



Port development as the means of increasing cargo and trading opportunities attracting manufacturers to coastal hubs and accelerating industrial growth

IICE 2016

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November 2016

What ships and shipping matters?

- Dry bulk
 - Coal
 - Bauxite
 - Liquid bulk
 - Petroleum products
 - CPO
 - Containers
 - Unitised cargo
 - 85-90% of manufactured goods for international trade
 - Cars, project cargo etc...
 - 5-15% of international trade
-

What do the industrial users want?

Industrial users are the Beneficial Cargo Owners (BCOs) for both shipping lines and ports. BCOs have three main foci for their Key Performance Indicators:

- Reliability and frequency
- Minimum cost
- No damage

Reliability is critical. It changes direct and indirect costs. If a BCO can rely 100% on a delivery every 7 days inventory is half that for 14 days (inc. storage, financing etc.)

Damage matters as it impacts inventory needs and can disrupt operations or retail activity. It is a prerequisite as liner shipping companies have taken strong action.



2014

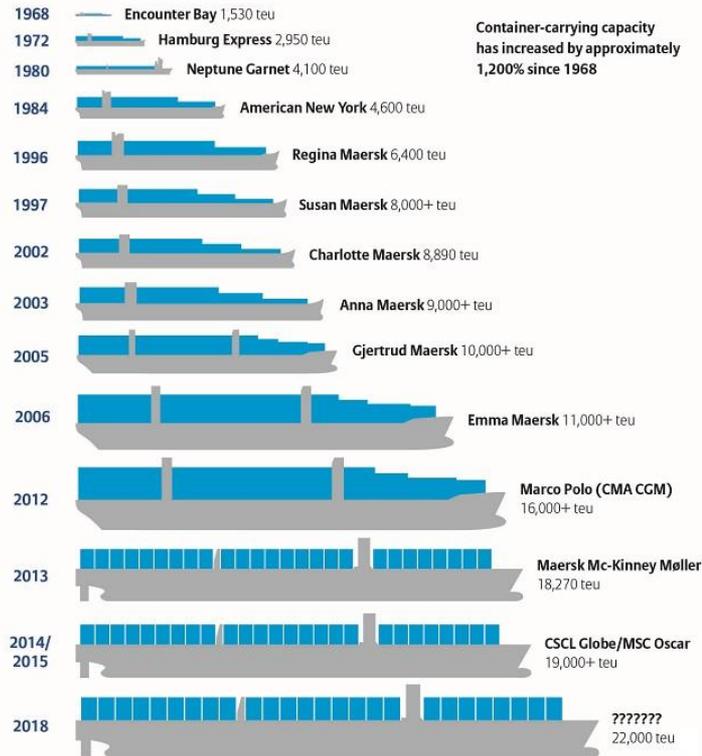
1. Reliability of booking
2. Accurate documentation
3. Availability of cargo space
4. Customer service quality
5. Delivery of information
6. Cost of service
7. Stability and transparency of rates
8. Accurate billing
9. Transit time
10. Tracking and tracing

2015

1. Reliability of booking
2. Availability of cargo space
3. Cost of service
4. Accurate documentation
5. Delivery of information
6. Customer service quality
7. Quality of equipment
8. Transit time
9. Contract quality
10. Accurate billing

Ever larger ships...

50 years of Container Ship Growth

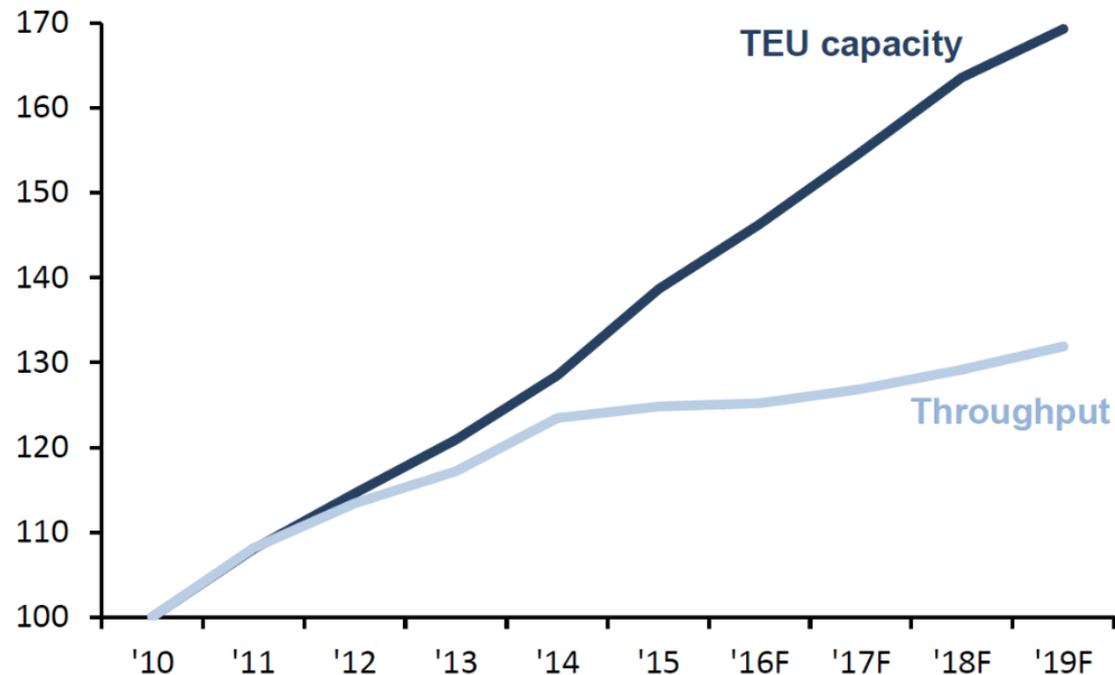


Graphic: Allianz Global Corporate & Specialty.
Approximate ship capacity data: Container-transportation.com

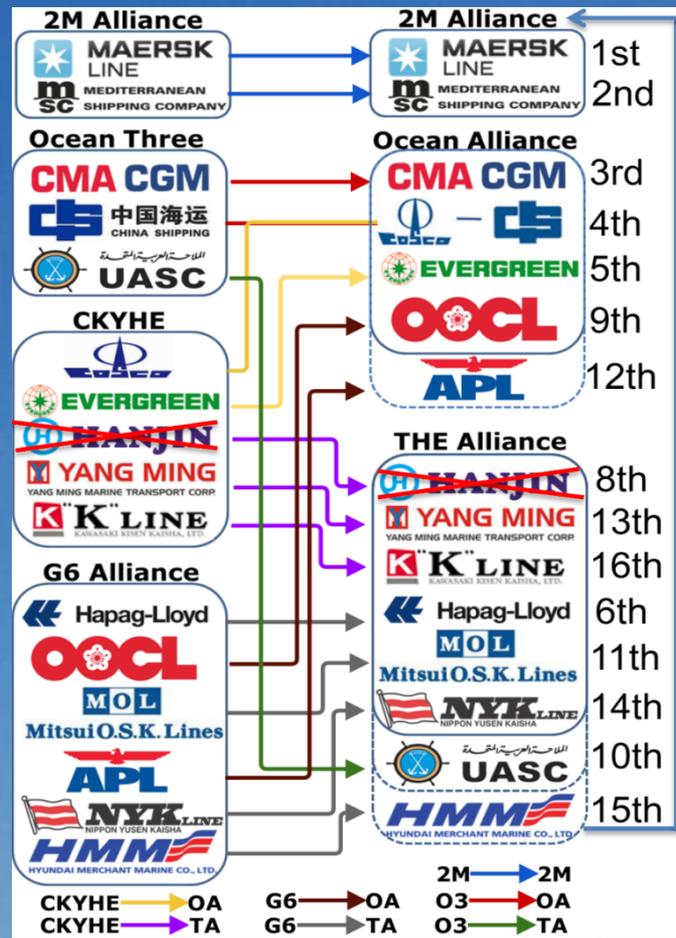
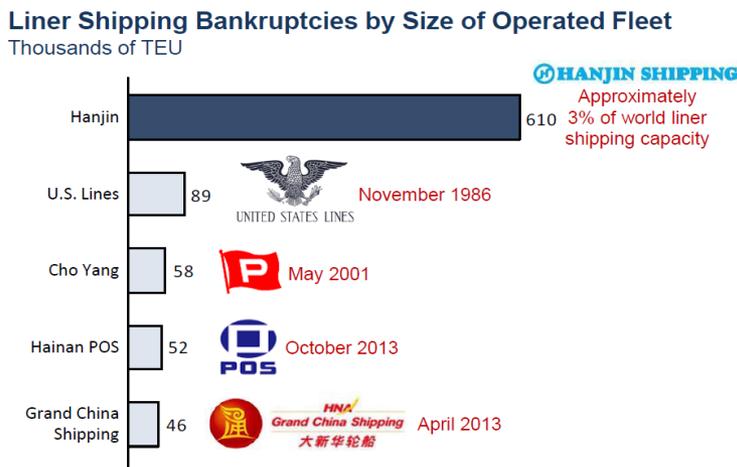
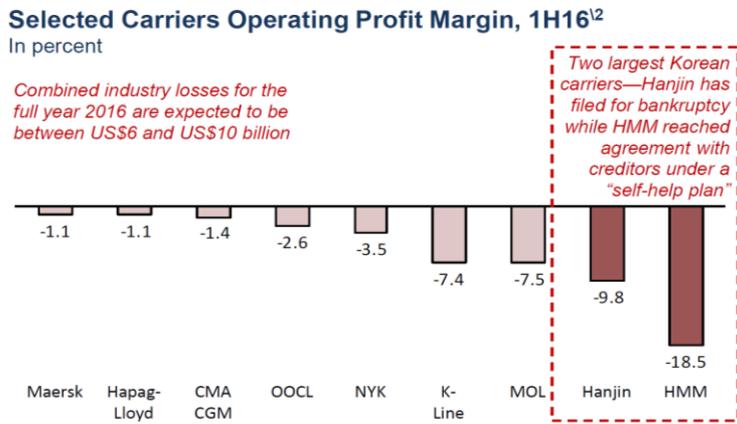
Shipping is in crisis...and will remain there

Supply-Demand Balance in Container Shipping, 2010-2019F

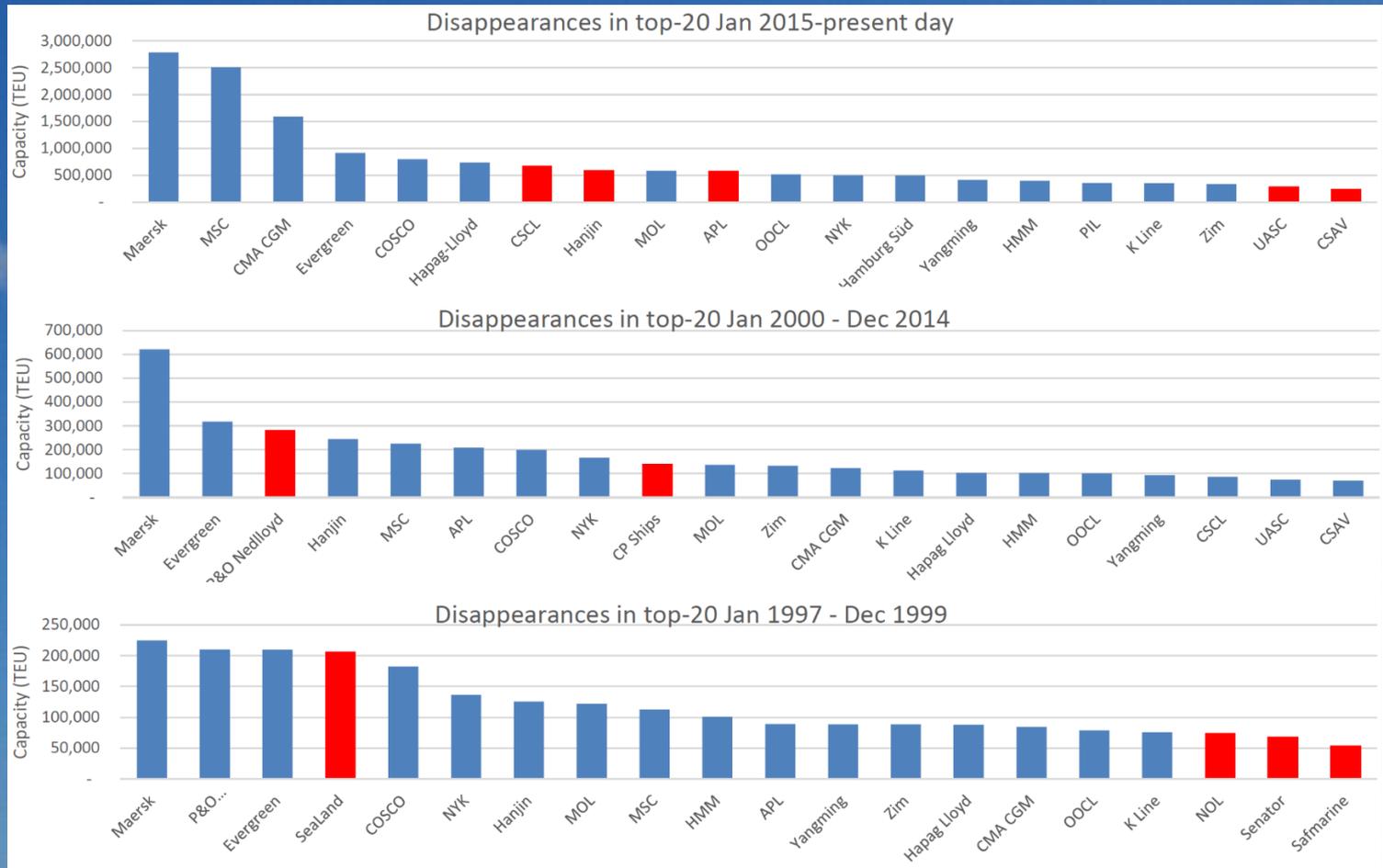
2010 = 100



It is a chaotic crisis...



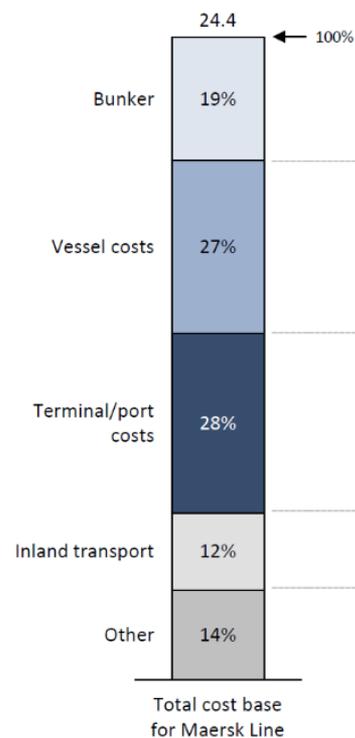
The emergency of industry leaders?



Network costs are critical

Using Maersk Line as an example:

2014 Cost Breakdown for Maersk Line
US\$ billions



Network-based measures to reduce cost by cost category

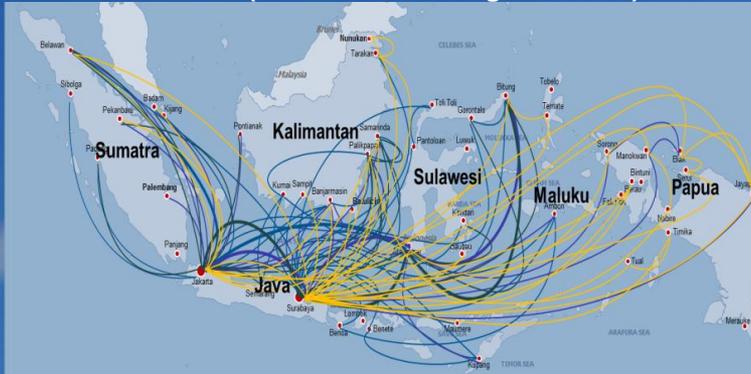
- Minimize sailing distance
 - Minimize sailing speed
 - Reduce port time through port-side productivity improvements
- Right-size asset deployment
 - Reduce idle/waiting time
 - Minimize port calls
 - Balance and complement long-haul network with feeder spokes
- Select lowest-cost ports and terminals
 - Reduce transshipment handling volumes
- Only relevant for gateway ports and in those instances where carrier haulage is used; in Malaysia, this component is not a major cost consideration for liners

Key points

- Vessel network can influence as much as three-quarters of a typical deep-sea line's annual spend
- In achieving the "optimum" network a number of tradeoffs can be made, including:
 - ✓ Reducing the number of port calls vs. reducing the incidence of transshipment
 - ✓ Direct calls versus hub-and-spoke pattern
 - ✓ Pursuing terminal cost savings vs. attaining terminal productivity enhancements
- In other words, network design ultimately comes down primarily to the option that generates the **lowest overall cost**, with the major cost elements being:
 - ✓ Vessel costs
 - ✓ Bunker costs
 - ✓ **Port and terminal expenses**

Reducing logistics costs in Indonesia

Current network (No reduction of logistics cost)



Proposed network (logistics cost reduced)



New and larger ships reduce costs



Source: Drewry Maritime Research

Not forgetting the importance of international connections



Relevance to SEZs and Indonesia?

Increasing ships sizes in container shipping have plunged the industry into crisis but these ultra large ships are not going away for many years and will push growth in ship size on smaller trades

The number of ports that large ships call will reduce not increase

Only one Indonesian port is ready for the Ultra Large Container Ships

This will accentuate cost problems related to transshipment

New terminals (particularly small terminals) will find it hard to find sufficient cargo to attract the large ship calls that provide low freight costs

New ideas must be adopted to ensure that SEZs and more remote parts of Indonesia gain effective and reliable access to world trade routes

Few shipping lines want of can invest in terminals, the operators are also very wary...

Europe uses RORO as a key feeder and domestic shipping network to reduce logistics costs...

Travel distance of more than 3 days favors the use of containers
 Travel distances below one day favors RORO ships and this figure is increasing significantly as container ship sizes increase
 RORO terminals are far cheaper to build and operate than container terminals

	Priok	Pontianak	Belawan	Panjang	Perak	Makassar	Banamarsin
Tanjung Priok	0.0	1.1	2.3	0.3	1.0	2.0	1.6
Pontianak	1.1	0.0	1.7	1.2	1.3	2.1	1.4
Belawan	2.3	1.7	0.0	2.4	2.8	3.6	2.9
Panjang	0.3	1.2	2.4	0.0	1.3	2.1	1.5
Tanjung Perak	1.0	1.3	2.8	1.3	0.0	1.1	0.6
Makassar	2.0	2.1	3.6	2.1	1.1	0.0	0.9
Banamarsin	1.6	1.4	2.9	1.5	0.6	0.9	0.0

What type of RORO is needed?



GRT	Duta Banten	Stena Traveler
GRT	8,011 GT	27,000 GT
Length	120	200 m
Built	1979	2007
Draft	5.4 m approx.	5.7 m to 6.4 m
Lane Meters	800 m	3,000 m
Speed	17 knts	22 knts
Cost/lane m	US\$ 6,000 /year	US\$ 3,750 /year

Special economic zones and ports...

There have been some significant successes where SEZs have been associated with ports. Dubai and JAFZA are one example and Sohar with its heavy industrial is another.

However at more normal scales, or in light or containerized sectors an SEZ may generate 50,000 to 250,000 TEU and this builds up over a relatively long period of time.

A commercially viable container terminal is more normally in the order of 500,000 capacity/throughput.

The usual situation is therefore it is possible for a container terminal to make an SEZ successful by providing it access to market.

However, it is unusual for an SEZ to be big enough or quick enough in development to make a port and particularly a container port succeed.



Thank You

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