How to Manage New Port Developments

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David Taylor
How to Manage New Port Developments in 2009

or

what happened to 20% growth rates and readily available finance?
Typical pattern in last 5 years

- Cargo growth rates have been so rapid, new developments are at capacity almost as soon as they are in operation.
- The challenge evolved into how fast can more capacity be added.
In last 10 years explosion in port developments:
- Valparaiso, San Antonio, Chile
- Callao & Paita, Peru
- Buenaventura/Aguadulce, Colombia
- Balboa, MIT, CCT Panama
- Lazo Cardenas & Manzanillo, Mexico
- Cartagena & Santa Marta, Colombia
- Santos & Santa Catarina, Brazil
- Buenos Aires – Argentina
Next 5 to 10 years

- Punta Colonet, Mexico (US$4bn+)
- Puerto Moin, Costa Rica (US$800m)
- Farfan, Panama (US$600+)
- Embraport, Brazil (US$1Bn)
- Coal terminals, Colombia
- Puerto Brazil, Brazil
- Minerals export, Peru, Chile
- LNG terminals, grain terminals, etc.
### Capacity - Caribbean/Central America

<table>
<thead>
<tr>
<th>Port</th>
<th>Capacity (TEU M)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Existing*</td>
<td>Potential†</td>
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<tr>
<td><strong>Caribbean</strong></td>
<td></td>
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<tr>
<td>MIT, Panama</td>
<td>2.2</td>
<td>4.0</td>
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<tr>
<td>CCT, Panama</td>
<td>0.8</td>
<td>1.3</td>
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<tr>
<td>PPC, Cristobal</td>
<td>0.7</td>
<td>3.5</td>
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<tr>
<td>KCT, Jamaica</td>
<td>1.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Freeport, Bahamas</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Port of Spain, Trinidad</td>
<td>0.6</td>
<td>1.3</td>
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<tr>
<td>Port of the Americas, Puerto Rico</td>
<td>0.7</td>
<td>1.5</td>
</tr>
<tr>
<td>SPRC, Cartagena, Colombia</td>
<td>1.6</td>
<td>3.2</td>
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<tr>
<td><strong>West Coast Central/South America</strong></td>
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<tr>
<td>Balboa, Panama</td>
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<td>4.5</td>
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<tr>
<td>PSA Rodman, Panama</td>
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<td>0.5</td>
</tr>
<tr>
<td>Lazero Cardenas, Mexico</td>
<td>0.6</td>
<td>4.0</td>
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<tr>
<td>Manzanillo, Mexico</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Buenaventura, Colombia</td>
<td>0.9</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>15.8</strong></td>
<td><strong>35.3</strong></td>
</tr>
</tbody>
</table>

*including developments currently in progress
† Estimated
A major infrastructure development takes many years:

- Increasing environmental requirements
- Lengthy permitting times – anywhere from 6 months to 7 years
- Planning and design – between 6 to 18 months
- Construction is typically 18 months to 3 years

Minimum duration for a simple berth is 3 years; for a major new development could easily be 10 years
Demand

- There has been an under investment in infrastructure development in Latin America, thus the demand for new port facilities continues.
- Delivery durations remain the same with the current economic conditions – therefore preliminary stages need to continue progressing to be ready for when growth returns.
- BUT take care as ‘Demand’ does not equal ‘need’; it is a question of economics.
Port Development
Main Stages of Port Development
Economics & Pre-Feasibility

- Market studies – which sectors, what is demand now and over next 20 to 25 years
- Revenue studies – what is the income from the market opportunities
- Planning and conceptual engineering – what are the capital and operating costs

Result:
- IRR – Internal rate of return on investment
First Stage Implementation

- Submit permit applications – environmental studies, municipal, state, federal permits
- Property – confirm ownership, utility ROW’s, land access
- Planning and preliminary engineering – master plan, preliminary designs, capital cost estimates

Goal:
- Procure financing – raise own capital, equity share, concession, public money, bonds, etc.
Second Stage Implementation

- Detailed Engineering – design of civil works, equipment specifications, property acquisition
- Obtain construction permits
- Procurement – request proposals, evaluate and award contracts
- Construction – including delivery and commissioning of equipment, staff training

Goal:
- Operation – handling cargo & generating revenue
What has changed for 2009?

- Access to finance – ability of banks to borrow funds; evaluation of investment returns
- Cargo – sharp falls e.g. around 20% in transpacific volumes, 15% in transatlantic
- Severe drop in commodity prices – e.g. 30% drop in price of iron ore; large falls in oil
- Future economic growth rates – flat or negative growth in many areas for next 2 years, 3 to 5% for next 5 years
Impact on new port development

Downsides

- Need robust growth forecasts, rigorous cost estimates, higher IRR’s
- Delay getting funding for projects

Upsides:

- More time for implementation - opportunity to optimise cashflow and costs
- Government support for infrastructure development to help stimulate economy - permits, funding
- Port has a chance to review and optimise existing operations
A shift in emphasis

- Ensure market forecasts are realistic
- What are the key factors specific to your development
  - Type of cargo – transshipment or gateway?; import or export?
  - Source of demand – locally generated export - e.g. Brazil, Chile – or import – e.g. Venezuela or transshipment and distribution – e.g. Caribbean Basin
  - Impact of other planned developments (e.g. Panama Canal Expansion)
Some key facts:

- Transshipment comprises around 50% of traffic.
- Transshipment has experienced large growth over the last 5 years.
- Gateway traffic (import/export) serves not only Cartagena area but Bogota and Medellin.

Future:

- Panama canal expansion.
- Transshipment comes because of gateway cargo, not vice versa.
Example - Panama

Some key facts:
- Traffic is approximately 90% transshipment
- Huge investments over last 10 years and huge growth (over 30% per year in 2007)
- Further additional capacity planned for both Atlantic and Pacific side

Factors:
- Strategic location
- Panama canal expansion
Santos, Brazil

Key facts:
- Traffic is dominated by gateway
- Traffic serves huge local market of Sao Paulo
- Demand exceeds capacity (significant ship waiting time)

Future:
- Cargo demand depends on local economy
- Permitting process takes minimum 7 years to develop new major port infrastructure
- Legislation for new terminals
Implementation - future

- Environmental issues – increasing legislation and focus on these, e.g. lending agencies and air emissions
- Planning – allow flexibility in future development, e.g. room for logistics, project cargoes, steel
- Operations – increasing use of IT
- Operations – security requirements for containers
- Operations – cost of fuel and environmental considerations
Thank you

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