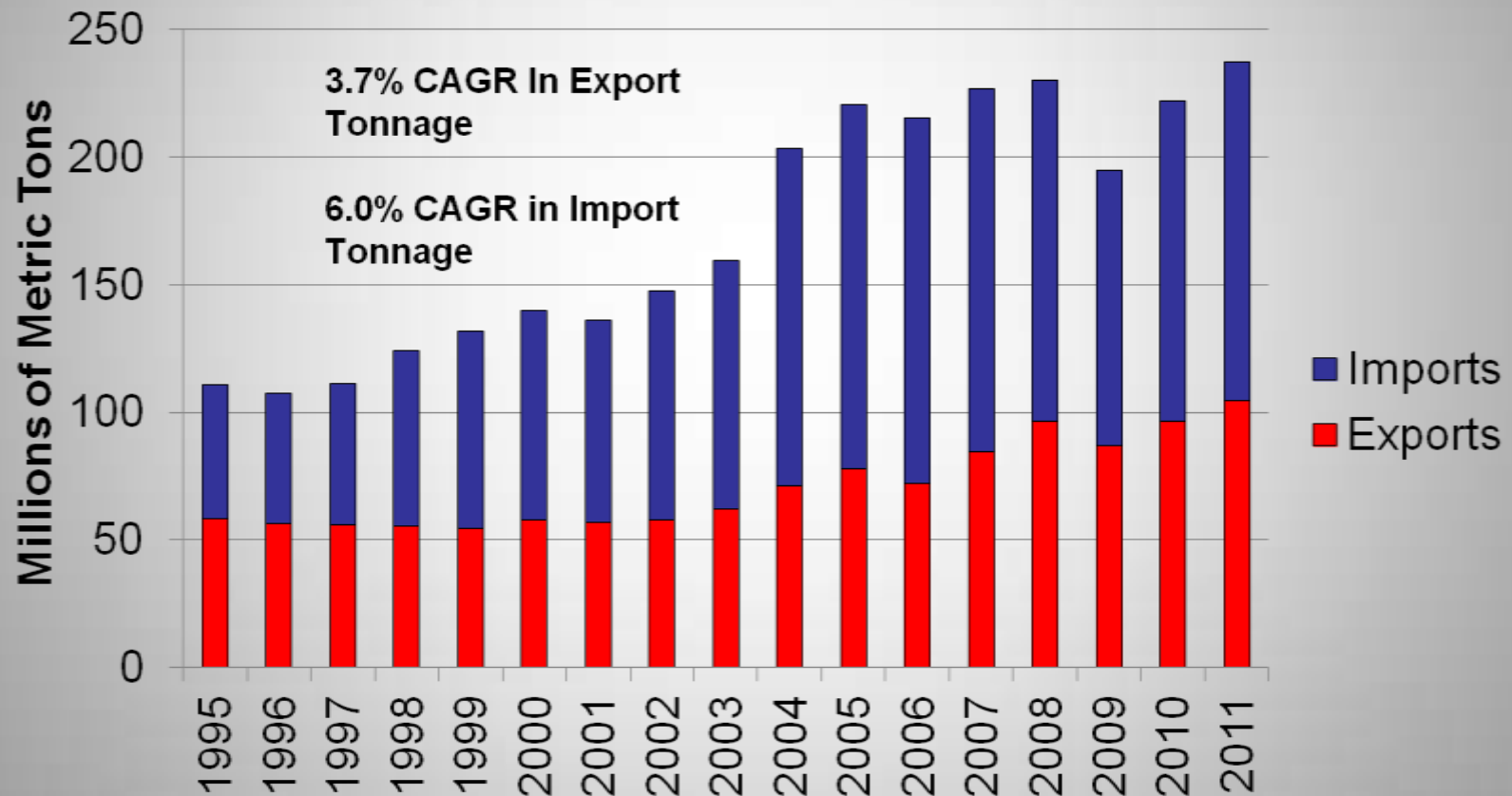


The Dynamics of the US Container Market and Shifting Trade Patterns – Implications for the Future Investment in US Economic Growth

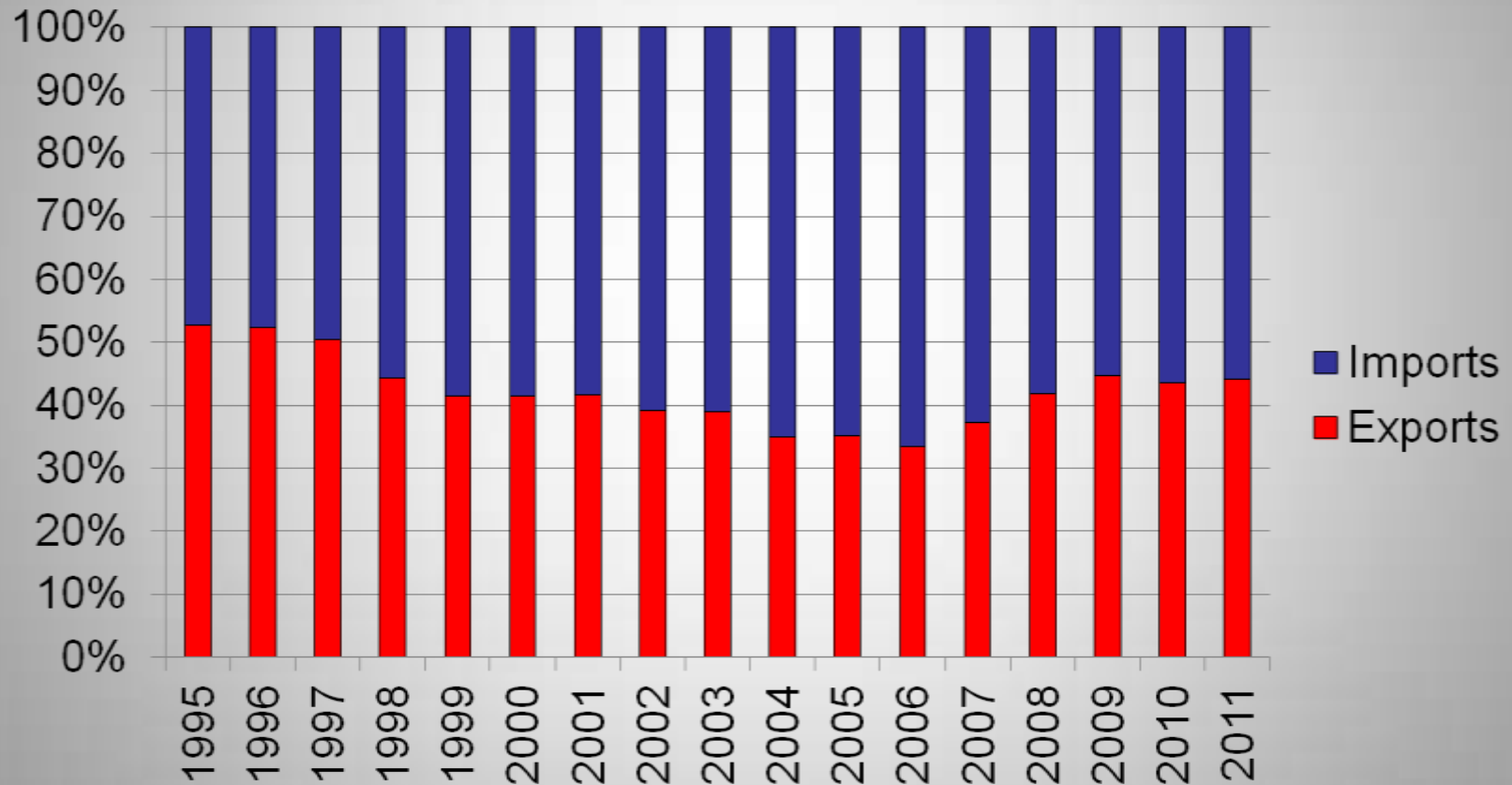
AAPA Spring Conference
March 20, 2012

Martin Associates
941 Wheatland Ave., Suite 203
Lancaster, PA 17603
www.martinassoc.net
(717) 295 2428

In Terms of Tonnage, Containerized Cargo Has Reached a Record Year in 2011

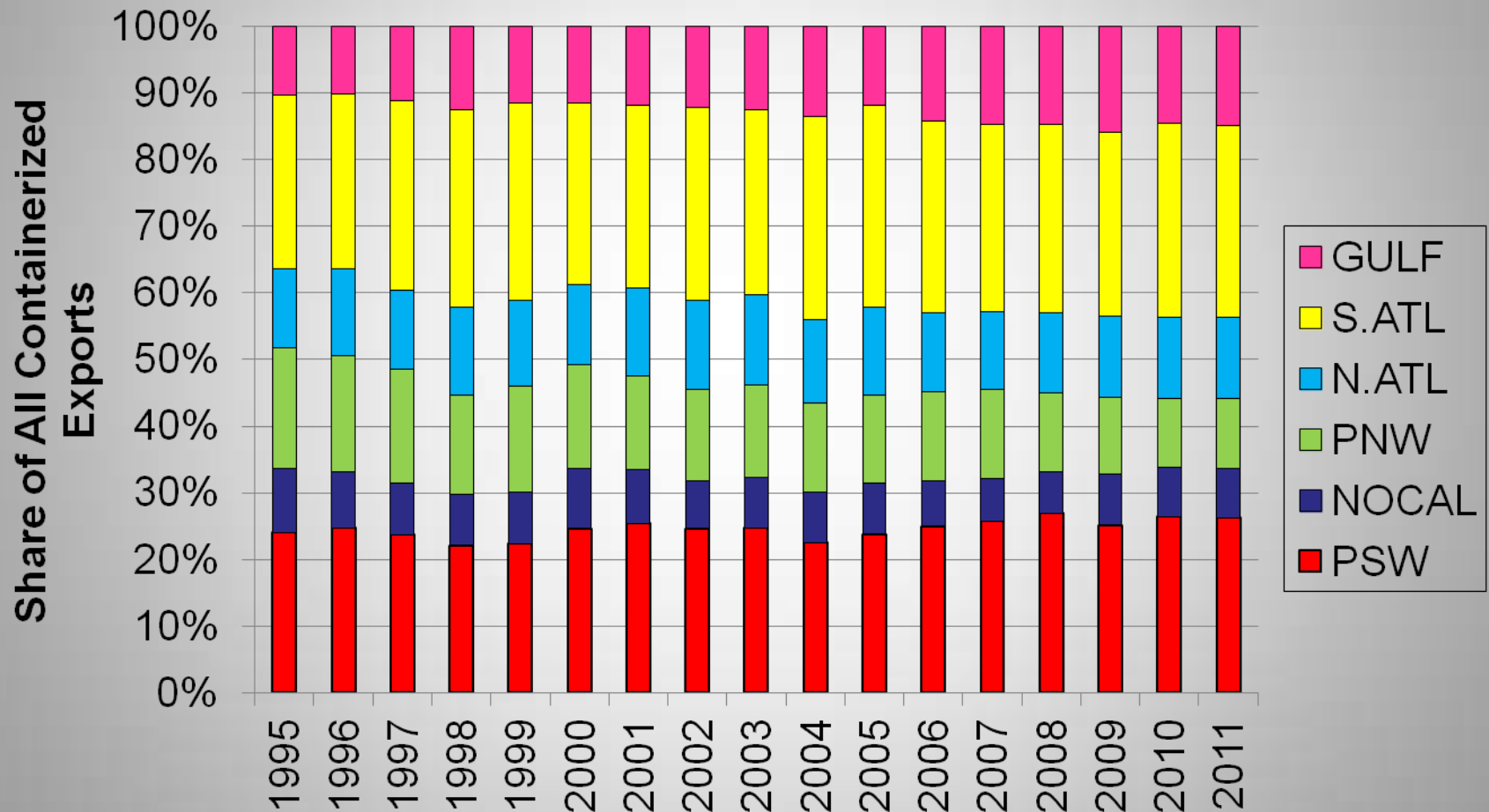


Imported Containerized Cargo Dominates, but Exports Have Been Increasing Since 2006

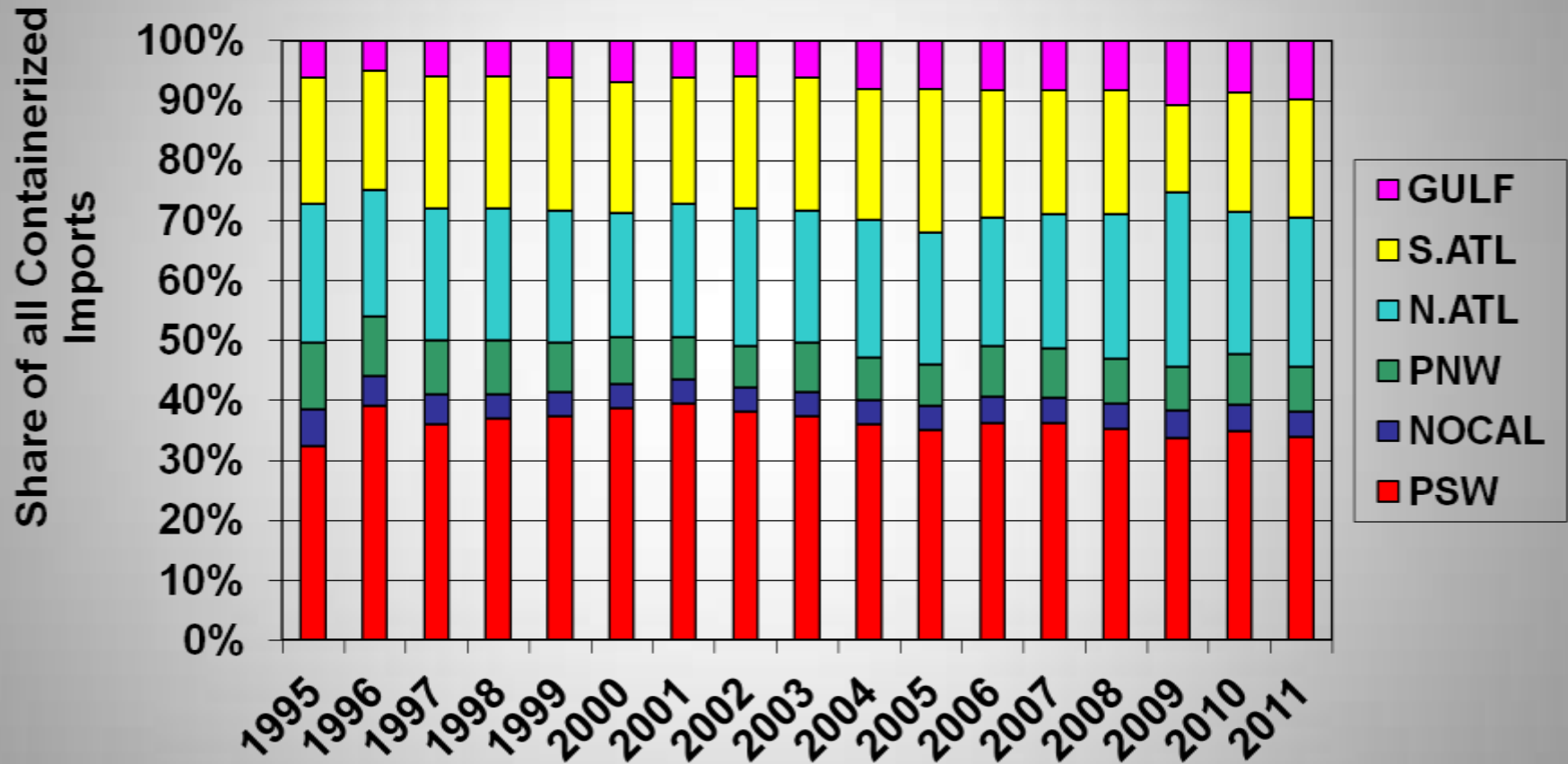


Source: US Foreign Trade Statistics, USATrade On-Line

About 45% of the Containerized Exports Moves Via the West Coast Ports



West Coast Ports Also Handle About 45% of Imports - 35% Moves via the PSW Ports, and this Share has Been Declining Since 2001



Shocks Have Occurred in the Existing Logistics Patterns of Importers and these Changes Occurred Between 2002 and 2007

- **Consolidation of imports via San Pedro Bay (Los Angeles and Long Beach) Ports -- mid 1990's:**
 - **Distribution center growth**
 - **Cross-dock operations**
 - **Rail investments in S. Cal to Midwest routings**
- **But then.....**
 - **9/11**
 - **West Coast Shutdown**
 - **Capacity issues – land and labor shortages**
 - **Rail and truck shortages**
 - **High intermodal rates**
 - **Search for alternatives**
 - **Shifting production centers**
 - **Economic crisis**

All Water Routings are Growing



All Water Services to the East and Gulf Coasts are Growing

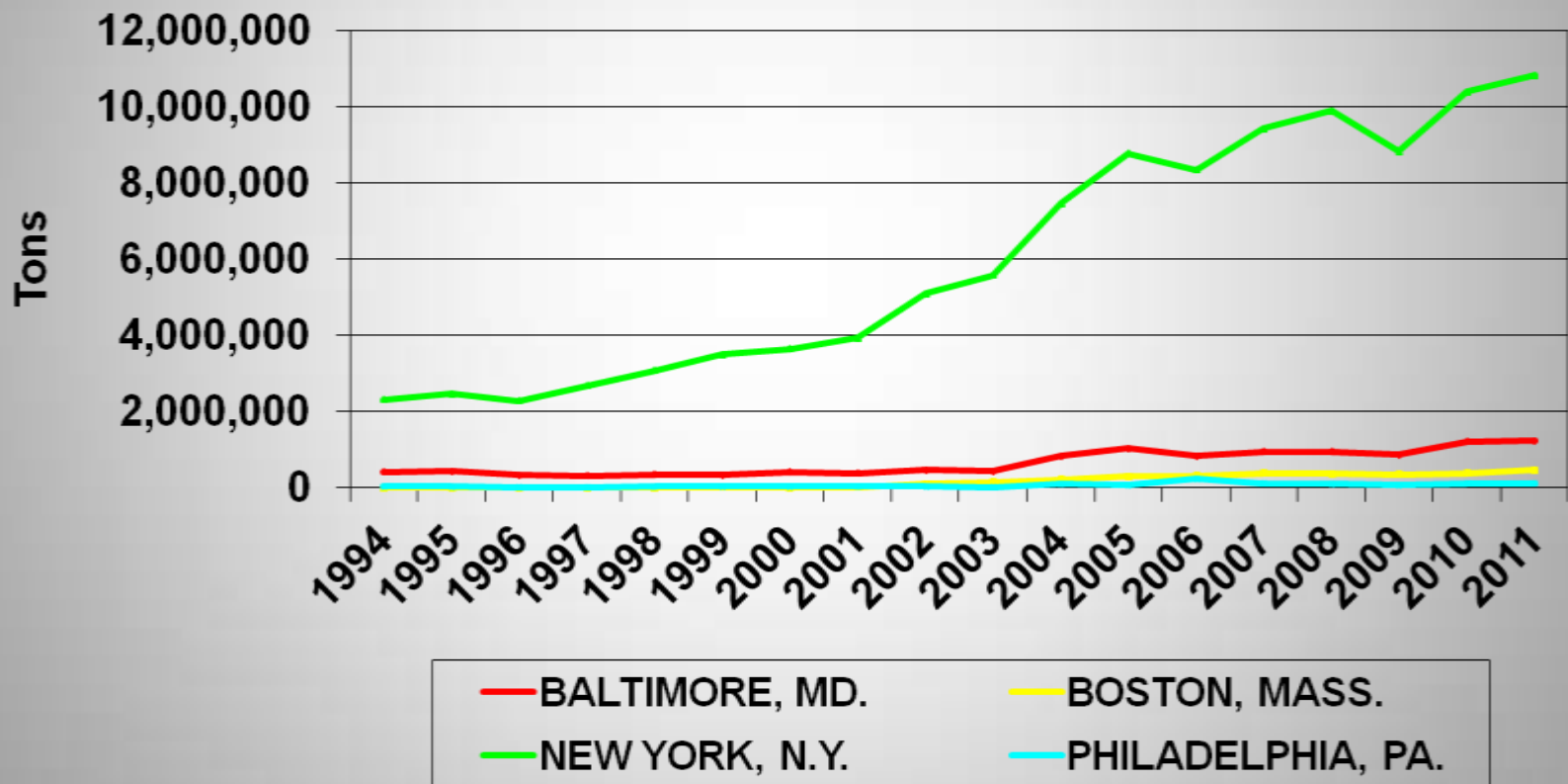
- **Panama Canal:**
 - Current size limitations (-)
 - New, bigger canal (+)
 - Transit time issues (-)
 - Carriers can internalize rail revenue (+)
- **Suez Canal:**
 - Accommodates larger vessels (+)
 - Better transit to SE Asia/India (+)
 - Political instability/Piracy (-)
 - Transit time issue to Midwest (-)
 - Shifting production to India/SE Asia (+)
 - New India-Med direct express services (+)
 - \$500 billion infrastructure investment in India by Spring of 2012 and \$1 trillion by 2017
 - Growth in terminal development in Vietnam
 - Transshipment operations in Med (+)

All Water Services are Growing

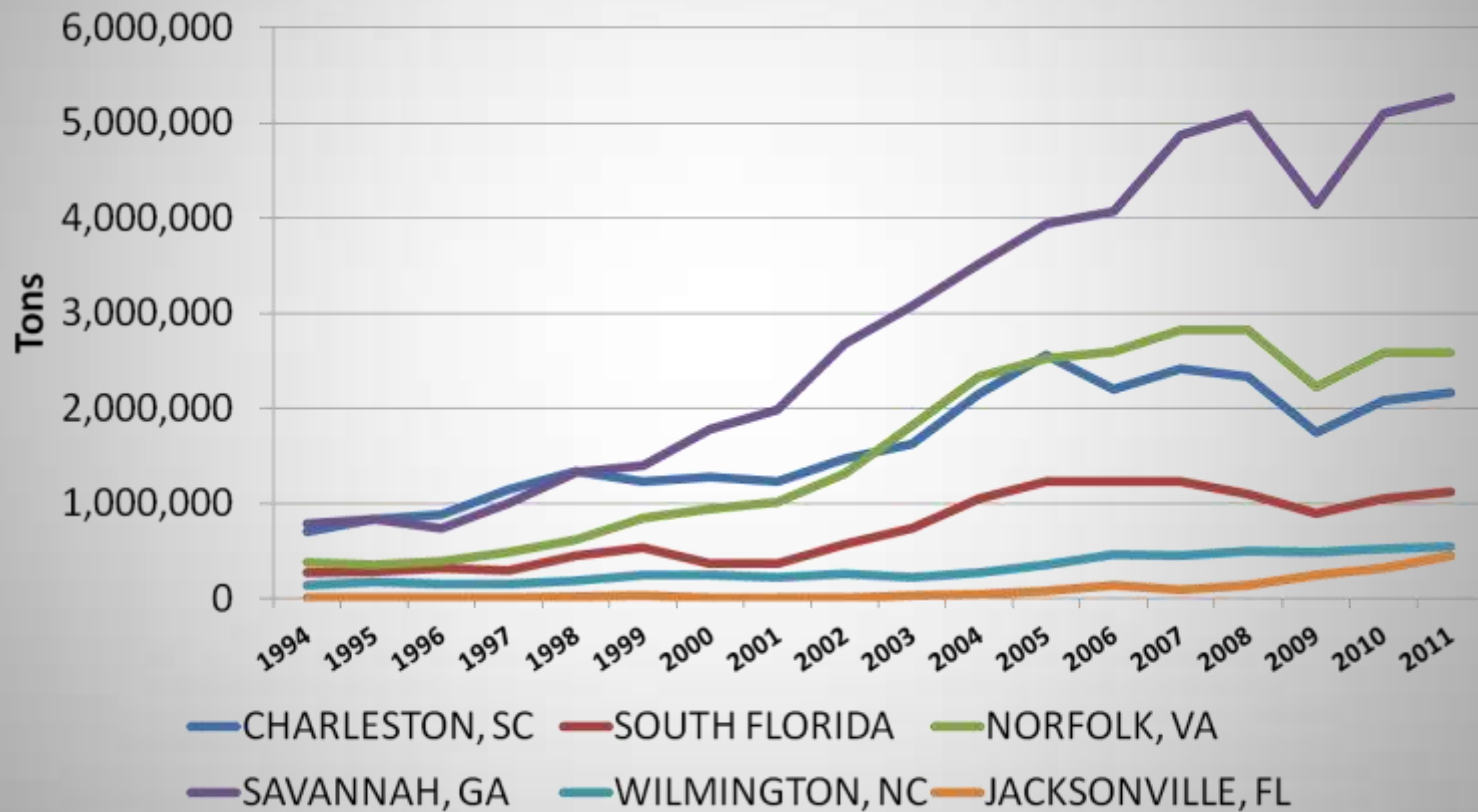
- **Significant growth in distribution centers in Gulf and Atlantic Port Ranges**
- **Proximity to Southern Asia/India is a positive – Suez Canal:**
 - **Growth in Indian port infrastructure**
 - **Growth in production centers and port infrastructure in Vietnam and SE Asia**
- **With direct services to East and Gulf Coast, transit time differentials are narrowing**
- **Port infrastructure investment/distribution center development on East and Gulf Coasts**

Impact of Development of All-water Service

Imported Asian Container Tonnage – North Atlantic Port Range

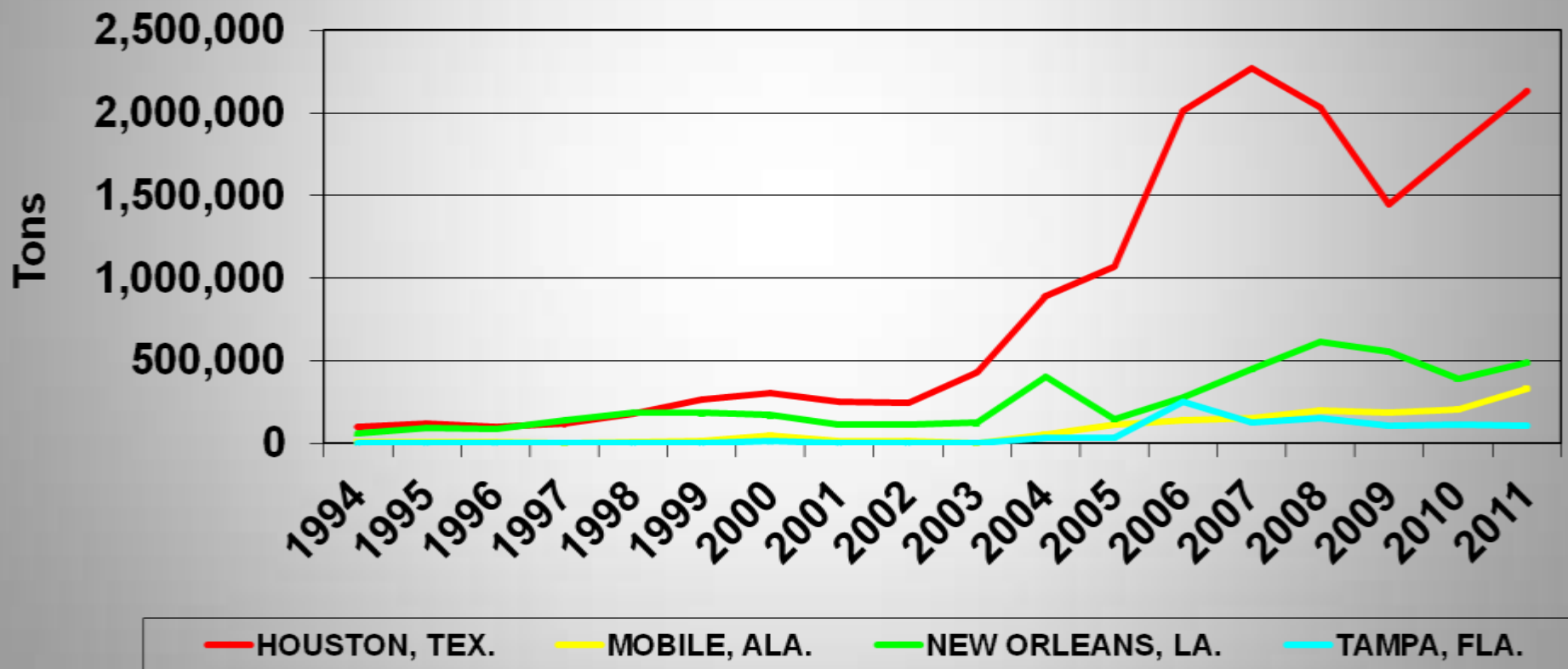


Imported Asian Container Tonnage – South Atlantic Port Range

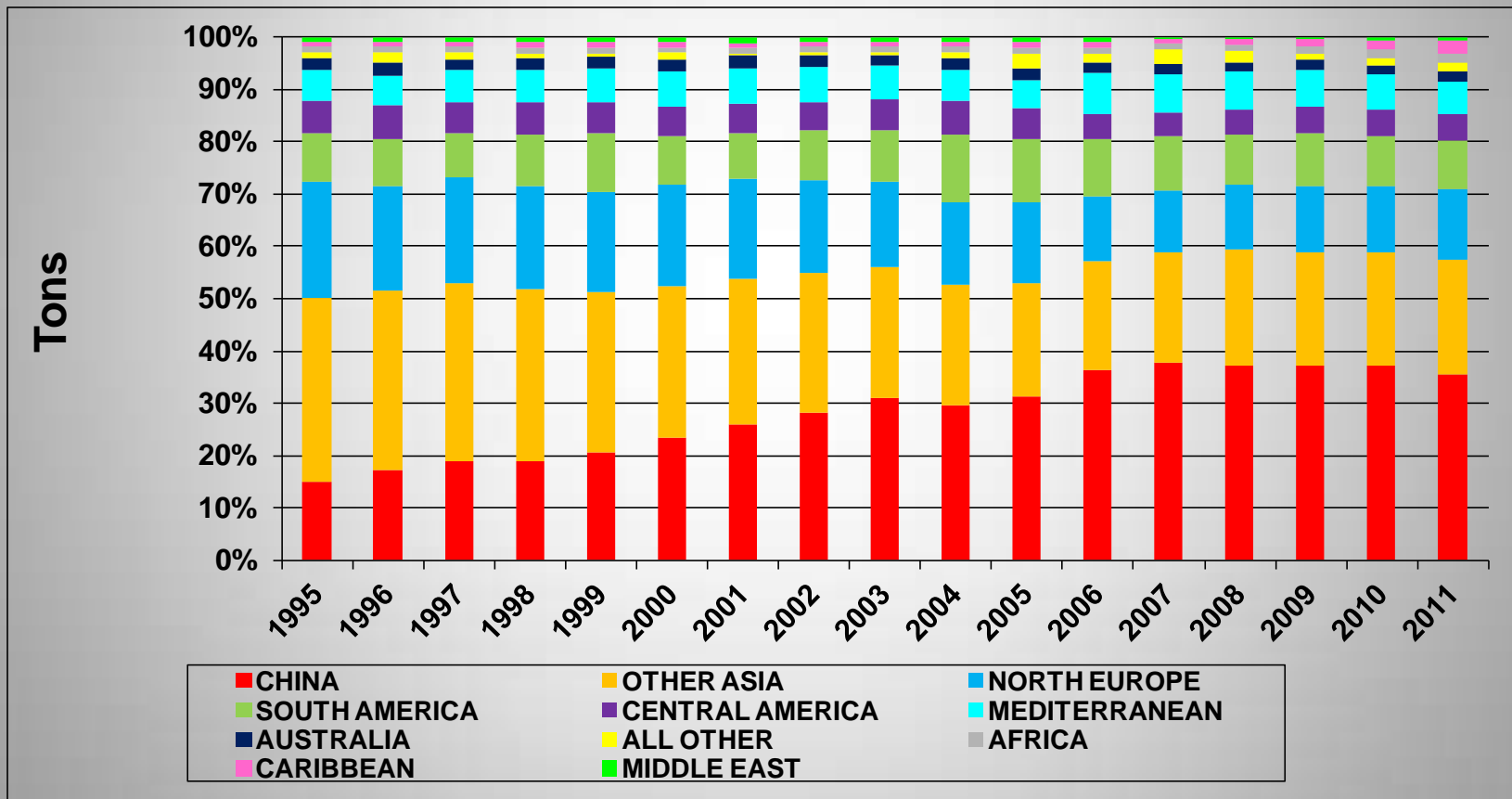


Imported Containerized Cargo – Gulf Coast Region

Imported Tons of Containerized Cargo



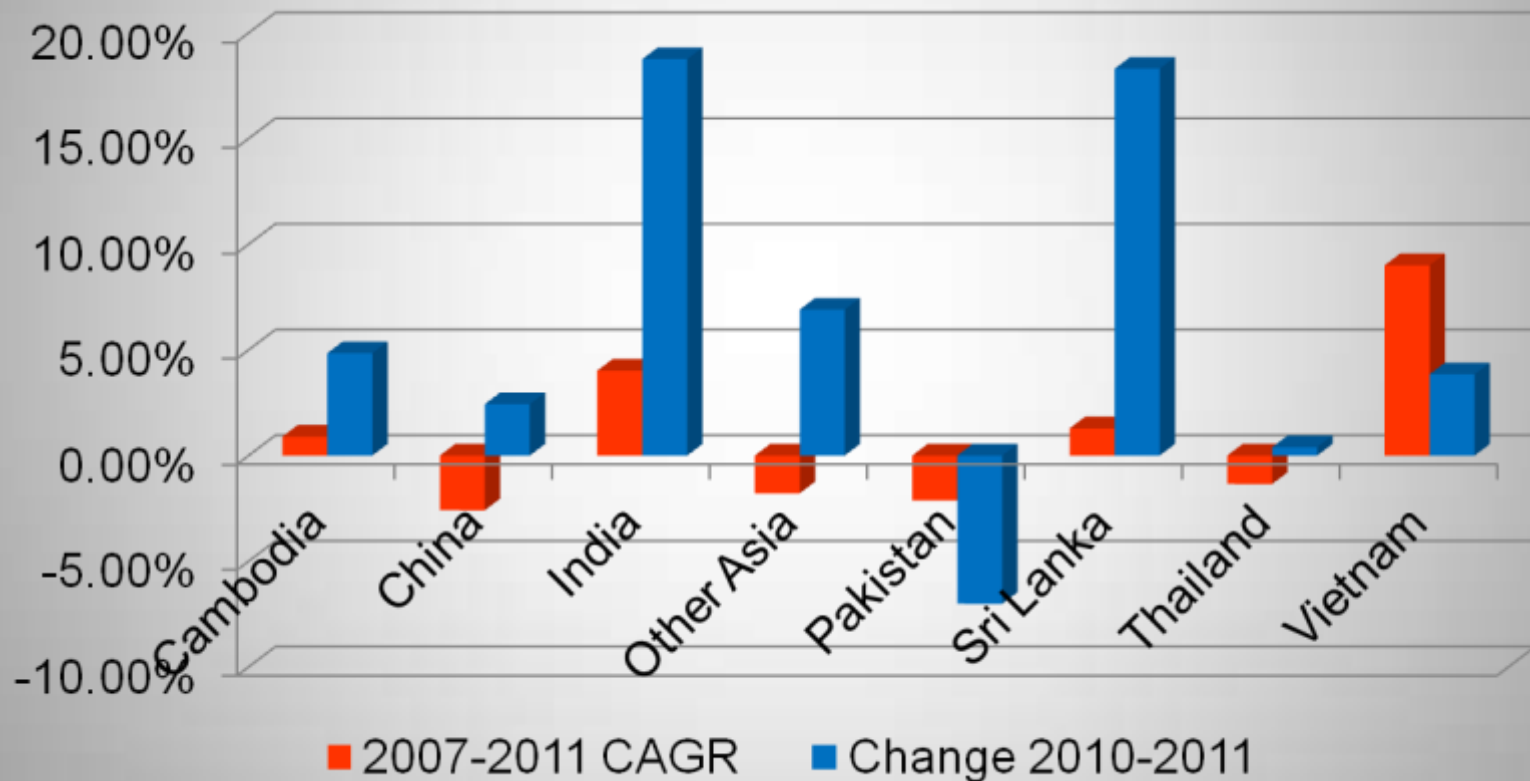
China Has Been Responsible for Nearly 40% of Imported Containerized Tonnage, but the Growth in Share Has Stabilized



US Maritime Administration

2006 data reflects new data base by MARAD/US Bureau of Census

Asian Supply Sources are Shifting, Favoring Suez Routing. However, China Remains the Major Trade Source



Expansion of the Panama Canal and Growth in Suez Canal – Implications on Changing Trade Patterns

- After 2014, the composition of the fleet will likely change, as 6,500 TEU plus vessels will be deployed
- Actual container volume increases through the Panama Canal into the US Atlantic and Gulf Coast may be less than anticipated:
 - Factors that have impacted growth in all water services are now in place
 - Growth in trade with areas that are more efficiently served via Suez Canal
 - Growth in investments in Central and South America to shorten supply chain
 - Caribbean Transshipment Centers will likely compete with mainland for import distribution center locations

Expansion of the Panama Canal and Growth in Suez Canal – Implications on Changing Trade Patterns

- East and Gulf Coasts will have to compete to handle the larger sized vessels that will be deployed on both Suez as well as Panama Canal based on infrastructure:
 - Channel depth to accommodate larger vessels (both Suez as well as enlarged Panama Canal)
 - Berth capacity to handle 1,000 ft plus vessels
 - Crane outreach capability
 - Intermodal capacity for discretionary markets
 - *All require capital investment*
- Investment in Port Infrastructure becomes critical to compete with Caribbean transshipment hubs for development of logistics centers and off-shore distribution activity
- Investment in Port Infrastructure is necessary to grow US exports, and increase competitive position of US:
 - Deepwater ports
 - Inland River Ports

Federal Funding is Required for Deepening Projects at Atlantic and Gulf Coast Ports

State	Port Name	Current Depth	Planned Depth
Virginia	Norfolk/Hampton Roads	50	55
Maryland	Baltimore	50	50
South Carolina	Charleston	45	45+
New York	New York (Underway)	45-50	50
Massachusetts	Boston	40	48
Delaware River	DE, PA, NJ Ports Portions Underway	40	45
Texas	Sabine Naches	40-42	42-48
Texas	Corpus Christi (Authorized)	45	52
Alabama	Mobile	45	45
Texas	Freeport	45	55
Florida	Maimi Authorized and Funded)	45	45
Georgia	Savannah	42	48
Florida	Port Everglades	42	50
Texas	Houston-Galveston	45	45
Florida	Jacksonville	40	45+
Florida	Manatee	40	40
Loisiana	New Orleans	45	45
Florida	Tampa	43	43

More Infrastructure Funding Needed in Addition to Deepwater Ports' Needs

- 12,000 miles of inland waterways :
 - 191 lock systems
 - 237 lock chambers
- Replacement cost estimated at \$125 billion in 1994
- 50% of the locks and dams over 60 years of age
- Efficient River Transportation System necessary for bulk exports
- Failure would be catastrophic in terms of:
 - Economic cost
 - Loss of life

Implications - Infrastructure Funding is the Critical Issue

- Ports have lost funding for system preservation projects, none-the-less major infrastructure projects:
 - After 9/11 - security investments competing with system preservation investments
 - Downturn of trade drastically reducing port revenues
 - Economic crisis reduced state/municipal public funding
 - US Army Corps of Engineers/Federal Government cannot fund the dredging/deepening projects and infrastructure projects necessary to keep US competitive
 - *Private sector participation becomes necessary*

The National Export Initiative Cannot be Accomplished Without Infrastructure Investment

- Improving trade advocacy and export promotion efforts
- Increasing access to credit, especially for small and medium-sized businesses
- Removing barriers to the sale of US goods and services abroad
- Robustly enforcing trade rules
- Pursuing policies at the global level to promote strong, sustainable, and balanced growth
- **Doubling exports over the next five years**

The National Export Initiatives Cannot be Accomplished Without Infrastructure Funding

- Free Trade Agreements (FTAs) with Panama, Colombia and South Korea have been ratified:
 - Details differ by agreement, but in general, tariffs will be eliminated on about 80% of bilateral trade between the US and these countries once the agreements enacted
 - Most remaining tariffs will be gradually phased out over the next five to 15 years
- Without adequately maintained shipping channels and port infrastructure, the US participation and benefits will not be maximized

Increased Exports Will Have an Immediate Impact on Job Creation

- Nearly 950,000 TEUs of export cargo now produced in Florida
- Double containerized exports produced in Florida and move the exports via the Florida Port System
- 95,443 total jobs annually:
 - 2,636 direct port jobs, including:
 - 200 rail jobs in Florida
 - 1,300 jobs with Florida truckers
 - 400 jobs with warehousing
 - 500 jobs with longshoremen
 - 2,793 induced jobs from port operations
 - 1,430 indirect jobs from port operations
 - 88,584 new jobs with Florida exporters
- \$469.8 million of state and local taxes annually
- \$14.9 billion of total economic value to the state

IMPLICATIONS

The Marine Transportation System Is a Key Economic Engine

- **16.2 million jobs supported cargo and passenger activity:**
 - **13.2 million jobs supported by deepwater port activity**
 - **2.5 million jobs supported by inland waterways**
 - **354,000 jobs supported by US cruise activity**
- **More than \$3.2 trillion economic value – 25% of the US Gross Domestic Product**

Implications

- The Global Economy is here!
 - Trade restrictions must be avoided
- The port system has become integral in the world's logistics systems:
 - Ports must provide dependable service:
 - Labor/management issues at West Coast ports
 - Pending unrest with labor at Atlantic Coast ports
- Infrastructure funding needs are reaching critical shortfalls and private sector funding has become a substitute for Federal Investment
 - Port sector received less than 15% of the last round of Tiger II Grants
- What other sectors of the US Economy represent such a major catalyst for economic development and growth?
- *The Marine Transportation System represents a key market for future stimulus funding and cannot be ignored as the economic development dividends have been well documented*