Public and Private Port Development in Latin America Associated with the Panama Canal Expansion

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1. Port Development in Latin America
2. The Panama Canal Expansion and Main LA Users
3. The Impact of the Canal Expansion
4. LA Port Development Associated with the Canal Expansion
1. **Port Development in Latin America**

- *Reforms for port development:* @ 20 years ago
- *Objective:* Trade Facilitation
- *Basic phases:* Deregulation, Decentralization and Concessions
- *Ports’ new vision:* nodule of the supply chain, value added, multimodal, tourism...
- *Efficiency, competitiveness and security*
Port development has been a success...

- Capital investment: new/enhanced terminals (containers)
- Use of cutting edge technology in operations and purchase of modern cranes and equipment
- Increased and enhanced port cargo and ship services
- Reduced time of ship at port
- Reduction in force labor
- Increase in inputs productivity
- Reduction of tariffs
- Improve productive labor and salaries
- Increase in port efficiency and competitiveness
- Generation of value added
- Contribution to trade facilitation
## Container Throughput (million TEUs)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2007</th>
<th>+%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buenos Aires</td>
<td>1.089</td>
<td>1.600</td>
<td>46.9</td>
</tr>
<tr>
<td>Buenaventura</td>
<td>0.178</td>
<td>0.622x</td>
<td>249.4</td>
</tr>
<tr>
<td>Callao</td>
<td>0.413</td>
<td>1.020</td>
<td>146.9</td>
</tr>
<tr>
<td>Cartagena</td>
<td>0.256</td>
<td>0.711</td>
<td>177.5</td>
</tr>
<tr>
<td>Guayaquil</td>
<td>0.422</td>
<td>0.746x</td>
<td>76.8</td>
</tr>
<tr>
<td>San Antonio</td>
<td>0.455</td>
<td>0.500</td>
<td>9.9</td>
</tr>
<tr>
<td>Santos</td>
<td>0.949</td>
<td>2.550</td>
<td>168.7</td>
</tr>
<tr>
<td>Sepetiva</td>
<td>0.003</td>
<td>0.257</td>
<td>8,466.7</td>
</tr>
<tr>
<td>Valparaiso</td>
<td>0.256</td>
<td>0.808</td>
<td>215.6</td>
</tr>
</tbody>
</table>

X=2006
...but still a ways to go

- Enhanced strategic planning
- Increase investment
- Strengthen national port authority and regional authorities
- Competitiveness to avoid monopolistic situations
- Regulations, tariffs
- Human resources, training
2. The Panama Canal expansion and main LA users

- **In 2007**
  - Traffic: 14,721 ships or 40.3/per day (3.6% + than 2006)
  - Total tons moved: 312.2 millions year (5.3 % + than 2006) or 5% of total world trade
  - Type ships: Containers ships (tankers and ships vehicles) with 3,622 with 128.5 millions of tons, and generated the State $ 646 millions in tolls.
Expansion: Main Work

- Main Tasks: Expand and deepen the current canals, add a third canal, and dredge a deeper route in the Gatun lake (the highest point of the Canal)
- Investment: $5.25 billion
- To be concluded in the year 2014
The Expanded Canal

- Duplicate current capacity going through 600 million tons per year.
- Balboa and Manzanillo terminals already have the depth to handle Post Panamax ships with gantry cranes (19 rows).
- In 2015: 19,700 ships (34% more than in 2007).
- In 2020: 21,000 ships to transit.
### Importance of the Canal for Countries of the Americas (millions of metric tons) 2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Cargo through the canal</th>
<th>Exports</th>
<th>%</th>
<th>Cargo through the canal</th>
<th>Imports</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>0.2</td>
<td>72.6</td>
<td>0.3</td>
<td>0.0</td>
<td>12.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.6</td>
<td>372.9</td>
<td>1.0</td>
<td>0.6</td>
<td>69.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Caribbean</td>
<td>6.8</td>
<td>68.4</td>
<td>9.9</td>
<td>6.9</td>
<td>71.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Central America and Panama</td>
<td>5.5</td>
<td>18.5</td>
<td>29.7</td>
<td>18.1</td>
<td>39.5</td>
<td>45.8</td>
</tr>
<tr>
<td>Chile</td>
<td>13.0</td>
<td>38.0</td>
<td>34.2</td>
<td>6.9</td>
<td>16.3</td>
<td>42.3</td>
</tr>
<tr>
<td>Colombia</td>
<td>4.6</td>
<td>75.5</td>
<td>6.1</td>
<td>5.1</td>
<td>15.5</td>
<td>32.9</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.8</td>
<td>173.4</td>
<td>2.8</td>
<td>6.0</td>
<td>59.0</td>
<td>10.2</td>
</tr>
<tr>
<td>Other countries EC South America</td>
<td>0.1</td>
<td>13.5</td>
<td>0.7</td>
<td>0.0</td>
<td>14.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Ecuador</td>
<td>6.0</td>
<td>31.9</td>
<td>18.8</td>
<td>5.7</td>
<td>6.7</td>
<td>85.1</td>
</tr>
<tr>
<td>Peru</td>
<td>7.2</td>
<td>22.4</td>
<td>32.1</td>
<td>5.7</td>
<td>9.3</td>
<td>61.3</td>
</tr>
<tr>
<td>Venezuela</td>
<td>4.9</td>
<td>323.3</td>
<td>1.5</td>
<td>1.6</td>
<td>13.6</td>
<td>11.8</td>
</tr>
<tr>
<td>Total Cargo of the canal</td>
<td>56.7</td>
<td>563.3</td>
<td>1.5</td>
<td>1.6</td>
<td>13.6</td>
<td>11.8</td>
</tr>
</tbody>
</table>
Main users of the Panama Canal from LA are: Chile, Ecuador, Peru and Colombia.

Other important users are: Japan, Korea, Singapore and USA.
3. The Impact of the Canal Expansion

i. Increase and enhanced capacity

- Use of larger ships: Post Panamax (4.5K/12K TEU)
- Reduce or eliminate congestion
- Reduce transit time
- Increase efficiency with less cost
(ii) Tariffs

- May 2007/2009:
  - Container (teu) 2007: 54.00, 2008: 63.00, 2009: 72.00
  - Granel seco (ton) 2007: 3.08, 2008: 3.37, 2009: 3.59

- It is estimated that tariffs will increase at an average of 3.5% for the next 20 years.
Trade

- Exporters/Importers: The increase in tariffs will be transferred to the importer, exporter which in turn will be transferred to the final user.

Revenue

- The increase in tariffs will bring the State revenue in the following amounts (in US$ million):
  - 2007: $14
  - 2008: $158
  - 2009: $356
4. **Regional Port Development Associated with the Canal Expansion**

LA needs to adapt their port system to meet the challenges of the new maritime pattern:

- Country’s growth of GDP and trade expansion trend (containers)
- Integration schemes
- Maritime industry developments
- Panama Canal expansion
- Adjusted by current world crisis
### Selected Countries: GDP and Trade

( in % and US $ billions, all for 2006 )

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP(%)</th>
<th>X</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>8.5</td>
<td>33.9</td>
<td>23.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.7</td>
<td>127.5</td>
<td>96.8</td>
</tr>
<tr>
<td>Chile</td>
<td>4.0</td>
<td>58.1</td>
<td>38.4</td>
</tr>
<tr>
<td>Colombia</td>
<td>6.8</td>
<td>23.9</td>
<td>22.4</td>
</tr>
<tr>
<td>Ecuador</td>
<td>3.9</td>
<td>12.7</td>
<td>12.1</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.8</td>
<td>250.3</td>
<td>256.1</td>
</tr>
<tr>
<td>Peru</td>
<td>8.0</td>
<td>24.2</td>
<td>14.2</td>
</tr>
</tbody>
</table>

- GDP = rate of growth of Gross Domestic Product, X = exports, M = imports
Integration schemes

- Bilateral agreements (i) developed countries/regions:
  USA, European Union, Japan (ii) developing countries:
  China, India, Mexico, Israel, Chile

- Regional agreements: CARICOM, Central American Common Market, Mercosur, Andean Agreement.
World Trade

- (+) Total 2006: $11,783 billion/ 6.2 b. tons
- (+) China, India effect
- (+) WTO’s Doha Round: agriculture and textiles
- (-) Current world crisis: recession, oil prices, inflation
Maritime Industry Developments

- Type: Container ships. Growing at 18% p.a. ships larger than 4K teu. Also: ref., vehicles, tankers
- Size: Mega ships (Maersk 12,000 teu)
- Horizontal integration (Mergers): Hapag-CP Ships, NYK-Ceres Paragon,
- Vertical integration: with the Global Port Operators: DPW with P&O
Brazil

- In 2006 through the Canal: 1.0% exports & 0.9% imports
- Largest economy in S.A. (GDP 3.7 %/2006)
- Total exports: $137.5 b., imports:$95.9 b.
- Main international ports: Santos, Sepetiva, Suape, Paranaguá, Rio de Janeiro, Itajaí, among others
Brazil: ports

- Government recent actions:
  - Creation of the Secretariat for Ports: bring private investment
  - Accelerated Growth Program (PAC): Invest $238 billion, 2007-2010, to achieve a growth rate of GDP 5% p. y.
  - Financed: State funds $32 b., (13%); Mixed State Firms (Petrobrás) $103.4 b. (44%); private $102.6 b. (43%).
  - Components: Energy: $129.8 b., Infrastructure: $80.6 b., Logistics: $27.6 b. (includes: ports, roads, railways, waterways, airports)
Main port in the country and in LA

Containers handled by several terminals

*Santos* – *Brazil SA (SBSA)* on the left bank is the biggest and largest in Brazil. In 2007, 1.250 m. teus (11% +)

Recently purchased: New equipment (22 RTG), plus 3 super post Panamax cranes (due in 1/2009).

Extension: 220 m berth and 120,000 sm. of the yard

Port of Santos: current 13m depth to be expanded to 15m. 2 roads, rail access
In 2006 Canal: 34.3% exports & 42.2% imports. More than 1/3 of its trade goes through the Canal.

Panama Canal very important for Chile

Chile fourth world user of the Canal and main user in LA.

Total exports: $58.1 b imports: $38.4 b

Main ports: San Antonio, Valparaíso, San Vicente, Talcahuano, among others.
Port of San Antonio

- Containers: 2000= 455.6 K to 2006=673.0 K, 2007=500.0 K teu (departure of shipping lines MSC, NYK due to lower tariff) Most handled by Molo Sur terminal operated by San Antonio Terminal International (STI).

- Recently finishes extension of the berth - to 769 m - for larger Panamax vessels, and doubling throughput up to 800 K teu.

- Terminal equipped with 4 quay cranes, and important supporting equipment (RTG, reachstakers, top lifters, etc.).

- Investment 2009+: $ 700 m. port improvements for duplicating port capacity in next 20 years, handling 6 m. teu/y. including a $500 m. new container terminal.
Port of Valparaiso

- Containers: 2000 = 256.4 K, 2006 = 614.80 K, 2007 = 808.5 K teu, most handled by Terminal Pacifico Sur Valparaiso (TPS)
- Expect 11% increase for 2008 @ 900K teu
- Use 8 RTC and 4 more this year
- Implemented the first Intelligent Gate System, includes
  - Reads, identify truck license plates
  - Type and number on containers arriving/leaving the terminal
  - Registers conditions of the container (photo)
  - Each gate has a dynamic scale that registers container’s weight
  - Provides truckers and crane drivers with immediate and real time instructions for their next task.
  - Has cut actual gate transaction time by at least 75%
- ZEAL Logistic zone of 20 ha.
- New port and terminal access road that allows trucks to bypass the city and drive directly to the terminal gate
In 2006, through the Canal: 19% of exports & 86% of imports

Total exports: $12.7 b, imports: $12.1b.

The Canal is of most importance to its trade

4 main international ports: Guayaquil, Manta, Puerto Bolivar and Esmeraldas
Guayaquil Port

- In 2000: 422,170 teu - 2006: 746,00 teu. (76.8%).

- Port terminals and multipurpose have been given on concession to be operated to Concesionaria de Contenedores Guayaquil S.A. (CONTECON), Ecuadorian firm created with the International Containers Terminal and Service (ICTSI), from the Philippines.

- APG income $8.4 m. p.y. fix renting fee, $10.4 per teu, and $0.5 per ton of general cargo.

- 2006. Port income: $35 m. Net profit: $15 m.

- Progress on concession: Purchase of 7 gantry cranes and enrolling 100 qualified personnel to manage and operate the port.
Port of Manta

- Concessioned to Hutchinson Port Holding, concession to construct and operate the Terminal Internacional Del Ecuador (TIDE).
- Investment: $468 m. infrastructure and superinfrastructure operations, and $55 m. from the government for basic port infrastructure.
- 1,250 m. long, 16 m. depth, and 63 hectares.
In 2006, through the Canal, 6% of exports & 33% of imports.

Total exports: $23.9 b, imports: $22.5b.

Main international ports: Buenaventura (P), and in the (A) Cartagena, Barranquilla and Santa Marta.
Port of Buenaventura

- Containers, 2000: 178.6 K up 2006: 622.2 K teu

- Investment: equipment, increase productivity, January 08, purchased: two gantry cranes and ten cranes RTG ($38 millions)

- Dredging: investment plan for $ 450 million, expected to cover half of it by 2015.

- Container movements up to 25/30

- Total current equipment including purchase 4 gantry cranes and 16 RTG
Port of Cartagena

- Containers 2000: 256.2 K up 2006: 711.5 K teu
- Cartagena is the main container port in Colombia, and investment is oriented to strengthened position as transshipment port
- Invest: $300 m. 2007/08 increase productivity and enhanced infrastructure
  - Dredging 15 m. depth for 8K teu ships
  - Expectation: 2.5 m. teu/y
In 2006, Canal, 32% of exports & 62% of its imports

The Canal is of importance to the economy

Main port Callao, other ports: Paita, Ilo, San Martin
Port of Callao and DPW

- Largest port, with 9 piers. 2007: Moved 79% country’s entire cargo, and 1 m. + teu (87% of Peru containers)

- June 2006, DPW, 30 year concession to design, construct, finance, operate, administer and maintain a new container terminal on the South Quay (Muelle Sur-Callao)

- Total investment $ 617.1 million

- New terminal: Continuous 650 m. berth with depth of 14m. Six gantry cranes, 10 RTGs, 24 terminal tractors & 2 reach stackers. 750,000 teu capacity. In the long run: 960 m. with 3 gantry cranes, 22 RGT and 30 terminal tractors more will boost capacity to 1.25 m. teu

- Tariffs: $90 for 20 and $135 for 40

- Dubai Ports World (DPW), ex-P&O, operates 42 terminals in 22 countries, including Caucedo (DR), Buenos Aires (Argentina), Cartagena (Colombia) and Callao (Peru).
The other public berths are government operated by ENAPU, recent investment: 2 gantry cranes and 2 RTG.

Pier 5: operated by ENAPU, advised by Hamburg Port Consulting for modernization. A proposal was presented to the government, and if approved, purchased: 6 gantry cranes and 17 harbor cranes that will increase productivity from 13 to 100 containers per hour.
North of Lima, @ 995 km., is the second container port of Peru. It currently has a single 365 m. pier, with two berths of 265m., 9.75 m depth, and two berths of 100m. with 6m. depth. Container cargo boost by an average 59% in 2003 and 2007 to 109.128 teu. Estimated concession for $ 128 million, 30 years, for 1 pier 300m, depth 13m., 12 ha. container area, 2 gantry cranes, 4 RTG. Moving in 2020 @ 500K Teu.