



IX AGEPOR CONGRESS

Shipping market developments and
perspectives for Portuguese ports

10th October 2016

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Drewry's Introduction

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Our four Business Units

Maritime Research



Our research provides the robust analysis and balanced opinion those within shipping, finance and logistics need to make informed business decisions.

The range of titles and reports we publish keep our clients up to date on every key maritime sector, from dry bulk to chemicals and from LPG to ferries, with detailed analysis and insightful commentary on past, present and future sector performance.

Maritime Advisors



Our **Maritime Advisors** offer a wealth of experience across the maritime sectors and lead the industry in their respective areas of specialisation. Our sector expertise covers; ports, bulk shipping, liner shipping, shipyards, ferry and RoRo, technical ship management. Our combination of deep sector understanding, technical expertise and market leading insight enables us to be confident in our actions and ability to deliver the right results for our clients.

Supply Chain Advisors



We focus on advising users of international multi-modal transport services, taking our extensive understanding of the industry and applying it to all stages of the supply chain. Through our supply chain research catalogue and industry knowledge, we offer a range of procurement support services that empower importers and exporters, providing them with the tools, resources and tailored advice they need to more effectively manage their transport service provider and international supply chains.

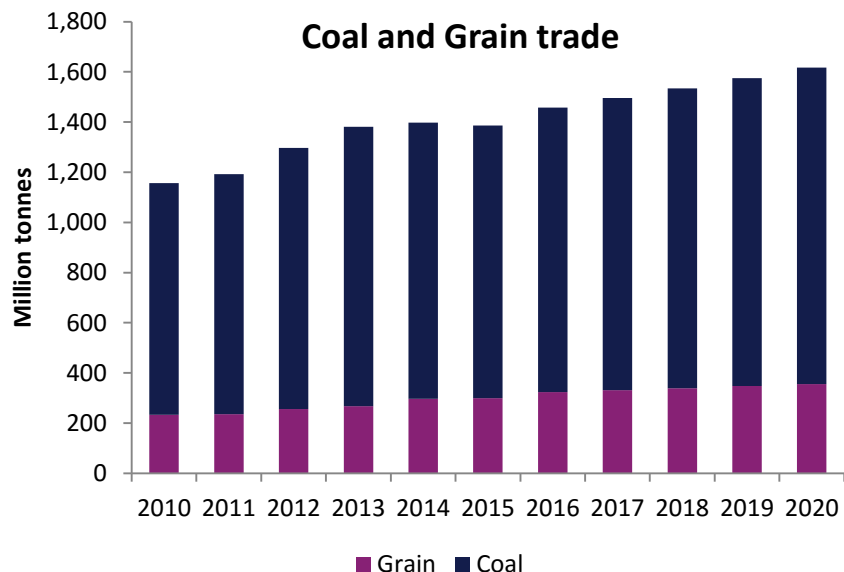
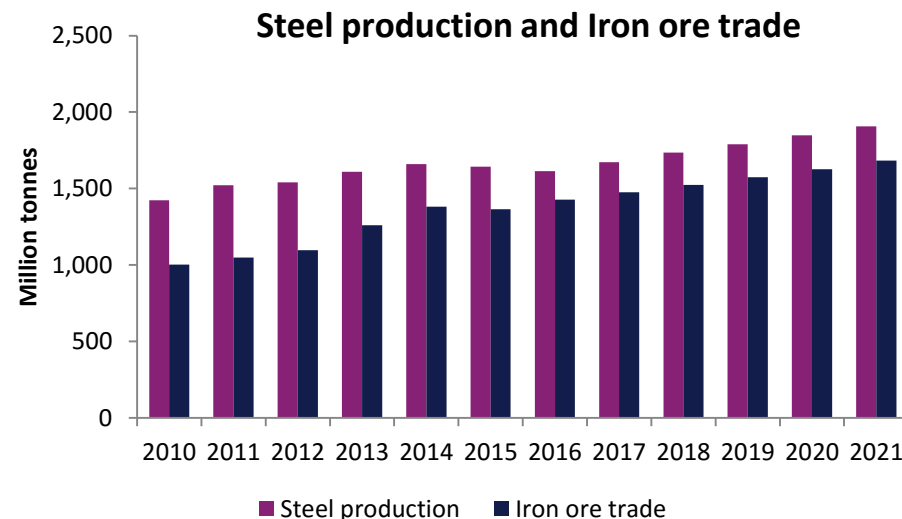
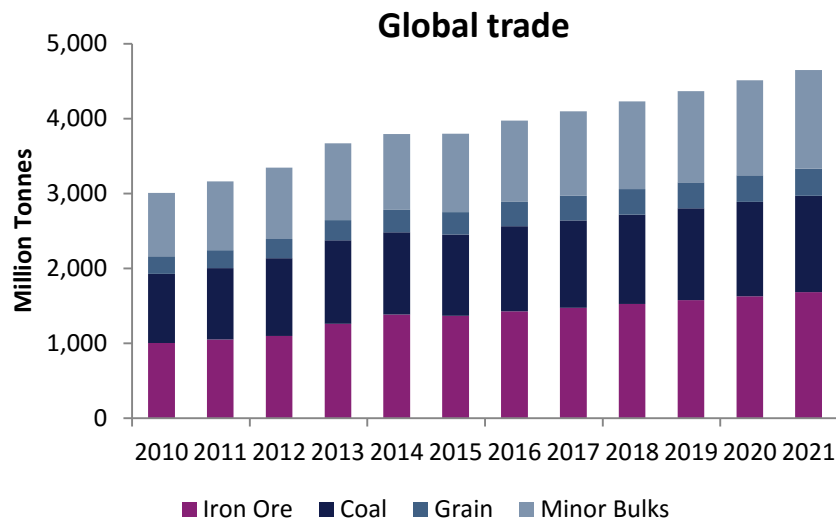
Maritime Equity Research



Combining our market-leading resources with seasoned sector expertise and commercial awareness we are now able to offer a highly differentiated and comprehensive Investment Research Service to prospective investors in publically listed maritime and shipping companies. Our service covers a range of report formats, supporting resources and sector orientated webinars aimed at providing our clients with the most complete picture of the organisations under coverage as is possible.

Market Outlook - Dry Bulks

Dry bulk trade is expected to grow above 4% this year



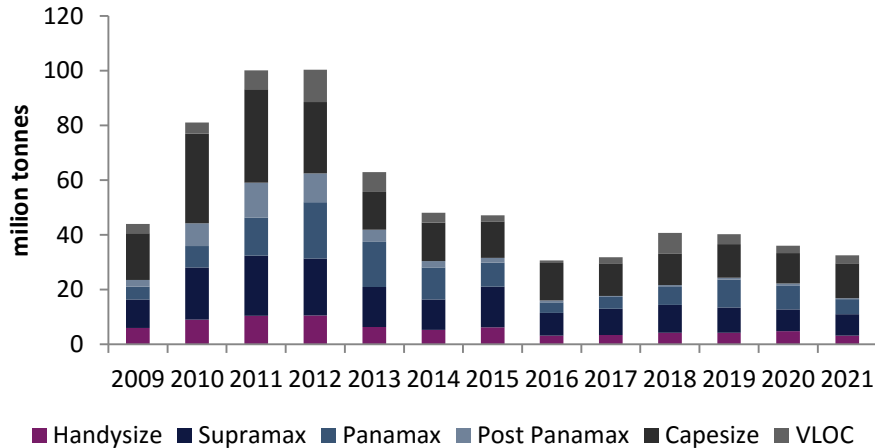
- Minor bulk trade is expected to increase by 3.5% in 2016 resulting into better employment of smaller vessels
- Drewry believes global thermal coal trade for 2017 and thereafter will rise slower than 2016 as many economies are shifting away from coal-based power generation
- Iron ore trade is expected to rise at a slower pace of around 3% till 2020
- The grain production due to favorable weather conditions in the EU, the US and Russia is expected to remain high in 2016 but the consumption majorly from China, a major importer, is likely to fall due to rise in domestic production of wheat and other grains

Source: Drewry Maritime Research

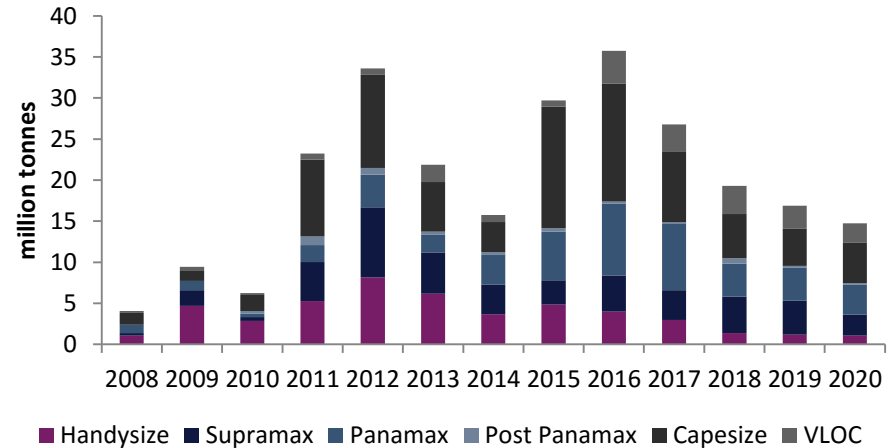
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Dry bulk supply to grow at a slow pace

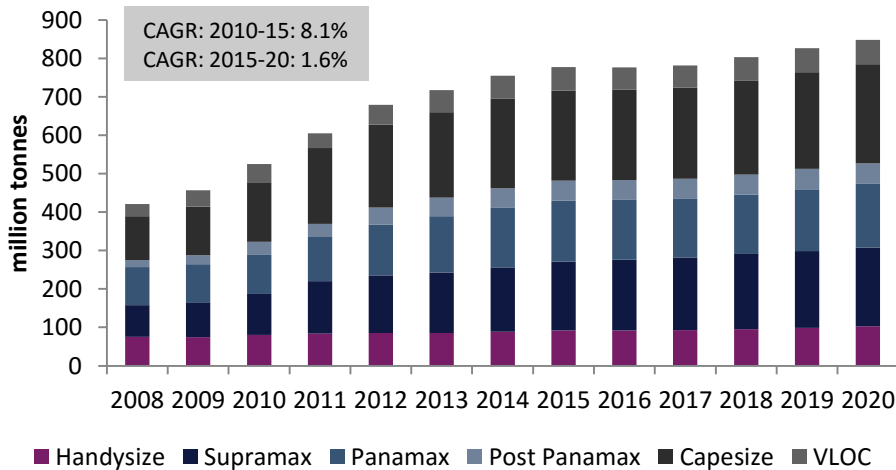
Dry bulk deliveries



Dry bulk demolition



Fleet development

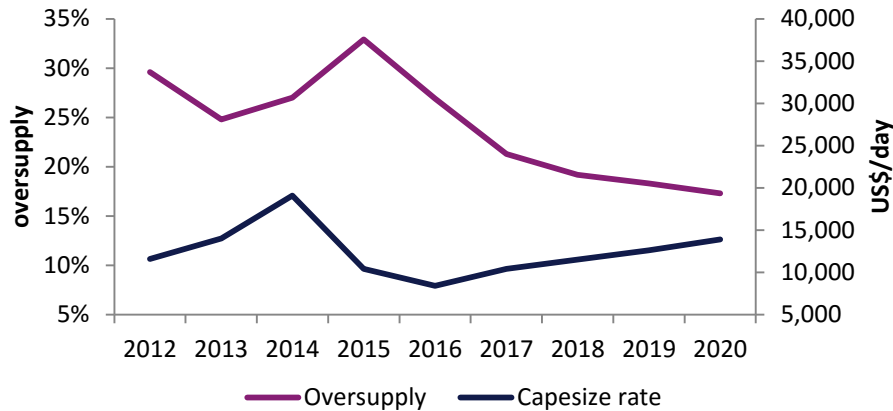


- With more than 30 million dwt to be added and a similar number of vessels expected to be removed, the dry bulk fleet is expected to remain stagnant in 2016
- The demolition activity remained high in 2015 because a majority of shipowners earning below the operating cost decided to scrap their vessels. The demolition activity is projected to be record in the first half of this year
- The average age of the dry bulk fleet declined from 9.5 years in the beginning of 2015 to 8.8 years by April 2016

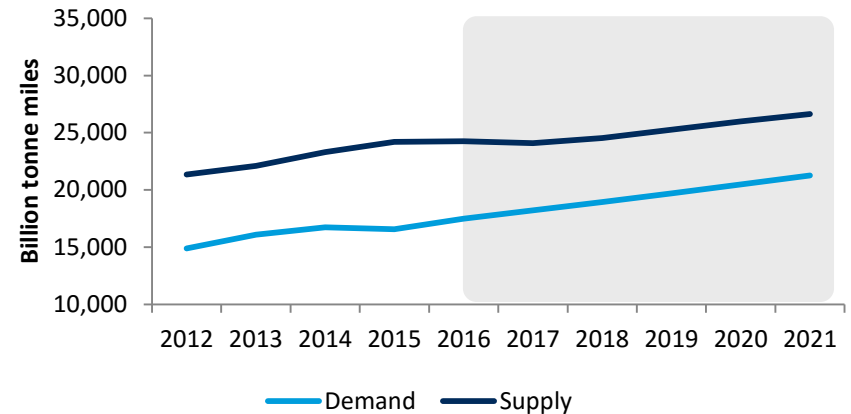
Source: Drewry Maritime Research

Dry bulk market is expected to recover at a slower pace

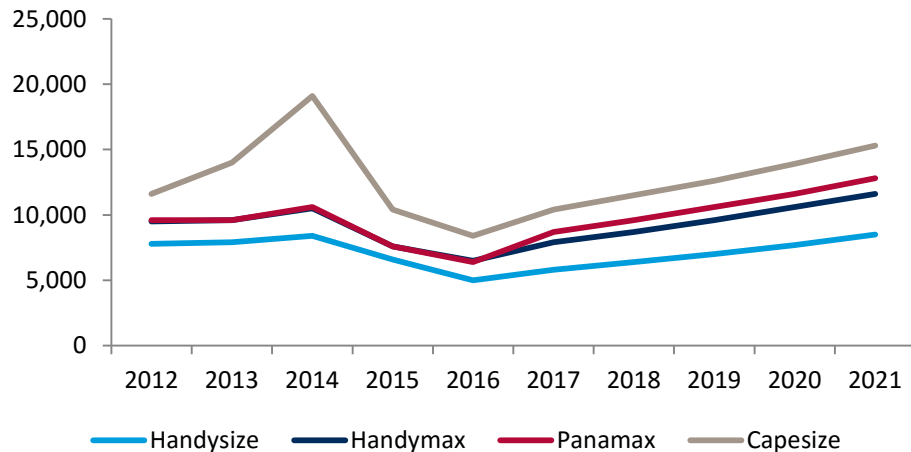
Oversupply as % of demand



Tonne-miles supply and demand



Time charter rates (1-year duration)



- The record high demolition and low new orderings will provide relief to the oversupplied dry bulk market and rise in China's iron ore demand will help Capesize freight rates to improve in 2016
- However, overall 2016 is expected to be at the historical low
- With earnings struggling below the operating cost layup activity in all segments peaked in 2016 as shipowners prefer to layup than sail at negative earnings

Source: Drewry Maritime Research

Dry Bulk market outlook

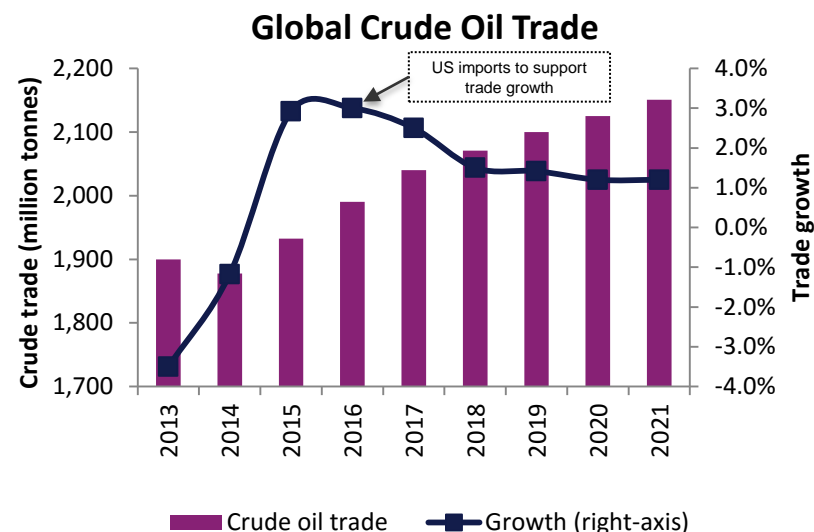
- No great risk in terms of global economic growth. Most of the emerging economies expected to grow.
- China's fresh appetite for coal and iron ore improvements, largely due to the rising domestic cost of production, will help trade grow at a healthy pace.
- Emerging economies will have higher steel intensity going forward due to increased infrastructure investment.
- The oversupplied dry bulk fleet will get some relief with record high scrapping and low new ordering by the shipowners.
- The continuous declining in demolition age reflects desperation of owners to exit market.
- The freight market is expected to keep improving in 3Q16 as a correction in supply and improvement in demand will help over supply to contract. However, the full recovery can not be expected anytime soon as the unstable fundamentals will take time to stabilize.

Market Outlook - Tankers

Oil trade to increase at a good pace in 2016-18

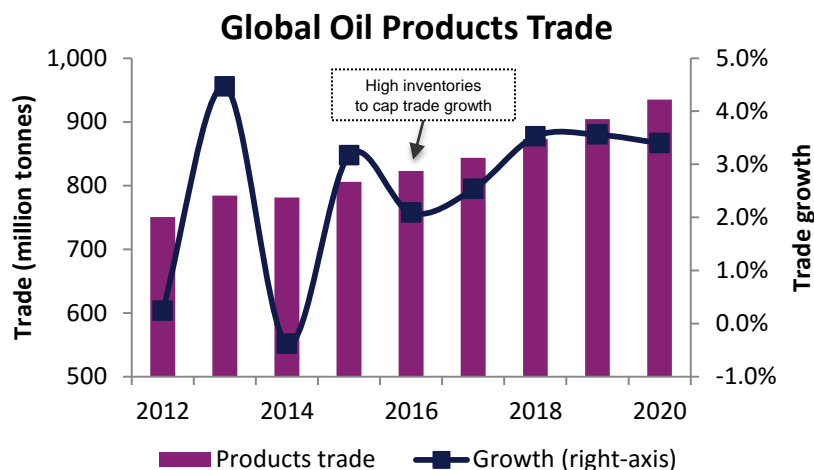
Crude oil trade

- Global crude oil trade to increase by around 3% p.a. in 2016-17
- US imports declined in the recent years due to rising domestic production, now with low oil prices hurting domestic production, imports are rising again
- Higher than normal growth in oil demand to support oil trade in 2016-17, demand to increase by 1.4 mbpd as compared to normal growth of 1.2 mbpd
- Expansion in refinery capacity in the Middle East and high inventories to cap the trade growth



Refined products trade

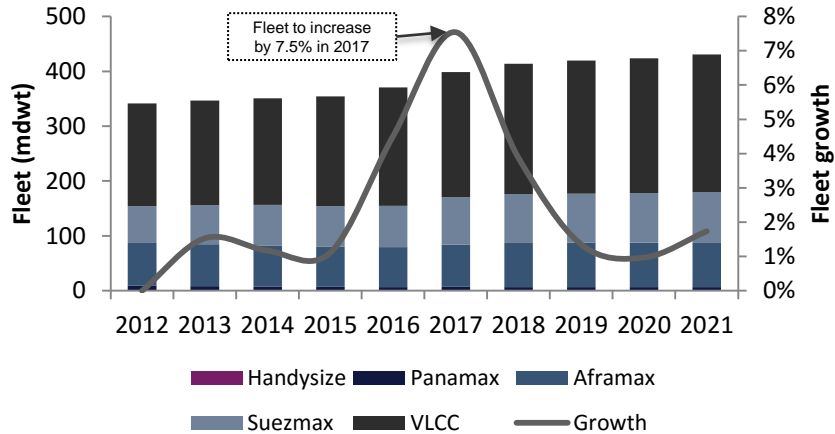
- High inventories to cap the pace of products trade growth
- Rising demand to support products trade
- Increasing refinery capacity in Asia and Middle East to result in an increase in long haul trade



Source: Drewry Maritime Research

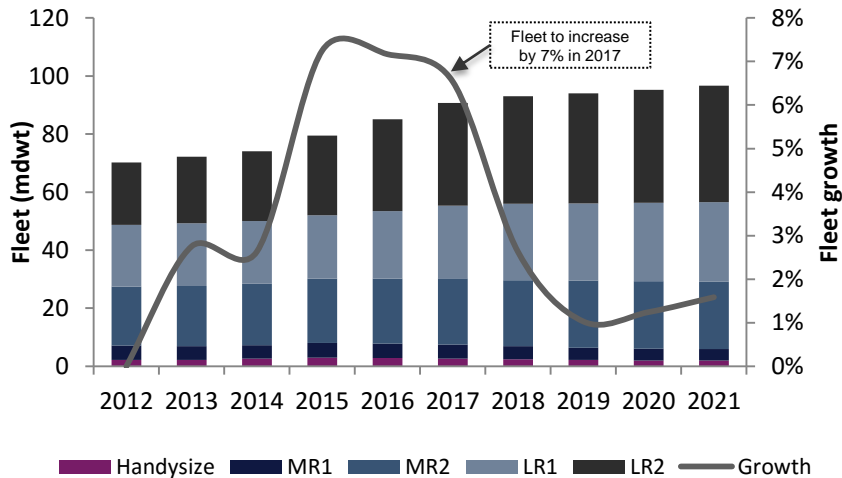
Tonnage supply to surge in the next two years

Crude tanker fleet development

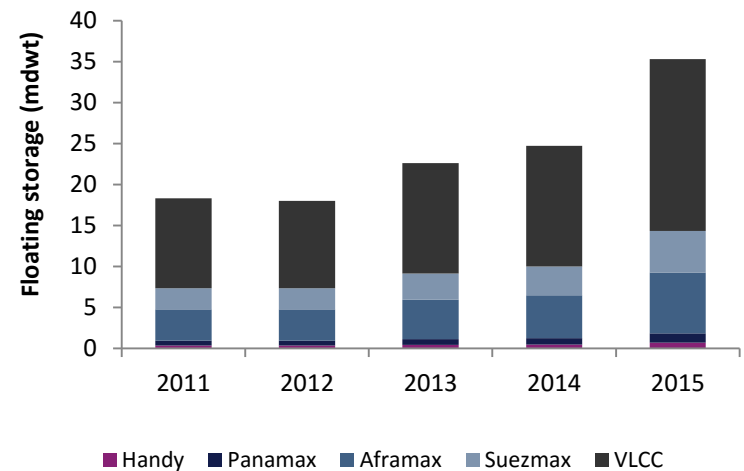


- Tanker fleet to expand by more than 10% by the end of 2017 on account of a strong surge in deliveries
- Although demolitions will also increase, but they will not be enough to curb fleet growth
- If floating storage, which surged recently, declines gradually in the 2017 when oil market reaches in a balanced position, it will further inflate the tonnage supply
- Fleet growth to retard after 2018 as deliveries decline

Product tanker fleet development



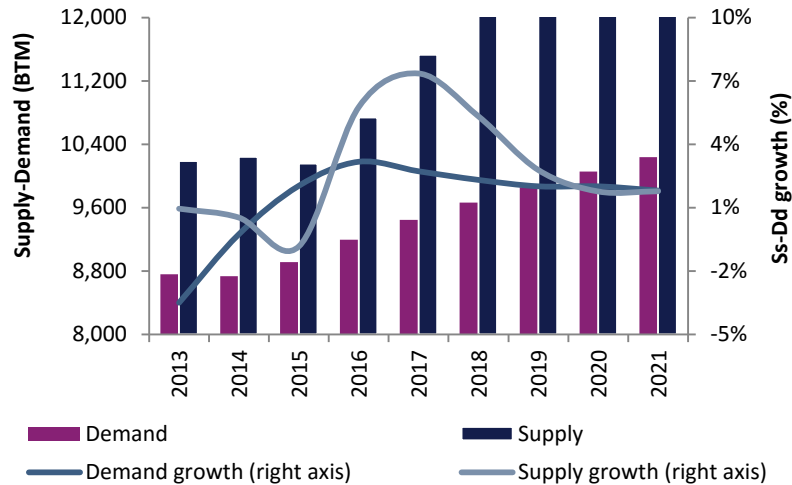
Floating storage



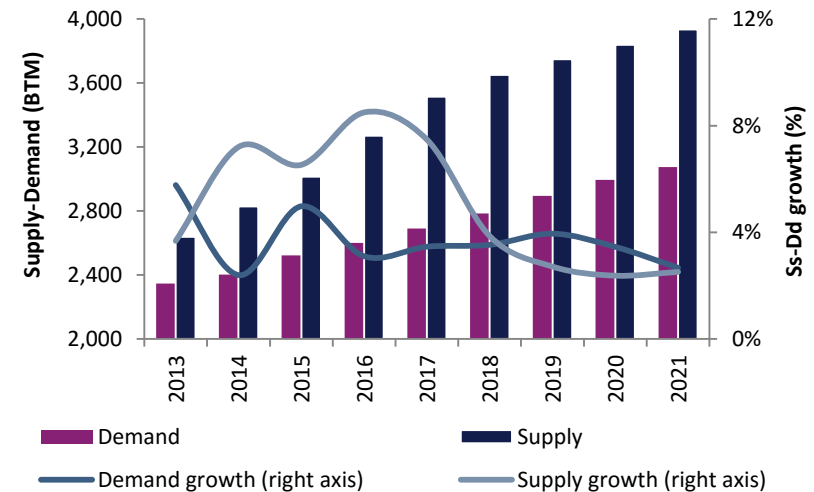
Source: Drewry Maritime Research

Tanker market outlook

Crude tanker supply-demand balance



Product tanker supply-demand balance



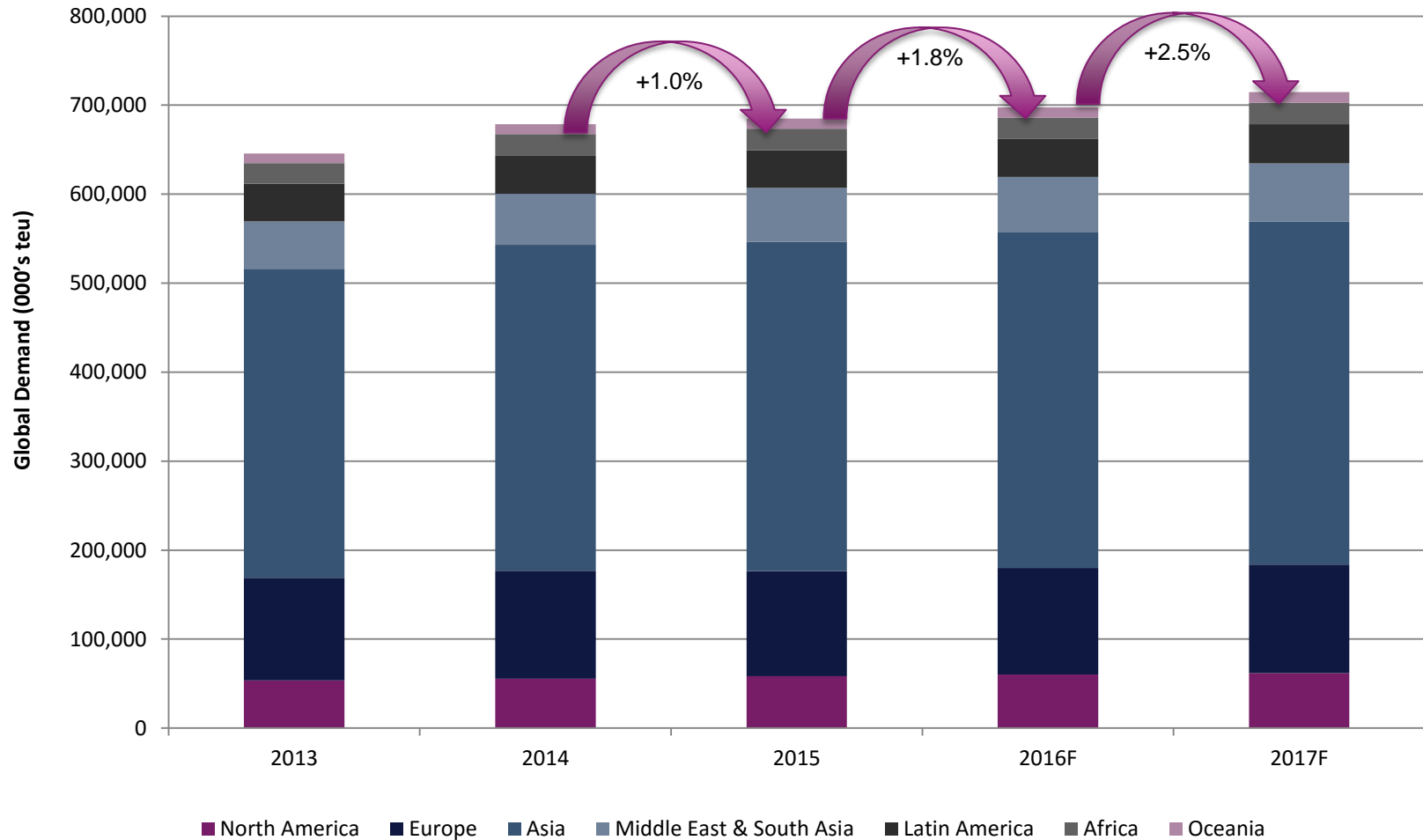
- Although demand growth will remain firm in 2016-18, the tonnage utilization will decline for both crude and product tankers due to strong surge in fleet.
- In the later years (2019-21), although fleet growth will slowdown, the tonnage demand will also increase at a sluggish pace, giving no major respite to owners.
- Change in trade pattern due to return of Nigeria, Libya and Venezuela is likely to result in average haul length as their exports to Asian markets will increase, which will provide some support to tonnage demand.
- Tonnage utilization for product tankers will improve slightly towards the end of the forecast period due to increase in long haul products exports from the Middle East.
- Freight rates to decline in 2016-17 despite a healthy growth in demand as tonnage supply will surge higher

Source: Drewry Maritime Research

Market Outlook - Containers

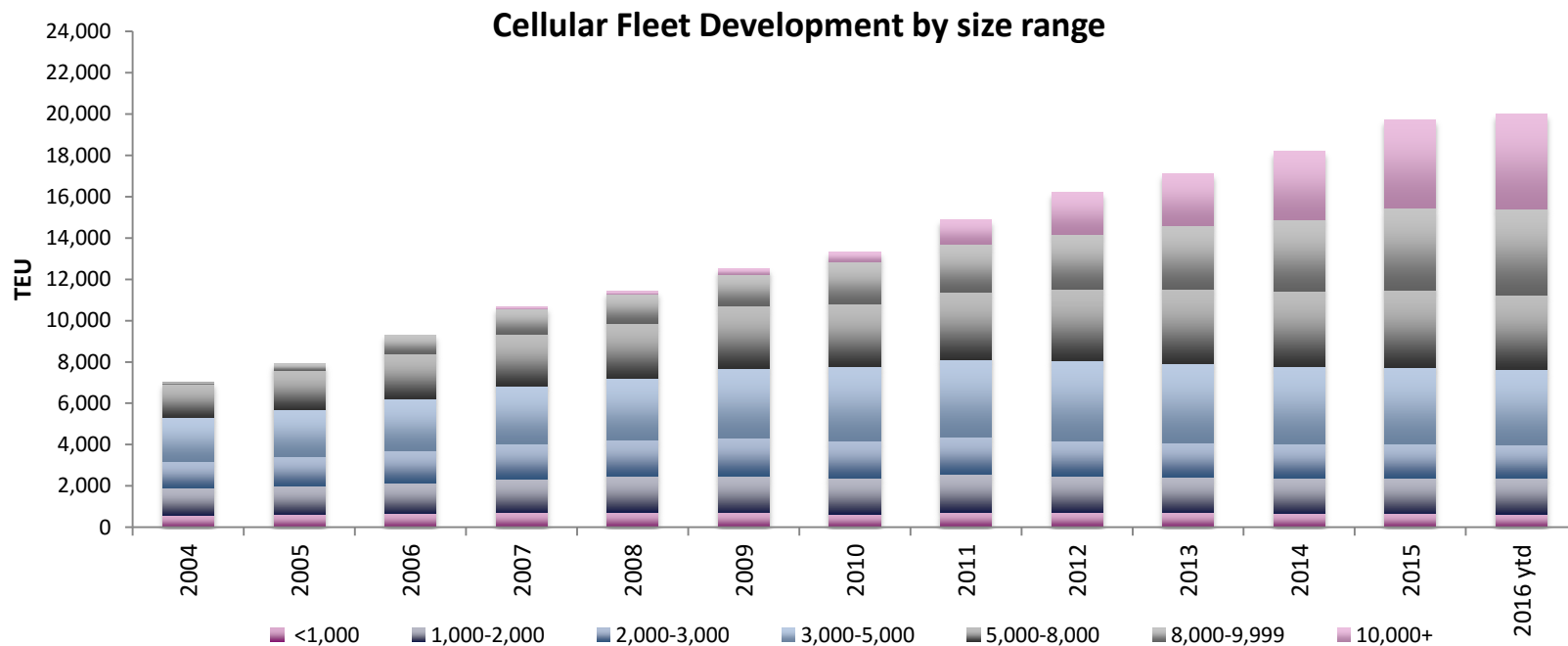
Container global demand

Global Demand Development - Total Handling



Source: Drewry Maritime Research

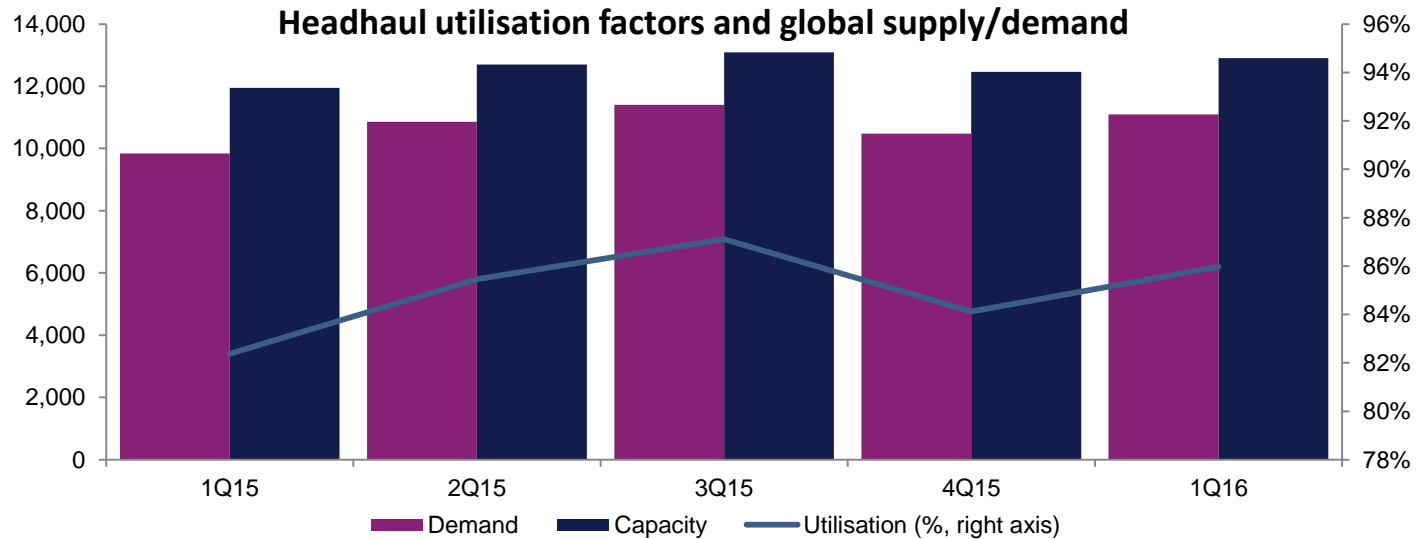
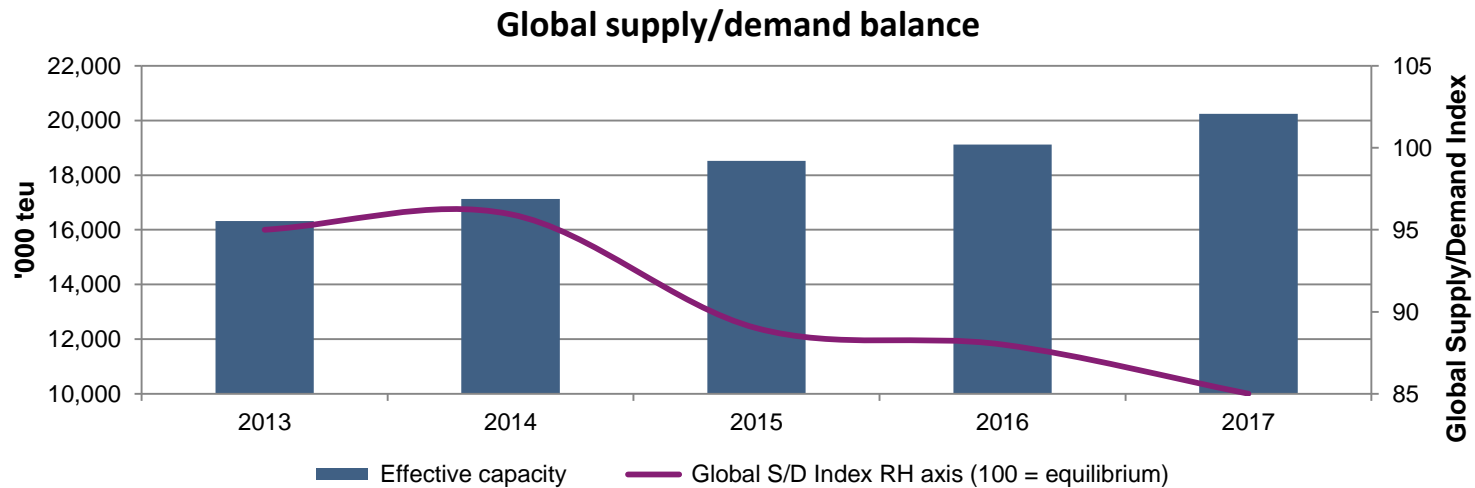
Growth concentrated on larger vessels



- Fleet size has grown strongly over last 10 years:
 - CAGR 2005-2010 = 11.0%
 - CAGR 2010-2015 = 8.2%
- From 2005 to 2010, the strongest growth was in the range 8,000-10,000 TEU – 45% pa
- However from 2010 to 2015, strongest growth in the largest vessel category (>10,000TEU) – 55% pa
- The capacity in the lower size ranges has been virtually static

Source: Drewry Maritime Research

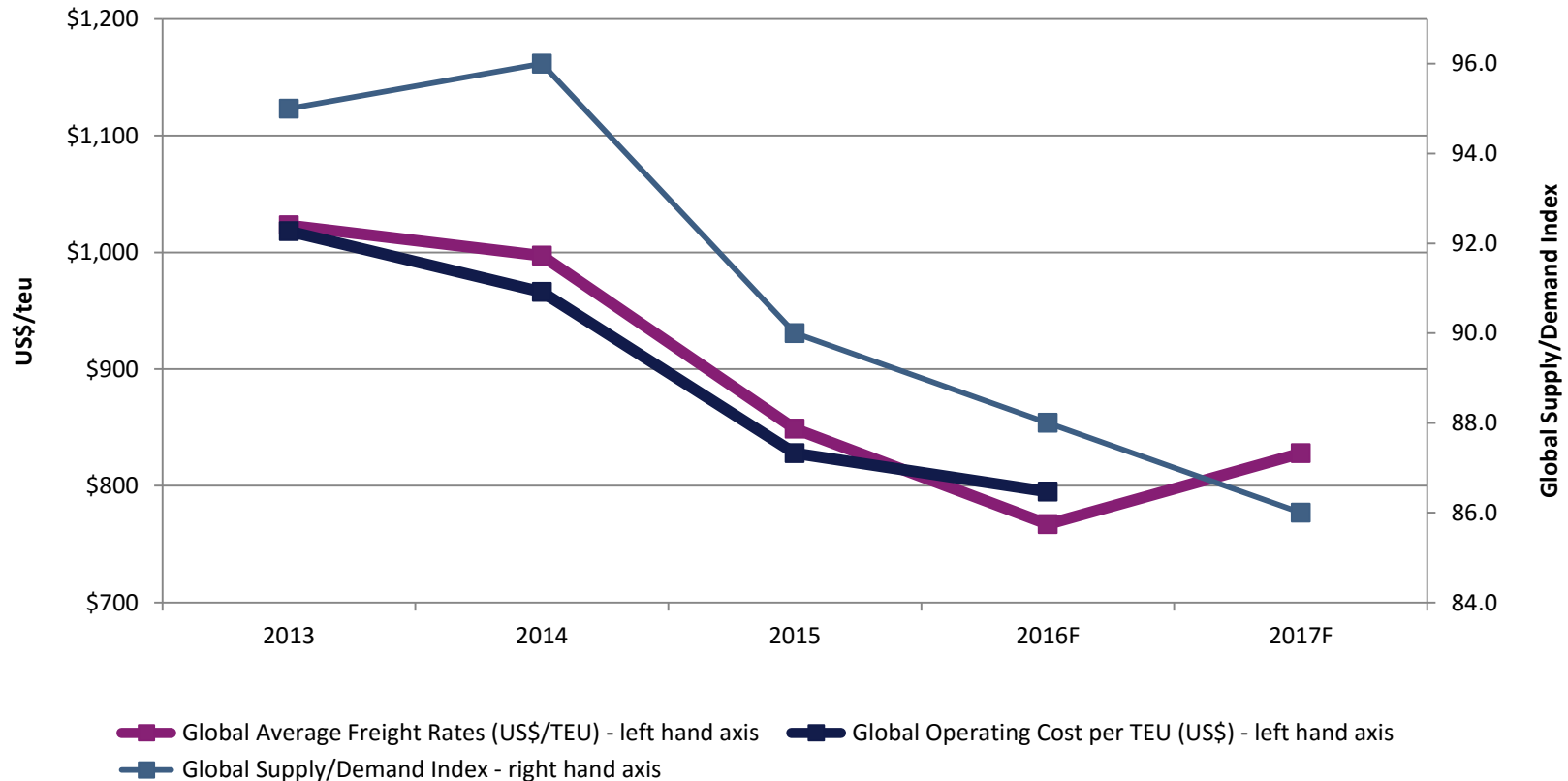
Container shipping supply/demand balance



Source: Drewry Maritime Research

Freight rate forecast: Global Trades

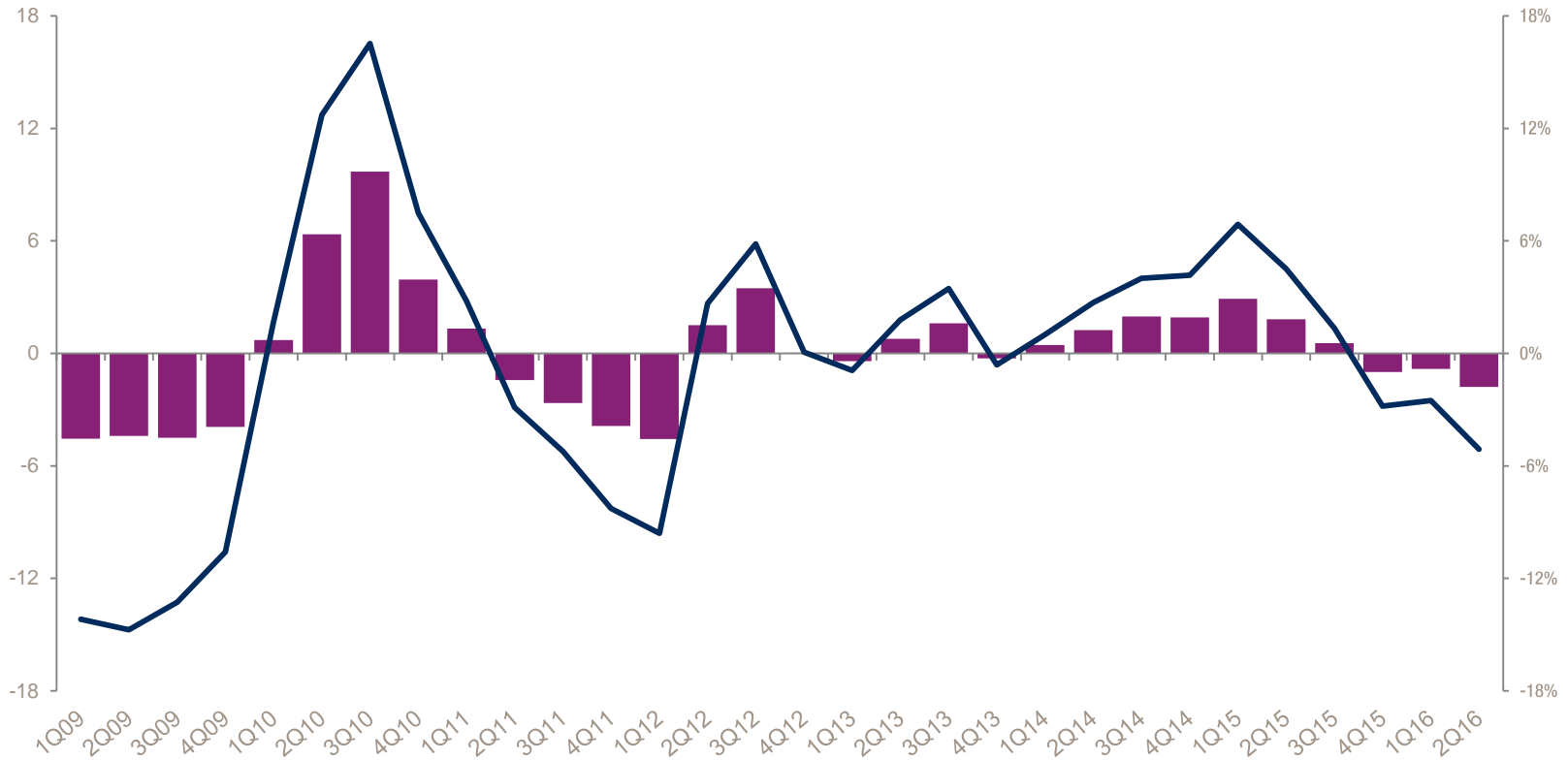
Freight Rates, Supply/Demand & Unit Costs



Source: Drewry Maritime Research

The shipping industry struggles to make a profit

Estimated carrier industry EBIT profit/loss AND EBIT margins, 1Q09-2Q16

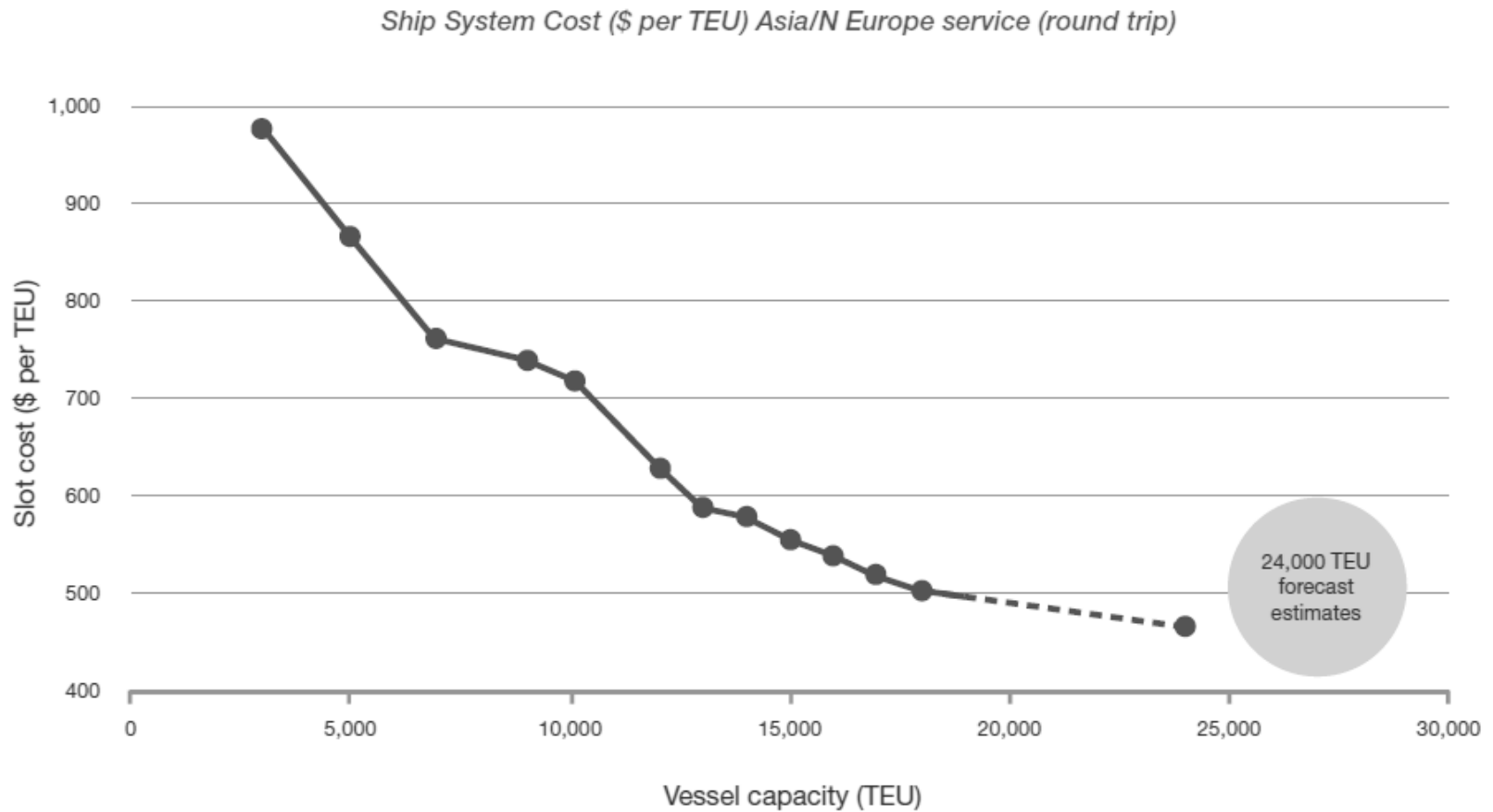


Note: EBIT margins based on average of sample carriers after currency conversion to US dollars when necessary. Sample consists of APL; CMA CGM; Evergreen Marine Corp; Hanjin Shipping (container); Hapag-Lloyd, HMM (container); K Line (containerships); Maersk Line; Matson (ocean transportation); MOL (containerships); NYK (liner); Regional Container Lines; Samudera Container Lines; Wan Hai; Yang Ming and Zim

■ EBIT profit/loss (\$bn) — EBIT margin (right axis)

Slot cost per TEU

Cost reduces with increasing vessel size, but the rate of increase diminishes



Source: Drewry Maritime Research

Carriers play 'follow the leader' in ordering bigger ships



Mid 1990s

Regina Maersk 7,400 teu
Other carriers followed...



Mid 2000s

Emma Maersk 15,500 teu
Other carriers followed...



2013

Maersk Triple E 18,000 teu
MSC Oscar 19,224 teu (2015)
Other carriers following...

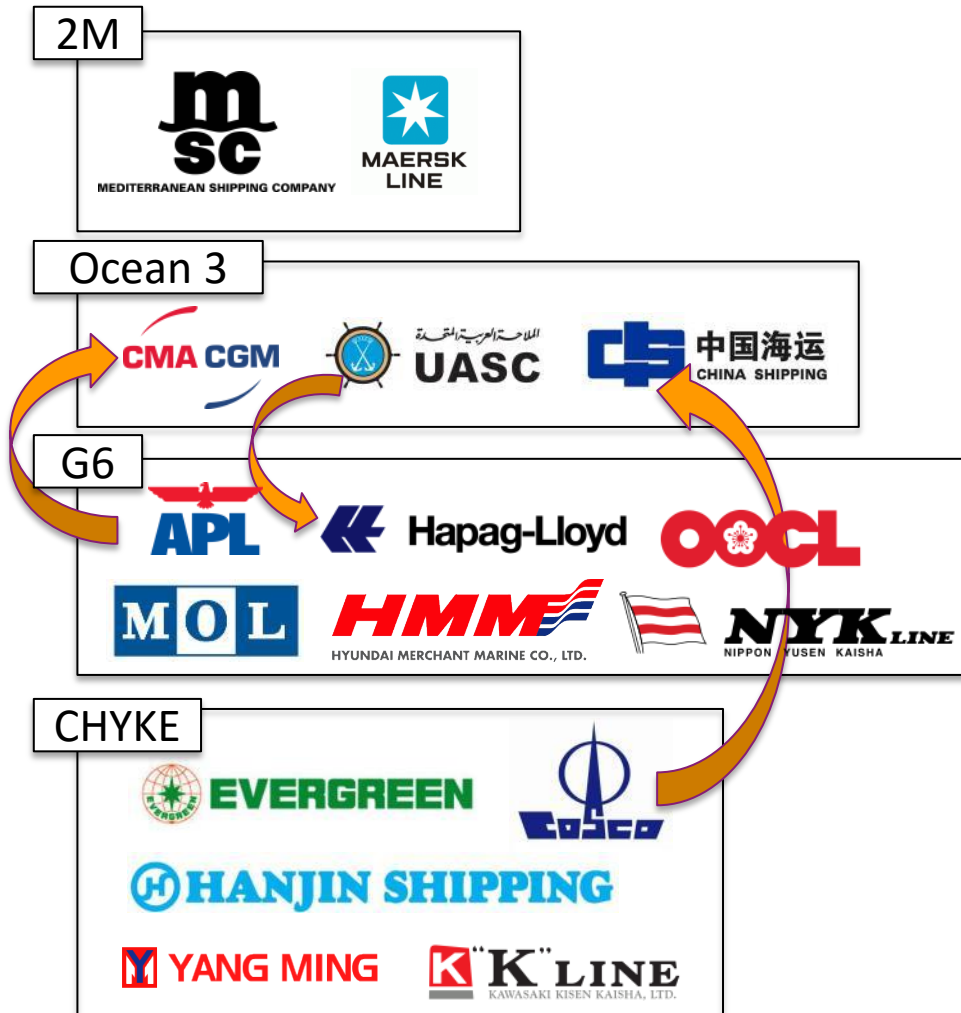


2018?

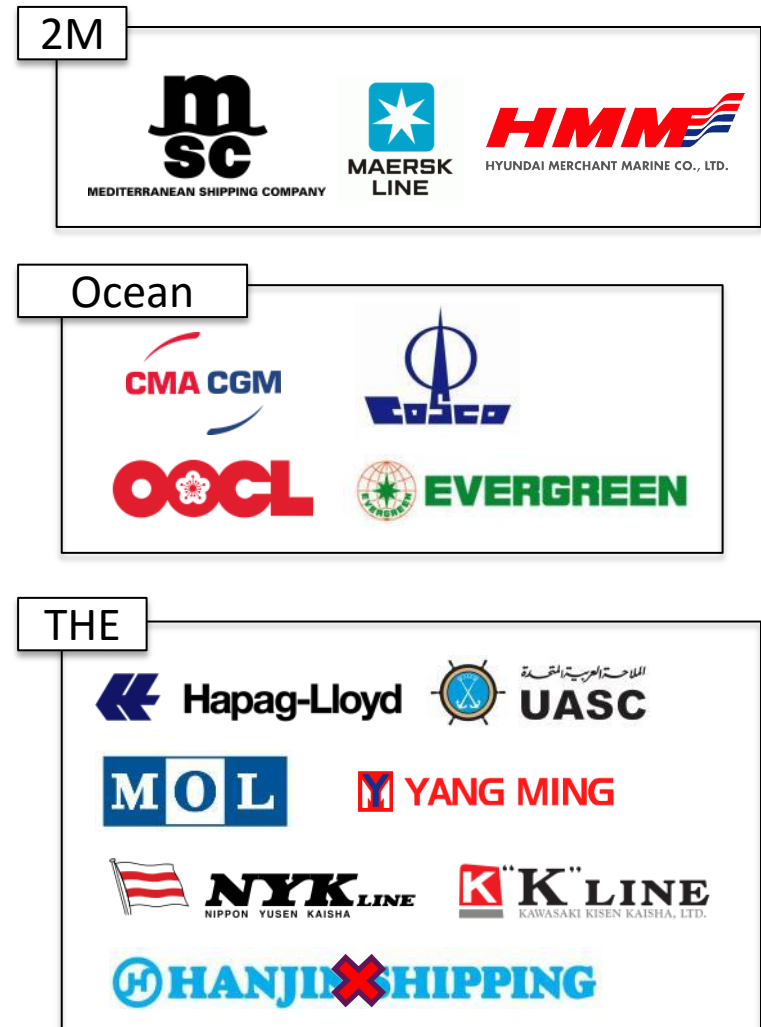
24,000+ teu vessels?
Not ordered yet

Future alliance structure (2017 onwards)

Current – Until Q2 2017

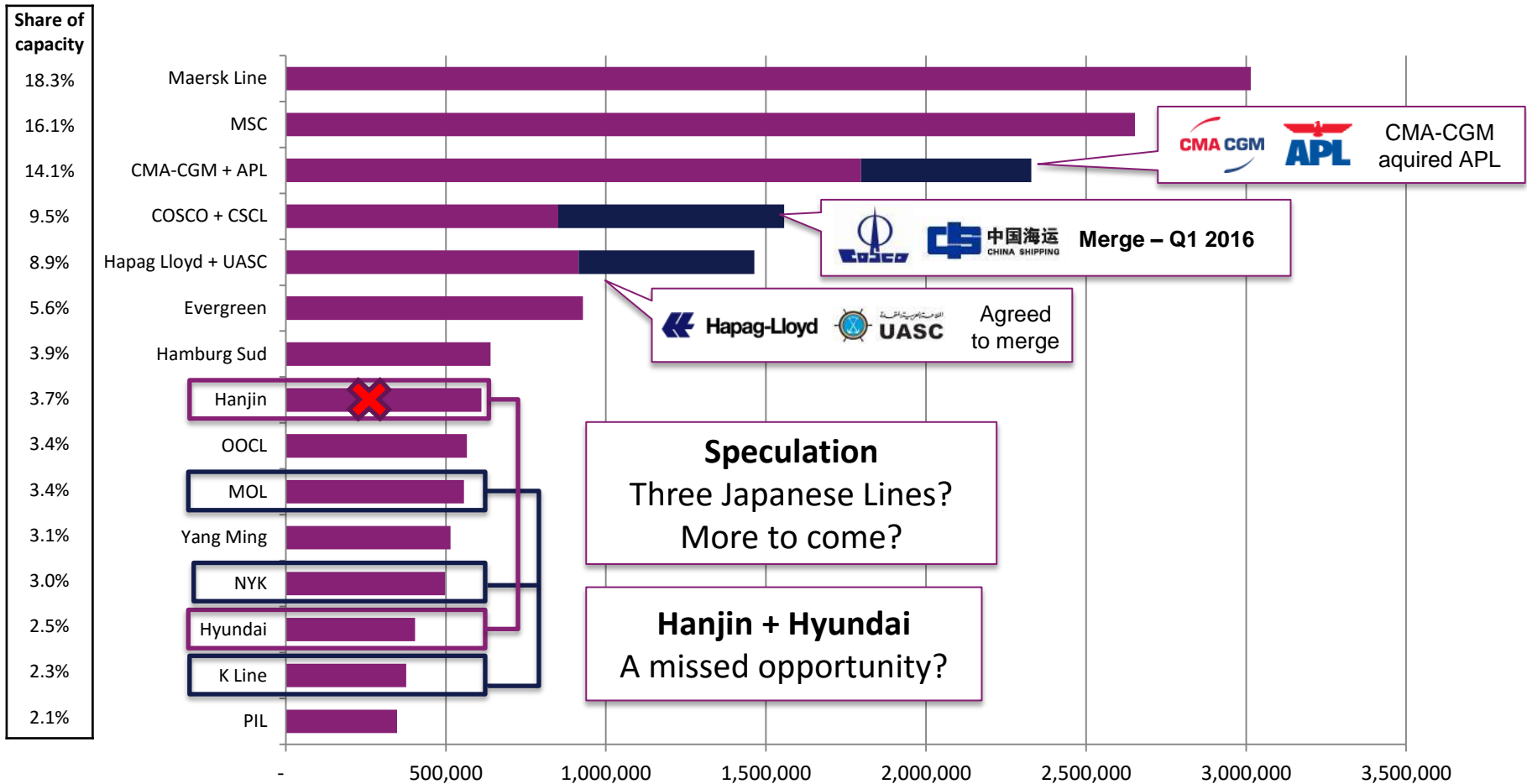


Future – From Q2 2017



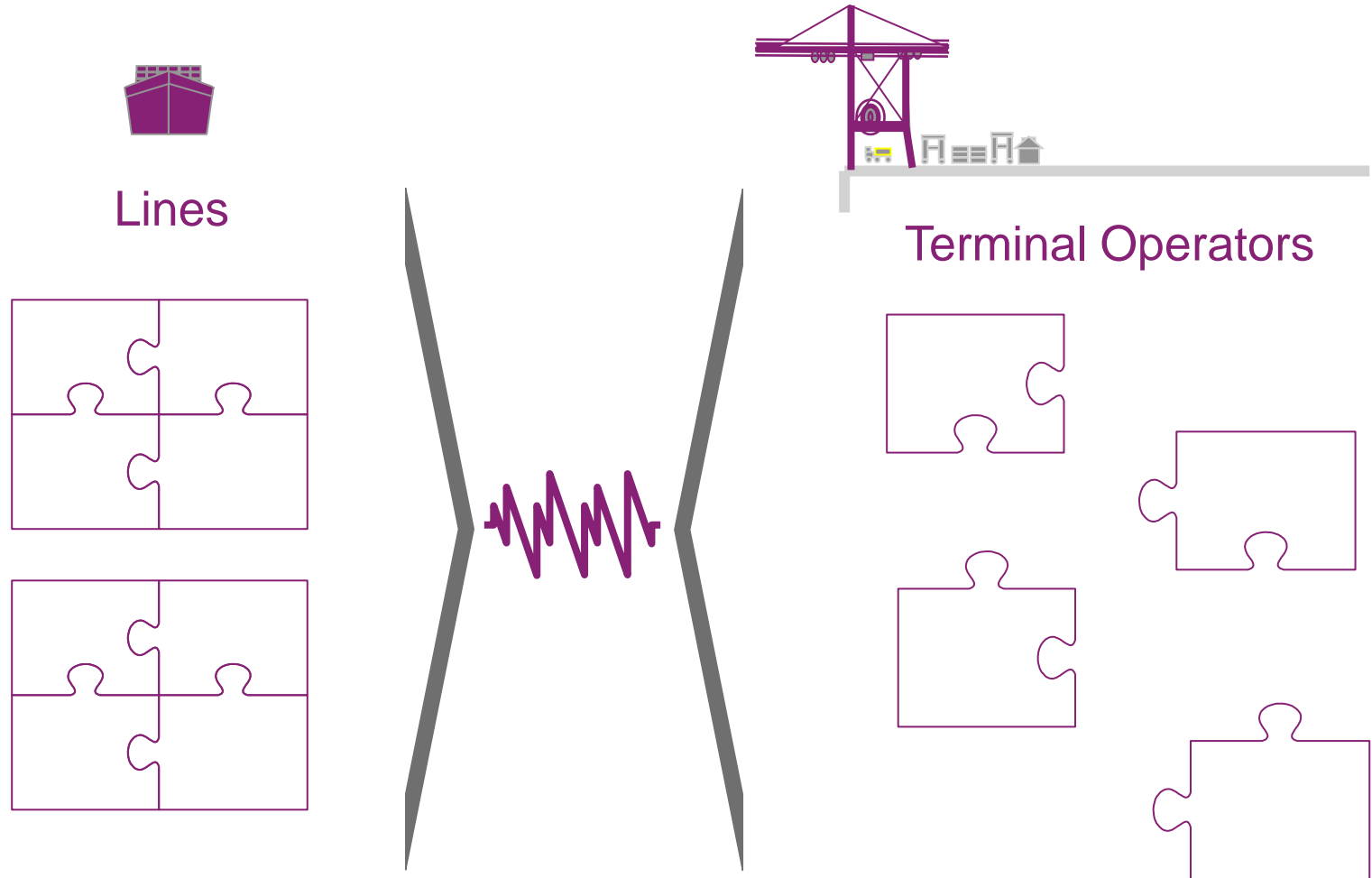
Top 15 container lines - Effect of recent consolidation

Recent Consolidation – more to come?



Source: Operated Capacity as per Alphaliner March 2016 (pre-consolidation)

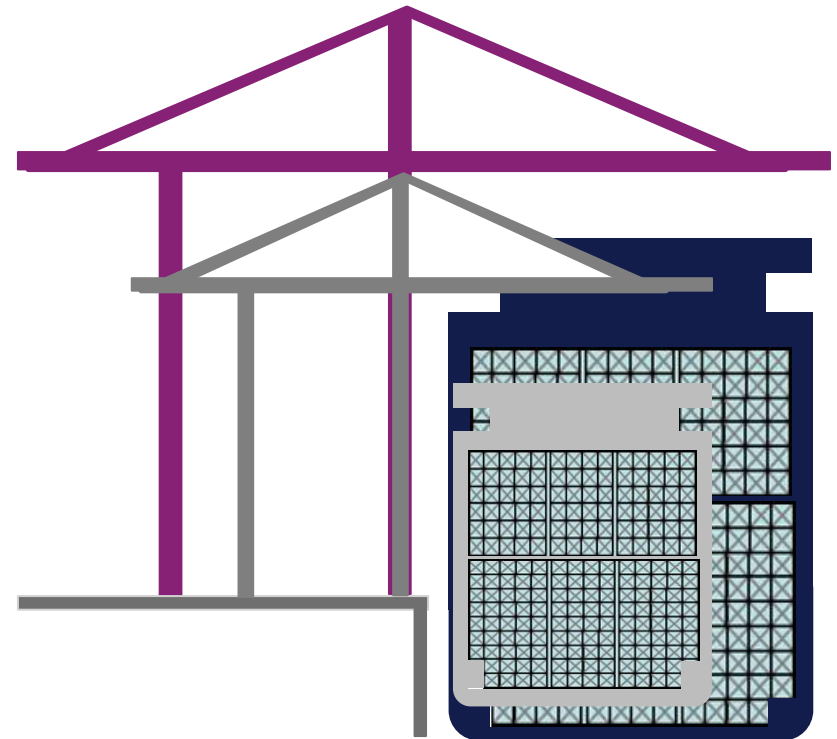
Fragmented terminal capacity is a challenge at many ports



Terminal performance is critical to achieve the benefits of bigger ships - Who pays?

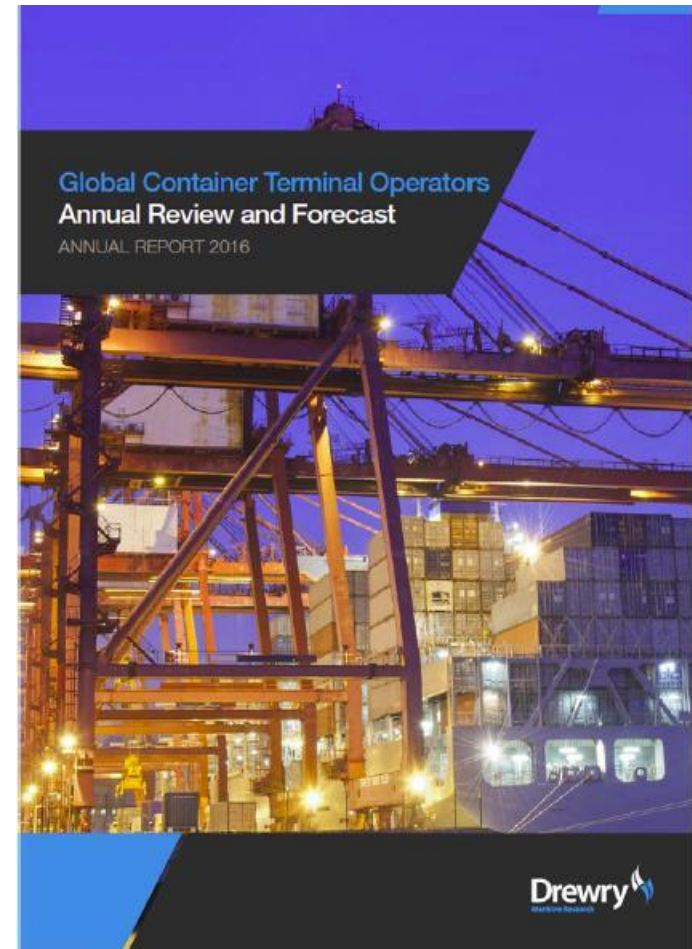
Lines Expect:

- **Reliability**
 - Departure on schedule
 - Connectivity with feeders/relay services at hubs
 - All containers loaded (including empties)
 - No constraints/congestion on landside service
- **Productivity**
 - Speed of vessel turnaround is important. As vessel size increases, port time is maintained, in spite of increased container exchange
- **Efficiency**
 - Largest vessels for the trade/route to be handled without physical constraints
 - Unit handling costs are maintained – requires a competitive environment



5 things you need to know

- 1) Drewry's five year global container port demand forecast is just about less than 3% per annum
- 2) Industry moving towards value sector from growth sector, albeit still highly profitable
- 3) All capacity plans are under review by operators
- 4) Major M&A deals are changing landscape, more are likely to follow
- 5) GTO/ITO strategies are at two extremes – cautious holding vs. aggressive expansion



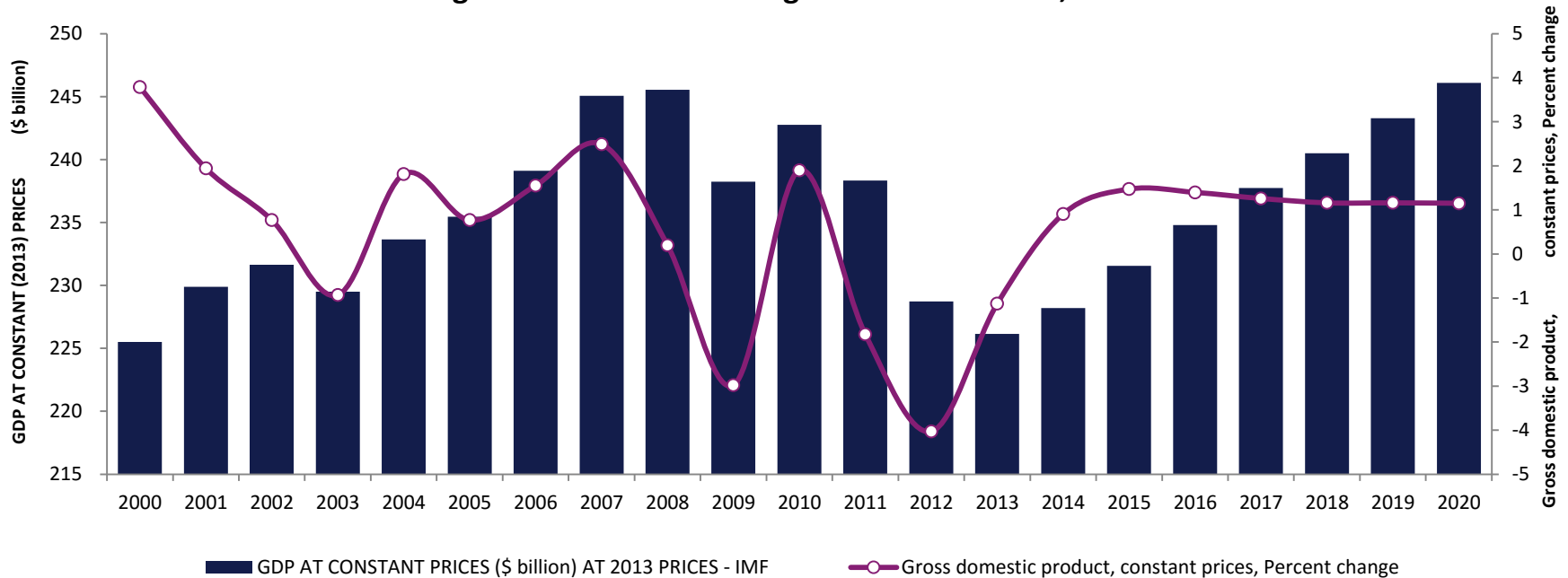
Container market outlook

- Overcapacity is still a big issue on many routes, as is the cascade and effective deployment of ships is now critical. The widened Panama Canal now adds a new dimension for deployment.
- Ocean carriers are bleeding money and consolidating. Hanjin's failure was a warning; other carriers may be vulnerable.
- The last pieces of the alliance merry-go-round are being put in place, but service changes are still coming thick and fast.
- Contract rates are at record lows this year, but spot rates on major routes have started to increase on some routes.
- Rates will be higher next year – but calling it a recovery is too strong.
- Shippers will be challenged by fewer route choices, more supply chain disruption and question marks over carrier viability.

Perspectives for Portuguese Ports

Portugal GDP review

Portugal's historical real GDP growth and outlook, 2000-2020

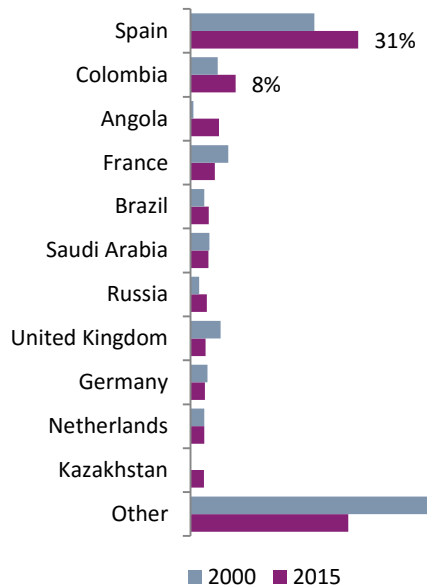


- As per the IMF “Low GDP and productivity for more than a decade and high household, corporate and public debts” have resulted in Portuguese economy contracting from its peak of 2008.
- Economic activity began to turn around in 2013. As per the IMF “high unemployment and low investment will continue to weigh on the economy’s growth potential”.
- Manufacturing and hotels/restaurants (the latter a proxy for tourism) accounted for almost a half of the total increase in employment and will drive stronger domestic demand and continued export growth.
- The latest IMF economic outlook for Portugal is for continued recovery with growth averaging 1.2% p.a. to 2020.

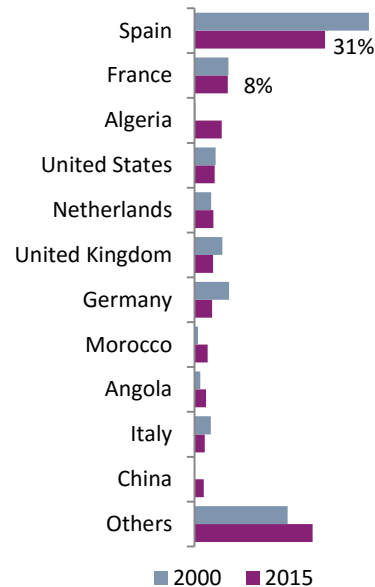
Source: IMF

Portugal foreign trade overview

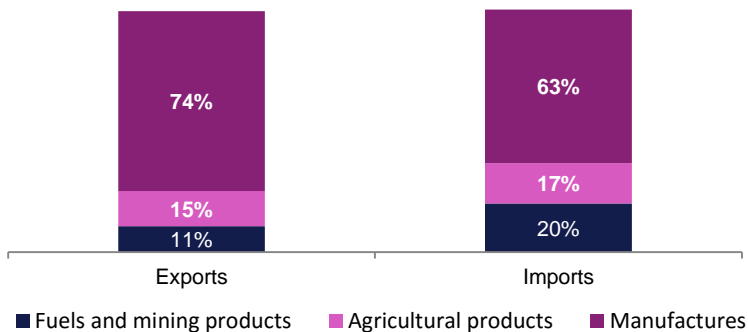
Portugal Import Partners



Portugal Export Partners



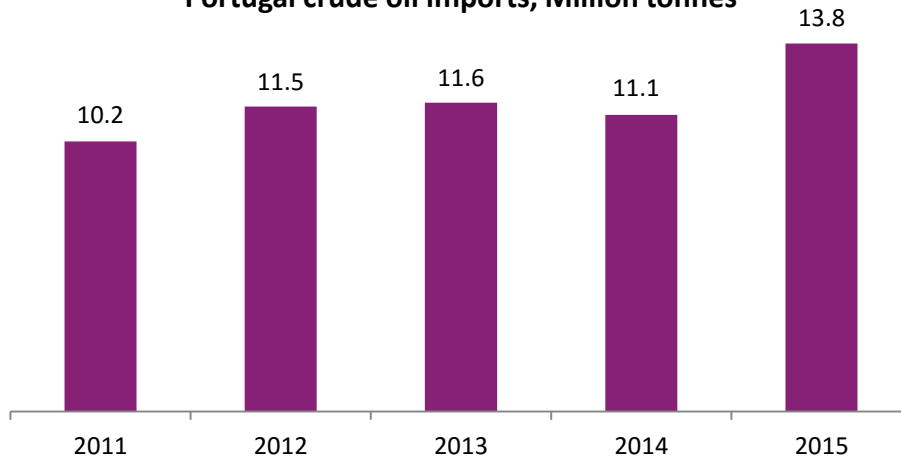
Portugal Export and Import Commodities



- Spain is the largest single market for Portugal's exports and imports. In 2015, Spain accounted for 31% of Portugal's exports and 31% of Portugal's imports by weight
- Other EU countries are also important trading partners for both imports and exports
- Exports from Portugal mainly comprise of agricultural products, foodstuffs, wine, oil products, chemical products, plastics and rubber, hides, leather, wood and cork, wood pulp and paper, textile materials, clothing, footwear, machinery and tools, base metals
- Imports to Portugal mainly comprise of agricultural products, chemical products, vehicles and other transport material, optical and precision instruments, computer accessories and parts, semiconductors and related devices, oil products, base metals, food products, textile materials

Overview of Portuguese ports – Liquid bulks

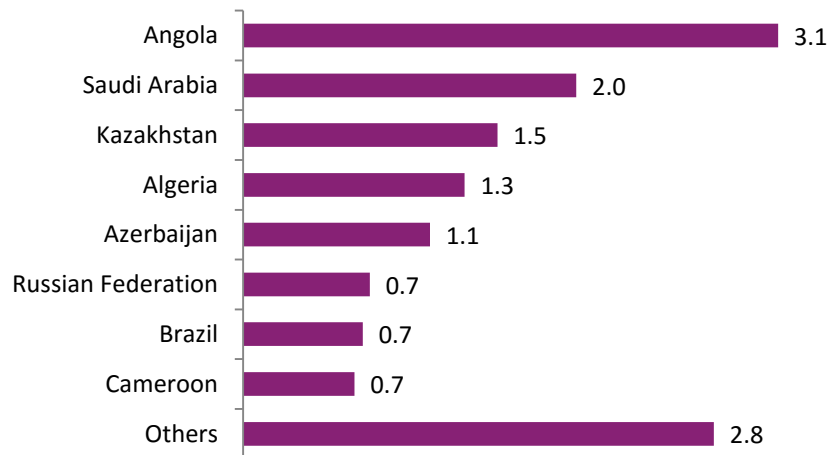
Portugal crude oil imports, Million tonnes



Major ports handling dry bulk

- Sines
- Lisbon
- Aveiro
- Leixões

Crude oil importing partners, 2015



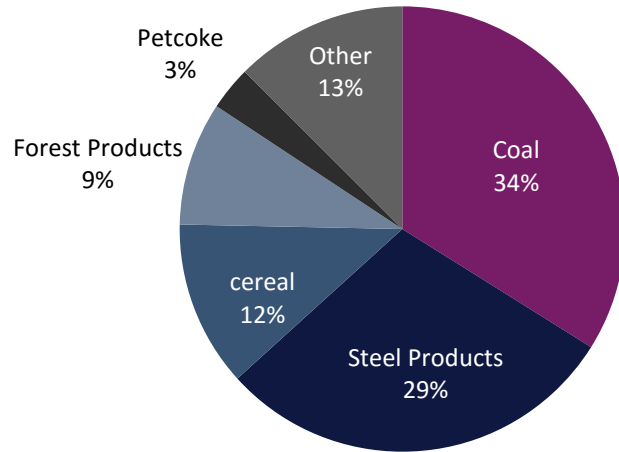
MAIN ISSUES

- Crude oil liquid bulk operations concentrated at Sines and Leixões to supply the refinery plants of Sines and Matosinhos
- Refined products, chemicals and edible oils also handled in Lisbon and Aveiro

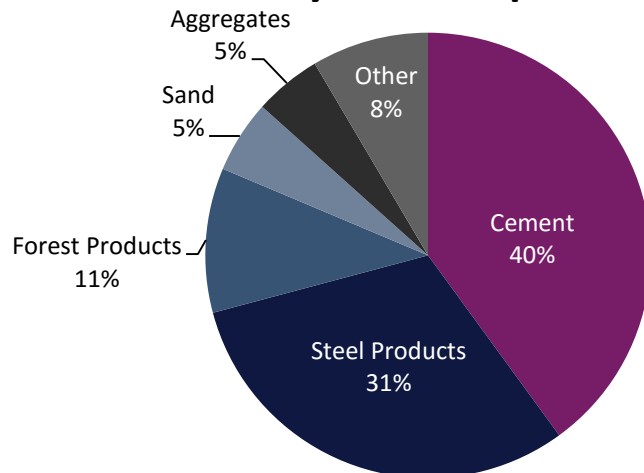
Source: GTIS, INE, Drewry Maritime Research

Overview of Portuguese ports – Dry bulks

Dry Bulk - Imports



Dry Bulk - Exports



Major ports handling dry bulk

- Sines
- Setubal
- Lisbon
- Aveiro
- Leixões

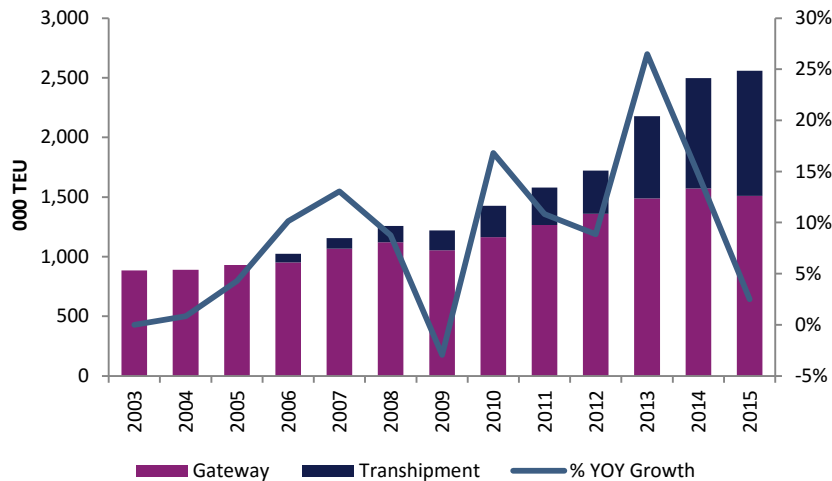
MAIN ISSUES

- Large volume of coal concentrated in Sines
- Import of cereals handled at Aveiro, Lisbon and Leixões
- Improvement of marine access might reduce shipping cost per tonne and make Portugal more competitive on exporting to farther markets (cement, steel) and importing cereals for animal feed

Source: GTIS, INE, Drewry Maritime Research

Overview of Portuguese ports - Containers

Total Portugal container volumes (TEU)



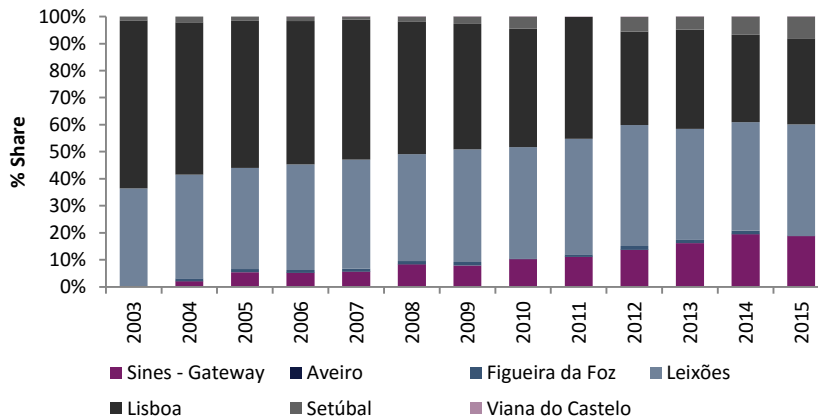
Major ports handling containers

- Sines
- Setubal
- Lisbon
- Leixões

MAIN ISSUES

- Transshipment activity concentrated at port of Sines
- Captive hinterland: Leixões to Porto, Lisbon and Setubal to Lisbon metropolitan area
- Balanced trade between loaded imports and exports attractive to shipping lines
- Yard storage constraints in some ports
- Existing draft restrictions
- Disruptions in Lisbon caused by strikes

Portugal gateway market share



Source: INE, Drewry Maritime Research



Obrigado!

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