The Panama Canal:
It’s all about connectivity
Panama at a glance

<table>
<thead>
<tr>
<th>Economic Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth rate – last 10 years</td>
<td>7.5%</td>
</tr>
<tr>
<td>GDP estimated- 2013 (dollars)</td>
<td>38,6b</td>
</tr>
<tr>
<td>GDP per capita - 2013 estimated (in dollars)</td>
<td>13,032</td>
</tr>
<tr>
<td>Population (million)</td>
<td>3.5</td>
</tr>
<tr>
<td>Unemployment rate (in %)</td>
<td>4.0</td>
</tr>
<tr>
<td>Inflation rate - 2013 (in %)</td>
<td>4.08</td>
</tr>
</tbody>
</table>
It’s all about Connectivity

- 144 trade routes
- 1,700 ports
- 160 countries
The Panama Canal’s value added service
The Panama Canal Service Package

- Reliability
- Sustainability
- Connectivity
- Economies of Scale
Reliability

- Opens 24 hours a day, 7 days a week, 365 days a year
- Safe and secure
- 98% customer satisfaction
- Strikes not allowed by law; only two closures in its history
- Predictability: Published tariffs and fixed transit date with reservation
# Time and Distance Savings

<table>
<thead>
<tr>
<th></th>
<th>Panama Canal</th>
<th>Suez</th>
<th>Cape Horn</th>
<th>Cape of Good Hope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Days</td>
<td>Distance</td>
<td>Days</td>
<td>Distance</td>
</tr>
<tr>
<td><strong>East and Gulf Coast US - Asia</strong></td>
<td>20.0</td>
<td>9,640</td>
<td>29.5</td>
<td>14,178</td>
</tr>
<tr>
<td><strong>West Coast South America – East Coast US</strong></td>
<td>7.3</td>
<td>3,351</td>
<td>43.3</td>
<td>19,776</td>
</tr>
<tr>
<td><strong>West Coast South America - Europe</strong></td>
<td>14.1</td>
<td>6,433</td>
<td>39.8</td>
<td>18,184</td>
</tr>
<tr>
<td><strong>West Coast US - Europe</strong></td>
<td>17.5</td>
<td>8,005</td>
<td>35.5</td>
<td>16,210</td>
</tr>
<tr>
<td><strong>West Coast Central America – East Coast US</strong></td>
<td>6.3</td>
<td>2,900</td>
<td>43.2</td>
<td>19,756</td>
</tr>
</tbody>
</table>

Source: Fairplay Distance Table
Speed: 20 knots
Distance from point to point, travel days without considering port calls
Panama Canal - 2015

Capacity:
Existing Canal: 330m PC/UMS tons
Expanded Canal: 600m PC/UMS tons
Atlantic entrance deepening and widening

Atlantic Site Post-Panamax Locks

Increase of Gatun Lake’s maximum operating level

26.7 m → 27.1 m

Pacific entrance deepening and widening

Pacific Site Post-Panamax Locks

Pacific Access Channel

49 M m³

Gatun Lake widening and deepening and widening of Gaillard Cut’s navigation channels

Gatun Lake widening

8.7 M m³
With the water saving basins the new locks will use **7% less** water than the existing locks.
Accumulated Investment – Capex
(USD millions)

Budget

Dredging
Locomotives
Technology
Ground Dams
Tie-up Station
Tugboats
Panama Canal’s share of global seaborne trade

- 3% of world maritime trade
- 10.6% of grains
- 5.8% of chemicals
- 4.7% of containers
Economies of Scale
Dimensions of Locks and Ships

Existing locks maximum vessel size:
- 12.04 m
- 4,400 TEU

New locks maximum vessel size:
- 49 m
- 13,000 – 14,000 TEU

Dimensions of Locks and Ships
Lower 48 states shale plays
LNG Trade — U.S. Gulf to Fukuoka, Japan

21 Days Shipping Cost
LNG 155,000 m³: $33.7/m³

Panama Canal: 9,640 nm
Savings of 4,538 nm
Approx. 10 days less

Suez Canal: 14,178 nm

31 Days Shipping Cost
LNG 155,000 m³: $47.56/m³
Thermal Coal Trade – Colombia to Chile

Panama Canal
Sea distance: 2,524 nm

Savings of 5,698 nm
Approx. 17 days less

Cape Horn
Sea distance: 8,222 nm
Fuel Oil Trade – U.S. Gulf to South Korea

Panama Canal
Sea distance: 9,664 nm
Savings of 5,794 nm
Approx. 15 days less

Cape of Good Hope
Sea distance: 15,458 nm

28 Days
Shipping Cost
Aframax $29/MT
Suezmax $24.8/MT

43 Days
Shipping Cost
Aframax $35/MT
Suezmax $29.5/MT
Diesel Trade – U.S. Gulf to Chile

Panama Canal
Sea distance: 4,129 nm
Savings of 5,062 nm
Approx. 14 days less

Cape Horn
Sea distance: 9,191 nm

12 Days Shipping Cost
Aframax $17.9/MT
Suezmax $15.6/MT

26 Days Shipping Cost
Aframax $22.5/MT
Suezmax $19.2/MT
LPG – U.S. Gulf to South Korea

Panama Canal
- Sea distance: 9,733 nm
- Savings of 5,660 nm
- Approx. 15 days less

Cape of Good Hope
- Sea distance: 15,393 nm

25 Days Shipping Cost
- LGC $135/MT
- VLGC $86/MT

40 Days Shipping Cost
- LGC $208/MT
- VLGC $132/MT
## Summary Schedule of Main Projects with Baseline and Contingency
### As of 30 June 2014

<table>
<thead>
<tr>
<th>Activity by quarter (Q)</th>
<th>% Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Locks</strong></td>
<td></td>
</tr>
<tr>
<td>Specifications and locks models</td>
<td>100%</td>
</tr>
<tr>
<td>Design and build post-Panamax locks</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Access channel</strong></td>
<td></td>
</tr>
<tr>
<td>Pacific access channel - phase 1</td>
<td>100%</td>
</tr>
<tr>
<td>Pacific access channel - phase 2</td>
<td>100%</td>
</tr>
<tr>
<td>Pacific access channel - phase 3</td>
<td>100%</td>
</tr>
<tr>
<td>Pacific access channel - phase 4</td>
<td>73%</td>
</tr>
<tr>
<td><strong>Dredging</strong></td>
<td></td>
</tr>
<tr>
<td>Dredging of the Pacific entrance</td>
<td>100%</td>
</tr>
<tr>
<td>Deepening and widening of Gatun Lake and deepening of Culebra Cut</td>
<td>84%</td>
</tr>
<tr>
<td>Dredging of the Atlantic entrance</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Increase operating level of Gatun Lake</strong></td>
<td>90%</td>
</tr>
<tr>
<td><strong>Expanded Canal begins operations</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Expansion Program progress</strong></td>
<td>76%</td>
</tr>
</tbody>
</table>

*Baseline* from 31 December 2006 including contingency