Update on the Panama Canal Expansion

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EVP, Planning and Business Development

AAPA
January 24, 2013
Agenda

- Canal Traffic Update
- Panama Canal Expansion Update (video)
- Macro and Micro Drivers
- Potential Impact of the Expansion
- Canal New Business Development
## Principal Users of the Panama Canal
### FY 2011 and FY 2012

<table>
<thead>
<tr>
<th>USERS</th>
<th>FY 2011*</th>
<th>FY 2012*</th>
<th>FY2012 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>144.4</td>
<td>141.9</td>
<td>65</td>
</tr>
<tr>
<td>China</td>
<td>53.1</td>
<td>52.7</td>
<td>24</td>
</tr>
<tr>
<td>Chile</td>
<td>28.9</td>
<td>28.0</td>
<td>13</td>
</tr>
<tr>
<td>Japan</td>
<td>22.6</td>
<td>22.4</td>
<td>10</td>
</tr>
<tr>
<td>European Union</td>
<td>24.2</td>
<td>17.5</td>
<td>9</td>
</tr>
<tr>
<td>South Korea</td>
<td>19.1</td>
<td>17.0</td>
<td>8</td>
</tr>
<tr>
<td>Colombia</td>
<td>14.6</td>
<td>14.9</td>
<td>7</td>
</tr>
</tbody>
</table>

*In Million long tons*
Principal Trade Routes – FY 2012

Total: 218.1 M Long Tons

East coast U.S. - Asia 84.3M
West coast S. America - East coast U.S. 27.6M
West coast S. America - Europe 14.4M
West coast U.S. – Europe 9.7M
West Coast C. America – East coast U.S. 12.2M
Relative Importance of the Canal on the International Seaborne Trade of Selected Countries

Source: ACP with information of IHS, Oct 2012
PCUMS '97 Tonnage (Million Tons)

Container: 135.0 (36%) in 2012, 113.7 (35%) in 2011, 104.6 (35%) in 2010.

Dry Bulk: 72.6 (25%) in 2012, 80.0 (25%) in 2011, 83.4 (24%) in 2010.

Tankers: 51.7 (15%) in 2012, 49.0 (15%) in 2011, 46.6 (15%) in 2010.

Vehicle Carriers: 34.7 (11%) in 2012, 33.0 (11%) in 2011, 37.7 (11%) in 2010.

Refrigerated: 14.6 (5%) in 2012, 12.8 (4%) in 2011, 10.2 (3%) in 2010.

Passengers: 10.3 (3%) in 2012, 10.9 (3%) in 2011, 9.1 (3%) in 2010.

General Cargo: 9.2 (3%) in 2012, 9.2 (3%) in 2011, 7.8 (3%) in 2010.

Others: 11.3 (4%) in 2012, 11.8 (4%) in 2011, 12.6 (4%) in 2010.
6.5 million TEU, 18.5%
Port Development in Panama

1996: 235K TEUs
2010: 5.6M TEUs
2011: 6.5M TEUs
2015: 8.4M TEUs
2020: 12.4M TEUs

Panama Ports Company – Cristobal

Colon Container Terminal

Manzanillo International Terminal (MIT)

Panama Ports Company - Balboa

PSA
### Inventory of Gantry Cranes - Panama

<table>
<thead>
<tr>
<th></th>
<th>Panamax</th>
<th>PPmax*</th>
<th>SPPmax**</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPC-Balboa</td>
<td>8</td>
<td>10</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>PPC-CRI</td>
<td>6</td>
<td>5</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>CCT</td>
<td>5</td>
<td>5</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>MIT</td>
<td>2</td>
<td>6</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>PSA</td>
<td>3</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>26</strong></td>
<td><strong>15</strong></td>
<td><strong>65</strong></td>
</tr>
</tbody>
</table>

Source: Panamanian Ports, September 2012.

* PPmax=PosPanamax
** SPPmax=SuperPosPanamax
Agenda

- Canal Traffic Update
- Panama Canal Expansion Update (video)
Canal Expansion Program Components

- Deepening of Pacific and Atlantic entrance channels
- Deepening and widening of the Gatun Lake navigation channel
- Construction of new access channel for Pacific Locks
- Construction of new Post Panamax Locks and water saving basins in the Atlantic and the Pacific
- Increase the maximum operating level of Gatun Lake
NEW LOCKS
Agenda

- Canal Traffic Update
- Panama Canal Expansion Update (video)
- Macro and Micro Drivers
Macro Fundamentals:
• Population growth and demographics
• Slow economic growth – developed countries
• Globalization and faster growth of developing countries

Microeconomic Paradigms and Trends:
• Volatility in fuel costs and charter rates
• Environmental pressures to reduce emissions
• Increase in logistics costs
• Supply chain: key differentiator
• Risk management: diversification/ flexibility
• Improve Service: flexibility, reliability
• Strong move to E-Commerce: Explosion of Multimodal Transport (sea-air-surface)
Maritime Industry Response:

- Bigger and More Efficient Ships
- Better Use of Technology in Ship Management
- Improve Vessel Utilization / Asset Management
- R & D: Use of Cleaner Fuels (LNG)
- Improvements to Port Infrastructure and Suprastructure
- Growth in Transshipment
- Improved Connectivity (Rail/Road)
- Better Tracking / Controls
Agenda

- Canal Traffic Update
- Panama Canal Expansion Update (video)
- Macro and Micro Drivers
- Potential Impact of the Expansion
Maximum size of vessels in existing Locks: **4,400 TEU**

Maximum size of vessels in new Locks: **13,200 TEU**
• **Main Dimension**
  - LOA x B x D: 366.0 x 48.2 x 29.8 m
  - Draft at Td/Ts: 14.0 m / 15.5 m

• **Ship’s Capacity**
  - Deadweight at Ts: 143,500 Ton
  - Container Capacity: 13,200 TEU

• **Main Engine & Speed**
  - Max. Power: 54,200 kW x 77 RPM
  - Service Speed: 23.5 kts

• **Complement**
  - Crew: 30P + Suez 6P

• **Navigation & Communication**
  - 1-INS / 2-Radar Plant
  - 2-DGPS
  - 1-Auto Pilot / 2-Gyro compass
# Container – Main Dimension Study

## Matrix of Ship’s Length & Beam

<table>
<thead>
<tr>
<th>LOA</th>
<th>277m</th>
<th>285m</th>
<th>300m</th>
<th>316m</th>
<th>334m</th>
<th>350m</th>
<th>366m</th>
<th>383m</th>
<th>399m</th>
<th>414m</th>
<th>430m</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 m</td>
<td>5,800 TEU</td>
<td>6,300 TEU</td>
<td>6,800 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42.8 m</td>
<td>6,900 TEU</td>
<td>7,400 TEU</td>
<td>8,000 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45.6 m</td>
<td>8,100 TEU</td>
<td>8,550 TEU</td>
<td>9,200 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48.2 m</td>
<td></td>
<td>11,400 TEU</td>
<td>12,200 TEU</td>
<td>13,000 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.2 m</td>
<td></td>
<td></td>
<td>13,200 TEU</td>
<td>14,000 TEU</td>
<td>14,700 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54.0 m</td>
<td></td>
<td></td>
<td></td>
<td>14,400 TEU</td>
<td>15,200 TEU</td>
<td>16,000 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56.5 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17,000 TEU</td>
<td>18,000 TEU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58.0 m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18,000 TEU</td>
<td>19,000 TEU</td>
<td>20,000 TEU</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CONTAINER – 14,000 TEU

- **Main Dimension**
  - LOA x B x D: 366.0 x 51.2 x 29.9 m
  - Draft at Td / Ts: 14.5 m / 15.5 m

- **Ship’s Capacity**
  - Deadweight at Ts: 154,000 Ton
  - Container Capacity: 14,100 TEU

- **Main Engine & Speed**
  - Max. Power: 72,240 kW x 104 RPM
  - Service Speed: 24.2 kts

- **Complement**
  - Crew 31P + Suez 6P

- **Navigation & Communication**
  - 1-INS / 2-Radar Plant
  - 2-DGPS
  - 1-Auto Pilot / 2-Gyro compass
Size matters - but efficiency is important too!

<table>
<thead>
<tr>
<th>Container Vessel Type</th>
<th>Daewoo 14000 built 2010/2011</th>
<th>Hyundai 13800 2013/2014</th>
<th>9600 Class 2013/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>365,50 m</td>
<td>368,00 m</td>
<td>332,00 m</td>
</tr>
<tr>
<td>Beam</td>
<td>51,20 m</td>
<td>51,00 m</td>
<td>48,20 m</td>
</tr>
<tr>
<td>Draught</td>
<td>14,00 m</td>
<td>14,50 m</td>
<td>14,00 m</td>
</tr>
<tr>
<td>DWT</td>
<td>165.300 mt</td>
<td>152.300 mt</td>
<td>123.500 mt</td>
</tr>
<tr>
<td>Main Engine</td>
<td>MAN B&amp;W</td>
<td>MAN B&amp;W</td>
<td>MAN B&amp;W</td>
</tr>
<tr>
<td>Output</td>
<td>72,000 kW</td>
<td>53,000 kW</td>
<td>40,500 kW</td>
</tr>
<tr>
<td>Container capacity @ 14 tons hom.</td>
<td>14,000 teus</td>
<td>13,800 teus</td>
<td>9600 teus</td>
</tr>
<tr>
<td></td>
<td>10,650 teus</td>
<td>10,250 teus</td>
<td>7950 teus</td>
</tr>
<tr>
<td>Bunker consumption (18 kts)</td>
<td>152 mt IFO/Day</td>
<td>101 mt IFO/day</td>
<td>83 mt IFO/Day</td>
</tr>
<tr>
<td>Consumption per nm per ton dwt</td>
<td>2,37 g IFO</td>
<td>1,62 g IFO</td>
<td>1,75 g IFO</td>
</tr>
</tbody>
</table>
Fleet Capacity and Vessel Size Composition

Containership Fleet 2000
(4.79 million TEU)

- P.Pmax 15.5%
- Pmax or less 84.5%

Containership Fleet 2012
(16.2 million TEU)

- 50.0% Total P.Pmax
- 37.3%
- Pmax or less 50.0%

Containership Fleet 2016
(19.7 million TEU)

- 57.3% Total P.Pmax
- 18.8%
- 42.7% Pmax or less

371 Panamax vessels
134 Post Panamax vessels

949 Panamax vessels
1,048 Post Panamax vessels

974 Panamax vessels
1,397 Post Panamax vessels

Source: Clarkson’s Research Studies-December 2012
Canal Forecast (Estimated TEU Distribution) by Beam Range
FY2013 - FY2030

Source: Container Market Segment and Transshipment Study, October 2012, ACP/M&N.
Canal Forecast (Estimated Transit Distribution) by Beam Range FY2013 - FY2030

Source: Container Market Segment and Transshipment Study, October 2012, ACP/M&N.
It is all about economies of scale, improving efficiency, productivity, and profitability

Operational Efficiency
Fuel Efficiency
Improve Vessel Utilization
Competitiveness
Environmental Sustainability
Value of Ships - Charter Rates
Ripple Effects and Other Factors

Ports: Ready/not Ready
Adequate Rail/Road Connections
Land Value: Adjacent to Ports
Transshipment (Caribbean Triangle)
Logistics/Supply Chain (Near Sourcing)
The Panama Canal: Market Segment Analysis and Pricing Structure

Full Containers
### Full Container Vessels

#### Cost per TEU (Asia – U.S. East Coast)

**Headhaul and Backhaul - FY2015**

**Increasing Vessel Utilization Scenario**

<table>
<thead>
<tr>
<th>Vessel Size</th>
<th>Vessel Utilization</th>
<th>Fuel</th>
<th>Charter Rate</th>
<th>Ports</th>
<th>Canal</th>
<th>Cargo Handling</th>
<th>Total Cost Per TEU Loaded</th>
<th>Canal Cost Impact (%)</th>
<th>Savings due to Economies of Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500</td>
<td>75%</td>
<td>356.76</td>
<td>325.82</td>
<td>52.75</td>
<td>129.25</td>
<td>480.66</td>
<td>1,345.25</td>
<td>10%</td>
<td>-125.79</td>
</tr>
<tr>
<td>6000</td>
<td>80%</td>
<td>310.00</td>
<td>228.56</td>
<td>45.23</td>
<td>124.96</td>
<td>510.70</td>
<td>1,219.46</td>
<td>10%</td>
<td>-265.63</td>
</tr>
<tr>
<td>8000</td>
<td>85%</td>
<td>267.82</td>
<td>179.04</td>
<td>39.61</td>
<td>112.50</td>
<td>480.66</td>
<td>1,079.62</td>
<td>10%</td>
<td>-333.13</td>
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<tr>
<td>10000</td>
<td>90%</td>
<td>212.20</td>
<td>179.73</td>
<td>35.73</td>
<td>103.80</td>
<td>480.66</td>
<td>1,012.12</td>
<td>10%</td>
<td>-362.95</td>
</tr>
<tr>
<td>12000</td>
<td>90%</td>
<td>203.54</td>
<td>162.08</td>
<td>34.62</td>
<td>101.39</td>
<td>480.66</td>
<td>982.30</td>
<td>10%</td>
<td>-362.95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vessel Size</th>
<th>Vessel Utilization</th>
<th>Fuel</th>
<th>Charter Rate</th>
<th>Ports</th>
<th>Canal</th>
<th>Cargo Handling</th>
<th>Total Cost Per TEU Loaded</th>
<th>Canal Cost Impact (%)</th>
<th>Savings due to Economies of Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500</td>
<td>35%</td>
<td>612.23</td>
<td>558.91</td>
<td>70.15</td>
<td>267.81</td>
<td>401.38</td>
<td>1,910.49</td>
<td>14%</td>
<td>-352.33</td>
</tr>
<tr>
<td>6000</td>
<td>40%</td>
<td>497.88</td>
<td>362.10</td>
<td>55.87</td>
<td>240.93</td>
<td>401.38</td>
<td>1,558.16</td>
<td>15%</td>
<td>-580.39</td>
</tr>
<tr>
<td>8000</td>
<td>45%</td>
<td>408.17</td>
<td>269.16</td>
<td>46.01</td>
<td>205.38</td>
<td>401.38</td>
<td>1,330.10</td>
<td>15%</td>
<td>-723.57</td>
</tr>
<tr>
<td>10000</td>
<td>50%</td>
<td>308.35</td>
<td>257.30</td>
<td>39.44</td>
<td>180.44</td>
<td>401.38</td>
<td>1,186.92</td>
<td>15%</td>
<td>-769.41</td>
</tr>
<tr>
<td>12000</td>
<td>50%</td>
<td>293.91</td>
<td>231.55</td>
<td>38.13</td>
<td>176.10</td>
<td>401.38</td>
<td>1,141.08</td>
<td>15%</td>
<td>-769.41</td>
</tr>
</tbody>
</table>

Assumptions for FY2015:

Panama Canal tolls based on $74/TEU capacity and $8/TEU loaded
Impact of Expansion on Container Services (Lines Perspective)

- Cost Based on:
  - 4000 TEU Vessel
  - Canal Tolls proposal January 2011
  - $467/MT Bunker (HFO)
  - Actual Charter Rate

- Cost Based on:
  - 8000 TEU Vessel
  - Canal Tolls proposal January 2011
  - $467/MT Bunker (HFO)
  - Actual Charter Rate
International Ports Connected through the Panama Canal every Week

Feeder services

Transit the Canal
LONG DISTANCE & HIGH DENSITY: LARGE VEHICLE
SHORT DISTANCE & LOW DENSITY: SMALL VEHICLE

Network Economies
TEU Movement and Regional Hinterlands

Source: Jean-Paul Rodrigue, PHD
Growth in TEU Movement

Source: Jean-Paul Rodrigue, PHD
Transshipment volumes, 2007-2009

Source: Jean-Paul Rodrigue, PHD
Latin America By The Numbers

• 59% of retailers said their supply chains include distribution to and from Latin America

• 25% currently have retail operations in Latin America

• 30% currently have distribution operations in Latin America

• 58% consider entering or expanding Latin American operations in the next five years

Source: Casey Chroust, RILA Survey
Goods Movement Transformation

“It’s all about speed to market, so there’s a great focus on how we eliminate dwell time.”

-Respondent, RILA 2012 State of Retail Supply Chain Study

89% of RILA Logistics Executives said the canal expansion has value for their worldwide supply chain

Source: Case y Chroust, RILA Survey
The Impact of Canal Expansion on Dry Bulks

1. The USG-Asia grain trade will become more competitive through the use of larger vessels.

2. Potential for increased trade of coal to Asia/China.
Potential Post Panamax Trade
US Grain Exports

Grains: US Gulf – China

Panama: 10,069 nm
Cape of Good Hope: 15,353 nm

Savings 5,284 nm, 14 knots, 16 days less

95K DWT
Mini Capesize
Potential Impact of the Expansion
Soybeans

Soybeans: East Coast of South America - China

Panama: 11,597 nm
Cape of Good Hope: 13,109 nm

Savings 1,512 nm, 14 knots, 4.5 days less

55K DWT
Handymax
Potential Post Panamax Trade
Coal

- US East Coast – China
- Panama: 10,389 nm
- Cape of Good Hope: 14,688 nm
- Savings 4,299 nm, 14 knots, 13 days less

180K DWT Capesize
Potential Post Panamax Trade Coal

Coal: East Coast South America - China

Panama: 8,975 nm
Cape of Good Hope: 13,972 nm

Savings 4,997 nm, 14 knots, 15 days less.
Potential Impact of the Expansion
Iron Ore

Iron Ore: East Coast South America - China
Panama: 10,931 nm
Cape of Good Hope: 12,234 nm
Savings 1,303 nm, a 14 knots, 4 days less
The Impact of Canal Expansion on Liquid Bulks

1. Canal expansion will make Ecuador – USG crude shipments more competitive vs alternative sources.

2. The expanded Canal will be the first route choice for LNG trades between Trinidad-Chile and Peru-USG and for Shale Gas exports coming out of the U.S. destined to Asia.
Potential Post Panamax Trade
Crude Oil

Crude oil: Ecuador – US Gulf

Panama: 2,047 nm
Magellan Strait: 10,972 nm

Savings 8,925 nm, 15 knots, 26 days less
Potential Post Panamax Trade LNG

LNG: Trinidad & Tobago – Quintero, Chile

Panama: 3,782 nm
Magellan Strait: 6,750 nm

Savings 2968 nm, 19.5 knots, 6.3 days

Cargo capacity: 145,000 m³
Potential Post Panamax Trade

LNG: Peru – Spain

Panama: 5,839 nm
Magellan Strait: 9,579 nm

Savings 3,740 nm, 19.5 knots, 8 days less

Cargo Capacity: 137,100 m³
Potential Post Panamax Trade LNG

LNG: US Gulf – Japan

Panama: 9,214 nm
Suez: 14,570 nm

Savings 5,356 nm, 19.5 knots 11.4 days less

Cargo Capacity: 137,100 m³
Agenda

- Canal Traffic Update
- Panama Canal Expansion Update (video)
- Macro and Micro Drivers
- Potential Impact of the Expansion
- Canal New Business Development
Panama: The transportation and logistics hub of the Americas
Supply Chain - VAS
Coordinate Procurement,
Delivery, After-Sales Service,
Distributed Production and
Linking Sales with Production

Modern Logistics - IT
Order Processing, Inventory Management, Transloading,
Distribution Networks, Reverse Logistics, Customization

Traditional Logistics - Physical
Transport, Consolidation, Storage, Forwarding, Clearance, Transshipment, Packaging
<table>
<thead>
<tr>
<th>Rank</th>
<th>Port</th>
<th>Country</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Colón (MIT, Evergreen, Panama Port)</td>
<td>Panama</td>
<td>2,210,720</td>
<td>2,810,657</td>
<td>3,371,714</td>
<td>20.00</td>
</tr>
<tr>
<td>2</td>
<td>Balboa</td>
<td>Panama</td>
<td>2,011,778</td>
<td>2,758,506</td>
<td>3,232,265</td>
<td>17.20</td>
</tr>
<tr>
<td>3</td>
<td>Santos</td>
<td>Brazil</td>
<td>2,255,862</td>
<td>2,715,568</td>
<td>2,985,922</td>
<td>10.00</td>
</tr>
<tr>
<td>4</td>
<td>Cartagena (inc. S.P.R, El Bosque, Contecar,ZP)</td>
<td>Colombia</td>
<td>1,237,873</td>
<td>1,581,401</td>
<td>1,853,342</td>
<td>17.20</td>
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<tr>
<td>5</td>
<td>Buenos Aires (inc. Exolgan)</td>
<td>Argentina</td>
<td>1,412,462</td>
<td>1,730,831</td>
<td>1,851,687</td>
<td>7.00</td>
</tr>
<tr>
<td>6</td>
<td>Manzanillo</td>
<td>Mexico</td>
<td>1,110,356</td>
<td>1,511,378</td>
<td>1,762,508</td>
<td>16.60</td>
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<td>Kingston</td>
<td>Jamaica</td>
<td>1,728,042</td>
<td>1,891,770</td>
<td>1,756,832</td>
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<tr>
<td>8</td>
<td>Callao (inc. DPW/ APM)</td>
<td>Peru</td>
<td>1,089,838</td>
<td>1,346,186</td>
<td>1,616,165</td>
<td>20.10</td>
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<td>Guayaquil</td>
<td>Ecuador</td>
<td>884,100</td>
<td>1,123,098</td>
<td>1,405,762</td>
<td>25.2</td>
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<td>10</td>
<td>Freeport</td>
<td>Bahamas</td>
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<td>1,125,000</td>
<td>1,116,272</td>
<td>-0.80</td>
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<td>11</td>
<td>Itajai (inc. Navegantes)</td>
<td>Brazil</td>
<td>593,359</td>
<td>957,130</td>
<td>983,985</td>
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<td>12</td>
<td>Valparaiso</td>
<td>Chile</td>
<td>677,432</td>
<td>878,787</td>
<td>973,012</td>
<td>10.70</td>
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<td>13</td>
<td>Caucedo</td>
<td>Dominican Republic</td>
<td>906,279</td>
<td>1,004,901</td>
<td>960,000</td>
<td>-4.50</td>
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<td>14</td>
<td>Lazaro Cárdenas</td>
<td>Mexico</td>
<td>591,467</td>
<td>796,023</td>
<td>953,497</td>
<td>19.80</td>
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<td>15</td>
<td>San Antonio</td>
<td>Chile</td>
<td>729,033</td>
<td>870,719</td>
<td>928,432</td>
<td>6.60</td>
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<td>16</td>
<td>Limón-Moin</td>
<td>Costa Rica</td>
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<td>858,176</td>
<td>901,330</td>
<td>5.00</td>
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<td>17</td>
<td>Montevideo</td>
<td>Uruguay</td>
<td>588,410</td>
<td>671,952</td>
<td>861,164</td>
<td>28.20</td>
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<tr>
<td>18</td>
<td>Buenaventura (inc. SPR, TCBUEN and ZP)</td>
<td>Colombia</td>
<td>647,323</td>
<td>662,821</td>
<td>748,305</td>
<td>12.90</td>
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<tr>
<td>19</td>
<td>Veracruz</td>
<td>Mexico</td>
<td>564,315</td>
<td>662,537</td>
<td>732,538</td>
<td>10.60</td>
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</tbody>
</table>

**Source:** Gabriel Pérez Salas, Infrastructure Services Unit, Natural Resources and Infrastructure Division (NRID), ECLAC, United Nations, 2012.

**Note:** The ranking is prepared using public information or data provided by ports themselves or national organizations to ECLAC. The most up-to-date version of this ranking is available on line at: [http://www.ECLAC.org/id.asp?id=45897](http://www.ECLAC.org/id.asp?id=45897).

a Estimate.

b Provisional.
## Panama and the World rank

### Quality of port infrastructure
1. Netherlands
2. Singapore
3. Hong Kong
4. **Panama**
5. UAE
6. Belgium
7. Finland
8. Iceland
9. Germany
10. Bahrain
11. Sweden
12. United Kingdom
13. Denmark
14. Spain
15. Malta

**Well developed and efficient by international standards**

### Affordability of financial services
1. Hong Kong
2. **Panama**
3. Luxembourg
4. Taiwan, China
5. Singapore
6. Qatar
7. Bahrain
8. Switzerland
9. Finland
10. Norway
11. Malaysia
12. Puerto Rico
13. United States
14. Saudi Arabia
15. United Kingdom

**Ensure the provision of financial services at affordable prices**

### Soundness of banks
1. Canada
2. South Africa
3. New Zealand
4. **Panama**
5. Australia
6. Finland
7. Hong Kong
8. Singapore
9. Norway
10. Barbados
11. Chile
12. Lebanon
13. Malta
14. Brazil
15. Mauritius

**Generally healthy with sound balance sheets**

### FDI and technology transfer
1. Ireland
2. Qatar
3. **Panama**
4. Singapore
5. Costa Rica
6. UAE
7. Luxembourg
8. Saudi Arabia
9. Slovak Republic
10. Hong Kong
11. Bahrain
12. Hungary
13. Uruguay
14. Israel
15. Mexico

**Foreign direct investment (FDI) bring new technology**

### Business impact of rules on FDI
1. Ireland
2. Singapore
3. Bahrain
4. Hong Kong
5. **Panama**
6. Luxembourg
7. Uruguay
8. Slovak Republic
9. Mauritius
10. Malaysia
11. Taiwan, China
12. Chile
13. United Kingdom
14. UAE
15. Estonia

**Rules governing foreign direct investment (FD)**
Hub of the Americas
PANAMA

64 destinations in 29 countries

- Flights operated by Copa Airlines.
- Flights operated by Copa Airlines Colombia.

Connected, everything is possible

Copa Airlines
A STAR ALLIANCE MEMBER
## All Destinations

### North America
- Cancun, Mexico
- Chicago, USA
- Guadalajara, Mexico
- Las Vegas, USA
- Los Angeles, USA
- Mexico DF, Mexico
- Miami, USA
- Monterrey, Mexico
- New York, USA
- Orlando, USA
- Toronto, Canada
- Washington, USA

### Central America
- Guatemala City, Guatemala
- Liberia, Costa Rica
- Managua, Nicaragua
- Panama City, Panama
- San Jose, Costa Rica
- San Pedro Sula, Honduras
- San Salvador, El Salvador
- Tegucigalpa, Honduras

### South America
- Asuncion, Paraguay
- Barranquilla, Colombia
- Belo Horizonte, Brazil
- Bogota, Colombia
- Brasilia, Brazil
- Bucaramanga, Colombia
- Buenos Aires, Argentina
- Cali, Colombia
- Caracas, Venezuela
- Cartagena, Colombia
- Cordoba, Argentina
- Cucuta, Colombia
- Guayaquil, Ecuador
- Iquitos, Peru
- Leticia, Colombia
- Lima, Peru
- Manaus, Brazil
- Maracaibo, Venezuela
- Medellin, Colombia
- Montevideo, Uruguay
- Pereira, Colombia
- Porto Alegre, Brazil
- Quito, Ecuador
- Recife, Brazil
- Rio de Janeiro, Brazil
- San Andres, Colombia
- Santa Cruz, Bolivia
- Santa Marta, Colombia
- Santiago, Chile
- Sao Paulo, Brazil
- Valencia, Venezuela

### Caribbean
- Curaçao, Netherlands Antilles
- Havana, Cuba
- Kingston, Jamaica
- Montego Bay, Jamaica
- Nassau, Bahamas
- Oranjestad, Aruba
- Port au Prince, Haiti
- Port of Spain, Trinidad & Tobago
- Punta Cana, Dominican Republic
- San Juan, Puerto Rico
- Santiago de los Caballeros, Dominican Republic
- Santo Domingo, Dominican Republic
- St Maarten, Netherlands Antilles
Air

Sea – 18 knots

Origin port: Balboa - Panama
2:30 hrs (a)
2.0 days (s)

3:35 hrs (a)
3.3 days (s)

6:23 hrs (a)
6.4 days (s)

1:30 hrs (a)
0.9 days (s)

2:20 hrs (a)
2.0 days (s)

7:12 hrs (a)
10.9 days – Santos (s)
6.8 days – Fortaleza (s)

7:15 hrs (a)
12.7 days (s)

5:00 hrs (a)
6:10 hrs (a)
6:17 hrs (a)
13.0 days (s)

(a) Air
(s) Sea – 18 knots
Origin port: Balboa - Panama
(a) Air
(s) Sea – 18 knots
Origin port: Balboa - Panama
(a) Air
(s) Sea – 18 knots
Origin port: Balboa - Panama
Colon Free Zone

The diagram illustrates the historical trend of commercial trade in the Colon Free Zone from 2003 to 2011. The y-axis represents the value in thousands of US dollars, while the x-axis represents the periods from 2003 to 2011. The chart shows the growth of imports, re-exports, and total commercial trade over the years, with a significant increase in the latter years.
Pacific Side
Panama Canal Railway Company:

• Provides intermodal service between the Pacific and Atlantic ports of Panama.
• Joint venture between Kansas City Southern and MI-Jack Products.
• Installed capacity: 500,000 containers per year.
Potential for a new Port on the Pacific

116 Hectares
Total TEU movements in Panama are rapidly approaching 7 M TEU, putting pressure into the port system.

- Current port capacity is limited and the demand for transshipment will increase after the Panama Canal expansion.
Site location and development

Phase I: 66 has
Phase II: 52 has

<table>
<thead>
<tr>
<th>Concept</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Total Area</td>
<td>66 has</td>
<td>52 has</td>
<td>118 HA</td>
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<tr>
<td>Estimate Capacity</td>
<td>2.4</td>
<td>1.5</td>
<td>3.9</td>
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<tr>
<td>(M TEUs)</td>
<td></td>
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<tr>
<td>STS cranes</td>
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<td>27</td>
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<tr>
<td>Quay (m)</td>
<td>1,350</td>
<td>731</td>
<td>2,081</td>
</tr>
<tr>
<td>Draft (m)</td>
<td></td>
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<td>16.3</td>
</tr>
</tbody>
</table>
Proposed layout of the terminal

Berth 2,081 m
Potential for Special Economic Zone Development

980 Hectares of Reclaimed Land
Panamá-Pacífico:
• Special Economic Area located in the former Howard Air Force base in the Pacific.
• Operated by the international real estate developer London & Regional.
Onsite Schools:
- Howard Kids Academy
- Licée Francais Paul Gauguin
- Magen David Academy
- Panama Pacifico Academy
Study Program for YR 1

- **Contract Program Management**
- **Demand, Capacity and Feasibility Studies**
  - Bunkering
  - Transshipment Ports
  - Container on Barge
  - Logistic Parks
  - Ship Repair
  - LNG Bunkering for Ships and Tugs
  - RoRo Terminal for Vehicles, Pacific Side
  - Top-off operations for Dry Bulks
- **Economic Studies**
  - Logistic Costs and Impact on Competitiveness
  - Regional Logistics Observatory (IDB)
COMING SOON
THANK YOU!