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The Role of Ports in Facilitating Trade Progression for Emerging Economies

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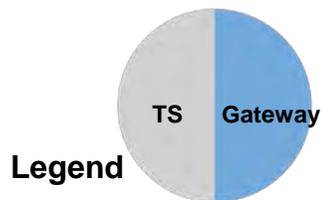
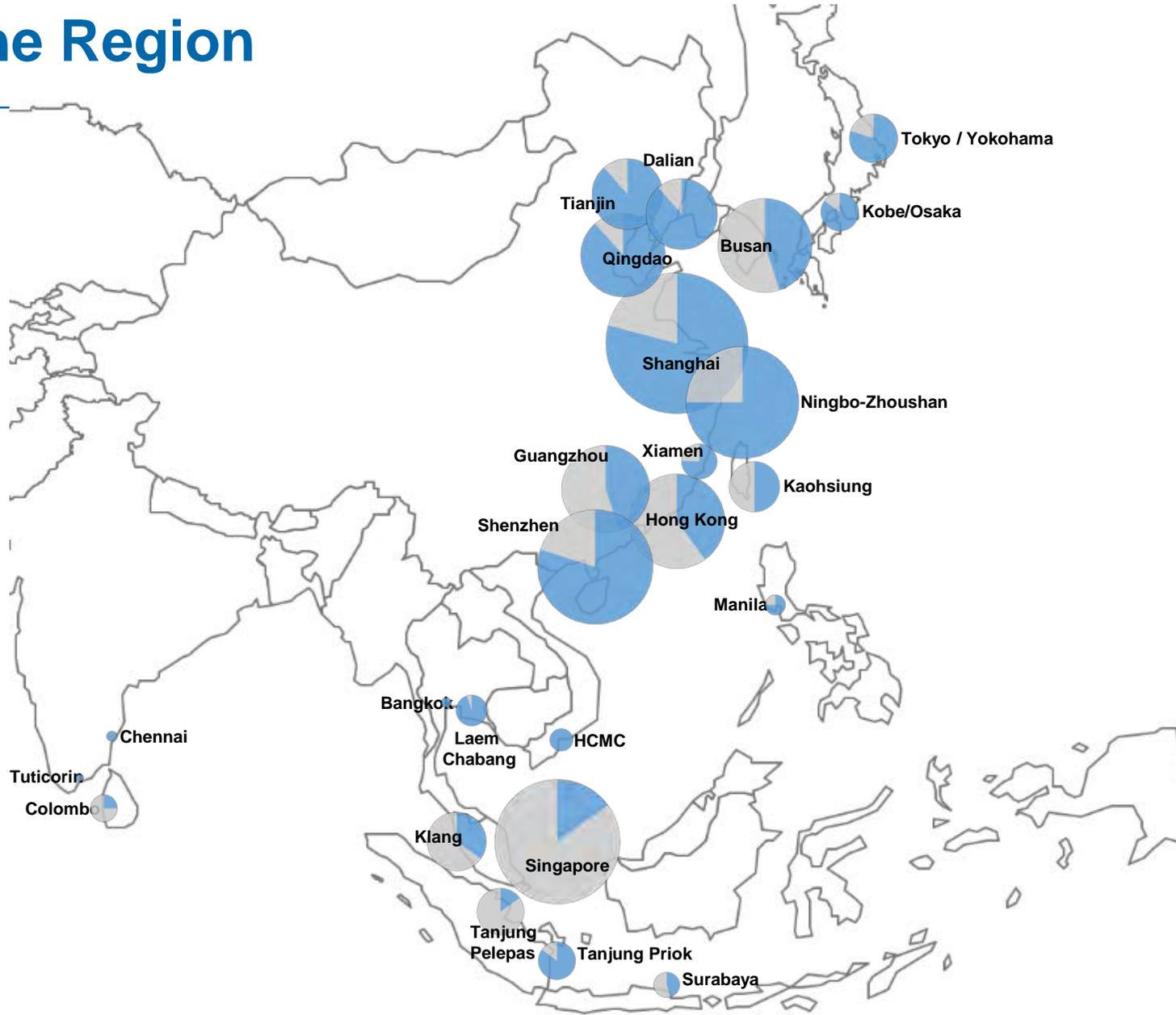
Major Ports in the Region

15 of the world's largest 20 ports are in Asia:

- China (9)
- SE Asia (4)

Of these top tops, the largest growth are found in:

- China (Ningbo-Zhoushan, Guangzhou, Tianjin, Qingdao, Shanghai)
- Dubai
- Gateway to the large and rapidly growing economy
- Started with a relatively small base

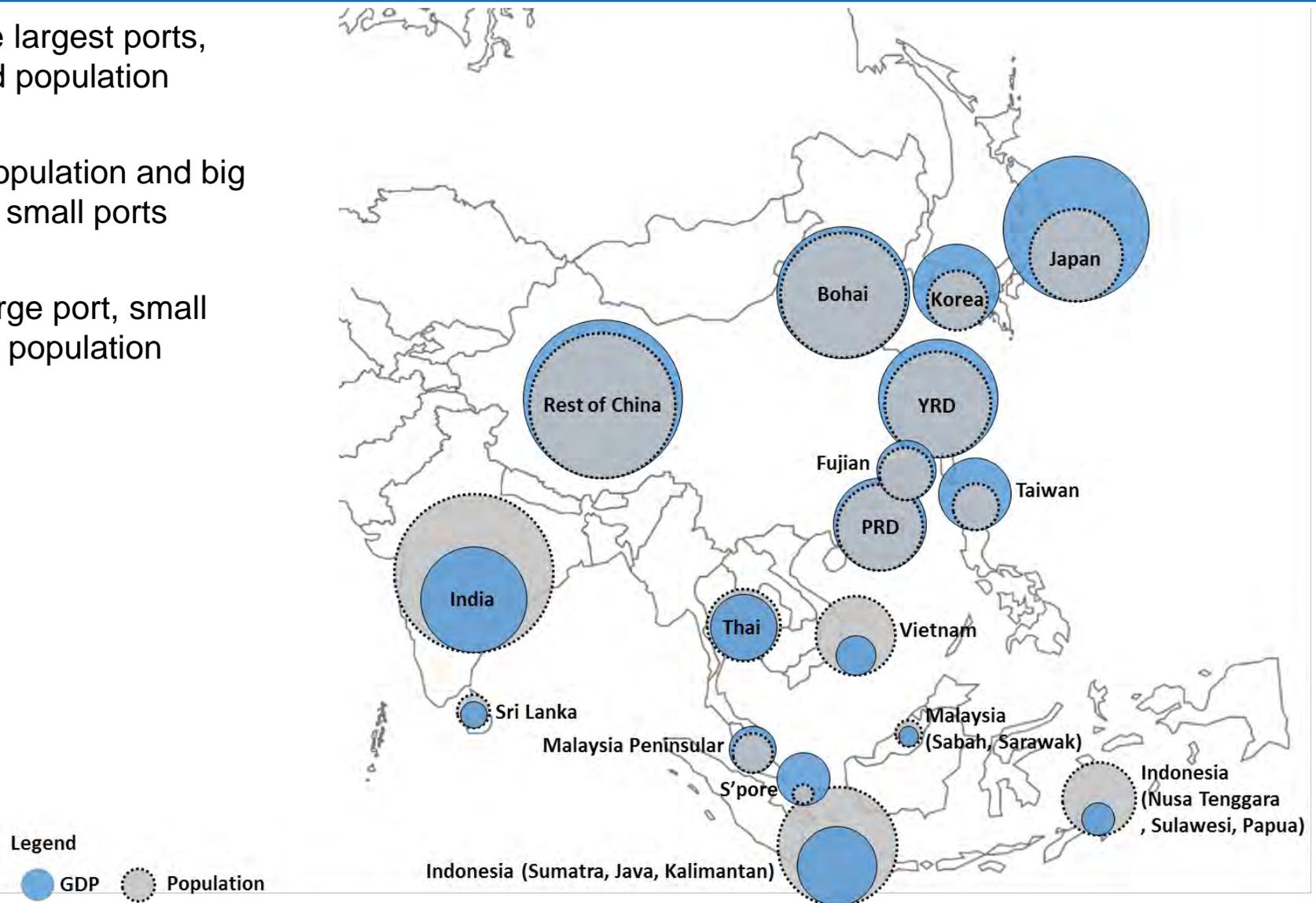


GDP and Population of Selected Economies

China has the largest ports, economy, and population

India: large population and big economy, but small ports

Singapore: large port, small economy and population



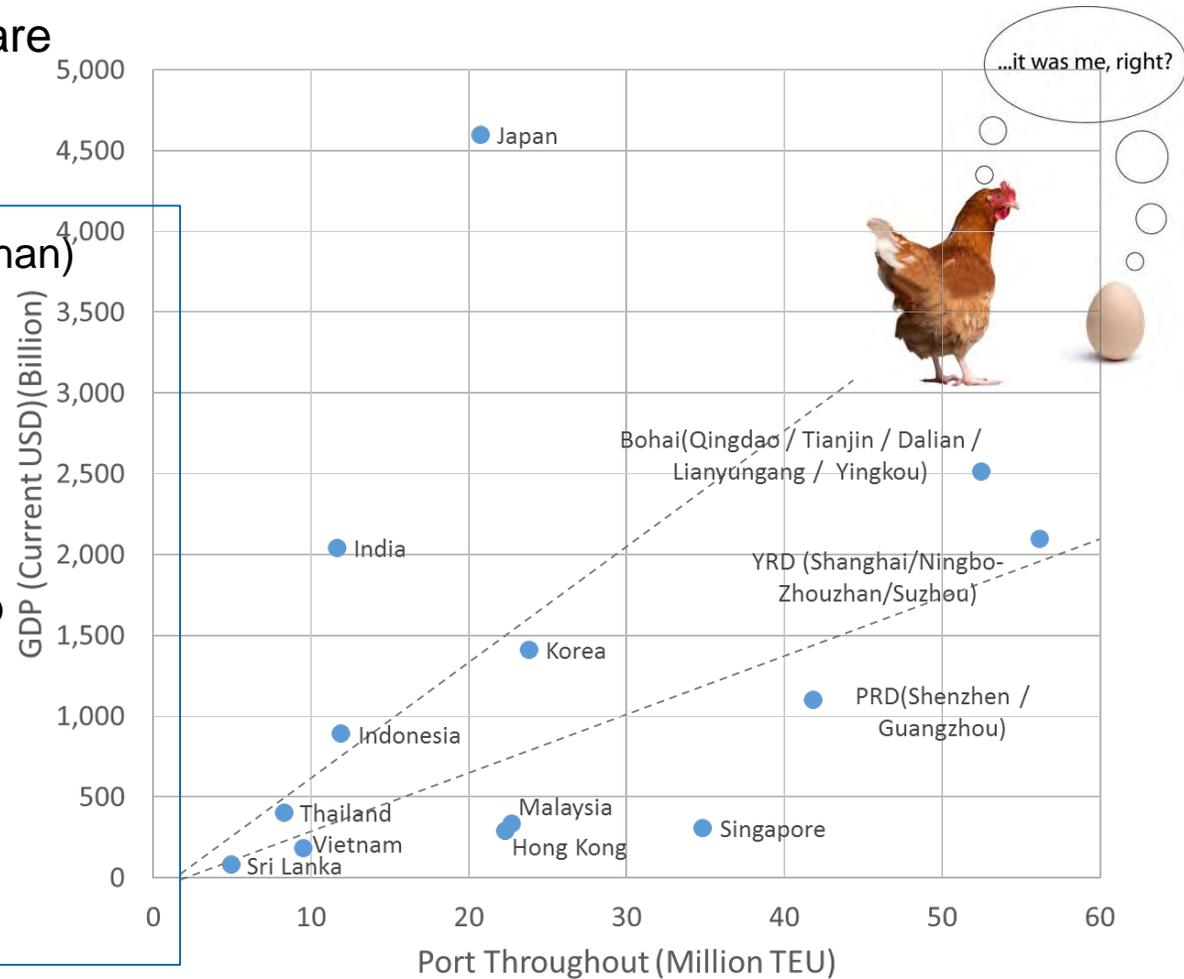
Ports vs Economic Development – What Comes First?

Build it, and it'll come. Really?

- The largest / fastest growing ports are often found in the fastest growing economies
 - PRD (Shenzhen, Guangzhou)
 - YRD (Shanghai, Ningbo-Zhoushan)
- ...but there are exceptions:
 - Singapore
 - India

Some key factors:

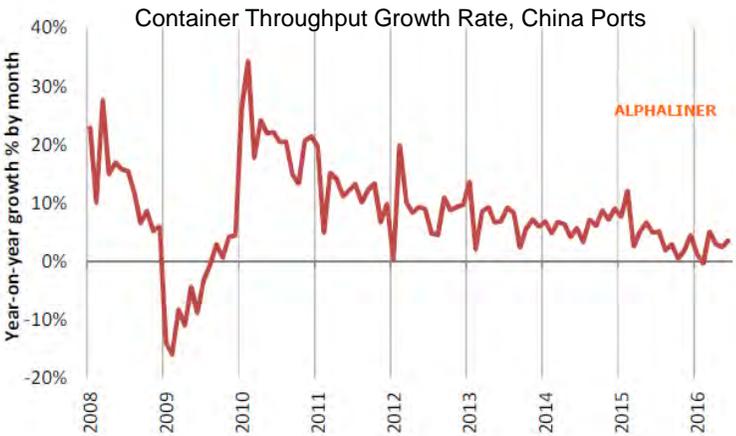
- Gateway Port vs Transshipment Hub
- Size of hinterland
- Economic structure
- Competition in the region
- Proximity to major trade lanes
- Port infrastructure
- Hinterland connectivity
- Port planning



Notes: 2014
Source: ICF based on World Bank database

Slowdown Trade leads to Subdued Demand for Port Throughput

- Global container trade **3.6%** 2009-2014 CAGR (down from 5.8% in 2004-2014)
- Reason for slowdown: both cyclical and structural:
 - Economic uncertainty in Europe (despite relatively strong US recovery)
 - China – the fastest growing and second largest economy – is slowing down & restructuring away from dependence on exports
 - China-US trade growth slower than income growth
 - China produces more semi-manufactured products
 - Slowing pace of trade liberalisation



Source: ICF based on World Trade Organization (WTO) and National Bureau of Statistics China

...but Healthy Demand Does Not *Guarantee* Successful Ports



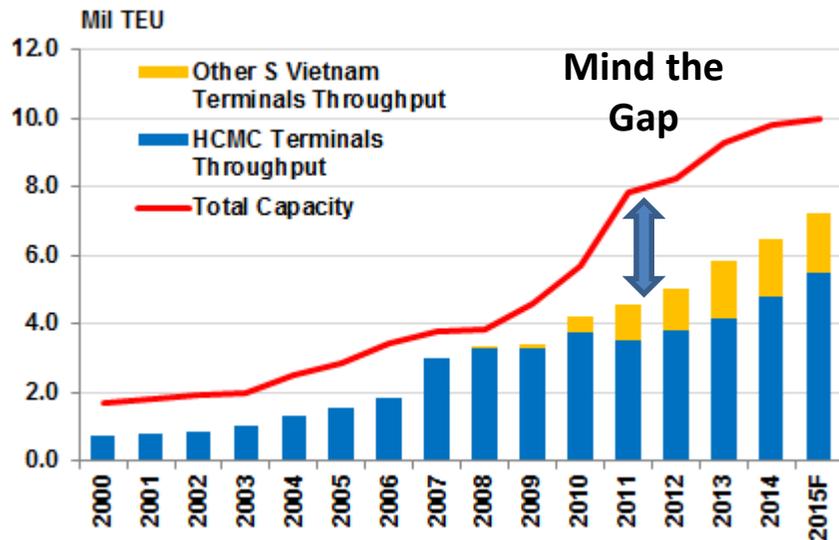
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How Responsive is Supply Side – Barriers to Entry?

....and beware older, inner city terminals – they may be surprisingly resilient

- Older terminals not phased out and more resilient than anticipated – a common tale: e.g. Muscat / Sohar; Bangkok / Laem Chabang; Busan New Port / Busan Northport; Shanghai the exception?
- Public side of PPP has not performed - landside infrastructure has lagged
- Competition between operators, yes!...but fragmented development with little opportunity to phase / achieve economies of scale

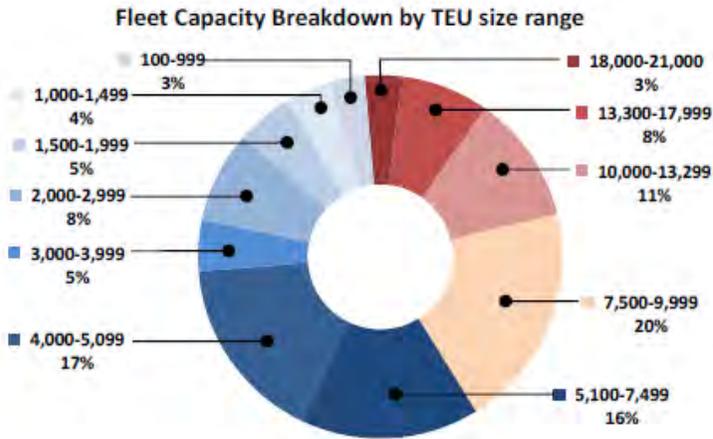


Source: ICF

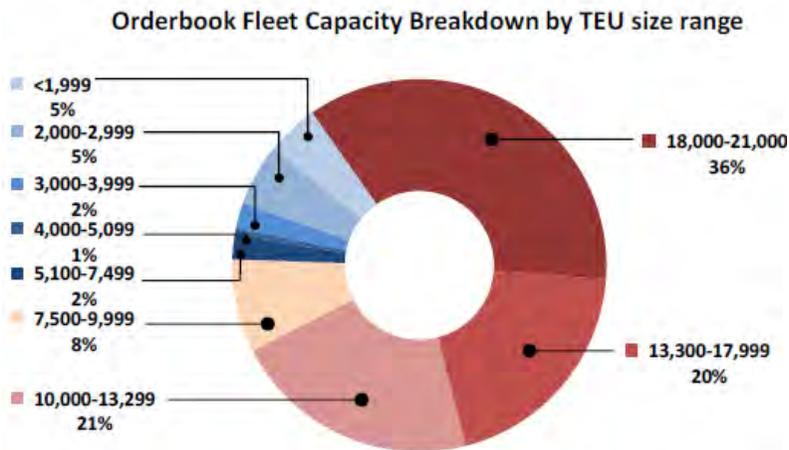
Container Vessels are Getting Ever Larger

Maersk EEE 18,000TEU, CSCL /MSC 19,000 TEU, OOCL 21,100 TEU

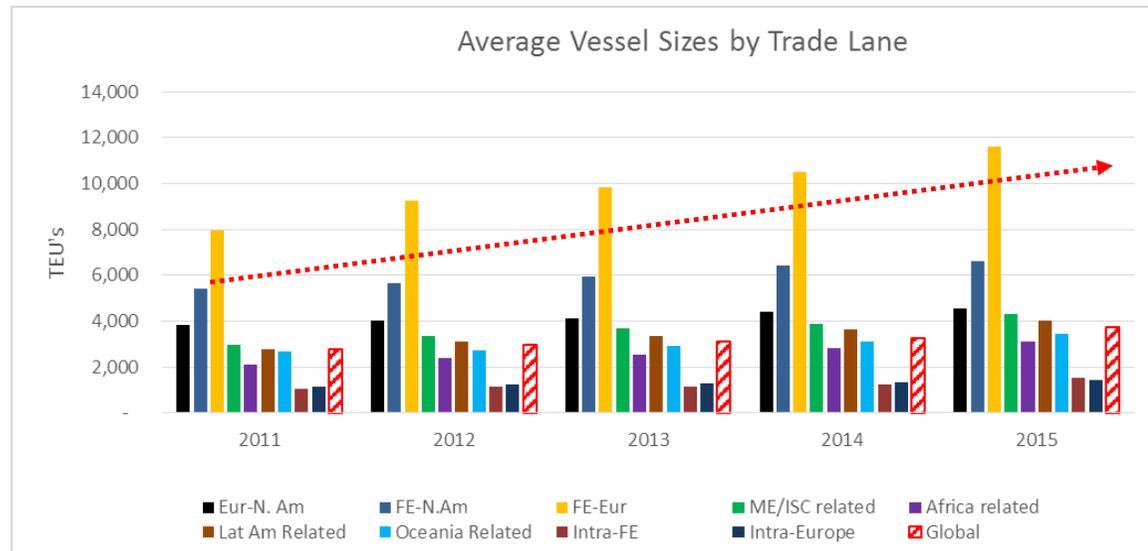
Current Fleet at Jan 16



Order-book at Jan 16



- Economies of scale to reduce unit costs
- ‘Herd’ mentality – where Maersk leads, others quickly follow
- OOCL order for 6 x 21,100 TEU, for delivery 2017

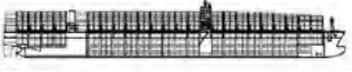


Note: data as of Jan 2016
Source: ICF based on Alphaliner

Port Planning Considerations

Invest to 'play the game' or be relegated to second division?

- Positioning of the port: which trade(s) does it mainly serve? What is the size of vessels it anticipates?
- CAPEX for mega-vessels
 - 18m water depth
 - long straight quays (1,000m or longer): maximum flexibility
 - adequate number of cranes with outreach for 23-24 across
 - land: adequate yard to support quay face operations & large box exchanges (ideally 600-650m av. yard depth / m quay)
 - capacity to accommodate all alliances partners
 - inland connectivity (for gateway ports)
- Productivity
- Alliance lock-in?

		TEU tdw = tonn. portata lorda	LUNGHEZZA m	LARGHEZZA m	PESCAGGIO m	File containers
Jiangnan Changxing Hull H6002 CMA CGM TBN 2015 Sep		17,859 TEU ~185,000 tdw	399.0	54.0	16.0	21
Hyundai Samho Hull S746 UASC TBN 2015 Apr		18,800 TEU ~195,000 tdw	400.0	58.6	16.0	23
DSME Hull 4277 MSC TBN 2015 Jan		18,400 TEU ~195,000 tdw	395.4	59.0	16.0	23
Hyundai H.I. Hull 2696 CSCL GLOBE 2014 Nov		19,000 TEU ~195,000 tdw	400.0	58.6	16.0	23
DSME Hull 4250 MAERSK MCKINNEY MOLLER 2013 Jun		18,270 TEU 194,153 tdw	399.0	59.0	16.0	23
DSME Hull 4161 CMA CGM MARCO POLO 2012 Nov		16,020 TEU 187,625 tdw	396.0	53.6	16.0	21
Odense Hull 203 EMMA MAERSK 2006 Aug		15,550 TEU 156,907 tdw	397.7	56.4	16.0	22

0 100 200 300 400 500
Length Overall (LOA) in meters

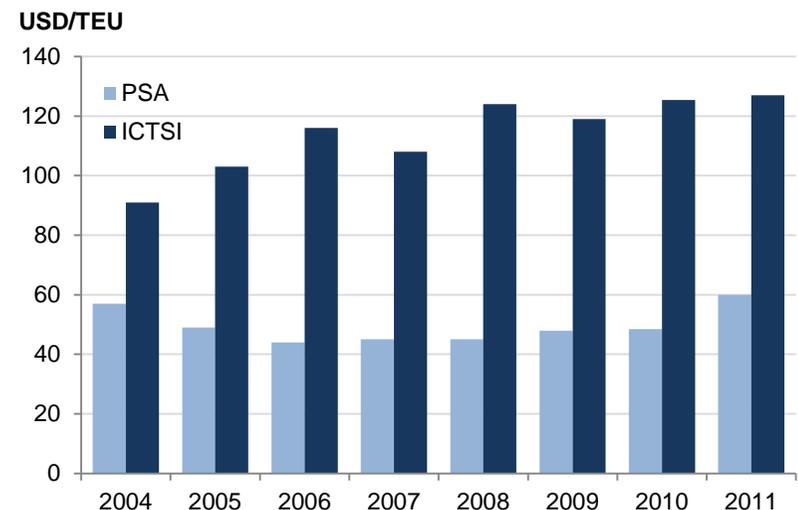
ALPHALINER

Evaluating Port Success

Lessons Learned - Some Key Issues and Challenges

- Healthy demand growth is beneficial, but does not guarantee success
- Key issues to bear in mind for public and private sectors:
 - Supply side response, barriers to entry and Greenfield vs brownfield / the resilience of older, inner city terminals
 - Cargo mix and revenue type
 - 'Freedom to price' and revenue risk
 - Ensuring competition without fragmentation
 - Government ability to deliver supporting infrastructure, and supporting links in the supply chain
 - Bidding re-runs / programme delay
 - **Who's paying for what? Where do the benefits go?**

TS – Double the Volume but not Double the Revenue
ICTSI versus PSA as a Proxy for “OD Versus Transhipment”
Yield per TEU (USD)



Ability of Government to deliver supporting infrastructure



Source: ICF

What About “Belt and Road”?

Game changing driver of globalisation....or poorly conceived dumping of surplus capacity?

- Ambitious plan by Beijing leadership to build and upgrade highways, railways, ports, and other infrastructure throughout Asia & Europe designed to enrich the economies of China & ~60 of its nearby trading partners.
- Has generated enthusiasm and a high level of interest, but also cynicism and concern.
- Some see the initiative as a solution to China’s over-capacity at home (e.g. in the steel & manufacturing sectors) by accessing / investing in new markets overseas.
- May have significant economic impacts for the smaller economies in central Asia, but less so elsewhere
- Funding has been primarily loans rather than grants, and not without “white elephants” / vanity projects of local politicians – beware the experience of Sri Lanka, now seeking IMF assistance.
- Is already influencing investment decisions by China backed transportation firms:



“Our development plan mirrors One Belt One Road and this is the primary driver of our expansion strategy. We continue to look for more partners to work with overseas.” Bai Jingtao, Managing Director at CMHI, Mar 2016

China's "One Belt One Road" Initiative

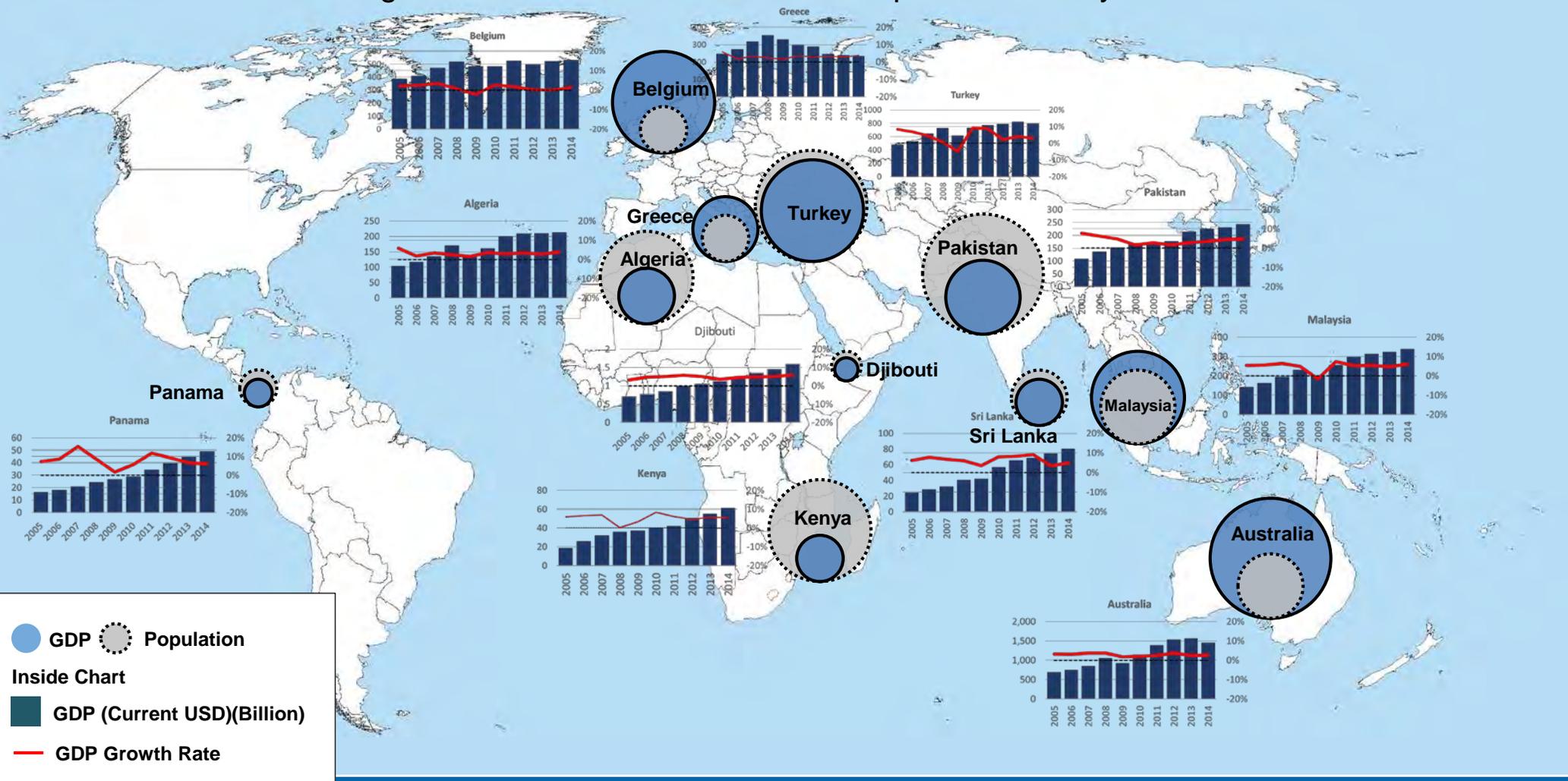
A moving Belt & Road...

- Some existing and intended port investments lay outside the original version of OBOR



GDP and Population of Selected Countries along the “Belt and Road”

- Many of the economies with Chinese-stake ports (existing or intended) are rather small (and stale)
- Conditions for foreign investments: loan terms? Use capitals? Ancillary infrastructure?



Public Policy & Port Strategy - Should Port Planning Prioritise IE or Transshipment Cargo?

- A gateway port with a large volume of IE cargo is in a stronger position to “top-up” its volumes with transshipment should it wish / be able to.
- A transshipment port is unlikely to be competitive for IE cargo that can use direct services at a competitor / nearby port. Direct calls are usually preferred
- However, some (e.g. Westports, Busan) argue that attracting transshipment will ensure better connectivity for its exporters.....
- ...whereas importers / exporters often complain they are subsidising ‘cheap transshipment’
- **Economic benefits?**
- Development needs to be at substantial scale to meet the need of mega alliances and mega vessels – in SE Asia, the days of starting out with 600m and phasing are probably gone
- But low yield per lift, therefore is public subsidy required to support capex?
- A “winner takes all game” with high entry requirements or investment stakes – reward unlikely to be high....**Can they afford to play the game?**

Thank You – Any Questions?



Ports, Logistics & Transport Services

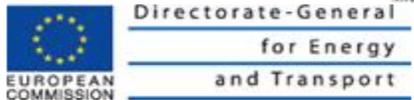
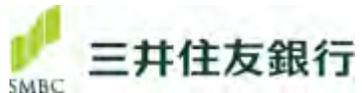


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