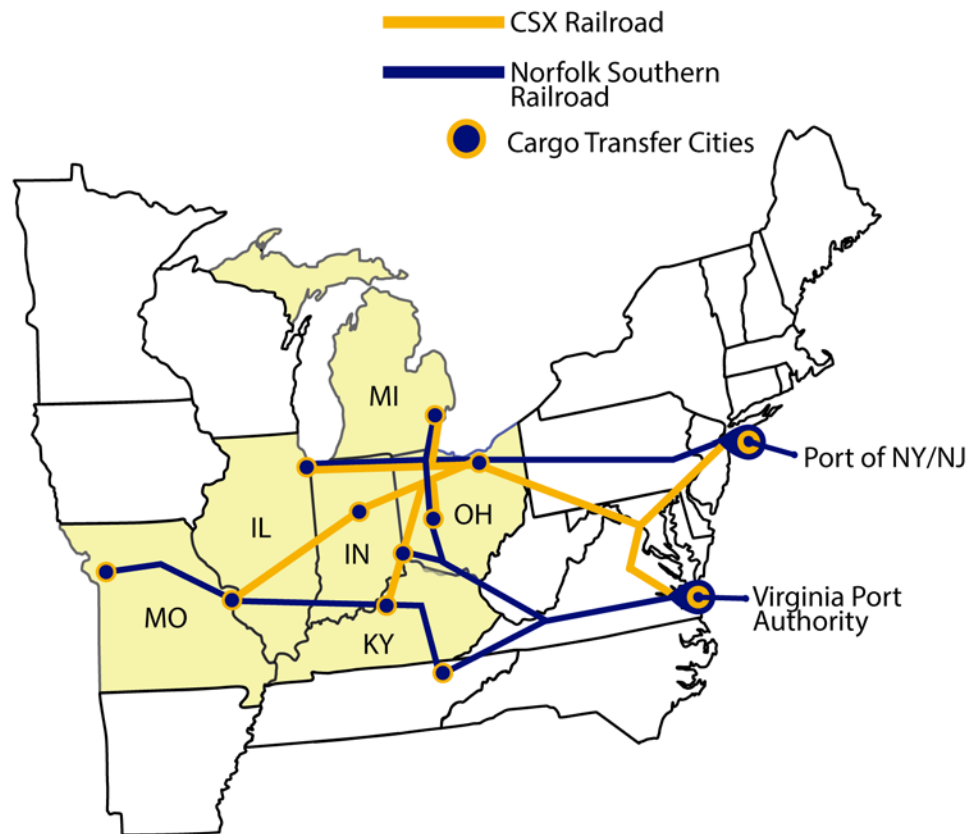
The inland markets VPA competes in are Ohio, Illinois, Indiana, Kentucky, Michigan, and Missouri (Figure 7). VPA's main East Coast competitor for these markets is the Port of NY/NJ. VPA does not compete for states farther south because they are substantially closer to southeastern and Gulf Coast ports. Similarly, VPA does not compete for states farther west because they can be more economically served by West Coast ports.

***VPA Has Evenly Competed With Port of NY/NJ for Midwest Markets Despite Being a Smaller Port.*** As noted in JLARC's 2013 *Review of Recent Reports on the Virginia Port Authority's Operations*, VPA and the Port of NY/NJ handle almost the same percentage of

#### **East Coast Railroads**

The East Coast is served by two major railroads: Norfolk Southern and CSX. These two railroads control the vast majority of rail infrastructure on the East Coast. VPA is served by both railroads.

**Figure 7: VPA Competes Against the Port of NY/NJ for Container Shipments To and From the Midwest**

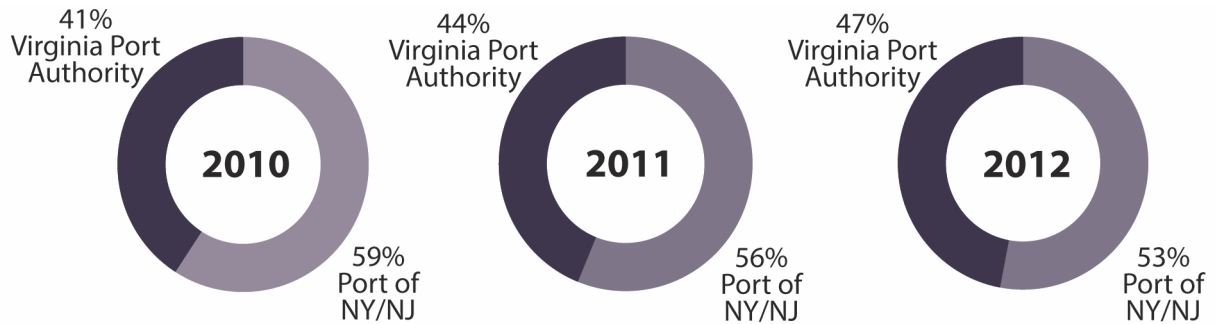


Source: JLARC staff analysis of data from internet mapping services and maps of CSX and Norfolk Southern railroad networks, 2013.

the rail volume destined to or from the four largest markets in the Midwest (Ohio, Illinois, Michigan, and Missouri). In 2010, VPA handled an estimated 40 percent of this volume, the Port of NY/NJ handled 41 percent, and other ports handled the remaining 19 percent. VPA appears to have evenly competed with the Port of NY/NJ for Midwest markets despite being a smaller port. VPA also competes effectively against the Port of NY/NJ when comparing the total number of rail containers handled by the two ports, rather than rail cargo destined solely to or from the Midwest (Figure 8).

***VPA's External Rail Connections and On-Dock Rail Yards Have Positioned It to Compete for Midwest Markets.*** Port customers indicated that VPA's rail connections to the Midwest are among the best on the East Coast and provide it with an advantage in competing for shipments. In 2010, Norfolk Southern completed the Heartland Corridor project, which created a faster and more direct route for double-stack trains to travel between VPA and major Midwestern markets. CSX, the other major railroad serving the

**Figure 8: VPA Has Gradually Increased Its Share of East Coast Rail Shipments, Relative to the Larger Port of NY/NJ**



Note: From 2010 to 2012, VPA handled 977,397 rail containers compared to 1,233,300 for the Port of NY/NJ. The number of rail containers handled by VPA was close to the total handled by the Port of NY/NJ even though NY/NJ handled twice as many containers overall during this time period.

Source: JLARC staff analysis of data provided by VPA and the Port Authority of NY/NJ, 2010-2012.

East Coast, is undertaking its National Gateway project to obtain similar capabilities. In addition to reducing travel times, double-stack capabilities improve the efficiency of railroad operations and allow them to offer customers more favorable pricing when using VPA.

VPA's success in competing for inland markets is partly attributable to improvements it has made to its own rail infrastructure. VPA completed construction of a new high-capacity rail yard at its Norfolk International Terminal (NIT) in 2011, and acquired a new on-dock rail yard when it began leasing the private APMT facility at Portsmouth in 2010. These actions reduced the need to truck containers between VPA's terminals and off-property rail yards and increased its capacity for handling rail cargo by an estimated 250,000 TEUs per year. Port customers noted that VPA does not have the congestion issues that affect several terminals at the Port of NY/NJ, which is VPA's main competitor for rail cargo. APMT experienced congestion issues in August 2012, but VPA staff reported that the causes of this congestion were addressed and VPA data on rail shipments through APMT indicate the issues have been resolved.

#### **VPA HAS INVESTED IN RELIABLE AND PRODUCTIVE TERMINAL OPERATIONS THAT IMPROVE ITS ABILITY TO COMPETE**

When port customers have a choice of ports, two of the key factors that they consider are the port's container-handling capabilities and the productivity of its terminal operations. These factors are important to ocean carriers because quicker cargo transfers contribute to higher profits. Shippers value port capabilities and productivity because they want to avoid congestion and other de-

lays that can disrupt their supply chains. Ports that are not able to meet customer demands due to outdated or inefficient terminals will receive fewer shipments. VPA and other ports must therefore make investments in their container terminals in order to remain competitive. Such capital investments may include:

- Berths for accommodating ocean vessels and cranes for servicing them,
- Container yards for temporary storage,
- Yard equipment for moving containers, including transferring containers to and from waiting trucks, and
- On-dock rail yards for loading and unloading trains.

In addition to providing the proper facilities, VPA and other ports are expected to operate efficiently. Ocean vessels need to be promptly serviced, containers must be swiftly moved through terminals, and trucks and trains must be able to quickly drop off and pick up their loads. The efficiency of VPA's terminal operations therefore directly affects its ability to satisfy customer needs and compete for future cargo. VPA is more likely to successfully compete for cargo shipments if shipments move quickly and reliably through its terminals.

### **VPA Has Made Capital Investments Targeted at Improving Its Container Terminals**

*VPA has improved the productivity of its container handling terminals by replacing outdated operations with new or renovated facilities that are more efficient.*

Within the past decade, VPA has made two major capital investments intended to improve its container operations: the complete renovation of NIT and the leasing of APMT. VPA's investments have resulted in greater capabilities, including the ability to handle larger vessels and higher volumes of container shipments. VPA has also improved the productivity of its container handling terminals by replacing outdated operations with new or renovated facilities that are more efficient.

***Since 2002, VPA Has Invested \$576 Million to Improve Capacity and Productivity at NIT.*** In 2002, NIT was VPA's primary container handling facility, but the majority of its infrastructure and equipment was old and becoming obsolete. For example, the original container vessel berth constructed in the 1960s was still in use despite degrading concrete, and the terminal was reliant on small cranes that were not capable of efficiently serving larger, modern container vessels.

To address deficiencies at NIT, VPA began a series of projects intended to completely renovate the facility. The overarching objective of the NIT renovation was to improve its cargo capacity and throughput in order to better compete for future container ship-

ments. Since 2002, VPA has invested approximately \$576 million in terminal improvements. Additionally, VPA transferred NIT's break-bulk operations to the Newport News Marine Terminal, allowing NIT to concentrate its efforts on container shipments.

Each of the investments made by VPA appears to have had an impact on its capabilities or productivity. Projects to reconstruct vessel berths and install new high-capacity cranes improved NIT's ability to accommodate the next generation of large container vessels. The enhanced capabilities of the new cranes, such as their ability to reach completely across container vessels of any size, appear to have improved the productivity of loading and unloading operations.

Renovation of the NIT container and rail yards expanded the terminal's capacity by converting undeveloped land and unused warehouses to container operations. Improvements to NIT's two container yards increased the terminal's overall capacity by an estimated 1.5 million TEUs per year. Similarly, the construction of a new, larger rail yard increased NIT's capacity for handling rail cargo by 250,000 TEUs per year.

Two ongoing projects at NIT are intended to improve terminal productivity. First, VPA is enhancing automation of the NIT truck gates to improve truck flows in and out of the terminal and reduce delays caused by damaged equipment. Second, VPA plans to implement a new IT terminal management system to improve the efficiency of container yard operations and coordination with customers.

***VPA's Lease of APMT Allowed It to Replace an Outdated Terminal and Benefit From New Terminal Capabilities.*** In July 2007, APM Terminals Inc., a subsidiary of the company that owns the Maersk shipping line, opened the \$500 million APMT facility in Portsmouth. The privately-owned and operated terminal was expected to compete with the VPA-owned container terminals. However, in 2010 VPA reached an agreement with APM Terminals to lease the facility. Under the terms of the lease agreement, which went into effect July 1, 2010, VPA will pay APM Terminals a base rate of \$44 million per fiscal year through 2030 to use the facility. VPA pays additional fees based on the volume of container shipments it handles at the terminal and to secure the right to expand APMT in the future.

The APMT lease agreement provided VPA with a new facility that essentially replaced the aging Portsmouth Marine Terminal (PMT). At the time of the lease agreement, PMT was VPA's secondary container terminal after NIT. VPA had made limited investments to improve PMT over the preceding decade because its

efforts were focused on upgrading NIT. Shortly after the lease for APMT was signed, container operations at PMT were halted.

APMT is superior to PMT in terms of its capabilities and productivity. APMT has deeper vessel berths and the heavy-duty modern cranes needed to accommodate the next generation of large container vessels. PMT relied on decades-old infrastructure and equipment, which would have required extensive renovation to achieve the same capabilities. APMT is regarded as one of the most technologically advanced port facilities in the U.S. and has improved upon PMT's productivity by allowing for more efficient truck and rail container transfer operations. APMT is considered to be one of the most efficient terminals in the U.S. due to its high degree of automation.

### **Data on Efficiency of Terminal Operations Shows Mixed Performance, But Port Users Expressed Satisfaction**

The study mandate directs JLARC staff to evaluate the efficiency of VPA's terminal operations using industry metrics and customer observations. As previously discussed, operational efficiency directly impacts VPA's ability to compete for future container shipments because customers are not likely to use ports with slow or unreliable terminals. JLARC staff assessed VPA's operational efficiency by examining data on commonly accepted industry measures of efficiency, comparing VPA's efficiency to that of other East Coast ports using data captured by ocean carriers, and interviewing port users.

Operational efficiency is a critical aspect of a port's competitiveness because it determines how quickly and reliably cargo moves through the port. A port's efficiency is important because efficient operations are unlikely to produce bottlenecks of cargo that could disrupt a ship's ability to adhere to its schedule. Cargo that arrives late can cause problems in the supply chain. Moreover, a ship that is delayed in one port of call may cause scheduling problems at its next stop. When a ship increases its travel speed to make up lost time, fuel costs go up.

VPA's operational efficiency is directly impacted by the design and equipment used at its container terminals. Both NIT and APMT use industry-leading cranes for loading and unloading ocean vessels. In order to move cargo through the terminal itself, NIT relies on straddle carriers, which are vehicles designed to transport one container at a time. In contrast to NIT's design, APMT uses large, automated cranes (rail-mounted gantries) to move containers through the terminal. This computer-controlled equipment handles container moves with limited assistance from terminal employees.



VPA tracks the efficiency of its terminal operations using several metrics, including

- **Crane moves per hour:** the speed with which ocean vessels are loaded and unloaded;
- **Rail dwell times:** the average amount of time cargo stays in a terminal's in-transit storage area while awaiting rail shipment; and
- **Truck “turn” times:** the average amount of time a truck spends in the port picking up or delivering a container.

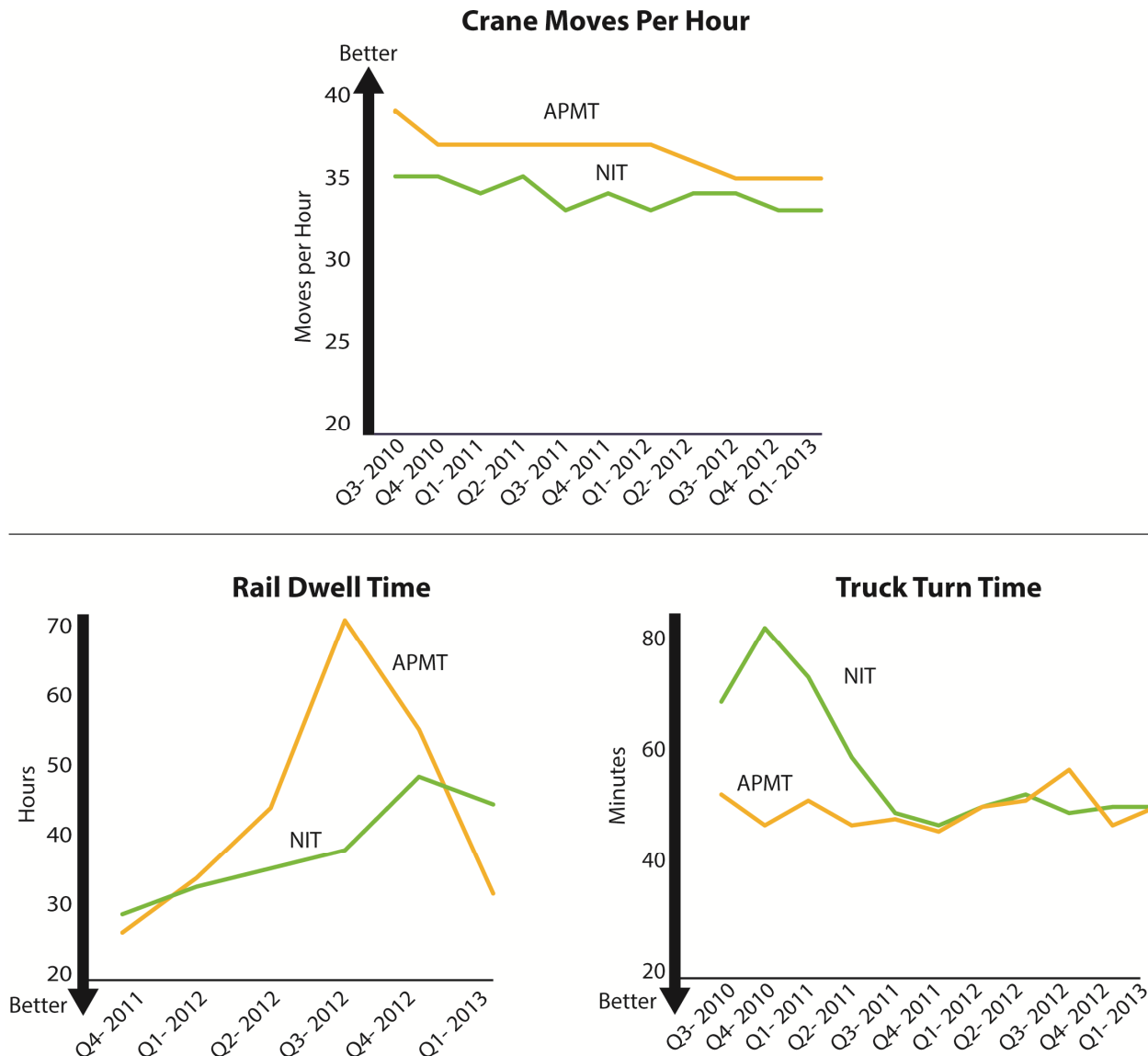
VPA's operational efficiency—while not the highest among East Coast ports—is similar to that of other ports and exceeds that of its major competitors. There may be opportunities for improving the speed with which VPA is able to handle cargo, but improving on some measures (especially crane productivity) would produce higher operating costs. Some elements of a port's productivity are valued more highly by customers than others. A 2010 survey of shippers performed for a national study of port productivity found that shippers placed more value on rail dwell times and truck turn times than on crane productivity. In contrast, ocean carriers interviewed by JLARC staff were most concerned with crane productivity.

***VPA Data Show Mixed Performance With Respect to Operational Efficiency.*** VPA provided 11 quarters of data on crane productivity and truck turn times and six quarters of data on dwell times for rail-bound containers. A review of these metrics indicates that VPA's movement of cargo through its two container terminals has not been seriously disrupted, but that the speed with which cargo is handled by the terminals has fluctuated (Figure 9). In terms of crane productivity, it appears that the pace at which VPA has loaded and unloaded ships has decreased over the 11 quarters for which data were available. However, the difference is slight and, according to VPA, can at least partially be attributed to a corresponding increase in cargo volume which strains its capital resources, such as container handling equipment used in daily operations.

The other two measures—rail dwell times and truck turn times—indicate how quickly cargo is moved through the terminals. VPA staff target an average “rail ready” time of 24 to 36 hours, and data show that the average dwell time at APMT has been improving with respect to this target, but worsening at NIT. However, it appears that the trend of steady increases in rail dwell time at NIT experienced during most of 2012 may have reversed, trending downward in 2013.



**Figure 9: VPA's Data on Operational Efficiency Shows Mixed Performance**



Note: Data on Rail Dwell Time was not available prior to the fourth quarter of 2011.

Source: JLARC staff analysis of data provided by VPA, 2013.

The speed with which truck-bound cargo is transferred to and from trucks is measured by truck turn times. VPA staff target turn times of one hour or less. Truck turn times have fluctuated over the 11 quarters reflected in Figure 9, but since mid-2011 they have remained below one hour. However, for NIT, turn times do not capture the time trucks spend waiting to enter the terminals. VPA has the capability of measuring these wait times at APMT, and this will also be possible at NIT once its renovations are complete.

#### **Port-to-Port Efficiency Comparisons**

While ports use similar metrics for measuring operational efficiency, they capture their data differently, limiting the usefulness of port-to-port comparisons.

Using data collected by port users on port performance is a more accurate approach because each individual port user measures port-to-port performance in the same manner.

#### **2012 Dalhousie University-AAPA Container Port Survey**

In 2012, Dalhousie University conducted a survey of companies that use seven major U.S. container ports, including VPA, to determine customer satisfaction with the ports' container-handling services. The survey included questions related to the efficiency of operations, the quality of customer services, and other factors. More than 200 companies participated, including shippers, ocean carriers, transportation providers, and third-party logistics providers.

#### **Customers Expressed Satisfaction With VPA's Productivity, and Customer Data Reflects Average Performance.**

Two ocean carriers shared data on their measures of East Coast ports' efficiency. These measures show that VPA's operational efficiency is slightly lower than, but generally comparable to, other East Coast container ports. Data from calendar year 2012 provided by one ocean carrier indicated that VPA's efficiency, measured in number of crane moves per hour, was slightly (0.6 moves) below the average of the other six ports for which data were collected. In this analysis, the Ports of Charleston and Savannah performed several moves above the average, but ports to the north of VPA performed several moves below average.

Yearly data provided by another ocean carrier for 2009 to 2012 showed that VPA's 2012 efficiency had improved over 2009. However, VPA's performance was below that of four of the other six ports used by this ocean carrier during that time period.

Due to confidentiality concerns, most ocean carriers were not willing to provide data on the efficiency of the ports that they used. However, in interviews, ocean carriers characterized VPA's efficiency as satisfactory, in spite of being slightly below that of some East Coast ports.

In a survey of ocean carriers, shippers, and other supply chain participants conducted by Dalhousie University for the American Association of Port Authorities in 2012, VPA was rated highly in performance categories related to its operational efficiency. Survey participants were asked about VPA's performance on eight different aspects of efficiency, including incidence of delays and vessel turnaround times, and respondents rated VPA favorably for each aspect, relative to operations at other U.S. container ports.

**VPA Actively Monitors Operations to Improve Efficiency.** VPA closely tracks the performance of its terminal operations with the objective of operating the port in a productive and cost efficient manner. For example, managers of the APMT and NIT terminals produce weekly reports that detail crane productivity, dwell times for rail-bound cargo, and turn times for trucks delivering or picking up cargo. These reports are discussed weekly with VIT's executive management in order to identify operational weaknesses and consider strategies for improving performance.

VPA possesses several attributes that contribute to its overall positive operational efficiency. An objective of the NIT renovations discussed earlier is to bring some aspects of NIT's automation to a level that is comparable to APMT. The 2010 report *Improving Marine Container Terminal Productivity* identifies several best practices that port authorities could adopt, many of which are already

in place at VPA. These include remote container yards for storing empty containers so that they do not take up terminal space, a common chassis pool for trucking companies, appointment systems for trucks, and on-dock rail access.

## **VPA HAS GENERALLY MAINTAINED GOOD CUSTOMER RELATIONS AND IMPLEMENTED ADEQUATE INCENTIVES**

Other factors that influence where port customers send their discretionary container shipments are the customer's relationship with the port and the cost of doing business. Strong customer relationships are important to shippers and ocean carriers because it makes it easier for them to operate. The prices that ports charge for handling shipments are also a key consideration. Incentives that reduce or otherwise offset these charges can improve VPA's ability to attract additional container shipments. The quality of VPA's customer services and the attractiveness of its incentives can directly impact its ability to compete for future cargo.

### **Port Customer Interviews**

JLARC staff interviewed 10 ocean carriers, 10 shippers, and three landside transportation and third-party logistics providers. Ocean carriers interviewed included major global carriers that operate independently or as part of an alliance with other companies. Shippers interviewed included major importers and exporters in the retail and manufacturing industries. Interviews were conducted with extensive VPA users as well as companies that make limited use of VPA.

## **VPA Has Generally Maintained Good Relationships With Customers, But Some Ocean Carriers Reported Dissatisfaction**

VPA's customer services, including services provided by its terminal operator, VIT, are important to its success. Good relationships encourage customers to make greater use of VPA and can facilitate cooperation on economic development projects, such as new distribution centers. VPA has generally maintained good relationships with customers, including ocean carriers, shippers, railroads, and trucking companies. VPA also appears to maintain good relationships with third-party logistics providers, such as local warehousing companies. VPA's relationships with customers appear to positively influence its ability to compete for future container shipments, but relationships with some ocean carriers could be improved.

***Majority of VPA Users Reported Satisfaction With Customer Service, But Three Ocean Carriers Expressed Concerns.*** Ocean carriers are the customers that have the greatest level of interaction with VPA, and, with a few exceptions, they reported being satisfied with the quality of their relationships. Most ocean carriers indicated that VPA effectively communicates with them about daily terminal operations and is responsive to their concerns. Some ocean carriers suggested that VPA could be more proactive in seeking feedback or otherwise communicating with them, but others indicated that this was one of its strengths. Several ocean carriers indicated that they have more open lines of communication with VPA than other ports they use.

Although most carriers reported being satisfied with VPA's customer service, three of the ocean carriers interviewed by

JLARC staff reported that they were not satisfied with one or more aspects. One ocean carrier indicated that the quality of VPA's customer service was unsatisfactory in most respects and that this contributed to its limited use of the port. The carrier indicated that VPA has been inflexible in accommodating requests related to contractual and operational changes. The carrier's main contractual concerns were related to pricing. (These concerns are discussed in greater detail in Chapter 3.)

The other two ocean carriers that expressed dissatisfaction indicated that their concerns were minor and had not caused them to reduce their use of VPA. One carrier was not satisfied with certain VPA requirements, such as liability for damages. The other carrier indicated that VPA's sales and marketing staff provided excellent customer service, but that operational staff were unwilling to accommodate certain special requests due to cost concerns.

Shippers indicated that they are generally satisfied with the quality of customer service they receive from VPA. Shippers are not direct VPA customers, but communicate with VPA about terminal operations and special projects. Shippers generally indicated that they have excellent communication with VPA and that it is responsive to their needs. One shipper indicated that VPA maintains extended gate hours in order to benefit the local shipping community, even though this increases its operating costs. Several shippers indicated that they had positive experiences working with VPA on special projects. For example, several shippers indicated VPA had been very helpful in working with them to establish facilities in Virginia.

Trucking companies also reported good relationships with VPA. Like shippers, trucking companies are not direct port customers, but they communicate with VPA about daily terminal operation issues, such as wait times for pick-up and delivery. These companies indicated that VPA communicates with them and responds to their concerns, for example, by holding regular "trucker summit" meetings to discuss terminal operations. Summit participants develop proposals for changes that are then taken to VPA management for consideration.

***Recent National Survey of Port Users Showed Favorable Customer Service Performance at VPA.*** The 2012 Dalhousie University survey of port users affirms the perception that VPA generally maintains good relationships with its customers. In the survey, ocean carriers rated VPA as satisfactory in responding to customer needs, but indicated that it needed to improve its customer communications. Shippers and "supply chain partners," which included transportation and third-party logistics providers, rated VPA

highly in all customer service categories relative to other U.S. container ports.

### **VPA and the State of Virginia Have Implemented Incentive Programs Comparable to Those Offered in Other States**

VPA offers contractual price discounts to ocean carriers to attract additional container shipments. These incentives are aimed at attracting discretionary cargo that could be handled by VPA's competitors. Ocean carriers indicated that VPA's incentives are similar to those offered by other ports. These incentives therefore improve VPA's ability to compete for future shipments. However, as discussed in Chapter 3, VPA's incentives offset prices that are viewed as being among the highest on the East Coast.

#### **VPA's Minimum Volume Guarantees**

Some of VPA's contracts with ocean carriers include minimum volume guarantees, under which the ocean carrier is financially penalized if contractually agreed-upon volume requirements are not met. Ocean carriers reported that minimum volume guarantees are uncommon but not unheard of. VPA and ocean carriers indicated that these guarantees have caused some friction in the past and may not be included in future contracts.

The State offers tax credits and grant incentives intended to encourage businesses to send cargo through VPA or to establish and expand facilities in Virginia. Virginia's tax credits, which are targeted at increasing port use or attracting port-related jobs and investment, are comparable or more generous than those offered by other states (Appendix C). Five of the East Coast states with major container ports do not appear to offer a port-related tax credit: Delaware, Maryland, New York, New Jersey, and Pennsylvania.

Virginia and other state governments offer economic development grants aimed at attracting businesses, but Virginia appears to be the only East Coast state with a grant program that is specifically targeted at attracting port-related facilities. The Port of Virginia Economic and Infrastructure Development Zone Grant Program, which was codified in 2013, provides grants of up to \$500,000 to port customers that locate or expand facilities in regions near VPA's sea terminals and inland rail yards.



## Plans for Competing Successfully in the Future Are Reasonable, But Cost and Price Management Should Be Priorities

### In Summary

The volume of container shipments through East Coast ports is projected to double over the next 30 years. As they compete for future shipments, the Virginia Port Authority (VPA) and other East Coast ports are planning major infrastructure improvement projects. VPA's planned projects will almost triple its current capacity by 2039 at a projected cost of \$3.7 billion. VPA plans to increase the volume of container shipments it handles by attracting additional rail cargo, which will likely help it maintain its competitive position. However, VPA's relatively high prices, which are reportedly the highest or second highest among East Coast ports, could harm its ability to compete for future cargo. VPA's prices are higher than other ports in part due to its emphasis on costly rail cargo and its higher-cost labor force. VPA has recently reduced costs in several areas, and managing costs and charging competitive prices should be priorities going forward. VPA also plans to increase the volume of container shipments it handles through economic development initiatives, and has directly contributed to the location and expansion of manufacturing and distribution centers throughout Virginia. Although VPA is well positioned to contribute to the State's economic development efforts, it should not be expected to play a lead role in attracting businesses or developing properties such as industrial parks. State and local agencies are vested with these responsibilities, and expecting VPA to carry them out could create conflicts with these agencies and compete with its ability to effectively oversee and manage port operations.

Although the Virginia Port Authority (VPA) has historically been successful in competing against other ports, it will need to take additional actions to remain competitive in the future. Growth in international trade is expected to increase the volume of shipments destined for East Coast ports. VPA has little control over some of the factors that affect its ability to compete for these future shipments, such as demand for retail goods in its regional market or the proximity of the other ports it competes against. However, VPA can improve its competitiveness by making infrastructure investments that allow it to handle higher volumes of container shipments. Additionally, VPA can build its customer base through economic development initiatives and by capturing additional shares of inland markets.

VPA will have to offer competitive prices for handling cargo if it is to compete for future discretionary shipments. Currently, VPA's prices are higher than those charged by most East Coast ports. VPA's prices are driven by its operating expenses, and it needs to continue managing these expenses in order for its prices to remain competitive.

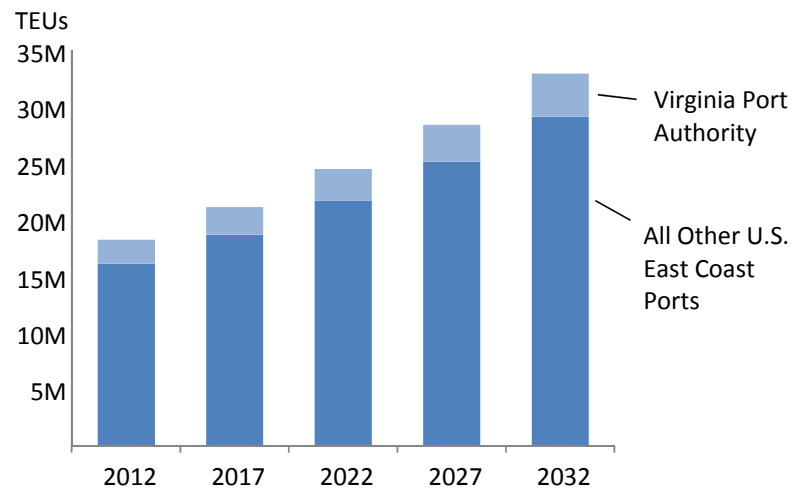


## VOLUME OF CONTAINER SHIPMENTS THROUGH EAST COAST PORTS IS PROJECTED TO INCREASE

Container shipments to and from U.S. ports are projected to increase over the long term. Historically, the volume of container shipments moving through U.S. ports has grown at the same rate as the national gross domestic product. Shippers, ocean carriers, and other industry stakeholders indicated that container volumes are expected to continue to grow at a similar pace in the coming years, especially at East Coast ports. The primary factor driving the anticipated increase in container shipments is growing consumer demand.

Based on historical trends in container growth and forecasts published by VPA and the Army Corps of Engineers, JLARC staff conservatively estimate that the volume of containers passing through East Coast ports will increase from 18 million Twenty-foot Equivalent Units (TEUs) in 2012 to approximately 33 million TEUs in 2032 (Figure 10). Assuming VPA maintains its current 11.5 percent share of East Coast container shipments, the volume of containers it handles annually would nearly double from 2.1 million TEUs to 3.8 million TEUs over this 20-year time span.

**Figure 10: Container Shipments Through VPA and Other East Coast Ports Are Projected to Nearly Double in 20 Years**



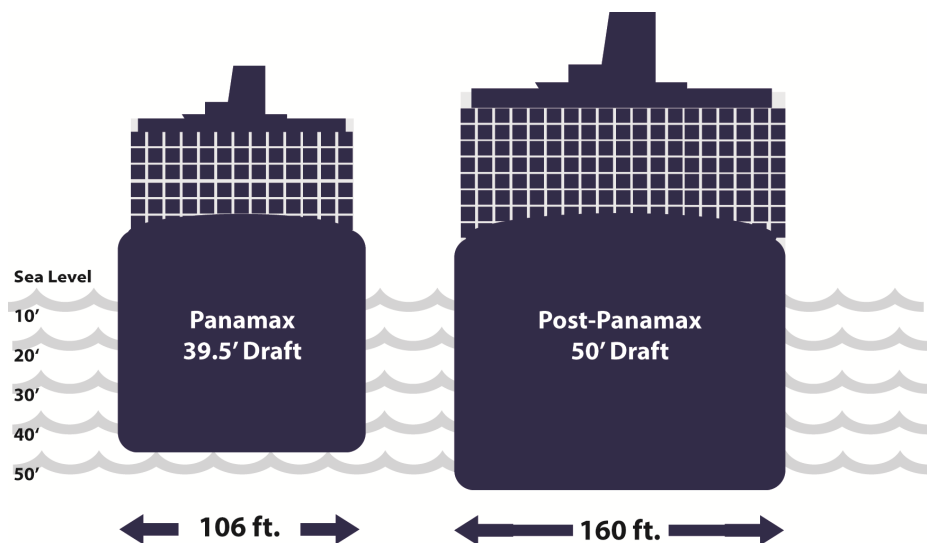
Note: Projections assume a conservative 3% average annual growth rate, which is below the 5% average growth rate that East Coast ports experienced over the last 20 years. Estimated growth in container shipments presented here is also more conservative than container volume forecasts published by VPA and the Army Corps of Engineers, but is more in line with growth forecasts for growth in the U.S. national gross domestic product.

Source: JLARC staff analysis of AAPA container trade data (1993-2012).

The 2015 completion of the Panama Canal expansion will facilitate growth in container trade by allowing larger ships to carry more

cargo between Asia and the East Coast. The Panama Canal will be widened and deepened to accommodate the “post-Panamax” vessels that are currently too large to pass through the canal (Figure 11). Major ocean carriers are increasing their use of larger post-Panamax container vessels because of improved economies of scale and profitability. According to a recent Army Corps of Engineers report, post-Panamax vessels are expected to grow from 45 percent of the total capacity of the worldwide container fleet to 62 percent by 2030. Future container shipments to and from the East Coast are likely to be carried by these larger vessels.

**Figure 11: Post-Panamax Container Ships Are Substantially Larger Than the Ships That Regularly Serve the East Coast**



Note: The East Coast has historically been served mostly by Panamax ships. Panamax ships include any vessel that is small enough to pass through the Panama Canal, and the ship depicted here is the largest that can currently pass. Post-Panamax ships include any vessel that is larger than a Panamax ship. The Post-Panamax ship depicted here is the largest that will be able to pass through the Panama Canal after it has been expanded in 2015. There are larger ships, but ocean carriers and industry experts indicate that they will not be used to serve East Coast ports because they will not fit through the Panama Canal.

Source: JLARC staff analysis of shipping industry literature, 2013.

Another key factor affecting the East Coast container trade is the emergence of the Suez Canal as a viable route for Asia-U.S. container shipments. Several Asian markets are closer to the East Coast via the Suez Canal than the Panama Canal, and the Suez Canal is already capable of accommodating the largest container vessels in operation. The Suez route therefore provides a shorter or more cost effective alternative for Asia-East Coast trade. In fact, the largest ocean carrier in the world recently announced it would begin using the Suez route for all of its Asia-East Coast shipments.

## VPA AND OTHER PORT AUTHORITIES ARE INVESTING IN FACILITIES AND INFRASTRUCTURE NEEDED TO COMPETE FOR INCREASED VOLUME

East Coast ports are investing in infrastructure improvements to accommodate anticipated increases in container shipments. First, ports are investing in the equipment and waterway modifications needed to accommodate post-Panamax container vessels. VPA has already completed the necessary improvements to accommodate these vessels, but most other East Coast ports have not. Second, VPA and other East Coast ports are planning to expand their existing container terminals and to build new terminals in order to meet future demand.

### VPA and the Port of Baltimore Capable of Receiving Post-Panamax Ships, But Other Ports Expected to Soon Have Same Capability

VPA has made the improvements necessary to accommodate ocean carriers' shift to larger container vessels, which positions it to compete for future shipments. The port has the necessary water depth and dockside capabilities in place to handle post-Panamax vessels (Table 3). VPA's shipping channels and vessel berths were deepened to their current 50-foot depth in a series of projects from the 1980s through the 2000s. Over the past decade, VPA reconstructed and extended the concrete wharves at Norfolk International Terminal (NIT) and purchased cranes capable of servicing

**Table 3: VPA Is the Largest East Coast Port Currently Capable of Receiving Post-Panamax Vessels**

Port	Post-Panamax Vessel Requirements			
	Shipping Channel (50-ft water depth)	Vessel Berths (1200-ft wharf, 50-ft water depth)	Container Cranes (128- to 160-ft reach)	Post-Panamax Ready
VPA	✓	✓	✓	✓
Baltimore	✓	✓	✓	✓
NY/NJ	✗	✓	✓	✗ <sup>a</sup>
Savannah	✗	✗	✓	✗ <sup>b</sup>
Charleston	✗	✗	✓	✗ <sup>c</sup>

<sup>a</sup> Ready by 2015, pending completion of projects to deepen the harbor and raise Bayonne Bridge

<sup>b</sup> Ready by 2016 for smaller post-Panamax vessels and larger post-Panamax vessels that are not fully loaded, pending completion of projects to deepen the harbor

<sup>c</sup> Ready no sooner than 2020, pending approval and completion of a project to deepen the harbor

Source: JLARC staff analysis of port websites (including facility maps and descriptions), port documents and press releases, and media reports, 2013.

the largest container vessels on order. VPA also leased the recently constructed APM Terminal (APMT) at Portsmouth from the terminal's private owner. The APMT facility was specifically designed to accommodate post-Panamax vessels.

Most East Coast ports are currently limited in their ability to handle post-Panamax vessels and face significant challenges in developing this capability. Baltimore is capable of accommodating post-Panamax vessels, but only at one of its container vessel berths. The Ports of New York/New Jersey (NY/NJ), Savannah, and Charleston all need to undertake multi-million dollar projects to have their shipping channels dredged to accommodate post-Panamax vessels. The Port of NY/NJ must also raise the Bayonne Bridge several feet so that it will be high enough for post-Panamax vessels to pass into the harbor where most of its terminals are located. The Port of Savannah will only be dredged to 47 feet, which is not deep enough to accommodate the largest, fully-loaded post-Panamax vessels. The Ports of Charleston and Savannah must have all of their vessel berths dredged, and several of the terminals at the Port of NY/NJ also require dredging.

VPA's ability to accommodate post-Panamax vessels ahead of most other East Coast ports is only likely to provide a short-term advantage. The Ports of NY/NJ and Savannah are expected to be ready for post-Panamax vessels around the time that the expansion of the Panama Canal is completed in 2015 (Table 3). Post-Panamax vessels vary in size and do not draw their maximum depth unless they are fully loaded, meaning that vessels on the smaller end of the scale will be able to call on East Coast ports with shallow waterways. Ocean carriers indicated that they are not likely to send the largest post-Panamax vessels to the East Coast unless these ships are able to call on multiple ports serving several different regional markets.

### **VPA and Other Ports Are Expanding to Accommodate Anticipated Growth in Container Shipments**

In order to accommodate higher volumes of container shipments, VPA and other ports are planning to make major capital investments in new and expanded terminals. VPA anticipates that future volume increases will strain its existing facilities and that it will need to expand beyond its current 3.5 million TEU capacity sometime between 2020 and 2024. In order to meet future demand, VPA is planning to (1) double the capacity of APMT and (2) construct a new marine terminal at Craney Island. VPA's planned projects are expected to almost triple its container handling capacity to 9.65 million TEUs by 2039. The three other largest East Coast ports are planning similarly large projects that would keep pace with or possibly exceed VPA's capacity.

***VPA's planned projects are expected to almost triple its container handling capacity to 9.65 million TEUs by 2039.***

#### **State Investment in Transportation Infrastructure**

States can help ports meet future demand by investing in transportation infrastructure. The Virginia Department of Transportation has planned or is carrying out several projects that will improve access to VPA terminals, as well as projects to improve one of the major highways serving the port (US-460) and to add a third crossing in the Hampton Roads area with direct access to VPA facilities (Patriot's Crossing).

***VPA Plans to Increase Capacity by Expanding APMT and Constructing a New Terminal on Craney Island.*** VPA plans to invest \$275 million over five years to nearly double the capacity of the APMT facility at Portsmouth from 1.2 million to 2.35 million TEUs. The first projects, which are expected to begin in FY 2014, will expand APMT's capacity to handle rail cargo, and later projects will expand the container yard and truck gates. These projects require the approval of APM Terminals Inc., the facility's private owner. If the company rejects one or more projects, VPA will have to increase capacity elsewhere. This would require renovating other facilities or accelerating construction of the Craney Island terminal.

The new Craney Island terminal is the most substantial investment planned by VPA. The proposed facility is planned to be a technologically advanced container terminal with a capacity of 5 million TEUs, which is more than the current capacity of all VPA terminals. The first phase of Craney Island development requires filling in the Elizabeth River with dredge material. This phase is currently underway but is not expected to be completed until 2026. The second phase is construction of the actual Craney Island facility and its supporting road and rail connections. Construction is expected to be carried out in stages, completed from 2028 to 2039. VPA estimates that the total cost of constructing the Craney Island terminal will be \$3.4 billion.

***Other East Coast Ports Are Planning to Expand or Construct Container Terminals in Order to Increase Their Capacity.*** VPA's investments in new and expanded terminals appear necessary if it is to continue to grow and compete for future container shipments. Other major East Coast ports are planning their own facility investments to maintain or increase their share of future container trade. These investments could position these ports to keep pace with projected growth in container volumes and could help them attract discretionary container shipments that currently pass through VPA. In interviews, staff of several ocean carriers indicated that discretionary shipments will flow to those ports that are best able to handle them. Discretionary cargo that currently passes through VPA could move to other ports if VPA becomes congested.

VPA's planned investments are similar to those proposed by other major East Coast ports. The Ports of NY/NJ, Savannah, and Charleston are all planning major projects to increase their capacity by expanding existing facilities or constructing new terminals (Table 4). Investments planned at VPA and the three other largest East Coast ports will increase their collective container-handling capacity from approximately 21 million TEU to 39 million.

**Table 4: VPA and Other Major East Coast Ports Plan Major Projects to Increase Container Handling Capacity**

Port	Planned Project	Estimated Project Cost (\$, Millions)	Project Completion Date	Current Port Capacity (TEUs, Millions)	Port Capacity After Project(s) (TEUs, Millions)
VPA	APMT expansion	\$275	2019	3.5	9.65
	Craney Island Terminal construction	\$3,400	2028-2039 (phased in)		
NY/NJ	Global Terminal expansion	\$350	2014	8.75	11.5
	Port Newark Terminal expansion	\$650	2030		
	New York Terminal expansion	n/a	Not set		
Savannah	Garden City Terminal expansion	\$1,200 <sup>a</sup>	2022	5.5	13.5
	Jasper Ocean Terminal construction <sup>b</sup>	\$3,300 to \$5,000	Not set		
Charleston	Navy Base Terminal construction	\$702 <sup>c</sup>	2019	2.8	4.2
<b>Total Capacity</b>				<b>20.55</b>	<b>38.85</b>

<sup>a</sup> Georgia Port Authority staff indicated that the authority plans \$1.2 billion in capital additions and improvements at GPA terminals, not including harbor dredging projects. It appears that a portion of these investments have already been made, and that most investments will occur at the main Garden City terminal.

<sup>b</sup> The proposed Jasper Ocean Terminal, a joint endeavor between the Georgia and the South Carolina port authorities, would be located on the South Carolina side of the Savannah River, across from current Port of Savannah terminals.

<sup>c</sup> South Carolina State Port Authority indicated that it plans \$1.3 billion in investments over the next decade, including \$702 million for new terminal construction and \$598 million for dredging and other projects.

Source: JLARC staff analysis of port websites (including facility maps and descriptions), port documents and press releases, and media reports, 2013.

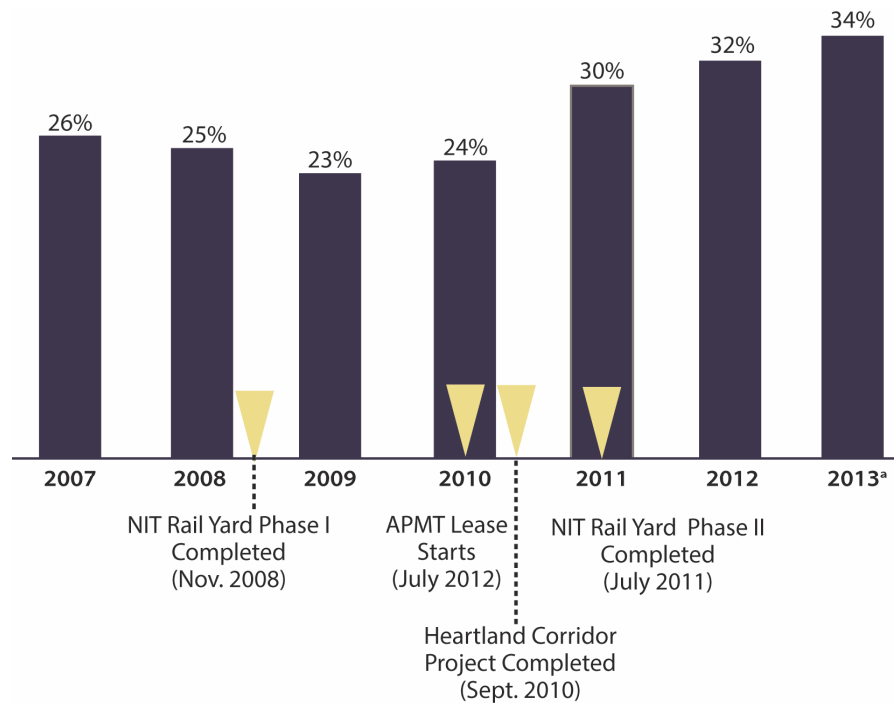
### **VPA STRATEGY OF PROMOTING RAIL CARGO HELPS MAINTAIN ITS COMPETITIVE POSITION BUT INCREASES OPERATING EXPENSES**

VPA has historically pursued a strategy of promoting rail cargo to and from its terminals in order to increase its overall container volumes. This strategy appears reasonable because it allows VPA to grow beyond its small regional market. VPA's rail connections give it access to inland markets in the Midwest that are collectively 2.5 times larger than its regional market.

VPA's rail connections to the Midwest were recently improved by Norfolk Southern's Heartland Corridor project, and terminal renovations and acquisitions have improved its rail cargo handling capabilities (Chapter 2). VPA also leased APMT, which has superior rail handling capabilities when compared to the Portsmouth Marine Terminal that it replaced. The percentage of VPA cargo transported to and from the port by rail has increased in recent years as these improvements were implemented (Figure 12).



**Figure 12: Rail Cargo Makes Up an Increasingly Large Proportion of Containers Handled by VPA**



<sup>a</sup> Based on shipments handled from January to July.

Source: JLARC staff analysis of data provided by VPA, 2013.

**VPA Is Served by Most Major Ocean Carriers**

VPA is served by 19 of the 20 largest ocean carriers in the world (as measured by the carrier's fleet capacity). The only top-20 ocean carrier that is not a VPA customer does not serve East Coast ports.

VPA handles a relatively high volume of rail cargo when compared to other East Coast ports. VPA reports that 32 percent of the containers it handled in FY 2012 were transported to or from the port by rail. By comparison, rail cargo made up only 13.5 percent of containers handled by the Port of NY/NJ, which is a major rail handling port and Virginia's primary competitor for these types of shipments. VPA estimates that rail cargo accounted for only five to 20 percent of total container volumes handled at other major East Coast ports.

VPA's success in the rail market benefits its ability to compete for shipments in its regional market and economic development opportunities. By attracting rail cargo to and from the Midwest, VPA increases the total container volume that passes through the port, which attracts a larger selection of ocean carriers with connections to more international markets. In interviews, shippers in VPA's regional market identified ocean carrier and service selection as the most important factors they consider when deciding which port to use. For example, one shipper in VPA's regional

market indicated that even though its manufacturing facility is closer to another port, it uses VPA because of the wide selection of competing ocean carriers. Similarly, several shippers indicated that one of the main reasons they had established facilities near VPA was because it is a large port served by most major ocean carriers.

*On average, it costs 45 percent more for VPA to handle a rail container than a container carried by truck.*

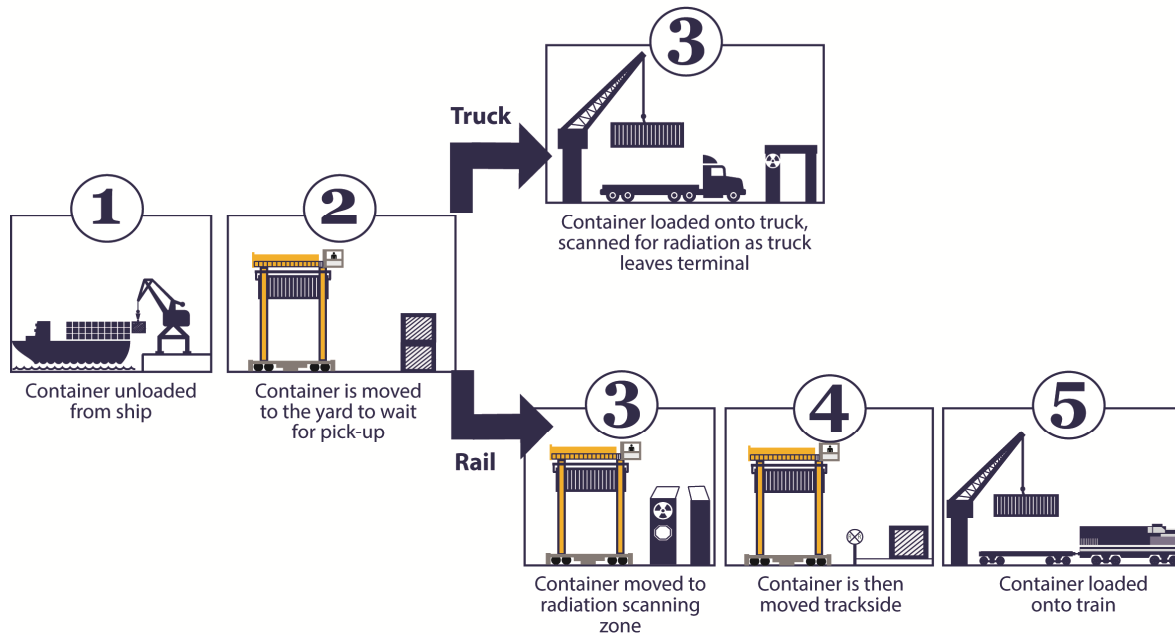
One downside of VPA's success in attracting rail cargo is that this cargo is more costly to handle. Moving rail containers through its terminals requires more labor than moving truck containers, so the labor costs associated with rail cargo are higher (Figure 13). VPA staff indicated that, on average, it costs 45 percent more for it to handle a rail container than a container carried by truck. Based on this cost, JLARC staff estimate that the added cost of handling rail containers accounted for approximately seven percent of VPA's operating expenses in FY 2012. Additionally, because the rail cargo market is more competitive, VPA offers discounted rates to attract this business. The combination of higher costs and lower rates reduces the profit margin on cargo transported to or from the port by rail.

### **VPA'S HIGH PRICES COULD IMPAIR FUTURE COMPETITIVENESS**

VPA's fees are one of several expenses incurred by port customers in the course of completing a shipment. The major expense that affects where port customers send their shipments is the cost of rail or truck transportation to and from the port (Chapter 2). Port handling costs are not a deciding factor for many shipments because they are smaller than those landside transportation costs. Additionally, shippers are generally unaware of port fees and so fees may not affect shippers' port choices. However, ocean carriers are aware of fees charged by competing ports, and these differences can affect which port they choose to use.

Comparing port prices for container-handling services is challenging for several reasons. First, the contractual prices negotiated between ports and ocean carriers are not publically disclosed. Second, prices negotiated with a port by two different ocean carriers for the same service may differ. Third, different ports employ their own unique rate structures. Some ports charge an individual fee for each service they provide whereas others, like VPA, charge a single unit-rate fee that covers most services. Despite these differences, ocean carriers indicated that they know which ports are more or less expensive. According to carriers, VPA charges higher prices overall than several other East Coast ports, but rail cargo is priced competitively when incentives are factored in.

**Figure 13: Container Shipments That Are Carried By Rail Require Additional Handling**



Note: Figure depicts import operations at NIT. Different equipment is used at APMT.

Source: JLARC staff analysis of VPA terminal operations, 2013.

### Customers Report VPA Prices Are Among Highest on East Coast

***Ocean carriers consistently identified VPA as having the highest or second-highest prices on the East Coast.***

In interviews, ocean carriers consistently identified VPA as having the highest or second-highest prices on the East Coast. Only the Ports of NY/NJ and Boston were identified as having higher prices. Further, VPA's prices were identified as equal to or above those charged by its closest competitor, the Port of Baltimore, and substantially higher than those charged by the Ports of Charleston and Savannah. One carrier estimated that VPA costs 50 percent more to use than the Ports of Charleston or Savannah. Similarly, another estimated that VPA was "close to being twice as expensive" as the two southern ports.

VPA's relatively high prices may affect its ability to compete for some shipments to its regional market. Most carriers interviewed by JLARC staff indicated that VPA's high prices did not affect the volume of regional market shipments they send through the port. However, one carrier indicated that the prices charged by VPA are not competitive with nearby ports, and this has resulted in the company sending more shipments through VPA's competitors. Another carrier indicated that it tries to direct discretionary cargo through lower-cost ports in order to minimize expenses. The carrier indicated that this strategy had not yet resulted in fewer shipments passing through VPA, but could in the future. One carrier indicated that VPA's reputation for high prices could affect if and where ocean carriers place it in future vessel rotations.

*According to VPA staff, some traffic at the edge of VPA's regional market has been lost to southern ports, due in part to price differences. These losses were not large enough to raise concerns.*

VPA staff acknowledged that its prices are higher than the major East Coast ports to the south and said that higher prices are necessitated by higher operating expenses. VPA staff noted that some traffic at the edge of their regional market has been lost to southern ports due in part to price differences, but that these losses were not large enough to raise concerns. VPA staff indicated that they use incentives to lower the actual prices paid by ocean carriers for discretionary container shipments, which helps offset higher prices for those ocean carriers that take advantage of them.

Although VPA currently appears to be out-competing nearby ports in its regional market, it will need to maintain competitive prices to contend for future shipments. Recent history illustrates that uncompetitive pricing can result in a port experiencing a gradual loss of its regional market share. The Port of Charleston was the leading port serving the Southeast market until its prices were reportedly undercut by the Port of Savannah. This was one of the reasons that Charleston went from drawing twice the volume of Savannah to handling half as many shipments in the span of 13 years. In order to ensure it is not pricing itself out of the market, VPA should evaluate the competitiveness of its prices as it negotiates new contracts with ocean carriers.

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**Recommendation (1).** The Virginia Port Authority should evaluate the competitiveness of its prices as it negotiates new contracts with ocean carriers to ensure that it is not pricing itself out of the regional and inland markets for which it competes.

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### **VPA's Prices Are Competitive for Rail Cargo To and From Midwest**

VPA's rate structure and price incentives are designed to improve its competitiveness for discretionary rail cargo. VPA charges customers the same price for handling a rail container that it charges for containers shipped to and from its regional market. Other ports charge an additional fee for rail cargo because it requires extra handling. VPA's single "unit rate" structure spreads the added cost of handling rail cargo across all containers, reducing prices for rail cargo and increasing prices for other shipments. VPA also offers ocean carriers incentives to further reduce the price it charges for handling rail containers.

VPA's prices for rail cargo appear to compare favorably to the Port of NY/NJ, which is its main competitor for inland markets. Ocean carriers indicated that, once incentives are accounted for, the prices charged by VPA for handling rail cargo are generally below what is charged by the Port of NY/NJ. Several carriers indicated that VPA's lower rail prices had prompted them to increase the volume of rail cargo they send through the port. One ocean carrier

*Several carriers indicated that VPA's lower rail prices had prompted them to increase the volume of rail cargo they send through the port.*

#### **VPA's Unionized Workforce**

When VPA acquired its terminal facilities from the localities in the Hampton Roads area, it inherited a unionized workforce. Other southern ports have traditionally had a more limited union presence at their ports. Without exception, port authorities and customers indicated that if VPA attempted to stop using union labor it would likely result in a "disastrous" strike that would shut down the port indefinitely and prompt ocean carriers to switch to ports viewed as having stable labor relations.

observed that if VPA changed its incentive structure or ceased subsidizing its rail rates, it would lose the rail volumes that it has gained in recent years.

#### **VPA'S RELATIVELY HIGH PRICES ARE ATTRIBUTABLE TO HIGHER LABOR AND OTHER OPERATING COSTS**

VPA's relatively high prices are apparently due to higher operating expenses. A comparison of VPA's operating expenses to the Ports of Charleston and Savannah suggests that VPA's costs are substantially higher on a per-container basis. VPA staff confirmed that its operating expenses are higher than operating expenses at the two other ports, and that this likely accounts for price differences.

Several factors could account for the differences in operating expenses. VPA appears to have higher labor costs than its southern counterparts. Additionally, VPA handles more rail cargo and has had relatively high maintenance and administrative costs. VPA indicated that it has taken steps to better monitor and control its operating expenses, and recently VPA operations appear to have become more cost efficient.

#### **VPA Has Higher Labor Costs Than Major Southern Ports and Is Limited in Its Ability to Reduce Them**

VPA and northern ports reportedly have higher labor costs than southern ports. Customers and officials with several port authorities attributed the difference in labor costs at northern and southern ports to differences in their workforces. VPA and northern ports rely on union labor for most terminal operations, whereas southern ports mostly rely on state employees.

Customers, VPA, and other port authorities identified two reasons why union labor used by VPA is generally more expensive than state labor used by southern ports. First, union labor generally receives higher compensation than other groups because of its collective bargaining. For example, VPA staff indicated that the last contract negotiated between the U.S. Maritime Alliance and the port's labor union resulted in a mandatory 16 percent wage and benefit increase for VPA's workforce. Although VPA is a party to this contract, VPA staff indicated that negotiations are controlled by the large ocean carriers and the national labor union. In contrast, the Ports of Charleston and Savannah do not enter into collective bargaining agreements and therefore have more direct control over wages and benefits.

Union labor is also reportedly more expensive because union contracts include work rules that can increase labor costs. Union employees at VPA are paid time-and-a-half for hours worked before

8:00 am, after 5:00 pm, and on weekends and holidays. Because VPA terminal operations routinely extend beyond the 8:00 to 5:00 workday and through the weekend, the work rules increase labor costs. VPA officials estimated that 63 percent of the union wages it paid in FY 2013 were overtime wages. VPA attributed much of the overtime to the high number of weekend vessel calls that the port receives.

VPA is limited in its ability to address labor costs because changes to union contracts must be negotiated with the union, ocean carriers, and other ports. Compensation for union members is negotiated under a master agreement with the national union, and VPA indicated that these negotiations are controlled by the largest ocean carriers. Consequently, VPA and other ports have little influence over changes to wages and benefits that impact their operating costs, such as the aforementioned 16 percent wage and benefit increase. VPA has more influence over work rules, which are negotiated under agreements with the local union organizations. However, union members must vote to accept the terms that are proposed and may be unwilling to agree to changes. The local union rejected two contract proposals before reaching a new agreement with VPA and other parties in September 2013.

### **High Maintenance and General Administrative Costs Have Contributed to VPA's Operating Expenses, but VPA Has Taken Steps to Become More Cost Efficient**

VPA appears to have had relatively high maintenance and general administrative costs in recent years. From 2011 to 2012, three independent consultants conducted reviews of VPA and concluded that its maintenance and general administrative costs were high. The 2013 JLARC *Review of Recent Reports on the Virginia Port Authority's Operations* reviewed the consultants' findings and confirmed that there were opportunities for reducing general administrative costs. Although the report did not confirm opportunities for lowering maintenance costs, VPA has since confirmed that such opportunities exist.

VPA has taken several steps to reduce its maintenance costs. Most notably, VPA laid off or reached separation agreements with 64 maintenance employees in August of 2009. Additionally, VPA staff indicated that they began a "holistic review" of their maintenance department when they took over operations at APMT in Portsmouth in 2010. As a result of this review, VPA eliminated several non-essential functions, ended contracts for activities that could be

performed in-house, and adjusted maintenance schedules to make better use of resources. VPA also stopped replacing outgoing maintenance staff in order to further reduce staffing levels. Ac-

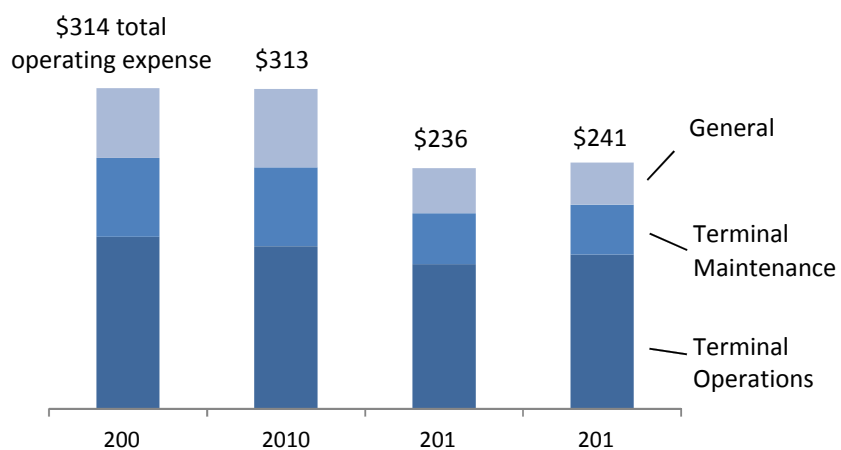


According to VPA, these changes have reduced maintenance costs by \$8 million over the last four years.

VPA has recently taken steps to reduce its general administrative costs as well. Most notably, VPA is restructuring its relationship with Virginia International Terminals (VIT), its wholly-owned subsidiary. The restructuring is expected to reduce operating costs by a minimum of \$3.3 million, with much of the savings coming from reorganization of administrative functions and changes to administrative processes, such as procurement. Moreover, VPA staff indicated that from FY 2010 through FY 2012 the number of general administrative staff at VIT was reduced by 29 employees, which reduced cost in this area. VPA also switched from having all sworn security officers to a mix of sworn and non-sworn officers, saving \$1.8 million per year.

VPA's operating expenses have declined since FY 2009 on a per-container basis (Figure 14). Maintenance expenses declined 37 percent from FY 2009 to FY 2012, and general administrative expenses declined 39 percent over the same time period. The third major operating expense, terminal operations, declined only 10 percent over this time. Terminal operations expenses increased slightly in FY 2012 and caused an overall increase in total operating costs that year. The increase appears attributable to a \$10 million increase in base payments made to APM Terminals, Inc.,

**Figure 14: VPA Operating Expenses Have Declined Since FY 2009 on a Per-Container Basis**



Note: VPA financial statements classify lease payments for the APMT facility as general expenses. For the purpose of this analysis, JLARC staff reclassified these payments as terminal operations expenses. VPA reported its actual lease payments as \$32.5 million in FY 2011 and \$42.3 million in FY 2012. No lease payments were made in prior years. VPA classifies depreciation and amortization as operating expenses, but these are not shown. The trend in these expenses was similar to trends in general and terminal maintenance expenses.

Source: JLARC staff analysis of financial and container volume data provided by VPA, 2013.

under the APMT lease agreement. Growth in the volume of rail cargo handled at VPA terminals may also have contributed to the increase. VPA's ability to manage expenses and become even more cost efficient will likely impact its future competitiveness. VPA's high labor costs and emphasis on rail cargo give it a higher baseline operating cost than many other East Coast ports. As discussed in the previous section, these higher costs appear to contribute to the relatively high prices it charges, which could lead to the loss of some discretionary cargo that currently flows through the port.

The VPA Board of Commissioners (VPA board) should prioritize the management of operating costs by establishing a cost management policy that includes clear and achievable goals to guide VPA staff. Goals should be sufficiently broad to give VPA staff flexibility in attaining them. Additionally, the board's objectives should balance the need for cost management with VPA's ability to carry out its statutory mission to stimulate commerce and serve as a gateway for international trade. For example, the policy adopted by the board should not compromise VPA's ability to pursue growth strategies that enable or enhance its competitive position.

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**Recommendation (2).** The Virginia Port Authority (VPA) Board of Commissioners should (1) establish a formal cost management policy and (2) develop reasonable cost management goals to guide VPA and Virginia International Terminals staff. In developing this policy, the board and staff should balance the need to minimize VPA's operating expenses with its statutory mission of stimulating maritime commerce through Virginia's ports.

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## **VPA'S STRATEGY OF GROWTH THROUGH ECONOMIC DEVELOPMENT IS REASONABLE**

VPA's mission, as defined under the Code of Virginia, is to "foster and stimulate the commerce of the ports of the Commonwealth and related facilities" (§ 62.1-132.3). The primary way in which VPA stimulates commerce is by facilitating the economic activity of port customers, such as shippers with facilities in Virginia, which benefits the Virginia economy. For example, several Virginia manufacturers export their products through VPA, and VPA's presence directly contributes to the success of these businesses, which create local jobs and investment.

In addition to stimulating commerce through its regular operations, VPA has assumed an active role in economic development. VPA has made economic development one of its core strategies for future growth because encouraging businesses to locate or expand in Virginia can generate additional cargo shipments. This strategy appears reasonable. However, economic development priorities are established by the Governor, General Assembly, and elected offi-

cials in local communities. VPA's efforts should therefore be directed at supporting State and local economic development agencies in achieving goals set by policymakers. VPA's primary mission is to facilitate economic activity by carrying out port operations, and its economic development activities should be secondary to these efforts.

### **VPA's Strategy of Increasing Its Regional Market Through Economic Development Is Reasonable**

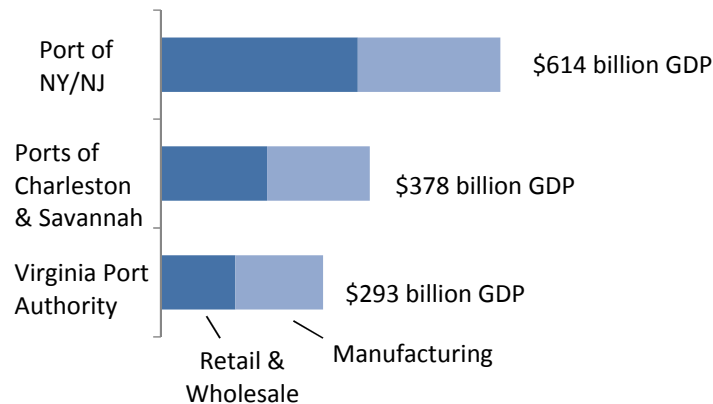
VPA has historically pursued a strategy of using economic development to increase the volume of container shipments that it handles. Under the strategy, VPA works with State and local partners to attract port-dependent businesses to Virginia or to encourage existing businesses to expand their operations. VPA benefits from the added container trade that these businesses generate, and the State and localities benefit from increased employment and tax revenues.

VPA indicated that economic development is a long-term strategy that is intended to gradually build its customer base over several years. This strategy is targeted at competing for new, future shipments, as opposed to trying to divert shipments that currently pass through other ports.

***Economic Development Is a Reasonable Strategy for Increasing VPA's Regional Market.*** VPA's economic development strategy appears reasonable because it helps increase VPA's relatively small regional market base. The regional market that VPA serves is one of the smallest on the East Coast (Figure 15). VPA relies on this market to provide 68 percent of its container business. Shipments to and from the regional market are also important because they produce higher net revenues for VPA than the rail shipments it handles for inland markets.

VPA is limited in its ability to expand the boundaries of its regional market because they are largely determined by trucking costs. For example, Atlanta is outside of the regional market served by VPA because a shipment can be trucked there from the Port of Savannah for half the cost. However, VPA can increase the amount of container cargo generated in the regional market by encouraging businesses to locate or expand facilities near the port, especially in the captive areas that only VPA can cost-effectively serve.

**Figure 15: VPA Serves One of the Smallest Regional Markets on the East Coast, Based on Gross Domestic Product (GDP)**



Note: The Ports of Charleston and Savannah serve the same regional market.

Source: JLARC staff analysis of Bureau of Economic Analysis data, 1997–2012.

**Virginia has as many top-10 retailers with distribution centers as three of its neighboring states combined.**

#### ***Virginia's Attraction of Distribution Centers Has Benefited VPA.***

According to the Virginia Economic Development Partnership (VEDP), 141 new distribution centers have been constructed in Virginia since 2000, at least half of which are known to be frequent users of VPA. Virginia's success in attracting these facilities compares favorably to other states. Six of the 10 largest U.S. retailers have one or more distribution centers located in Virginia (Table 5). By comparison, Virginia has as many top-10 retailers with distribution centers as three of its neighboring states combined (Maryland, North Carolina, West Virginia). The only East Coast states that had more top-10 retailers present were those with substantially larger consumer markets.

#### ***VPA and VIT Have Committed Staff Resources to Economic Development Efforts.***

VPA has committed several staff resources to carrying out economic development activities. VPA sales and marketing staff are primarily concerned with increasing cargo volumes, promoting the port, and identifying potential economic development projects. VPA also employs three core economic development staff to assist with these duties as well as coordinate with government and private partners on land development and potential business propositions.

VPA indicated that its employee groups assist each other in carrying out their responsibilities. For example, in FY 2013 VIT staff had a goal of providing VPA's economic development staff with 35 economic development referrals.

**Table 5: Six of the Nation's Top 10 Retailers Have Distribution Centers Located in Virginia**

State	Top 10 U.S. Retailers with Distribution Centers <sup>a</sup>	Retail & Wholesale GDP (2012)
Georgia	8	\$59 billion
Florida	7	111
<b>Virginia</b>	<b>6</b>	<b>40</b>
New York	6	126
Pennsylvania	6	70
New Jersey	5	71
South Carolina	4	22
Maryland	4	32
North Carolina	2	48
West Virginia	0	8
Delaware	0	5

<sup>a</sup> The top 10 U.S. retailers in 2012 were Walmart, Kroger, Target, Walgreen, Costco, Home Depot, CVS Caremark, Lowe's, Best Buy, and Safeway. In cases where a company has designated import distribution centers, only these distribution centers were counted. Distribution centers that exclusively serve company subsidiaries were not included. Distribution centers were not included if they were for goods that are domestically produced, such as bulk lumber, or specialty items, such as flowers and pharmaceuticals.

Source: JLARC staff analysis of National Retail Federation data (2012) and company websites and documents (2013).

***VEDP and VPA Staff Report a Strong Working Relationship.***

VEDP is the State's lead economic development agency. Both VEDP and VPA officials indicate that the two entities have a strong working relationship and continually look for opportunities to work together to promote economic development that will benefit the State and the port. VEDP staff indicated that VPA routinely shares leads on development opportunities and has helped successfully attract new businesses to the State.

VEDP indicated that the one way in which the two parties could improve their cooperation is by better coordinating their marketing activities. To address this performance gap, in June 2012 VPA and VEDP signed a Memorandum of Understanding to launch a joint marketing campaign. As part of this initiative, in September 2013 VPA and VEDP held a "Familiarization Tour" event for 14 national site selection consultants, which highlighted opportunities for businesses to locate or expand in Virginia.

Cooperation between VPA and VEDP has also been promoted by their respective governing boards. The VPA and VEDP boards formed a joint committee to increase cooperation starting in 2013, and legislation enacted in 2013 added the Chief Executive Officer of VEDP to the VPA board.

### **VPA Is Best Suited to Supplement Efforts of State and Local Economic Development Agencies**

VPA's role in economic development has not been specifically defined by the General Assembly or the Governor. VPA's statutory responsibilities for economic development are to foster and stimulate port commerce by promoting freight shipments and "in general to perform any act or function that may be useful in developing, improving, or increasing the commerce, both foreign and domestic, of all maritime and inland ports of the Commonwealth." The Governor and the Secretary of Transportation have issued statements indicating that the port should play a more proactive role in economic development, but its exact duties have not been defined. Similarly, the VPA board has not formally established economic development responsibilities for the organization.

There does not appear to be consensus on the role that VPA should play in economic development. One perspective is that VPA should continue to perform the economic development duties that it has traditionally carried out. Another perspective is that VPA's role should be expanded, and it should assume a more primary role. Under this approach, VPA would be expected to take the lead in land development and convincing businesses to locate or expand in Virginia, instead of letting VEDP and local governments lead these efforts.

Expecting VPA to take on a greater economic development role could distract it from effectively overseeing and managing port operations. This approach could make broader economic development objectives, such as job creation and capital investment, a higher priority than increasing port volumes.

***VEDP Sets Economic Development Priorities and Is Best Equipped to Attract Business Activity.*** VEDP and local economic development agencies have traditionally led efforts to attract businesses to Virginia, with VPA providing support and expertise when a port-related business is targeted. VEDP staff, VPA staff, local development agencies, and port customers indicated that this division of roles and responsibilities should remain in place.

Expanding VPA's role in economic development could duplicate current VEDP efforts, lead to conflicts, and result in less focus on overseeing and managing port operations. VEDP is the lead economic development entity for the State, tasked by the General Assembly to stimulate and support the development and expansion of the overall Virginia economy. The specific duties assigned to VEDP under the Code of Virginia include working with local governments and private businesses to locate or expand facilities in Virginia. VPA has only been tasked by the legislature with stimulating port-



### **Virginia Economic Development Partnership**

VEDP is directed by statute to prepare and implement “effective economic development marketing and promotional programs” and to “encourage and solicit private sector involvement, support, and funding for economic development in the Commonwealth,” among several other specific economic development duties (§ 2.2-2238).

related commerce. VPA has historically interpreted this to include assisting VEDP in its efforts to attract port-related businesses but not assuming the lead role, which remains the responsibility of VEDP.

VEDP and local governments appear to be better positioned than VPA to negotiate with businesses to locate facilities in Virginia. VEDP has authority over several economic development grant programs, maintains extensive data on potential facility sites throughout the State, and is knowledgeable about tax policies and incentives. Local governments have authority over local tax policy, grant programs, zoning, permitting, utilities, and other key factors that can affect site selection decisions. By contrast, VPA has fewer resources and less authority, making it less suitable for a leading role in economic development.

VEDP and local governments are better suited to lead economic development efforts in general because many prospective businesses do not use the port or are concerned with other State attributes. For example, information technology businesses and defense contractors do not rely on commercial port operations and are more concerned with other factors, such as the technical skills of the State’s workforce. Many manufacturers rely on ports, but factors such as the skills of the available workforce, labor costs, proximity to clients or vendors, transportation infrastructure and tax laws may be just as important when they select where to build a facility.

***VPA’s Supportive Role Is Enhanced by Its Business Relationships and New Grant Program.*** Although VPA should not be expected to take the lead in attracting new businesses to Virginia, it should continue to play a supporting role. VEDP and other stakeholders indicated that VPA provides valuable insight, expertise, and familiarity with port-related businesses. VPA is uniquely situated to assist in attracting these types of businesses to the State because it is in routine contact with a multitude of businesses.

VPA has recently been given authority over a grant program that could be used to help attract businesses to Virginia: the Port of Virginia Economic and Infrastructure Development Zone Grant Program. Enabled through statute in 2013, this program provides grants of up to \$500,000 to qualifying businesses. To qualify, a company must locate a new facility, or expand an existing facility, in one of the localities situated near Virginia’s port terminals or intermodal rail yards.

***Impact of Economic Development Strategy May Be Limited.*** Economic development as a strategy for VPA growth may achieve only limited success in the future. Foremost, Virginia will have limited

opportunities to compete for future distribution centers because the decision to establish new centers is driven by demand in the regional retail market. As previously noted, Virginia's regional market is relatively small compared to other major East Coast ports. Additionally, future growth in distribution centers is likely to be slow because retailer's logistics networks are now well-established. Virginia and other East Coast states experienced a boom in distribution center development over the past decade when retail companies redesigned their networks to make greater use of East Coast ports. Now that these centers are established, a new boom is unlikely.

VPA could benefit from the expansion or location of manufacturing companies in Virginia. However, VPA and VEDP indicated that the State has not recently been as successful as other southern states in attracting major manufacturing facilities, such as automobile plants.

### **VPA Is Not Well Positioned to Lead Land Development Initiatives in the Near Future**

Legislation passed by the General Assembly in 2013 granted VPA the authority to become directly involved in developing land around the port in order to better attract manufacturing and distribution centers. For example, VPA is authorized to buy and develop property that could be used to attract port customers. However, VPA should not immediately pursue a greater role in land development.

***The Port of Savannah's Retail Distribution Center Success Cannot Be Replicated in Virginia.*** The Port of Savannah has been cited as a model for land development, but comparing current land development opportunities at VPA and the past success of the Port of Savannah is of limited value due to different circumstances. In the early 2000s, the Port of Savannah had large undeveloped land tracts that were available to be developed cheaply just outside its port terminal. Local economic development agencies and private developers established industrial parks on this land, which were occupied by retailers looking to serve Atlanta and other major Southeast markets. In contrast, the area surrounding VPA's terminals is highly urbanized. Land is available in nearby rural areas, but as discussed above, Virginia has already experienced its own distribution center boom in these areas, and this growth is not likely to be repeated in the near future. VPA also serves a smaller market than the Port of Savannah, which means there is less demand for locating distribution centers in Virginia.

Further, it appears that the Georgia Port Authority, which governs the Port of Savannah, did not play a significant role in developing

***The Georgia Port Authority, which governs the Port of Savannah, did not play a significant role in developing land around the port.***

land around the port. Georgia Port Authority officials indicated that the rapid land development that has taken place surrounding the port over the past decade was performed by local authorities and private companies. Port officials indicated that although it helped encourage this development, neither it nor the state of Georgia directly purchased or developed properties.

***VPA Does Not Have Financial Resources to Exercise Its New Industrial Development Powers.*** VPA is not currently in a financial position to pursue land development. In 2013 VPA was granted Industrial Development Authority (IDA) powers to (a) purchase and sell land and (b) make and forgive loans. However, VPA does not currently have the financial resources to make land investments or loans to third-party developers. As discussed in JLARC's 2013 *Review of Recent Reports on the Virginia Port Authority's Operations*, VPA is not expected to become profitable until FY 2014-15.

VPA may be able to make use of its IDA powers once it becomes profitable. However, IDA investments would compete for funding with the many capital projects VPA has planned, such as expansion of the APMT facility and construction of the Craney Island terminal. Capital projects are intended to improve VPA operations and fulfill its primary mission of facilitating economic activity. Diverting funds from operational improvements to economic development may therefore not be the most strategic or prudent use of future revenues.

## Capital Needs at VPA and Other East Coast Ports Have Been Partially Financed With State Funds

### In Summary

Since 1970, the State has contributed over \$1 billion to the Virginia Port Authority (VPA). The majority of this funding has come from the Commonwealth Port Fund (CPF), which was created in 1986 to support VPA's capital needs. While VPA has used some CPF funds for the outright purchase of capital assets, it has mostly used the CPF to issue bonds, which offer the most cost-effective approach to financing capital investments. All East Coast ports examined for this study have received state financial support for capital needs over the past 10 years, but ongoing dedicated state funding is unique to VPA. The Georgia Port Authority and the South Carolina State Ports Authority are the only East Coast ports that finance all on-terminal capital needs with terminal revenue. On-terminal capital needs, such as new equipment, terminal improvements, and maintenance of capital assets, are necessary to support core terminal operations. All the other East Coast ports examined in this study have required state assistance for on-terminal capital needs. Both Georgia and South Carolina have recently directed state funds to off-terminal needs, including harbor deepening and port access roads, although they have spent less than Virginia. VPA plans to use most of the CPF funds projected through 2040 on debt service for CPF bonds and construction of the Craney Island Marine Terminal. Revenue from VPA's terminal operations could be used to finance most of VPA's other capital needs, which would allow a portion of future CPF funds to be allocated to more strategic off-terminal projects designed to facilitate the flow of cargo to and from VPA.

The study mandate directs JLARC to evaluate "the history and purpose of the Commonwealth Port Fund" (CPF) and to identify and evaluate "state and local funding sources for capital improvements and operations at competitor ports." The Virginia Port Authority (VPA) continues to receive State funding, while several other state-owned ports on the East Coast operate successfully with less public funding.

All East Coast ports examined in this study have received state funding to support capital needs, but Virginia is the only state that provides ongoing dedicated funding. VPA expects to use most of the CPF allocations between FY 2014 and FY 2040 on capital improvements to expand VPA's capacity to handle projected volume growth, but a portion of CPF funds could be allocated to off-terminal infrastructure, such as roads and rail connections. This is consistent with the approach taken by Georgia and South Carolina, as well as other East Coast states, to provide financial assistance to their ports. As noted in Chapter 3, these capital investments will be necessary to enhance VPA's future competitiveness.

### Financial Data

Revenue and expense data included in this chapter are presented in actual dollars for the relevant time period. Dollar amounts have not been adjusted for inflation.

### Commission on Transportation for the 21st Century

This Commission was created in 1986 to identify transportation needs in Virginia, as well as alternative means of financing for these needs. The Transportation Trust Fund, which is composed mostly of transportation-related taxes and fees, was created as a result of this Commission's findings and recommendations.

## STATE FUNDS HAVE BEEN A DECREASING PROPORTION OF VPA REVENUE AND PRIMARILY USED FOR CAPITAL NEEDS

The use of public funds to support port capital needs is common practice. It can be difficult to find private investors willing to finance port infrastructure because underused capacity during the initial phases of capital improvements may create operating losses and a delayed return on investment. Governments are more likely to finance port capital needs because they benefit from the economic activity generated from port commerce, including port-related jobs and taxes.

Since 1970, VPA has received over \$1 billion in State funds. Annual general fund appropriations were the primary source of State funding for VPA until the General Assembly created the CPF in 1986, using a portion of the State's Transportation Trust Fund (TTF). General funds are no longer allocated to VPA each year, but the CPF continues to be a dedicated, ongoing source of State funding for VPA. CPF funds, which have been used primarily to finance VPA's capital needs, are a small proportion of VPA's funding and are likely to continue to decline relative to VPA's terminal revenue.

### State Funded VPA With General Fund Appropriations Prior to Establishment of CPF

Between 1970 and 1986, the General Assembly subsidized port operations and some of VPA's capital needs on an as-needed basis with general funds. A more stable source of funding for port capital needs was created in 1986, when the CPF was established "to support port capital needs and the preservation of existing capital needs of all ocean, river, or tributary ports within the Commonwealth" and "to foster and stimulate the flow of maritime commerce through the ports of Virginia, including but not limited to the ports of Richmond, Hopewell, and Alexandria" (Code of Virginia § 58.1-638). The State funded VPA with a combination of CPF funds and general funds from 1987 until 1997, when VIT began generating sufficient terminal revenue to fund all port operations. Since then, VPA has received occasional general fund appropriations for capital needs, but the CPF has been the primary source of State funding.

VPA's annual CPF appropriation is determined by a funding formula in the Code of Virginia that sets aside 4.2 percent of the TTF funds for VPA. This formula was developed by the Commission on Transportation for the 21st Century as part of a broader transportation initiative to prioritize and fund transportation needs throughout the Commonwealth. Although there have been some changes to the taxes and fees that comprise the TTF since it was initially created, the proportion of the TTF dedicated to the CPF has not changed. VPA has received a total of \$690 million from the

CPF since FY 1987. The CPF appropriation to VPA is projected to be about \$39 million in FY 2014.

Because the CPF is a codified, dedicated source of funding, these annual allocations are considered a permanent source of revenue for budgeting and strategic planning purposes at VPA. Projected CPF allocations are based on six-year forecasts of CPF funds provided by the Virginia Department of Transportation (VDOT) twice per year. CPF allocations are included in the State budget bill along with all other State appropriations. Once the budget bill has been passed by the General Assembly and signed into law by the Governor, CPF funds are automatically transferred from the TTF to VPA's account each month. The use of these funds is guided by the enabling legislation and by a Capital Improvement Plan that was created by VPA as part of a long-term strategic plan.

### **State Funding Has Been a Modest and Decreasing Proportion of VPA's Revenue**

State funding has been a modest portion of VPA revenue for the past 31 years and has grown smaller over time (Figure 16). VPA terminal revenue grew 12 times larger between FY 1981 and FY 2012 from \$24 to \$298 million. During that same period, State funding grew only about 2.5 times larger, from about \$14 million in FY 1981 to \$36 million in FY 2012. CPF funds accounted for about 10 percent of VPA's total revenue in FY 2012.

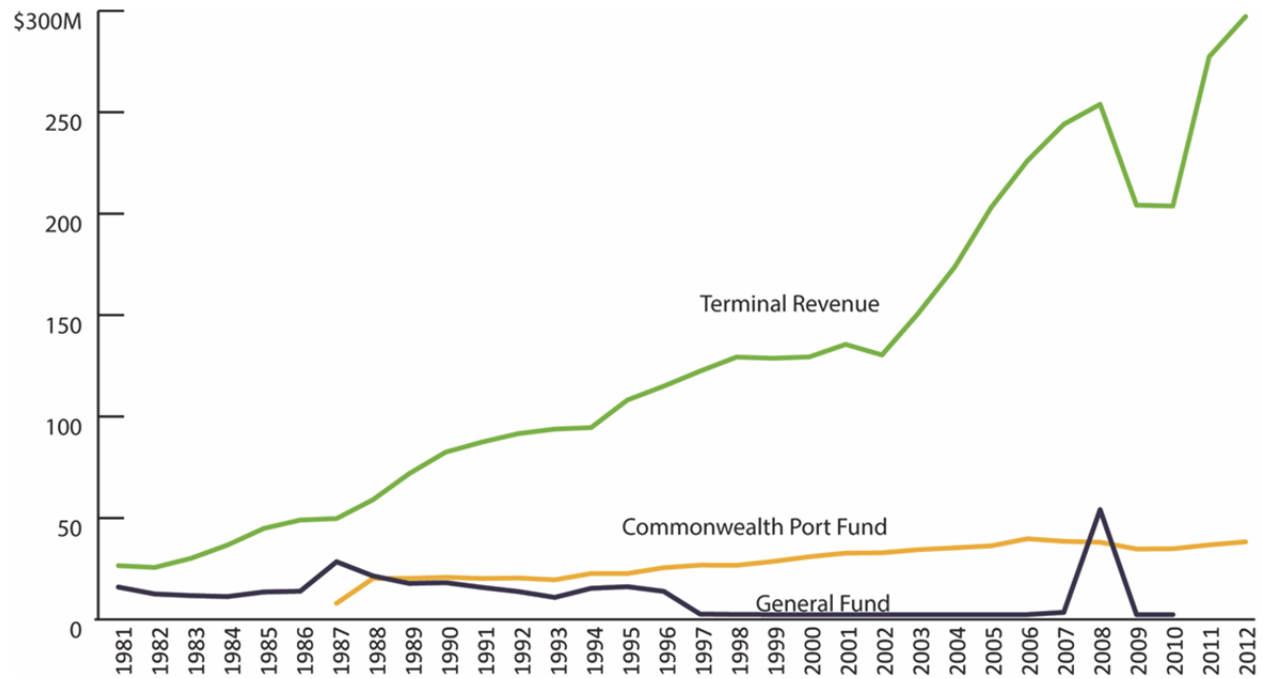
**CPF funds accounted for about 10 percent of VPA's total revenue in FY 2012.**

Projections indicate that CPF allocations will remain modest in comparison to terminal revenue for at least the next five years. VPA expects container volume to grow five percent or more annually, which would result in over \$400 million from terminal revenue by FY 2017. Forecasted CPF revenue in FY 2017 is about \$44 million, or about 11 percent of that year's projected terminal revenue. As noted in the previous JLARC report, *Review of Recent Reports on the Virginia Port Authority's Operations* (January 2013), these revenue projections appear to be based on reasonable assumptions.

Of the \$1 billion the State contributed to VPA since its inception in 1970, about 68 percent was allocated from the CPF between FY 1987 and FY 2012 and used for capital needs (Figure 17). About 31 percent of all State funding was from general funds. Most of these general funds were appropriated between FY 1970 and FY 1997, and were used primarily for operating expenses at VPA, but some general funds were appropriated in FY 2007 and FY 2008 for land development at Craney Island and a rail project. An additional \$17.5 million, which accounted for about two percent of total State funding to VPA, was appropriated from the Priority Transportation Trust Fund, which is part of the TTF, for channel dredging in FY 2003.



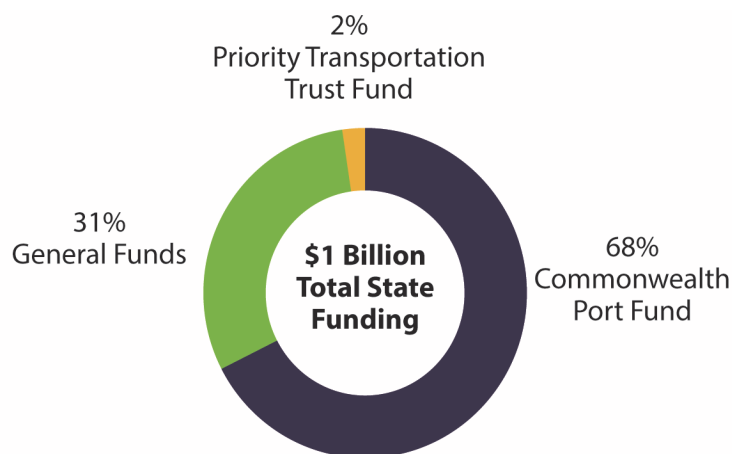
**Figure 16: State Funding Has Been Relatively Modest Source of Revenue at VPA (\$ in Millions)**



Note: In 2008, VPA received general funds for the median rail project and land development at Craney Island. This graphic does not include \$17.5 million allocated from the State Priority Transportation Trust Fund in FY 2003.

Source: JLARC staff analysis of financial data provided by VPA, 2013.

**Figure 17: CPF Provided Majority of State Funding to VPA (FY 1970–FY 2012)**



Note: Information on State funding in FY 1973 could not be located, but it probably included some general funds.

Source: JLARC staff analysis of financial data provided by VPA, 2013.

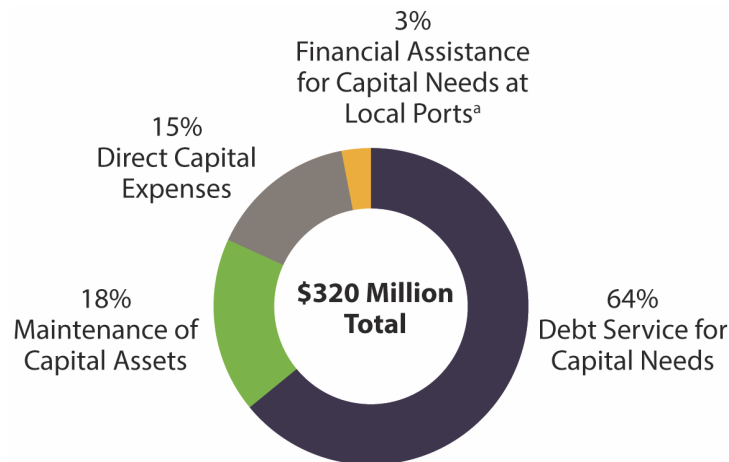
## CPF Has Been Used to Fund Port Capital Needs, as Intended by the Enabling Legislation

### Master Equipment Lease Program

A Master Equipment Lease Program provides financing for most equipment purchases at VPA at terms ranging from seven to 10 years.

As previously noted, the CPF was created “to support port capital needs and the preservation of existing capital needs” of all ports within the State and “to foster and stimulate the flow of maritime commerce through the ports of Virginia” (Code of Virginia § 58.1-638). Consistent with the stated purpose of the CPF, all of the \$320 million VPA received from the CPF between FY 2004 and FY 2012 was spent on capital needs. (Data on CPF expenditures prior to FY 2004 were not readily available.) About 64 percent of this amount was spent on debt service for capital needs funded by CPF bonds and equipment purchased through Master Equipment Lease Programs (Figure 18). Direct capital expenditures accounted for an additional 15 percent of all CPF expenditures.

**Figure 18: CPF Funded VPA Capital Needs (FY 2004–FY 2012)**



Note: VPA expense data prior to FY 2004 was not readily available.

<sup>a</sup> This also includes Payment In Lieu of Taxes (PILOT) to localities that house terminal facilities, which was funded from the CPF from 2004 to 2006.

Source: JLARC staff analysis of financial data provided by VPA, 2013.

About 18 percent of all CPF expenditures between FY 2004 and FY 2012 was for maintenance of capital assets, which is consistent with the CPF’s stated purpose of preserving existing capital. These expenses include maintenance of equipment necessary to keep the port in working order and do not include any expenses related to staff.

Over the past nine years, VPA used about three percent of the CPF funds to provide financial assistance for capital needs at local ports that are not VPA-owned or operated. This is consistent with statutory language stating that the CPF was created “to support [the capital needs] of all ocean, river, or tributary ports within the Commonwealth.” VPA has awarded up to \$2.2 million annually to

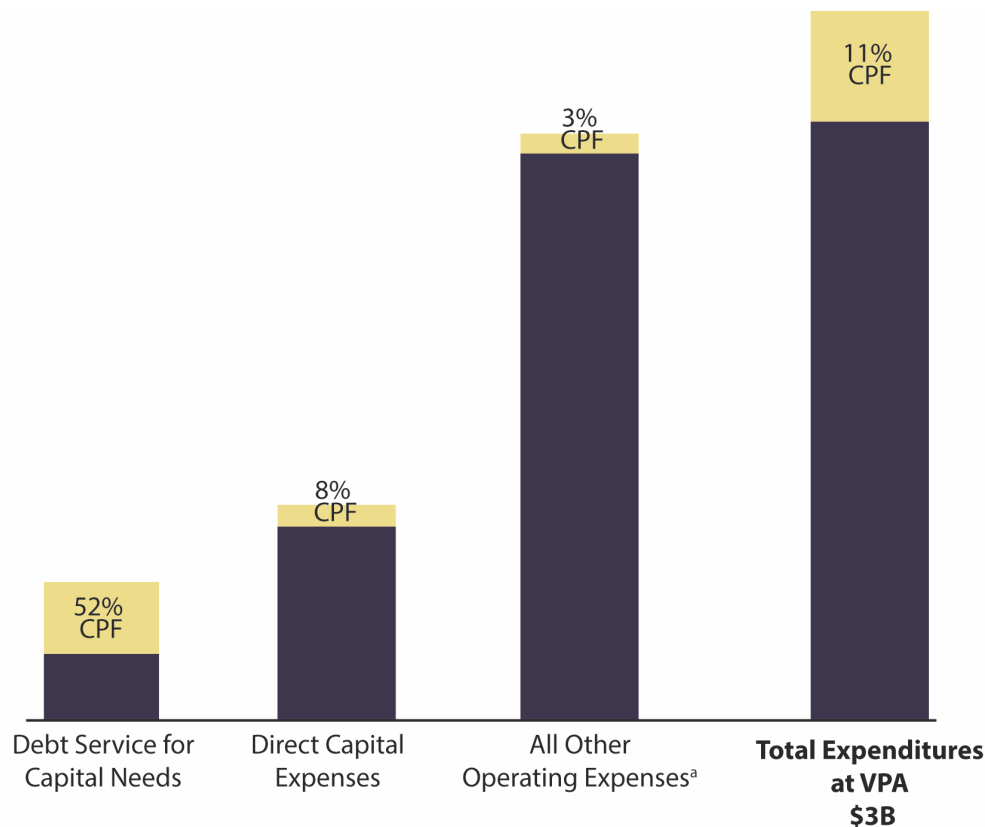
these ports. Recipients of these funds have included ports in Wachapreague, Cape Charles, Onancock, and Saxis.

**CPF funds have paid for about 11 percent of VPA's total expenses since FY 2004, which were nearly \$3 billion.**

CPF funds have paid for about 11 percent of VPA's total expenses since FY 2004, which were nearly \$3 billion (Figure 19). CPF funds financed over half of all expenses related to debt service for capital needs and financial assistance for capital needs at local ports. CPF funds financed less than 10 percent of all remaining expenses, including direct capital expenses and operating expenses, which include the cost to maintain capital assets.

VPA plans to use a majority of CPF funds for debt service on capital needs and direct capital expenses in FY 2014 (Figure 20). In addition, VPA will begin contributing at least 12 percent of CPF funds annually to the Route 460 Corridor Improvement Project, which is intended to facilitate the flow of traffic to and from VPA.

**Figure 19: CPF Funds Paid for 11 Percent of VPA's Total Expenses (FY 2004–FY 2012)**

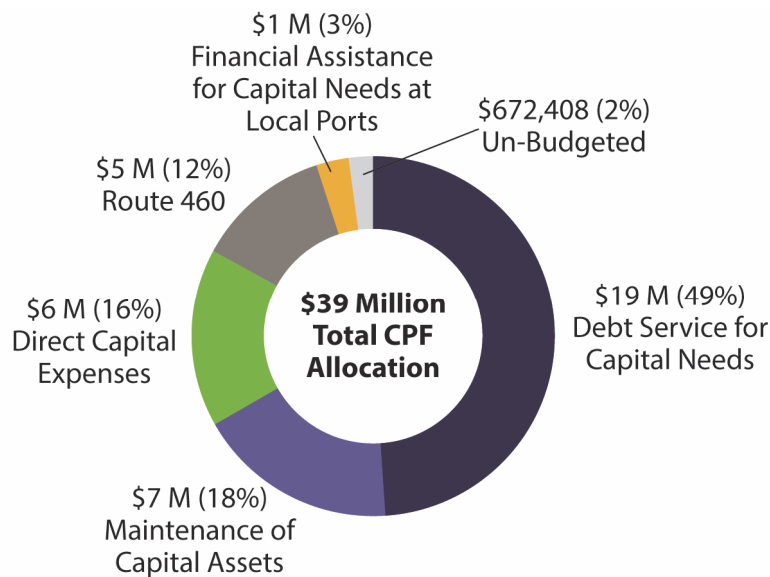


Note: Expenses related to financial assistance to local ports and economic development totaled less than \$70 million each, and therefore were not included in this graphic.

<sup>a</sup> CPF funds were used only for the capital maintenance portion of operating expenses.

Source: JLARC staff analysis of financial data provided by VPA, 2013.

**Figure 20: CPF Funds Will Be Used to Finance Capital Needs at VPA in FY 2014**



Note: According to a Memorandum of Understanding between VPA and the Virginia Department of Transportation (VDOT), 0.5 percent of the CPF will be used to fund a portion of the Route 460 Corridor Improvement Project. This allocation of CPF funds to VDOT will continue for 90 years. Alternatively, if VPA pays VDOT a total of \$250 million for this project by June 2022, there will be no further obligation of CPF funds to the Route 460 project. Also, this graphic does not include \$75,412 from the CPF, which was transferred to the State General Fund to defray costs associated with activities of central service agencies, such as the Department of Accounts.

Source: JLARC staff analysis of financial data provided by VPA, 2013.

### **CPF FUNDS HAVE ALLOWED VPA TO FINANCE CAPITAL NEEDS WITH LOW INTEREST RATES**

The \$690 million in CPF funding received by VPA since FY 1987 has been used more often for issuing debt to finance capital needs than for making outright purchases of capital assets. VPA's total outstanding debt is \$561 million, including debt from CPF bonds, port facility revenue bonds, and Master Equipment Lease Programs, but there appears to be sufficient revenue to cover debt service on all outstanding loans. As discussed later in this chapter, a comparison of VPA's capital assets to those of other East Coast ports indicates that VPA has not over-invested in capital improvements, despite its level of debt.

### **VPA Has Used State Funds to Issue Over \$400 Million in CPF Bonds**

CPF bonds are the most cost-effective loans available to fund capital needs. CPF bonds are secured by State funding from the CPF, as well as a sum sufficient appropriation from the State if VPA cannot meet debt service obligations. As a result of this State guarantee, these bonds have consistently maintained a high credit rating, and offered the lowest interest rates of all loans available to VPA. VPA's outstanding debt through CPF bonds is included in

#### **VPA Bond Authority**

The Code of Virginia authorizes VPA to issue bonds for capital projects (§ 62.140). Proposed bond issues are typically included in the State budget bill and authorized by the Governor and General Assembly in the State Appropriation Act. For Commonwealth Port Fund bonds, the State Treasury Board reviews the final debt structure to ensure it is financially prudent.

the State's debt capacity and represented one percent of the State's total debt in FY 2012.

Since 1988, VPA has leveraged the CPF to issue over \$400 million in bonds to fund capital needs (Table 6). Most of the CPF bond proceeds have funded terminal improvements, such as wharf, berth and pier construction at VPA terminals. Other capital investments financed with CPF bonds have included channel dredging and equipment purchases, including eight new Suez Class container cranes in FY 2002, at a cost of \$5.9 million each.

**Table 6: VPA Has Issued Over \$400 Million in Debt From CPF Bonds Since 1988**

Year of Bond Issue	Amount of Bond Issue (Millions)	Description of Projects Funded by Bonds
1988	106.1	Acquire land and equipment for NIT; berth, storage, and equipment at PMT; extension of pier and other improvements at NNMT, construction of berths and dredging at the Port of Richmond
1996	38.3	Construction of berth at NIT, dredging, improvement of 61 acres of land for use as handling, staging, and storage backup at other facilities; replacing and improving equipment
2002	135.0	Renovation and extension of existing wharf; purchase of eight new Suez Class container cranes, dredging, other site improvements
2005	60.0	Land acquisition, improvements at NIT, PMT, NNMT, and VIP, and land improvements at Town Point Park in Norfolk
2006	21.7	Purchase land at NIT, cranes, and improvements to cruise terminal operated by the city of Norfolk
2011	57.4	Craney Island Eastward Expansion and pay off of treasury loan
<b>Total</b>	<b>\$418.5</b>	

Note: Total does not include refunding bonds issued in 1998 and 2012. Also, about \$2.2 million from the total amount of bond proceeds was spent on costs of issuance, including financial advisors, lawyers, underwriters, expenses for printing the document, and rating agency fees to issue the bonds.

Source: JLARC staff analysis of data supplied by VPA, 2013.

### **VPA's Total Debt Exceeds \$500 Million, But There Appears to Be Sufficient Revenue to Cover Debt Service**

VPA's total outstanding debt was \$561 million as of June 30, 2012 (Figure 21). Nearly half of VPA's debt originated from port facility revenue bonds, which are secured by terminal revenue and will mature in 2040. These bonds have received strong ratings from bond ratings agencies, but they are rated slightly lower than CPF bonds, and therefore have higher interest rates. Both Moody's Investor Service and Standard & Poor's (S&P) reaffirmed bond ratings on outstanding port facilities revenue bonds in July 2013. According to a recent press release, S&P offered several explanations for this decision:

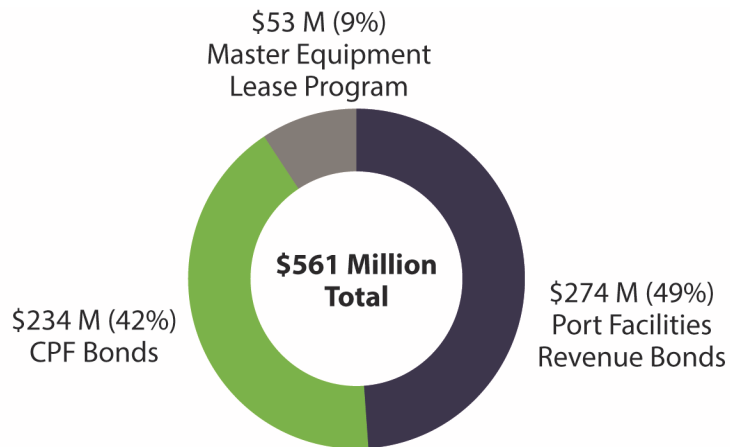
The rating reflects our view of the authority's historically good financial performance, despite fluctuating container

volumes due to the recession. The rating further reflects our view of the port's strong historical debt service coverage by pledged net revenue; and good competitive position as a deep channel port with a central location on the East Coast, improved rail connections to the Midwest and a history of performance.

The Moody's report likewise indicated that VPA's competitive position among East Coast container ports was a reason for affirming the Aa3 bond rating for the port facility revenue bonds and changing the outlook from negative to stable. The Moody's report cited two additional reasons for affirming the current rating: projected growth in container volume and the expectation that VPA management will prudently handle the VIT governance transition.

CPF bonds represent about 42 percent of VPA's total debt and will reach maturity in 2036. The remaining nine percent of VPA debt originated from Master Equipment Lease Programs. As noted earlier, Master Equipment Lease Programs are the primary funding mechanism for cranes and other major equipment purchases not funded with bond proceeds. Terminal revenue and CPF allocations will be used to pay debt service on outstanding Master Equipment Lease Program debt until 2022. (A schedule of outstanding bond debt and debt service requirements can be found in Appendix E.)

**Figure 21: VPA's Debt Primarily Consists of Port Facility Revenue and CPF Bonds (FY 2012)**



Source: JLARC staff analysis of financial data provided by VPA, 2013.

*There appears to be sufficient revenue to cover all of VPA's debt service payments.*

There appears to be sufficient revenue to cover all of VPA's debt service payments. For the port facility revenue bonds, debt service coverage ratios have exceeded the minimum ratio for at least the past five years. In 2013, this ratio is expected to be 2.0 or higher, which is preferred by bond rating agencies. The debt service cover-



### **Debt Service Coverage Ratios**

Bond holders and bond rating agencies require bond issuers to maintain minimum debt service coverage ratios until bonds reach maturity. These ratios compare revenue available to pay debt service on bonds to actual debt service payments. Ratios are based on pledged revenue sources, as stated in bond agreements.

### **Port Authority of New York and New Jersey Excluded From Analysis**

The Port Authority of New York and New Jersey (PANYNJ) does not appear to receive state funds, but does receive revenue from other entities that comprise PANYNJ, such as the airports and mass transit system. It appears that revenue from these entities is used to fund on- and off-terminal capital needs, and so the port itself is not financially self-sustaining. Because of the unique funding structure for PANYNJ, it has been excluded from this analysis.

***An ongoing, dedicated source of funding, like the CPF, is unique to Virginia, but several other states also use transportation related taxes and fees to support capital needs at state-owned ports.***

age ratios for the CPF bonds, which are based on CPF revenue, have also met or exceeded the minimum ratio for at least the past five years.

## **LIKE VPA, OTHER MAJOR EAST COAST PORTS HAVE BENEFITED FROM STATE FUNDS IN RECENT YEARS**

Because ports are capital-intensive enterprises they often require financial support from public funds. Port capital needs include on-terminal infrastructure, such as terminal maintenance, capacity expansion projects, and equipment, as well as off-terminal infrastructure, such as roads and rail connections, to support the movement of cargo to and from the port. Port authorities in some states have set the goal of funding all on-terminal capital needs with terminal revenue, but state and federal funding is almost always necessary for off-terminal projects, which typically occur on public property.

Over the past 10 years, state funds have been directed to all East Coast ports examined in this study for on-terminal capital needs, off-terminal capital needs, or both. Georgia and South Carolina have provided state funds for off-terminal capital needs only. The Georgia Port Authority (GPA) and the South Carolina State Ports Authority (SCSPA) have both recently made significant capital investments in on-terminal infrastructure using terminal revenue. The total amount of state funds directed to off-terminal port related projects at GPA and SCSPA has been less than the total amount of State funding received by VPA for on- or off-terminal projects.

## **Two Major East Coast Ports Do Not Receive State Financial Support for On-Terminal Capital Needs**

All East Coast ports examined in this study have received state financial support for capital infrastructure needs over the past 10 years (Table 7). Most receive state financial support for on-terminal capital needs and off-terminal capital needs. An ongoing, dedicated source of funding, like the CPF, is unique to Virginia, but several other states also use transportation-related taxes and fees to support capital needs at state-owned ports. For example, the Maryland Port Administration is part of the Maryland Department of Transportation and appears to be cross-subsidized by revenue from other entities within the agency.

The North Carolina State Ports Authority and the Jacksonville Port Authority both receive funding on an ad-hoc basis from state transportation funds or state general funds. The Jacksonville port also receives support from a state infrastructure bank, which subsidizes interest on loans, and a portion of local taxes from the City of Jacksonville.

It appears that GPA and SCSPA have received state funds over the past 10 years for off-terminal projects only, such as roads and harbor dredging. These ports have reportedly relied on terminal revenue to fund all on-terminal projects since at least 2004. SCSPA specifically includes “financial self-sufficiency” as part of its mission statement. Financial self-sufficiency is not part of GPA’s official mission statement, but according to port officials the state of Georgia expects GPA to be financially self-sufficient.

**Table 7: State Funds Have Been Directed to Capital Needs at East Coast Ports (FY 2004–FY 2013)**

<b>East Coast Port</b>	<b>State Funding for Port Capital Needs in Past 10 Years?</b>	<b>State Funding for <u>On-Terminal</u> Projects?</b>	<b>State Funding for <u>Off-Terminal</u> Projects?</b>
Georgia Port Authority	✓	None	✓
Jacksonville Port Authority	✓	✓	✓
Maryland Port Administration	✓	✓	✓
North Carolina State Ports Authority	✓	✓	✓
South Carolina State Ports Authority	✓	None	✓
<b>Virginia Port Authority</b>	✓	✓	✓

Note: Port Authorities in Massachusetts, Pennsylvania, Delaware, and Palm Beach (FL) are excluded from this analysis because they are not major ports of call for containerized cargo. Port authorities in Miami (FL) and Fort Lauderdale (FL) were excluded from this analysis because they primarily derive revenue from cruise ship operations instead of cargo operations. Additionally, as noted previously, the Port Authority of New York and New Jersey is excluded because it is cross-subsidized by fees collected by other entities it operates.

Source: JLARC staff analysis of financial documents of VPA and other East Coast ports and JLARC staff interviews with port staff. Port staff in MD and NC declined to be interviewed.

### **Georgia and South Carolina Port Authorities Have Both Made Significant On-Terminal Capital Investments Without State Financial Assistance**

For at least the past 10 years, GPA and SCSPA have reportedly used terminal revenue to make outright purchases for on-terminal capital needs or to pay debt service on bonds issued to finance on-terminal capital needs. Investments over the past two years have included \$140 million by GPA for equipment and renovations at the Garden City and Jasper Ocean terminals and about \$100 million by SCSPA for development of a new container port at the Old Charleston Navy Base. Future on-terminal capital investments at these ports will also be financed with terminal revenue. These investments will reportedly include \$702 million at SCSPA for a new terminal at the Old Charleston Navy Base and about 1.2 billion at GPA for expansion of the Garden City terminal and other capital improvements.

**Georgia and South Carolina Port Authorities Both Have Higher Net Operating Income and Lower Outstanding Debt Than VPA.**

Stronger financial performance at GPA and SCSPA, compared to VPA, has likely contributed to more revenue being available to pay for on-terminal capital needs. Both GPA and SCSPA have reported operating income (including depreciation) for at least the past five years, while VPA has reported operating losses four of the last five years (Table 8). However, operating income excluding depreciation expenses has been positive at VPA, which indicates positive cash flow since at least 2008. As noted in Chapter 3, VPA's operating costs are higher than those at GPA and SCSPA due to factors such as labor mix and VPA's reliance on rail business to compensate for a small captive market. Higher costs have resulted in less operating income at VPA, relative to GPA and SCSPA. Higher container volume at GPA, compared to VPA and SCSPA, has also contributed to greater financial success at that port for the past five years.

As noted in the previous JLARC report, operating losses at VPA during the past four fiscal years can be attributed to the impact of the recession in 2009 and 2010, and to the financial impact of

**Table 8: Georgia and South Carolina Ports Have More Operating Income and Less Outstanding Debt Than VPA**

Fiscal Year	Operating Income (Loss) Including Depreciation (millions)	Operating Income (Loss) Excluding Depreciation (millions)	Total Amount of Outstanding Debt in 2012 (millions)
<b>Georgia Port Authority</b>			
2012	\$78.2	\$121.4	\$252
2011	71.9	112.3	
2010	62.4	99.5	
2009	59.3	91.6	
2008	65.4	92.7	
<b>South Carolina State Ports Authority</b>			
2012	\$7.3	\$38.2	\$175
2011	16.6	45.5	
2010	8.4	37.9	
2009	25.7	55.4	
2008	54.7	83.2	
<b>Virginia Port Authority</b>			
2012	(\$11.2)	\$38.0	\$561
2011	(20.0)	30.6	
2010	(18.5)	29.7	
2009	(20.5)	23.5	
2008	4.6	45.2	

Source: JLARC staff analysis of CAFRs from VPA, GPA, and SCSPA, 2013.

*VPA is expected to generate positive operating income in FY 2014.*

leasing APMT in 2010 and 2011. However, operating losses at VPA were considerably lower in FY 2012 than the previous three years. VPA is expected to generate positive operating income in FY 2014.

It appears that GPA and SCSPA have been less reliant than VPA on debt to finance capital needs. In FY 2012, outstanding debt at each of these ports was less than half VPA's outstanding debt of \$561 million.

***Georgia and South Carolina Have Allocated Funds to Off-Terminal Capital Infrastructure to Benefit Ports.*** GPA and SCSPA have not received state funding for on-terminal capital infrastructure over the past 10 years, but state funds have recently been allocated to off-terminal capital infrastructure at these ports. Georgia has allocated nearly \$350 million for harbor deepening and highway expansion projects (Table 9). South Carolina has spent \$176 million on land for a BMW plant and an access road for the new Navy Base terminal, and will spend between \$120 million and \$300 million for harbor deepening, depending on the amount of federal funds allocated to this project.

The total amount of State funding allocated to VPA for both on- and off-terminal capital infrastructure over the past 10 years has exceeded the amount of state funding directed to off-terminal

**Table 9: Georgia and South Carolina Have Allocated Substantial State Funding to Off-Terminal Projects (FY 2004–FY 2013)**

Project Description and Date Funding Authorized	Total Cost (\$, Millions)	Amount of State Investment or Commitment (\$, Millions)	Federal Funding (\$, Millions)
<b>Georgia</b>			
Harbor Deepening Project (2010) – deepens Savannah River to 47 feet	\$652	\$231	\$1
Last Mile Project (2011) – expands highway to alleviate congestion	119	119	None
<b>Total</b>	<b>\$771</b>	<b>\$350</b>	<b>\$1</b>
<b>South Carolina</b>			
Land for BMW plant in Greer, SC (2003)	\$8	\$8	None
Harbor Deepening Project (2013) – deepens Charleston Harbor to 45 feet	300	120	180
Navy Base Terminal Road (2007) – provides access to new Navy Base Terminal	200	\$168	None
<b>Total</b>	<b>\$508</b>	<b>\$296</b>	<b>\$180</b>

Source: JLARC staff analysis of financial information provided by GPA and SCSPA, 2013.

capital infrastructure at GPA and SCSPA. State funding for off-terminal infrastructure at VPA over the past 10 years has included about \$53 million for a median rail project and Craney Island land development. When combined with the \$347 million received from the CPF over the past 10 years, the total amount of State funding to VPA was about \$400 million.

### **Historical Differences in State Funding at Ports in Georgia and South Carolina May Partially Explain Differences in Financial Conditions and Funding Needs**

GPA and SCSPA have not received direct state financial assistance for on-terminal projects in recent years, but both of these ports have historically benefited from state assistance with their terminals. The initial acquisition and construction of the original container terminals at both GPA and SCSPA appears to have been fully funded by their respective states.

VPA received State funding for the acquisition and renovation of its original container ports but also issued debt to finance these capital needs. VPA continued to invest heavily in capital infrastructure, resulting in an even larger debt load, and therefore higher debt service payments, relative to GPA and SCSPA. As noted earlier, VPA's total outstanding debt in FY 2012 was twice the outstanding debt at GPA and SCSPA. Still, it does not appear that VPA has over-invested in capital assets.

***Construction of Main Container Terminals at Both GPA and SCSPA Appears to Have Been Fully Funded by Their Respective States.*** According to port officials at SCSPA, \$141 million in capital contributions was received from state and local sources between 1943 and 1990 to acquire the original port facilities and construct Wando Welch Terminal Phase 1, which is the main container port still in use today. SCSPA reportedly did not pay debt service on bonds issued by the state to finance initial construction expenses for the Wando Welch terminal facility. SCSPA did use terminal revenue and debt backed by terminal revenue in the decade following construction of this facility to fund terminal expansions and equipment purchases.

Port officials at GPA reported full state funding for its original container port, Garden City, which is still in use today, through general obligation bonds issued by the state. JLARC staff have requested but not received information on the total amount of money contributed by the state of Georgia to build the Garden City terminal and the timeframe of these capital contributions. However, port officials confirmed that GPA was not responsible for paying debt service on the state-issued general obligation bonds used to fund initial construction of the Garden City terminal. GPA entered

*By FY 1990, after financing most of its capital needs through CPF bonds and other loans, VPA's total outstanding debt was \$137 million, nearly four times SCSPA's total debt of \$35 million and eight times GPA's total debt of \$17 million at that time.*

into an agreement with the state in 2007 to pay back the debt service on those general obligation bonds, but all terminal revenue that would have been used to pay debt service on those bonds was presumably available for operating expenses and additional capital needs before that agreement was made, reducing the need for additional loans.

***VPA Received Some State Assistance With Purchase of Original Container Terminals, But Also Issued Debt to Acquire and Renovate Facilities.*** Between FY 1970 and FY 1990, VPA received \$248 million in State funding, but a large portion of those funds were reportedly used for operating expenses. Only about \$60 million of that amount had been allocated from the CPF and was therefore fully dedicated to capital expenditures. These expenditures totaled \$271 million for the purchase of and capital improvements to VPA's major container terminals, as well as harbor dredging (Table 10). By FY 1990, after financing most of its capital needs through CPF bonds and other loans, VPA's total outstanding debt was \$137 million, nearly four times SCSPA's total debt of \$35 million and eight times GPA's total debt of \$17 million at that time.

**Table 10: Capital Asset Acquisitions at VPA Totaled \$271 Million (FY 1970–FY 1990)**

Location of Asset	Acquisition Cost (millions)
Norfolk International Terminal	150
Newport News Marine Terminal	54
Portsmouth Marine Terminal	45
Virginia Inland Port	12
Dredging	10
<b>Total</b>	<b>\$271 Million</b>

Source: JLARC staff analysis of financial data provided by VPA, 2013.

***Value of VPA Capital Assets Similar to Those of Georgia and South Carolina Port Authorities.*** Despite higher levels of debt than GPA and SCSPA, VPA does not appear to have over-invested in capital assets, such as land, wharves, piers, railroad tracks, equipment, buildings, structures and capital improvements. The amount of capital assets in which VPA has invested appears to be in line with two other ports, based on number of containers each port handled in 2012 (Table 11). SCSPA had \$775 in capital assets per container, which was the most of all three ports. GPA had \$534 in capital assets per container, which was the least of these three ports. It should be noted that capital assets were examined as a broad measure of capital infrastructure investments only, and



**Table 11: Value of VPA Capital Assets Is Similar to Value of GPA and SCSPA Capital Assets (FY 2012)**

Port	East Coast Rank by Volume	Number of Containers (FY 2012)	Capital Assets <sup>a</sup> (Millions)	Dollars Spent on Capital Assets Per Container
GPA	Second	1,665,590	\$888.7	\$534
VPA	Third	1,130,999	806.9 <sup>b</sup>	713
SCSPA	Fourth	822,989	637.6	775

<sup>a</sup> Capital assets are those used in operations with an initial useful life extending beyond one year. The value of capital assets may include some non-revenue producing assets, such as those under construction, as well as some assets that are used in operations, but have a net book value of \$0 due to depreciation. This caveat is expected to apply to all ports and should not skew results for any particular port.

<sup>b</sup> Capital assets at VPA include APM equipment, but not APM property, because VPA leases those terminals. About \$76 million, or eight percent, of VPA's capital assets are non-revenue producing assets, such as equipment and property at PMT and Craney Island, which are not currently operational. The acquisition cost of assets currently being used for operations at VPA, but with a net book value of \$0 due to depreciation, was \$103 million.

Source: JLARC staff analysis of financial data provided by VPA and CAFRs from VPA, GPA, and SCSPA, 2013.

JLARC staff did not make any judgments regarding the cost or necessity of specific purchases at any of these ports.

### **A PORTION OF CPF COULD BE USED FOR OFF-TERMINAL PROJECTS**

VPA's use of the CPF has conformed to statutory intent, and the capital improvements it has allowed VPA to make have been a key factor in VPA's ability to compete against other East Coast ports for container shipments. Going forward, terminal revenue could pay for more of VPA's on-terminal capital needs. The CPF will still be needed to fund VPA's most significant capital project, terminal capacity expansion at Craney Island. The use of debt issued through CPF bonds provides the most cost-effective source of financing for the Craney Island project.

In future years, the full amount of CPF funds will not be needed to finance the Craney Island Project and pay existing debt service. However, according to officials at the State Department of the Treasury, a reduction of the CPF prior to maturity of the CPF bonds would likely be viewed unfavorably by bond holders, as well as bond rating agencies. This could result in a downgrade of the bonds backed by the CPF, which would increase the cost of future debt. CPF funds could be reduced prior to when the last bonds mature in 2036, but waiting until then would avoid the possibility of such an impact.

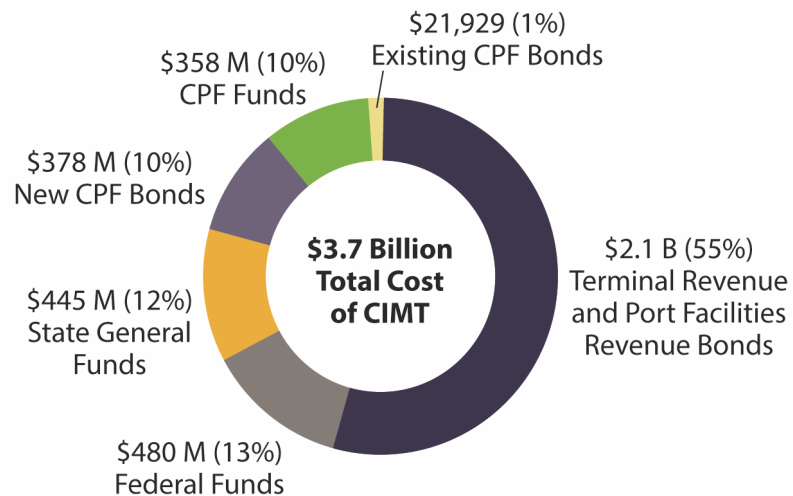
While reducing the amount of CPF funds transferred to VPA may not be a viable option in the near future, there may be opportunities to direct a portion of the funds to other more strategic and

necessary projects. This will be made possible by growth in terminal revenue, which could finance some capital needs currently being funded through the CPF. For example, CPF funds currently used for maintenance costs could instead be invested in off-terminal capital infrastructure to facilitate the flow of cargo into and out of VPA's terminals.

### CPF Revenue Is Expected to Fund About 20 Percent of Craney Island Project

According to VPA, terminal revenue will not fully fund terminal facilities at Craney Island, and CPF funds will be necessary to finance about 20 percent of the total cost. VPA projects that a majority of CPF funds between FY 2014 and FY 2040 will be necessary for the Craney Island project, existing debt service obligations, and the Route 460 project. In addition to using \$358.9 million from CPF allocations during this time period for outright purchases, approximately \$378 million from CPF bond issues are expected to fund the Craney Island project. Other sources of revenue for that project include federal funds, terminal revenue, and port facilities revenue bonds (Figure 22). Non-CPF revenue from the State for off-terminal infrastructure, which will reportedly come from State general funds, is also included in this funding plan.

**Figure 22: CPF Will Fund About One-Fifth of Craney Island Terminal**



Source: Financial analysis of Craney Island project funding sources provided by VPA, 2013.

According to VPA's projections, construction at Craney Island will be necessary to accommodate future volume growth. Analyses provided by a VPA consultant indicate container volume demand at VPA will exceed its existing capacity of 3.5 million TEUs by 2023. While expansions of APMT are projected to increase capacity to

4.65 million TEUs by 2018, VPA's long-range strategic plan projects that additional capacity at Craney Island will also be needed.

In addition to providing expanded capacity to accommodate the projected volume of new business at VPA, additional capacity at Craney Island may be necessary for retaining current business. There is general consensus among port experts that terminals should expand when they reach 80 percent capacity, and that customers will take their business elsewhere if a port cannot handle both existing and future capacity needs. A representative from one ocean carrier expressly stated that it is important to confirm that a port can handle additional cargo, if necessary, before signing a contract.

### **CPF Funds Not Dedicated to Craney Island Project Could Be Used for Off-Terminal Capital Needs**

If terminal revenue continues to grow as projected, it will be an increasingly viable revenue source for equipment needs, terminal improvements, and financial assistance to smaller ports. This would allow VPA to allocate a portion of CPF funds to other strategically important needs, such as road and rail improvements, that improve access to and from VPA. Shifting debt for on-terminal capital needs to port facilities revenue bonds will be more costly for VPA because interest rates on these bonds will likely be higher. However, the use of State support for off-terminal capital infrastructure is similar to the approach taken by some other states, most notably Georgia and South Carolina, and would make additional resources available for infrastructure projects that would benefit VPA and possibly the local communities.

***Under VPA's current long range plan, as much as \$225 million in CPF funds will be allocated to maintenance and assistance to non-VPA owned ports over the next 25 years, but these funds could be directed instead to other more essential capital needs.***

VPA staff reportedly developed a strategy several years ago to finance on-terminal capital needs with terminal revenue and terminal revenue-backed debt. This strategy was not fully implemented because of the unexpected decrease in terminal revenue experienced as a result of the recent recession. However, with more positive terminal revenue projections, VPA could resume this strategy so that all CPF revenue not used for the Craney Island project or existing debt service is reserved for its most strategic capital needs. For example, under VPA's current long range plan, as much as \$225 million in CPF funds will be allocated to maintenance and assistance to non-VPA owned ports over the next 26 years, but these funds could be directed instead to other more essential capital needs.

Sustained growth in VPA's cargo volumes will depend, in part, on VPA's ability to move cargo to and from the port efficiently. Investment in off-terminal infrastructure improvements, such as rail and highway access to the port, will reportedly be critical. Traffic

and congestion negatively impact VPA's efficiency and competitiveness, so it is important to ensure that these off-terminal capital needs are addressed as container volume grows. Shifting the use of CPF funds from on-terminal capital needs to road and rail infrastructure has already been identified by VPA staff as a potential strategy to improve the efficiency and reliability of cargo shipments through Virginia and to encourage economic development outside the terminals. In interviews, ocean carriers observed that investments in off-terminal infrastructure would be necessary to ensure that cargo moving through Virginia is handled just as efficiently and reliably outside of VPA's terminals as it is within them.

The VPA Board of Commissioners should examine the feasibility of dedicating CPF funds to existing debt service, terminal construction at Craney Island, and off-terminal infrastructure. VPA should partner with the Department of Rail and Public Transportation, the Virginia Department of Transportation, and Virginia Economic Development Partnership on off-terminal capital projects to ensure interagency coordination and maximize its ability to leverage federal and State resources.

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***Recommendation (3).*** The Virginia Port Authority (VPA) Board of Commissioners should examine the feasibility of reserving the Commonwealth Port Fund (CPF) for existing CPF bond debt service, the construction of Craney Island Marine Terminal, and strategic off-terminal investments, such as road and rail improvements that will improve access to and from VPA, and use terminal revenue for all other projects or revenue needs.

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## Efforts to Streamline Port Operations Will Likely Produce Benefits, But Improvements to Governance Are Needed

### In Summary

Until recently, the Virginia Port Authority (VPA) and Virginia International Terminals (VIT) operated under their own administrative and governance structures. While the two entities remain legally separate, in 2013 VPA's and VIT's respective boards implemented several changes, which created a more unified governance and administrative structure. Staffing efficiencies, administrative savings, and improved coordination will likely result from these changes, but the incoming VPA executive director should review the new structure to identify opportunities for achieving additional efficiencies and further clarifying roles and responsibilities. Recent board instability highlights the need to amend the Code of Virginia to ensure greater continuity and stability on the VPA Board of Commissioners and ensure that members have the most relevant expertise to perform their responsibilities. Additionally, the VPA board should take steps to clarify that the direct administration of Virginia's port operations is to be carried out by the VPA executive director. In conjunction, the board should develop specific policies, goals, and objectives to guide and hold accountable the executive director and the VPA and VIT staff.

The study mandate requires JLARC staff to examine the governance model of the State's port operations and identify necessary changes or improvements. The relationship between the Virginia Port Authority (VPA) and Virginia International Terminals (VIT) and their respective roles and responsibilities have been evaluated and modified over time. The recent focus by the current Administration and the General Assembly on VPA's performance has generated renewed interest in the efficiency and effectiveness of this relationship, which was manifest in several legislative changes proposed and/or made in 2013 as well as the request for this JLARC study.

The VPA Board of Commissioners and the VIT Board of Directors implemented several changes to the governance and administrative structure of the State's port operations during the past year. These changes will produce administrative efficiencies and give the VPA board more direct influence over the day-to-day operations of the terminals.

Port users reported that stability in leadership and operations positively contributes to port performance. Given the recent uncertainty surrounding Virginia's port operations, the General Assembly and the VPA board should consider actions to ensure that, in the future, VPA's governance and administration are characterized



by stability and not unduly influenced by political and administrative shifts in State government.

### **PREVIOUS EVALUATIONS FOUND STRUCTURE WORKED WELL BUT IDENTIFIED DUPLICATION**

Virginia's port facilities are administered jointly by VPA and VIT. This arrangement is unique among port operations worldwide. While other government-owned ports are operated by private companies, like VIT, most of these companies are for-profit businesses that operate multiple enterprises worldwide. By contrast, VIT was created as a not-for-profit corporation whose exclusive purpose is to operate Virginia's port facilities.

VPA and VIT have worked together to manage and expand the State's port operations via a formal service agreement that outlines their respective roles and responsibilities. As described in Chapter 1, according to the service agreement VIT is responsible for managing, operating, and maintaining VPA's terminals, including setting the conditions for use of the terminals, performing sales and marketing functions, and taking responsibility for customer relations. VPA retains responsibility for terminal security and safety, improvements to facilities and infrastructure, advertising and public relations, and economic and business development.

Because both entities have direct involvement in the State's port operations, there is the potential for their roles and responsibilities to become duplicative. Previous reviews determined that the overall structure of the VPA and VIT relationship is appropriate, but that there is some duplication. For example, both organizations have maintained their own executive leadership structures and human resources and finance divisions.

### **Efficacy and Efficiency of Dual Organization Structure Were Evaluated Prior to 2013**

The study mandate directs JLARC staff to evaluate the division of management and operational responsibilities between VPA and VIT. Additionally, the mandate directs staff to identify areas of unnecessary duplication as well as improvements that can be made to the current model.

The relationship between VPA and VIT has been reviewed several times since 2005 when VPA created a "Port of Virginia Structural Review Committee." This body, which consisted of then-current and former members of the VPA and VIT boards, was asked to evaluate the division of roles and responsibilities between the two entities and "determine if the VPA receives adequate information to fulfill its statutory and fiduciary responsibilities with regard to VIT." The committee concluded that the "current structure has

served and continues to serve Virginia well” and found “no compelling reason to recommend any significant changes.” It recommended that the VPA establish a committee to review the efficacy of the VPA and VIT relationship and propose necessary changes to VPA on a recurring basis.

In 2008 the General Assembly formed the Joint Subcommittee Studying Public-Private Partnerships Regarding Seaports in Virginia. One of the objectives of this group was to examine the operating and management structure of the State’s port facilities. Among the joint subcommittee’s findings was that “the business relationship between VPA and VIT is working well” and the joint subcommittee “could not identify a business imperative that would dictate changing the business relationship between VPA and VIT.”

### **Some Duplication in Staff Roles Has Evolved Over Time**

While the basic structure was found to be appropriate through previous reviews, there were still opportunities to create staffing efficiencies. According to members of the former VIT board of directors, both VPA and VIT boards recognized that there was duplication between the two organizations that needed to be eliminated. Preliminary examinations of this duplication reportedly occurred between 2010 and 2011, but the 2013 restructuring plan, described below, was the first formal action taken.

The JLARC report presented in January 2013 observed that there were likely opportunities to reduce the degree of overlap and duplication between the two entities, noting that “along with duplication of executive staff, both VPA and VIT have other categories of administrative staff with similar functional responsibilities, such as human resources and finance ... [and] there likely are opportunities to reduce the overall number of administrative staff and lower administrative expenses.” Members of both the VPA and VIT boards and the staff of both organizations acknowledge that there has been overlap in some of the functions, particularly in administrative functions, including finance and human resources. Because VPA and VIT are two separate organizations, however, some overlap or duplication in these particular administrative functions is natural, or even necessary.

### **2013 RESTRUCTURING WILL LIKELY PRODUCE BENEFITS, BUT ELIMINATION OF VIT BOARD REMOVED A POTENTIALLY USEFUL RESOURCE**

In 2012, the VPA board directed VPA staff to develop a plan to streamline operations and identify potential areas for improved communication, efficiency, and savings. In response to the board’s directive, the executive staffs of VPA and VIT drafted a plan to restructure the roles and responsibilities of the two entities. In

March 2013, the VPA board voted in favor of the restructuring plan, and in May 2013 it approved a new VPA/VIT administrative structure. The elements of the new plan are scheduled to be phased in through fiscal year 2014. The plan produces a combined organization that will include divisions composed of both VPA and VIT employees.

The new structure, which organizes staff with similar roles and responsibilities into common divisions, is expected to achieve ongoing administrative savings. VPA and VIT staff, VPA and VIT board members, and port users generally expressed support for the goals of the restructuring plan. One particular aspect, the elimination of the VIT Board of Directors, was not viewed favorably by some VIT staff, who had regarded the VIT board as a useful resource. The board met regularly and was composed of long-serving members who lived in the Hampton Roads community and who were well informed about VPA operations and its impacts on surrounding localities. Moreover, the board had provided continuity of leadership during a recent period of instability.

### **New Structure Is Projected to Achieve Administrative Savings and Operational Improvements**

The restructuring plan identifies potential ongoing administrative savings of at least \$3.3 million, which is one percent of VPA's and VIT's combined operating expenses in fiscal year 2012. Most of these savings will be achieved by the elimination of between 20 and 50 staff positions through an early retirement incentive package. These positions will be identified by organizing staff who perform similar functions under a single administrative structure. VPA will then conduct a "zero base organizational needs" analysis to identify duplicative duties.

Staffing reductions are planned in each of VPA's and VIT's areas of responsibility. The bulk of these reductions (\$2.1 million to \$2.5 million) are expected to materialize in the operations and maintenance functions (a minimum of 10 positions accounting for approximately \$1.7 million in savings) and administrative functions (five to 10 positions, accounting for \$430,000 and \$840,000 in savings), and savings will accrue to both organizations.

The plan will not eliminate all duplication. As separate entities, VPA and VIT require separate administrative structures, particularly in the areas of human resources and finance. Still, the plan is projected to produce a minimum of \$3.3 million in savings over time, and it does not appear that eliminating remaining overlap or duplication would add further meaningful savings.

***New Structure Will Facilitate Coordination.*** Once fully implemented, the restructuring plan will produce a structure that can potentially facilitate greater coordination among key VPA and VIT functions. The restructuring plan maintains the division of roles and responsibilities of VPA and VIT outlined in the service agreement, but attempts to better coordinate these roles and responsibilities.

The plan produces a combined organization that will include divisions composed of both VPA and VIT employees. For example, a combined sales and marketing division was created that is led by a Chief Commercial Officer who is a VIT employee. Within that division, there are both VPA and VIT personnel whose roles and responsibilities prior to the restructuring were related to sales and marketing. Similarly, within the new operations, engineering, and maintenance division there will be a combination of VPA and VIT employees.

***Restructuring Plan Emphasizes Importance of Internal Oversight and Customer Service.*** The restructuring plan elevates the prominence of VIT's internal audit function, which has not been staffed in recent years. The internal auditor will be a VPA employee who reports directly to the VPA Board of Commissioners. The internal auditor's areas of responsibility will include the effectiveness and efficiency of operations, reliability of financial and management reporting, and compliance with required procedures, laws, and regulations.

The restructuring plan will also create a customer service section within the sales and marketing division to be a designated point of contact for port users. Currently, port users do not have such a contact at VPA or VIT, and they typically direct inquiries to the staff with whom they are most familiar. The restructuring plan describes this section as "a dedicated personnel group focused solely on the satisfaction of [VPA's] customers."

### **New Structure May Not Fully Clarify Roles and Responsibilities and Should Be Reviewed for Further Improvements**

An important characteristic of the restructuring plan is that it does not result in moving any individual staff from one organization to the other. It appears that avoiding such reassignments was a plan objective due to the inherent complexity involved and the compressed implementation timeframe established by the VPA board. As noted above, this will mean that the five new divisions of the consolidated organization consist of both VIT and VPA employees.

VPA and VIT staff considered several different approaches to achieving the restructuring's goals of streamlining operations, improving communication and coordination between the two entities,

and clarifying the different roles and responsibilities of VPA and VIT. According to VPA staff, the aspect of VPA's and VIT's relationship that required the greatest improvement was staff coordination and communication. Combining the two organizations into the five divisions mentioned previously was identified as the best solution to address problems with coordination and communication. It also allowed VPA and VIT to identify and eliminate unnecessary or overlapping staff responsibilities.

*While this structure will facilitate greater coordination, it remains to be seen whether it will sufficiently clarify the roles and responsibilities of the two organizations.*

While this structure will facilitate greater coordination, it remains to be seen whether it will sufficiently clarify the roles and responsibilities of the two organizations. According to port users as well as VPA and VIT staff, overlap between the two organizations has made it difficult to identify which entity is responsible for key port functions. Clarification could have been achieved by assigning VIT and VPA exclusive responsibility for specific functions. This action would likely have resulted in moving staff from one organization to the other. However, because it may have been most logical for VIT to assume greater responsibility for the key functions of operations and maintenance (because VIT operates the terminals) and sales and marketing (because VIT has more direct contact with port users), this could have decreased VPA's overall degree of responsibility for the State's port operations.

In May 2013, in addition to approving the restructuring plan, the VPA board initiated a search for a permanent executive director for the VPA, which has been led by an interim director since 2012. The incoming executive director, once hired, should review and evaluate the administrative structures of VPA and VIT and provide recommendations to the VPA board regarding necessary modifications. Specifically, the executive director should identify ways to more clearly delineate the respective roles and responsibilities of VPA and VIT which is a key goal of the restructuring effort.

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**Recommendation (4).** The newly appointed executive director of the Virginia Port Authority (VPA) should review the administrative structures of VPA and Virginia International Terminals and provide recommendations to the Board of Commissioners for achieving staffing efficiencies, simplifying the organizational structure, and clarifying the roles and responsibilities of the two entities.

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### **Changes to VIT's Corporate Status Ensure Greater Accountability, But Eliminating the VIT Board of Directors Removes a Potential Resource for VPA**

One of the chief elements of the approved restructuring plan was the conversion of VIT from a non-stock, not-for-profit corporation to a limited liability corporation (LLC) owned by VPA. Two prima-

ry reasons have been given for modifying VIT's corporate status. The first is that it more clearly establishes for staff, port users, and external stakeholders that VPA is the entity responsible for overseeing and operating the ports. According to port users, the dual organization structure created some confusion regarding which entity was in charge. The second reason for converting VIT to an LLC was the elimination of the VIT board, which was required for a not-for-profit corporation but not for an LLC. The VIT board was viewed by some members of the VPA board as an obstacle to controlling the port's operations and implementing necessary changes to the organization.

The conversion of VIT to an LLC does not appear to have been necessary to achieve the broader goals of the restructuring effort. The objectives of redefining roles and responsibilities and reducing overlap and duplication could have been achieved without the conversion of VIT to an LLC. However, converting VIT to an LLC did result in a structure that better facilitates the VPA board's preferred approach of consolidating VPA and VIT staff into common divisions of responsibility. As stated previously, this approach was chosen over moving staff between the two organizations.

***VPA Already Exercised Significant Control Over VIT, But Conversion Provides More Direct Control.*** VPA already exercised significant control over VIT, despite concerns by VPA board members that VIT had been too independent and that its staff and board had made decisions that were not in the best interest of Virginia's port operations. VPA appointed all nine VIT board members, which included the VPA executive director, and these members served at the pleasure of the VPA board. In 2011, the VIT board amended VIT's Articles of Incorporation to require that two VPA board members serve as VIT board members, giving VPA three VIT board votes out of nine. Moreover, the VPA board had review and approval authority over the VIT budget, the employment conditions of the VIT president, and compensation of its executive staff. These measures of accountability allowed the VPA board to exercise its desired level of control over VIT's operations, but the VPA board reportedly did not always choose to exercise its full authority.

The conversion of VIT to an LLC appears to provide VPA with an additional element of direct influence over VIT's operations. The VPA executive director will be able to hire and fire the manager of VIT, who serves as the chief operations officer for the combined organization. Previously, this was the duty of the VIT board, subject to the approval of the VPA board. The VPA board hires the VPA executive director, and the VIT president will be hired by and report to the VPA director. Therefore, the VPA board will have more direct influence on the leadership structure and key business decisions of VIT.



***VIT Board Was Viewed as a Useful Resource.*** The VIT board, which met more frequently than the VPA board, was viewed by some VPA board members, as well as the VPA and VIT staff, as a useful resource regarding the complexities of the port's operations and the impact of its operations on the Hampton Roads community. In interviews, most VPA board members expressed a desire for the VIT board to be reconstituted as an advisory board to VPA, but no specific plans have been developed regarding the composition of this advisory board or its role.

An advisory board could provide some of the knowledge and perspective regarding port operations and community impact formerly provided by the VIT board. The VPA statute appears to anticipate the need for such an advisory board because it provides for a Maritime Advisory Council to "provide advice and counsel to the Board of Commissioners on all matters associated with the authority with the exception of the annual budget and personnel matters."

#### **VPA BOARD NEEDS STABLE LEADERSHIP WITH SUBSTANTIVE EXPERTISE**

There was consensus among port users interviewed by JLARC staff that stability in port governance and leadership is vital because it provides some certainty to a port's current and prospective customers regarding their business decisions to use the port. There was also consensus that Virginia's port operations should be led by a group of professionals who share an abundance of relevant expertise. The General Assembly may wish to consider amending the statutory governance structure for VPA to ensure greater stability in its leadership and to ensure that the majority of VPA board members possess the requisite expertise.

#### **VPA and VIT Have Experienced Instability Over Last Two Years**

Beginning in 2011, the governance and administration of VPA and VIT transitioned from a period of reportedly steady leadership to a period characterized by uncertain and unstable leadership. This began with the Governor's removal and replacement of 10 out of 11 gubernatorially appointed VPA board members in 2011. This action precipitated turnover in executive-level management at both VPA and VIT. These actions were viewed negatively by many port users.

***Ten of the Eleven Gubernatorial Appointees to the VPA Board of Commissioners Were Removed and Replaced.*** The VPA statute provides that the 11 VPA board members appointed by the Governor serve at the Governor's pleasure. No provision of the VPA statute prevents the Governor from replacing any of these appointees at will, which is comparable to most governing boards in the State.

Of the 11 current gubernatorial appointees to the VPA board, 10 are replacements for board members who were removed by the Governor in 2011. The justification for the Governor's removal and replacement of 10 board members in 2011 was that the port had not performed as well as other East Coast ports through the 2007-2009 recession and that it was not demonstrating that it would recover from the recession in a satisfactory manner. While the VPA statute gives the Governor this authority, and concerns about the port's performance may have been a justifiable reason for exercising it, replacing all but one of the gubernatorial appointees was an unusual and extreme course of action.

***Staff Departures and Privatization Proposals Contributed to Instability.*** The replacement of 10 of the 11 gubernatorial appointees was followed by additional disruptions to VPA's stability. Specifically, both the VPA director and the VIT president left their respective organizations and one year later, the VPA board had not hired a permanent replacement for the VPA executive director. During this period, three proposals to privatize the port were received and the Administration chose to fully consider them. The VPA board also directed staff to develop a plan for restructuring the two organizations, which resulted in the removal of the VIT board of directors.

***Disruptions Were Viewed Unfavorably By Port Users.*** The en masse removal of the board was unsettling to VPA users. VPA users began to question who was in control and reported being hesitant to expand their business relationships with VPA. One of VPA's largest customers stated that the replacement of the board members in 2011 led many businesses in the shipping industry to begin "second guessing" VPA's reputation. This user described the transition to the new board as having created significant distractions for the VPA and VIT staff over the past two years.

### **Board Continuity and Stability Could Be Further Ensured**

VPA operates in a highly complex and competitive industry, and stability and continuity of leadership provide certainty to current and potential port users. Instability will reportedly have negative consequences for VPA's competitiveness because of the uncertainty with which current and prospective port customers view its future. As described in Chapters 2 and 3, shippers and ocean carriers have the option of using other ports, and unpredictable or unstable governance could negatively impact their reliance on VPA. Therefore, prescribing the circumstances under which a Governor can remove members of the VPA board appears warranted. This would create a safeguard against VPA being governed according to political preference.

***Several of the VPA and VIT board members interviewed by JLARC staff reported that they would be in favor of limiting the Governor's ability to remove board members.***

Several of the VPA and VIT board members interviewed by JLARC staff reported that they would be in favor of limiting the Governor's ability to remove board members. They observed that significant turnover could happen with each new gubernatorial administration, given recent precedent.

While gubernatorial appointees to most of the State's governing boards can be removed by the Governor at will, there is precedent for limiting this authority. Members of the Board of Trustees of the Virginia Retirement System can only be removed for cause. The Code of Virginia provides that a member of the VRS board is removable from office only if he or she is convicted of a crime or found to be "mentally incompetent" (§ 51.1-124.20).

Other states appear to limit the circumstances under which members of their port authorities' boards can be removed. For example, members of the North Carolina State Ports Authority's governing commission can only be removed for misfeasance or malfeasance. Members of the South Carolina State Ports Authority can only be removed by the governor for a breach of duty or for entering into a conflict of interest transaction. Until 2009, the governor of South Carolina had the discretion to remove board members at will, but the South Carolina legislature viewed this as a risk to the port's stability and therefore its performance, and changed the terms.

The 2013 General Assembly passed legislation that would have limited the Governor's ability to replace VPA board members at will. These bills (House Bill 2276 and Senate Bill 1305) provided that VPA board members would be "removable from office during their respective terms by the Governor for malfeasance, misfeasance, incompetence, or gross neglect of duty." This specific provision of the legislation was stricken upon the Governor's recommendation. The General Assembly may wish to again consider legislation that would enable the Governor to remove board members only in such instances.

The General Assembly may wish to amend the Code of Virginia to ensure that board members serve staggered terms. Currently, the terms of the existing board members are staggered as a result of the new appointees serving unexpired terms of former members. Creating a statutory requirement for staggered terms would further ensure that there is some continuity in board leadership across gubernatorial administrations. The Code provides for staggered terms in other agencies of the Commonwealth, including the Virginia Retirement System Board of Trustees, the Commonwealth Transportation Board, the Virginia Economic Development Partnership Authority Board of Directors, and the Metropolitan Washington Airports Authority, which operates Ronald Reagan Washington National Airport and Dulles International Airport.

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**Recommendation (5).** The General Assembly may wish to consider amending the Code of Virginia to limit the Governor’s authority to remove members of the Virginia Port Authority Board of Commissioners to instances of malfeasance, misfeasance, or gross neglect of duty.

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**Recommendation (6).** The General Assembly may wish to consider amending the Code of Virginia to establish staggered terms for members of the Virginia Port Authority Board of Commissioners.

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### **VPA Board Member Qualifications Should Be Strengthened**

The complexity of the maritime shipping industry and seaport operations requires board members with experience and expertise necessary to effectively set goals, policies, and objectives and oversee port operations. The VPA statute establishes qualifications for board members. With the exception of the State Treasurer and the President and CEO of the Virginia Economic Development Partnership, “all members shall have executive level experience and represent one of the following industries: agriculture, distribution and warehousing, manufacturing, logistics and transportation, mining, marketing, legal, financial, or transportation infrastructure.”

The statute does not, however, specify maritime shipping or seaport operations as necessary qualifications. Currently, of the 13 members of the VPA board, four have experience with the maritime industry or port operations. Other members have experience in occupations that are highly relevant, including business administration and finance. The state of South Carolina, by contrast, requires expertise in maritime shipping.

While the Code of Virginia requires that each board member have executive experience in one of eight industries, it does not require any board members to have experience in any one industry. Under the current requirements, the Governor could appoint 11 members with a background in agriculture. South Carolina statute requires that a minimum number of board members possess certain types of expertise, specifying that “the Governor shall ensure that the membership of the board includes a certified public accountant; a member representing port users such as manufacturers, shippers, and importers; a member representing the state’s economic development interests; and a member who has served as a corporate chief executive officer.”

To ensure that the VPA board consists of individuals with the most relevant experience, the General Assembly could consider two changes. First, the Code of Virginia could be amended to include expertise in maritime shipping or seaport operations as one of the

qualifications for board membership. Second, the Code could be amended to require that most of the board members (eight) have experience in the areas of maritime shipping or seaport operations; business administration or finance; distribution, warehousing, or manufacturing; transportation; and agriculture, all of which are most applicable to port operations. Table 12 illustrates the recommended qualifications of the 11 appointed VPA board members.

**Table 12: Recommended Qualifications for VPA Commissioners Appointed by the Governor**

Area of Expertise	Number of Members
Maritime shipping or port operations	2
Business administration or finance	2
Distribution, warehousing, or manufacturing	2
Transportation	1
Agriculture	1
Law, marketing, or mining	3
<b>Total</b>	<b>11</b>

Note: Two board members, the State Treasurer and the CEO of the Virginia Economic Development Partnership, are not appointed but are required by statute to serve as voting members.

Source: JLARC staff analysis of interviews with VPA board members, VPA and VIT staff, and a review of other port authorities' board member qualifications.

**Recommendation (7).** The General Assembly may wish to amend the Code of Virginia to require that eight of the gubernatorial appointees to the Virginia Port Authority Board of Commissioners possess experience in the areas of maritime shipping or seaport operations (two members), business administration or finance (two members), distribution warehousing, or manufacturing (two members), transportation (one member), and agriculture (one member). The remaining three gubernatorial appointees should possess experience in the fields of law, marketing, or mining.

### **Individual VPA Board Members Should Not Have Direct Involvement in Staff Activities**

The Code of Virginia establishes that boards and commissions for State agencies can be classified into one of three categories: advisory, policy, and supervisory. Supervisory boards have the greatest degree of responsibility for agency operations. VPA is not a State agency, but a political subdivision of the Commonwealth, so its board is not subject to these classifications. However, according to officials in the Office of the Attorney General, because the Code confers on the VPA board the ability to hire the executive director

of the VPA, it would be considered a supervisory board. The Code specifically states that

A board, commission, or council shall be classified as supervisory if it is responsible for agency operations including approval of requests for appropriations. A supervisory board, commission, or council appoints the agency director and ensures that the agency director complies with all board and statutory directives. The agency director is subordinate to the board. (§ 2.2-2100)

The statute establishing the VPA board (§ 62.1-129) does not clearly enumerate or limit the powers or authority of the board and therefore does not provide sufficient guidance regarding the extent to which the VPA board carries out its supervisory role.

***Several VPA board members acknowledged having taken a managerial role, communicating directly with individual staff members rather than directing questions or requests to the VPA Executive Director.***

***Some VPA Board Members Have Assumed a Managerial Role and Repeatedly Communicated With Non-Executive Staff.*** Some current members of the VPA board view the board's role as extending beyond that of even a supervisory board. Several members describe the board as a "managing board," although no such classification is made in statute, and there does not appear to be a precedent among other State entities. Several VPA board members acknowledged having taken a managerial role, communicating directly with individual staff members rather than directing questions or requests to the VPA executive director. While such actions are not commonplace among all—or even most—board members, staff members have characterized these actions as being part of board culture and reported that the instances in which they have occurred are not isolated to just one board member or to anomalous incidents. Board members have justified these actions as being necessary given their perceptions of VPA's negative financial performance.

Several VPA board members expressed concerns about the managerial approach of other board members and reported a desire for all board members to follow chain of command protocols that would limit board member management of staff to just the VPA executive director. However, other members interviewed by JLARC staff believed that more direct management from the board is justified.

This approach has reportedly led to VPA and VIT operating in a manner that is reactive to the VPA board rather than its established mission. One of VPA's largest customers described the board's degree of involvement in day-to-day operations as "excessive" and hampering the staff's ability to effectively manage operations.



**Port of Houston  
Authority Reported  
Similar Experience  
Among Board and  
Staff**

The Texas Sunset Advisory Commission recently reported that “achieving the appropriate balance between Commission and staff roles has become a particular challenge of the Authority.” The Sunset Advisory Commission suggested the board develop and implement policies that clearly delineate the policymaking responsibilities of the board and the management responsibilities of the staff and require standard best practices to promote ethics and good governance.

***Code of Virginia and VPA Bylaws Establish an Executive Director to Administer VPA’s Operations.***

While the statute provides that the VPA board has “all powers, rights and duties conferred by this chapter, or other provisions of law,” it also requires the board to appoint the executive director and to delegate powers and duties to the executive director. Consistent with the statute, the bylaws adopted by the VPA board state that the executive director shall “be in administrative charge of all the activities of the Authority.” Therefore, the VPA statute and the board’s bylaws establish an organization governed by a supervisory board that appoints an executive director with responsibility for control over the administrative aspects of the agency.

Clarifying the roles and responsibilities of the VPA board in relation to the VPA and VIT staff should be a component of the VPA board’s efforts to restructure the governance and administration of VPA and VIT. As an example, the bylaws developed by the VRS Board of Trustees clearly delineate the respective roles of the board, the VRS executive director, and VRS staff below the director. The bylaws establish that it is the board’s responsibility to set policies necessary to carry out its fiduciary responsibilities for the retirement system, but that the director and the chief investment officer (both hired by the board) have responsibility for “direct operational decision making and administration of the policies and guidelines established by the board.”

The VPA board should review its existing bylaws and make necessary amendments to clarify the limits of the board’s management of VPA and VIT operations. Board members should discontinue the practice of directly communicating with members of VPA and VIT staff outside of VPA board meetings. Board member information requests of staff outside of board meetings should only be communicated through the board chair, representing the board as a whole, and the VPA executive director.

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***Recommendation (8).*** The Board of Commissioners of the Virginia Port Authority (VPA) should amend its bylaws to clarify the roles and responsibilities of the board in relation to staff of VPA and Virginia International Terminals. Specifically, the board should establish protocols for its members to follow regarding communications with staff other than the VPA executive director. At a minimum, these protocols should require that board member requests for information from staff, board member suggestions regarding the execution of staff functions, and other matters related to the day-to-day operations of the terminals be expressed by board members during official board meetings and that, outside of board meetings, requests to staff for information only be communicated through the VPA executive director.

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## **VPA WOULD BENEFIT FROM A CLEAR AND CONSISTENT STATEMENT OF MISSION, GOALS, AND OBJECTIVES**

The study mandate directs JLARC staff to evaluate the purpose and mission of VPA and identify the missions of competitor ports. Modifications to VPA's mission statement and the absence of clearly articulated long-term goals and objectives have led to confusion among stakeholders regarding VPA's purpose and how its terminals should be operated.

### **Through Numerous Modifications, VPA Mission Statement Has Adhered to Mission Established by Code**

The original mission of VPA was established in 1981. During the 2013 General Assembly legislative session, the Code of Virginia was amended to reflect VPA's development of the inland port in 1989 and its growing involvement in the global market, as follows:

It shall be the duty of the Authority, on behalf of the Commonwealth, to foster and stimulate the commerce of the ports of the Commonwealth and related facilities by serving as the United States eastern seaboard gateway for the global import and export of freight throughout the world, to promote the shipment of freight through the maritime and inland ports, to seek to secure necessary improvements of navigable tidal waters within the Commonwealth, and in general to perform any act or function which may be useful in developing, improving, or increasing the commerce, both foreign and domestic, of all maritime and inland ports of the Commonwealth and related facilities (§ 62.1-132.3).

The VPA board has at times expanded upon the statutory language and added additional language to its mission statement. One version of the mission, used between 2007 and 2013, included a reference to VPA being the leading ocean container terminal complex on the East Coast as well as a critical economic engine for the State. Another version, which includes a reference to VPA's environmental activities, was found on the Department of Planning and Budget website in 2013. Even with these variations, the mission of VPA has generally remained focused on stimulating commerce for the Commonwealth, which is consistent with the mission as written in the Code of Virginia.

### **Absence of Specific Goals and Objectives Has Led to Confusion Among Port Stakeholders**

VPA employees, customers, and board members expressed confusion about how its terminals should be operated. Staff at both VPA and VIT observed that there has been some ambiguity about the mission and what is expected of employees. This lack of clarity

stems from both the fluctuations in the mission statement as well as the fact that only informal goals have been suggested by board members and no board-approved, written goals or objectives have been developed.

Staff noted that some members of the current VPA board expected VPA and VIT to focus on profitability in addition to stimulating commerce for the Commonwealth. This reportedly created confusion among staff because the board had not formally communicated its expectations with regard to profitability, and not all members share the view that this is an appropriate goal for VPA.

Staff also reported confusion regarding the board's expectations for VPA's role in economic development. In an earlier version of the mission statement, VPA was tasked with acting as a "critical economic engine" for the Commonwealth. Some staff inferred from this that perhaps VPA was expected to play a lead role in the State's economic development activities, which traditionally has been the role of the Virginia Economic Development Partnership.

### **VPA Should Focus on Developing Goals and Objectives That Further Its Statutory Mission**

#### **Port Authorities in Other States**

Other port authorities on the East Coast have created goals and objectives to support their missions. Examples of these goals include increasing cargo volumes, expanding terminal capacity, and enhancing rail capability.

According to VPA staff, the VPA board has discussed developing a new mission in light of the restructuring of VPA and VIT. In September 2013, the board held a formal discussion regarding several potential specific goals and objectives. While the board has not identified or formalized long-term goals or objectives to which VPA or VIT staff would be held accountable, it appears that it is making progress on this issue.

The VPA board should continue its recent focus on developing specific, measurable goals and objectives for VPA and VIT. These goals and objectives should be consistent with and supportive of the statutory mission. Long-term, measurable goals and objectives could emphasize the importance of operating the terminals in a cost-efficient manner and providing superior cargo handling capabilities and customer service.

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**Recommendation (9).** The Virginia Port Authority (VPA) Board of Commissioners should establish board-approved, written goals and objectives in the areas of operational and cost efficiency, cargo handling capabilities, and customer relations. These goals and objectives should support VPA's statutory mission and clarify for the VPA and Virginia International Terminals staff the board's performance expectations.

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# **JLARC Recommendations:**

## **Review of the Virginia Port Authority's Competitiveness, Funding, and Governance**

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1. The Virginia Port Authority should evaluate the competitiveness of its prices as it negotiates new contracts with ocean carriers to ensure that it is not pricing itself out of the regional and inland markets for which it competes (Chapter 3).
2. The Virginia Port Authority (VPA) Board of Commissioners should (1) establish a formal cost management policy and (2) develop reasonable cost management goals to guide VPA and Virginia International Terminals staff. In developing this policy, the board and staff should balance the need to minimize VPA's operating expenses with its statutory mission of stimulating maritime commerce through Virginia's ports (Chapter 3).
3. The Virginia Port Authority (VPA) Board of Commissioners should examine the feasibility of reserving the Commonwealth Port Fund (CPF) for existing CPF bond debt service, the construction of Craney Island Marine Terminal, and strategic off-terminal investments, such as road and rail improvements that will improve access to and from VPA, and use terminal revenue for all other projects or revenue needs (Chapter 4).
4. The newly appointed Executive Director of the Virginia Port Authority (VPA) should review the administrative structures of VPA and Virginia International Terminals and provide recommendations to the Board of Commissioners for achieving staffing efficiencies, simplifying the organizational structure, and clarifying the roles and responsibilities of the two entities (Chapter 5).
5. The General Assembly may wish to consider amending the Code of Virginia to limit the Governor's authority to remove members of the Virginia Port Authority Board of Commissioners to instances of malfeasance, misfeasance, or gross neglect of duty (Chapter 5).
6. The General Assembly may wish to consider amending the Code of Virginia to establish staggered terms for members of the Virginia Port Authority Board of Commissioners (Chapter 5).
7. The General Assembly may wish to amend the Code of Virginia to require that eight of the gubernatorial appointees to the Virginia Port Authority Board of Commissioners possess previous experience in the areas of maritime shipping or seaport operations (two members), business administration or finance (two

members), distribution or manufacturing (two members), transportation (one member), and agriculture (one member). The remaining three gubernatorial appointees should possess experience in the fields of law, marketing, or mining (Chapter 5).

8. The Board of Commissioners of the Virginia Port Authority (VPA) should amend its bylaws to clarify the roles and responsibilities of the board in relation to staff of VPA and Virginia International Terminals. Specifically, the Board should establish protocols for its members to follow regarding communications with staff other than the VPA Executive Director. At a minimum, these protocols should require that board member requests for information from staff, board member suggestions regarding the execution of staff functions, and other matters related to the day-to-day operations of the terminals be expressed by board members during official board meetings and that, outside of board meetings, requests to staff for information only be communicated through the VPA Executive Director (Chapter 5).
9. The Virginia Port Authority (VPA) Board of Commissioners should establish board-approved, written goals and objectives in the areas of operational and cost efficiency, cargo handling capabilities, and customer relations. These goals and objectives should support VPA's statutory mission and clarify for the VPA and Virginia International Terminals staff the board's performance expectations (Chapter 5).

## Study Mandate

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### HOUSE JOINT RESOLUTION NO. 621

*Directing the Joint Legislative Audit and Review Commission to study the competitiveness, efficiency, and governance structure of the Port of Virginia. Report.*

Agreed to by the House of Delegates, February 4, 2013

Agreed to by the Senate, February 19, 2013

WHEREAS, the Port of Virginia is a cornerstone of the Virginia economy and one of the Commonwealth's most valuable and important state assets; and

WHEREAS, the Port of Virginia is responsible for 343,000 port and port-related jobs, \$41 billion in annual economic impact, \$13.5 billion in annual employee compensation, and \$1.2 billion in annual state and local taxes; and

WHEREAS, the Port of Virginia is governed by the Virginia Port Authority and is operated by Virginia International Terminals, an operating arm of the Virginia Port Authority created in 1982; and

WHEREAS, the Port of Virginia receives nongeneral funds through the Commonwealth Port Fund to fund capital improvements; and

WHEREAS, the Commonwealth of Virginia has a substantial investment in the Port of Virginia and is dependent on its continued economic success; therefore, an independent review of the Port of Virginia is in the best interests of the Commonwealth and the citizens of Virginia; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Joint Legislative Audit and Review Commission (JLARC) be directed to study the competitiveness, efficiency, and governance structure of the Port of Virginia.

In conducting its study, JLARC shall evaluate (i) the current competitive position of the Port of Virginia to include: identification of competitor ports comparative analysis of these ports with the Port of Virginia, including incentive structures, port economic development strategies and programs, unique regional market conditions, analysis of the competitive strengths and weaknesses of the Port of Virginia, and identification of ways to improve the Port of Virginia's competitive position; (ii) the efficiency of the Port of Virginia to include: evaluation of the Port of Virginia's operational efficiency using industry metrics, determining port customer opinions on operational efficiency, and identification of areas for potential improvement; and (iii) the governance model of the Port of Virginia to include: the history and purpose of the Virginia Port Authority and Virginia International Terminals, the history and purpose of the Commonwealth Port Fund, identification of other governance models



used domestically and globally in port management, identification and evaluation of the missions and governance models used at competitor ports, identification and evaluation of state and local funding sources for capital improvements and operations at competitor ports, evaluation of the division of management and operational responsibilities between the Virginia Port Authority and Virginia International Terminals and identification of areas of unnecessary duplication, and identification of changes or improvements to the current governing model.

Technical assistance shall be provided to JLARC by the Secretary of Transportation, the Office of Transportation Public-Private Partnerships, the Virginia Port Authority, Virginia International Terminals, and the Virginia Maritime Association. All agencies of the Commonwealth shall provide assistance to JLARC for this study, upon request.

JLARC shall complete the study by November 30, 2013, and shall submit to the Division of Legislative Automated Systems an executive summary of its findings and recommendations no later than the first day of the 2014 Regular Session of the General Assembly. The executive summary shall state whether JLARC intends to submit to the General Assembly and the Governor a report of its findings and recommendations for publication as a House or Senate document. The executive summary and report shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

## Research Activities and Methods

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JLARC staff conducted the following primary research activities for this review:

- structured interviews with Virginia Port Authority (VPA) and Virginia International Terminal (VIT) staff, members of the VPA Board of Commissioners and the former VIT Board of Directors, personnel from major ocean carriers, personnel from major retailers and manufacturers, experts on the maritime shipping industry and port operations, port staff in other states, personnel in the local governments that host VPA's terminals, staff at the Virginia Economic Development Partnership, staff at the American Association of Port Authorities (AAPA), staff in the Office of the Attorney General, and faculty at the College of William and Mary, Old Dominion University, and the University of Virginia;
- site visits to Norfolk International Terminal and APM Terminal;
- analysis of data on VPA's and VIT's financial history and operational efficiency and data on container shipments to and from the East Coast and major East Coast container ports;
- a review of documents pertaining to VPA's and VIT's governance and administrative structure and documents pertaining to the performance and financial history of other East Coast ports, and
- a review of research literature on port governance and operations.

### STRUCTURED INTERVIEWS AND SITE VISITS

JLARC staff conducted interviews with a variety of individuals involved in or knowledgeable about the State's port operations. Particularly extensive interviews were held with VPA and VIT staff, members of the VPA Board of Commissioners and the former VIT Board of Directors, staff from major ocean carrier companies, staff from major retailers and manufacturers, and staff from port authorities in other states. These interviews informed each of the research issues that were the focus of this study.

## **Port Users**

JLARC staff conducted structured interviews with VPA's main customers (cargo shippers and ocean carrier companies) to gain their perspective on the port's competitiveness and operational efficiency. Gaining the perspective of these customers was essential because they typically decide which ports to send shipments through. Ten companies representing a broad range of shippers were interviewed, including retailers, manufacturers, importers and exporters. Ten ocean carriers were also interviewed, including most of the world's largest ocean carriers and members of all major shipping alliances. The shippers and carriers selected included companies that send substantial container volumes through VPA as well as companies that rely more on other East Coast ports.

JLARC staff also interviewed other parties involved in handling container shipments. Representatives of the trucking industry were interviewed to gain insight into the port's daily operations and efficiency. A third-party logistic provider, which is a company that helps coordinate shipments or store goods, was also interviewed. The two major railroads serving the East Coast were contacted by JLARC staff multiple times, but were unable to participate in the study.

## **Academic and Industry Experts**

JLARC staff conducted background interviews with sources knowledgeable about the shipping industry and East Coast ports. A representative from the American Association of Port Authorities (AAPA) was interviewed to provide information on the current state of East Coast ports and trends in port growth and investment. Dr. James Koch, Board of Visitors Professor of Economics and President Emeritus at Old Dominion University, was interviewed to provide additional context on these areas and general insight into issues affecting VPA. Dr. Koch recently performed a review of VPA and Virginia International Terminals (VIT) for the Governor and legislative leaders.

## **Other East Coast States**

JLARC staff requested phone interviews with executive directors and chief financial officers at all six East Coast ports examined in this study to obtain information on port operations and finances. Port officials at the Georgia Port Authority, South Carolina State Ports Authority and Jacksonville Port Authority participated in these interviews and provided information on the following topics:

- sources of state funding;
- competitive advantages and disadvantages;
- actions to improve port facilities;

- economic development initiatives;
- cost efficiency;
- operational efficiency; and
- mission statements and governance.

None of the port officials at the Maryland Port Authority, Port Authority of New York and New Jersey, or North Carolina State Ports Authority (NCSPA) agreed to participate in a phone interview, but NCSPA's executive director provided some limited information on state funding by email.

### **Local Government Personnel**

JLARC staff interviewed personnel from local government departments related to economic and business development to determine the impact of the VPA on those localities that house terminal operations. Those contacted included city managers, assistant city managers, directors of economic development, directors of public works, and business development managers in Norfolk City, Newport News City, Portsmouth City, and Warren County. JLARC staff also interviewed staff with the Hampton Roads Economic Development Alliance.

### **VPA and VIT Staff and Board Members**

JLARC staff held many extensive interviews with personnel at VPA and VIT to gain a better understanding of port operations, activities that had been undertaken or are being planned to improve VPA's efficiency and competitiveness, historical and planned uses of State funding, and the two organizations' administrative and governance structures. Interviews were held with executive level and non-executive staff in both organizations.

JLARC staff also requested interviews with all existing VPA Board of Commissioners members, with the exception of the Chairman and CEO of VEDP who is a newly appointed member beginning July 1, 2013. Of the 12 members who were sent an interview request, nine agreed to participate in the study. JLARC staff also interviewed four members of the former VIT Board of Directors. Interviews focused on VPA's and VIT's administrative structure and the restructuring plan developed by the VPA and VIT staff, VPA's and VIT's financial and operational performance, and the role of the VPA board.

### **Other Interviews**

In order to gain insight into the economic impact of VPA on the State and localities, JLARC staff interviewed staff at the Virginia Economic Development Partnership (VEDP), the State agency re-

sponsible for fostering increased expansion of Virginia's economy. JLARC staff spoke with both executives and research staff at VEDP.

JLARC staff also interviewed attorneys representing both VPA and VIT, as well as attorneys in the Office of the Attorney General. The purpose of these interviews was to determine to what extent the legal implications or risks of converting VIT from a non-stock not-for-profit entity to a limited liability corporation owned by VPA had been considered.

Additionally, JLARC staff interviewed the lead author of the *Economic Impact Study: Port of Virginia* compiled by the Mason School of Business at the College of William and Mary. JLARC staff also spoke with an economist at the University of Virginia.

### **Site Visits**

JLARC staff conducted site visits to VPA's primary container handling terminals—Norfolk International Terminal and APM Terminal. The purpose of these site visits was to observe terminal operations and equipment and to better understand the terminals' layout.

### **DATA ANALYSIS**

JLARC staff analyzed data obtained from VPA and VIT as well as the AAPA. VPA and VIT provided data on VPA's position on major ocean carriers' East Coast routes to inform the analysis of VPA's competitiveness. VPA and VIT also provided data on their respective financial histories to enable JLARC staff to determine how State funds have been used to support port operations, planned uses of CPF funds, contributors to VPA's outstanding total debt, and recent trends in its operating costs. JLARC staff analyzed container shipment data obtained from the AAPA to inform its analysis of VPA's competitive position. Finally, JLARC staff analyzed data provided by VPA and VIT staff on measures of the port's operational efficiency to determine recent trends the performance of its terminals.

### **Analysis of VPA and VIT Financial Data**

JLARC staff requested historical data from VPA and VIT on their sources of revenue, the use of State funds, outstanding bond debt and capital purchases made using bond proceeds, and operating costs.

**Sources of Revenue at VPA.** JLARC staff analyzed VPA data on State, federal, and terminal revenue from 1970 to 2012, based on information obtained from CAFRs for each of those years. This da-

ta was used to examine the total amount of State funding to VPA over time, as well as trends in the proportion of State funding relative to terminal revenue.

**Uses of CPF Funds at VPA.** JLARC staff analyzed Commonwealth Accounting and Reporting System (CARS) data from 2004 to 2012 to determine the proportion of CPF funding allocated to each expense category at VPA. JLARC staff also examined the proportion of each expense category funded by the CPF to determine the relative contribution of CPF funds to various types of VPA expenditures during those nine years. In addition, information on VPA's prospective budget for CPF funds in FY 2014 was analyzed to show how the use of CPF funds is expected to change that year.

JLARC staff also examined VPA's prospective budget for all projected CPF allocations from FY 2014 to FY 2040 to determine how much of these funds are required for debt service on existing CPF bonds and construction of CIMT. This information was used to determine whether any remaining CPF funds might be available for future off-terminal capital infrastructure needs if VPA's Board of Commissioners decides to adopt this funding strategy in the future.

**Outstanding Debt at VPA.** JLARC staff extracted information from VPA's 2012 CAFR to determine VPA's current debt load, as well as the debt service ratios and the debt service payment schedule for all outstanding bond debt. VPA provided additional data on projected debt service ratios through 2017, based on expected terminal revenue during that time period, as well as detailed information on the amount and purpose of CPF bonds issued in 1988, 1996, 2002, 2005, 2006, and 2011.

**VPA's and VIT's Operating Costs.** JLARC staff analyzed VPA and VIT financial data to determine whether their operations were becoming more or less cost efficient. However, because a large portion of VPA/VIT's operating expenses are directly connected to the volume of container shipments it handles, changes in expenses can be more representative of changes in business activity than operational efficiency. For example, when the volume of container shipments handled by VPA/VIT go up, the hours worked by its wage labor force also go up, resulting in higher operating expenses. To account for the effect of business activity on VPA/VIT's operating expenses, JLARC staff standardized its past expenses by the number of containers it handled each fiscal year. By standardizing operating expenses on a per-container basis, JLARC staff were able to more accurately determine year-to-year trends.

### **Analysis of VPA and VIT Operations Data**

To evaluate VPA's and VIT's operational efficiency, JLARC staff requested historical data from VIT on three metrics commonly used by ports to measure the speed and efficiency of their operations: net crane moves per hour, truck turn times, and intermodal "rail-ready" dwell times. VIT provided 33 months of data on crane moves per hour and truck turn times and 18 months of data on intermodal dwell times. JLARC staff calculated average performance on these measures over time on a quarterly basis by aggregating the monthly data.

### **Analysis of Container Shipment Data**

JLARC staff performed several analyses of historical trends in container shipments through VPA and other East Coast ports using data provided by AAPA for 1980 to 2012. These included analysis of changes in container volumes handled by ports over time (as measured in twenty-foot equivalent units), changes in market share among VPA and its closest competitors, and the rate of container volume growth experienced by East Coast ports. AAPA data was also used to identify and rank the 13 major East Coast container ports.

AAPA data was also used for container shipment trend analyses instead of alternative data sources, such as Port Import Export Reporting Service (PIERS) data, because it is just as reliable for high-level analysis and was available at no cost. PIERS is an expensive, subscription only service that is only needed to perform in-depth evaluations of specific trends, such as the types of commodities shipped through different ports. Even though PIERS can be used to perform many in-depth analyses, some data entries are incomplete or unreliable, which restrict its usefulness.

In order to assess trends in rail shipments, JLARC staff collected data on the rail and overall container shipments handled by VPA and the Port of New York/New Jersey (Port of NY/NJ). VPA data was provided upon request, and Port of NY/NJ data was available on its website. Data on the amount of rail traffic carried by other major East Coast ports was not readily available, so JLARC staff asked VPA to develop an estimate using their PIERS data subscription.

### **Analysis Related to Local Port Impacts**

JLARC staff collected and analyzed data from the VPA and localities that house terminal operations to determine the "payment in lieu of taxes" amounts for which the localities are eligible. JLARC staff also examined University of Virginia's Weldon Cooper Center's publications on local tax rates in Virginia to determine the



potential real property tax revenue for the localities that house terminals if terminal properties were not tax-exempt.

## **LITERATURE AND DOCUMENT REVIEWS**

JLARC staff conducted an extensive review of international, national, and Virginia-based academic and port industry literature on maritime shipping and port operations. JLARC staff also reviewed numerous documents pertaining to VPA's operations, administration, and governance as well as the operations, administration, and governance of other states' port authorities.

### **General Literature Review**

JLARC staff reviewed available literature on port operations and maritime shipping, some of which was specific to Virginia. Topics covered by the literature included factors contributing to ports' operational efficiency and ports' competitiveness and port governance structures.

### **Reviews of Documents Regarding Other States' Port Characteristics and Operations**

JLARC staff reviewed CAFRS, press releases, and other data published on state port websites to obtain information on funding sources for capital needs at each of the East Coast ports examined in this study. These resources were also used to collect additional financial information on recent capital expenditures, assets and liabilities, operating income, and outstanding debt at the Georgia Port Authority and South Carolina State Ports Authority.

In addition to reviewing port-specific financial documents, JLARC staff reviewed several documents summarizing funding sources at other U.S. ports, including *Report on State Financial Assistance For Capital Improvements At Public Ports in the United States*, which was prepared by consultants for The Ports Association of Louisiana in November 2009, and numerous summary reports of funding at other East Coast ports developed by staff at VPA and VIT.

JLARC staff reviewed legislation in other states regarding port authority governance and structure. Specifically, JLARC staff examined the qualifications and terms of port authority board members as well as the gubernatorial authority to remove board members in other states. JLARC staff also reviewed other states' port authorities' missions and goals which informed the section on development of goals and objectives to support a statutory mission.

JLARC staff collected information on the infrastructure in place at other East Coast ports, and the improvement projects they have

planned, in order to compare them to VPA. The primary sources used determine the current infrastructure in place at each port were facility descriptions provided on port authority or terminal operator websites. In cases where this information was not available, JLARC staff examined reports and studies issued by the port authority or its parent state. For information on planned projects, JLARC staff examined information presented in port authority and terminal operator websites, planning documents, and press releases. For some information, JLARC staff relied on media reports quoting port officials or information posted by contractors working on port projects. Additional information on waterway projects was collected from U.S. Army Corps of Engineers project plans and descriptions.

### **Reviews of VPA and VIT Documents**

JLARC staff collected and reviewed numerous documents pertaining to VPA's and VIT's operations and governance. These included

- VPA's 2012 Comprehensive Annual Financial Report;
- VPA's 2008 and 2013 long range strategic and capital improvement plans and marketing strategy;
- VPA's proposed plan for restructuring the VPA and VIT administrative structure;
- VPA Board of Commissioners and VIT Board of Directors meeting materials, which included staff-produced reports related to operational and financial performance;
- Internal VPA and VIT staff summaries and analyses of other states' completed or planned actions to improve terminal capabilities;
- the VPA/VIT service agreement;
- the bylaws of the VPA and VIT boards;
- "payment in lieu of taxes" requests by localities;
- economic impact studies performed at the request of VPA;
- the bond agreements for the two types of bonds issued by VPA and VIT; and
- recent reports on VPA and VIT produced by Drewry, KPMG, Moffatt and Nichol, Norbridge, and RK Johns and Associates.

# Appendix C

## Port Tax Credits Offered By Other East Coast States

### Virginia and Several Other East Coast States Offer Port-Related Tax Credits

State <sup>a</sup>	Credit Name	Minimal Qualifications	Benefit Limitations
Virginia <sup>b</sup>	Port Volume Increase Credit	Increase shipments 5% over prior year	\$250,000/year per taxpayer, \$3.2M/year total credits
	International Trade Facility Credit	Increase shipments 10% over prior year & create new jobs or investment	\$250,000/year per taxpayer, no cap on total credits
Florida	Qualified Target Industry Tax Refund	Increase shipments 10% over prior year & create new jobs	\$5M/lifetime, no cap on total credits
Georgia	Port Tax Credit Bonus	Increase shipments 10% over prior year & create new jobs or investment	50%/year of taxpayer's liability, no cap on total credits
Massachusetts	Harbor Maintenance Tax Credit	Pay federal harbor Maintenance tax for using state port facilities	No cap on taxpayer or total credits
North Carolina	Ports Tax Credit	Increase shipments by any amount over the average of the prior 3 years	50%/year of taxpayer's liability up to \$2M/lifetime, no cap on total credits
South Carolina	Port Volume Increase Credit	Increase shipments 5% over prior year	\$1M/year per taxpayer, \$8M/year total credits

<sup>a</sup> Eleven East Coast states have a major container port within their borders. Of these, five do not appear to offer a port-related state tax credit: Delaware, Maryland, New York, New Jersey, and Pennsylvania.

<sup>b</sup> Virginia also offers a barge and rail usage credit that is unique among East Coast states. This credit allows qualifying shippers that elect to transport their goods via rail or barge instead of truck to claim a credit against their corporate income taxes.

Source: JLARC staff analysis of information provided by VPA and port and state government websites, including program descriptions, statutory language, and application documentation, 2013.

# Comparison of Container Terminals at East Coast Ports

## Key Features and Capabilities of Major East Coast Container Ports, 2012

Port	Terminal Operator	Container Volume (TEUs, millions)	Total Est. Capacity (TEUs, millions)	Terminal Property Size <sup>a</sup> (Acres)	Total Container Cranes	On-Dock Rail at All Terminals	Post-Panamax Ready
NY/NY <sup>b</sup>	Private	5.5	8.8	1,340	59	×	×
Savannah <sup>c</sup>	Public	3.0	5.5	1,200	23	✓	×
Virginia <sup>d</sup>	Hybrid	2.1	3.5	1,143	22	✓	✓
Charleston <sup>e</sup>	Public	1.5	2.8	1,045	21	×	×
Jacksonville <sup>f</sup>	Public	0.9	n/a	1,085	18	✓	×
Everglades <sup>g</sup>	Private	0.9	n/a	324	9	×	×
Miami <sup>h</sup>	Private	0.9	n/a	268	9	×	×
Baltimore <sup>i</sup>	Private	0.7	0.8	284	11	×	✓
Wilmington, DE <sup>j</sup>	Public	0.3	n/a	308	3	✓	×
Philadelphia <sup>k</sup>	Private	0.3	0.5	112	7	✓	×
Wilmington, NC <sup>l</sup>	Public	0.3	0.5	85	7	✓	×
Palm Beach <sup>m</sup>	Private	0.2	0.3	156	5	✓	×
Boston <sup>n</sup>	Public	0.2	n/a	188	6	×	×

Note: Information presented in this table is for all terminals at each port that have significant container operations. This may include dedicated container terminals and terminals that handle containers as well as other types of cargo. The Ports of NJ/NJ, Virginia, Charleston, Jacksonville, Miami, and Everglades have two or more container-handling terminals. The Ports of Savannah, Baltimore, Wilmington (DE), Philadelphia, Wilmington (NC), Palm Beach, and Boston have only one terminal that handles container cargo.

<sup>a</sup> For some ports, terminal property may include acreage that is used to handle non-containerized cargo.

<sup>b</sup> Three of the Port of NY/NJ's six container terminals have on-dock rail facilities providing equal access to CSX and Norfolk Southern. The port is expected to be post-Panamax ready in 2015, after projects to dredge its harbor to 50 feet and raise the Bayonne Bridge are complete.

<sup>c</sup> The Port of Savannah has on-dock rail facilities at its single container terminal that provide equal access to CSX and Norfolk Southern. The port's shipping channel is planned to be deepened to 47 feet by 2016, which is deep enough to accommodate post-Panamax vessels that are smaller or not fully loaded.

<sup>d</sup> The Virginia Port Authority's terminal operator, Virginia International Terminals, is a private limited liability corporation but is wholly-owned by the authority, giving the port a hybrid public-private operator model. The port has on-dock facility at both of its terminals, but only one terminal provides equal access to both CSX and Norfolk Southern.

<sup>e</sup> The Port of Charleston has on-dock rail facilities at two of its three container terminals, but not its main container terminal. The Army Corps of Engineers is studying the feasibility of deepening Charleston Harbor up to 50 feet to make it post-Panamax ready. If approved, the project would be completed no sooner than 2020.

<sup>f</sup> The Port of Jacksonville has on-dock rail facilities at all three of its container terminals, but only CSX has access to these facilities. The Army Corps of Engineers is studying the feasibility of deepening the port's shipping channel up to 47 feet to make it partially post-Panamax ready. If approved, the project would be completed no sooner than 2021.

<sup>g</sup> Port Everglades is constructing an on-dock rail facility that is due to be completed in 2014. The new facility will be served by the Florida East Coast Railway, a Class-II railroad that provides exclusive service to south Florida ports. The Army Corps of Engineers is studying the feasibility of deepening the port's shipping channel to 50 feet to make it post-Panamax ready. If approved, the project would be completed no sooner than 2017.

<sup>h</sup> The Port of Miami will be post-Panamax ready in 2015, after a project to deepen its harbor to 50-52 feet is complete. The port is also constructing an on-dock rail yard and limited operations are expected to begin by October 2013 with full implementation by 2014. The port is served by the Florida East Coast Railway, a Class-II railroad that provides exclusive service to south Florida ports.

<sup>i</sup> The Port of Baltimore's container operations are concentrated at the Seagirt Terminal, which is a privately-operated facility located adjacent to the larger, publically operated Dundalk terminal. Information provided in this table is only for the Seagirt Terminal, which handles most, but not all, of the port's container shipments. Other port terminals are operated by the public port authority.

<sup>j</sup> The Port of Wilmington (DE) has on-dock rail facilities but they are only accessible by Norfolk Southern. A project to deepen the Delaware River to 45 is expected to be completed by 2017 and will make the port partially post-Panamax ready.

<sup>k</sup> A project to deepen the Delaware River to 45 is expected to be completed by 2017 and will make the Port of Philadelphia partially post-Panamax ready.

<sup>l</sup> The Port of Wilmington (NC) has on-dock rail facilities but they are only accessible by CSX. North Carolina's 2012 Maritime Strategy identified a need for deeper waterways to be post-Panamax ready but the Army Corps of Engineers does not yet appear to be studying the possibility of deepening the Cape Fear River.

<sup>m</sup> The Port of Palm Beach is served by the Florida East Coast Railway, a Class-II railroad that provides exclusive service to south Florida ports. The Army Corps of Engineers recently studied the possibility of deepening the port's shipping channel from 33 to 39 feet, but this would not make the port post-Panamax ready.

<sup>n</sup> The Port of Boston relies on an off-dock CSX rail facility for all rail cargo and does not appear to be planning development of an on-dock facility. Norfolk Southern service is not available because the railroad does not have connections serving the Boston area. The port's shipping channel is planned to be deepened to 47 feet by 2017, which is deep enough to accommodate post-Panamax vessels that are smaller or not fully loaded.

Source: JLARC staff analysis of port authority websites, private operator websites, and third-party sources, including construction firm websites and news articles.

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# Virginia Port Authority

## Debt Service Requirements

VPA will pay over \$819 million for debt service on outstanding CPF bonds and port facility revenue bonds between 2013 and 2040. Total debt service payments on these bonds decreases over time from about \$36.9 million per year in 2013 to about \$4.8 million per year by 2037. Debt service on CPF bonds will be eliminated in 2036, but debt service on port facility revenue bonds will continue until 2040.

<b>Period Ending June 30</b>	<b>Commonwealth Port Fund Bonds Debt Service</b>	<b>Port Facilities Revenue Bonds Debt Service</b>	<b>Total Bonds Debt Service</b>
2013	19,324,794	17,619,788	36,944,582
2014	19,327,972	17,621,288	36,949,260
2015	19,323,823	17,617,488	36,941,311
2016	17,639,409	19,137,151	36,776,560
2017	16,207,477	19,131,788	35,339,265
2018	16,210,064	19,135,326	35,345,390
2019	16,208,527	19,137,726	35,346,253
2020	16,207,181	19,130,701	35,337,882
2021	16,206,183	19,132,401	35,338,584
2022	16,208,685	19,138,457	35,347,142
2023	16,201,714	19,134,332	35,336,046
2024	16,208,939	19,129,995	35,338,934
2025	16,208,163	19,131,194	35,339,357
2026	16,204,905	19,130,619	35,335,524
2027	16,205,632	19,130,113	35,335,745
2028	9,713,544	19,643,126	29,356,670
2029	9,709,676	19,645,413	29,355,089
2030	9,709,750	19,644,700	29,354,450
2031	9,709,750	19,640,688	29,350,438
2032	9,712,500	19,647,125	29,359,625
2033	9,712,000	19,645,325	29,357,325
2034	9,712,500	19,643,250	29,355,750
2035	9,713,000	19,646,750	29,359,750
2036	9,712,500	19,644,500	29,357,000
2037		4,819,750	4,819,750
2038		4,821,500	4,821,500
2039		4,823,250	4,823,250
2040		4,819,500	4,819,500
<b>Total</b>	<b>\$ 341,298,688</b>	<b>\$ 478,543,239</b>	<b>\$ 819,841,927</b>

Source: VPA 2012 Comprehensive Annual Financial Report.



## Agency Responses

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As part of an extensive validation process, State agencies and other entities involved in a JLARC assessment are given the opportunity to comment on an exposure draft of the report. JLARC staff provided an exposure draft of this report to the Virginia Port Authority and the Secretary of Transportation.

Appropriate corrections resulting from technical and substantive comments have been made in this version of the report.

This appendix includes a written response letter provided by the Virginia Port Authority and Virginia International Terminals.



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October 4, 2013

Mr. Hal E. Greer  
Director  
Joint Legislative Audit and Review Commission  
201 North 9<sup>th</sup> Street, General Assembly Building  
Suite 1100  
Richmond, Virginia 23219

Dear Mr. Greer:

Please allow this letter to serve as acknowledgement that the draft of the JLARC report: *Review of the Virginia Port Authority's Competitiveness, Funding and Governance* was received on September 23, 2013. We have reviewed the report and provided comments to Tracey Smith via e-mail on October 2, 2013.

One additional comment we would like to provide is the following:

- A unique aspect at the Port of Virginia that is not specifically mentioned in the report is the impact of the privately owned APM Terminal in Portsmouth, Virginia. The land acquisition, construction, and opening of the facility in 2007 created pure competition amongst a public owner/operator (VPA/VIT) and private operator (APMT). The private ownership of the APM Terminal is a dynamic that does not exist in any other major East Coast port.

We appreciate the time and effort that the JLARC staff spent gathering data in order to gain an understanding of the Port's competitive challenges and your staff's professionalism and cooperation.

Thank you for the opportunity to review and comment on the draft and we look forward to receiving the final report.

Kind regards,

Rodney W. Oliver  
Interim Executive Director  
Virginia Port Authority

Joseph P. Ruddy  
Chief Operations Officer  
Virginia International Terminals, LLC

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## Recent Studies

### 2013

Non-Academic Services and Costs at Virginia's Public Four-Year  
Higher Education Institutions  
Trends in Higher Education Funding, Enrollment, and Student Costs  
Review of Recent Reports on the Virginia Port Authority's Operations

### 2012

Cost of Competing Adjustment for School Divisions  
in Northern Virginia  
Encouraging Local Collaboration Through State Incentives  
Review of State Economic Development Incentive Grants  
Review of Year-Round Schools  
Dedicated Revenue Sources for Land Conservation in Virginia  
Review of Employee Misclassification in Virginia

Reports are available on the JLARC website.  
<http://jlarc.virginia.gov>



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