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A Statewide Roundtable: Goods Movement & the Global Economy
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10:00 – 11:00 a.m.

The Role of Freight and Logistics in Boosting Miami’s Economic Future

Brookings Metropolitan Policy Program

Prepared for the Global Cities Initiative in Miami

Key Findings

- **The trade and logistics sector is an important component of Miami’s metropolitan economy, and includes major capital assets.** Miami’s trade and logistics industry produces over 14 percent of metropolitan GDP, and recently grew during a time of metropolitan economic contraction. The sector’s share of metropolitan economic production trails only metro Memphis, Atlanta, and Louisville. The metro area contains three international seaports, three major airports, an expansive highway and rail network, and the only Florida port currently guaranteed to support the new “post-Panamax”-sized container ships.
- **Miami is Florida’s largest freight hub, and serves as the United States’ gateway to Latin America.** Miami moves the most seaborne and aviation freight value of any Florida metro area, and is the gateway for one-third of total U.S./Latin American trade. Miami is a vital freight transfer facility as a large share of international tonnage is in-transit between other metro areas in the United States and elsewhere. The most common freight commodity is empty containers moving in and out of the state.
- **Miami and state leaders continue to upgrade freight infrastructure through innovative policy and planning.** Local officials have initiated investments in improved intermodal connections, on-site facility upgrades, and free trade zones. At the state level, the recently-launched Office of Freight Logistics and Passenger Operations represents a promising approach to prioritizing statewide freight investments. Together, local and state officials ensure Miami is a national leader in innovative infrastructure project financing.

1. Introduction

The Miami metropolitan area is one of the United States’ major international trade locations and the major gateway to the Americas. It is home to multiple world-class trade facilities, a complimentary network of domestic intermodal infrastructure, as well as public and private leaders invested in the metro area’s continued freight success. To maintain and improve that system, it’s critical that metropolitan Miami and its private sector partners continue to prioritize the right investments, optimize public policies, and coordinate public and private efforts.

This memorandum begins with a summary of Miami’s freight profile, including its local economic role, major infrastructure components, and total freight movements. It then puts that freight profile in the

context of global, national, and metropolitan economies. It concludes with a discussion of the current challenges to improve the metropolitan area’s freight system.

2. Miami Freight Profile

2.1 Trade and Logistics Industry: Economic Role

Metropolitan Miami’s trade and logistics industry is a significant contributor to the region’s GDP, and has been a growth industry during a difficult economic period. The trade and logistics industry generated \$30.1 billion in economic production for the metropolitan area, equal to 14.1 percent of all metropolitan production. To compare, Los Angeles’ logistics sector produces 10 percent of that metro area’s economic output. This is also the fourth highest metropolitan GDP share in the country, trailing only well-known logistical hubs Memphis, Atlanta, and Louisville.¹

Table 1. Top Metropolitan Areas Ranked by Total Share of Real GDP in Trade and Logistics, 2010

Metro	Total GDP	Wholesale GDP	Wholesale GDP Share	Transport GDP	Transport GDP Share	Trade + Logistics GDP Share
Memphis, TN-MS-AR	\$53,142.3	\$4,474.2	8.4%	\$4,800.4	9.0%	17.5%
Atlanta-Sandy Springs-Marietta, GA	\$226,044.4	\$23,061.3	10.2%	\$9,407.4	4.2%	14.4%
Louisville-Jefferson County, KY-IN	\$49,391.3	\$4,058.3	8.2%	\$2,997.9	6.1%	14.3%
Miami-Ft Lauderdale-Pompano Beach, FL	\$213,784.1	\$20,584.3	9.6%	\$9,518.7	4.5%	14.1%
Dallas-Fort Worth-Arlington, TX	\$298,252.7	\$26,294.7	8.8%	\$10,912.0	3.7%	12.5%

Source: Moody’s Economy.com (all dollars in millions and chained 2005)

Just as importantly, the industry experienced over 13 percent economic growth between 2005 and 2010— at a time when the entire metropolitan economy actually shrank by 1.5 percent. This growth component illustrates the interconnectedness between Miami’s logistics sector and other metropolitan economies, as discussed in Section 4.

A major component of this economic production is the sector’s employment. The entire industry employed over 214,000 people in 2010, 9.8 percent of all metropolitan employment. The industry also pays well—the average annual income is over \$60,000 per year, over \$10,000 more than the average metropolitan worker.

2.2 Geography and State Freight Profile

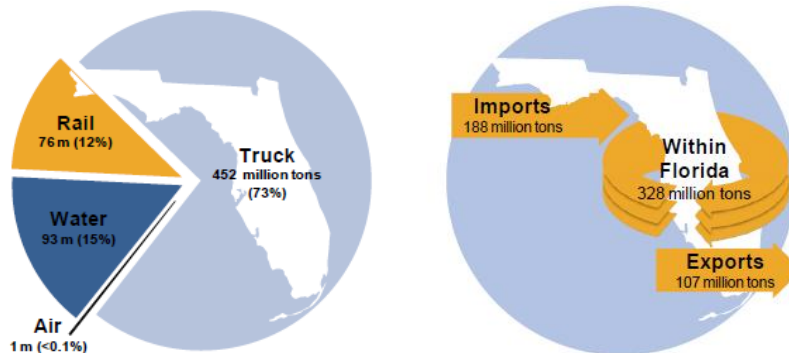
With a population of nearly 5.6 million, Miami is the largest metropolitan area in Florida and the eighth largest in the country.² The three-county metro area measures over 100 miles from Jupiter in the north to Homestead in the south. Miami’s port and airport are nearly 400 miles from the Georgia border to the north—a drive time of over six hours.

¹ : Moody’s Economy.com; The trade and logistics sector includes all transportation and wholesale industries.

² Brookings analysis of U.S. Census data.

Florida’s metropolitan areas rely on trucking for the vast majority of freight movements, representing 73 percent of all freight tonnage.³ This includes intrametropolitan freight movements—the most common logistical movement in the state—and domestic trade with other U.S. states and metropolitan areas. International trade primarily utilizes seaports (in weight terms) and airports (in value terms).

Figure 1. Florida Trade Flows, 2009, Estimated Domestic and International Trade Flows



Source: Florida Trade and Logistics Study

2.3 Trade Facilities

2.3.1 Airports

Metro Miami includes three primary commercial-service airports, one in each county. And while all three airports move millions of passengers, Miami International Airport (MIA) is the primary airport for both international passenger and freight operations.

Table 2. Miami Metropolitan Area, Airport Statistics

Airport	Domestic Passengers		International Passengers		Freight (tons)	
	Total	Share	Total	Share	Total	Share
Miami International	18,192,710	42.4%	17,409,024	83.4%	1,991,609	94.7%
Fort Lauderdale-Hollywood International	19,108,835	44.5%	3,400,319	16.3%	93,024	4.4%
Palm Beach International *	5,622,779	13.1%	69,358	0.3%	19,018	0.9%
Metropolitan Total	42,924,324	100.0%	20,878,701	100.0%	2,103,651	100.0%

Source: Passenger Data from T100 (Dec 2010--Nov 2011), Freight Data from FAA (2010)

* Palm Beach International freight includes mail, unlike the other two airports

MIA focuses on high-value, time-sensitive goods.⁴ Perishable items dominate the import trade, including the airport’s renowned flower trade and other food-related items. On the export side, computer and telecommunications equipment are the major commodities. MIA is also a vital freight transfer facility for other metro areas—nearly 44 percent of MIA’s international tonnage was in-transit between other airports in the United States and elsewhere.

³ Florida Chamber Foundation, “Florida Trade and Logistics Study,” April 2011.

⁴ Miami International Airport and Airports Council International Worldwide.

MIA includes multiple cargo facilities to streamline freight operations.⁵ The cargo clearance center expedites documentation processing by consolidating three federal inspection agencies under one roof. The Animal and Plant Health Inspection Service facility aids the perishables trade by combining multiple inspection agents in one location. MIA is also the only U.S. airport with two on-site fumigation facilities.

2.3.2 Seaports

Like the airports, metropolitan Miami’s seaborne trade relies on a port facility in each county. Unlike MIA’s dominant position in air freight, Port Miami and Port Everglades are *both* major international trade centers though they have different operational profiles. All three ports are major Florida facilities, each ranking in the top four in total volume moved in the state.

Table 3. Miami Metropolitan Area, Seaborne Statistics, FY 2010

Airport	Cargo Tons		Cargo TEUs	
	Total	Share	Total	Share
Port Miami	7,389,165	23.4%	847,249	45.7%
Port Everglades	21,640,144	68.5%	793,227	42.8%
Port of Palm Beach	2,550,000	8.1%	213,286	11.5%
Metropolitan Total	31,579,309	100.0%	1,853,762	100.0%

Source: Florida Seaports

The Port of Miami is Florida’s largest container site. The port focuses its international trade on imports from China and Central American countries like Honduras, while exports typically move to the Caribbean and Latin America. Port Miami’s major commodity grouping is ‘Freight All-Kind,’ which includes various perishable and consumer goods. Port Miami recently received statewide support to dredge the channel to minus 50 feet, the depth needed to support new post-Panamax ships. It is the only Florida port currently guaranteed to support these new mega-ships.⁶

Port Everglades, near Fort Lauderdale, is the major metropolitan port for petroleum, dry bulk, and break-bulk freight. Nearly three-quarters of the port’s cargo tonnage is petroleum, bound for consumption throughout the region.⁷ Port Everglades also maintains a huge business in container traffic, and focuses most import and export business in the Caribbean and Latin America.

Port of Palm Beach is a uniquely smaller port than the other two, geared towards handling smaller ships and the more diverse cargo they may carry. Of particular interest is the port’s Slip 3, “the most diverse multimodal freight hub in the region, with cargo arriving by on-dock rail, truck, conveyor, pipeline and short-sea shipping to a single nodal point.” according to the port’s FY 2012 TIGER grant application. The port’s distinct business model makes it a strong compliment to the region’s other two ports.

⁵ Miami International Airport.

⁶ Cambridge Systematics, “Transportation and Economic Impacts of the Freight Industry in Miami-Dade County,” December 2011.

⁷ Port Everglades 2010 Financial Report.

2.3.3 Foreign Trade and Distribution Centers

The metro area includes multiple locations tailored towards private foreign trade business. The most notable is the Free Zone located near MIA. The Free Zone is a Foreign Trade Zone: sites considered outside U.S. commerce and customs territory, meaning goods receive duty-free treatment and other benefits. The Miami Free Zone is a 47-acre site, affording firms the opportunity to benefit from duty deferrals, tax savings, and other regulatory enhancements. The firms operating on the premises process over \$1 billion in foreign trade a year.⁸ In addition, there are hubs for import/export businesses near the intermodal facilities (see 2.4.3), major ports, and the Doral Warehouse District in Miami-Dade County.⁹

2.4 Supporting Domestic Infrastructure

2.4.1 Trucking

Since trucking is the primary domestic freight mode within the state and region, roadways are the major connective tissue between the international ports and domestic markets. All six ports feature direct highway connections, facilitating entrance to the state's extensive highway network. However, the metropolitan area's linear geography, relatively dense port locations, and enormous resident population force trucks to confront major congestion when driving within the three counties. By one measure, Miami is the country's 12th most congested metro area.¹⁰

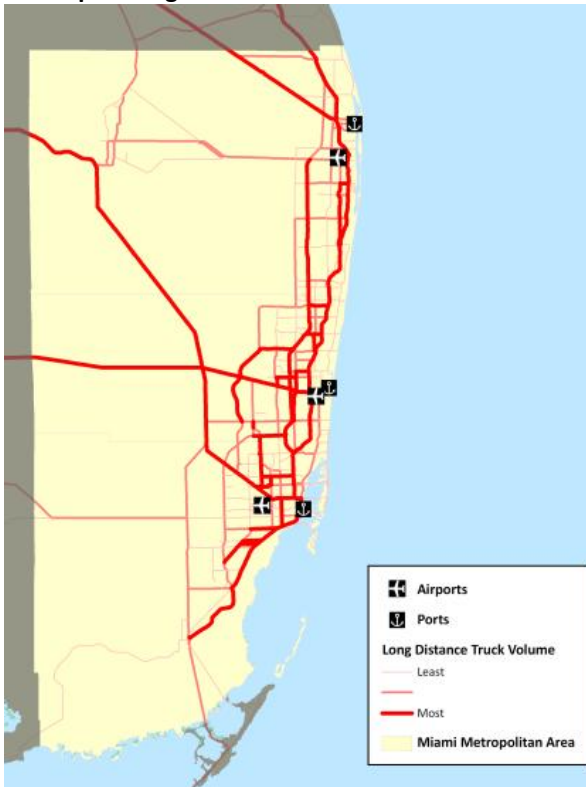
Truck flows provide visual evidence of the congested network. While long distance trucks fan out from the ports and urban neighborhoods (Map 1), they encounter significant congestion outside the ports and along eastern roadways (Map 2). This is especially troubling for the north-south trucking corridors, I-95 and the Florida Turnpike.

⁸ Miami Free Zone.

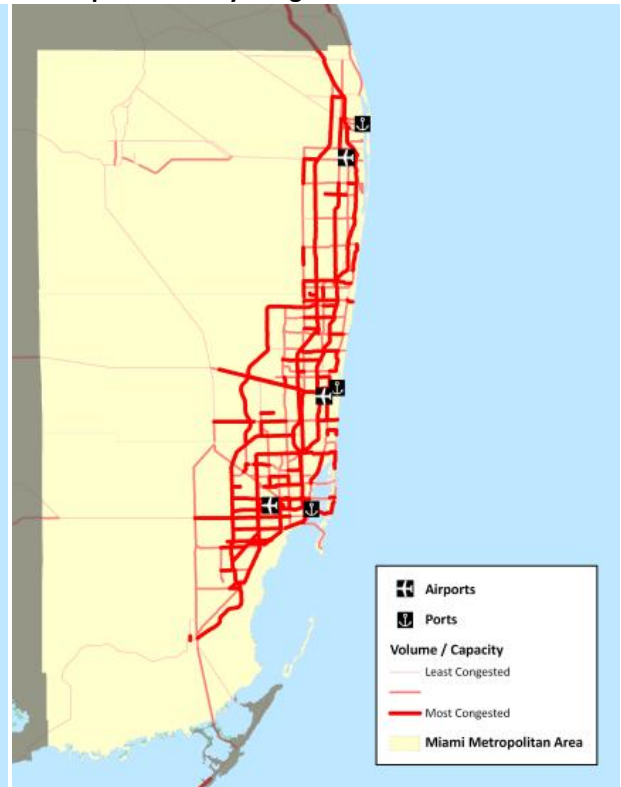
⁹ Kimley-Horn and Associates, Inc., "South Florida Regional Freight Plan," March 2010.

¹⁰ Inrix Traffic Scorecard.

Map 1. Long Distance Truck Volume



Map 2. Roadway Congestion



Source: Freight Analysis Framework

The state and Miami-Dade County are addressing one of those chokepoints through the Port Miami tunnel project. This \$1 billion public-private partnership will open a direct highway connection between the port and both I-95 and I-395. Not only will the tunnel speed freight connections, it will reduce general downtown congestion by removing trucks from city streets. See discussion in Section 4.

2.4.2 Freight Rail

The metropolitan area utilizes rail connections to move freight in and out of the ports and the urban areas. Florida East Coast Railway (FEC) and CSX own and operate the freight rail tracks within the metropolitan area, including connections throughout the rest of the state.¹¹ They currently maintain modern direct connections to Port Everglades and Port of Palm Beach, while Port Miami’s connection is in poor condition. Fortunately, Port Miami will open multiple rail upgrades in the coming years to coincide with the tunnel project.

¹¹ CSX owns and operates its own tracks north of Mangonia Park in Palm Beach County, and operates the South Florida Rail Corridor south of Mangonia Park.

2.4.3 Intermodal Logistic Centers

The metropolitan area includes multiple intermodal logistic centers, and they are a major investment priority of the three counties and the state. Three centers currently operate in the metro area.¹² FEC's facility in Hialeah hosts Port Miami intermodal movements and is within a short distance of MIA.¹³ FEC maintains another facility directly between the airport and seaport in Fort Lauderdale, a huge logistical advantage for the two Broward County ports. CSX operates an intermodal auto terminal northwest of the Port of Palm Beach.

St. Lucie County and the state would like to add another major intermodal facility just north of the metropolitan border. Known as Florida Inland Port, this \$2 billion facility is a two- to three-decade PPP project. It would include direct FEC rail connections and provide an opportunity for major economic development in a less congested part of the region. Port St. Lucie city commissioners recently rejected the development with a 3-2 vote in April 2012, but the county could still push forward the project.

2.4.4 Short Sea Shipping

The metropolitan area maintains three distinct short sea shipping lanes. The Atlantic Intracoastal Waterway runs the length of the metro area, and stretches all the way north to Norfolk, VA. The other major lane is the Miami River, running from MIA to Biscayne Bay. While significantly shorter than the Intracoastal, the river moves twice as much tonnage. There is also a small canal system, New River, in Broward County. Based on national and Florida studies, these shipping lanes are underused due to infrastructure limitations and policy failures.¹⁴

2.5 *Local and State Governance*

Miami's freight facilities operate under a unique set of governance structures. Rather than a regional airport, seaport, or overall freight authority, each port operates under a separate management authority. Both Miami-Dade and Broward Counties directly own and operate their local seaport and airport. However, neither operates both facilities under one common port authority. Palm Beach County owns and operates its airport, but an independent five-member board operates the Port of Palm Beach. The board also maintains independent taxing authority.

At the state level, Governor Scott created the Office of Freight, Logistics and Passenger Operations in 2012. Housed within the state department of transportation's Intermodal Systems Development office, the office's goal is to connect, develop, and implement a freight planning process throughout the state. The office's mission is to look beyond ownership and combine private and public interests. Since the office is so new, the first major act was to select eight freight coordinators (seven regions, plus one turnpike representative) and start establishing common statewide needs.

¹² This does not include the Pompano Beach transload and lumber reload facility.

¹³ One of the Port Miami rail upgrades includes a new on-port intermodal facility.

¹⁴ Lawrence Henesey and Mark Yonge, "Short Sea Shipping in the United States: Identifying the Prospects and Opportunities," Washington: Transportation Research Board, 2006.

3. Global, Domestic, and Metropolitan Trade Patterns

3.1 General International Patterns

Metropolitan Miami is the country's leading freight gateway to Latin America, especially when measured by freight value.¹⁵ When combining MIA and the three seaports, the metro area moves 45 percent of U.S. exported value to Latin America and 20 percent of U.S. imported value.¹⁶ When excluding NAFTA activity, Miami's share of U.S.—Latin American trade is the most concentrated trade-value pair in the United States. The next closest trade pair is Los Angeles to Eastern and South-Eastern Asia.

While Miami is the clear leader in freight flows between Latin America, it also trades with other global regions.¹⁷ Combining imports and exports, nearly \$25 billion in foreign trade moves between Miami's ports and other continents. However, this trade is less than 17 percent of Miami's international freight flows, suggesting there is an opportunity to expand trade with other parts of the world.

Miami relies on other domestic ports to both import foreign goods and export Miami-produced products, verifying the opportunity to expand direct trade if the market opportunities exist.¹⁸ Asian imports tend to enter Florida either through West Coast port or other Southeastern ports outside Florida. The goods enter Miami through both direct connections and repackaging and repurposing in other U.S. metros. A similar case exists for European imports, specifically via New York.

3.2 Facility-Specific Patterns

3.2.1 Miami International Airport

MIA is more than just the dominant airport in the region—it is a world powerhouse when it comes to international passenger and freight operations.¹⁹ MIA is the clear U.S. leader when it comes to moving international freight, exceeding the next closest airport by over 600,000 tons. Internationally moving nearly 1.8 million tons is enough to rank MIA as the 10th busiest global freight airport. MIA is also dominant in passenger movements, second only to New York's JFK in terms of international passengers moving within the United States. MIA ranks 27th among all global airports when it comes to moving international passengers, with a majority of those trips among Latin American airports.

The *value* of MIA's international freight also makes it one of the most important trade facilities in the state and country. In 2010, the airport moved \$50.7 billion worth of freight—about 41 percent of Florida's total movements for the year.²⁰ Latin America dominates this trade; MIA's trade with Latin America represents 83 percent of all U.S. aviation imports and 81 percent of all U.S. aviation exports to this region.²¹ Looking at

¹⁵ Throughout Section 3, Latin America references all countries in the Western Hemisphere besides Canada, Mexico, and the United States.

¹⁶ Brookings analysis of Freight Analysis Framework data.

¹⁷ Brookings analysis of Freight Analysis Framework data.

¹⁸ Florida Chamber Foundation, "Florida Trade and Logistics Study," April 2011.

¹⁹ Miami International Airport and Airports Council International Worldwide

²⁰ Source: Miami International Airport.

²¹ *ibid*

just national trade data, Brazil is the single largest trading partner (\$11.1 billion in trade), followed by Columbia (\$5.2 billion) and Costa Rica (\$3.7 billion).²² MIA's perishable items account for nearly 70 percent of all U.S. perishable imports by air, making it especially important for this growing trade sector.

3.2.2 Seaports

Just like MIA, Port Miami and Port Everglades are both major U.S. international seaports and the major throughways for trade with Latin America. Compared to all U.S. ports, Port Miami is the 11th busiest international port and Port Everglades is the 12th busiest.²³ The three metropolitan Miami seaports also handle a large share of Florida's own seaborne exports (56.4 percent) and imports (43.8 percent).²⁴ Compared to other U.S. metro areas, those ports easily ship the most exported value to Latin America.²⁵

3.3 Domestic Trade Patterns

Domestic trade patterns are a vital part of Miami's international trade, and expose significant economic relationships with other U.S. metros.²⁶

The majority of Miami's non-Florida domestic imports originate in Los Angeles, New York, Atlanta, Memphis, and Greenville. All of these metropolitan areas represent either major international gateways or major national distribution centers. And while most domestic imports enter Miami via truck, metros like Los Angeles, New York, and San Francisco send a large share of goods to Miami intermodally.

Looking at Miami's domestic exports, it's a slightly different list of leading metropolitan areas. El Paso, Dallas, and Houston join the same large metros from the import list (Los Angeles, New York, and Atlanta). El Paso is likely a representation of NAFTA trade to Mexico, while Houston is the main site for chemical production and their international export. Similar to domestic imports, Miami's domestic exports primarily move by truck, with other sizable shares on intermodal flows.

Maybe the most important element of domestic freight movements are the commodities exchanged. Amazingly, the most common commodity is empty containers moving in and out of the state.²⁷ To reduce the energy expended on moving these empty containers, it's critical that infrastructure leaders devise methods to better balance Florida's trade with the rest of the country.

²² Source: Cambridge Systematics, "Transportation and Economic Impacts of the Freight Industry in Miami-Dade County," December 2011.

²³ Source: USDOT Maritime Administration. These rankings disaggregate Los Angeles and Long Beach, meaning the Florida ports could each rank one slot higher.

²⁴ Source: Florida Chamber Foundation, "Florida Trade and Logistics Study," April 2011.

²⁵ Source: Brookings analysis of Freight Analysis Framework data.

²⁶ Source (*next two paragraphs*): Brookings analysis of Freight Analysis Framework data.

²⁷ Source: Florida Chamber Foundation, "Florida Trade and Logistics Study," April 2011.

4. Discussion Items

4.1 *Global Status*

Miami is one of America's quintessentially global cities. The Atlantic beaches, distinctive Art Deco design, and unique blend of American and Latin American culture combine to give Miami a global brand and help attract over 3.1 million annual international visitors.²⁸ The global presence also extends to business, as over 1,100 global companies representing 53 countries locate in the metro area.²⁹ Miami expands global connections through the multiple foreign consulates and trade offices in the metro area.

The metro area's trade and logistics sector support these elements and help build Miami's global status. Miami International Airport is the busiest international cargo airport in the United States, and moves the second-most international passengers. Ports Miami, Everglades, and Palm Beach combine to move 31.6 million tons of bulk cargo and 1.9 million TEU containers. Supporting their operations is a wide range of warehouse and wholesale operations, employing over 138,000 people. Taken together, the entire freight and logistics industry generated over 14 percent of Miami's GDP in 2010.

The freight facilities' operations depend on strong connections with many world regions.³⁰ Metropolitan Miami is the preeminent freight gateway to Latin America, accounting for nearly half of all U.S. exported value and nearly a quarter of imported value from Latin America. Miami's total Latin American trade was worth \$123.9 billion in 2010. Beyond the Western Hemisphere, Miami moved \$13.5 billion worth of freight between Europe and another \$7.4 billion between Asian countries. All told, Miami's exported freight value ranked fourth among U.S. metro areas, and imported freight value ranked eighth.³¹

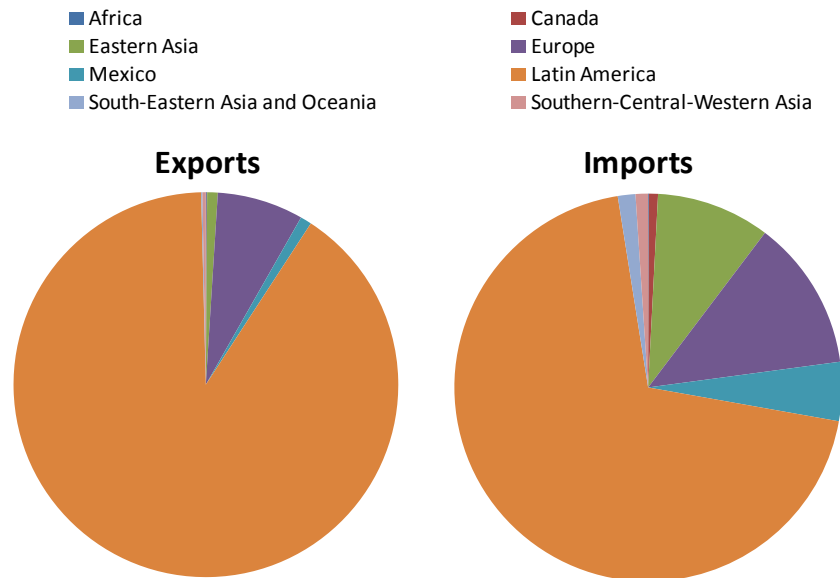
²⁸ Source: International Trade Administration, U.S. Department of Commerce (2010 Data).

²⁹ Source: The Beacon Council.

³⁰ Source (*entire paragraph*): Brookings analysis of Freight Analysis Framework data.

³¹ The Freight Analysis Framework includes inconsistent metropolitan geography, and only includes metropolitan areas with at least 1 million residents plus the smaller metropolitan gateways like Savannah.

Figure 2. Metropolitan Miami’s Export and Import Shares, by World Region, 2010



Source: Brookings analysis of Freight Analysis Framework data

Maintaining Miami’s global status will require metropolitan and state leaders to build upon what the metro area already does well. Capital investments are one method to meet that goal, and many major investments are already underway. Miami International Airport is improving roadway connections to the airport’s cargo facilities. With state aid and private sector partnerships, Port Miami is deep-dredging the port for post-Panamax ships, building a port tunnel to shorten connections and improve local city traffic, and vastly improving on-site rail service.

But Miami can’t stop with these capital projects—the facilities also need operational and off-site assistance. On-site, trade facilities rely on efficient customs operations to streamline international goods movement; without those efficiencies, firms may look to better-staffed facilities. Thus, it’s paramount that all Miami facilities employ the number of customs officials necessary to keep international flows moving through Miami. Off-site, Florida needs to prioritize rail-truck connections between ports and their metropolitan origins and destinations; without these connections, freight firms may be discouraged from using Miami’s facilities due to inadequate statewide rail access. In this case, the state must continue to build-out the intermodal facilities that will keep goods moving through Florida.

Beyond the current and planned investments, leaders should also look to expanded global connections and international business attraction to bolster local freight growth. What countries don’t do business in Miami due to missing direct connections at MIA? How can Miami sell its business and freight specialties to firms in growing international markets like China and India? What will attract post-Panamax ships to Miami versus other East Coast ports? Miami is already addressing the final question by formalizing dialogue with Panamanian authorities.³²

³² Port Miami Press Release, “Port of Miami and the Panama Canal Authority to Sign Agreement Aimed at Expanding Trade,” October 26, 2011 ([Web Link](#)).

4.2 *Freight Planning and Policies*

Florida, and in particular metropolitan Miami, maintains a unique place in the U.S. trade and logistics sector. The state is a major domestic and international tourist destination, a hub for global business, and supports an enormous share of U.S. foreign trade. Florida maintains a similar leading position when it comes to innovative freight policy.

Florida is proactively coordinating statewide freight efforts. In 2012, Governor Scott established the Office of Freight Logistics and Passenger Operations. The office coordinates multimodal freight strategies and interests by working directly with regional freight representatives to prioritize state and local investments.

The office operationalizes the state's willingness to pick winners and losers. Freight infrastructure benefits from economies of scale: a single major airport or seaport can serve multiple regions, some even thousands of miles away. As such, it's inefficient for multiple ports to focus on the same freight activities and duplicate efforts. Florida's current trade profile fits this economic argument: Port Miami and Port Everglades specialize in container traffic, Port of Jacksonville moves automobiles, Port of Tampa handles bulk cargo, etc. To truly benefit all metropolitan areas, Florida must eschew the urge to bestow similar investments on all facilities and instead build on local strengths.

While freight investment planning is moving in the right direction, there are other policy areas needing attention. Miami's ports move enormous amounts of foreign goods, but a large share of traffic is simply transshipment destined for other places. This creates an opportunity for policies to stimulate locally-sourced exporting and importing firms.³³ Current and future capital investments will bring significant physical upgrades to the Miami metro area, but the state also needs policies to implement complimentary technological upgrades. These include image-processing cargo inspection systems, pre-screening at weigh stations, and virtual container yards like those in Los Angeles.³⁴ And in the case of the new freight office, achieving genuine buy-in from regional districts is the only way to coordinate state and local investments.

Finally, it's critical that policies recognize personal and cargo transportation's shared infrastructure usage. This is especially important on the highways that operate as major freight and passenger corridors. In turn, Florida needs to continued prioritizing intermodal logistic centers and freight-specific connectors—such as the potential Florida Inland Port and the under-construction NW 25th Street Viaduct. These types of projects have the power to streamline freight operations *and* free-up roadway capacity for general passenger traffic. Since the fundamental design of the Office of Freight Logistics and Passenger Operations includes a dual passenger and freight focus, it's paramount that office receives the power to carry-out its coordination mission.

³³ For examples of other states' port-related incentives, see: Florida Chamber Foundation, "Florida Trade and Logistics Study," April 2011 (Appendix A).

³⁴ For more information on these cutting-edge investments, see: Kimley-Horn and Associates, Inc., "South Florida Regional Freight Plan," March 2010.

4.3 Funding and Financing Freight Projects

Miami and its state partners have a genuine interest in improving the metro area's global status and freight operations. Achieving those improvements will require local and state leaders continue to dedicate funding resources and innovate financial delivery mechanisms.

Florida already has some of the critical operational assets to make this a reality. Florida is a national leader in public-private partnership (PPP) legislation.³⁵ It is one of only two states in the country to both permit *and* use availability payments and shadow tolls, which use alternative financing arrangements to realize projects with insufficient user fees. The state is also one of four states that have both a state and federal capitalized accounts in its state infrastructure bank (SIB), giving it the flexibility to fund important infrastructure projects outside narrow federal eligibility requirements. In addition to repayment and fees, Florida annually capitalizes the account with state transportation funds, providing a continuous source of capital to lend to projects.

Results confirm these assets deliver real returns. Between 1989 and 2011, Florida undertook the most transportation-related PPP projects of any state.³⁶ Metro Miami hosted more than half of those projects, equaling \$3.7 billion worth of transportation investment. One of the state's most notable projects, The Port of Miami Tunnel, is a first mover in PPPs in the United States because of its use of availability payments and a complex greenfield structure that does not include tolls.³⁷ The use of availability payments will test whether more efficiency gains can be made from bundling design-and-build services with private management and financing. Due to the availability payment structure, where the public agency pays the concessionaire for making the project available for public use, there is no transfer of traffic or revenue risk. The lack of revenue risk facilitated the deal closure during the depth of financial market uncertainty in 2009. Without the risk transfer, the project had a simpler structure, was less expensive because the revenue risk transfer was not priced into the deal, and lacked the threat of user resistance to road pricing,³⁸ If successful, this project, along with I-595 Corridor Improvement project, may pave the way for future PPP deals in the United States without revenue risk transfer.

Florida's SIB is the second most active in the country—lending approximately \$1.2 billion (in nominal dollars) to eighty-five projects over the life of the SIB. The Miami metro area accounts for the largest metro amount in the state and the third largest total in the United States, receiving approximately \$300 million across twenty three projects. These projects range from the Miami Intermodal Center, to highway improvements, to MIA and Ft. Lauderdale airport improvements. While the SIB can lend to road, transit, and intermodal infrastructure, 72 percent of the financed projects were road-related.

Florida must now improve those operational assets, and add new ones. Regarding PPP legislation, Florida should take a cue from California and Michigan and establish a state PPP unit, a public agency that would

³⁵ For more information, see: Emilia Istrate and Robert Puentes, "Moving Forward on Public Private Partnerships: U.S. and International Experience with PPP Units." Washington: Brookings, 2011.

³⁶ Ibid.

³⁷ Jeffrey A. Parker, "Port of Miami Tunnel Availability Pay, New Ground for PPPs." *Public Works Financing*. November 2009.

³⁸ "Road Concessions, BOTs, DBOs," available at <http://ppp.worldbank.org/public-private-partnership/sector/transportation/roads-tolls-bridges/road-concessions>.



help design and implement PPP projects. The state infrastructure bank should continue to be diligent about cost-benefit analyses within its project selection process, and increase investment in non-roadway projects to help emphasize the importance of other modes. The state can also institute new incentives to attract more local exporting firms, which could use funding leveraged from the state and Miami's global status.

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