City ports' 21st Century call to action: understanding and dealing with heightened threats from an increasingly globalised economy ©

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Summary

- Review of Key issues impacting port authorities
- Brief evolution of city-ports
- Review of current environment for city-ports
- Where is the common ground between cities and ports
- Strategies and solutions

Port Authorities under siege

REVIEW OF KEY ISSUES IMPACTING PORT AUTHORITIES

21st century market dynamics

Dynamic	Impact
Global trade growth	expansion of port infrastructure
Global Carriers	Logistics chain vertical integration at cost of cities/ports; control from local/regional to global
Changing role of ports	operators to asset managers
Political & social constraints	congestion/contamination = truck to rail; transfer non throughput activities off port
Larger ship size	deeper hinterland reach; integration of logistic chain; higher demand for specialised facilities

Ramifications of ship size on ports

Follow the leader…

Herd mentality – once one carrier upsizes, all others have to follow

Regina Maersk 7,400 teu
Mid 1990s
Other carriers followed…

Emma Maersk 15,500 teu
Mid 2000s
Other carriers followed…

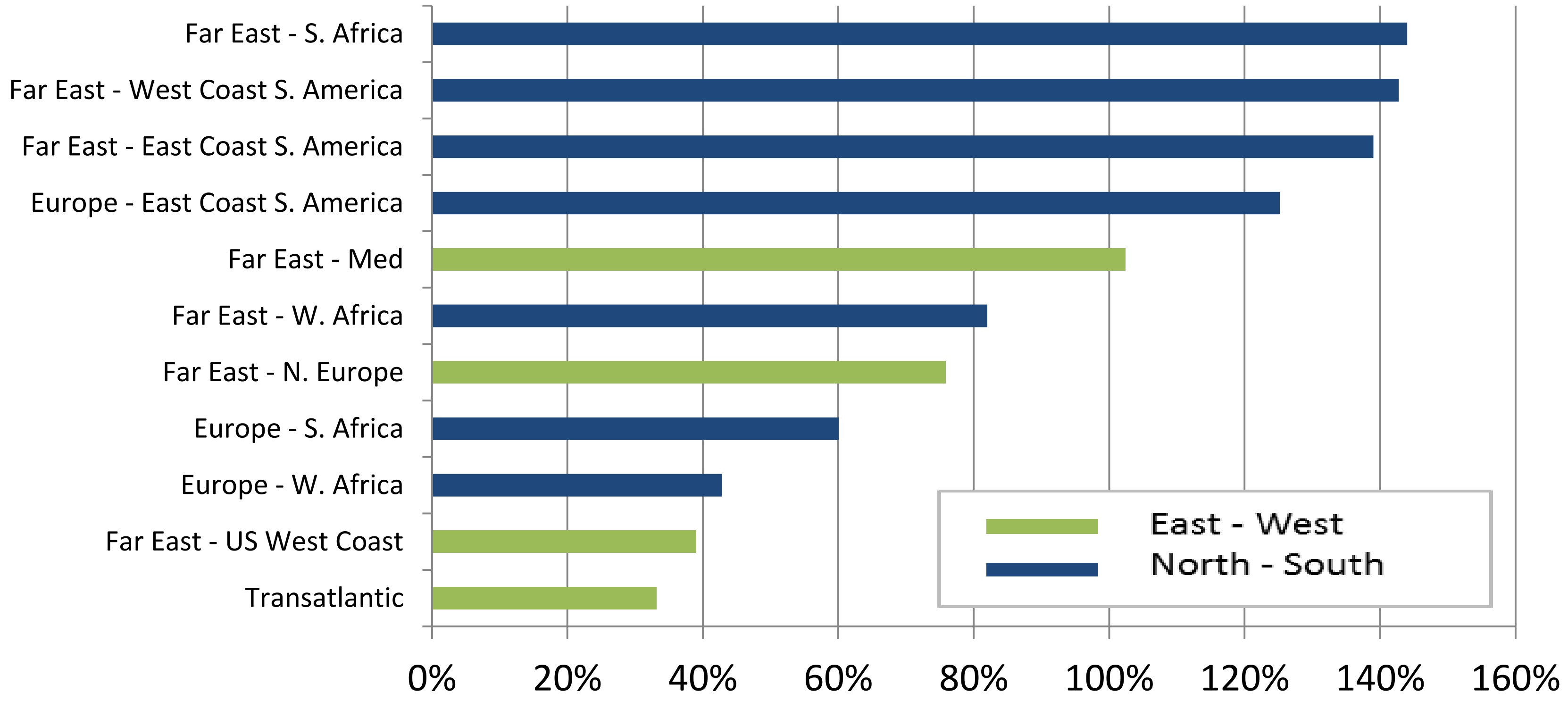
Maersk Triple E 18,000 teu
2013
Other carriers following…

Lloyd's Register
GL Germanischer Lloyd
Royal Haskoning
Ocean Shipping Consultants
stx

22,000+ teu vessels?
2018?
Carriers will follow…

Increase in average container ship size by trade route, 2006-2013

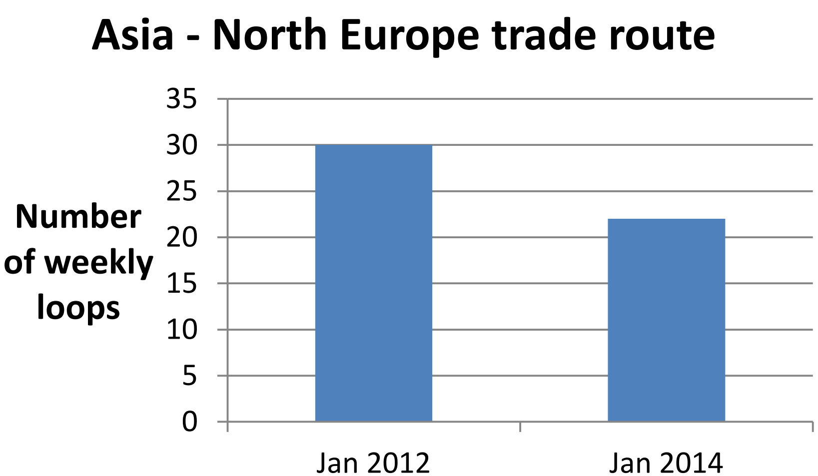
Massive increases in ship sizes, especially in north-south trades

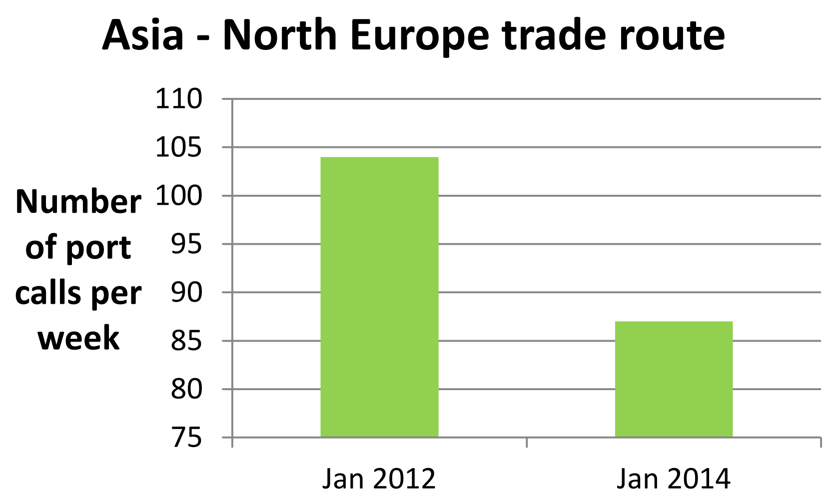


Bigger ships and bigger alliances

No reduction in the list of ports called at, but greater peaks

- Typically the same number of ports called at per loop, but less frequently
- Fewer port calls by bigger ships = greater peaks and troughs at terminals (shipside and landside)

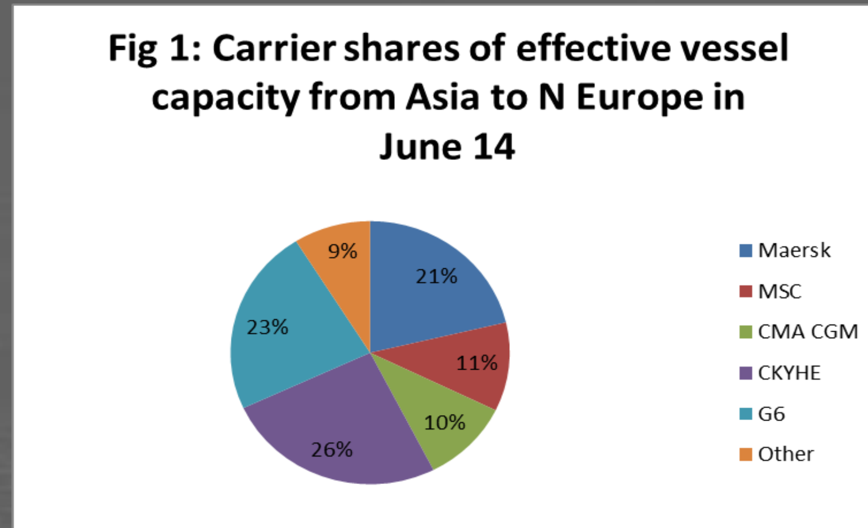


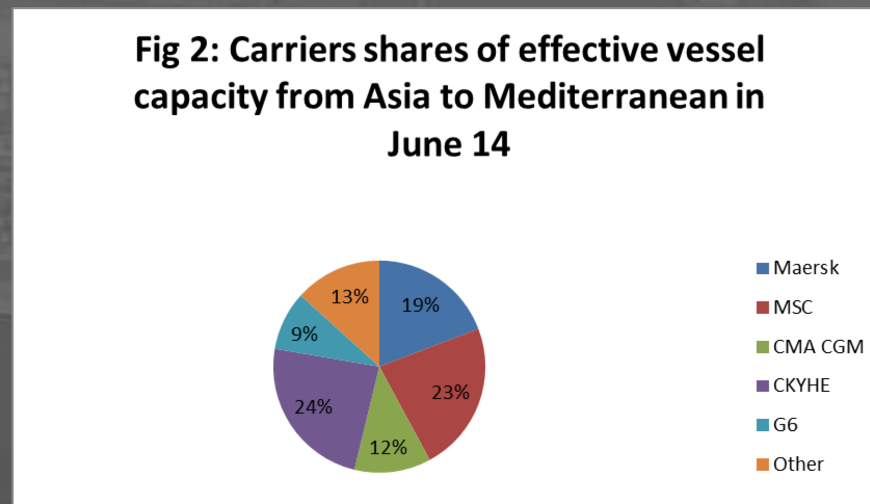


Same list of ~10 North European ports called at

Further industry consolidation

- Maersk/MSC announce '2M' after failed 3P
- Objective: reduce costs by optimising assets between: Asia/Europe, Asia/US and Europe/US
- Drewry analysis: 2M – 32% share of all Westbound vessel capacity, > than EU consortium regulations allow
- Prediction: 2M to become largest alliance in Europe/Asia route; will be approved because will reduce costs





Bigger ships and bigger alliances

Demand for bigger terminals due to consolidated volumes

- Annual volumes per "customer" are increasing - need for bigger terminals in each port and/or bigger ports
- Fragmented terminal capacity – **both physically and in terms of ownership** - is a challenge for many ports e.g. US west coast

Port	Seattle	Tacoma
2013 throughput	1.6m teu	1.9m teu
No. of container terminals in the port	4	5
No. of container terminals with carrier stakes	4	4

Growth of container ship capacity net results

- Fewer vessels on the seas
- First half of 2014 saw decline in number of vessels – first time in two decades
- Global fleet teu capacity increases 6% per annum solely from average ship size
- Impact for ports: volume to be concentrated in fewer ports, less frequent joint services
- There will be winners and losers

Big Ships' impact on port and property?

- Most large ports are land constrained yet…
- 8,000 TEU ship requires 40 hectares for smooth inbound container flow; 12,500 TEU ship? ≈ 65 hectares
- Processing thousands of TEU's requires major port and logistics infrastructure, distribution centres, land
- Throughput per acre - key for customer profitability and satisfaction

'The big ships are putting pressure on civil infrastructure and yard sizes. If you cant get the boxes out quickly, you run out of space and it becomes a matter of where you put them.'

Jeff de Best, COO, APM Terminals (Port Technology International 19 August 2014 interview)

Married, divorced and now reconciliation?

BRIEF EVOLUTION OF CITY-PORTS

City port evolution

- Land – sea interface > cultural crossroads > hubs of trade and commerce > city
- Europe: sea links to major inland population centres
- New World: gateways to interior exploration
- Asia: centres of population

City – port partnership

- Strictly co-dependent until the 19th Century
- 19th Century: nexus for all transport routes out and in of cities; first expansion of ports outside city perimeters
- 1960’s: advent of containers; first split in city – port partnership; beginning of revolution

Port functional obsolescence

- Containerisation leads to larger ships
- Deeper navigation channels and terminals, more land to process cargo required
- Terminals move downstream to deeper water; leave behind blighted, industrial waterfront
- Technology changes employment needs, port less of an employment centre

Port economic obsolescence

- City population expands, city growth encroaches in and around ports
- Economic 'Highest and Best Use' argument becomes factor for alternative port land use
- City argues port lands could offer needed higher density residential, commercial, retail and leisure space
- Alternative use would result in lower noise, light, air, higher tax base and revenues to city pollution

An already challenging neighbourhood getting more challenging

REVIEW OF CURRENT ENVIRONMENT FOR CITY PORTS

Port authority's environment?
It's a jungle out there!

- Cities running deficits, budgets do not support entitlements = aggressive hunt for revenues, ports easy targets
- Ports' history as corporate citizens
- Port authority structure easily allows their use as strategy for 'economic development' and its bank, rather than run as a business
- City demand for urban waterfront – next slide

Port authority's environment? It's a jungle out there!

- Urban industrial waterfront can be turned into magnets of city development:
  - London Docklands
  - Hamburg's Hafen City
  - Rotterdam's Kop Van Zuid
  - New York's South Port
  - Baltimore's Inner Harbor
  - Buenos Aires' Puerto Maduro

Ports need to act strategically…

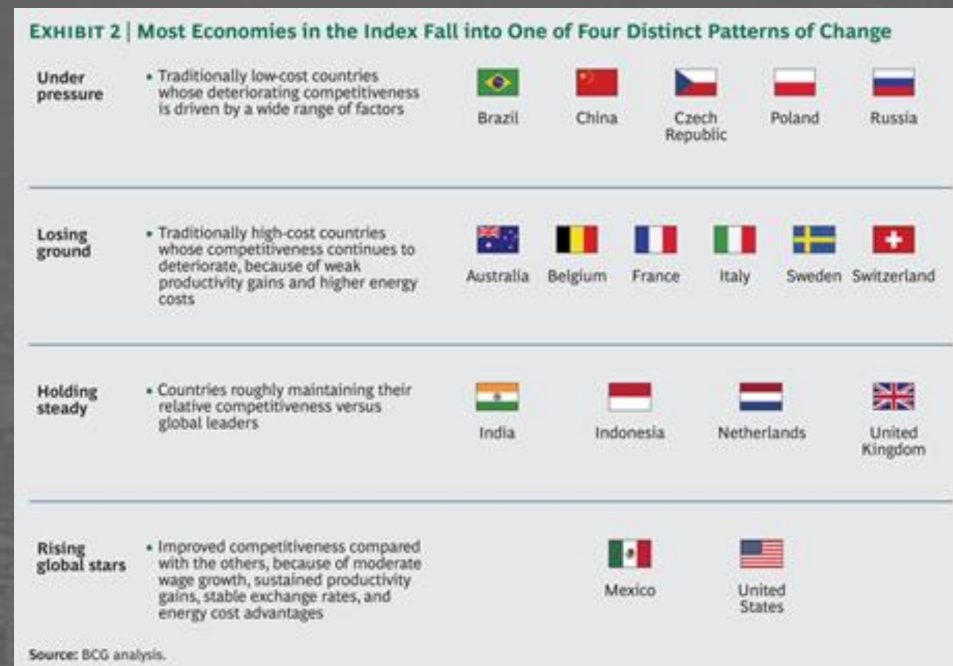
WHERE IS THE COMMON GROUND BETWEEN CITIES AND PORTS?

Port's new competitive environment

- Competition today not between countries but between regions (eg, NAFTA and ASEAN) and Global Cities
- Competition today not between ports but between supply and logistics chains
- It is all about delivering the fastest, cheapest and deepest supply route for clients – ports need to take the lead
- Cities with ports need to understand these dynamics – they don't

Dramatic shift in cost and supply chain competitiveness = changing global production strategies*

- Low cost manufacturing centre perceptions out of date
- BCG study: China, Brazil, Russia, Czech Rep no longer < expensive than US
- China's manufacturing cost – 6% > than Mexico
- Mexican labour 13% less expensive than China, adjusted for productivity
- Rising manufacturing Global Stars: US & Mexico



Boston Consulting Group: The Shifting Economics of Global Manufacturing: how cost competitiveness is changing worldwide (2014)

Ports – nodes in ever expanding/integrating global supply chain

- Supply/logistics chains increasingly controlled by global shipping lines, 3PL's

•Present supply chain weak link - ports' inability to process more throughput faster

- 'Just in time' now 'integrated time', requiring diversified gateways; more specialised facilities like 'fast buildings'

- Property at, near and related to ports and through supply/logistics/growth poles key to addressing these issues

This is a marathon, not a sprint…

STRATEGIES AND SOLUTIONS

Pending questions and issues…

- Wrongly defined core business mission makes ports less competitive, at higher risk of economic obsolescence (ie, economic development costs)
- Shippers/shipping lines will go to most efficient supply chains: will/can the port and its city deliver?
- Ports need to take on more proactive and strategic role in ‘educating’ the city of its challenges, potential and real value
- Example: simple economic impact studies are passive; could backfire as cities use the same strategy to present case for alternative uses
- To survive, ports must be exemplary corporate citizens but also defend its ability to operate as a business or be left behind

But this is just the beginning…

CONCLUSION

Conclusions

- Ports are under attack from various sectors
- Ports need to leverage off of existing hinterland infrastructure to consolidate their positions
- Ports need to be more strategic and proactive in their relationships with cities
- The environmental constraints should be embraced, they are the highest barriers to moving port facilities elsewhere

Thank You

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