The Dynamics of the US Container Market and Shifting Trade Patterns – Implications for East Coast and Gulf Coast Ports

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Overview of Historical and Current Conditions
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
West Coast ports handle about 45% of containerized imports; 35% moves via the PSW ports, however this share has been declining since 2001.
About 55% of containerized exports move over East and Gulf coast ports, primarily the South Atlantic; About 45% move via the West Coast Ports.
Shocks have occurred in the existing logistics patterns of importers/BCOs and these changes primarily 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 Southern 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
- And more recently…
  - Shifting production centers
  - Economic crisis
All-water services are growing...

Significant growth in distribution centers in Gulf and Atlantic Port Ranges:
  - Norfolk
  - Savannah
  - Houston

Proximity to Southern Asia/India is a positive for Suez Canal routings:
  - 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 on East and Gulf Coasts has responded:
  - Terminal development
  - Rail infrastructure
Impact of Development of All-Water Service
Imported Asian container tonnage in the North Atlantic port range is dominated by PONYNJ.
Savannah has been dominant in terms of imported Asian container tonnage in the South Atlantic, Charleston and Norfolk are also relatively strong.

Source: US Bureau of Census, USA Trade Online
The majority of imported Asian container tonnage in the Gulf Coast port range is handled by Houston.
China has been the source of nearly 40% of imported containerized tonnage into the US, but the growth in share has stabilized since 2006.
Asian supply sources are shifting, favoring a Suez all-water routing; however, China remains the major trade source.

Source: US Bureau of Census, USA Trade Online
Implications on Changing Trade Patterns
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 vessels will be deployed

• Actual 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
  – 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:
  – Channel depth to accommodate larger vessels
  – Berth capacity to handle 1,000+ LOA vessels
  – Crane outreach capability
  – *All require capital investment*

• East and Gulf Coast ports will also need to compete for:
  – Local market
  – Access to discretionary cargo for both truck and rail

• Investment in port infrastructure becomes critical to compete with Caribbean transshipment hubs for development of logistics centers and off-shore distribution
Federal funding is required for deepening projects at East and Gulf Coast ports

<table>
<thead>
<tr>
<th>State</th>
<th>Port</th>
<th>Current Depth</th>
<th>Planned Depth</th>
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<tr>
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<td>Delaware River</td>
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<td>Jacksonville</td>
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<tr>
<td>Florida</td>
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<td>Sabine Naches</td>
<td>40 42</td>
<td>42-48</td>
</tr>
<tr>
<td>Virginia</td>
<td>Norfolk/Hampton Roads</td>
<td>50</td>
<td>55</td>
</tr>
</tbody>
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Once Miami is dredged, they will join New York, Baltimore and Norfolk as the only ports on the USEC to have 50 feet of water.
Infrastructure funding is the critical issue

- Ports have lost funding for system preservation projects, let alone 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
  - *Private sector participation becomes necessary*
Summary
Implications for Trade Lane Shifts

• The factors that have resulted in shifts to all-water services have been occurring since 2002 – significant growth in all-water service depends on logistics costs and production/consumption centers – not simply on the Canal expansion
  – West Coast Shutdown
  – Changes in Logistics Patterns
  – Increased development of DC’s on East and Gulf Coast

• New factors:
  – Growth in trade with India and Vietnam - Suez routing
  – Expansion of the Panama Canal
    • Containers
    • Bulk
      – Grain and Coal from the Gulf
      – Coal from East Coast
  – Implications on ship size – infrastructure needs
  – Growth in transshipment centers
Summary
Implications for Port Ranges

• West Coast Ports experiencing strong rebound
  – Aggressive marketing to Asia – West Coast Port Coalition
  – Stabilization of intermodal rates
  – Potential improvement in terminal productivity and stabilization of environmental charges
  – Rebirth of bulk exports
    • PRB Coal, Grain, Fertilizer, Ore

• East Coast/Gulf Coast ports experiencing aggressive competition for the larger vessels likely to move via the expanded Panama Canal and the Suez Canal
  – Water depth
  – Terminal infrastructure
  – Local and discretionary markets
  – Capital access
  – Public Private Partnerships will increase