

MARKET ASSESSMENT

2.1 Introduction

This second element of the *Port Everglades Master Plan* (the Plan) presents the results of market assessments the Consultant Team conducted for the core business sectors at the Port. These include containerized cargo, dry and break-bulk (neo-bulk) cargo, liquid bulk cargo, and cruise. The element also discusses other business opportunities, such as the implementation of intermodal rail and an intermodal container transfer facility (ICTF).

The element first provides a ten-year overview of the Port's past cargo and cruise operations and revenue; it then continues with the series of market assessments and business opportunity discussions, concluding with a summary of the respective market findings.

2.2 Historic Overview of Core Cargo and Cruise Operations

As a complement to examining the market opportunities for Port Everglades in each of its core businesses over the 2026 planning period, the Consultant Team looked at how these businesses have matured over the ten-year period from FY 96/97 - FY 05/06.¹ The Port, which ranks as one of the nation's leading container and cruise ports, accommodates diverse cargo and cruise operations.

On the cargo side, the Port's diversified operations include:

- Containerized cargo, with commodities such as tile, granite, leather goods, coffee, paper products, auto parts, furniture, apparel, beverages, dairy products, agricultural products, seafood, frozen meats, citrus concentrate, bananas, and other fruit.
- Dry bulk cargo, including cement and clinkers, gypsum, and varied aggregates.
- Liquid bulk, comprising diverse petroleum products such as gasoline, diesel, jet, and other fuel.
- Break-bulk, also called neo-bulk, including building materials such as steel (rebar) and lumber.
- Rolling stock such as yachts and other boats, vehicles and equipment.

On the cruise side, the Port's broad spectrum of passenger operations encompasses more than 40 cruise ships, whose itineraries range from one-day cruises to the Bahamas through world cruises.

In addition to these core businesses, other activities at the Port include a petroleum storage tank farm, serving 12 counties; Foreign Trade Zone 25, used by over 60 businesses; and an annual "Fleet Week USA," honoring the U.S. Navy and Coast Guard.

This diversity is a key strength that has contributed to both the Port's significant growth and its financial performance.

¹ All of the statistics presented in this section are from the Port's *Waterborne Commerce Report*, updated in December 2006.

2.2.1 Cargo Operations

Tonnage. Over the ten years from FY 96/97 through FY 05/06, the Port’s tonnage has increased from 21.7 million tons to 27.1 million tons. This 25 percent increase is shown in Figure 2-2.1. As further illustrated in Figure 2-2.2, petroleum product accounts for the preponderance of this tonnage, increasing by 20 percent over the entire period, but with a slight 4.2 percent decline in FY 05/06. This decline may have been in response to record prices that caused consumers, businesses, and airlines to cut fuel consumption and electric utilities to switch from fuel oil to less costly natural gas.

Containerized cargo tonnage is next in volume, increasing by 33 percent over the ten-year period. In FY 05/06, this tonnage reached a record high of nearly 5.7 million short tons, up 12 percent from the previous record high of 5.1 million tons in FY 04/05, and the Port’s third consecutive year of double-digit gains for containerized cargo.

The other types of cargo have sustained larger percentage increases over the ten-year period, but from a much smaller base (see Table 2-2.1). Between FY 04/05 and FY 05/06, the Port’s break-bulk (neo-bulk) cargoes, primarily steel and lumber, increased by 31.4 percent, to 344,528 tons. Yachts and boats were up 75.5 percent, to 32,866 tons, and tractors were up 70.7 percent, to 45,462 tons. Dry bulk, comprising cement and aggregate, increased 3.7 percent, to 2,954,310 tons.

Figure 2.2-1
Tonnage at Port Everglades
FY 96/97 - FY 05/06

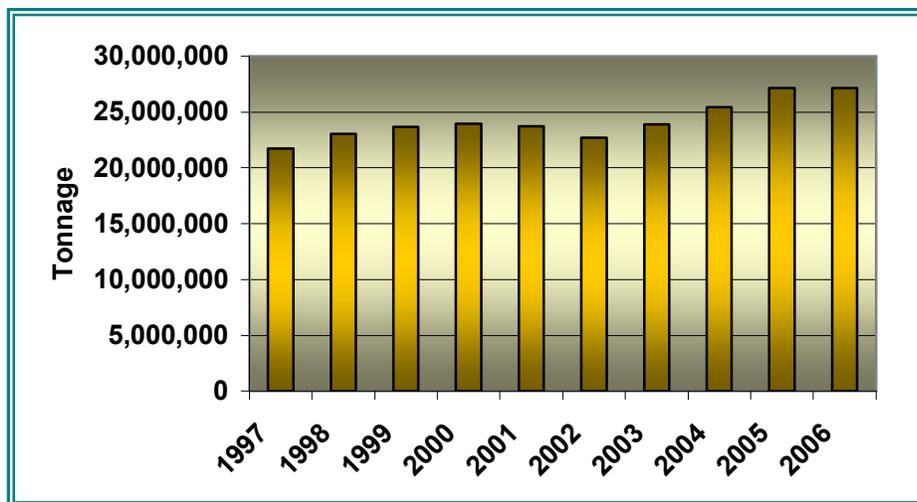


Figure 2.2-2
Comparison of Tonnages at Port Everglades by Cargo Type
FY 96/97- FY 05/06

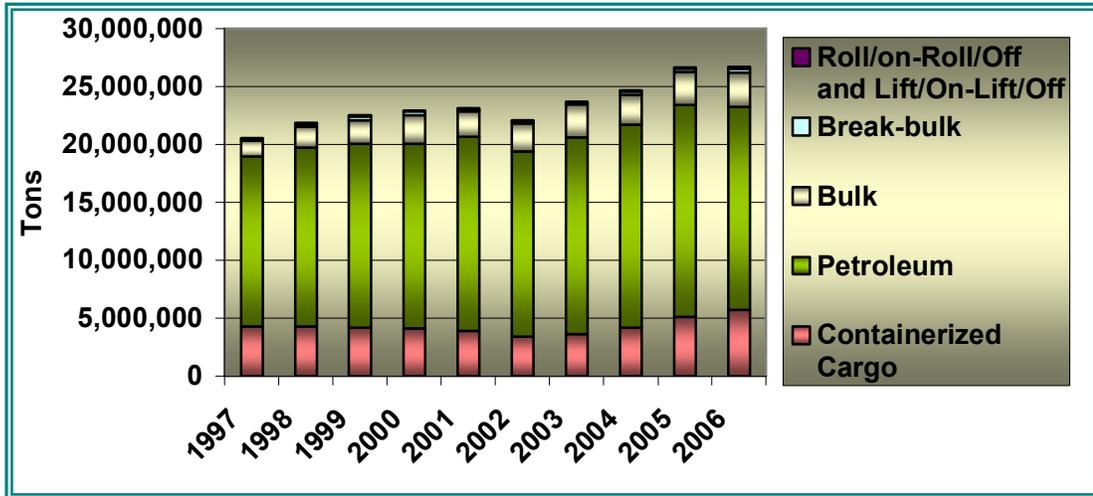


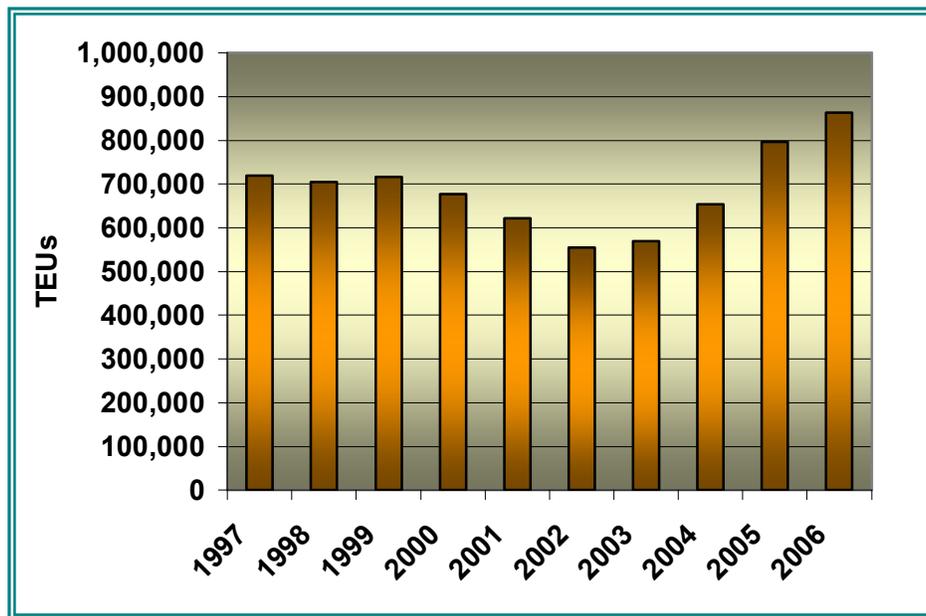
Table 2.2-1
Percent Tonnage Change at Port Everglades by Cargo Type
FY 96/97-FY 05/06

Cargo Type	1997	2006	Percentage Change over the 10-year Period
Containerized Cargo	4,292,662	5,688,442	33%
Petroleum (Liquid Bulk)	14,638,630	17,566,394	20%
Bulk (Dry Bulk)	1,401,572	2,954,310	111%
Break-bulk (Neo-bulk)	148,045	344,528	133%
Roll/on-Roll/Off and Lift/On-Lift/Off	67,171	152,549	127%

Container Movements. Figure 2-2.3 shows how containerized cargo movements at Port Everglades, expressed in 20-foot equivalent container units, or TEUs, have grown over the ten-year period. In FY 96/97, 719,326 TEUs crossed the Port’s docks; by FY 05/06, that number had increased to 864,030, a 20 percent rise over the period. Since FY 01/02, the Port’s TEU count has been on a steady upswing, increasing by 56 percent in the last five years and by 8.4 percent in the last year alone.

Total TEUs

Figure 2.2-3
TEU Movements at Port Everglades
FY 96/97-FY 05/06



2.2.2 Cruise Operations

Port Everglades has seen a 28 percent increase in the total number of passengers cruising from the Port in the ten-year period, from 2.5 million passengers in FY 96/97 to 3.2 million in FY 05/06. As shown in Figure 2-2.4, however, the two categories of cruises -- multi-day and single-day -- have experienced different passenger growth patterns. Whereas the number of multi-day passengers cruising from Port Everglades increased by 98 percent over the ten-year period, the number of day cruisers declined by 38 percent, as shown in Table 2-2.4. This decline is attributable to a variety of factors, including new competitive landside gaming opportunities. The differing patterns are clearly illustrated in Figure 2.2-5.

Figure 2.2-4
Cruise Passengers at Port Everglades by Cruise Type
FY 96/97-FY 05/06

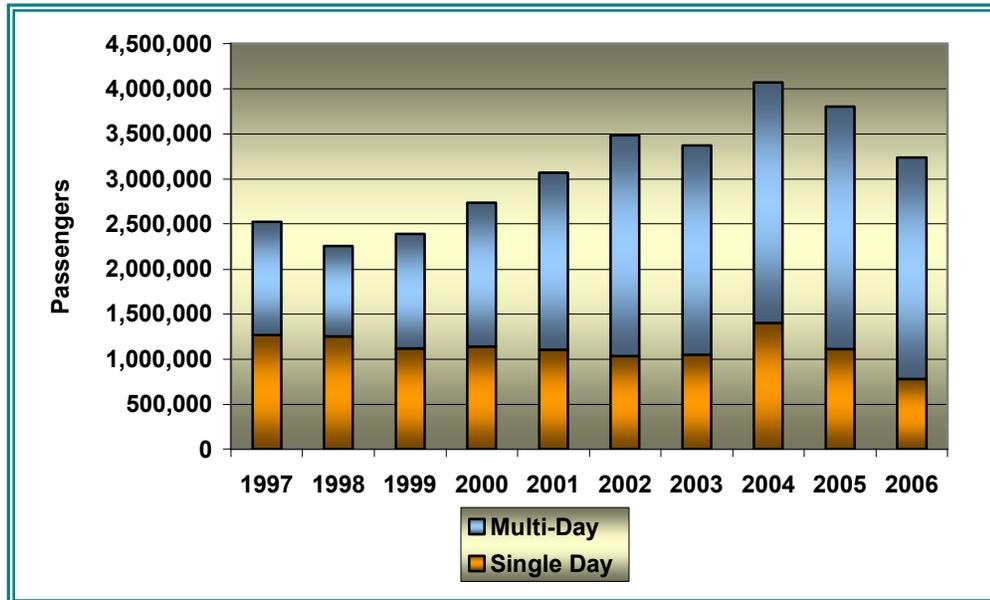
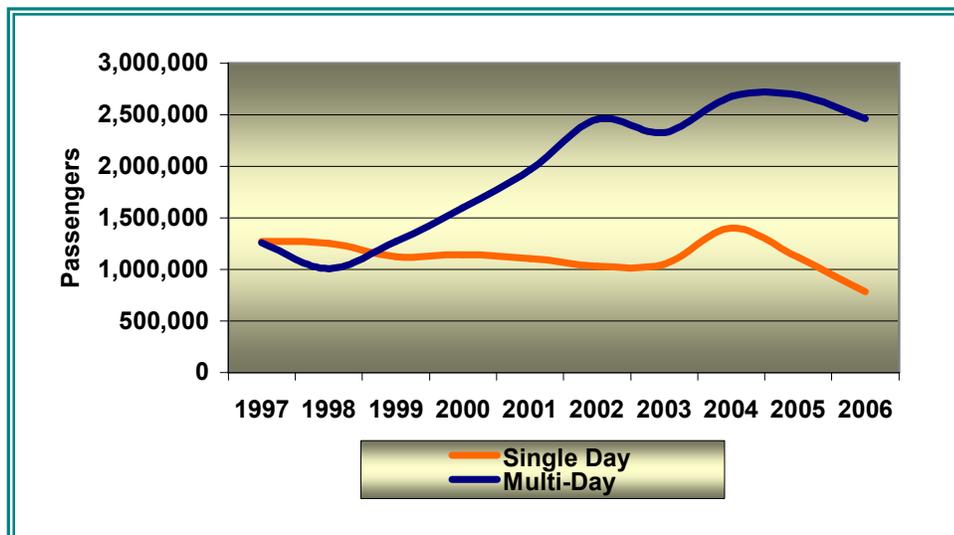


Figure 2.2-5
Comparison of Cruise Passengers at Port Everglades by Cruise Type
FY 96/97-05/06



2.2.3 Ship Calls

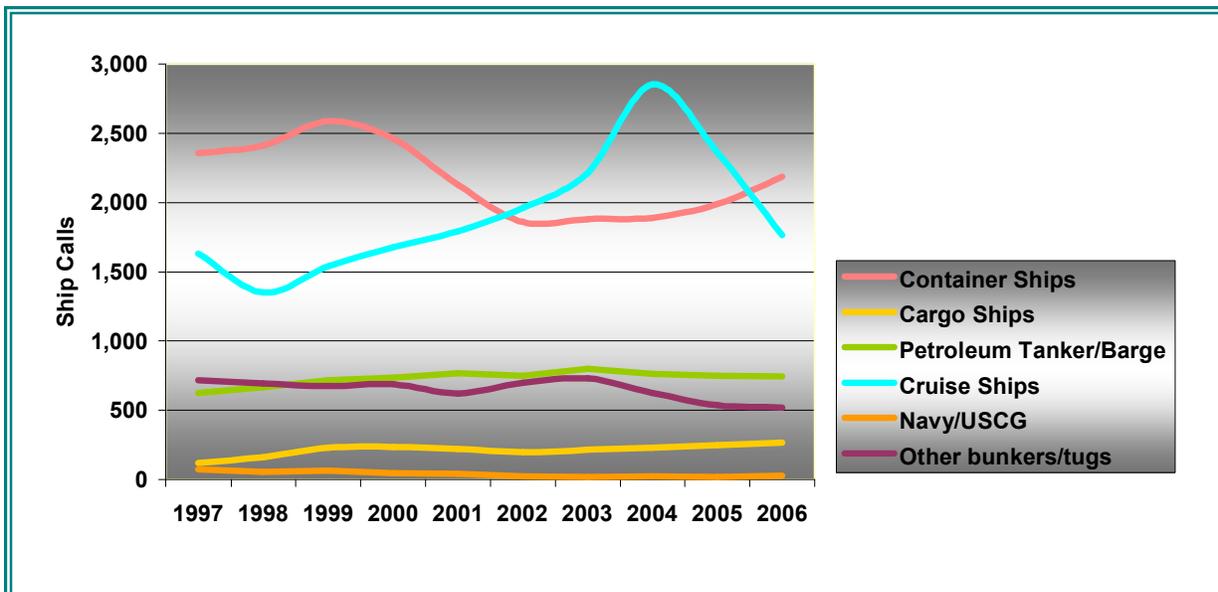
The vessels calling at Port Everglades to transport the various types of cargo and cruise passengers range from simple barges and small cargo ships to large oil tankers, bulk ships, and container ships to day cruisers and mega cruise ships. As Table 2.2.2 shows, despite a peak of 6,389 vessels in 2004, the overall number of vessels calling at the Port over the past decade,

has not varied significantly, starting at 5,520 in FY 96/97 and finishing at 5,510 in FY 05/06. During FY 05/06, however, the Port attracted four new services -- three to Central America and the Caribbean and one from the Mediterranean --which generated 200 additional vessel calls. Figure 2.2-6 illustrates the patterns of each vessel type, showing that only the container and cruise ship calls have fluctuated from year to year.

**Table 2.2-2
Ship Calls at Port Everglades
FY 96/97 - FY 05/06**

Ship Type	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Container Ships	2,359	2,413	2,588	2,463	2,128	1,859	1,880	1,890	1,988	2,185
Cargo Ships	117	160	230	236	220	196	213	231	247	268
Petroleum Tanker/Barge	624	667	715	735	768	748	798	763	751	744
Cruise Ships	1,631	1,349	1,540	1,677	1,793	1,963	2,215	2,854	2,362	1,763
Navy/USCG	73	55	62	44	42	22	17	25	18	29
Other Bunkers Tugs	716	694	674	687	621	696	730	626	535	521
Total Ship Calls	5,520	5,352	5,809	5,842	5,572	5,484	5,853	6,389	5,901	5,510

**Figure 2.2-6
Comparison of Ship Calls at Port Everglades by Type
FY 96/97-FY 05/06**



What is apparent from a comparison of the comparatively stable and, in some cases, even declining number of vessel calls with the growth in the Port’s tonnage, TEU movements, and number of multi-day cruise passengers is that the ships are getting bigger and carrying more tons, more TEUs, and more passengers per vessel call. This conclusion is documented in the market assessments that follow this section.

2.2.4 Port Revenues

As the final piece in this historic overview, the Consultant Team looked at how the Port’s revenues from its core business sectors may have changed over the ten-year period. In FY 96/97, the Port’s operating revenues were \$64.8 million; by FY 05/06, revenues had increased to \$107.6 million, a 66 percent increase. Figure 2.2-7 shows how each of the Port’s cargo and cruise sectors contributed to this revenue increase over the ten-year period.

Figure 2.2-7
Port Revenues FY 96/97 - FY 05/06

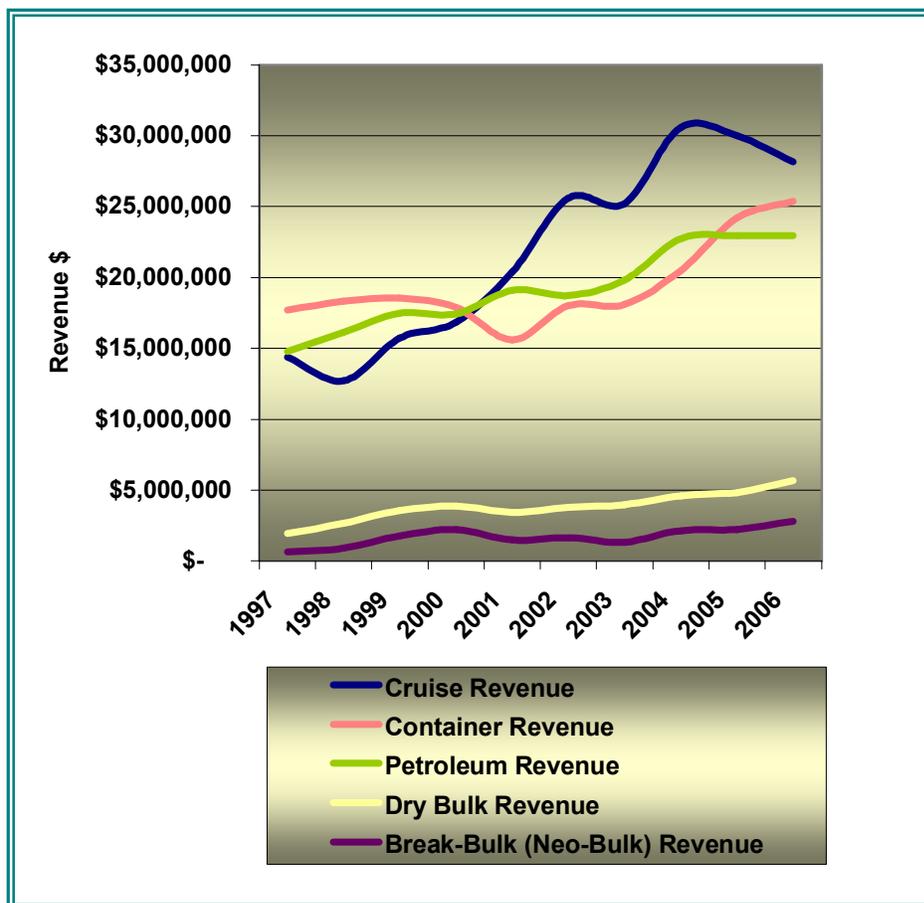


Figure 2-2.8 shows the proportions of revenues derived from containers, petroleum, dry bulk, break-bulk (neo-bulk), and cruise in FY 96/97; Figure 2-2.9 shows the proportions in FY 05/06. While revenues in all sectors have increased as the pie has gotten bigger, the proportional shares of each sector have changed. The three predominant revenue sources are still containerized cargo, petroleum, and cruise; but the order of their prominence has been

modified, with cruise replacing containerized cargo as the leading share of revenue. Despite stable petroleum revenues in FY 05/06 and a small decline in cruise revenues, revenues from containerized cargo, dry bulk cargoes, and break bulk (neo-bulk) cargoes all increased, resulting in a slight increase in the Port's total waterborne commerce revenues in FY 05/06 over FY 04/05. Again, as noted above, the Port's diversity serves to buffer its revenues from the inevitable market fluctuations characteristic of the global maritime industry.

1997 **Figure 2.2-8**
Port Revenues FY 96/97

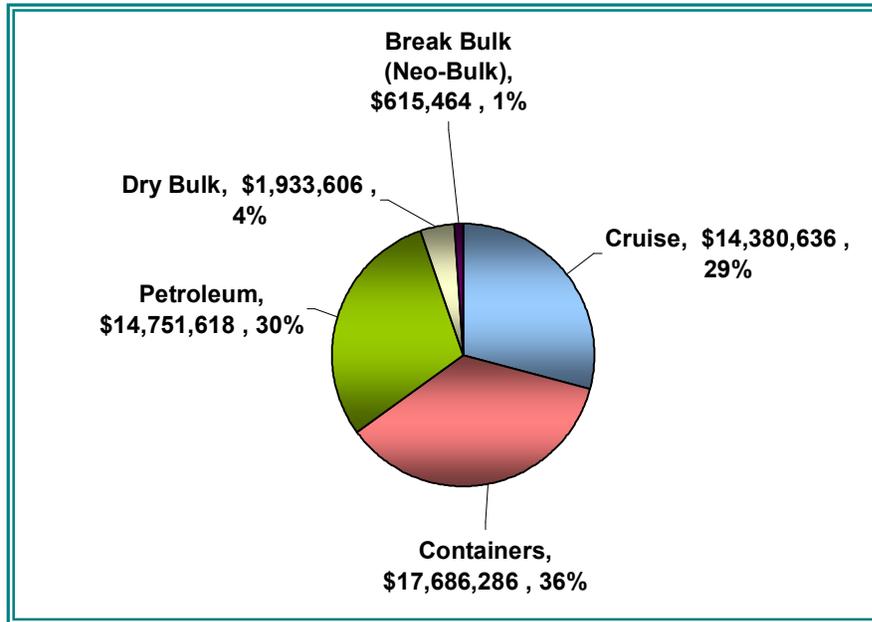
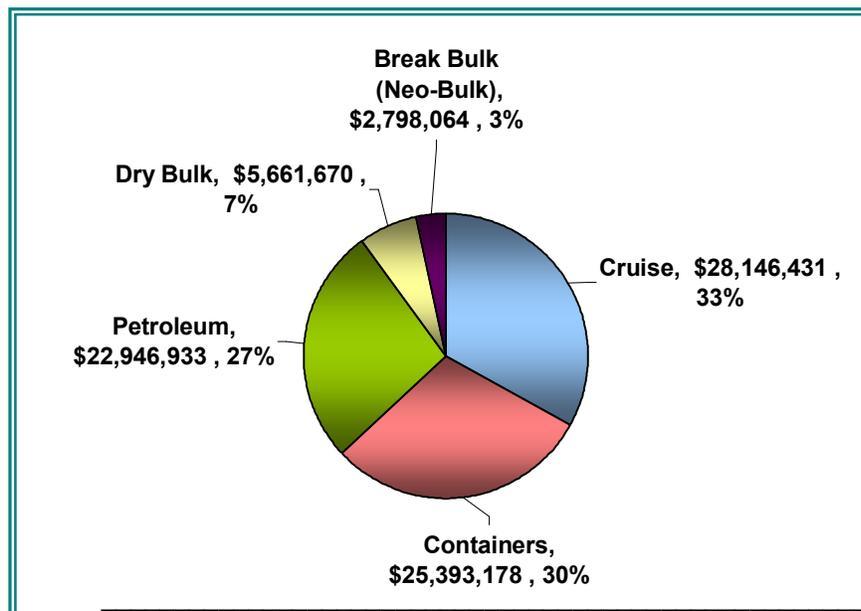


Figure 2.2-9
Port Revenues FY 05/06
2006



2.3 Containerized Cargo Market

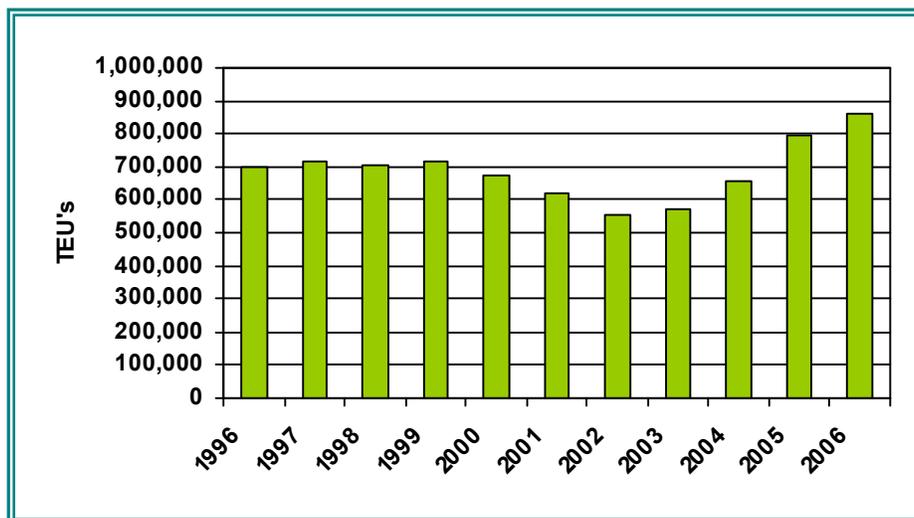
2.3.1 Introduction

This section assesses the containerized cargo market at Port Everglades. It summarizes the Port’s historical and current containerized cargo throughput, reviews the global and U.S. markets and trade lanes, and discusses what other East Coast ports are doing to compete in these markets. After an analysis of Florida’s import and export markets and other factors, the section concludes with a forecast of the Port’s potential containerized cargo market through the 2026 planning horizon.

2.3.2 Historical and Current Port Everglades Conditions

In FY 05/06 (2006), Port Everglades handled nearly 5.7 million tons or 864,000 TEUs of waterborne containerized cargo. Since 1996, containerized cargo handled at the Port has grown at 2.1 percent annually. Figure 2.3-1 graphically depicts the historical annual TEUs handled at the Port over the past decade. As this figure shows, traffic declined from 2000 through 2003, a decline attributable to acquisitions and mergers of shipping lines and the resulting relocation of these carriers to the Port of Miami. Over the past 4 years, however, the Port has experienced growth in container traffic of 14.9 percent annually, primarily due to the relocation of carriers from Miami such as Mediterranean Shipping Company (MSC) and introduction of increased service as well as third party logistics services at terminals such as APM.

**Figure 2.3-1
Historical TEUs Handled at Port Everglades**

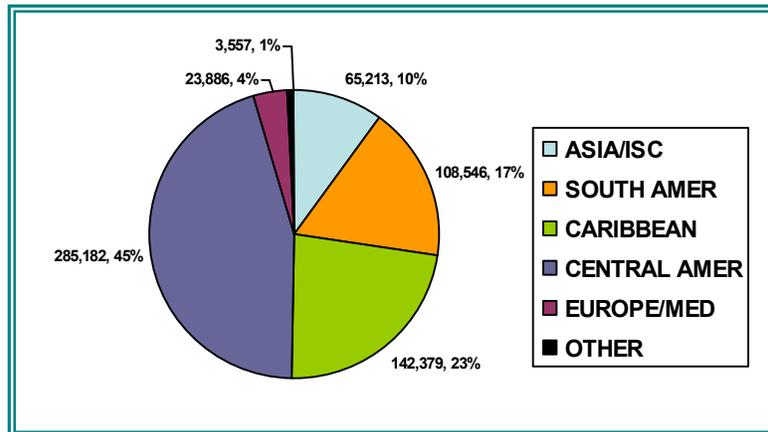


Source: Port Everglades

As illustrated in Figure 2.3-2, 45 percent of Port Everglades’ container trade is with Central America, while 17 percent and 23 percent of the TEUs are dedicated to South American and Caribbean trades, respectively. Therefore, 85 percent of the cargo handled at Port Everglades is dedicated to the Latin America and Caribbean regions. The remaining 15 percent primarily comprises Asian/Indian Sub-Continent (ISC) (10 percent) and European (4 percent) cargoes.

The Port’s large share of Latin American/Caribbean cargo is attributed to the strong presence of Latin American-related businesses and shippers in South Florida.

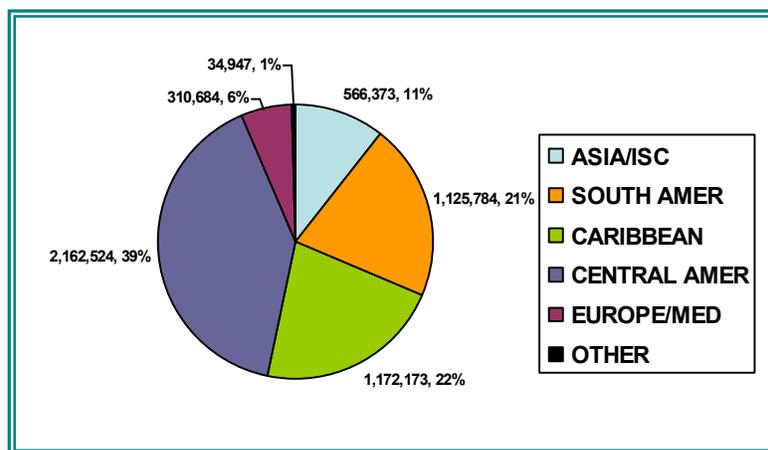
Figure 2.3-2
Share of Port Everglades Containerized Cargo by Trade Route – FY2006 Loaded TEUs



Source: PIERs, Journal of Commerce

In terms of tonnage, the Latin American market accounts for 82 percent of the short tons handled at Port Everglades. Specifically, the Central American market represents 39 percent of the short tons handled at Port Everglades, while the Caribbean accounts for 22 percent and South America 21 percent as presented in Figure 2.3-3. The balance is distributed between Asia/ISC (11 percent) and Europe/Mediterranean cargoes (6 percent).

Figure 2.3-3
Share of Port Everglades Containerized Cargo by Trade Route – FY 2006 Short Tons



Source: PIERs, Journal of Commerce

Ten terminal operators located in Port Everglades’ Midport and Southport areas handle the Port’s container operations. (In addition, FTS handles Discovery Cruise Line’s Bahamas service at Northport.) Table 2.3-1 identifies the terminal operators, the acreage they occupy, and their TEU volumes in FY 2006.

**Table 2.3-1
Port Everglades FY 2006 Container Throughput by Terminal**

TERMINAL/LINE	TEU	ACRES	TEU/ACRE
CROWLEY	218,717	68.2	3,207
FTS	64,034	24.07	2,660
HYDE	67,482	7.22	9,347
CHIQUITA	47,416	13.1	3,620
UNIVERSAL/APM	103,781	44.46	2,334
SUN TERMINAL	75,810	22.84	3,319
SAWGRASS (DOLE)	22,119	6	3,687
ST. JOHN	42,760	12.5	3,421
PET/MSC	141,176	39.18	3,603
G&G	4,565	NA	NA
FIT	76,170	36.03	2,114
TOTAL	864,030	273.6	3,141

Source: Port Everglades

A current description of each of the terminal operators and their facilities follows:

- **Crowley Liner Service**
 - 68.2 acres at Southport.
 - Operates 13 or 14 vessel calls per week.
 - Lift-on/lift-off (lo/lo) vessels on Virgin Islands and Bahamas service (4 calls weekly).
 - Roll-on/roll-off (RO/RO) on Latin American service (2 calls weekly), Guatemala/Honduras (4 calls weekly), Dominican Republic/Haiti (2 calls weekly) and Cuba weekly.
 - Approximately 40 percent of cargo moves via the Florida East Coast Railway (FEC).
- **Florida Transportation Services (FTS)**
 - Operates on the Port's grid-lease system, with approximately 25 acres over two areas.
 - Stevedores for Seafreight, Trinity, and Interocean – Central, South American, and Caribbean service.
 - Seafreight added an additional call per week in September 2006.
- **Hyde Shipping**
 - Operates on 7 acres at Midport.
 - Stevedores for Thompson Line (Cayman service), HT Shipping and Hybur Line (Mexico/Honduras/Belize).
 - 3 weekly calls, 1 fortnightly (258 total vessel calls in FY 2006).
 - Historical growth has been sporadic – due to peaks in markets, e.g., rebuilding in Caribbean due to Hurricane Ivan.

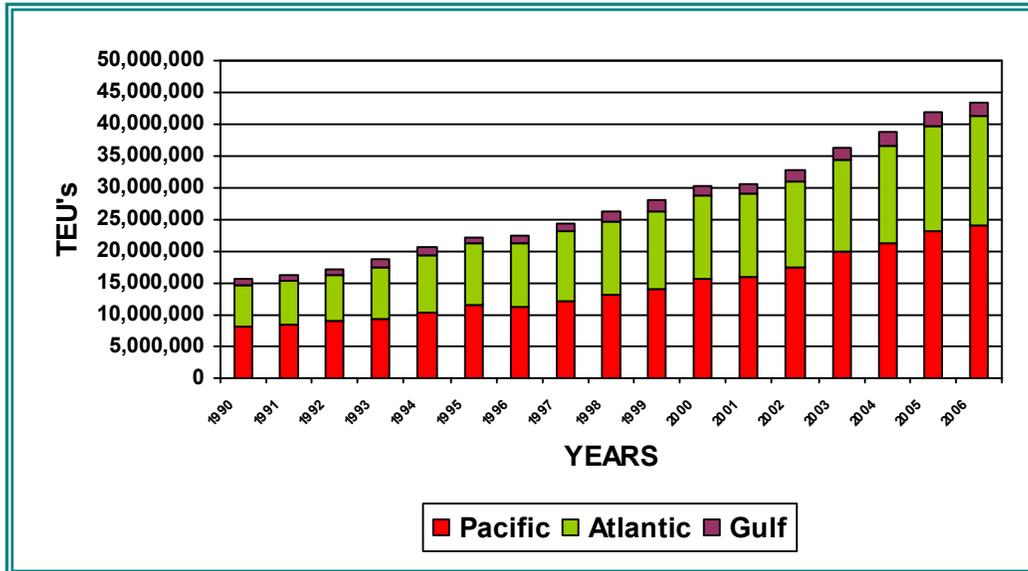
- Recently resigned lease – 5 year + (2) 2-year options.
- Operates over 60,000 square feet of container freight station (CFS) space in Medley.
- **Chiquita**
 - Operates 13 acres at Midport.
 - Weekly call – Central America (Honduras/Guatemala).
 - Inbound fruit shipped direct to customers as far north as Atlanta.
 - Also operates distribution center facility on Port property – serves Southern Florida market as far north as Vero Beach.
- **Universal/APM Terminals**
 - Operates 44 acres at Southport.
 - Operates 3rd party AUX service Evergreen/Zim (Far East Service).
 - Provides weekly Central America service.
- **Sun Terminal**
 - Operates 23 acres at Midport.
 - Stevedores for Sea Star Line and King Ocean.
 - Sea Star Line operates one vessel call per week to Puerto Rico (LO/LO and RO/RO combination).
 - King Ocean - 131 calls in FY 2006.
- **Sawgrass/Dole**
 - 6 acres at Midport.
 - Two calls per week – Central America.
 - Inbound fruit distributed regionally; southbound loads to Central America.
- **St. John Shipping**
 - Operates on 12.5 grid-lease acres at Midport.
 - Handled 349 calls in FY 2006 for various Latin American and Caribbean carriers including Frontier Liner Service, Solymar and Haitian Shipping.
- **Port Everglades Terminal (PET)**
 - Operates 39 acres at Southport.
 - 5 calls per week – 3 MSC vessels ECSA/Med/Asian and 2 APL vessels (CAX service) Central America.
 - MSC has experienced 39 percent compounded annual growth rate (CAGR) over the past 5 years.

- Majority of MSC cargo is transshipment cargo from Freeport hub (inbound and outbound loads).
- APL is heavily integrated in Central American 807 cargo (textile materials that are exported to the Central America and the Caribbean for value added production such as sewing for apparel and re-imported to the U.S. for final retail distribution) market.
- **G&G Shipping**
 - Operates facility on Dania Cut-Off Canal.
 - Operates smaller vessels drawing 7 feet of water.
 - Calls Bahamas (Nassau and Freeport) and Turks and Caicos.
- **Florida International Terminal (FIT)**
 - Operates 36 acres at Southport.
 - Stevedores for Hapag Lloyd, CSAV, CCNI and Hamburg Sud.
 - Primarily serves ECSA and West Coast of South America (WCSA) markets.
 - Environmentally protected mangrove area on primary berth currently limits growth.

2.3.3 Overview of U.S. Containerized Cargo Market

Since 1990, containerized cargo handled at the U.S. ports increased from 15.6 million TEUs to nearly 43 million TEUs in 2006. This represents an average annual growth rate of 6.8 percent over the period. Figure 2.3-4 shows the growth in containerized cargo at the key port ranges in the United States: the Pacific Coast, the Atlantic Coast, and the Gulf Coast. The Pacific Coast ports have shown slightly higher growth over the 15-year period, with a 7.1 percent growth. Since 2000, however, this annual growth has averaged about 8 percent annually compared to an overall growth rate for U.S. containerized trade of 6.7 percent over the past 5 years.

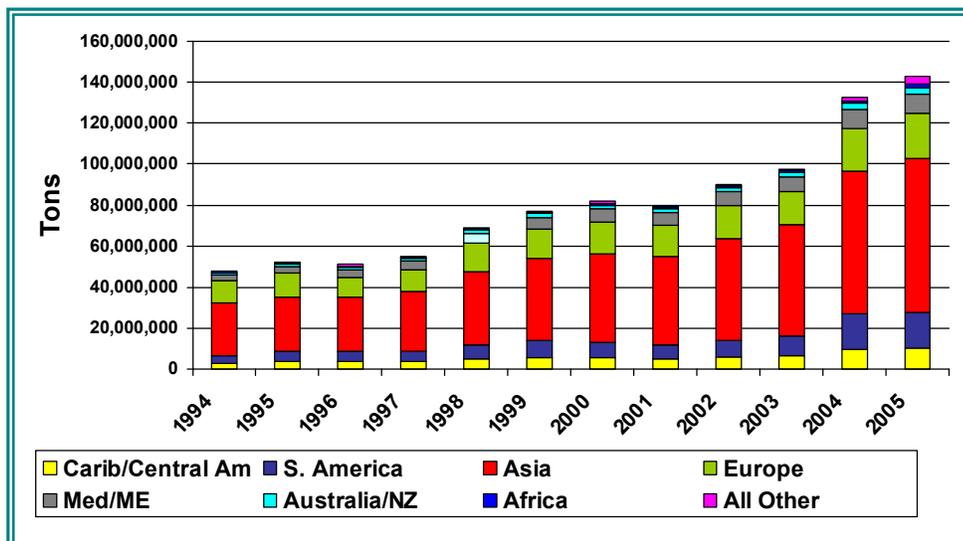
Figure 2.3-4
Total Containerized Cargo Activity by Port Range (TEUs)



Source: American Association of Port Authorities

The increase in U.S. container trade has been driven by imported cargo, which has shown a 10.5 percent annual growth rate since 1994. Since 2003, containerized imported tonnage has averaged 16.6 percent growth annually. Imported containerized cargo tonnage is shown in Figure 2.3-5, which also presents the growth in container tonnage into the U.S. by world trade area.

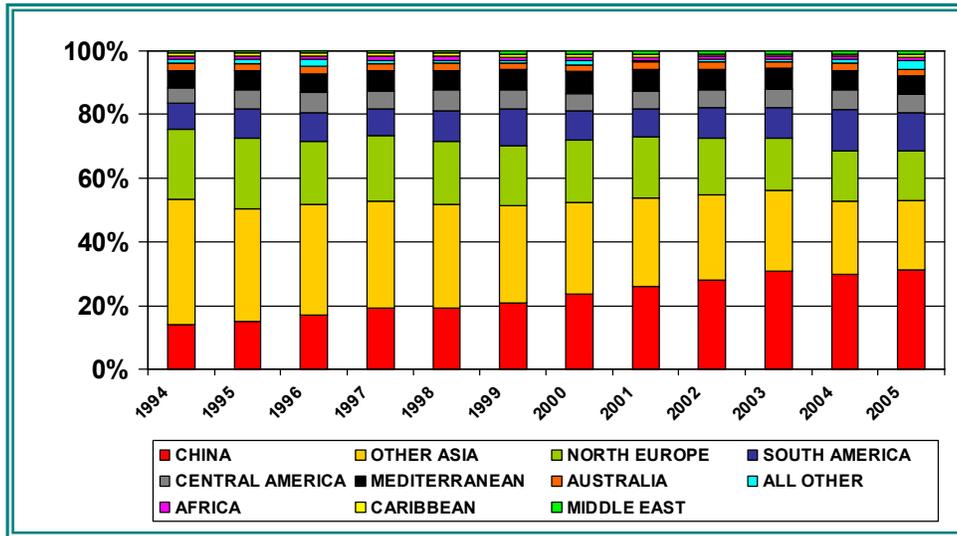
Figure 2.3-5
Imported Containerized Cargo Tonnage by Overseas Trading Area



Source: US Maritime Administration

Trade with China has dominated this Asian trade growth, as illustrated in Figure 2.3-6.

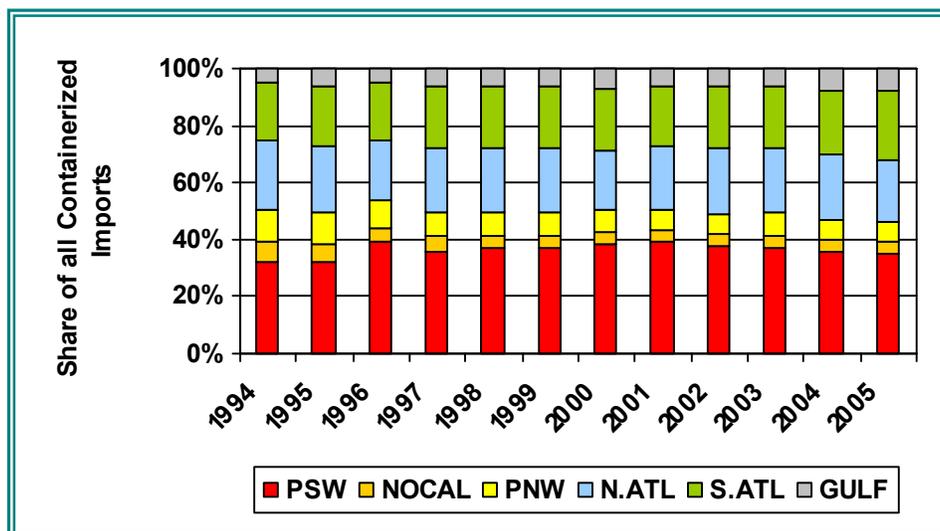
Figure 2.3-6
Share of Imported Containerized Tonnage by Detailed Trade Area



Source: US Maritime Administration

The West Coast ports have historically handled about 36 percent of all imports into the United States, followed by the South Atlantic ports (from Norfolk to Miami) which handled 24 percent of total containerized imported tonnage. The North Atlantic ports handled about 22 percent of total imported containerized tonnage in 2000. Figure 2.3-7 shows the distribution of the imported containerized cargo tonnage by port range.

Figure 2.3-7
Imported Containerized Tonnage by Port Range



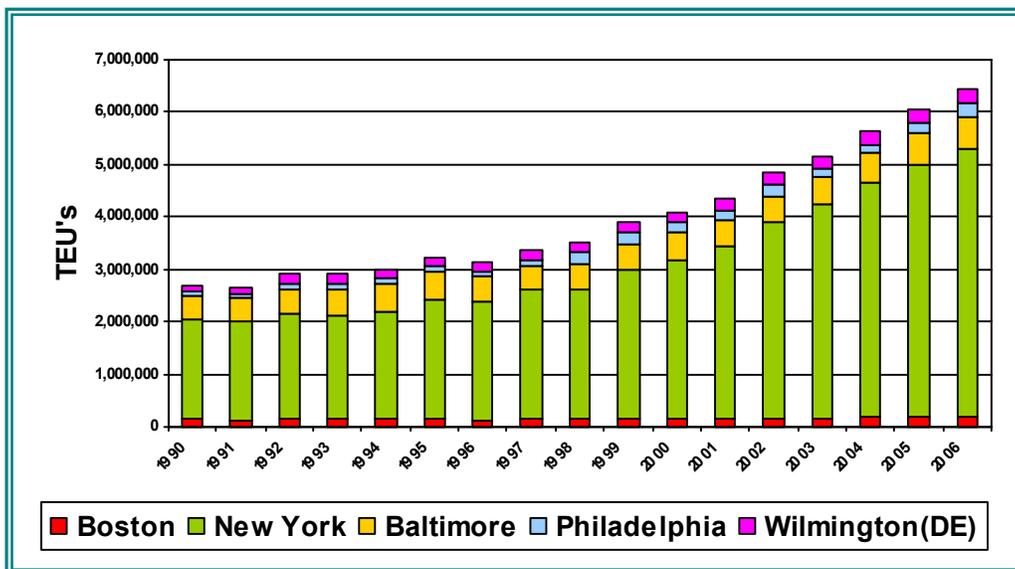
Source: US Maritime Administration

The growth in Asian imports, particularly at the San Pedro Bay ports (Los Angeles and Long Beach), combined with several recent key shocks in the logistics system of major retail and

manufacturing products importers, has led to a search for alternative gateways to move imported Asian cargo into the United States and Mexico. These events include the impact of 9/11 on the distribution supply chain, the 2002 West Coast port shutdown, and major congestion issues that arose in 2004. Because of these events, there has been an increased focus on the diversification of containerized cargo via various U.S. ports. This focus is evident by the growth in container volume at Oakland, Seattle, and Tacoma, as well as the growth in containerized cargo activity at the Atlantic and Gulf Coast ports.

Figure 2.3-8 presents container throughput at key North Atlantic ports. The Port of New York and New Jersey, which has shown strong growth since 1999, dominates the growth in containerized cargo on the North Atlantic.

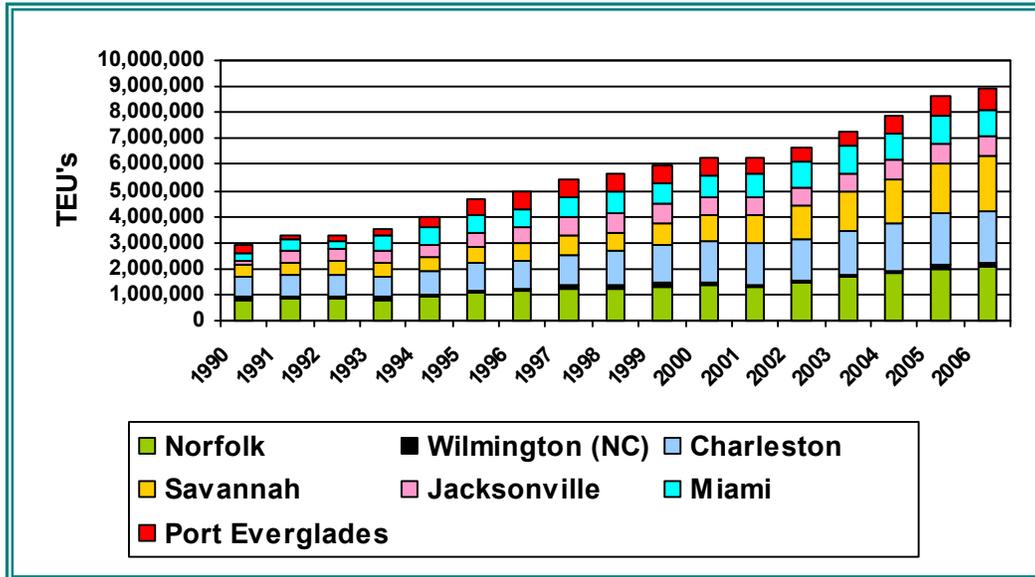
**Figure 2.3-8
Containerized Cargo Activity at North Atlantic Ports (TEUs)**



Source: American Association of Port Authorities

On the South Atlantic port range, a similar growth in containerized cargo is evident, with the growth focused at Norfolk, Charleston, and Savannah. Figure 2.3-9 summarizes the container throughput on the South Atlantic port range.

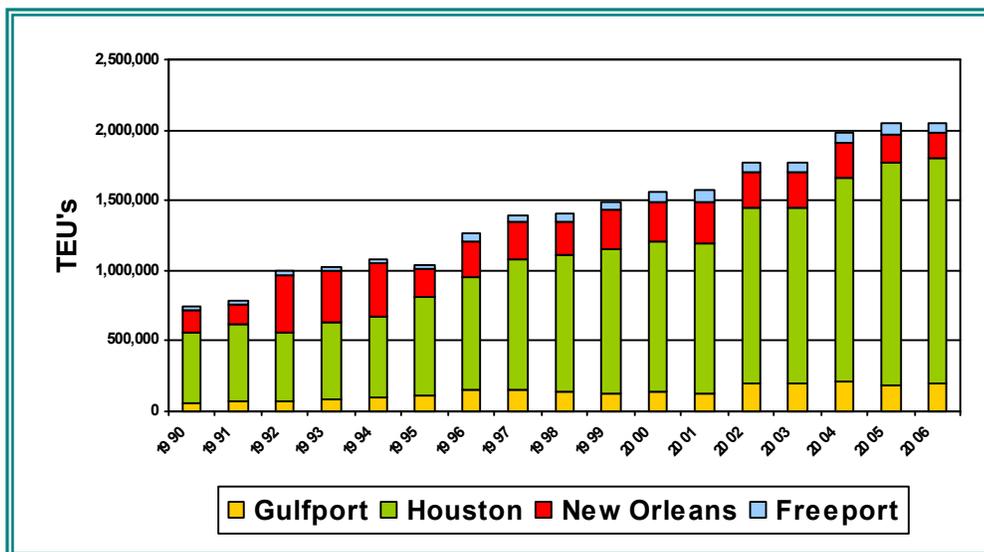
Figure 2.3-9
Containerized Cargo Activity at South Atlantic Ports (TEUs)



Source: American Association of Port Authorities

Finally, with respect to the Gulf Coast ports, Houston has been the dominant player, as shown in Figure 2.3-10.

Figure 2.3-10
Containerized Cargo Activity at Gulf Coast Ports (TEUs)



Source: American Association of Port Authorities

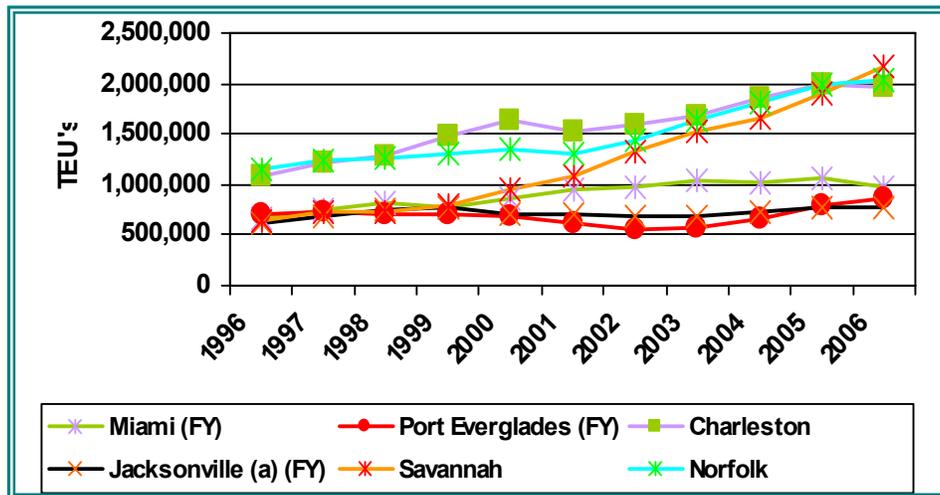
2.3.4 Overview of South Atlantic and Florida Containerized Cargo Markets

While Port Everglades competes directly with Miami for the Latin American and Caribbean cargo, the Port also competes against other key South Atlantic ports, specifically Jacksonville, Savannah, and Charleston for Asian and European cargoes. Also, with respect to the Florida market, Port Everglades competes with the Port of Tampa. The balance of this section focuses on the South Atlantic and Florida markets in which Port Everglades competes.

Norfolk, Savannah, and Charleston have dominated containerized cargo in the South Atlantic. Figures 2.3-11 and 2.3-12 illustrate the growth in container traffic at the key South Atlantic ports.

Figure 2.3-11

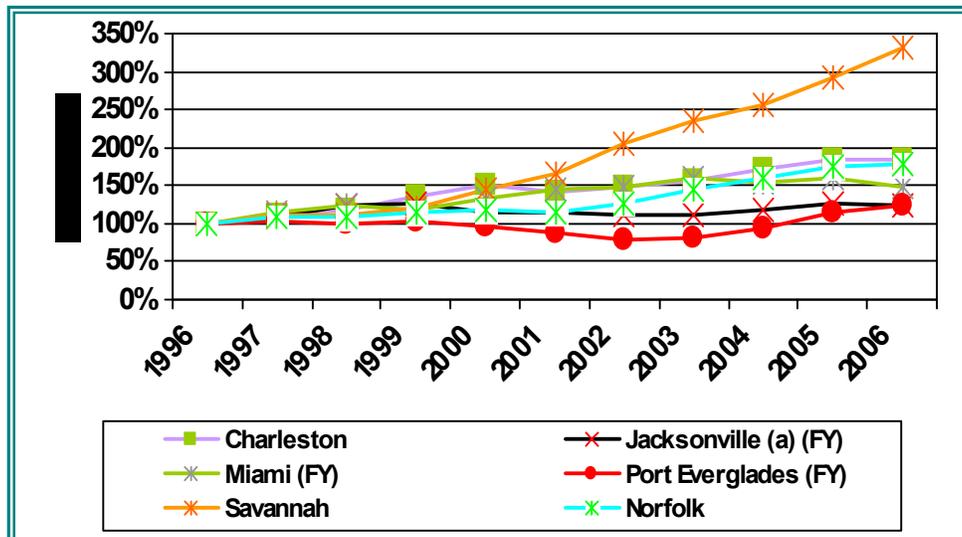
South Atlantic Ports Historical Containerized Growth (TEUs)



Source: American Association of Port Authorities

Figure 2.3-12

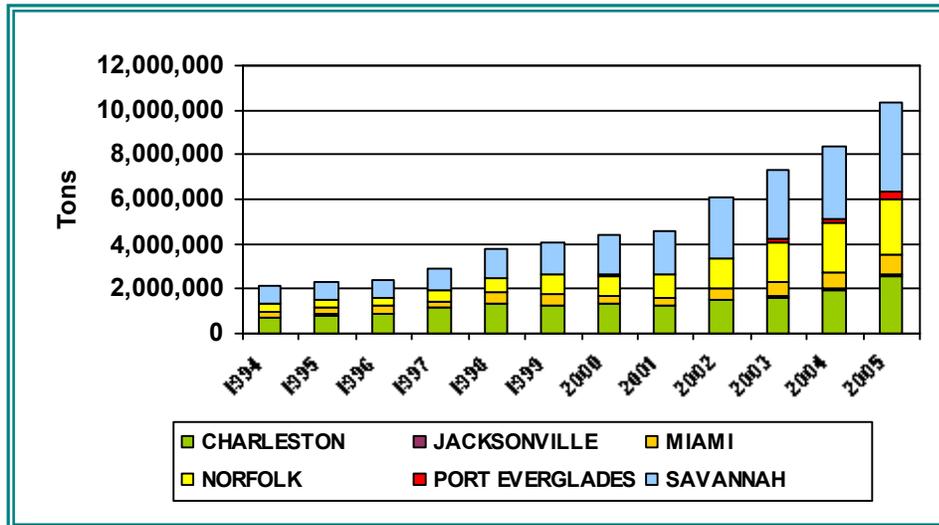
Indexed Container Growth of South Atlantic Ports (TEUs)



Source: American Association of Port Authorities

The growth in containerized traffic at Savannah, Norfolk, and Charleston can be attributed to the growth in distribution centers to handle Asian and European cargoes. Figure 2.3-13 further demonstrates the growth in Asian traffic handled in the South Atlantic port range.

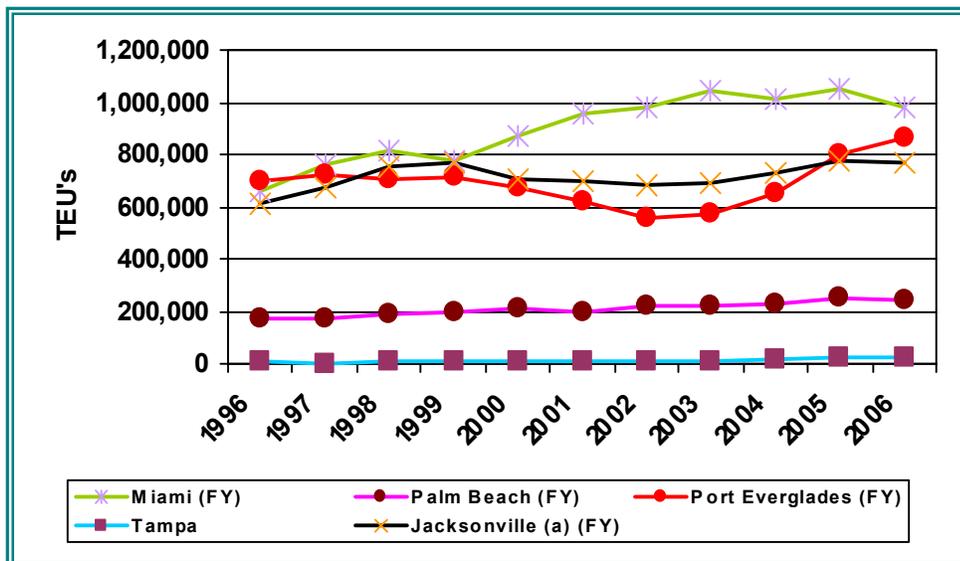
Figure 2.3-13
Historical Imported Asian Trade at Key South Atlantic Ports (Tons)



Source: US Maritime Administration

With respect to the Florida market, Miami exhibited the most growth through 2003; however, Port Everglades is closing the gap, primarily due to the relocation of MSC from the Port of Miami, as shown in Figure 2.3-14.

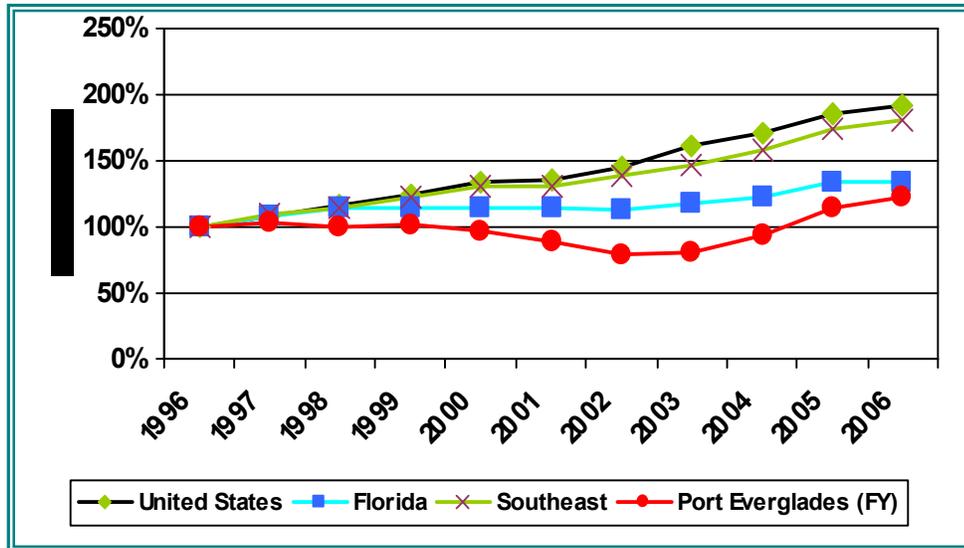
Figure 2.3-14
Florida Ports Container Activity (TEUs)



Source: American Association of Port Authorities

The growth at the Florida ports as a whole has, however, lagged behind that of the U.S. and South Atlantic ports, as presented in Figure 2.3-15.

**Figure 2.3-15
Port Everglades and Florida Ports Indexed Growth
In Comparison to US and South Atlantic Ports (TEUs)**



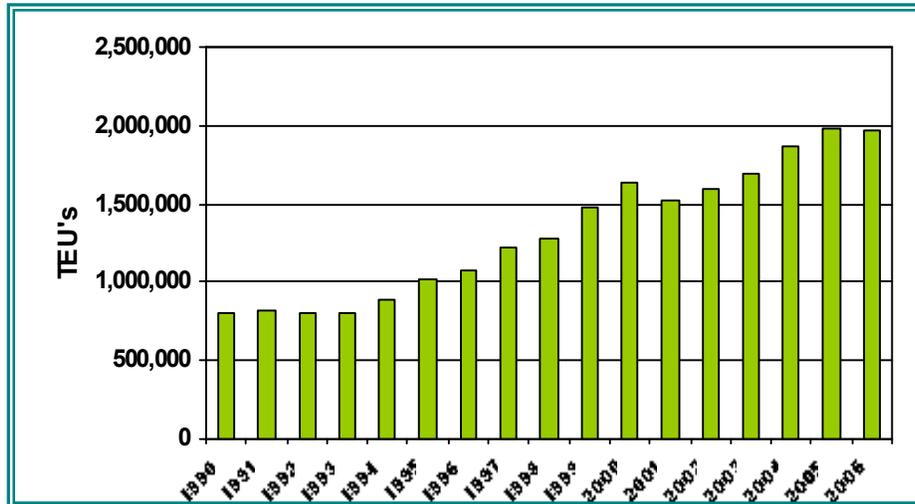
Source: American Association of Port Authorities

A port-specific discussion of recent improvements and future strategies of Port Everglades’ competition follows.

Port of Charleston (South Carolina State Ports Authority). The Port of Charleston has traditionally led the South Atlantic in container moves, experiencing a 5.8 percent annual growth over the 1990 - 2006 period. Since 2001, however, the Port has not recorded the explosive growth experienced at Norfolk and Savannah. Container moves via Charleston since 2001 have grown at an average annual rate of 5.2 percent. One key reason Charleston has not shown double-digit annual growth in the more recent years is that it has not increased its share of the Asian import cargo market as have Norfolk and Savannah.

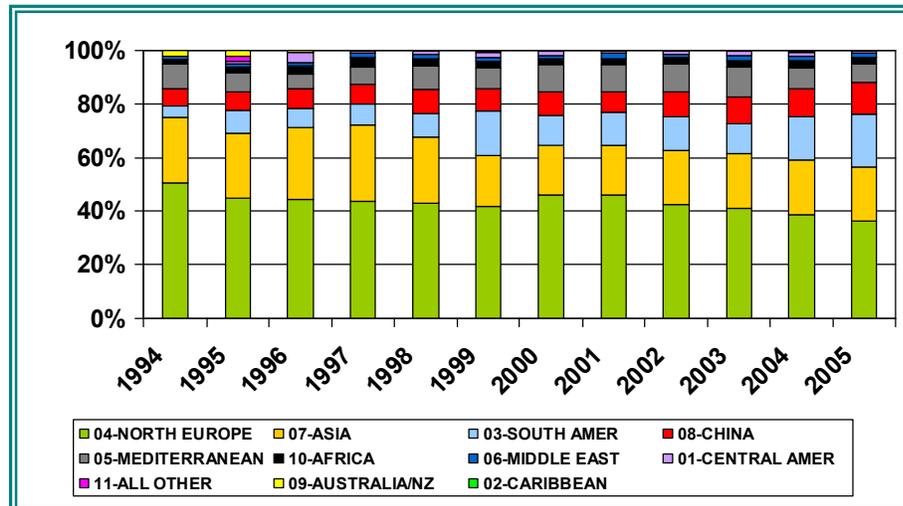
Figure 2.3-16 shows the historical growth in container throughput while Figures 2.3-17 and 2.3-18 depict the composition of trading partners in Charleston’s container trade.

Figure 2.3-16
Container Throughput at the Port of Charleston (TEUs)



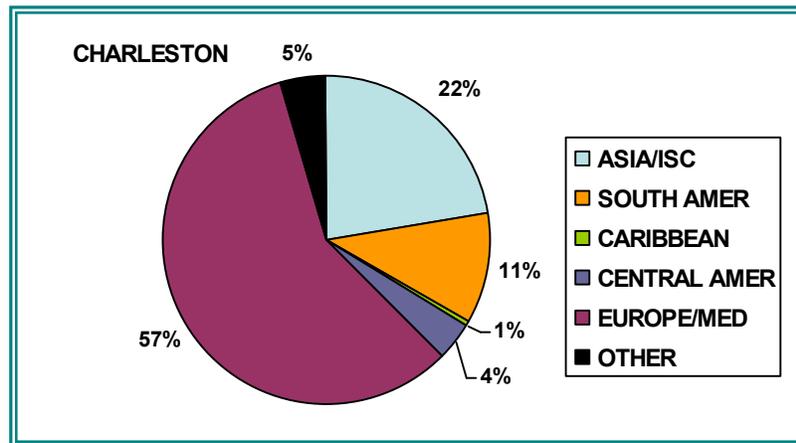
Source: American Association of Port Authorities

Figure 2.3-17
Port of Charleston Historical Trading Patterns for Imported Containerized Cargo



Source: US Maritime Administration

Figure 2.3-18
Charleston Share of Containerized Cargo by Trade Lane - 2006 Loaded TEUs



Source: PIERs, Journal of Commerce

The Port recently completed its \$148-million harbor deepening and widening project (May 2004). To accommodate the larger container ships serving world trade, the Charleston Harbor channels leading to all container terminals are now -45 feet at mean low water (5- to 6-foot tidal lift), while the entrance channel has been deepened to -47 feet.

In addition, Charleston's new real-time, RF-based container inventory network, yard management system (YMS), is now operational at all Charleston container terminals. YMS has allowed the port to handle a much larger cargo volume, with the same staff all while cutting turn times. May 2005 was an all-time record month, yet the median turn time was 27 minutes with more than 70,200 gate moves at common user facilities.

Finally, the Port of Charleston's plan includes the development of a new container terminal. By mid-2007, the U.S. Army Corps of Engineers (ACOE) is expected to issue permits for a new three-berth, 280-acre container terminal on the former Charleston Naval Complex. The \$600-million project is supported by South Carolina State Law and will boost capacity by 1.4 million TEUs. In January 2005, the Authority Board unanimously voted to begin the necessary steps to acquire approximately 1,800 acres of property for a joint-venture port facility with the Georgia Ports Authority on the South Carolina side of the Savannah River in Jasper County. A competitive bid process is underway for both projects. In addition, the port has adopted a two-year, \$159 million Capital Plan which will boost capacity at current facilities by 400,000 container moves.

To attract additional Asian container service, the South Carolina Ports Authority has been pursuing a distribution strategy. To date, several distribution centers have located near the port or on port property. These distribution center developments include:

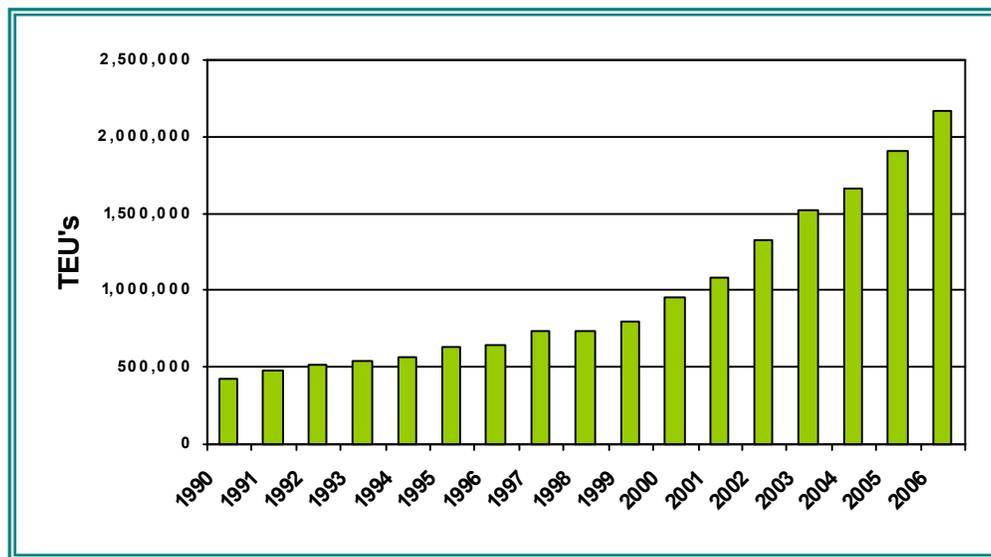
- American Port Services operates a distribution center for Wal-Mart on port property.
- Sam's Club has a distribution center near Wando Terminal.
- Fruit of the Loom is opening a 350,000-square-foot distribution center.

- Many distribution centers are located in the middle of the state (1.3 million square feet).
- 10,000 acres are available within a 1-hour drive of Charleston.

While Charleston has been a leader in container operations on the South Atlantic, the limited space for future expansion will likely limit its potential for strong annual growth in comparison to Savannah and Norfolk. An average annual growth rate of 3 percent to 6 percent over the long-term is most likely to be achieved.

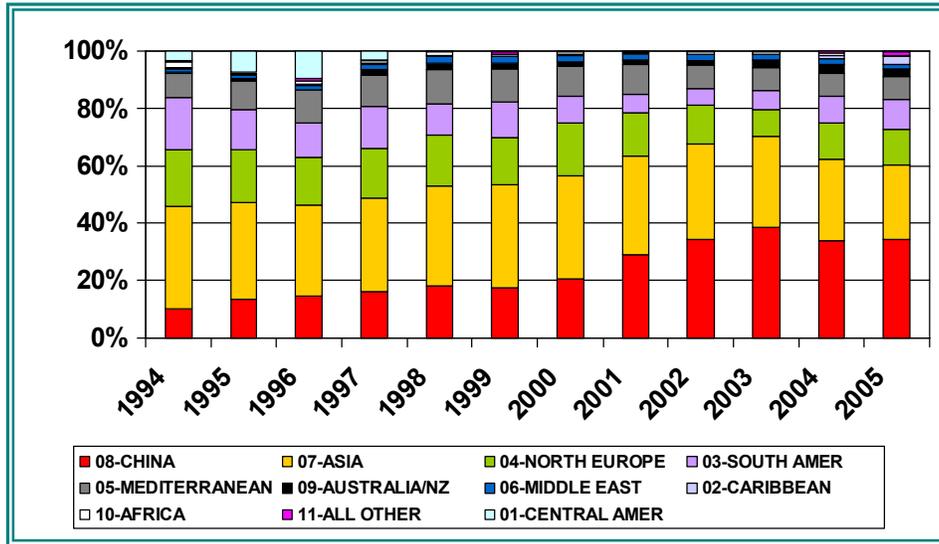
Port of Savannah (Georgia Ports Authority). The Georgia Ports Authority (GPA) has exhibited strong growth in container moves, averaging a 11 percent annual growth over the 1990 - 2006 period. The most explosive growth has, however, occurred since 2000, with container moves via the Port of Savannah more than doubling between 2000 and 2006. This growth in the last five years reflects the continued development of distribution centers in the Savannah area and the growth in all-water Asian container services. Figure 2.3-19 illustrates the rapid growth in container moves between 2000 and 2006, while Figures 2.3-20 and 2.3-21 show the impact of trade with China and Asia, which have become the dominant trading lanes for Savannah’s containerized cargo.

Figure 2.3-19
Container Throughput at the Port of Savannah (TEUs)



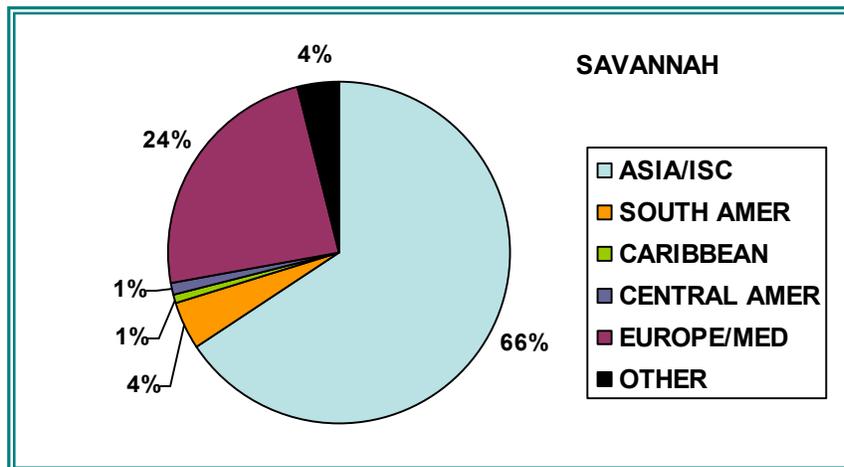
Source: American Association of Port Authorities

Figure 2.3-20
Port of Savannah Historical Trading Partners for Imported Containerized Cargo



Source: US Maritime Administration

Figure 2.3-21
Savannah Share of Containerized Cargo by Trade Lane - 2006 Loaded TEUs



Source: PIERIS, Journal of Commerce

The Port of Savannah is the fastest growing port in the South Atlantic with respect to trade with Asia and China. It currently handles 1.9 million TEUs. By increasing terminal density and throughput capacity, the port can expand capacity to about 3 million TEUs.

The Port of Savannah is home to the largest single-terminal container facility of its kind on the U.S. East and Gulf Coasts; the facility comprises two modern deepwater terminals, Garden City Terminal – the key container terminal --and Ocean Terminal – a mixed-use facility for break-bulk, container, and RO/RO cargo. The Garden City Terminal is a 1,200-acre facility that features 9,693 linear feet of continuous berthing and more than 1.3 million square feet of

covered storage. The terminal is equipped with fifteen high-speed container cranes (4 super post-Panamax and 11 post-Panamax) as well as an extensive inventory of yard-handling equipment. The port plans to spend \$1.2 billion over the next ten years on terminal densification efforts, including the addition of 2 post-Panamax cranes every 18 months. In addition, Garden City Terminal is within 6.3 miles of I-16 (east/west) and 5.6 miles of I-95 (north/south), with access to more than 100 trucking companies. CSX Transportation (CSXT) and Norfolk Southern Railroad (NS) provide Class I rail service. As a key intermodal advantage, the "James D. Mason" on-terminal intermodal container transfer facility (ICTF), or "Mason" ICTF, provides overnight rail service to Atlanta. Two- to four-day delivery via the ICTF is also available to inland destinations such as Charlotte, Chicago, Dallas, and Memphis.

In addition to increasing throughput by increasing densification, the port has additional land for future container terminal development. The GPA can add another 80 to 90 acres to Garden City, plus another 150 acres in the longer term. An additional 500 acres is available in the long-term for terminal development on Kings Island.

As the volume of cargo moving through the Port of Savannah escalates and the ships carrying that cargo grow even larger, plans call for Savannah's channel to be deepened from its present depth of -42 feet to -48 feet at mean low water to accommodate the next generation of deep-draft vessels. Completion of this project is projected for 2010.

The recent completion of the new Sidney Lanier Bridge in conjunction with the completion of the harbor-deepening will position Brunswick for additional growth and associated economic development. The project is scheduled for completion in 2006.

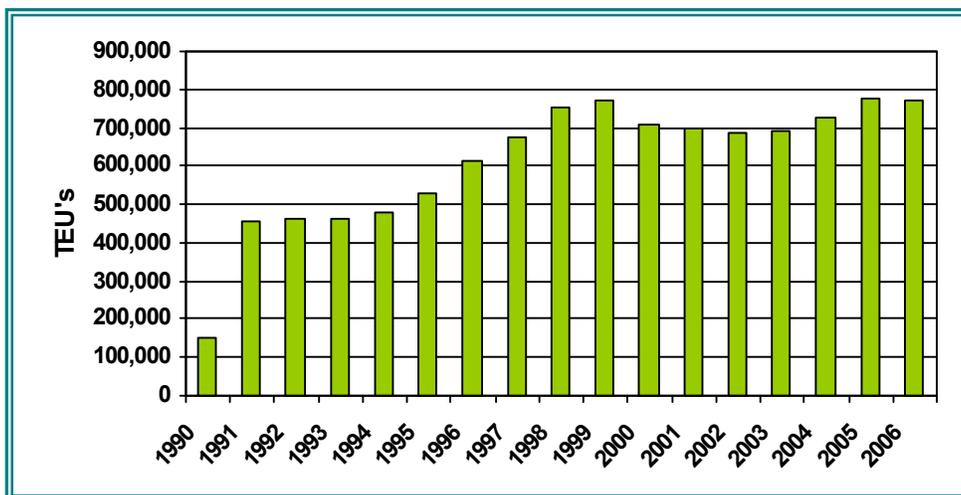
The Port of Savannah has set the standard for distribution center development on the East Coast, beginning with K-Mart in the early 1980s. These developments reflect Savannah's proximity to Atlanta and other Southeastern markets. The GPA has attracted over 20 distribution centers, totaling nearly 15 million square feet. These distribution centers include:

- Advance Auto Parts.
- Bass Pro Shops.
- Best Buy.
- IKEA.
- Pier 1.
- Target
- Wal*Mart (Savannah and Statesboro).
- Oneida – recently announced.

In addition to land available for future container growth, 350 acres are still available at the former BASF property (now owned by GPA). This acreage has been targeted for distribution center and industrial development use. Finally, in Chatham County, suitable land has been identified for 10 million square feet of distribution center development. With the rapid growth in container movements in the last five years, and the aggressive distribution center strategy, the Port of Savannah will likely be able to sustain an annual growth rate in the 7 to 10 percent range.

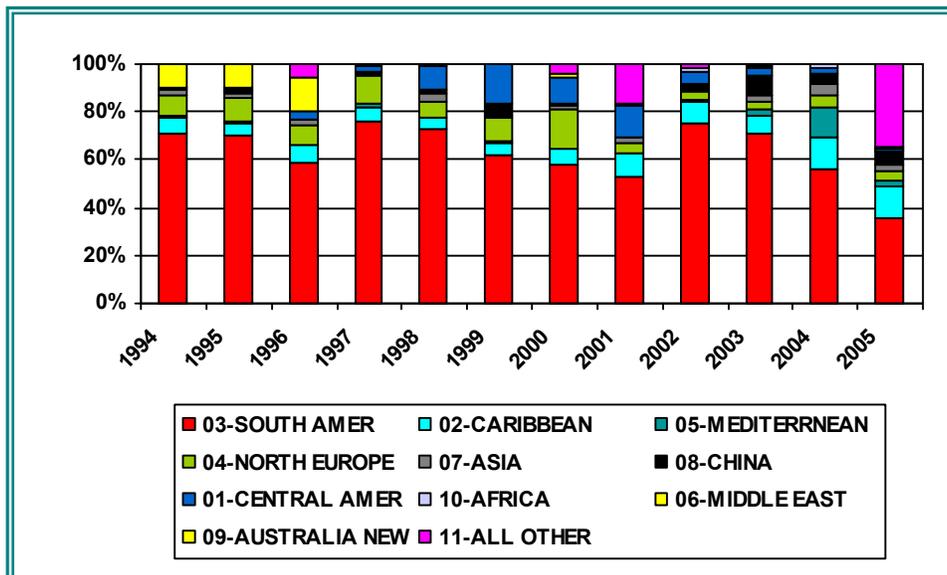
Jacksonville Port Authority (JAXPORT). JAXPORT has not been a key player in the container markets, with the exception of its Puerto Rico and Caribbean trade. The port controls about 73 percent of the U.S.-Puerto Rican trade. Figure 2.3-22 presents the historical cargo throughput via Jacksonville while Figures 2.3-23 and Figure 2.3-24 show the historical and current distribution of cargo by trade lane handled at JAXPORT.

Figure 2.3-22
Container Throughput at JAXPORT (TEUs)



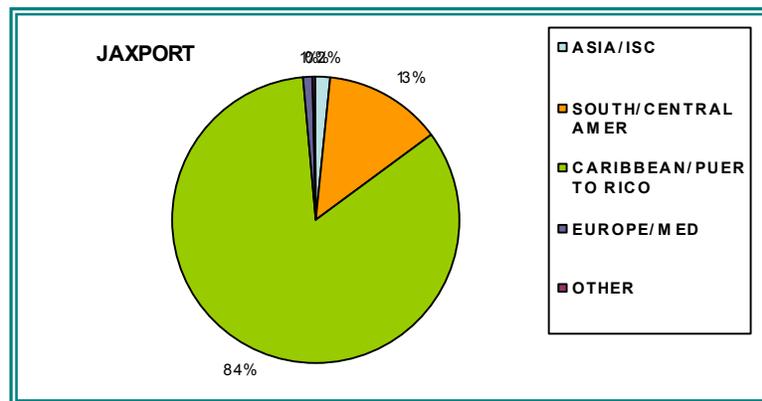
Source: American Association of Port Authorities

Figure 2.3-23
JAXPORT Historical Trading Partners for Imported Containerized Cargo



Source: US Maritime Administration

Figure 2.3-24
JAXPORT Share of Containerized Cargo by Trade Lane - 2006 Loaded TEUs



Source: PIERS, Journal of Commerce

Mitsui OSK Lines (MOL), along with Trapac, has signed a long-term lease to develop a 130-acre (200-acre at full build-out) dedicated container terminal at Dames Point. This development will add nearly 1 million TEU capacity to the port.

JAXPORT offers excellent transportation access:

- Superior north-south rail access to Southern Florida via the FEC.
- East-west rail service via CSXT and NS and excellent northbound service as well.
- Excellent highway access to key Southeastern markets.

Additional interest is growing at JAXPORT by several container carriers serving the Asian all-water market. The port has an additional 100 to 200 acres of waterfront land that could be developed for new container terminal facilities.

In addition to the container terminal development at Jacksonville, there has been significant development and interest in the development of distribution centers. Currently BJ's and Wal-Mart have distribution centers near the port; these are primarily used for export activity to the Caribbean. The Westside Industrial Park consists of a 960-acre master planned development with 4 million square feet of space. Current tenants include:

- UPS.
- HJ Heinz.
- Samsonite.
- Pepsi.

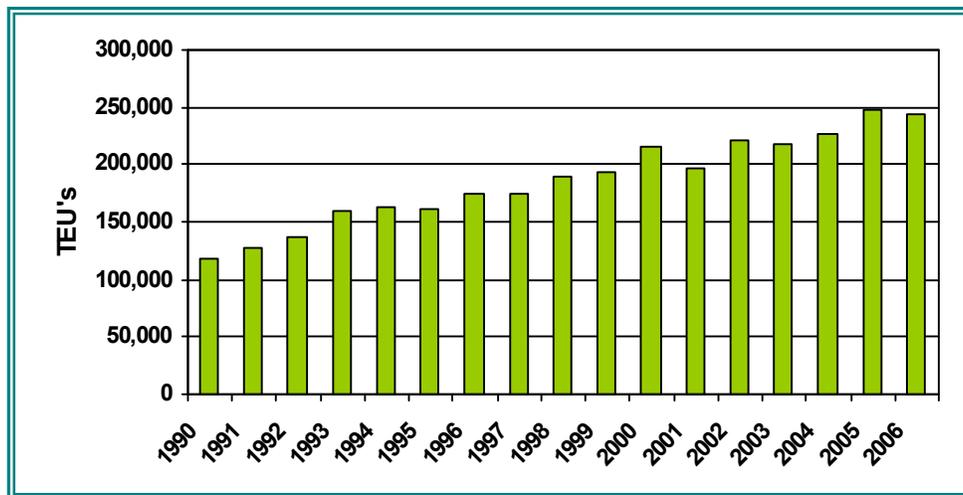
The Northpoint Industrial Park consists of ten 150-acre sites.

Bridgestone Tire has just announced the development of a new distribution center. The City of Jacksonville is also pursuing a strategy for distribution center development and is in full support of the Port of Jacksonville's growth.

Given development of the Dames Point container terminal by MOL, and the interest by other carriers in Jacksonville’s strategic transportation location, it is likely that containerized cargo throughput will grow strongly in the short- to medium-term.

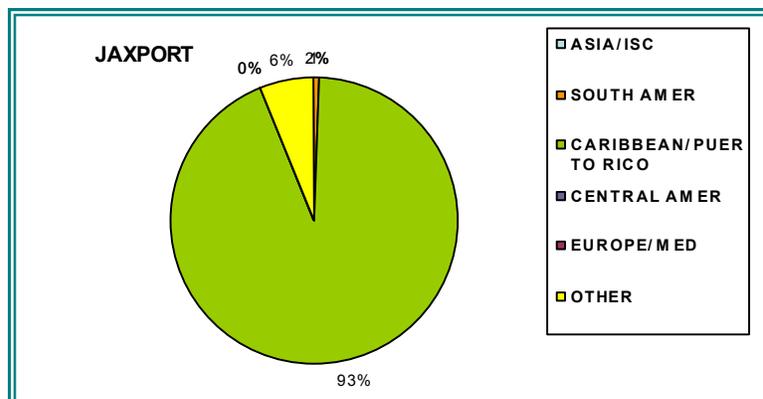
Port of Palm Beach. With respect to containerized cargo, the Port of Palm Beach primarily competes in the Caribbean market, which accounts for approximately 93 percent of the port’s container volume. In 2006, the port handled just under 250,000 TEUs and since 1990, has steadily grown at 4.6 percent CAGR. This growth has been attributed to the success of the Port’s key container carrier, Tropical Shipping, who serves ports throughout the Caribbean including the Bahamas, U.S. Virgin Islands, and Dominican Republic. The historical growth and market share of containerized traffic handled at Palm Beach is depicted in Figures 2.3-25 and 2.3-26.

Figure 2.3-25
Container Throughput at the Port of Palm Beach (TEUs)



Source: American Association of Port Authorities

Figure 2.3-26
Port of Palm Beach Share of Containerized Cargo by Trade Lane - 2006 Loaded TEUs

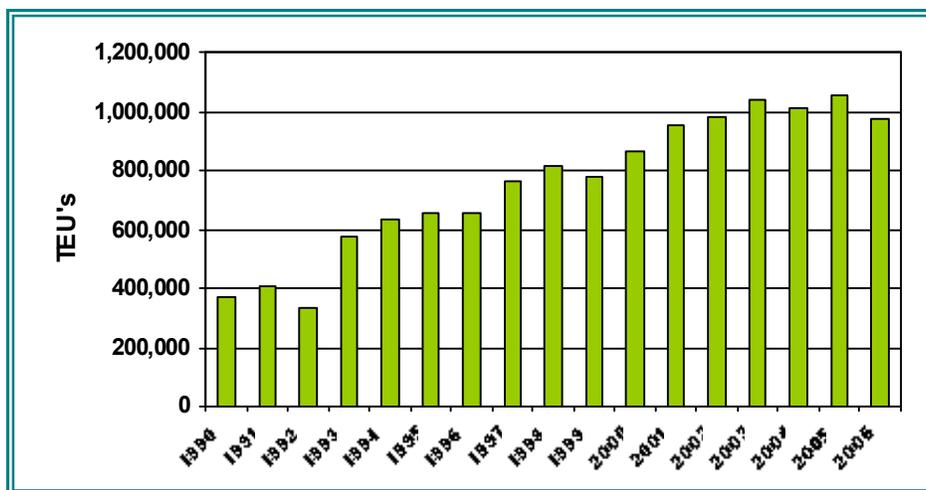


Source: PIERS, Journal of Commerce

While it is expected that the Port of Palm Beach will continue to exhibit growth in the Caribbean, specifically the Bahamas trade, it is unlikely that the port will compete for cargoes from other world areas including Asia, the Indian Sub-Continent (ISC) and Europe. This is due to the port’s limited draft of 32 feet at High Water Slack and a channel configuration that permits only vessels with less than a 600-foot LOA to enter the port. Land availability and current infrastructure constraints are also deterrents to additional services.

Port of Miami. The Port of Miami’s primary cargo markets are Latin America and the Caribbean, accounting for 56 percent of the Port’s cargo. Miami has traditionally been a regional port, serving South Florida and trading partners to the south. The port has experienced a 6.2 percent annual growth rate in container throughput over the 1990 to 2006 period, as presented in Figure 2.3-27. Figures 2.3-28 and 2.3-29 illustrate the historical and current container traffic by trading partner. Historically, this growth has been driven by the port’s proximity to a major consumption market and the connections to the Latin American markets. In recent years, Miami has experienced a decline in regional market activity which has been partially offset by increased Far East trade.

**Figure 2.3-27
Container Throughput at the Port of Miami (TEUs)**

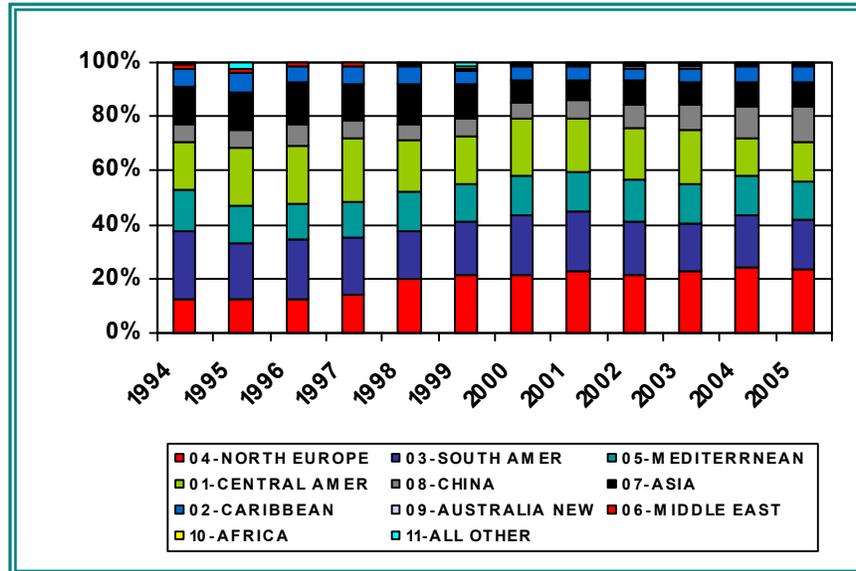


Source: American Association of Port Authorities

The Port of Miami recently lost a key container account, MSC, to Port Everglades.

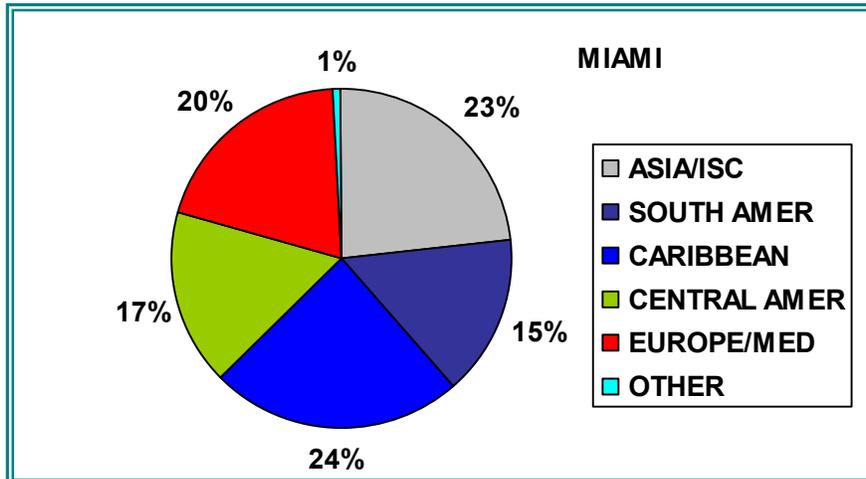
While the port is land-constrained, a capital improvement program is in place to increase capacity through yard densification as well as a phased dredging plan. Recently the Port of Miami completed Wharves 6 and 7, at a cost of \$13.8 million. The two wharves were designed to accommodate post-Panamax vessels, those too large to transit through the Panama Canal. The addition of 1,145 feet to the gantry docks brought the total length of the wharf to approximately 6,120 feet. The combination of an expanded gantry crane area and two new container cranes allows the Port of Miami to continue its aggressive marketing efforts to attract more cargo carriers and pursue new markets.

Figure 2.3-28
Port of Miami Historical Trading Partners of Imported Containerized Cargo



Source: US Maritime Administration

Figure 2.3-29
Miami Share of Containerized Cargo by Trade Lane - 2006 Loaded TEUs



Source: PIERS, Journal of Commerce

Also completed was the resurfacing of the Port of Miami Terminal Operating Company's (POMTOC) and Seaboard Marine's container yards, and improvements to the drainage system. These enhancements will contribute to greater operating efficiencies and allow the terminal operators to boost their container-marshalling capacity by increasing the vertical density at their respective yards.

Phase II of the Port of Miami harbor-dredging project, stalled since 1999, was completed in 2005. The second phase of the project involved the deepening of the South Channel and the

Central Turning Basin from -34 feet to -42 feet. Maintenance dredging of all berthing areas is also part of the project.

Prior to the deepening to -42 feet, the port offered only two berths that could accommodate the larger cargo ships. The completion of Phase II provides four additional berths to handle the deeper-draft vessels, placing the Port of Miami in a more competitive standing in relation to other deepwater seaports, and positioning it to reap spillover economic benefits.

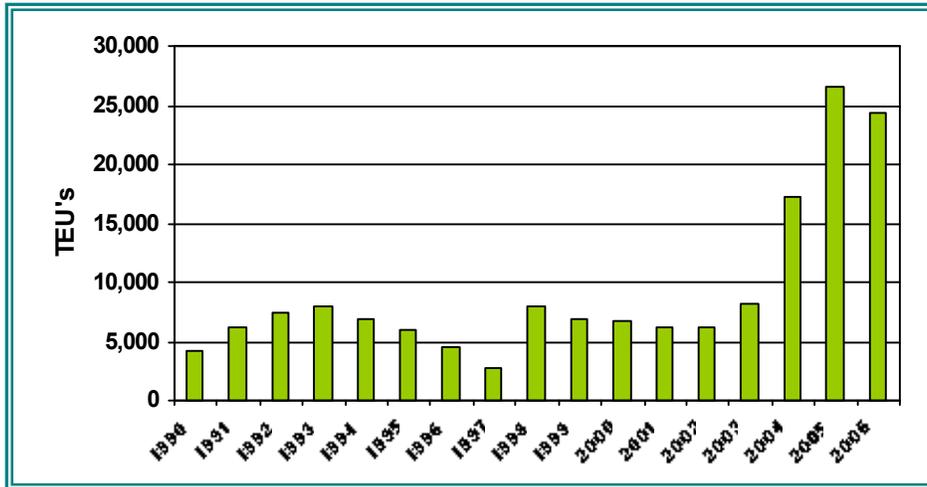
Phase III of the port's harbor-dredging project involves deepening the South Channel and the Central Turning Basin to -50 feet and the Entrance Channel and Government Cut to -54 feet, and widening the South Channel by 100 feet. This large-scale dredging project, expected to take up to six years, is under review by the ACOE and has a price tag estimated at more than \$170 million. The plan now has a "Record of Decision" from the ACOE and awaits Congress Water Resource Development Act authorization, which would entail federal cost sharing.

The Port of Miami experiences severe traffic congestion moving cargo to and from the port over the City of Miami's downtown street system. To alleviate this congestion, a tunnel has been proposed which will connect the port with the interstate system, bypassing the downtown streets. If all the funding can be assembled, tunnel implementation by a public/private partnership could occur within the near term.

Overall, it is likely that the Port of Miami will continue to be a regional port serving South Florida and will continually have to compete with an aggressive pricing situation at Port Everglades. There is some possibility that more of the Miami market can be served from Jacksonville due to advantageous north-south truck backhaul rates, as well as the use of the FEC. This possibility will increase as the level-of-service increases at Jacksonville.

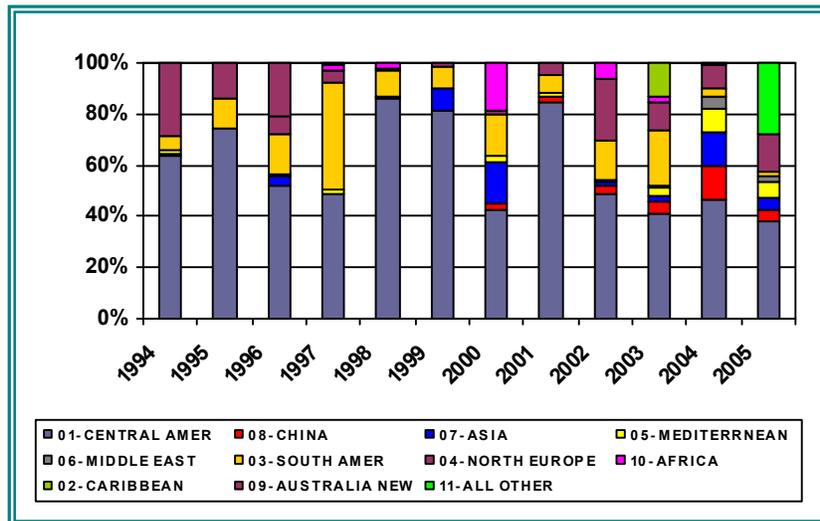
Port of Tampa. Historically, the Port of Tampa has not participated heavily in the containerized market. Figure 2.3-30 depicts the port's historical containerized throughput. The addition of Zim Container Line has boosted throughput in recent years. Although historically trade in containers has been in the Latin American and Caribbean markets, diversification of world markets has increased in recent years, as illustrated in Figure 2.3-31.

Figure 2.3-30
Containerized Throughput at Port of Tampa (TEUs)



Source: American Association of Port Authorities

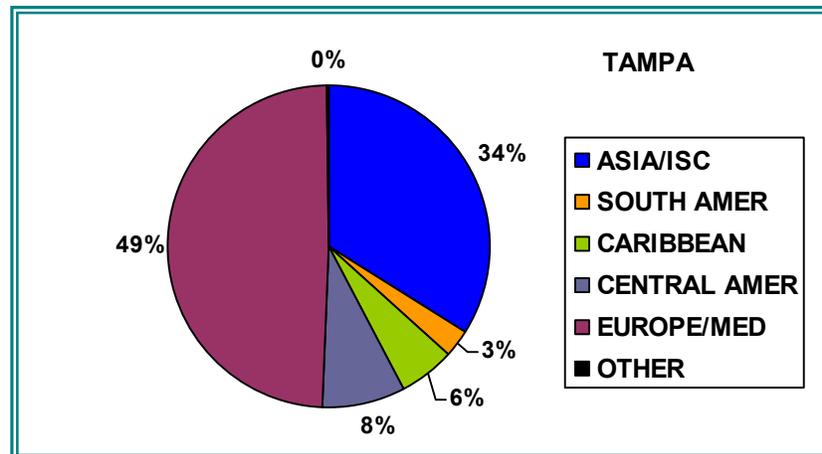
Figure 2.3-31
Historical Imported Containerized Trade at the Port of Tampa



Source: US Maritime Administration

The increase in European and Asian/ISC traffic shown in Figure 2.3-32 is again due to the signing of Zim Container Line.

Figure 2.3-32
Port of Tampa Share of Containerized Cargo by Trade Lane - 2006 Loaded TEUs



Source: PIERs, Journal of Commerce

It is likely that the Port of Tampa’s container volume will continue to grow, if the port expands its container-handling capacity. The port has various sites available for container development which include Port Redwing, Hookers Point, and Pendola Point; however, significant capital investments would need to be made to develop these sites.

With capital development in container operations, the Port of Tampa has the potential to serve the growing consumer market in Central Florida’s I-4 Corridor.

2.3.5 Current and Future Florida Market

Due to its geographic position and limited inland reach, Port Everglades (along with the Port of Miami) operates as a regional port serving South and Central Florida markets. The Florida market in which Port Everglades competes comprises two distinct markets: import goods for consumption and distribution in South Florida, typically Asian and European cargoes; and export goods to Latin America and the Caribbean, which also includes a percentage of transshipment cargoes to the Caribbean.

Transshipment cargoes handled at Port Everglades have diminished over the past decade from approximately 25 percent to 5 percent. This decline is attributed to several factors including a change in carrier base, U.S. governmental regulations (including post-9/11 security as well as USDA APHIS/PPQ policies) and the development of other key transshipment facilities in the Caribbean. The future of transshipment cargoes handled at Port Everglades remains uncertain. Capacity expansion and developments at key Caribbean transshipment hubs such as Colon (Panama), Kingston (Jamaica), Freeport (Bahamas), Caucedo (Dominican Republic), and Port of the Americas (Puerto Rico) will compete for east-west traffic. Furthermore, offshore labor rates are more conducive to transshipment operations than U.S. labor structures. The potential does, however, exist to bolster transshipment activity at Port Everglades given competitive rates

and coordinating liner service. This scenario would most likely succeed with an agreement between a global carrier and a regional Caribbean carrier, with one party handling the import load and the other party carrying the export move.

Historically, Port Everglades competes against the Port of Miami and Port of Palm Beach to serve the import market in the South/Central Florida region. With the exception of JAXPORT, which controls the Puerto Rican trade, Port Everglades, Miami, and Palm Beach also compete for the export market that serves Latin America and the Caribbean. The South Florida ports have been (and will continue to be) successful due to the large Latin American business community in South Florida. Furthermore, the South Florida export market is complemented by a large presence of shippers and consolidators in the Miami-Dade region.

To determine the current and future trends in the Florida import and export markets, detailed analyses of Florida importers and exporters were conducted.

Florida Import Market

Table 2.3-2 on the next two pages presents the top Florida importers by port and by carrier as well as the locations of the key Florida distribution centers.

These container volumes do not include West Coast intermodal moves into Florida, despite the fact that it is likely that a significant share of Asian cargo consumed in Central and South Florida is moved intermodally via West Coast ports. Nonetheless, primarily due to the growth of all-water services calling at the Port of Savannah, cargo from Savannah is penetrating into the Central and South Florida markets. This penetration into the Central and South Florida regions is an area for Port Everglades to target. There will likely be an equal, if not greater, penetration of Asian intermodal cargo into these regions, which would increase the size of the potential markets that could be captured by an all-water Asian service via Port Everglades.

Table 2.3-2

Top Florida Importers by Port, Carrier, and Florida Distribution Center Location

COMPANY	PORT	TEUS BY PORT	KEY CARRIERS	KEY FLA DC LOCATIONS
ROOMS TO GO 27,869 TOTAL TEU	MIAMI	13,089	MAERSK (74%)	LAKELAND
	SAVANNAH	11,572	HANJIN (15%)	
	CHARLESTON	2,136		
	WILMINGTON	705		
	EVERGLADES	316		
	JAXPORT	51		
CHIQUITA 21,202 TOTAL TEU	EVERGLADES	21,202		FORT LAUDERDALE
AMWARE PALLET SERVICE 9,261 TOTAL TEU	JAXPORT	9,200	MSC (42%)	JACKSONVILLE
	PALM BCH	58	HRZD (34%)	LAKELAND
	TAMPA	2	SEABOARD (16%)	POMPANO BCH
	SAVANNAH	1		
SOL GROUP MARKETING 8,801 TOTAL TEU	EVERGLADES	8,801	AEIE (83%)	FORT LAUDERDALE
ALJOMA LUMBER 6,413 TOTAL TEU	MIAMI	4,792	MAERSK (31%)	MEDLEY
	EVERGLADES	1,365	LYKES (21%)	
	SAVANNAH	165	MOL (14%)	
	CHARLESTON	92		
DOLE FRESH FRUIT 5,779 TOTAL TEU	EVERGLADES	5,779	DOLE	FORT LAUDERDALE
BACARDI IMPORTS 5,292 TOTAL TEU	JAXPORT	2,608	SEA STAR (31%)	JACKSONVILLE
	CHARLESTON	2,013	CROWLEY (26%)	RIVERVIEW
	SAVANNAH	515	MAERSK (17%)	
	EVERGLADES	143		
	MIAMI	13		
FRESH QUEST PRODUCTS 5,072 TOTAL TEU	EVERGLADES	2,616	SEABOARD (48%)	POMPANO BCH
	MIAMI	2,453	MARSK (27%)	
	TAMPA	4	APL (16%)	
CITY FURNITURE 4,719 TOTAL TEU	EVERGLADES	2,942	MAERSK (29%)	TAMARAC
	MIAMI	1,715	LLOYD TRIES (26%)	
	SAVANNAH	40	ZIM (24%)	
	CHARLESTON	14	ITMA (11%)	
	JAXPORT	4		
	WILMINGTON	4		
SOUTHERN WINE & SPIRITS 4,228 TOTAL TEU	MIAMI	3,671	MAERSK (265)	MIAMI (HQ)
	SAVANNAH	300	PONL (13%)	TAMPA
	EVERGLADES	222		FORT LAUDERDALE
	CHARLESTON	32		
	FERNANDINA	3		
J R BROOKS 3,593 TOTAL TEU	EVERGLADES	3,321	HYBUR (90%)	HOMESTEAD
	MIAMI	240		
	PALM BCH	26		
	CHARLESTON	6		

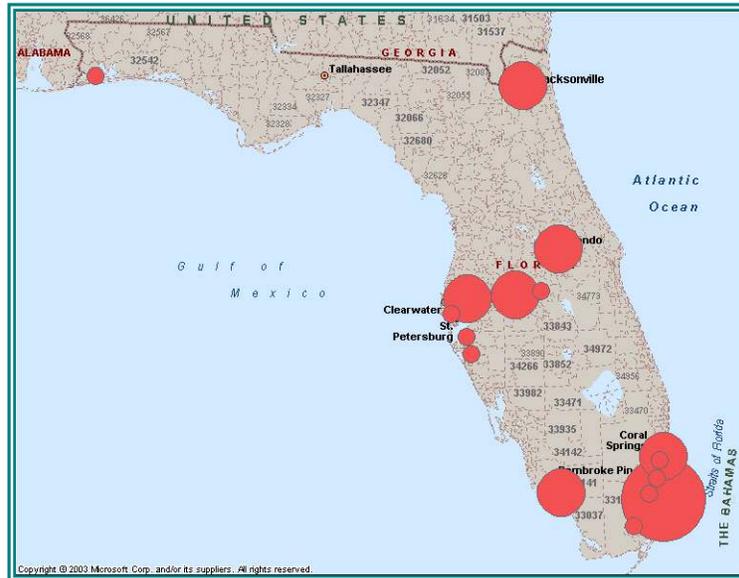
Table 2.3-2 (Continued)

COMPANY	PORT	TEUS BY PORT	KEY CARRIERS	KEY FLA DC LOCATIONS
LA SUPREMA ENTERPRISES 3,183 TOTAL TEU	MIAMI	3,143	MAERSK (99%)	AVENTURA
	EVERGLADES	22		
	CHARLESTON	18		
TOWN & COUNTRY IND 3,093 TOTAL TEU	MIAMI	2,922	MAERSK (94%)	FORT LAUDERDALE
	SAVANNAH	98		FORT MYERS
	CHARLESTON	54		MEDLEY
	EVERGLADES	20		TAMPA
KANE FURNITURE 2,907 TOTAL TEU	SAVANNAH	2,727	ZIM (78%)	PINELLAS PARK
	MIAMI	53		
	CHARLESTON	46		
	EVERGLADES	43		
	TAMPA	31		
	JAXPORT	8		
CLAY FOREVER 2,771 TOTAL TEU	MIAMI	2,698	SEABOARD (95%)	MIAMI
	PEV	73		
GOYA FOODS 2,718 TOTAL TEU	JAXPORT	1,077	CROWLEY (30%)	MIAMI
	EVERGLADES	848	SEA STAR (17%)	TAMPA
	MIAMI	721	SEABOARD (16%)	
	CHARLESTON	44		
	SAVANNAH	29		
CELLYNE 2,544 TOTAL TEU	MIAMI	1,967	EMDN (31%)	HAINES CITY
	EVERGLADES	510	CMA-CGM (30%)	
	SAVANNAH	41		
	CHARLESTON	26		
PREMIER BEVERAGE 2,403 TOTAL TEU	MIAMI	1,838	MAERSK (17%)	TAMPA
	EVERGLADES	299	LYKES (10%)	ORLANDO
	CHARLESTON	183	HAPAGLLOYD (10%)	MIRMAR
	SAVANNAH	69	LLOYD TRIES (7%)	JACKSONVILLE
	JAXPORT	14		PENSACOLA
MEGATRADE 2,378 TOTAL TEU	EVERGLADES	1,783	KING OCEAN (66%)	MIAMI
	MIAMI	585		
	CHARLESTON	11		
BEALLS OUTLET STORE 2,365 TOTAL TEU	SAVANNAH	2,357	HAPAGLLOYD (80%)	PALMETTO
	CHARLESTON	6		BRADENTON
	EVERGLADES	2		
WALT DISNEY RESORTS 2,185 TOTAL TEU	SAVANNAH	2,187	MOL (29%)	ORLANDO
	CHARLESTON	6	ZIM (18%)	
	JAXPORT	1	HANJIN (17%) OOCL (17%)	

Source: PIERS, Chain Store Guide

The locations of the key import distribution centers in the previous figure are plotted in Figure 2.3-33. As shown, these import distribution center are concentrated in three areas: Jacksonville, South Florida, and Central Florida along the I-4 Corridor (Tampa-Lakeland-Orlando).

Figure 2.3-33
Concentration of Distribution Centers of Top Florida Importers



Source: Chain Store Guide, Dunn & Bradstreet

Figure 2.3-34 illustrates the key import distribution centers and which port would provide the most effective service.

Figure 2.3-34
Port Advantage to Selected Inland Destinations, Ranked by Miles



Source: PC Miler

Table 2.3-3 depicts the optimal port to serve the key South and Central Florida consumption areas, as ranked by mileage. The shortest distance for each consumption point is highlighted in yellow. As previously mentioned, Tampa holds a significant advantage to the majority of these regions.

Table 2.3-3
Distances in Miles to Key South and Central Florida Consumption Points

DISTANCE IN MILES FROM KEY PORTS TO KEY FLORIDA MARKETS/CONSUMPTION AREAS								
	PEV	Miami	Tampa	Palm Beach	Canaveral	Jaxport	Savannah	Charleston
Miami	27	0	279	75	214	350	490	591
Melbourne	155	180	128	108	33	177	317	418
Orlando	210	236	84	163	55	141	281	382
Tampa	263	281	0	226	129	226	331	432
Sarasota	214	231	58	200	172	269	408	509
Fort Myers	140	157	126	131	198	295	435	536
Naples	107	125	166	152	239	335	475	576
Lakeland	241	267	33	194	97	194	334	435
Vero Beach	114	140	163	67	76	212	352	453
Daytona Beach	241	267	137	194	74	89	229	330

Source: PC Miller

It is anticipated that Port Everglades and Miami will compete for the cargo destined for South Florida, and JAXPORT, with the new Asian service coming online in 2008, will control the Northern Florida market. JAXPORT will also most likely be in a position to serve the South Florida consumption points via FEC rail. This potential may also be enhanced by the fact that carriers could rail transshipment cargo destined for Latin America and the Caribbean for export through Port Everglades and Miami. Therefore, the key battleground region is Central Florida’s I-4 Corridor, and the South Florida ports -- both Port Everglades and the Port of Miami -- will compete against JAXPORT for this cargo. The lack of current global container service (specifically Far East/ISC) and container-handling facilities at the Port of Tampa currently limits Tampa’s ability to control the I-4 Corridor market, although the Port shares a significant inland transportation advantage. Plans are, however, being considered to expand terminal container capacity at Tampa and, if adequate container facilities are developed, Tampa could possibly become a key competitor in this market. The Canaveral Port Authority, although not currently a player in the container market, also shares an inland cost advantage and may play into the fold in the medium-term.

In addition, the October 22, 2006 referendum passed in Panama to expand the Panama Canal will encourage the growth of all-water Asian service to the East Coast and allow the deployment of larger and deeper vessels on the all-water routing. The anticipated completion of the expansion is currently scheduled for 2016. Global carriers are ordering larger ships (11,000- to 12,000-TEU capacity) and will “cascade” vessels, i.e., replacing a 9,000-TEU vessel in favor of an 11,000-TEU vessel; then replacing an 8,000-TEU vessel with a 9,000-TEU vessel; then replacing a 6,500-TEU vessel with an 8,000-TEU vessel, and so forth. These two factors will

ultimately require the South Atlantic ports to dredge deeper to accommodate the larger vessels that will be deployed on these trade routes. Currently, the Port of Savannah's depth is -42 feet and its plans to go to -48 feet should be completed by 2010. The Port of Miami's Phase III harbor-dredging project involves deepening the South Channel and the Central Turning Basin to -50 feet, the Entrance Channel and Government Cut to -54 feet and widening the South Channel by 100 feet. Therefore, to remain competitive in this market, Port Everglades will have to ultimately dredge its channel, berths and turning basins to accommodate the growth in larger ships.

Florida Export Market

With respect to exports, Port Everglades, Miami, and JAXPORT control the market. While JAXPORT (both the public dock and the private Crowley terminal) dominates nearly 75 percent of the U.S. trade with Puerto Rico, the South Florida ports -- the Port of Miami and Port Everglades -- handle the majority of the Latin American and Caribbean exports. These shipments serve Latin American and Caribbean countries with consumer goods and supplies and replenish the cruise and tourism industries. Table 2.3-4, on the next pages, presents the top Florida exporters by port and distribution center/consolidation center locations.

**Table 2.3-4
Top Florida Exporters by Port and Distribution Center Location**

COMPANY	PORT	TEUs	KEY FLORIDA DC LOCATIONS
ECONO CARIBE CONSOLIDATORS	EVERGLADES	6,313	MIAMI
13002 TOTAL TEU	MIAMI	4,692	
	CHARLOTTE	889	
	JACKSONVILLE	767	
	SAVANNAH	237	
	FERN BEACH	99	
	PALM BEACH	3	
	TAMPA	2	
	WILMINGTON	1	
AQUA GULF TRANSPORT	JACKSONVILLE	8,821	DEERFIELD BCH
9991 TOTAL TEU	EVERGLADES	997	JACKSONVILLE
	SAVANNAH	163	
	MIAMI	8	
	CHARLOTTE	2	
CARIBBEAN SHPG & CONSOLIDATING	JACKSONVILLE	8,588	JACKSONVILLE
9743 TOTAL TEU	EVERGLADES	690	
	MIAMI	244	
	CHARLOTTE	197	
	PALM BEACH	14	
	SAVANNAH	9	
SAMS WHOLESALE CLUB	JACKSONVILLE	7,429	LAKELAND
8861 TOTAL TEU	MIAMI	497	
	EVERGLADES	476	
	PALM BEACH	450	
	FERN BEACH	8	
EAGLE LOGISTICS	JACKSONVILLE	6,245	JACKSONVILLE
6882 TOTAL TEU	EVERGLADES	622	
	CHARLOTTE	13	
	MIAMI	1	
PEREZ TRADING	EVERGLADES	3,568	MIAMI
6450 TOTAL TEU	MIAMI	1,342	
	CHARLOTTE	812	
	JACKSONVILLE	481	
	SAVANNAH	194	
	PALM BEACH	8	

Table 2.3-4 (Continued)

K-MART	JACKSONVILLE	5,403	OCALA
6334 TOTAL TEU	EVERGLADES	923	
	PALM BEACH	8	
TRANSOCEANIC EXPRESS	EVERGLADES	6,193	MIAMI
6193 TOTAL TEU			
NACA LOGISTICS	MIAMI	2,286	MIAMI
5163 TOTL TEU	EVERGLADES	2,190	
	SAVANNAH	251	
	CHARLOTTE	234	
	JACKSONVILLE	141	
	PALM BEACH	61	
EXPEDITORS INTL	MIAMI	2,237	MIAMI
4647 TOTAL TEU	EVERGLADES	891	TAMPA
	SAVANNAH	741	ORLANDO
	CHARLOTTE	533	
	JACKSONVILLE	236	
	FERN BEACH	6	
	TAMPA	2	
	PALM BEACH	1	
AMERICAN FRUIT & PRODUCE	PALM BEACH	2,767	OPA LOCKA
4545 TOTAL TEU	EVERGLADES	1,294	
	MIAMI	472	
	FERN BEACH	12	
RED OAK LOGISTICS	JACKSONVILLE	4,441	
4501 TOTAL EEU	PALM BEACH	60	
PUEBLO INTL	JACKSONVILLE	3,858	
4023 TOTAL TEU	EVERGLADES	164	
BEAVER STREET FISHERIES	PALM BEACH	2,501	JACKSONVILLE
3863 TOTAL TEU	JACKSONVILLE	859	
	EVERGLADES	423	
	MIAMI	44	
	FERN BEACH	18	
	CHARLOTTE	12	
	SAVANNAH	6	
INTL TRANSPORT & LOGISTICS	JACKSONVILLE	3,837	
3847 TOTAL TEU	EVERGLADES	10	

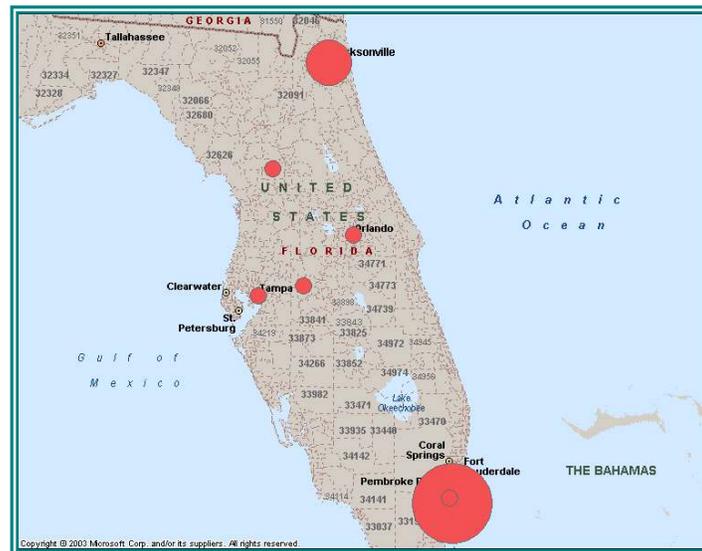
Table 2.3-4 (Continued)

KESTREL LINER AGENCIES	EVERGLADES	2,024	MIAMI
3814 TOTAL TEU	PALM BEACH	1,314	
	MIAMI	412	
	FERN BEACH	60	
	SAVANNAH	3	
	CHARLOTTE	1	
USG INTERIORS	EVERGLADES	1,385	JACKSONVILLE
3644 TOTAL TEU	MIAMI	1,113	
	JACKSONVILLE	871	
	PALM BEACH	274	
ITN CONSOLIDATORS	MIAMI	2,319	MIAMI
3535 TOTAL TEU	EVERGLADES	1,029	
	CHARLOTTE	105	
	SAVANNAH	49	
	JACKSONVILLE	30	
	PALM BEACH	2	
US POST OFFICE	JACKSONVILLE	3,384	
3418 TOTAL TEU	EVERGLADES	33	
	MIAMI	1	
RAPIDUS	PALM BEACH	1,706	MIAMI
3285 TOTAL TEU	MIAMI	1,159	
	EVERGLADES	420	

Source: PIERS, Chain Store Guide

The key distribution and consolidation centers for the export market depicted in the previous figure are mapped in Figure 2.3-35. Again, there is a strong concentration in South Florida due to the Latin American influence and business community. This consolidation stronghold will continue strengthening the South Florida ports' advantage to grow and serve this market.

Figure 2.3-35
Concentration of Key Exporter DC and Consolidation Facilities



Source: Chain Store Guide, PC Miler, and Dunn & Bradstreet

This concentration of export distribution and consolidation centers provides Port Everglades and the Port of Miami with the necessary support infrastructure to maintain market share in the Latin American and Caribbean export market. It encompasses the regional carriers such as Seafreight, Hyde Shipping, and Crowley as well as the third party/ non-vessel operating common carrier (NVOCC) shippers such as Econo Caribe, Aqua Gulf Transport, Danzas, and Expeditors who support the global carriers as well as the strong local truck market. Port Everglades' export potential may also be enhanced if Asian carriers calling JAXPORT decide to rail transshipment cargo destined for Latin America/Caribbean markets for export through Port Everglades and Miami. Due to these factors, it is likely that Port Everglades and Miami will remain strong and compete directly for these export cargoes. Furthermore, Free Trade Agreements with Peru, Colombia, Chile, and the Central America Free Trade Agreement (DR-CAFTA) will likely strengthen and sustain the Latin American and Caribbean economies that rely on this U.S. export market.

Broward County Distribution Center Potential

As demonstrated in the South Atlantic market, specifically Norfolk, Savannah, and Charleston, the increase in container throughput is directly related to the development of import distribution centers. In the past, importers were identified as "port blind" and shipped through the port or ports that their contracted shipping lines called. In recent years, however, the port-selection power has shifted from the shipping lines to importers (largely because the number of large-

volume importers has grown) and they now typically control the U.S. port of discharge and the shipping line must accommodate. In addition, the events of 9/11, the West Coast port shutdown in 2002, and major congestion issues that arose in 2004 have resulted in an increased focus on diversification of containerized cargo via various U.S. ports, thus resulting in a growth of distribution centers in the Southeast U.S.

The South Florida ports have typically operated as regional ports, serving the local consumption market. The current and future development of regional distribution centers to serve this market, as shown in the previous section, will influence port-routing decisions. To examine this potential, it is necessary to understand the current Broward County market for industrial development.

The current Broward County industrial real estate market is essentially depleted; that is, the County is nearly “built-out” from an industrial development perspective. For example, one large industrial developer has only 100 acres left for development. If “clean” industrial land is not available, the developers, who typically build-to-suit for their wholesale and retail clients, must target already built-up sites and, therefore, tear down and rebuild existing infrastructure; this is much more costly and most likely financially not feasible. Scarce land is driving these developers to look into other regions, specifically Central Florida. Furthermore, land purchase prices in Broward County have escalated to \$13.00 to \$15.00 per square foot, compared to \$3.00 to \$5.00 per square foot in Central Florida.

From a rental perspective, Broward County’s record low vacancy rates are exacerbating this scarce land issue. Currently, according to CB Richard Ellis, there is approximately 100 million square feet of rentable building area in Broward County, with only 930,000 square feet under construction, compared to 2.3 million square feet in Miami-Dade, 1.45 million square feet in Jacksonville and 1.2 million square feet in both Tampa and Orlando. Lease rates in Orlando, Tampa, and Jacksonville are lower, which is more appealing to potential industrial tenants. In addition, insurance premiums are on the rise from \$.10 to .15 per square foot to nearly \$1.00 per square foot in South Florida. Table 2.3-5 illustrates the Broward County industrial land market as compared to Miami and other key Florida regions.

**Table 2.3-5
Lease Rates in Key Florida Markets**

	RENTABLE BLDG AREA(SF)	VACANCY RATE	SF UNDER CONSTRUCTION	LEASE RATE \$/NN/SF	AVAILABILITY RATE
BROWARD	102,714,234	4.0%	933,145	\$7.85	5.2%
MAM	199,140,564	4.2%	2,270,416	\$6.62	3.7%
PALMBEACH	46,624,774	2.6%	291,967	\$9.30	3.5%
TAMPA	134,786,735	3.7%	1,228,961	\$7.00	NA
ORLANDO	98,908,684	6.6%	1,195,800	\$4.68	NA
JACKSONVILLE	88,698,465	5.1%	1,463,033	\$4.97	7.6%

Source: CB Richard Ellis MarketView Reports

Approximately 140 acres of Port Everglades property is available for development to the west of McIntosh Road. Assuming 70 acres of this land were dedicated for warehousing and

distribution, activity, it is estimated that every acre of undeveloped land equates to 15,000 square feet of finished industrial distribution space. Using this calculation, Port Everglades could potentially build 1.05 million square feet of portside distribution facilities. This acreage is sufficient to handle a medium-sized distribution center, which typically ranges from 750,000 to 1,000,000 square feet. This parcel can also be considered for smaller units (50,000-100,000 square feet) that could house numerous tenants engaged in CFS, NVOCC or transloading activity. Key industrial real estate developers have expressed recent interest in this parcel; however, any warehousing activity on this parcel must include cargo, at least 51 percent of which must move over docks at Port Everglades.

2.3.6 Competitive Analysis of Containerized Cargo

Port Everglades competes with Miami, Tampa, JAXPORT, Savannah, and Charleston for containerized cargo. To determine Port Everglades’ competitive position in this container market, which is sensitive to total delivered cost, several key factors that affect port selection were addressed. Competitive cost position of a port is defined by several key factors. These include:

- Port costs – applied against the cargo or vessel including wharfage and dockage, pilotage, and tugs.
- Terminal charges – stevedoring charge for the physical handling of the cargo, truck, or rail loading.
- Inland freight costs to destinations – drayage, barge, and rail to the end user, including time of delivery and distance.
- Total delivered transportation costs, which includes vessel costs from overseas origins to U.S. ports.

Port Charges. The base tariff charges – those fees levied against the cargo – for Port Everglades, Miami, JAXPORT, and Tampa are shown in Table 2.3-6.

**Table 2.3-6
Schedule of Base Tariff Charges for Containerized Cargo**

	PORT EVERGLADES	MIAMI	JAXPORT	TAMPA
BASE WHARFAGE	\$2.30/TON	\$2.10/TON	\$3.71/TON*	\$1.97/TON
BASE DOCKAGE	\$.1911/GRT	\$.25/GRT	\$8.48/LOA**	\$7.63/LOA***
CONTAINER FEE - LOADED	\$3.58/EACH	\$1.65/TON	N/A	N/A
CONTAINER FEE - EMPTY	\$1.64/EACH	\$1.65/TON	\$15.90 EACH	N/A
SECURITY FEE - CONTAINER	\$2.00/EACH	N/A	\$4.00/EACH	N/A
SECURITY FEE - VESSEL	\$0.0092/GRT	N/A	N/A	N/A

*Based on vessels over 500’ LOA

** Based on vessels over 625’ LOA

*** Based on vessels between 700-799’ LOA

As shown in the previous figure, Port Everglades and the Port of Miami are competitive in terms of base wharfage on containerized cargo. Both Port Everglades and the Port of Miami share a \$1.41 and \$1.61 per ton advantage, respectively, for base wharfage for containerized over JAXPORT. Port Everglades has a slight advantage in published dockage rates over Miami which essentially offsets the difference in wharfage between the two ports. The loaded and empty container fees vary in the respect that Port Everglades charges \$3.58 for loaded

containers and \$1.68 for empties on a per container basis, while the Port of Miami charges a \$1.65 per tare weight ton (both loaded and empty) of the box (for example a container with a tare of 7,800 pounds would equate to \$6.44). Port Everglades assesses a \$2.00 security charge per container and a security fee against container vessels of \$0.0092/GRT, while JAXPORT charges a \$4.00 per container security fee. The Port of Miami does not impose a tariff-based security fee; however, effective October 1, 2006, as a facility maintenance and improvements charge, the port has requested a “one year only” container fee of \$3.57 per loaded import and export TEU.

The Port Everglades Tariff No. 12, Item 515, provides wharfage and container crane incentives for qualifying ocean carriers. These tariff provisions apply to non-terminal operating containerized cargo ocean carriers. These provisions are competitive sliding scale discounts off the applicable tariff rates for higher volume throughputs. The maximum discount for crane rentals tops out at 35 percent for tonnages between 250,001 and 300,000 per year and 45 percent for more than 350,001 tons per year.

The Port of Miami offers a comparable tariff incentive scale. On all tonnage tiers, Port Everglades has a percentage discount tariff advantage over Miami, except for the 750,001 and over tons-per-year tier in which both ports are equal at 45 percent.

The breakdown of Port Everglades’ comparative percentage discount rate advantage is depicted in Table 2.3-7.

**Table 2.3-7
Tariff Incentive Discount Rates**

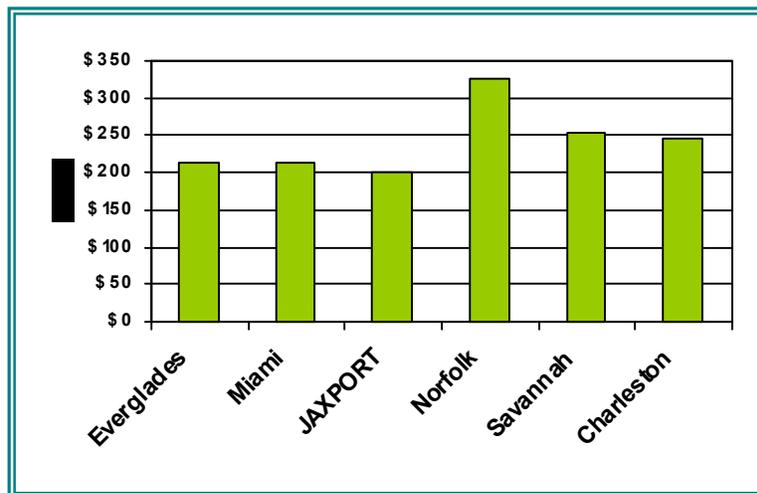
TONNAGE RANGE	EVERGLADES DISCOUNT	MIAMI DISCOUNT
0-50,000	10%	0%
50,001-100,000	15%	0%
100,001-250,000	30%	20%
250,001-300,000	35%	30%
300,001-350,000	40%	30%
350,001-500,000	45%	30%
500,001-750,000	45%	40%
750,001 & OVER	45%	45%

There are two important facts to note about this percentage discount tariff. First, at Port Everglades, the annual minimum tonnage per year is for the 12-month period, commencing on the date of the first vessel loading/discharge operation and terminating 365 days thereafter. At the Port of Miami, the annual minimum tonnage per year is for the fiscal year from October 1st to September 30th. Secondly, at Port Everglades, the percentage discount is off the published tariff rates for container cargo (tonnage) wharfage, and the container gantry crane rental rates. At Miami, the percentage discount is the percentage off the published tariff rates for wharfage and dockage. By comparison, JAXPORT does not provide for a tariff-based incentive discount.

With respect to other port charges, pilotage rates are generally 15 to 20 percent less expensive at Port Everglades than Miami. Conversely, tug costs are approximately 10 to 15 percent higher at Port Everglades than Miami. Furthermore, the difference in wharfage and dockage between Port Everglades and Miami will offset each other and not play a significant difference in total delivered cost per container. Therefore, competitive terminal-handling fees (stevedoring, gate charges, truck, and rail loading/discharge rates, reefer fees, and other ancillary terminal charges) become critical in assessing the Port’s competitive rates.

Terminal Charges. While the port costs mentioned above (towing, pilotage, and dockage) contribute to the delivered cost per box, the terminal throughput charges remain the key competitive factor. The terminal charges are typically the most influential costs other than voyage and inland costs in driving port selection. Figure 2.3-36 compares the terminal throughput rates of Port Everglades and key competing ports.

**Figure 2.3-36
Comparison of Terminal Throughput Cost per Box**



Terminal charges between Port Everglades and Miami are very competitive at approximately \$215 per box. JAXPORT’S throughput charge per box is slightly less, at about \$200 per box. All Florida ports, however, appear to share a cost advantage over other South Atlantic ports of Norfolk, Savannah, and Charleston. Stevedoring rates are comparable between Port Everglades and Miami at \$85 to \$95 per box, full or empty, straight time. Per move, terminal gate charges range about \$64 to \$67 per move. At both Port Everglades and the Port of Miami, the average revenue per TEU – wharfage, dockage rentals, cranes, and reefers -- ranges from \$40 to \$50.

Inland Freight Rates. Due to the competitive rate structures of the Florida ports’ terminal charges, the inland freight rate becomes the deciding factor in port selection by importers/exporters as well as a key consideration by the ocean carriers.

Table 2.3-8 presents the mileages and corresponding estimated one-way freight rates from all Florida ports and Savannah and Charleston to key Florida consumption points as well as import and export distribution and consolidation centers described earlier in Section 2.3.4. Each

destination highlighted in yellow corresponds to the port with the greatest inland advantage in terms of distance and cost.

Rates depicted in Table 2.3-8 are not estimated for distances less than 65 miles, since it is difficult to assess actual rates due to the port and local traffic congestion along with container retrieval time which may skew the freight rate. Local drayage rates (those to and from warehouses within 20 to 25 miles from the port) arranged directly with a trucking company typically favor the Port of Miami over Port Everglades by approximately \$15-\$30 per container per direction. (The distances shown in Table 2.3-8 are generic distances between cities and the respective ports; they are not necessarily the same as port-to-port distances.)

**Table 2.3-8
Freight Rates to Key Consumption and Distribution Points**

DISTANCE IN MILES FROM KEY PORTS TO KEY FLORIDA MARKETS/CONSUMPTION AREAS								
	Everglades	Miami	Tampa	Palm Bch	Canaveral	JAXPORT	Savannah	Charleston
ALACHUA	328	354	143	287	178	76	212	313
ALTAMONTE SPGS	221	246	94	179	65	133	272	373
BROOKSVILLE	270	295	45	228	119	163	298	399
DAYTONA BEACH	241	267	137	194	74	89	229	330
DEERFIELD BEACH	17	43	255	32	175	312	451	552
FORT MYERS	140	157	126	131	198	295	435	536
HOMESTEAD	54	28	296	97	241	377	516	617
JACKSONVILLE	328	354	225	286	161	0	139	240
LAKELAND	241	267	33	194	97	194	334	435
LARGO	261	279	23	251	149	246	385	486
MacCLENNY	355	381	192	314	188	30	166	267
MARIANNA	521	547	336	480	371	227	362	463
MEDLEY	31	13	270	74	217	354	493	594
MELBOURNE	155	180	128	108	33	177	317	418
MIAMI	27	0	279	75	214	350	490	591
NAPLES	107	125	166	152	239	335	475	576
OCALA	281	307	96	240	131	99	235	336
OPA LOCKA	21	13	271	63	207	344	483	584
ORLANDO	210	236	84	163	55	141	281	382
PEMBROKE PINES	12	19	261	55	199	335	475	576
POMPANO BEACH	12	37	259	36	180	316	455	556
PORT EVERGLADES	0	29	263	46	190	326	466	567
SARASOTA	214	231	58	200	172	269	408	509
ST. PETERSBURG	248	266	23	251	148	245	385	486
TAMARAC	16	44	259	49	184	321	460	561
TAMPA	263	281	0	226	129	226	331	432
VERO BEACH	114	140	163	67	76	212	352	453
WEST PALM BEACH	45	70	228	7	148	284	424	525
WINTER HAVEN	200	226	48	159	91	188	328	429

ONE-WAY FREIGHT RATES FROM KEY PORTS TO KEY FLORIDA MARKETS/CONSUMPTION AREAS								
	Everglades	Miami	Tampa	Palm Bch	Canaveral	JAXPORT	Savannah	Charleston
ALACHUA	\$446	\$481	\$195	\$390	\$242	\$104	\$288	\$425
ALTAMONTE SPGS	\$300	\$335	\$128	\$243	\$89	\$180	\$370	\$507
BROOKSVILLE	\$367	\$401		\$310	\$162	\$221	\$405	\$543
DAYTONA BEACH	\$328	\$362	\$187	\$271	\$100	\$121	\$311	\$448
DEERFIELD BEACH			\$347		\$239	\$424	\$614	\$751
FORT MYERS	\$190	\$214	\$171	\$172	\$297	\$401	\$591	\$728
HOMESTEAD			\$402	\$131	\$327	\$512	\$702	\$840
JACKSONVILLE	\$446	\$481	\$306	\$390	\$219		\$189	\$326
LAKELAND	\$328	\$363		\$272	\$132	\$264	\$454	\$591
LARGO	\$355	\$379		\$342	\$203	\$334	\$524	\$661
MacCLENNY	\$483	\$518	\$261	\$427	\$256		\$226	\$363
MARIANNA	\$709	\$743	\$457	\$652	\$504	\$308	\$493	\$630
MEDLEY			\$366	\$100	\$296	\$481	\$671	\$808
MELBOURNE	\$210	\$245	\$174	\$154		\$241	\$431	\$568
MIAMI			\$379	\$95	\$291	\$476	\$666	\$803
NAPLES	\$146	\$170	\$226	\$201	\$325	\$456	\$646	\$783
OCALA	\$382	\$417	\$131	\$326	\$178	\$135	\$319	\$456
OPA LOCKA			\$369	\$86	\$282	\$467	\$657	\$794
ORLANDO	\$286	\$320	\$114	\$229		\$192	\$382	\$520
PEMBROKE PINES			\$355		\$270	\$456	\$646	\$783
POMPANO BEACH			\$352		\$244	\$430	\$619	\$757
PORT EVERGLADES			\$357		\$258	\$443	\$633	\$771
SARASOTA	\$290	\$314		\$266	\$234	\$365	\$555	\$693
ST. PETERSBURG	\$351	\$375		\$334	\$195	\$325	\$515	\$652
TAMARAC			\$352		\$251	\$436	\$626	\$763
TAMPA	\$358	\$382		\$314	\$175	\$307	\$451	\$588
VERO BEACH	\$155	\$190	\$222	\$99	\$104	\$289	\$479	\$616
WEST PALM BEACH			\$309		\$201	\$387	\$577	\$714
WINTER HAVEN	\$272	\$307		\$216	\$124	\$256	\$446	\$583

Source: PC Miler

Voyage Costs. Ocean voyage costs also play a role in the total delivered cost per port. Table 2.3-9 illustrates the distance from the Panama Canal to key Florida and South Atlantic ports.

**Table 2.3-9
Nautical Distance from Panama Canal**

NAUTICAL MILES	PANAMA CANAL
MIAMI	1,258
TAMPA	1,260
PORT EVERGLADES	1,273
JAXPORT	1,559
SAVANNAH	1,606
CHARLESTON	1,607

While the Port of Miami has the closest sailing distance to the Panama Canal, it is only 15 less nautical miles than Port Everglades. Tampa ranks second (1,260 nautical miles) and shares a similar sailing distance from the Panama Canal as the Port of Miami. These South Florida ports have a 250- to 300-mile advantage over JAXPORT and a more than 350-mile advantage over Savannah and Charleston. These ocean mileages indicate that Port Everglades and Miami are not at a disadvantage in comparison to Tampa and JAXPORT to serve carriers using the Panama Canal.

In conclusion, inland access to consumption points in Southern Florida is the driving competitive factor in port selection.

2.3.7 Port Everglades Container Forecast

The factors contributing to the future growth at Port Everglades container business comprise a variety of parameters, including free trade agreements such as DR-CAFTA with Latin American and Caribbean nations, Florida/South Florida population growth, and new/increased services to be put in place by current terminal operators and carriers as well as the addition of new terminal operators. To capture Port Everglades’ full potential in the containerized cargo market, two unconstrained forecasts were developed – a low/baseline scenario and a high scenario based on a combination of these parameters.

The container forecast developed for Port Everglades incorporates two distinct markets – import cargoes (typically Asian and European cargoes that are driven by consumption and distribution activity) and export cargoes (Latin American and Caribbean markets that are served by Port Everglades for consumption and tourism).

The low and high container forecasts are based on the following assumptions:

- The forecast base year is from FY 2006 Port Everglades statistics.
- All current terminal/liner services are incorporated.
- The forecasts incorporate both full and empty TEUs.
- The forecasts represent unconstrained growth.
- The forecasts factor in potential new tenants/services under contract or being pursued by the Port or carriers/terminal operators.

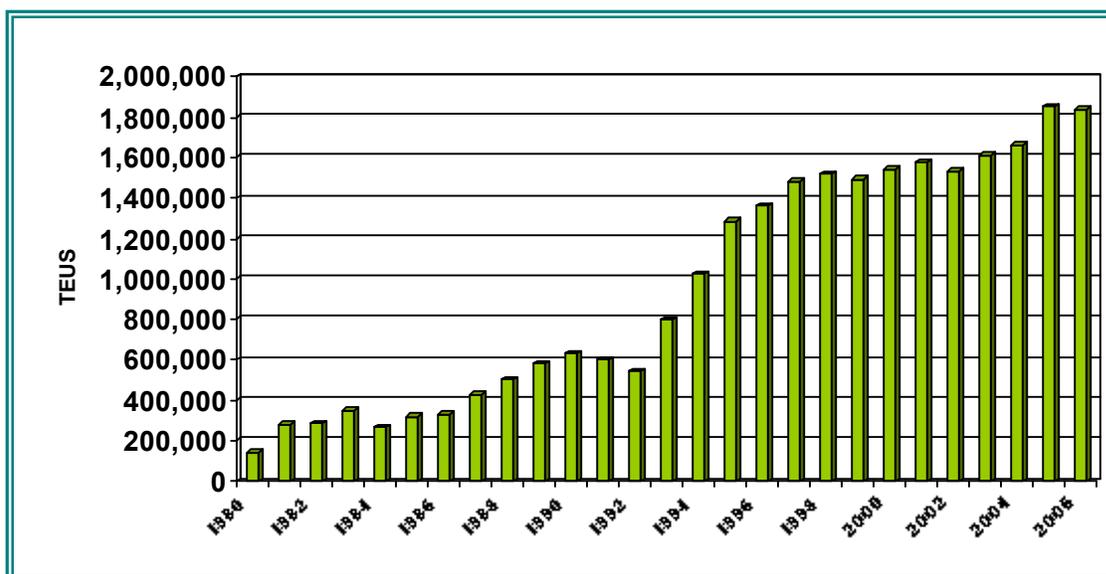
The sources included in the forecasts include:

- Historical container throughput data from the American Association of Port Authorities.
- Throughput data by trade lane from terminal interviews and PIERS data.
- Published Florida population data.
- Published data from the International Monetary Fund (IMF) and Economic Commission for Latin America and the Caribbean (ECLAC).
- Carrier/terminal operator interviews.

To assess the South Florida consumption market, the historical container throughput of both Port Everglades and the Port of Miami were analyzed, since Port Everglades competes directly with the Port of Miami for this cargo market and both ports contribute to the market as a whole. Combined container traffic at Port Everglades and the Port of Miami has grown at 10.2 percent annually since 1980. The rapid increase from 1990 to 1995 is attributed to the containerization of break-bulk cargoes. Over the past ten years, the growth has averaged a more modest 3.1 percent annually.

Figure 2.3-37 shows the historical container throughput of Port Everglades and Miami.

Figure 2.3-37
Port Everglades and Port of Miami Combined Historical Container Throughput (TEUs)

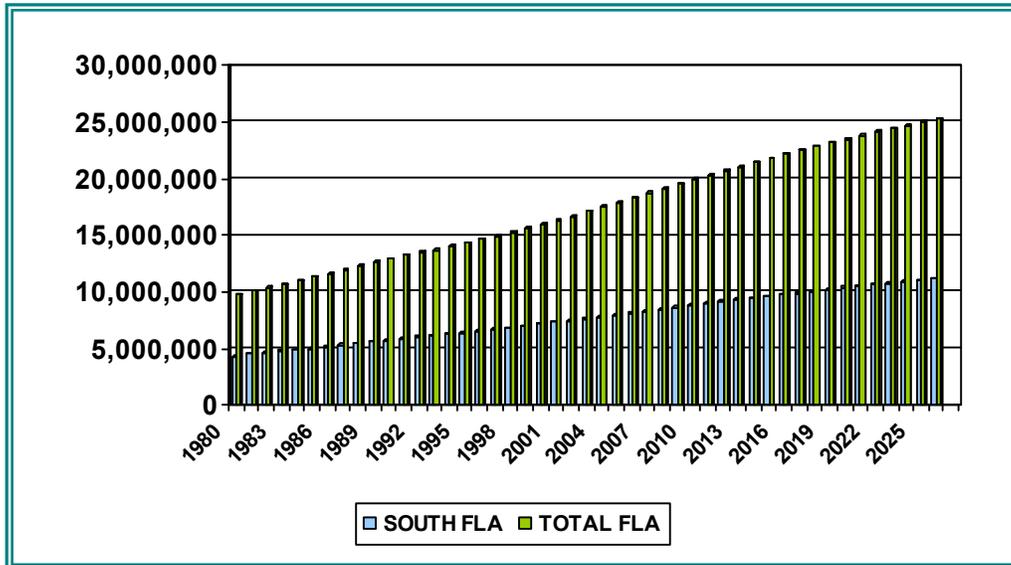


Source: American Association of Port Authorities

A statistical regression analysis confirms that population growth and container throughputs are closely related. The South Florida population, comprising for this analysis the 17-county region that essentially constitutes Port Everglades’ competitive hinterland, rather than the more usual three-county South Florida core, is expected to grow at 1.59 percent through 2026. This projected population growth for South Florida is expected to rise at a slightly lower pace than

Florida’s 1.63 percent growth. Figure 2.3-38 compares the population growth of the state and the South Florida region.

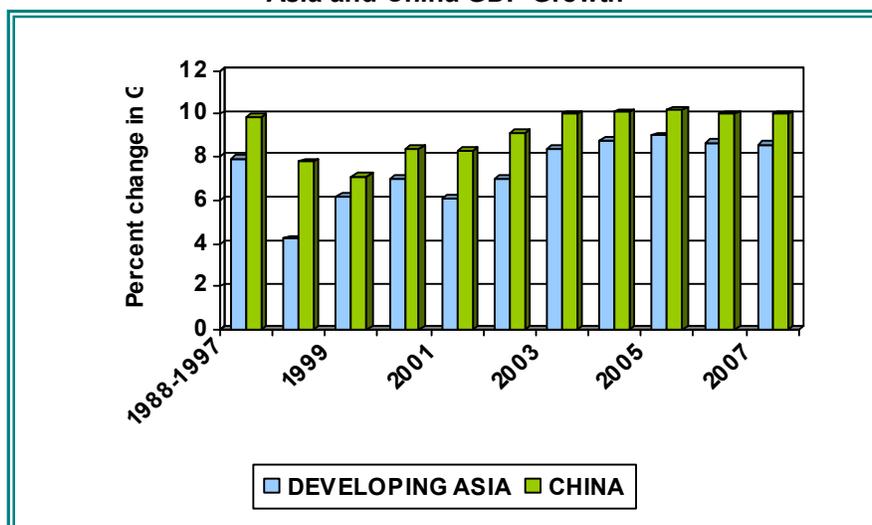
Figure 2.3-38
Florida and South Florida Population Growth



Source: Demographic Estimating Conference Database, updated July 2006; South Florida counties include: Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Indian River, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Palm Beach, St. Lucie and Sarasota

Also considered in the forecast analysis is the growth of key import trading partners. Asia, and specifically China, has been the dominant source of import cargoes, averaging gross domestic product growth of 7.9 percent and 9.5 percent, respectively, over the past 5 years. Figure 2.3-36 presents the percent change in gross domestic product growth in Asia and China since 1988.

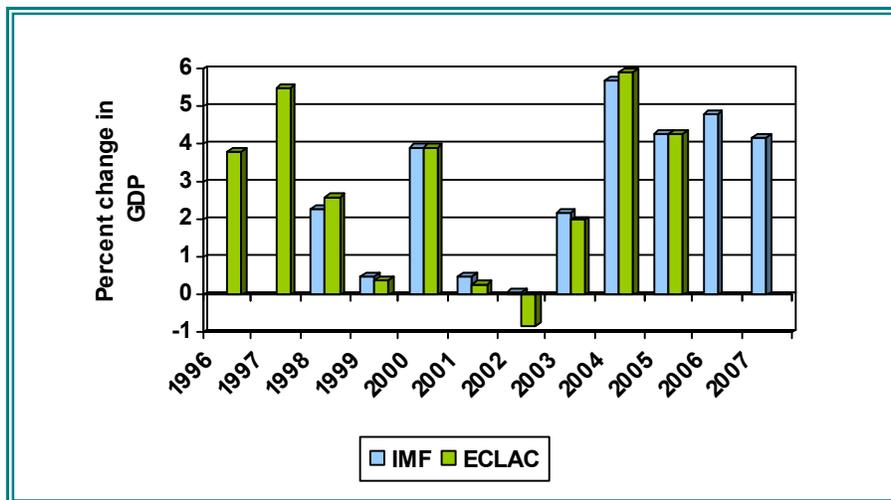
Figure 2.3-39
Asia and China GDP Growth



Source: IMF World Economic Outlook, September 2006

The Port Everglades export market serves Latin American and Caribbean countries with consumer goods and supplies and replenishes the cruise and tourism industries with the goods they need for their visitors. Historical growth was examined in terms of gross domestic product in the Latin American and Caribbean countries. Two sources were used in the analysis – IMF and ECLAC. Over the past three years, this region’s gross domestic product has experienced an average annual growth of 4.1 percent, peaking in 2004 with a 5.9 percent growth. These three consecutive years of gross domestic product growth are expected to continue at a rate between 4.2 percent and 4.8 percent in the near-term. Furthermore, DR-CAFTA and free trade agreements with Peru, Colombia, and Chile are expected to foster this growth. Figure 2.3-40 illustrates the recent and projected 2006 and 2007 growth in Latin America and the Caribbean.

Figure 2.3-40
Latin America and Caribbean GDP Growth



Source: IMF World Economic Outlook, September 2006, Economic Commission for Latin America and the Caribbean

Although it is difficult to forecast the impact of the resumption of free trade with Cuba, it is appropriate to examine the order-of-magnitude throughput of this potential containerized traffic. At the outset, terminal, road, and rail infrastructure development would be needed at the Port of Havana as well as at other key deepwater ports on the island, including the ports of Mariel, Matanzas, Cienfuegos, and Santiago de Cuba. Initial traffic is anticipated to consist of infrastructure equipment, foodstuffs, and household goods for both domestic consumption as well as an increased tourism industry. Eventually, this traffic with Cuba would become two-way trade, with Cuba most likely shipping northbound perishables such as coffee, fruit, vegetables, and cane sugar to the U.S.

Cuba is estimated to generate approximately 2.5 times the volume of Puerto Rico, which according to the American Association of Port Authorities (AAPA) statistics, handled approximately 1.7 million TEUs in 2006. Assuming that the United States would capture between 25 and 30 percent of the market and that Port Everglades would capture 20 percent of the U.S. share, it is estimated that Port Everglades would see an additional 100,000 to 120,000

container moves annually, with an expected annual growth rate of 3 to 5 percent thereafter. The initial demand would most likely result in extremely competitive freight rates and, due to the limitations of current terminal infrastructure, it is expected that regional RO/RO or barge operators that have an already established presence in Florida (specifically, Port Everglades, Port of Miami, Port of Palm Beach, and JAXPORT) and the Caribbean trade would emerge as the key players in the U.S.-Cuba trade.

Based on the FY 2006 containerized volume and interviews with Port Everglades' tenants, low/base and high container forecasts by terminal were developed. Under the low forecast scenario, container throughput will reach 1,841,443 TEUs by 2026. This represents a 3.9 percent compounded annual growth rate (CAGR) over the 20-year planning period.

The results of the low/base forecast are depicted in Table 2.3-10.

**Table 2.3-10
Low/Base Containerized Forecast by Terminal-**

TERMINAL/LINE	CONTAINER FORECAST LOW SCENARIO (TEUs)						
	FY2005	2006	2010	2015	2020	2025	2026
	220,94	218,71					
CROWLEY	2	7	250,983	298,089	354,036	420,484	435,201
FTS TOTAL	64,064	64,034	82,294	107,318	125,041	145,705	150,232
HYDE	76,422	67,482	77,437	91,971	109,233	129,734	134,275
CHIQUITA	54,655	47,416	50,326	54,215	58,405	62,919	63,862
		103,78					
UNIV/APM TOTAL	90,234	1	138,529	186,552	232,044	289,140	302,208
SUN TERMINAL TOTAL	75,000	75,810	85,792	100,187	117,059	136,844	141,194
SAWGRASS (DOLE)	21,758	22,119	23,476	25,291	27,245	29,351	29,791
ST. JOHN	43,905	42,760	49,068	58,277	69,215	82,206	85,083
		141,17					
PET/MSC TOTAL	83,304	6	174,741	222,838	274,374	338,381	352,941
G&G	44	4,565	5,238	6,222	7,389	8,776	9,083
FIT TOTAL	66,910	76,170	85,730	99,385	115,214	133,565	137,571
TOTAL TEU LOW	797,238	864,030	1,023,615	1,250,345	1,489,255	1,777,104	1,841,443

The high unconstrained forecast scenario reflects more robust growth along the current trade lanes and incorporates a heavier weight of near-term projections by the terminal operators and carriers. Also incorporated in this unconstrained high forecast is the expansion of new services as identified by the terminal operators as well as other potential tenants that are being pursued by the Port. Under this high unconstrained scenario, the Port's container throughput is anticipated to grow to 2.7 million TEUs by 2026, representing a 5.9 percent CAGR over the period.

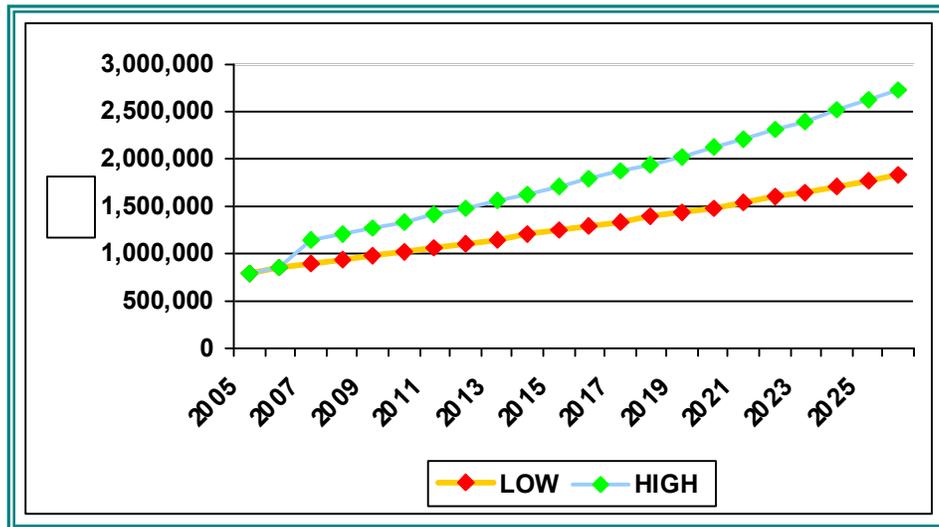
Table 2.3-11 illustrates the unconstrained high forecast through 2026.

**Table 2.3-11
High Unconstrained Containerized Forecast by Terminal**

Container Forecast High Scenario TEUs							
TERMINAL/LINE	FY2005	2006	2010	2015	2020	2025	2026
CROWLEY	220,942	218,717	255,868	311,302	378,747	460,804	479,236
FTS TOTAL	64,064	64,034	121,882	165,471	204,240	252,202	263,083
HYDE	76,422	67,482	79,553	97,723	120,043	147,460	153,653
CHIQUITA	54,655	47,416	50,326	54,215	58,405	62,919	63,862
UNIV/APM TOTAL	90,234	103,781	344,010	474,955	602,604	764,674	801,998
SUN TERMINAL TOTAL	75,000	75,810	87,308	104,306	124,800	149,538	155,071
SAWGRASS (DOLE)	21,758	22,119	23,476	25,291	27,245	29,351	29,791
ST. JOHN	43,905	42,760	50,409	61,922	76,065	93,438	97,363
PET/MSC TOTAL	83,304	141,176	177,711	230,865	289,377	362,849	379,663
G&G	44	4,565	5,382	6,611	8,121	9,975	10,394
FIT TOTAL	66,910	76,170	144,762	181,793	228,411	287,129	300,590
TOTAL TEU HIGH	797,238	864,030	1,340,687	1,714,454	2,118,058	2,620,339	2,734,704

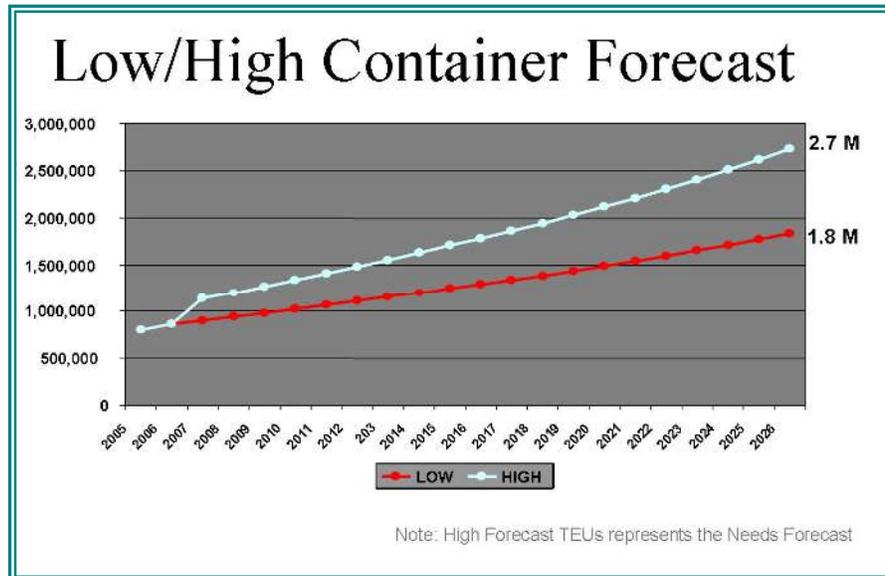
The low/base and high container forecasts are graphically depicted in Figure 2.3-41. For the facilities need assessment in this plan, the unconstrained high forecast with a CAGR of 5.9 percent will be used.

**Figure 2.3-41
Low/Base and High Unconstrained Forecast**



The low/high container forecast is shown in Figure 2.3-42.

Figure 2.3-42
Low/ High Unconstrained Forecast



2.3.8 Port Everglades Containerized Cargo Summary and Conclusions

Historically, Port Everglades, as part of the South Florida Gateway to the Americas, has significant trade with the countries in Latin America and the Caribbean. In 2006, approximately 85 percent of Port Everglades’ container activity was dedicated to this trade. With respect to containerized imports, the geographic position and resulting limited inland reach of the South Florida ports have hindered their growth beyond a regional port status, serving the South and Central consumption markets. A summary of the containerized market analysis in which Port Everglades competes follows.

- **Growth in Asian Import Market** - The growth in the U.S. container trade – 10.5 percent annually since 1994 - has been fueled by import cargo from Asia. The West Coast ports have historically dominated this market. Events -- including the impact of 9/11 on the distribution supply chain, the 2002 West Coast port shutdown, and major congestion issues that arose in 2004 -- have, however, resulted in increased diversification of containerized cargo via various U.S. East Coast ports.

Asian growth is likely to remain in double digits in the near-term, and growth in all-water service to the South Atlantic port range will continue. It is also likely that a significant share of Asian cargo consumed in Central and South Florida will be moved intermodally via the West Coast ports; this cargo represents an additional all-water service market to target. Furthermore, the Port of Savannah is penetrating into the Central and South Florida markets, primarily due to the growth of all-water services calling at Savannah. This penetration is an area for Port Everglades to target. The Port should continue to market global carriers that participate in this trade and target the Central and South Florida

accounts that are currently moving through the Port of Savannah, as well as using intermodal service via West Coast ports.

- **Distribution Center Growth** – The containerized import growth exhibited by Norfolk and Savannah are closely related to the regional development of distribution centers in those areas. While interest has been shown in developing distribution centers in Broward County, the market is essentially land-constrained from an industrial development perspective due to scarce and relatively expensive land (although the land to the west of McIntosh Road does hold the potential for a medium-sized distribution facility). The majority of the distribution center development that will serve Central and South Florida will most likely occur along the I-4 Corridor. The primary competition to Port Everglades in this market will be Miami, JAXPORT, and potentially Tampa. It is recommended that the Port continue to market the McIntosh Road property as well as target ocean carriers that are/will be serving the Central Florida distribution centers. An inland port or intermodal logistics center in the Palm Beach County area is under study; its implications for Port Everglades are as yet undetermined.
- **Latin American and Caribbean Export Market** – Port Everglades and the Port of Miami have historically dominated the Latin American and Caribbean export markets. This has been facilitated by the concentration of Latin American- and Caribbean-related businesses located in South Florida. Furthermore, the vast export distribution and consolidation centers, along with the strong local truck market, continue to provide Port Everglades and the Port of Miami with the necessary support infrastructure to maintain market share in the Latin American and Caribbean export markets. It is likely that Port Everglades and Miami will remain strong and compete directly for these export cargoes. Furthermore, free trade agreements with Chile and DR-CAFTA (the Dominican Republic, Belize, El Salvador, Honduras, Nicaragua, Guatemala, and Costa Rica) strengthen and sustain the Latin American and Caribbean economies that rely on this U.S. export market. New agreements with Peru and Colombia, if approved, should continue this trend.
- **Port Everglades' Competitive Position** – A port's competitive position is defined by the total delivered cost per box, which includes ocean voyage costs, port charges, terminal charges, and inland freight rates. The base tariff rates and terminal charges are relatively competitive between Port Everglades, Miami, and JAXPORT. Because of these competitive rate structures, the inland freight rate becomes the deciding factor in port selection. The Port of Tampa holds a freight rate advantage to the Central Florida I-4 Corridor market which will emerge as the key competitive environment.
- **Port Everglades' Container Forecast** – The Port will continue to exhibit growth in import and export markets, driven by the increase in population and demand for consumer goods as well as the strengthening Latin America and Caribbean economies. The base forecast is in the 3.9 percent range, reaching just over 1.8 million TEUs by 2026. The high-unconstrained forecast incorporates shifts in throughput resulting from new South American, Asian, and Northern European services likely to come on line in 2007. Any new tenants the Port signs would result in step-wise throughput increases. The annual growth rate over the planning horizon is expected to reach 5.9 percent, or approximately 2.7 million TEUs by

2026. To realize these forecasts, however, the berth constraint issue at the Port must be addressed.

2.4 Dry Bulk and Neo-Bulk Cargo Assessment

2.4.1 Introduction

This section presents the forecasts of dry bulk and neo-bulk cargoes (also called break-bulk elsewhere in this document) through Port Everglades through the 2026 planning horizon. The forecast development was based on the historical Port Everglades reported cargoes, detailed trade data from the Journal of Commerce (JoC) PIERS system, interviews with shippers and terminal operators for major commodities, and economic and population forecasts.

Historical data for dry bulk and neo-bulk cargoes handled by Port Everglades were obtained for the years FY 2000 through FY 2006. These data were utilized to develop the historical trends by commodity.

Detailed trade data from the JoC PIERS system were obtained for FY 2005 and for calendar year 2005 plus sample months from 2004 and 2006. The JoC data were calibrated against the Port Everglades data. These data included detailed information on shippers and consignees, carriers, vessels, and inland origins and destinations. After calibration of the JoC data with the Port Everglades data, major shippers and carriers for the major dry bulk and neo-bulk commodities were identified and interviews were conducted with major shippers for each of the major commodities.

Finally, forecasts of population, construction, and other economic data were obtained for Florida and Broward County for both the near-term and the long-term. Recent forecasts from October and February 2006 were used in this analysis (see Table 2.4-1).

While multi-unit construction briefly exceeds single-unit construction in the near-term, projections for Florida, as presented in Table 2.4-1, show single-unit exceeding multi-unit construction in the long-term. Consistent with potential planning limitations in the area, Broward County housing start growth is lower than the Florida growth rate. The housing-start growth rate for Florida represents an appropriate mix between single-unit and multi-unit construction and between lower and faster growing areas, all of which are served by Port Everglades.

The forecasts included in this section, as a result, reflect the short- and long-term economic trends applied to the base cargo tonnages, combined with the additional factors identified through shipper interviews. The factors impacting the key commodities in the short- and long-term were identified and incorporated into the forecasts.

As part of this assessment, a baseline forecast, a high forecast, and a low forecast were developed. In addition, a needs assessment forecast was developed, combining the base forecast with the contingency for handling a significant increase in imported crushed rock

aggregate that may result from court-ordered limitations on the Lake Belt mines in Miami-Dade County.²

**Table 2.4-1
Florida Economic Forecasts**

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Private Housing Starts 02/2006	236.3	269.1	271.3	174.0	176.6	193.8	202.0	207.5	210.4	211.9	211.6	212.6	218.8
Population 02/2006 (millions)	17,406	17,821	18,240	18,649	19,048	19,459	19,871	20,270	20,680	21,021	21,385	21,743	22,096
Single Family Starts	163.2	182.0	179.8	111.0	109.6	122.0	129.8	136.1	139.3	142.0	141.9	142.1	145.7
Multi Family Starts	73.2	87.1	91.5	63.0	66.9	71.8	72.2	71.4	71.1	69.9	69.7	70.5	73.1
Total Construction Expenditures	54,994	63,916	73,737	57,228	55,197	61,165	66,062	70,712	74,770	78,616	81,911	85,324	90,165
Percent Change													
Private Housing Starts 02/2006		13.88%	0.82%	-35.86%	1.49%	9.74%	4.23%	2.72%	1.40%	0.71%	-0.14%	0.47%	2.92%
Population 02/2006 (millions)		2.38%	2.35%	2.24%	2.14%	2.16%	2.12%	2.01%	2.02%	1.65%	1.73%	1.67%	1.62%
Single Family Starts		11.52%	-1.21%	-38.26%	-1.26%	11.31%	6.39%	4.85%	2.35%	1.94%	-0.07%	0.14%	2.53%
Multi Family Starts		18.99%	5.05%	-31.15%	6.19%	7.32%	0.56%	-1.11%	-0.42%	1.69%	-0.29%	1.15%	3.69%
Total Construction Expenditures		16.22%	15.37%	-22.39%	-3.55%	10.81%	8.01%	7.04%	5.74%	5.14%	4.19%	4.17%	5.67%

Source: Florida Economic Estimating Conference Long Run Tables, Held October 26, 2006
http://edr.state.fl.us/conferences/flaeconomic/FEEC0610_LRTABLES.pdf

Compound Annual Growth Rate	
07 to 16	10 to 16
2.71%	1.34%
1.87%	1.78%
3.62%	1.94%
1.11%	0.21%
6.33%	5.32%

² The Lake Belt is an approximately 57,515-acre area that was established by the Florida Legislature in 1997 to implement the Miami-Dade County Lake Belt Plan. The area lies west of Miami and east of Everglades National Park. Miami-Dade County’s Lake Belt mining region represents more than half of the state’s production of crushed rock aggregate and limestone.

2.4.2 Commodity Overview

The overwhelming proportion of the dry bulk and neo-bulk cargoes handled through Port Everglades are related to the construction industry. Dry bulk cargoes are dominated by cement and aggregates, which are used in the production of cement, including gypsum, bauxite, iron oxides, and slag, etc. Other than these commodities, Port Everglades’ dry bulk revenue category includes only tallow exports and an occasional coal shipment.

Similarly, the largest proportion of the neo-bulk cargoes is related to the construction industry, including steel (rebar and sheets) and lumber. Other than steel and lumber, the Port’s neo-bulk revenue category includes yachts, autos, and a few one-time commodities such as gypsum board.

2.4.3 Dry Bulk Cargoes (Cement and Aggregates)

Long-Term Forecast. Over the long-term, construction industry growth rates will approach population growth rates. The growth rates of commodities related to the construction industry will approach construction growth rates and, therefore, population growth rates. In the long-term, growth rates for construction-related commodities are projected to approach the long-term population growth rates for Florida, which are slightly higher than the population growth rates for Broward County (see Table 2.4-2).

**Table 2.4-2
Broward County and Florida Population Projections**

		2005	2010	2015	2020	2025	2030
Broward	High						
	Medium	1,740,987	1,905,500	2,059,600	2,200,100	2,324,400	2,439,300
	Low						
	Compound Annual Growth Rate/Year		1.82%	1.57%	1.33%	1.11%	0.97%
Florida	High						
	Medium	17,918,227	19,920,300	21,767,500	23,475,800	24,998,000	26,419,200
	Low						
	Compound Annual Growth Rate/Year		2.14%	1.79%	1.52%	1.26%	1.11%

*Source: Florida Population Studies Volume 39 Bulletin 144 February 2006
University of Florida, Bureau of Economic and Business Research*

In the short-term, the economic cycles impacting construction growth will dominate the long-term trends; for example, the sharp housing downturn that occurred in 2001 is expected to occur again in 2007 (see Table 2.4-3). Current economic forecasts for housing starts project 2007 decreases of 36 percent for Florida followed by limited recovery and decreases of 25 percent for Broward County with a more significant recovery in 2008.

The overall construction market was reviewed relative to the housing market for Florida. In the long-term, the total construction market (expenditures net of inflation) is not expected to significantly exceed the projected growth in housing starts. In the near-term, as the housing

market is in a cyclical down turn, total construction expenditures exceed the housing market. Shippers confirmed that, in the current cycle, a greater portion of the cement market is used for non-housing construction, which results in a reduction in cement demand smaller than the reduction in housing starts. In addition, inventory levels changes for cement imports to adjust for new plant capacity levels and import cycles for rebar imports further impact the short-term trends. Both of these factors support high levels of cargo through 2006 and declines in 2007. The capacity of the cement silos at the Port was not cited as a constraint on the cement market; rather, the dry bulk shippers indicated berth availability as a near-term constraint.

Table 2.4-3
Economic Forecasts: Broward County and the State of Florida

Broward County	2004	2005	2006	2007	2008	2009
Population	1,723,130	1,745,490	1,765,860	1,785,660	1,804,400	1,824,850
Employment	693,135	705,221	719,172	728,199	738,933	753,921
Total Housing Starts	7,543	6,820	6,602	4,978	5,769	5,999
Single Family	4,689	3,361	3,140	3,228	3,160	3,045
Multifamily	2,854	3,459	3,462	1,750	2,610	2,953
Commercial Construction (square feet)	6,096,802	7,350,162	6,696,011	6,508,641	6,160,199	6,722,309
Percent Change	2004	2005	2006	2007	2008	2009
Population		1.30%	1.17%	1.12%	1.05%	1.13%
Employment		1.74%	1.98%	1.26%	1.47%	2.03%
Total Housing Starts		-9.59%	-3.20%	-24.60%	15.89%	3.99%
Single Family		-28.32%	-6.58%	2.80%	-2.11%	-3.64%
Multifamily		21.20%	0.09%	-49.45%	49.14%	13.14%
Commercial Construction (square feet)		20.56%	-8.90%	-2.80%	-5.35%	9.12%
State of Florida	2004	2005	2006	2007	2008	2009
Population	17,516,732	17,918,227	18,391,734	18,764,478	19,151,275	19,547,999
Employment	7,469,348	7,757,399	7,953,504	8,127,110	8,308,779	8,519,486
Total Housing Starts	228,901	262,685	215,597	189,949	179,074	191,019
Single Family	174,483	195,246	158,888	147,778	140,020	149,264
Multifamily	54,418	67,439	56,710	42,171	39,054	41,754
Commercial Construction (square feet)	96,477,267	107,913,133	105,287,099	99,916,782	105,155,519	116,270,677
Percent Change	2004	2005	2006	2007	2008	2009
Population		2.29%	2.64%	2.03%	2.06%	2.07%
Employment		3.86%	2.53%	2.18%	2.24%	2.54%
Total Housing Starts		14.76%	-17.93%	-11.90%	-5.73%	6.67%
Single Family		11.90%	-18.62%	-6.99%	-5.25%	6.60%
Multifamily		23.93%	-15.91%	-25.64%	-7.39%	6.91%
Commercial Construction (square feet)		11.85%	-2.43%	-5.10%	5.24%	10.57%

Source: <http://www.fishkind.com/econ/browcnty.pdf> October 2006
Source: <http://www.fishkind.com/econ/floridadata.pdf> October 2006

Finally, specific events, such as a potential court-ordered limitation on Lake Belt mining in Miami-Dade County could create an opportunity for significant imports of crushed rock aggregate through Port Everglades. This event is a contingency, however, given the uncertainty of court decisions; but must be considered due to its major upside potential. As a result, the needs assessment forecast combines the potential growth of crushed rock aggregate with the baseline forecast.

Short-Term Forecast. In the short-term, the impact of the construction cycle and the 2005-2006 inventory surges is significant. The base forecast includes a 15 percent decline in 2007 for the cement industry commodities. The high forecast includes a 10 percent decline and the low forecast includes a 25 percent decline. These projected declines compare with the 25 percent to 36 percent declines projected for housing starts in Broward County and Florida, respectively.

The commodity groupings in this report are based, in part, on the reporting of commodities in Port Everglades' revenue reports. Cement and gypsum were combined by Port Everglades in 2000 and have been kept together. Aggregates were reported as a group until 2002 and the previous totals have been combined with the recent sums of bauxite, ferro (iron oxide and slag), and fly ash, but not including gypsum.

The baseline forecast includes a moderate recovery over the 2007 to 2011-time frame; the high forecast recovery is stronger; and the low forecast includes minimal recovery. The needs assessment forecast accelerates the baseline forecast recovery, with the addition of the crushed rock aggregate.

The impact of the potential increase in crushed rock aggregate is included in the revenue category of rock and sand. It is included in the high forecast, since it depends both on extraneous factors and on Port Everglades' ability to utilize the crushed rock aggregate opportunity economically. It is also included in the needs assessment forecast, which combines the baseline forecast and the crushed rock aggregate increases. The forecast requirement for crushed rock aggregate cited in interviews ranges between 2 and 4 million tons per year. In this forecast, it is shown beginning in 2008 (due to the potential timing of court decisions and appeals, etc. and the current construction cycle) and ramps up over 5 years. Although this event is assumed to replace existing demand, dwindling quantities of domestic crushed rock aggregate indicate the need for additional imports, independent of the court decision, as reported by the Florida Department of Transportation.

The other aggregates, particularly bauxite and fly ash, represent a potential downside. Recent environmental problems with the handling of such aggregates have caused Port Everglades to impose restrictions on their handling. For the high side, potential increased slag imports are forecast to supplement cement plant capacity.

Overall, the forecasts for cement industry commodities appear to have a limited downside and upside related to the construction industry trends; but there is a significant potential upside related to the additional crushed rock aggregate.

2.4.4 Neo-Bulk Cargoes (Steel and Lumber)

The forecasts for steel and lumber are more impacted by downside factors than the forecasts for the dry bulk commodities.

Steel. Steel, in particular, appears to have spiked in 2006 due to inventory adjustments. Following the recent high levels of growth, the expectations are for a relatively large decline in 2007, followed by recovery with the construction cycle. The baseline forecast includes a 35 percent decline in 2007; the high forecast includes a 30 percent decline; and the low forecast includes a 40 percent decline.

With respect to the rebar steel routed through Port Everglades, examination showed that most of the rebar is sourced from Turkey and Eastern Europe (Romania). Imports from that region are not subject to the duties applied to Brazil, another source of rebar, so duties are not a factor in the Port's rebar throughput at this time. Due to the low price of rebar, domestic steel producers ship rebar when the overall market for steel is slow. When demand is strong, domestic producers will make the more profitable types of steel and the rest will be sourced from imports. Approximately half of the rebar in the JoC sample for Florida was routed through Port Everglades. Changes in the state's regulations for rebar due to past hurricanes are not applicable to the imported rebar, which is used for the housing market, since the regulations are applicable to road construction and not housing.

Lumber. The lumber category has already declined over the past 6 years, including 2006. Therefore, this commodity is projected to show a relatively small decline in 2007 and only moderate recovery growth rates in the future.³

One additional factor related to the lumber category is that the shippers of this commodity handle plywood in addition to lumber. The plywood requires covered warehousing, which is utilized for other commodities at Port Everglades. The plywood is routed through other ports and most of the wood products handled in Port Everglades are lumber and not plywood. If covered sheds and long-term contracts were available, there is a potential for plywood to be routed through Port Everglades. This potential is included in the high forecast. It is not clear, however, if the sheds could be provided economically by the shippers or by Port Everglades.

2.4.5 Other Dry Bulk and Neo-Bulk Commodities

Tallow represents the only other "dry bulk" commodity included in this revenue category, even though it is an export and moved in tankers, unlike the bulk cement imports. Tallow has been a relatively small tonnage commodity at the Port and has fluctuated, with relatively lower volumes in 2006. The interviews indicated that exports of this commodity could decrease further if it were to be used as a source of alternative energy.

In the neo-bulk category, the two additional commodities are yachts and cars. Yachts represent a significant commodity with a significant growth trend. Yachts are imported and outfitted in Port Everglades for the Florida, Caribbean, and other U.S. markets. The trends are high and

³ Sherwood Lumber, which previously imported lumber, is no longer at the Port.

projected to continue. A doubling every 5 years is possible, although this market is projected to level out in the future.

The auto market is limited to the handling and re-handling of used cars. The major car manufacturers route new cars through Jacksonville. Calls by pure car carriers have dropped off and the volumes of cars moved through the Port have declined. The used car market has some growth potential and interviews indicated some market expansion opportunities. While this is not a major market or a major growth market, the modest handling of used cars is projected to continue, although with off-port storage.

2.4.6 Forecast Summaries

Summaries of the forecasts for dry bulk and neo-bulk throughputs at Port Everglades are included in Tables 2.4-4 and 2.4-5. Table 2.4-4 shows the baseline, high, low, and needs assessment forecasts for the dry bulk, neo-bulk and total markets. Table 2.4-5 and the summary chart included in that table (Figure 2.4-1) compare the total tonnages for the baseline, high, low, and needs assessment forecasts.

As shown in Table 2.4-4, from a 2006 level of 3,328,696 tons, the baseline forecast increases to 4,276,566 tons, or 1.26 percent per year through 2026. The low forecast falls to 3,338,080 tons in 2026, or -0.14 percent per year. The high forecast shows dramatic growth to 8,541,481 tons in 2026, or 4.82 percent per year over the 20-year period. The needs assessment forecast increases to 8,078,035 tons by 2026, or 4.53 percent per year between 2006 and 2026.

In the short term, the baseline forecast falls -15.7 percent in 2007 and almost recovers over the next five years with an average decrease per year of only -0.07 percent through 2011. The low forecast falls by -25.6 percent in 2007 and shows an average decline of -4.88 percent per year through 2011. The high forecast declines by -10.9 percent in 2007, but increases by 9.37 percent per year over the 5-year period ending in 2011. The needs assessment forecast also declines by 10.9 percent in 2007, but increases by 8.11 percent over the 5-year period ending in 2011.

The low forecast remains below the 2006 tonnage of 3,328,696 throughout the forecast period with a 2026 tonnage of 3,238,080. The baseline forecast increases to 4,276,566 tons by 2026, mostly due to the slow, but steady growth in cement. The high forecast reaches 8,541,482 tons in 2026, primarily due to the added growth of crushed rock aggregate combined with increases relative to the baseline forecast in selected other commodities such as slag and plywood/lumber. The needs assessment forecast is slightly below the high forecast at 8,078,035 in 2026, reflecting the combination of the baseline forecast and the contingency for a decision to handle a substantial increase in crushed rock aggregate.

Table 2.4-4
Summary of Baseline, High, and Low Forecasts
Port Everglades Dry Bulk and Neo-Bulk Cargo

Baseline Forecast																	
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Dry Bulk	2,455,205	2,141,057	2,395,935	2,618,654	2,854,588	2,882,597	2,952,161	2,511,602	2,662,179	2,795,288	2,907,231	2,966,869	3,028,024	3,079,752	3,134,737	3,188,929	3,242,561
Total Neo-Bulk	273,542	202,879	207,256	159,095	297,678	279,139	376,535	296,028	311,780	324,896	336,742	349,450	363,101	376,914	391,980	408,079	418,650
Base Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,807,630	2,973,959	3,120,184	3,243,972	3,316,319	3,391,125	3,456,666	3,526,716	3,597,009	3,661,212
Percent Change		-14.1%	11.1%	6.7%	13.5%	0.3%	5.3%	-15.7%	5.9%	4.9%	4.0%	2.2%	2.3%	1.9%	2.0%	2.0%	1.8%
High Forecast																	
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Dry Bulk	2,455,205	2,141,057	2,395,935	2,618,654	2,854,588	2,882,597	2,952,161	2,658,644	3,044,511	3,415,057	3,965,810	4,833,244	5,222,532	5,377,760	5,541,560	5,709,776	5,882,924
Total Neo-Bulk	273,542	202,879	207,256	159,095	297,678	279,139	376,535	308,018	324,370	340,414	356,477	375,441	398,403	426,080	441,996	458,931	470,326
High Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,966,662	3,368,881	3,755,470	4,322,286	5,208,685	5,620,935	5,803,840	5,983,557	6,168,707	6,353,251
Percent Change		-14.1%	11.1%	6.7%	13.5%	0.3%	5.3%	-10.9%	13.6%	11.5%	15.1%	20.5%	7.9%	3.3%	3.1%	3.1%	3.0%
Low Forecast																	
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Dry Bulk	2,455,205	2,141,057	2,395,935	2,618,654	2,854,588	2,882,597	2,952,161	2,213,861	2,248,795	2,269,234	2,271,772	2,297,649	2,343,505	2,381,672	2,422,388	2,462,378	2,501,828
Total Neo-Bulk	273,542	202,879	207,256	159,095	297,678	279,139	376,535	263,886	271,613	279,623	286,400	293,869	301,611	308,848	316,500	324,287	329,593
Low Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,477,747	2,520,409	2,548,857	2,558,172	2,591,517	2,645,116	2,690,520	2,738,888	2,786,665	2,831,421
Percent Change		-14.1%	11.1%	6.7%	13.5%	0.3%	5.3%	-25.6%	1.7%	1.1%	0.4%	1.3%	2.1%	1.7%	1.8%	1.7%	1.6%
Needs Assessment Forecast																	
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Dry Bulk	2,455,205	2,141,057	2,395,935	2,618,654	2,854,588	2,882,597	2,952,161	2,511,602	2,862,179	3,195,288	3,707,231	4,566,869	4,948,024	5,095,752	5,251,537	5,411,569	5,576,333
Total Neo-Bulk	273,542	202,879	207,256	159,095	297,678	279,139	376,535	296,028	311,780	324,896	336,742	349,450	363,101	376,914	391,980	408,079	418,650
Needs Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,807,630	3,173,959	3,520,184	4,043,972	4,916,319	5,311,125	5,472,666	5,643,516	5,819,649	5,994,984
Percent Change		-14.1%	11.1%	6.7%	13.5%	0.3%	5.3%	-15.7%	13.0%	10.9%	14.9%	21.6%	8.0%	3.0%	3.1%	3.1%	3.0%

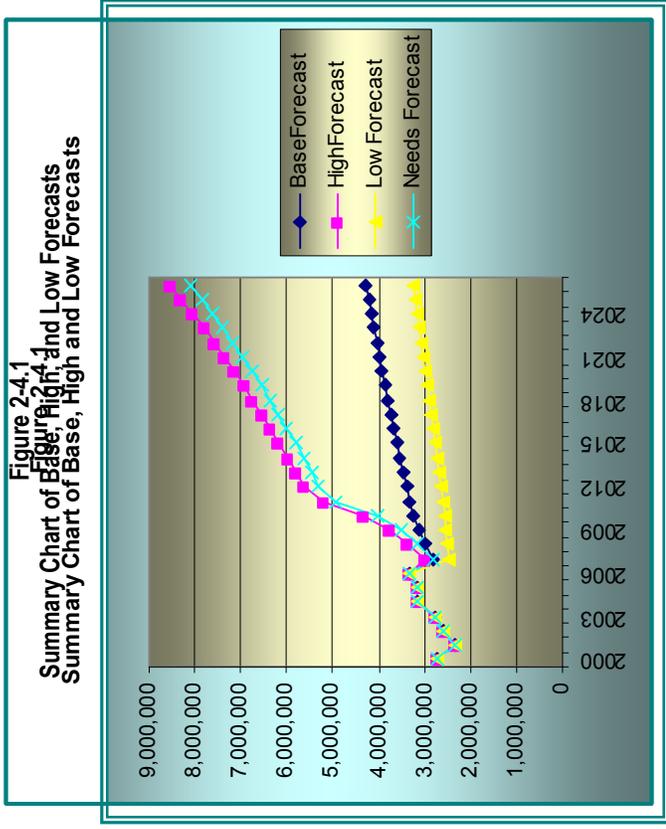
Table 2.4-4 (Continued)
Summary of Baseline, High, and Low Forecasts
Port Everglades Dry Bulk and Neo-Bulk Cargo

Baseline Forecast		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	CAGR 06to26	CAGR 01to11
Year													
Total Dry Bulk		3,293,871	3,346,022	3,399,028	3,452,904	3,499,047	3,545,853	3,593,330	3,641,490	3,690,345	3,734,646	1.18%	0.10%
Total Neo-Bulk		429,376	440,509	452,068	464,072	475,869	488,135	500,891	514,160	527,965	541,920	1.84%	-1.48%
Base Forecast		3,723,247	3,786,531	3,851,095	3,916,975	3,974,917	4,033,988	4,094,221	4,155,650	4,218,310	4,276,566	1.26%	-0.07%
Percent Change		1.7%	1.7%	1.7%	1.7%	1.5%	1.5%	1.5%	1.5%	1.5%	1.4%		
High Forecast												CAGR 06to26	CAGR 01to11
Year													
Total Dry Bulk		6,059,382	6,242,873	6,433,724	6,632,273	6,829,498	7,034,892	7,248,844	7,471,758	7,704,063	7,940,477	5.07%	10.36%
Total Neo-Bulk		481,837	493,767	506,136	518,962	531,451	544,417	557,882	571,869	586,401	601,005	2.37%	-0.06%
High Forecast		6,541,219	6,736,641	6,939,859	7,151,234	7,360,949	7,579,309	7,806,726	8,043,627	8,290,464	8,541,482	4.82%	9.37%
Percent Change		3.0%	3.0%	3.0%	3.0%	2.9%	3.0%	3.0%	3.0%	3.1%	3.0%		
Low Forecast												CAGR 06to26	CAGR 01to11
Year													
Total Dry Bulk		2,539,440	2,577,641	2,616,438	2,655,840	2,688,967	2,722,525	2,756,519	2,790,954	2,825,834	2,856,934	-0.16%	-4.89%
Total Neo-Bulk		334,769	340,032	345,384	350,827	355,748	360,745	365,820	370,973	376,207	381,146	0.06%	-4.84%
Low Forecast		2,874,209	2,917,673	2,961,822	3,006,667	3,044,715	3,083,270	3,122,339	3,161,927	3,202,041	3,238,080	-0.14%	-4.88%
Percent Change		1.5%	1.5%	1.5%	1.5%	1.3%	1.3%	1.3%	1.3%	1.3%	1.1%		
Needs Assessment Forecast												CAGR 06to26	CAGR 01to11
Year													
Total Dry Bulk		5,744,332	5,919,006	6,100,661	6,289,618	6,477,598	6,673,330	6,877,181	7,089,534	7,310,791	7,536,115	4.80%	9.12%
Total Neo-Bulk		429,376	440,509	452,068	464,072	475,869	488,135	500,891	514,160	527,965	541,920	1.84%	-1.48%
Needs Forecast		6,173,708	6,359,514	6,552,728	6,753,690	6,953,467	7,161,465	7,378,072	7,603,694	7,838,756	8,078,035	4.53%	8.11%
Percent Change		3.0%	3.0%	3.0%	3.1%	3.0%	3.0%	3.0%	3.1%	3.1%	3.1%		

Table 2.4-5
 Summary Comparison of Base, High and Low Forecasts
 Port Everglades Dry Bulk and Neo-Bulk Cargo

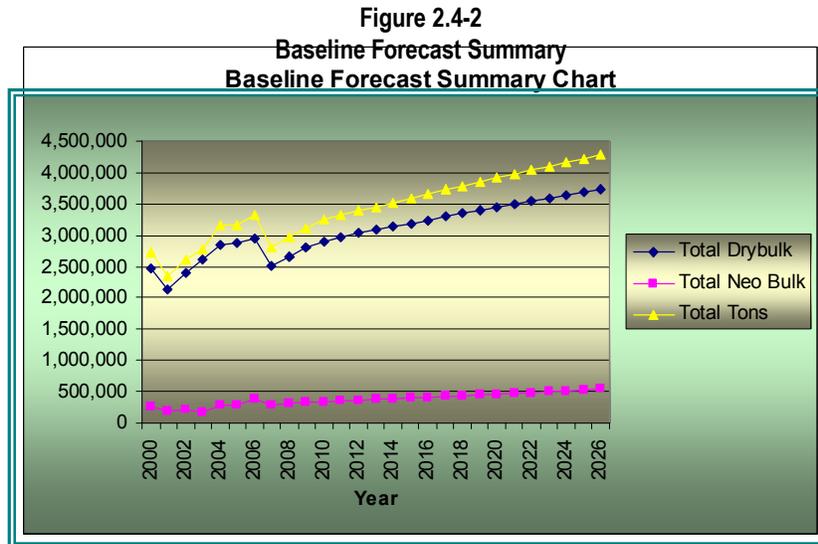
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Base Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,807,630	2,973,959	3,120,184	3,243,972	3,316,319	3,391,125	3,456,666	3,526,716	3,597,009	3,661,212
High Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,966,662	3,368,881	3,755,470	4,322,286	5,208,685	5,620,935	5,803,840	5,983,557	6,168,707	6,353,251
Low Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,477,747	2,520,409	2,548,857	2,558,172	2,591,517	2,645,116	2,690,520	2,738,888	2,786,665	2,831,421
Needs Forecast	2,728,747	2,343,936	2,603,191	2,777,749	3,152,266	3,161,736	3,328,696	2,807,630	3,173,959	3,520,184	4,043,972	4,916,319	5,311,125	5,472,666	5,643,516	5,819,649	5,994,984

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	CAGR 06to26
Base Forecast	3,723,247	3,786,531	3,851,095	3,916,975	3,974,917	4,033,988	4,094,221	4,155,650	4,218,310	4,276,566	1.26%
High Forecast	6,541,219	6,736,641	6,939,859	7,151,234	7,360,949	7,579,309	7,806,726	8,043,627	8,290,464	8,541,482	4.82%
Low Forecast	2,874,209	2,917,673	2,961,822	3,006,667	3,044,715	3,083,270	3,122,339	3,161,927	3,202,041	3,238,080	-0.14%
Needs Forecast	6,173,708	6,359,514	6,552,728	6,753,690	6,953,467	7,161,465	7,378,072	7,603,694	7,838,756	8,078,035	4.53%



2.4.6 Forecast Details

Baseline Forecast. The baseline forecast for dry bulk and neo-bulk cargoes through Port Everglades is for a total growth of 1.26 percent per year between 2006 and 2026 and for a 1.18 percent for dry bulk (see Figure 2.4-2).. Neo-bulk is projected to increase at 1.84 percent per year, due mostly to the projected growth in yachts handled at the Port. Absent the yacht growth, neo-bulk is projected to be essentially flat with a long-term annual growth rate of -0.11 percent. Aggregate volumes return to the 2006 levels in five years, but are still below the 2005 levels. Pelletized bauxite, if successfully tested, is expected to offset other bauxite and aggregates without increasing the total aggregates handled at the Port.⁴



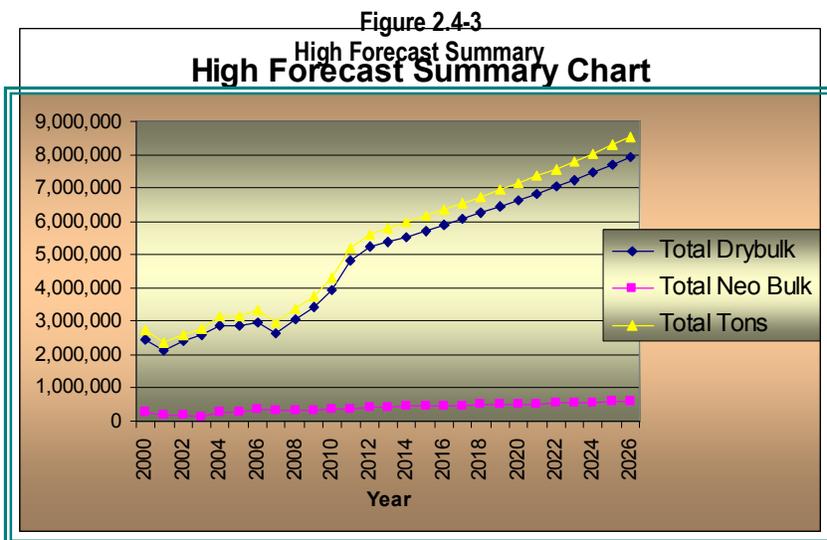
In the short-term, the total dry bulk and neo-bulk markets are projected to decline by 15.7 percent in 2007. The baseline forecast includes a moderate recovery that brings the total dry bulk plus neo-bulk tonnage almost back to 2006 levels by 2011. By 2026, the dry bulk plus neo-bulk tonnages are projected to be 28.5 percent above 2006 levels. Dry bulk represents 87.3 percent of the total dry bulk plus neo-bulk market by 2026 and cement represents 82.3 percent of the dry bulk market in 2026 in the baseline forecast.

High Forecast. The high forecast results in a growth rate of 4.82 percent between 2006 and 2026 for dry bulk plus neo-bulk cargoes (see Figure 2.4-3). The projected tonnage increase is from 3,328,696 tons in 2006 to 8,541,482 tons in 2026, an increase of 156.6 percent.

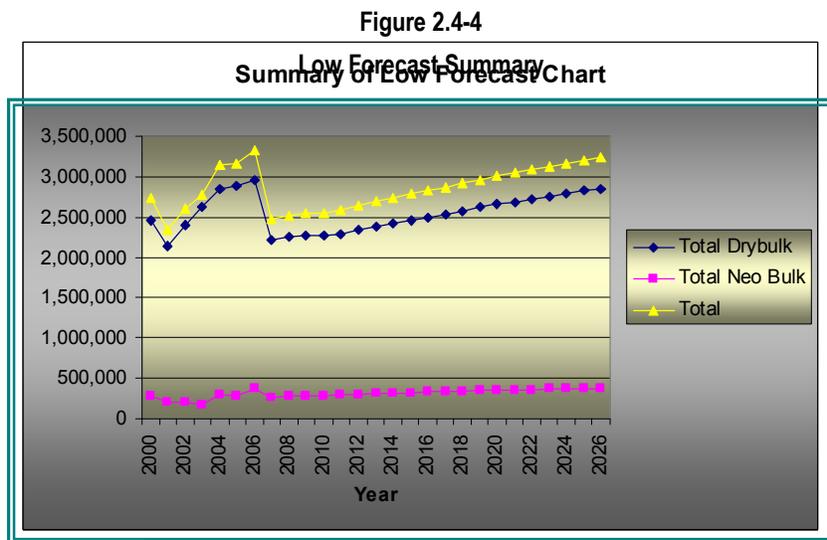
Three factors account for the larger increase relative to the baseline forecast. The primary growth factor is the potential requirement to handle significant volumes of crushed rock aggregate to replace a portion of the aggregate that is mined in the Lake Belt region of Miami-Dade County. The second factor is the projected growth of slag imports, which supplement cement plant capacity levels. The third factor is the addition of plywood with the addition of covered warehouse capacity.

⁴ Pelletized bauxite is still at an experimental stage for Port Everglades. While it may be successfully routed through Port Everglades, it is not cited as a source of increased tonnage. Pelletization may be an environmentally better way of importing bauxite

All three upside growth opportunities require economic and strategic evaluation by Port Everglades. In the case of the major increase in crushed rock aggregate tonnage, a location must be developed within the Port which can handle the volume with adequate berths, draft, and rail access.⁵ In the case of the slag increase, the Port will need to identify appropriate locations with satisfactory environmental conditions and procedures for handling aggregates. The aggregate commodities handled at Port Everglades, such as bauxite and fly ash, have recently created problems due to dust and other contamination factors causing the Port to impose restrictions on their handling. Finally, the increase in plywood and lumber is contingent on the addition of appropriate covered warehouse capacity. All of the above represent opportunities, but must be evaluated for economic feasibility.



Low Forecast. Under the low forecast, the dry bulk plus neo-bulk cargoes through Port Everglades fall from 3,328,696 tons in 2006 to 2,477,747 tons in 2007 and by 2026 are still below the 2006 levels at 3,238,080 tons in 2026 (see Figure 2.4-4).



⁵ Rail access was not cited as a requirement for cement and aggregates except in the event that court-ordered restrictions on Lake Belt mining reduce the available crushed rock aggregate and create a requirement for importing significant quantities of crushed rock aggregate, which could not be stored at the Port and would require transfer to rail.

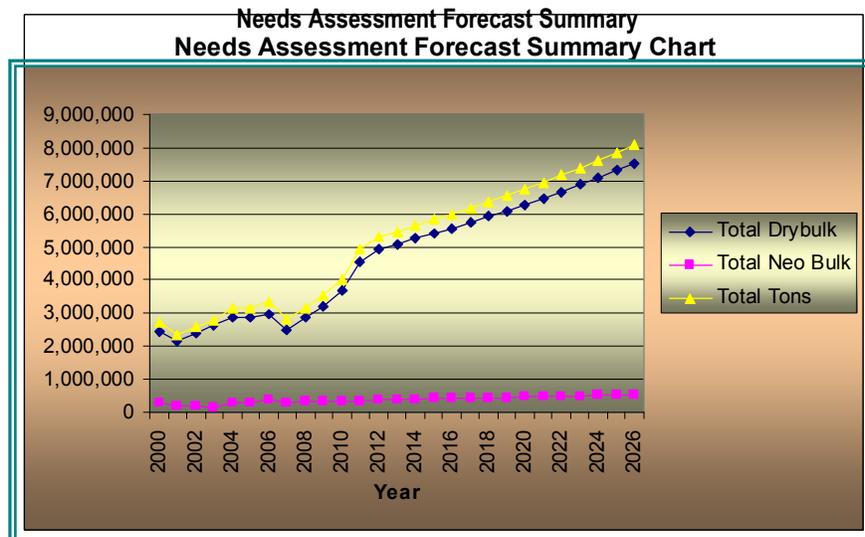
Under the low forecast, cement decreases 25.6 percent in 2007 and then recovers at a low rate. Aggregates also decline in 2007 and fail to recover, especially fly ash, continuing to show moderate declines through 2010. Tallow also declines in the low forecast and steel declines significantly in 2007. Yacht imports show a more moderate growth than included in the high and baseline forecasts.

The net result is a decrease of -2.7 percent for the total of dry bulk and neo-bulk between 2006 and 2026. Dry bulk declines by -0.16 percent per year and neo-bulk increases by 0.06 percent per year. Without yachts, neo-bulk declines by -0.81 percent per year.

Needs Assessment Forecast. The needs assessment forecast comprises the baseline forecast with the addition of the crushed rock aggregate from the high forecast. This scenario represents the most probable forecast for all dry bulk and neo-bulk commodities plus the contingency plan for the significant volumes of crushed rock aggregate that could move through Port Everglades in the event that the courts constrain the Lake Belt mining.

Under the needs assessment forecast, the dry bulk plus neo-bulk cargoes moving through Port Everglades increase from 3,328,696 tons in 2006 to 4,916,319 tons in 2011 and by 2026 are 142 percent of the 2006 levels at 8,078,035 tons in 2026 (see Figure 2.4-5).

Figure 2.4-5



2.4.7 Assessment Conclusions

Given the above, the dry bulk and neo-bulk markets for Port Everglades have limited downsides. A significant upside is primarily dependent on the potential addition of the 2 to 4 million tons of crushed rock aggregate. Absent the additional crushed rock aggregate, the upside and downside of these markets are between 1.26 percent and -0.14 percent per year, respectively, in the long-term, with significant near-term swings from the peak levels of 2006, due to the construction and inventory cycles in the short-term.

The construction industry commodities are neither projected to grow dramatically (except for the potential crushed rock aggregate), nor projected to decline except for continued environmental problems. Florida’s population and the related construction industry growth are projected to continue

increasing in the future, and the South Florida markets will be served by Port Everglades with few economic alternative options through the Ports of Miami, Tampa, Palm Beach, or Canaveral.

Potential upsides for yachts and plywood and a downside for tallow characterize the remainder of the market. The handling of used automobiles through Port Everglades is projected to continue and to increase at a modest rate. The location of acreage for storing and processing the automobiles may potentially be changed if a better site is available since the cars are moved under their own power.