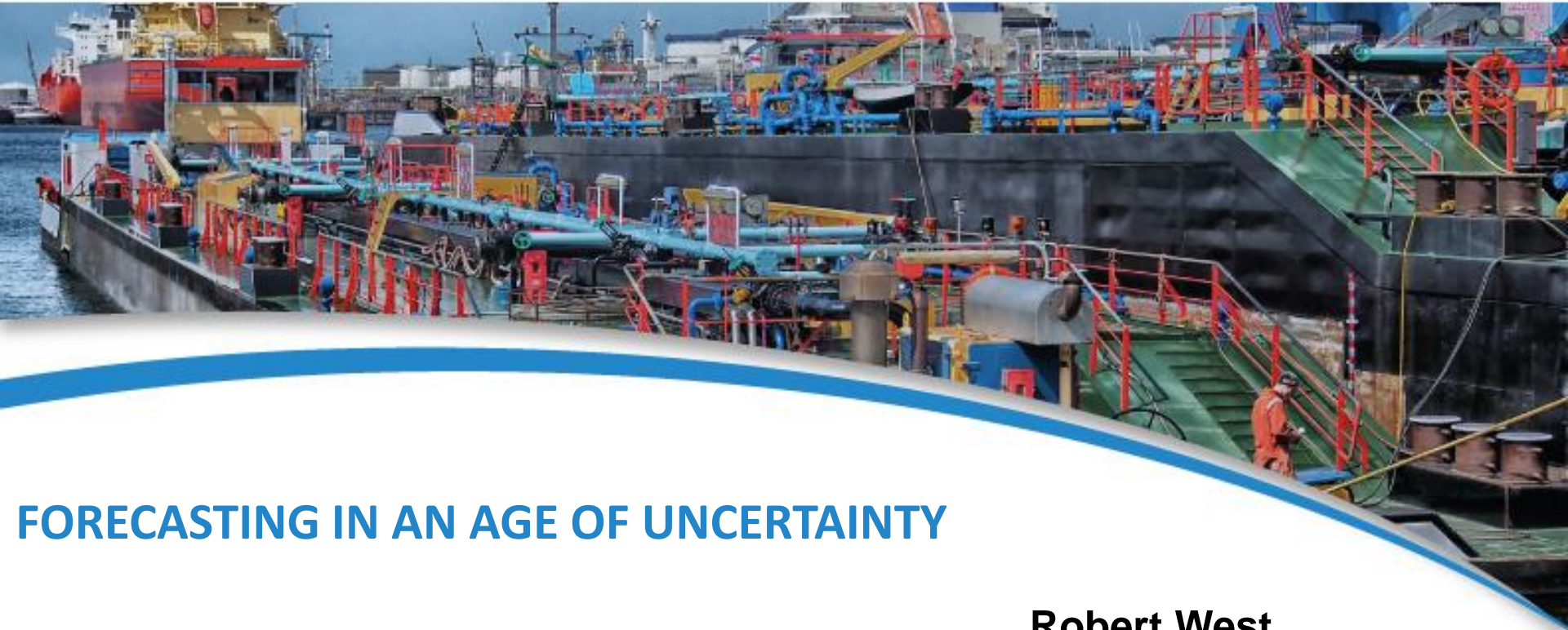




Soc. Port. de Buenaventura



## FORECASTING IN AN AGE OF UNCERTAINTY

*2 February 2017*

**Robert West**  
[Bob.West@Duaga.com](mailto:Bob.West@Duaga.com)  
+1 617 309 0521

# Over 25 Years of industry experience...



Specialized consulting for infrastructure with an emphasis on ports and harbors.



Processing Big Data to provide international trade business intelligence to increase your market share, with two successful products, DuPort Data for ports DuTrade Data for enterprises



Outsourcing of labor intensive engineering services at hourly rates 45 % - 65 % lower than U.S commercial rates – including CAD services.



# Clients & Collaborators



JHConsultants

Commonwealth Trading Partners



**SAAB**



Unidad de Planeación Minero Energética

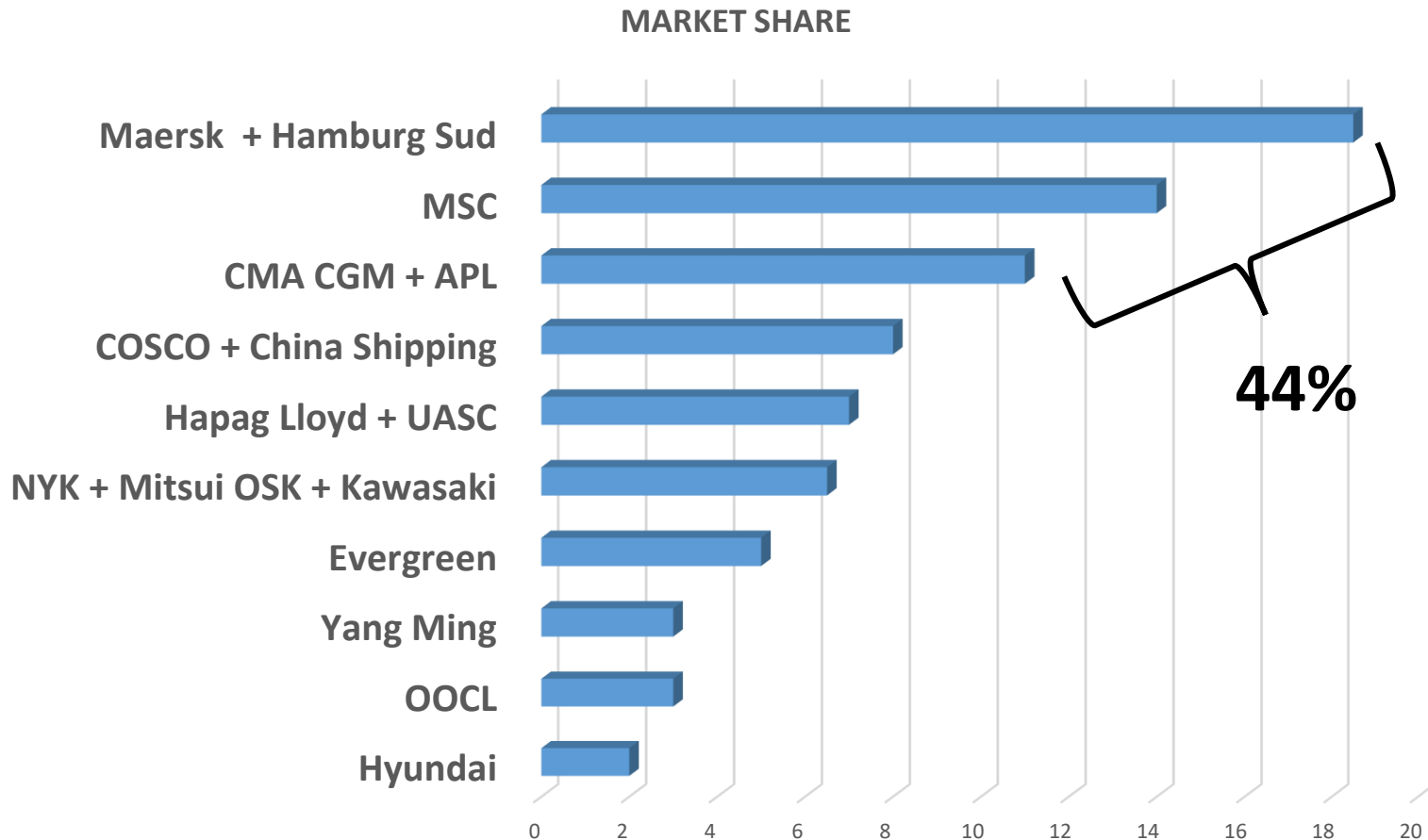




- What are we so uncertain about?
- The current economic and trade outlook
- How to treat past history
- Rules of the forecasting game

# Who would have thought?

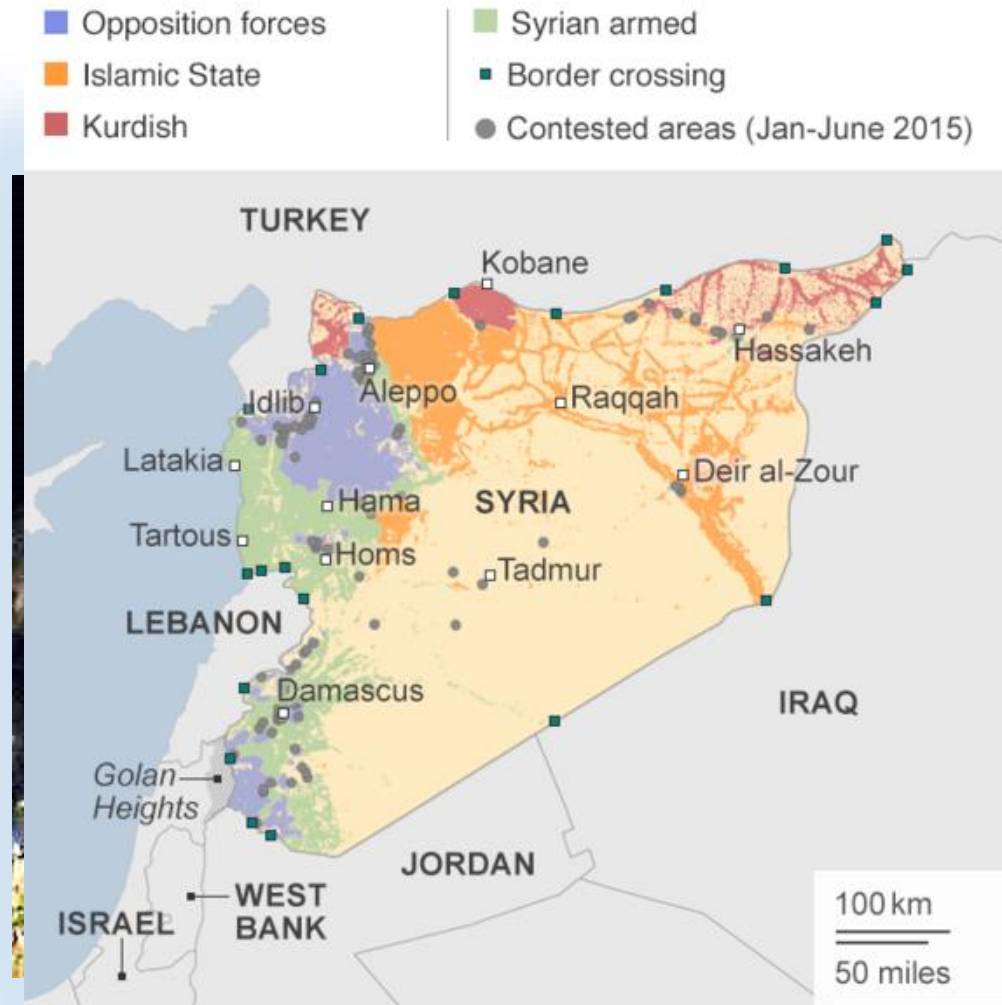
## WORLD'S BIGGEST SHIPPING LINES



# Who would have thought?

That **437,363** people  
would be murdered  
in Syria since 2011?

**11 million** without homes



Who would have thought?

**We elected a new head of  
the free world.**



- **Reduced trade volumes?**
  - Free trade or less trade
- **Port infrastructure funding?**
  - Perhaps a big boost – smoother supply chains

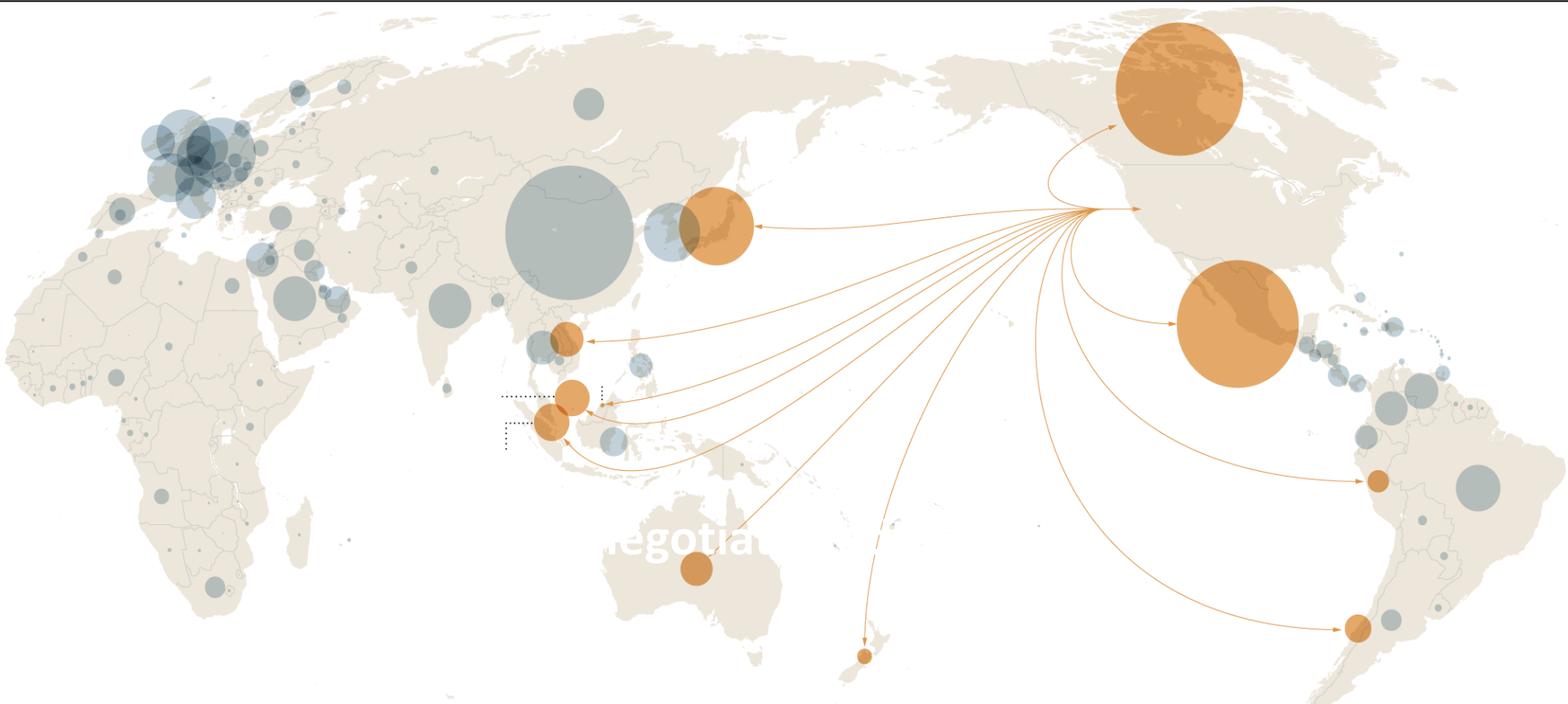


These 8 guys have the same wealth as  
the bottom half of the world's population  
3.5 billion people



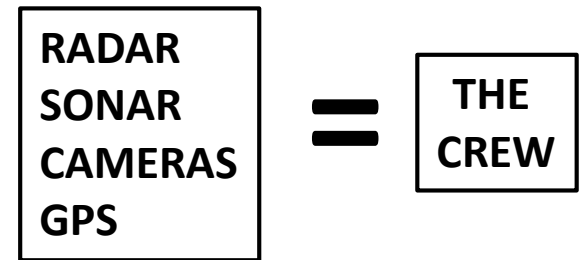
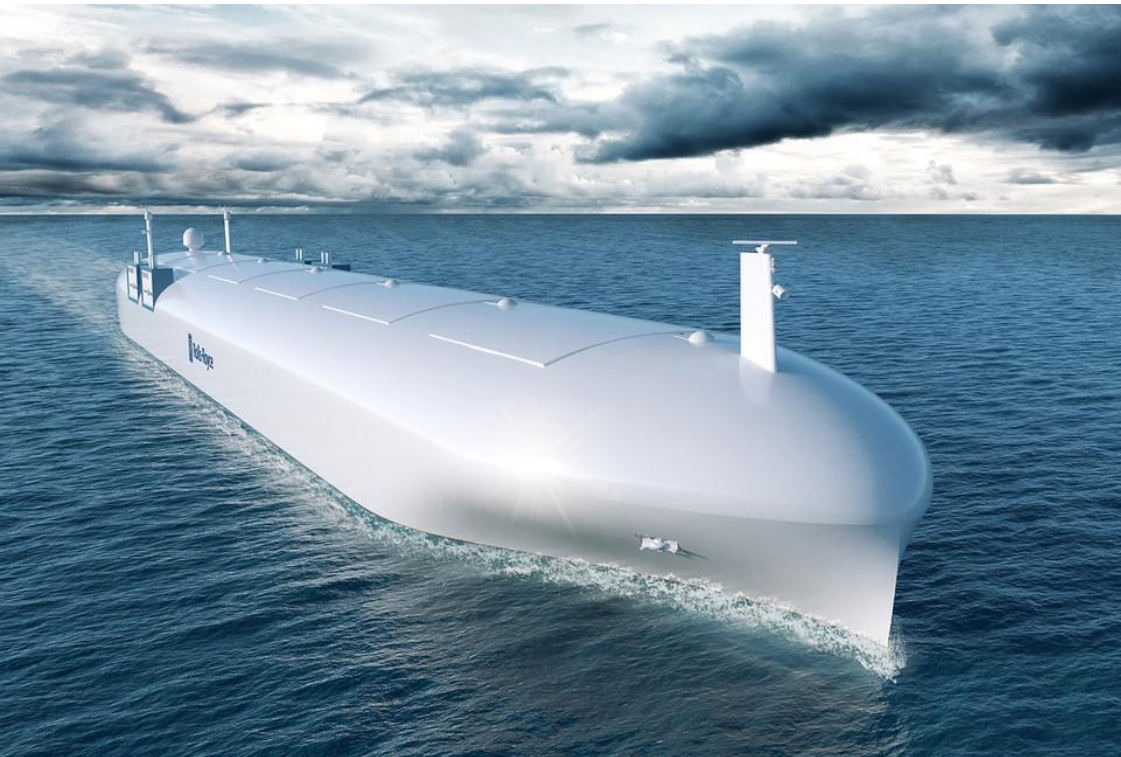
# Who would have thought?

## The TPP was torpedoed!



# Who would have thought?

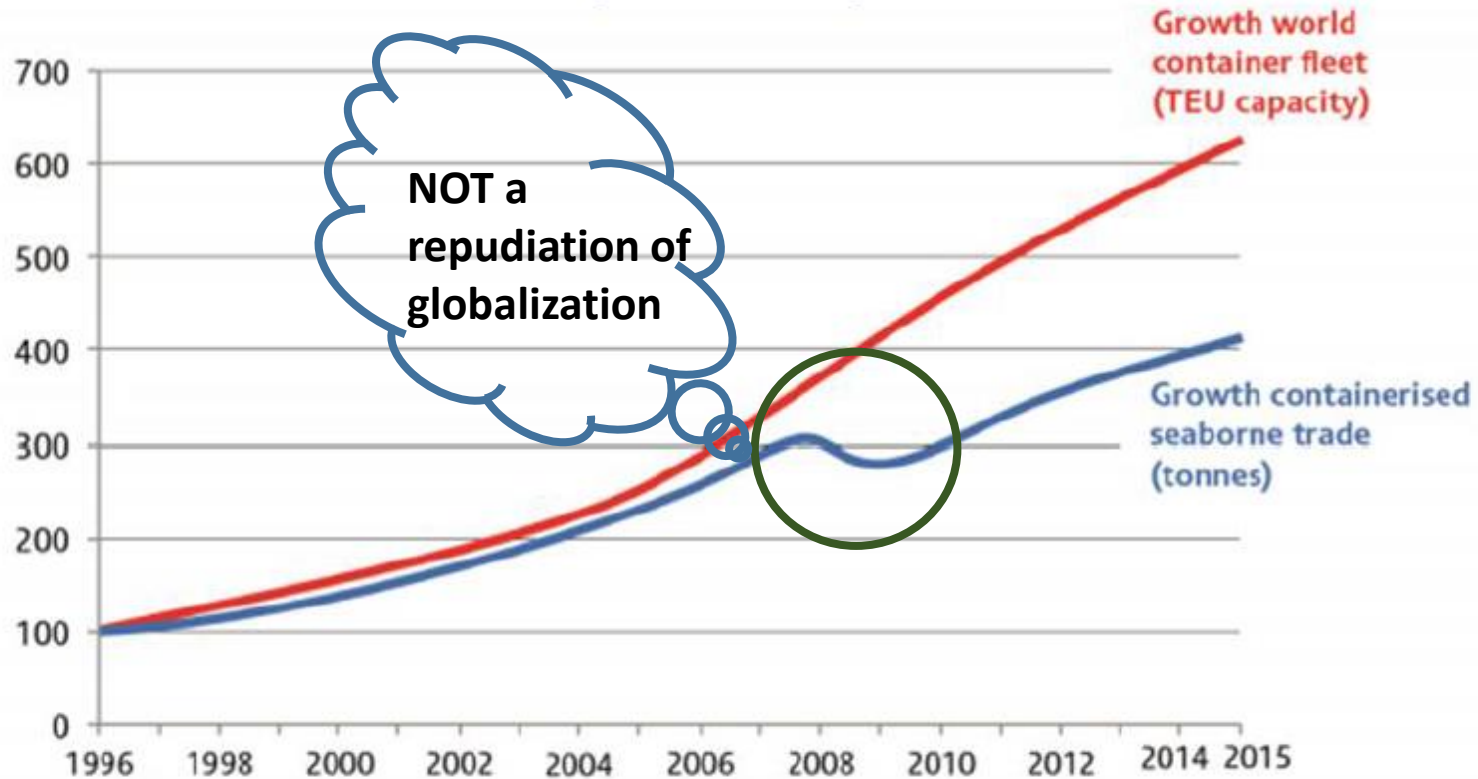
## Ships without crews



## Uber Maritime?

# Idle capacity overhang

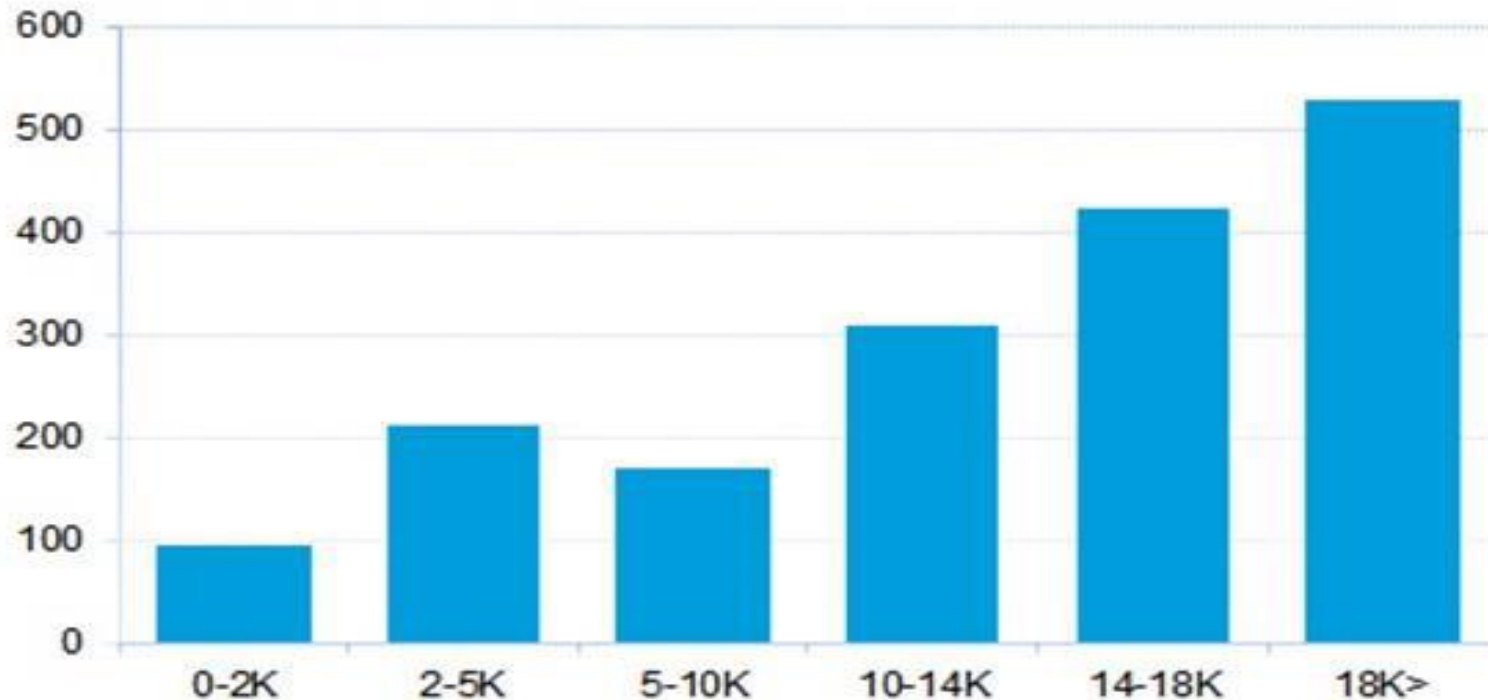
Disconnection of container ship size developments and seaborne trade growth  
(1996 – 2015)



Source: International Transport Forum

# Who would have thought?

**Mega ships are still being built and deployed.  
Cascading big ships into trades that don't have  
enough volume to support them**



$\Sigma = 1.7$  million TEUs

# ... cascading continues in 2017

## Especially in the N-S trades

Growth Jan-Dec 2016



- What are we so uncertain about?
- The current economic and trade outlook
- How to treat past history
- Rules of the forecasting game



# The outlook – big picture



- North America and Europe are slowly pulling the train
- China exports are slowing because NA + EU are slowing
- Hence, exports from this hemisphere to China have slowed
- Asia's incomes are still very low and not big enough to fill the shoes of a slowing NA and EU
- And, the US Government's new trade policies are not yet clear



# In the short term, the economic outlooks are fairly positive

	<u>2015</u>	<u>2016</u>	<u>2017</u>
Colombia	3.1%	2.3%	2.8%
Chile	2.1%	1.7%	2.2%
Costa Rica	3.7%	3.8%	3.8%
Mexico	2.5%	2.1%	2.5%
Panamá	5.8%	5.7%	5.9%
Perú	3.3%	3.7%	4.2%
<b>USA</b>	<b>2.5%</b>	<b>1.6%</b>	<b>2.9%</b>
Canada	1.2%	1.3%	2.0%
Argentina	2.1%	-1.3%	<b>+3.0%</b>
Brazil	-3.8%	-3.2%	<b>+1.0%</b>
Venezuela	-5.7%	-10.0%	<b>-3.0%</b>

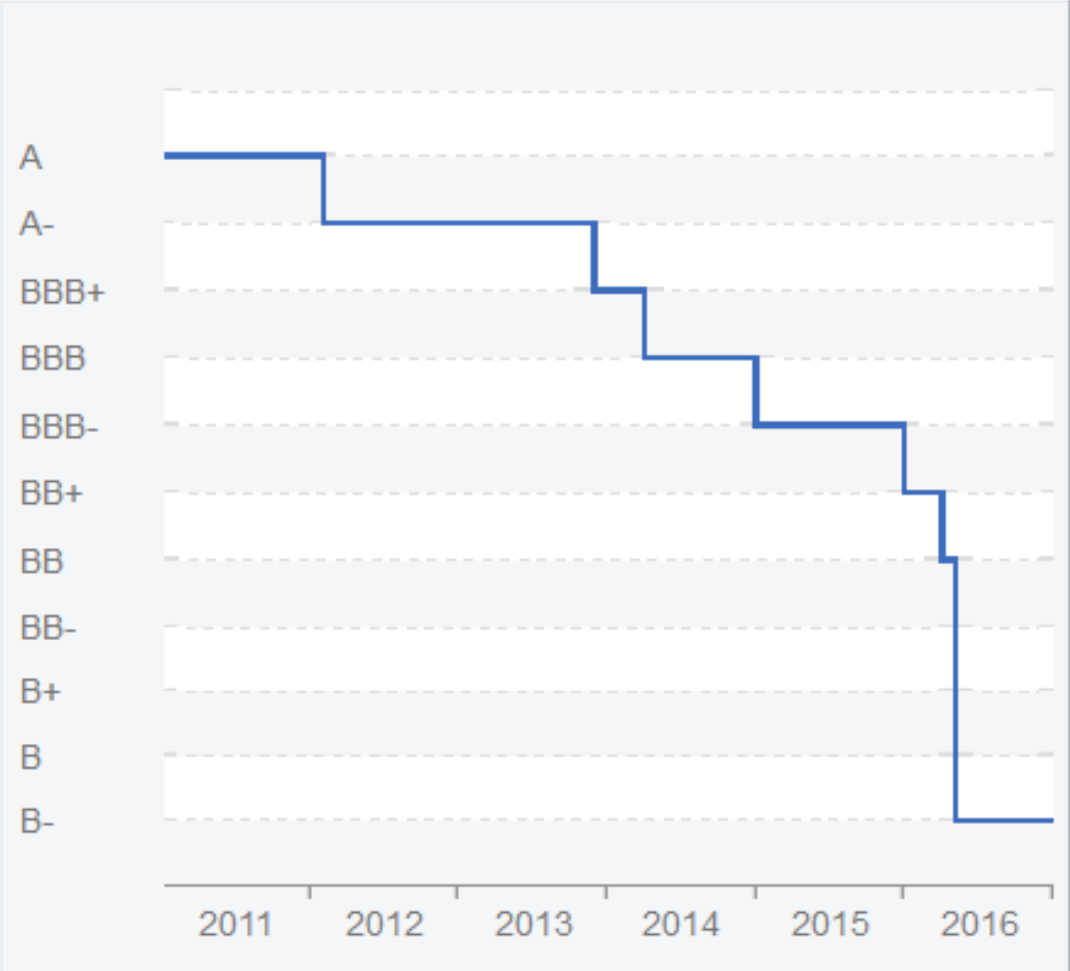


# Some carriers didn't make it

## Hanjin Shipping -

### Corporate Bond Credit Rating

*Forecasting this event  
should not have been  
difficult*



Source: Alphaliner Monthly, May, 2016

# Some are buying port operations

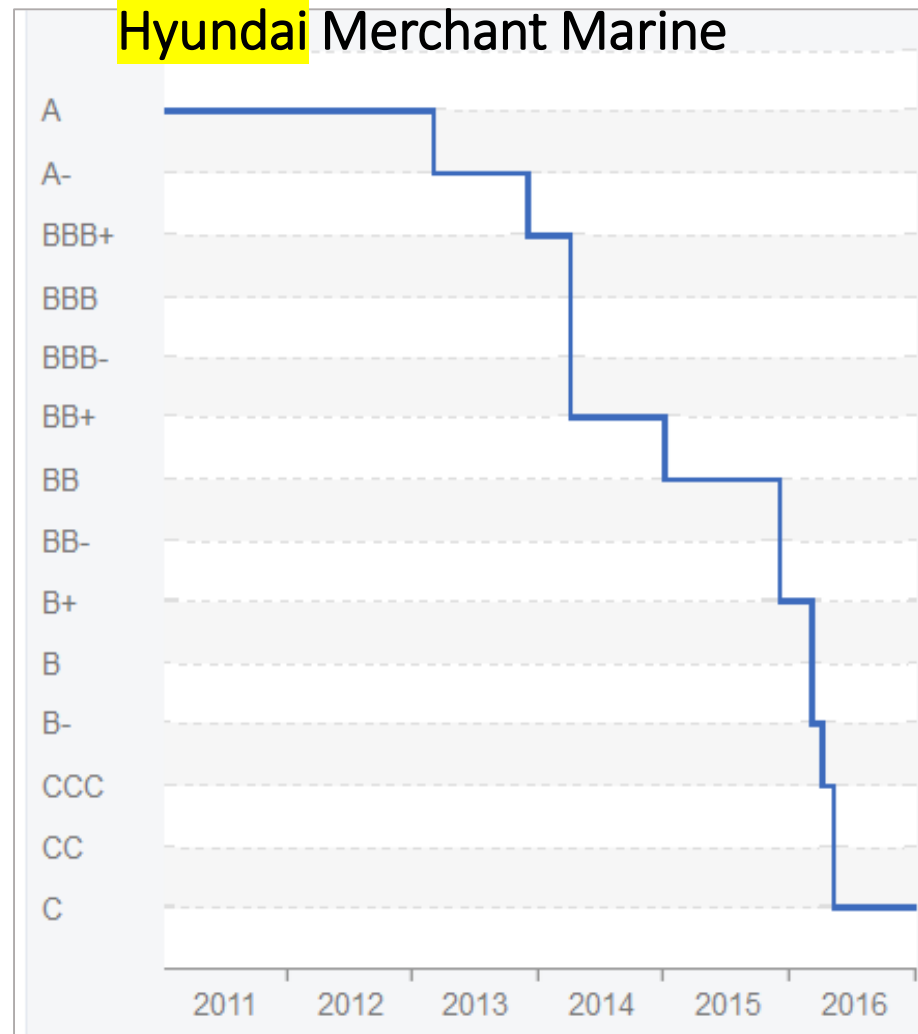
## *Long Term Unsecured Credit Rating History*

**Financial  
restructuring  
was too late to  
buy Hanjin**

**Now buying 25% of  
Algeciras**

**Getting \$600  
million in  
government aid**

### Hyundai Merchant Marine



# Will the *Pacific Alliance* replace the TPP?

In the last 3 years, the Pacific Alliance has accomplished more than the other free-trade efforts in the last 30 years.

**Will the US join?**

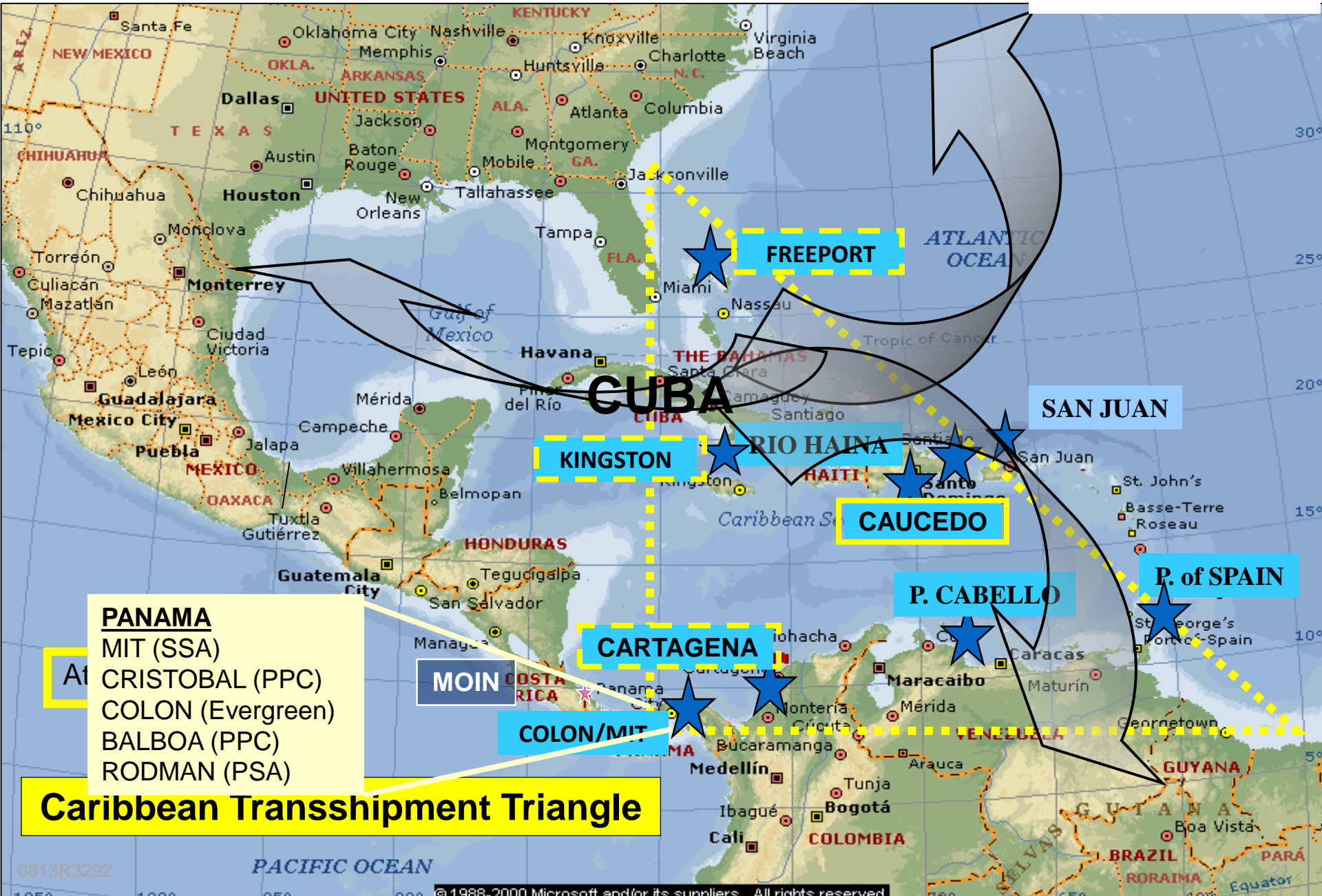
**Probably not!**

Population = 200 million  
Income/capita = \$10,000  
35% of LAM GDP  
8<sup>th</sup> largest economy in the world



“... emerging as one of the most dynamic economic regions in the world” - IDB

# Transshipment ports are now clear



**FREEPORT**

**KINGSTON**

**RIO HAINA**

**CAUCEDO**

**P. CABELLO**

**P. of SPAIN**

**CARTAGENA**

**MOIN**

**COLON/MIT**

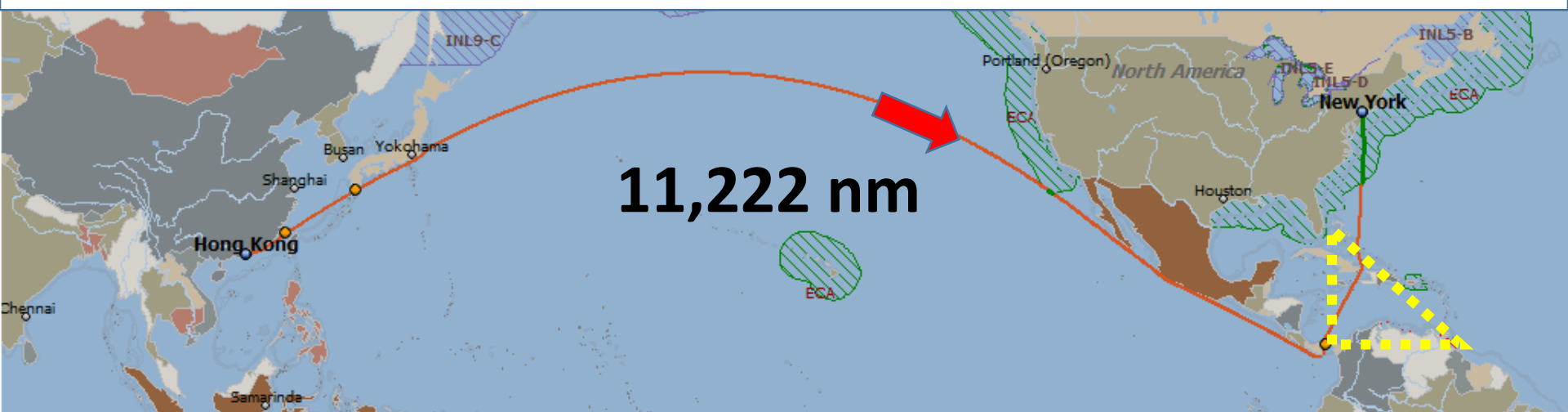
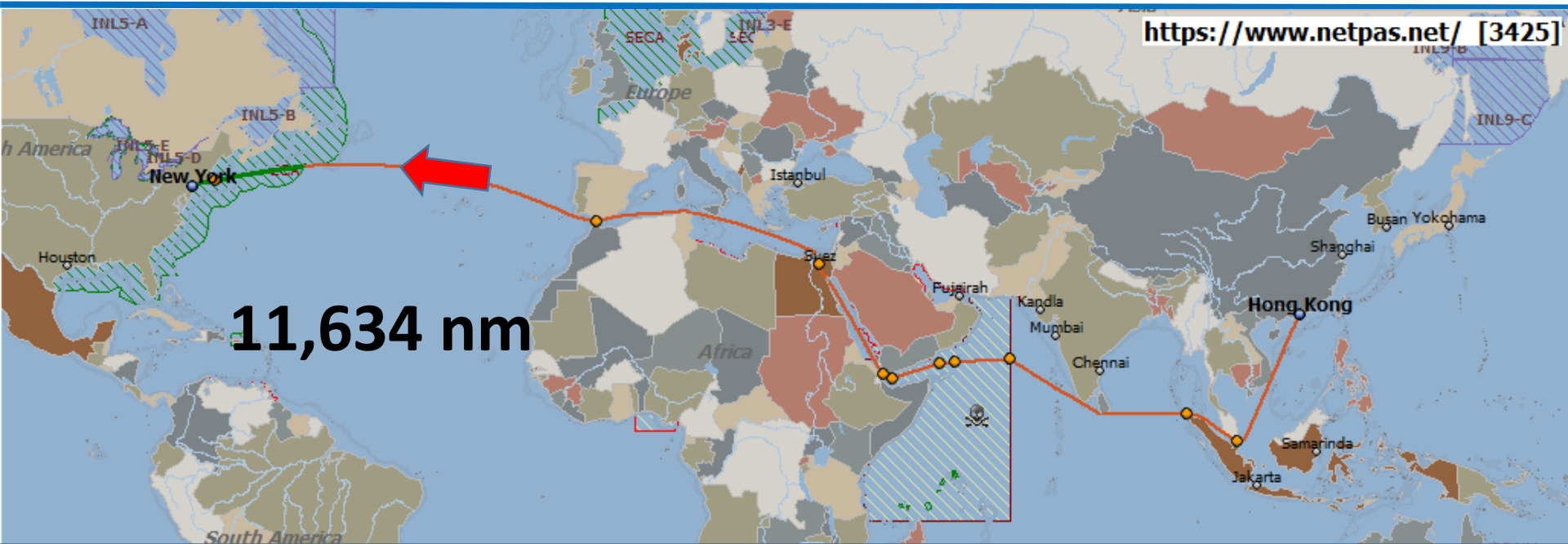
- PANAMA**
- MIT (SSA)
  - CRISTOBAL (PPC)
  - COLON (Evergreen)
  - BALBOA (PPC)
  - RODMAN (PSA)

**Caribbean Transshipment Triangle**

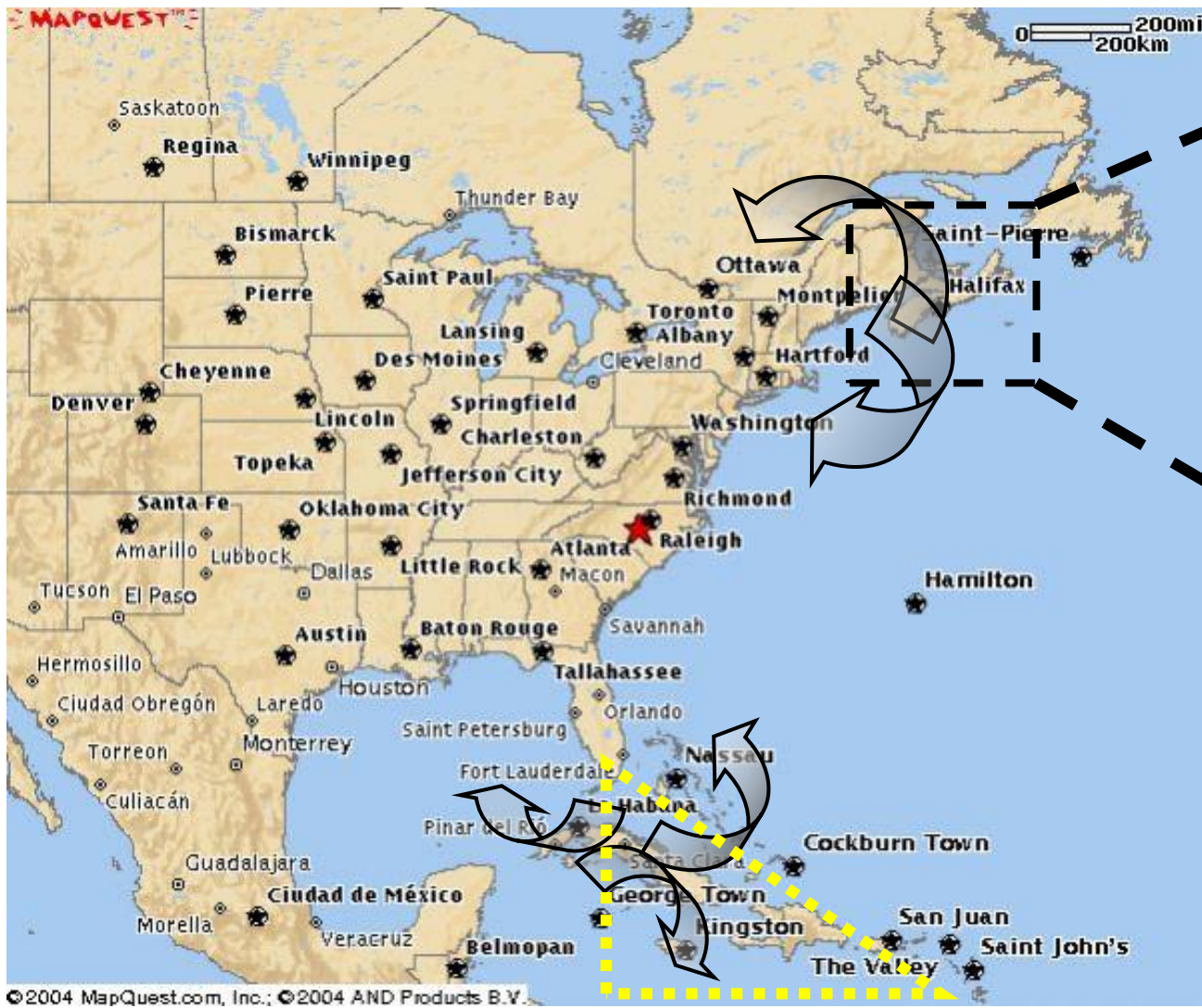
# Another transshipment triangle is forming - Pacific



# Transshipment benefits – whether East or West



# Two transshipment centers – Caribbean & Canada





# Two transshipment centers – Caribbean & Canada



# Two transshipment centers – Caribbean & Canada



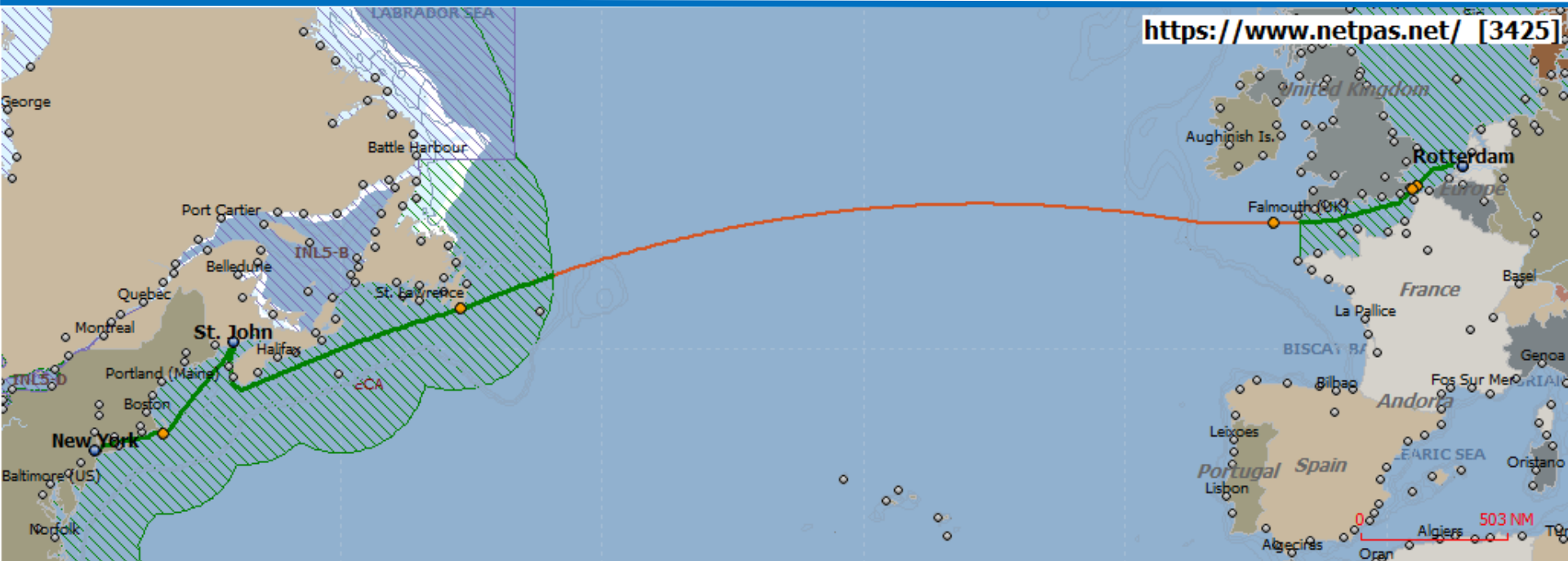
**HALIFAX – Macquarie**

**NOVAPORT (Sydney) –  
Ports America**

**ST. JOHN – DP World**

All have rail service  
to the rest of Canada

# Transshipment in Canada



## Extra distance from Rotterdam to NY if you want to transship

Novaport Sydney

92 nm

Halifax

32 nm

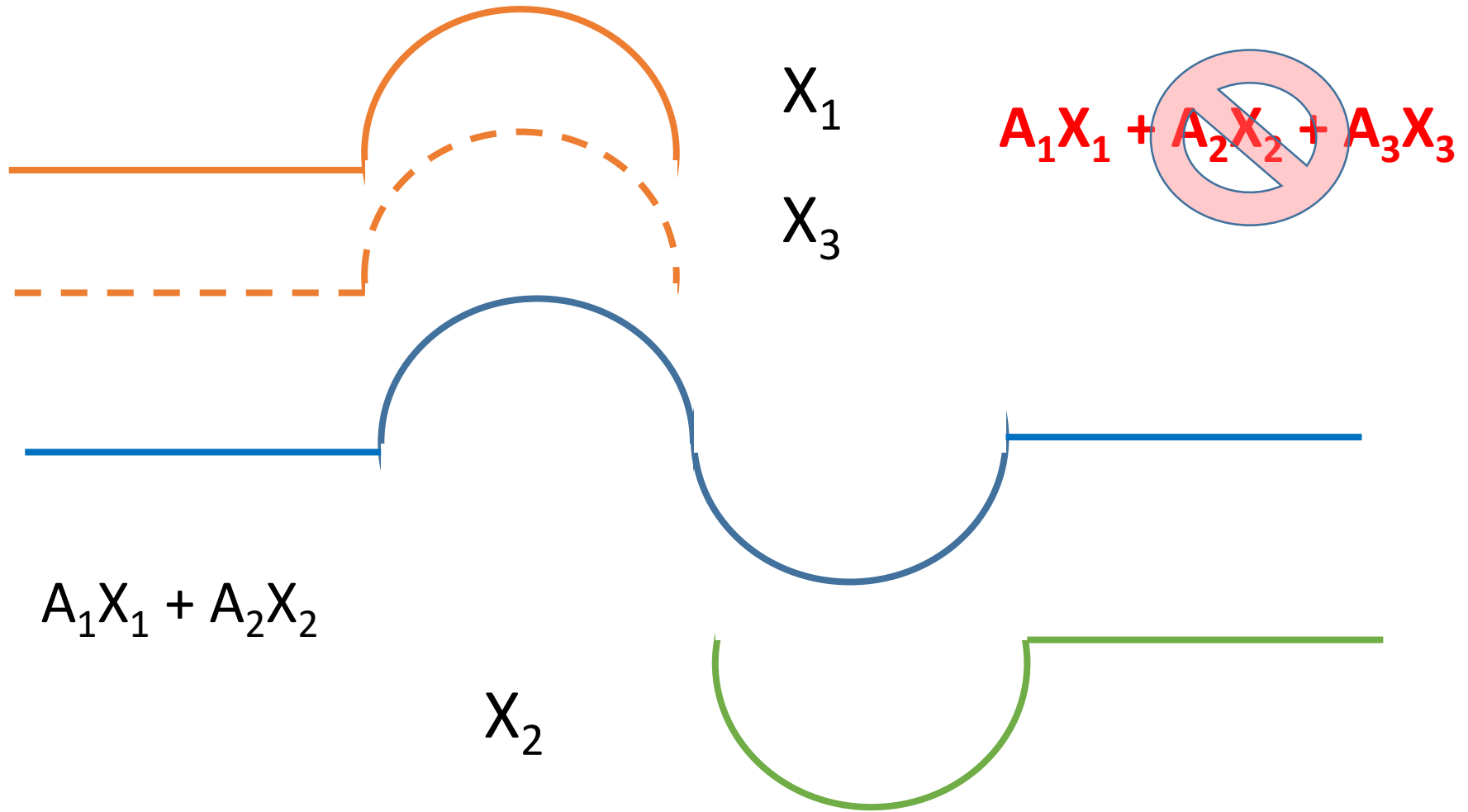
St. John

195 nm

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# How to model the past



# Axioms for Modeling

- Don't use  $\Delta\text{TEU} / \Delta\text{GDP}$  (was 0.2 / 3.4 in H1 2016)
- Always use independent variables that are easier to forecast than the dependent one
- Get monthly data (DUAGA)
- Use statistics to your advantage – manipulate the data to get better fits
- Test short term models by running them long term
- Don't overload models with too many variables
- Choose a great consultant

# Axioms for Forecasting

- All forecasts are wrong
- You should forecast often
- Build scenarios in the face of uncertainty
- Always include at least one macro variable over which you have no control
- Nothing runs in a straight line, except time
- Choose a great consultant

# Wrap-up

- Uncertainties – very important to forecast often
- Get the models right – keep testing and adjusting
- Have a ‘best’ forecast and 2 alternatives
- Stay ahead of the changes and the implications
- Choose a great consultant