

SHIPPING MARKET REVIEW

MAY 2015

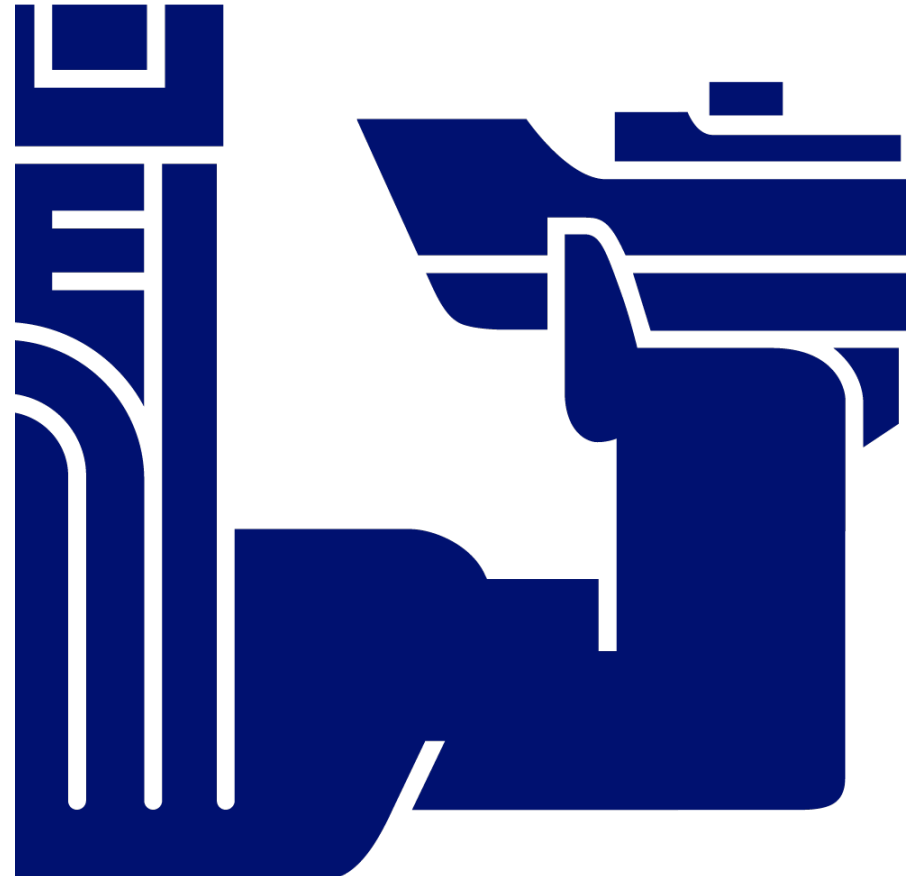


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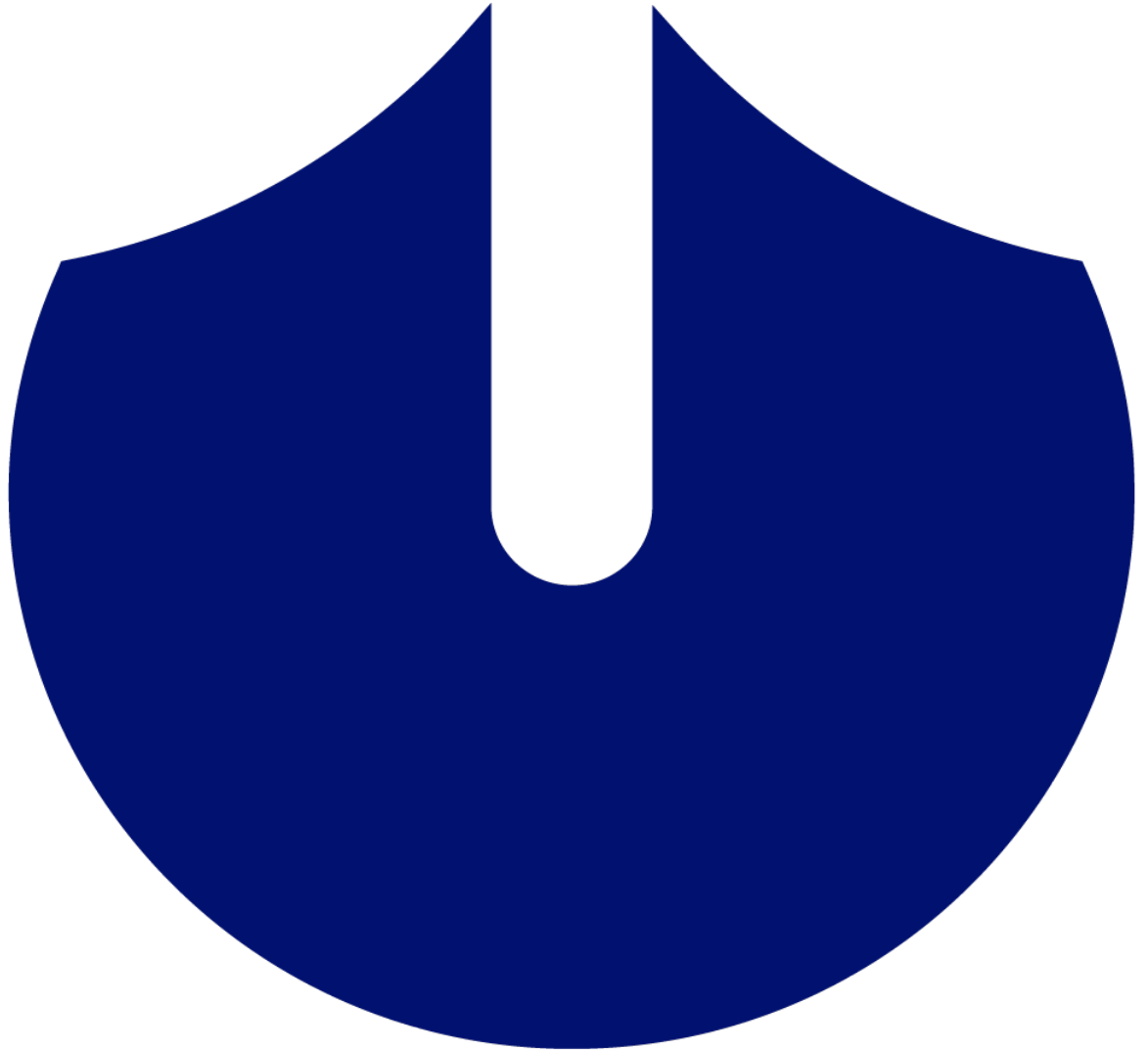
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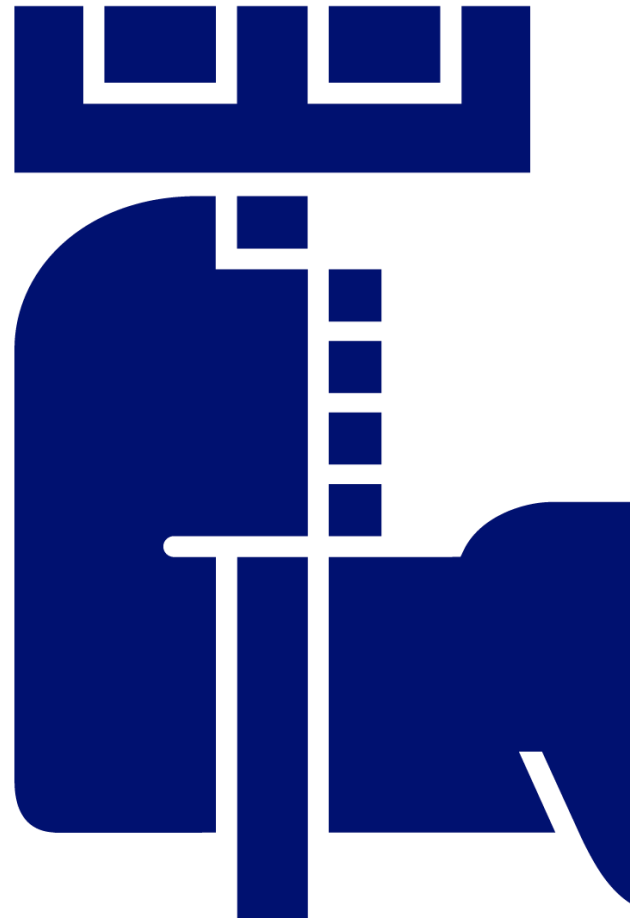
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EXECUTIVE SUMMARY

SHIPPING MARKET REVIEW – MAY 2015



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EXECUTIVE SUMMARY

Please read the disclaimer at the beginning of this report carefully. The report reviews key developments in shipping markets and the main shipping segments during the period November 2014 to May 2015 and indicates possible future market directions.

GENERAL REVIEW AND OUTLOOK

The *General Review and Outlook* is intended to promote discussion of the medium to long-term challenges facing the shipping industry and to highlight some global perspectives that might serve as an outlook. We present a discussion of the potential issues that may or may not come into play within the lifetime of vessels recently ordered (i.e. 2040). Throughout this chapter we apply a macroeconomic perspective to the shipping industry. This methodology enables us to analyse some long-term trends, although it does create blind spots on the short-term industrial level. Consequently, our approach may not identify all the short-term opportunities that enable sudden market improvements to materialise.

Our latest analysis of the factors shaping the long-term outlook for seaborne trade volumes highlights in particular concerns about their dependence on China. Most ship segments are increasingly dependent on Chinese demand, directly or indirectly. We all *hope* that Chinese demand will be maintained, but we should not neglect the potential negative spill-over effects of a slowdown in China on both global trade volumes and the global economy.

In 2009, seaborne import volumes declined by 7% due to a 19% drop in the combined seaborne import volumes of North America, Japan and Europe. If Chinese seaborne import volumes declined by 20% in 2015, world seaborne import volumes would decline by 5%. Even though this scenario sounds concerning, we do not consider it highly unlikely.

The outlook for the world fleet is dominated by this rather challenging demand outlook in combination with an orderbook-to-fleet ratio of 18%. In the absence of many obvious scrapping candidates, owners might choose either to lay up vessels or to

scrap older vessels prematurely. Freight rates and secondhand values are expected to remain low during the next two to three years, while newbuilding prices are expected to return to the lower levels seen in early 2013.

Still, it should be kept in mind that not all ship segments are the same: some can be regarded as being over the worst (crude tankers), while others are yet to be impacted (LPG), but most, if not all, ship segments seem to have been exposed. Dry bulk is approaching what could be considered the eye of the storm. The larger container segments continue to build up excessive capacity. Product tanker earnings have taken us by surprise, but market sentiment could easily turn negative again if the many new vessels currently on order are delivered.

Past experience has taught us to expect the unexpected: windows of opportunity will emerge and freight rates and market sentiments could spike unexpectedly. This report covers the long term trends.

SHIPBUILDING

The shipbuilding industry has entered a period of adjustment. Some yards are managing to bring in orders and re-activate previously idled capacity, while others are struggling to attract any orders and must reduce capacity and ultimately close down. Hence, the current state of the industry could be described as a struggle for survival whereby the wheat is separated from the chaff. We have divided the industry into first-tier and second-tier yards. The first-tier yards have a healthy order cover of 2.4 years, while the second-tier yards only have 0.8 years' cover. As a consequence, we think the majority of second-tier yard capacity will close down over the next two years. A smaller share of first-tier yards are also facing a low order cover of less than one year and could also be forced to close down if they do not bring in more contracts. Therefore, they might feel pressured to lower newbuilding prices. The overcapacity seen in the last couple of years has sent newbuilding prices on a downward trajectory. The contracting boom in 2013 and 2014 provided a short-lived boost to prices, but halfway through 2014 they started to decline once again. We believe that they could go even lower from

the current levels this year.

CONTAINER

The container industry has for a long time been in favour of larger vessels, as they allow liner operators to optimise operations and benefit from economies of scale. This has led to a massive and continuous upscaling in vessel sizes and a market that constantly struggles to adjust to changing fleet dynamics and thereby low freight rates. The increases in vessel sizes have been spurred on by strong demand for seaborne containerised goods. China's entry to the WTO in late 2001 marked the beginning of the significant upturn in container volumes and demand grew at a tremendous pace in the following years. However, since the financial crisis in 2008 demand growth has fallen to more moderate levels. We question whether it will return to the levels of the mid-2000s. Still, it seems that the market is continuing to invest in the future based on assumptions of the past. Clearly, larger vessels lower the unit cost per moved TEU but the build-up of overcapacity puts a lid on gross rates. Economics of scale proves only an asset if the capacity is being utilised sufficiently. We believe that the potential for future container demand is structurally reduced and that long-term container volumes could start to contract if manufacturing is to a larger degree re-shored.

DRY BULK

Many expected 2014 to be the year that the long-awaited recovery of the dry bulk market would begin. On the contrary, it turned out to be the beginning of one of the worst downturns that the market has ever endured. The Baltic Dry Index fell to a record low in February 2015 and since then has only increased marginally. Timecharter rates have followed suit. The oversupply in the market continued to expand and is expected to continue to do so in 2015, as the orderbook is still massive. Meanwhile, the prospects for dry bulk demand are waning as China's rebalancing exercise begins to leave its mark on Chinese dry bulk demand. 2014 was the first year that we witnessed declining coal imports into China and there are no signs of this being a temporary slowdown. Moreover, the country's weakening real

estate sector and slowing domestic steel production is also worrying, as these create the underlying demand for iron ore imports. Hence, there are multiple factors that could indicate lower Chinese dry bulk demand in the future. As a consequence, we have low expectations for the dry bulk market in the short term, and believe that 2015 will be a tough year for many shipowners, with freight rates and ship values staying relatively low.

CRUDE TANKER

The crude tanker market turned out to be much better than we expected in 2014, particularly towards the end of the year, when a drop in crude oil prices propelled demand for crude tankers. Freight rates surged and the 1-year VLCC timecharter rate rose to the highest level since the start of the financial crisis. Driving the improvement was a combination of slowing fleet growth, lower speeds and higher tanker demand alleviating overcapacity in 2014. There were two main reasons for the increased crude tanker demand: longer travelling distances as Asia upped its intake of Atlantic Basin crude oil, and temporary factors such as storage builds and a contango situation triggered by the drop in crude oil prices. This, in turn, encouraged owners to renew their 2013 optimism and contract another 17 million dwt in 2014. In 2014, however, owners also focused on the Suezmax segments as they regained confidence in future Suezmax earnings. Even though contracting is nowhere near its former highs, it still poses a threat to the continued recovery of the crude tanker market. On top of that, demand growth hinges to a large extent on China, increasing the uncertainty surrounding future crude tanker demand. Overall, we expect average travelling distances to increase, providing some support to the crude tanker market. The reason for this is that the Middle East has begun shifting its focus from crude oil exports to downstream developments like refineries, making Atlantic Basin crude oil more sought after by Asia.

PRODUCT TANKER

At the beginning of 2014, the product tanker market looked set for one of the worst years ever, with supply growth once again projected to exceed distance-adjusted demand. However, to-

wards the end of the year, seasonal demand, temporary factors and lower oil prices boosted product tanker demand. As a result, freight rates surged and 1-year timecharter rates reached their highest annual average since 2010. Still, contracting slowed down considerably, with only 6 million dwt contracted in 2014. However, heavy contracting from 2013 is still lurking in the background and by 2016 fleet growth is expected to have climbed above 5% before easing slightly in 2017. In comparison, distance-adjusted demand from 2015 to 2018 is expected to grow by an annual average of 1.9%, spurred on by relocation of refineries rather than above-average oil demand growth. Altogether, distance-adjusted demand will be insufficient to offset the relatively high influx of new vessels. Consequently, if the temporary factors currently supporting the product tanker market disappear, the market could be heading for a rough path in the coming years.

LPG TANKER

2014 turned out to be the best year so far for LPG owners. Demand for LPG tankers was boosted by rising Asian imports of competitively-priced US LPG. Distance-adjusted demand grew by 16% in 2014, 11 percentage points above supply growth. Consequently, utilisation rates surged, reaching close to 100%. In tandem with this, freight rates soared to record-high levels and contracting took another quantum leap. The positive sentiment in the LPG market has also resulted in high demand for secondhand vessels, causing some secondhand prices to surpass newbuilding prices. Since the beginning of the third quarter, freight rates, spot rates in particular, have returned to a lower level and contracting has subsided, sparking hopes that it will return to a lower and more sustainable level in the coming years.

In the coming years, the current orderbook, corresponding to 51% of the fleet, is scheduled for delivery. This is expected to put downward pressure on freight rates, especially in 2016, when fleet growth is expected to reach a new record high of 19%. However, if demand from the petrochemical sector develops according to current plans – in particular, if the Chinese pro-

pane dehydrogenation plants materialise – a significant portion of scheduled orders are expected to find employment. Moreover, if US export capacity develops in tandem with higher Asian import requirements, average travelling distances could provide further support for demand for LPG tankers. The transition of the Chinese economy, in particular, towards being more consumption-driven than industry-driven could also strengthen LPG demand. Nevertheless, we expect average freight rates to drop to a significantly lower level in the next two years.

GENERAL REVIEW AND OUTLOOK

SHIPPING MARKET REVIEW – MAY 2015



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GENERAL REVIEW AND OUTLOOK

PARTS OF THE SHIPPING INDUSTRY HAVE RECENTLY SEEN A TEMPORAL RECOVERY BUT AMPLE SUPPLY CONTINUES TO SHROUD THE OUTLOOK. ON THE DEMAND SIDE THERE ARE A NUMBER OF SIGNS INDICATING THAT SEABORNE TRADE VOLUMES COULD PLATEAU IN THE SHORT TO MEDIUM TERM. SEVERAL OF THE MAJOR SHIPPING SEGMENTS COULD CONTINUE TO SUFFER FROM OVERCAPACITY DURING THE NEXT COUPLE OF YEARS. PREMATURE SCRAPPING IS EXPECTED TO BECOME THE NEW NORM, AND FREIGHT RATES AND SECONDHAND PRICES MAY STAY LOW. INVESTORS PLAYING A SHORT-TERM ASSET GAME MAY FIND IT DIFFICULT TO EXIT WITH THE EXPECTED PROFIT IF THEY WAIT TOO LONG.

WORLD DEMAND INDICATORS

THE LEGACIES OF THE FINANCIAL CRISIS PREVAIL. A DEFLATIONARY PRESSURE IS ABOUT TO RESHAPE MUCH OF THE GLOBAL ECONOMIC LANDSCAPE. BY WEAKENING THE COMPARATIVE ADVANTAGE IN LOW LABOUR COST ECONOMIES, TECHNOLOGICAL ADVANCEMENTS ARE ABOUT TO ENABLE A PROCESS WHERE ADVANCED ECONOMIES TO A LARGER EXTENT ARE RE-SHORING MANUFACTURING FACILITIES THAT HAVE PREVIOUSLY BEEN OFFSHORED. THIS TREND IS EXPECTED TO ALTER GLOBAL TRADE FLOWS THROUGH A VARIETY OF CANALS AND POTENTIALLY LOWER GLOBAL TRADE VOLUMES IN THE COMING DECADES.

In the aftermath of the global financial crisis lower demand from the advanced economies destabilised the balance between supply and demand globally. The bitter legacies of the financial crisis have been high levels of debt and high unemployment, problems that too many countries are still struggling to overcome. Many companies and households are still cutting back on investment and consumption because they are concerned about low future growth. Governments and central banks have tried to combat this cycle by slashing interest rates and pursuing other stimulus measures. Many have cut rates to historically low levels, some even negative, in order to generate economic growth.

DEFLATION RISK IS NOW A WORRY EVEN FOR CHINA

The spectre of deflation has settled over vast tracts of the global economy, forcing countries large and small to assess the risks of falling prices. Major economies such as Japan, Germany, the United Kingdom and the United States are all experiencing ultra-low inflation or outright price decreases. Several emerging economies are also under pressure. Deflation is widespread across Europe, and prices have been sliding for years in trouble spots like Greece. Now the concerns have spread to China. The prospect of a deflationary cycle developing at a time when central banks are running out of ways to respond has created a renewed concern for the global economy.

A SYMPTOM OF DEEPER STRUCTURAL WEAKNESS

In 2014, the global economy grew by a modest 3.4% (i.e. on a par with 2013), reflecting a pickup in growth in advanced economies from the previous year and a slowdown in emerging economies. Despite the slowdown, the emerging economies still accounted for three-quarters of global growth in 2014. The weak recovery in many advanced economies and slowdowns in several large emerging economies may be a symptom of deeper structural weakness.

FALLING PRODUCER PRICES IN CHINA

While activity in the United States and the United Kingdom is gathering momentum as labour markets heal and monetary policy remains extremely accommodative, the recovery has been sputtering in the Eurozone and Japan as legacies of the financial crisis linger, intertwined with structural bottlenecks. In China, the economy continues to gradually decelerate, growing 7.4% in 2014. Excess capacity is reflected in falling producer prices and a slowdown in house price inflation (which was buffered by policy measures to stimulate infrastructure investment). Disappointing growth in other emerging economies in 2014 was primarily due to weak external demand.

US MONETARY POLICY EXPECTED TO TIGHTEN

The recovery remains fragile because of significant risks. One such risk stems from the expected tightening, or normalisation,

of US monetary policy at a time when many other countries are easing monetary conditions. This asynchronous monetary policy may trigger increased volatility in global financial markets. The divergence of monetary policy paths has already led to a significant strengthening of the US dollar. Emerging markets could be vulnerable, because many of their banks and companies have sharply increased their borrowing in dollars over the past five years.

LOWER GLOBAL GROWTH...

The IMF has revised down its global economic growth predictions for 2015 and 2016. The revisions reflect a reassessment of prospects in China, Russia, the euro area and Japan, as well as weaker activity in some of the major oil-exporting economies owing to the sharp drop in oil prices. The United States is the only major economy for which growth projections have been raised.

...DESPITE LOWER OIL PRICES

In particular, the sharp decline in oil prices since mid-2014 is supporting global activity and helping offset some of the headwind for growth in oil-importing economies. Lower commodity prices are leading to sizeable real income shifts from the commodity-exporting to commodity-importing economies. If consumer prices start to decline and stay depressed over a period, it may postpone households and businesses spending and investment decisions. The risk is that such development could trigger a downward spiral in economic activity, prices and world trade. Deflation also makes it harder for countries to pay off debts, and can force weak economies to cut wages in order to compete globally.

GLOBAL GROWTH TO REACH 3.5% IN 2015

Overall, global growth is projected to reach 3.5% and 3.8% in 2015 and 2016, respectively. Growth is expected to be stronger in 2015 than in 2014 in advanced economies, but weaker in emerging markets, reflecting more subdued prospects for some large emerging market economies and oil exporters. Rapid reassessment of risk could also be triggered by a spike in geopolitical tensions, bouts of volatility in commodity markets or financial stress in major emerging economies. In China, economic

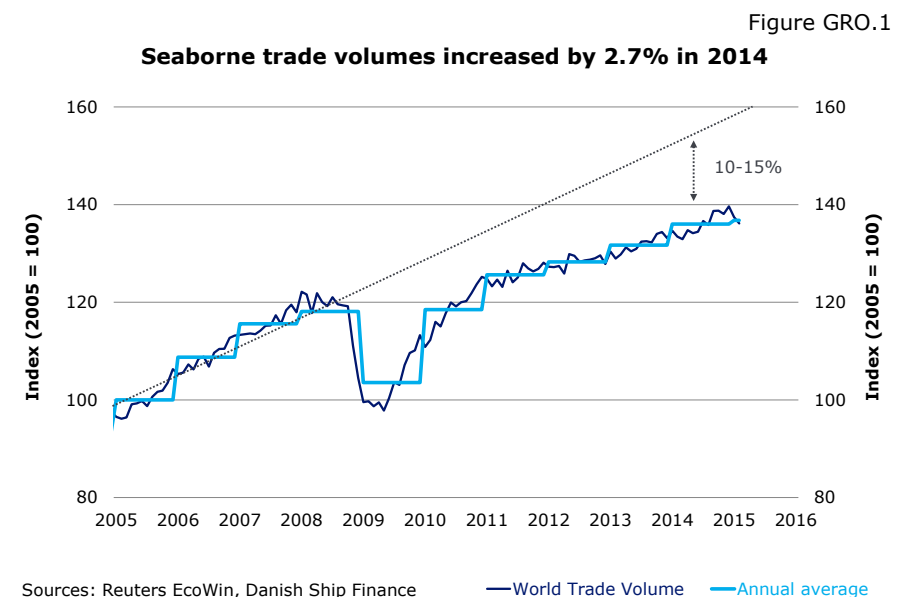
growth has increasingly decoupled from the rapid debt build-up that has fuelled investments (and dry bulk demand). An uneven slowdown in China, potentially spurred by a partial restructuring of the Chinese banking sector, could reduce GDP and dampen commodity demand. Economic growth in key trading partners would suffer accordingly. In general, world trade volumes could be negatively affected by lower Chinese GDP growth.

GLOBAL TRADE EXPANDED LESS THAN GLOBAL GDP IN 2014

For at least three decades before the 2008 financial crisis, global trade grew at twice the rate of the global economy. It is now expanding at – or below – the rate of the global economy. Global import volumes grew by 2.7% in 2014, well below the pre-crisis average annual growth of about 5-6% (fig. 1).

GLOBAL TRADE WAS PREDICTED 10-15% ABOVE CURRENT LEVELS

The modest gains in 2014 marked the third consecutive year in which trade grew less than 3%. Import volume growth averaged just 2.4% per annum between 2012 and 2014, the slowest rate



recorded during the last decade for a three-year period when trade was expanding. If global trade had continued to expand at its historical rate, it would have been some 10-15% above its actual level in 2014.

SERVICES DO NOT GENERATE SEABORNE DEMAND

The slowdown in global trade has been driven by both a cyclical and a structural component. The cyclical factor is most notably persistently weak import demand in advanced economies. The structural component is largely the fact that existing global value chains are maturing while no significant new value chains are being formed. Besides, the composition of global demand has shifted away from trade-intensive goods. Indeed, among the components of aggregate demand, the recovery in investment, the most trade-intensive component, has been slowest (in particular for the advanced economies), further contributing to the weakening sensitivity of trade to GDP. In short, world trade has become less responsive to changes in global GDP because global supply chains are expanding more slowly and demand is shifting towards less import-intensive items (e.g. services). Consequently, the pre-crisis correlation between world trade growth and global GDP growth is not expected to be re-established. Now let us take a closer look at the building blocks of seaborne trade volumes.

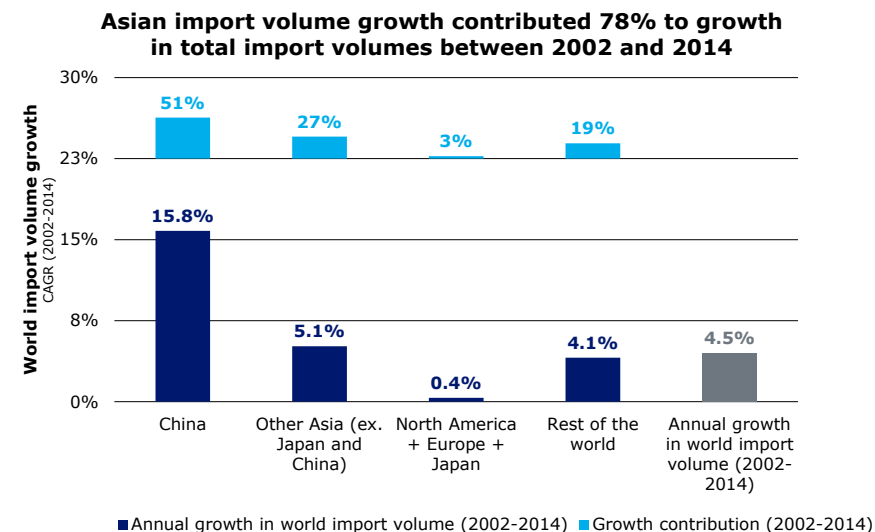
ASIA ACCOUNTED FOR 78% OF GROWTH IN GLOBAL IMPORT VOLUMES

Seaborne trade volumes have experienced incredible growth since China joined the WTO in December 2001. Seaborne import volumes increased by an annual average of 4.5% between 2002 and 2014. Seaborne trade has primarily been driven by the emerging Asian economies which generated no less than 78% of the growth in seaborne import volumes during this period (fig. 2).

CHINESE IMPORT VOLUMES HAVE INCREASED BY 15.8% PER ANNUM

Chinese demand alone accounted for more than half of the increase in seaborne trade volumes between 2002 and 2014. This corresponds to an average annual increase in import volumes of 15.8% per year – every year – between 2002 and 2014. This is by any measure a quite remarkable development, not least compared with annual GDP growth of 10-11% during the period.

Figure GRO.2



Sources: IHS Global Insight, Danish Ship Finance

IMPORT VOLUMES HAVE DECLINED AMONG THE ADVANCED ECONOMIES

By 2014, China was importing approximately the same volumes of goods as its emerging Asian trading partners and 20% less than the combined import volumes of North America, Japan and Europe. Interestingly, Chinese import volumes doubled between 2008 and 2014 from the levels seen in the period 2002-2008, while import volumes into North America, Europe and Japan declined by 12%. What were the factors driving Chinese growth? Global demand has weakened since the global financial crisis, so it seems reasonable to assume that it is primarily domestic demand that has fuelled the increase in import volumes.

DRY BULK IMPORT VOLUMES HAVE DEFINED CHINESE DEMAND

The Chinese import growth story is primarily a dry bulk story. Chinese dry bulk import volumes increased by 19.3% per year between 2002 and 2014. As such, dry bulk volumes constituted 76% of the total increase in Chinese import volumes during the period. Imports carried on tankers – i.e. oil, gas or chemical tankers – only contributed 16% to the increase.

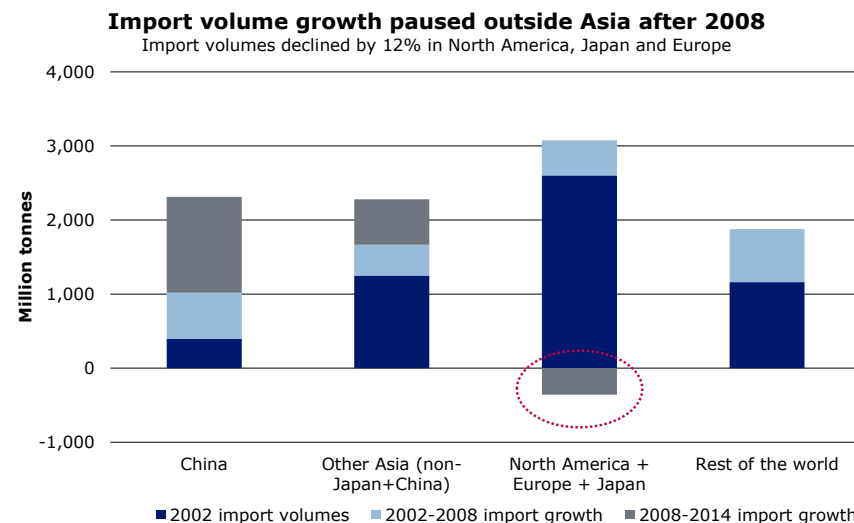
BUT MUCH OF THE GROWTH HAS BEEN DEBT-DRIVEN

From 2000 to 2007, total debt in China grew only slightly faster than GDP, reaching 158% of GDP, a level in line with that of other developing economies. Since then, debt has risen rapidly. In November 2008, the Chinese authorities initiated a USD 600 billion stimuli programme focusing on domestic construction and infrastructure projects. Over the next six years, China's nominal GDP roughly doubled, ballooning from around USD 4.5 trillion in 2008 to just over USD 9 trillion in 2014. But the economic growth was accompanied by increased levels of debt. By the middle of 2014, China's total debt had reached 282% of GDP, far exceeding the developing economy average and higher than some advanced economies, including the United States and Germany. The Chinese economy has added USD 20.8 trillion of new debt since 2007, which represents more than one-third of global growth in debt.

HALF THE DEBT IS SOMEHOW RELATED TO THE REAL ESTATE SECTOR

In February 2015, McKinsey estimated that nearly half of the debt of Chinese households, corporations and governments is directly or indirectly related to real estate, collectively worth as much as USD 9 trillion. This includes mortgages to homeowners; property developers' debt; lending to related industries, such as steel and cement; and debt raised by local governments for property development. This concentration to the property sector poses a significant risk. Property prices have risen by 60% since 2008 in 40 Chinese cities, and even more in Shanghai and Shenzhen. Residential real estate prices in prime locations in Shanghai are now only about 10% below those in Paris and New York. Over the past year, a correction has begun. Transaction volumes are down by around 10% across China, and unsold square metres are building up. A slowdown in the property market would be felt mostly by construction and related industries (leading to lower dry bulk demand), rather than by households, which are not highly indebted. However, housing construction is an enormous sector, accounting for 15% of GDP.

Figure GRO.3



Sources: IHS Global Insight, Danish Ship Finance

GROWTH IN DRY BULK DEMAND COULD LEVEL OFF

Indeed, the beginning of 2015 marked a turning point for China's real estate market; land sales in both volume and revenue terms plunged by 30% compared with the same period last year. The reason for this is twofold. The first is a decline in quality: after a 15-year boom, local governments have sold off most of the country's premium plots. The second is a drop in demand. In 2014, new property sales fell by 7.6% in volume and by 6.3% in terms of proceeds, down from increases of 17.3% and 26.3%, respectively, in 2013. To make matters worse, the real estate market is now suffering from an excess of supply. At the end of 2014, China had around 75 billion square feet of new property space either under construction or ready to be occupied; even if demand remains steady, it will likely take more than five years to sell all that space. In fact, demand will probably dip. That could have consequences for world trade and dry bulk volumes (in particular for iron ore).

DRY BULK DEMAND IS PRONE TO DECLINE

A plausible concern is that the combination of an overextended property sector and unsustainable finances of local governments could result in a wave of loan defaults in China, damaging the regular banking system and potentially creating a wave of losses for investors and companies that have put money into projects. While this could create challenges for the economy, McKinsey also finds that China's government has the capacity — if it chooses to use it — to bail out the financial sector, even if default rates reach crisis levels. This would most likely prevent a full-blown financial crisis. Because China's capital account has not been fully liberalised, spillovers to the global economy would most likely be indirect, via a further slowdown in China's GDP growth.

TRADE GROWTH MAY DECOUPLE FURTHER FROM GDP GROWTH

The impact on world trade volumes in general and dry bulk demand in particular could be large. As shown in figure 3, Chinese import volumes accounted for more than 50% of total growth in import volumes between 2002 and 2014. The correlation between global GDP and world trade will be further reduced in the future if or when China lowers the contribution from investments to its GDP creation. A reduced economic activity, starting from lower construction activity, ripples throughout the entire economy and thereby lowering both fossil fuel demand (i.e. oil, gas and coal) and steel consumption (i.e. iron ore). The direct consequence is expected to be that future GDP growth will be much less trade-intensive than in the past.

A NEW NORMAL REQUIRES LESS FOSSIL FUEL AND STEEL

The logic is fairly straightforward. It takes a lot of fossil fuel and steel to build up an emerging economy – like, for example, the Chinese. But when the economy matures and enters a new phase of normality, demand for fossil fuel and steel could settle at a lower level. That is to say that when we analyse and forecast import figures, in particular for emerging economies, it is important to remember that a significant part of these figures reflect one-off effects related to the urbanisation process. Some of these effects are long-lasting, but nonetheless non-recurring.

WE ARGUE THAT SEABORNE IMPORT VOLUMES COULD PLATEAU...

Still, most forecasts tend to present an outlook that somehow mirrors the market fundamentals of the past. The latest forecasts for world trade volumes are no different. But we see little to indicate that past drivers will drive future growth. We argue that the trade dynamics created in the wake of China joining the WTO in November 2001 were partly a one-off effect boosting world trade volumes for more than a decade. Any significant additional jumps in global trade are not likely in the years to come as we do not see any potential factors that could drive the same level of performance as in the past. Seaborne import volumes could plateau within the lifetime of vessels recently ordered.

...BUT CURRENT FORECASTS INDICATE 3.3% GROWTH

World import volumes are expected to grow by an annual average growth rate of 3.3% between 2014 and 2030 (4.5% between 2002 and 2014). The drivers of growth are expected to be the same, although the relative strength between emerging Asia and the advanced economies of North America, Japan and Europe is expected to change. Chinese import volume growth is predicted to average 4.7% (down from 15.8% between 2002 and 2014), while the advanced economies are expected to increase import volumes by 1.9% per year (up from 0.4% between 2002 and 2014). If this forecast turns out to be fairly accurate, emerging Asia will generate 69% of the growth in seaborne import volumes (78% between 2002 and 2014). The essential issue to consider is why future growth should be driven by the same growth drivers as in the past.

FUTURE GROWTH MAY REQUIRE LESS SEABORNE TRANSPORTATION

It is true that several emerging economies, including India, have a vast pool of low-cost workers available. These economies will continue to play an important role for the global economy and for world trade. But there is little to suggest that the world economy of tomorrow will require the same large quantities of low-skilled and low-cost labour as it has done in the past. Future economic growth may create fewer jobs and require less seaborne transportation as services are not often transported by the sea.

THREE ELEMENTS THAT ARE LIKELY TO TRANSFORM TRADE DYNAMICS

We have identified three elements that are likely to transform world trade dynamics affecting the medium to long-term outlook for seaborne import volumes. First, the shifting economics of global manufacturing could spark major changes to the global supply chain. Second, technological advancements will introduce new dynamics to the global economy and have the potential to change global trade flows. In time, they may even reduce global trade volumes. Third, demographic changes could lead to major changes in the growth patterns of the global economy.

GLOBAL TRADE INTEGRATION MAY HAVE REACHED ITS POTENTIAL

We are concerned that global trade integration could slow down in the medium to long term. Years of steady change in wages, productivity, energy costs, currency values and other factors have been quietly but dramatically redrawing the map of global manufacturing's cost-competitiveness. We argue that the global economy could be in the midst of a transition whereby demographic changes and dramatic shifts in manufacturing costs are driving major changes in the global production chain. In short, global trade integration – the integration of economic activity across borders – has begun to plateau since the vast pool of *low-cost* workers in China is no longer available.

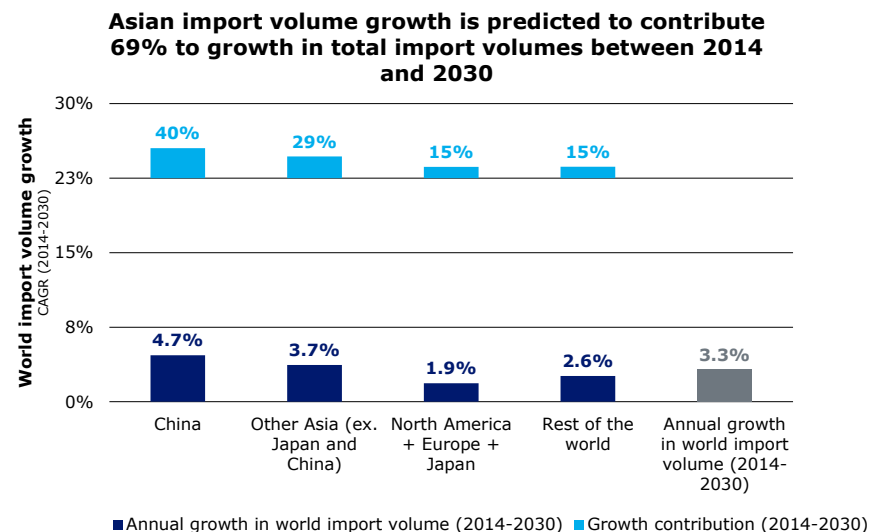
THE GLOBAL ECONOMY GOES LOCAL

The consequence could be that manufacturing becomes increasingly regional. Because relatively low-cost manufacturing centres exist in all regions of the world, more goods consumed in Asia, Europe and the Americas could be produced closer to home. This trend will have major implications for global seaborne demand, as trade routes and trade imbalances will change, not only due to the new low-cost manufacturing centres, but also due to changes in regional demand. Asian demand for fossil fuel and steel could decline but to some extent be substituted by increased demand in other regions.

A THIRD INDUSTRIAL REVOLUTION IS POSSIBLE

Technological advancements could significantly change global supply chains within the lifetime of vessels recently ordered. Consider the potential in various types of robotics or new manu-

Figure GRO.4



Sources: IHS Global Insight, Danish Ship Finance

facturing technologies such as additive manufacturing (i.e. the industrial version of 3D printing). Some argue that emerging technological advancements are about to transform the way we do business. In the years ahead, technological improvements in robotics and automation will boost productivity and efficiency. We could be heading for a third industrial revolution.

EXPONENTIAL TECHNOLOGIES WILL TRANSFORM GLOBAL TRADE...

3D printing has the potential to disrupt the container industry as it requires fewer inputs and products are produced next to the consumer. Traditionally, manufactured items often have dozens of parts that are produced at different locations, transported to a factory, and then assembled. By contrast, a product made on a 3D printer generally has far fewer parts – in some cases only one. Clearly, the tipping point for 3D printing is still a few years off, but that is not the point. The important lesson to be learned from the 3D printer example is that new technologies will introduce new solutions to old problems. We cannot maintain the presumption of continuity. Also consider the potential impact of

hydrogen fuel cells: via the chemical reaction between hydrogen and oxygen, fuel cells generate electricity to power an engine. We need to ask ourselves how many vehicles can be powered by alternative sources of energy by 2025. In sum, we need to fully understand the impact of exponential technology on global trade.

...AND SEND RIPPLES TO ALL PARTS OF THE GLOBAL ECONOMY

The argument is that new technological advancements hold the potential to change the long-term outlook for regional seaborne demand – not only for manufactured goods, but also for regional electricity demand, demand for refined oil products, construction activity and petrochemical demand. Changes to the industrial supply chain will send ripples all the way from global consumers to industrial suppliers and therefore also transform the outlook for the merchant fleet within the lifetime of vessels recently ordered.

DEMOGRAPHIC PRESSURES

Impending demographic changes are also expected to reshape the global economic landscape in the medium to long term. The world population is projected to increase to more than 8 billion by 2030 and to age at an unprecedented rate. For the first time in history, by 2020, children younger than five years old will be outnumbered by people aged 65 years and older. In all regions, except sub-Saharan Africa, the elderly population will increase faster than the working-age population, which will drive up age-related costs. At the same time, increased life expectancy means people can work for longer. China may get old before getting rich owing to a declining population. But many developing economies, especially in sub-Saharan Africa and South Asia, will have to generate job opportunities for new labour market entrants due to the rapidly increasing populations.

OLDER PEOPLE REQUIRE SERVICES NOT SEABORNE DEMAND

When the above-mentioned forces come into play simultaneously in Europe, Japan and China, they could have the potential to redefine the growth engines driving the global economy. The growth potential in debt-laden economies facing ageing populations is expected to be structurally reduced. We believe that

older people buy fewer things that require heavy investment – notably houses – and consume less energy. And older people commute less, but require more services, whether in healthcare or tourism.

SEABORNE TRADE VOLUMES COULD BE ON A STRUCTURAL DECLINE

In the short to medium term economic growth can be stimulated by various means (and may even be supply-pushed), but in time it will all come down to consumer demand. If economic growth fails to translate into consumer demand through the channels of job creation and economic prosperity, the foundation for future growth will be weakened and the capital invested could be at risk. The medium to long-term prosperity of the global economy is highly dependent on the outlook for the emerging economies which, with young and growing populations, are ready to drive future economic growth. Still, the long-term potential for international trade flows is expected to be reduced. Seaborne trade volumes could plateau or in the worst case embark on a structural decline within the next decade, as demand for services does not typically require transportation by the world fleet.

BUT THE GLOBAL ECONOMY COULD CONTINUE TO EXPAND

To reverse this trend, the trade potential of other regions needs to be unlocked. South America, South Asia, sub-Saharan Africa, the Middle East and North Africa: these are the regions that would greatly benefit economically from being better integrated into global value chains. More comprehensive global integration would be good for those emerging economies yet to realise the potential of global trade.

The decline in commodity prices that began with metals and agriculture four years ago — and was joined by crude oil in mid-2014 — continued in the first quarter of 2015. Energy, metals and agricultural prices were down 28%, 11%, and 5%, respectively, from the previous quarter. Increasing supplies, bumper harvests, weak demand and a stronger US dollar all contributed to the declines. All main commodity price indices are expected to come down in 2015, mainly due to abundant supplies, before recovering somewhat in 2016.

LOWER CHINESE GROWTH IS BEING REFLECTED IN COMMODITY PRICES

China is a major importer of industrial commodities: it consumes almost one-quarter of global energy output and one-half of global metal supply. Just as China's burgeoning investment in commodity-intensive manufacturing, construction and real estate raised global demand for commodities, its slowing has depressed demand, especially for copper, iron ore, steel and nickel. Prices of these metals have declined by more than 30% (65% for iron ore) since their record highs of 2011. These prices are expected to stay low over the period 2015-16 as expanding supply is only gradually absorbed by rising demand.

ENERGY PRICES TO DECLINE BY 42% IN 2015

Energy prices are projected to fall by 42% in 2015, largely reflecting a 45% drop in crude oil prices, which are still estimated to average USD 53 per barrel, according to the World Bank. Most of this decline has already occurred, implying flat oil prices for the rest of the year as the industry reduces the current large supply overhang. The weakness in crude oil prices will extend to other energy markets, especially natural gas in Europe and Asia. The European natural gas and the Japanese liquefied natural gas (LNG) price benchmarks are projected to decline by 15% and 30%, respectively, in 2015. Coal prices have fallen 40% since 2011 and are projected to decline by an additional 12% this year due to weak Chinese import demand and a global supply surplus.

NON-ENERGY PRICES ARE PROJECTED TO DECLINE BY 10% IN 2015

Non-energy prices are expected to fall by 10% in 2015, with declines in all main indices. Metals prices are estimated to decline by 13% due to capacity increases and slowing demand in China. Iron ore prices are expected to decline by 35% owing to new low-cost mining capacity (mainly in Australia but also in Brazil) coming online this year and next. Iron ore prices fell 15% during the first quarter of 2015. March prices stood at just a third of their 2011 highs. The new supply led high-cost production in China and elsewhere to close. However, more new low-cost capacity is due to come online in the next two years and further displacement of high-cost supply will likely be required to re-balance the market. Demand from the steel industry, which consumes nearly all iron ore output, was weak in the first quarter of 2015, continuing a year-long trend. Output growth in China, which produces half of the world's steel, is slowing due to weak domestic demand. However, China's finished steel exports continue to rise as steel prices have declined sharply.

THE SHIPPING INDUSTRY REMAINS BOTH CYCLICAL AND VOLATILE, BUT ITS MEAN-REVERTING NATURE SEEMS TO HAVE BEEN ABSENT FOR A PROLONGED PERIOD DUE TO THE MASSIVE OVERORDERING IN MANY SEGMENTS. INVESTORS WHO HAVE BEEN PLANNING TO RIDE THE GLOBAL RECOVERY ARE REALISING THAT WHAT GOES DOWN SOMETIMES STAYS DOWN FOR QUITE A FEW YEARS. WE PREDICT THAT SECONDHAND VALUES COULD DECLINE FURTHER, POTENTIALLY BY AS MUCH AS 20% FROM CURRENT LEVELS IN SOME SEGMENTS.

Above, we have argued that the global economy is currently in the midst of a transition whereby old growth engines are gradually being replaced by new ones. It seems that this paradigm shift is generally being misperceived, and many continue to expect that the shipping markets will be mean-reverting in due course. We do not share their expectations for the short to medium term (i.e. 12 months and one to three years, respectively) since we predict that global demand for fossil fuels and steel could settle at a lower level if China stops adding to its stocks of empty buildings. The risk of a correction in seaborne import volumes appears to be going largely unnoticed. Still, for the purposes of this section we will assume that seaborne demand volumes will increase by an annual average of 3.3% until 2018.

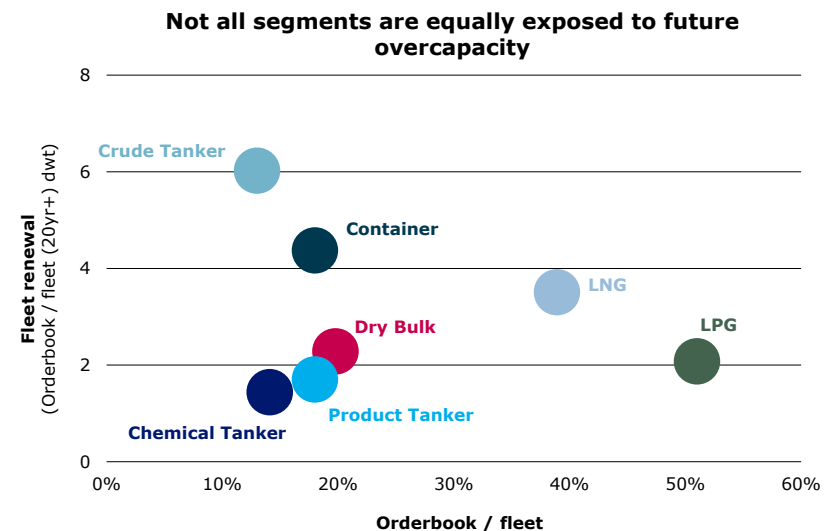
OVERCAPACITY PREVAILS

The problem is that nominal supply is already well ahead of nominal demand in many ship segments. And many more ships are on order. While it is true that orderbook-to-fleet ratios have come down in recent years, few segments have the capacity to absorb the scheduled deliveries without future earnings being lowered. Supply increased twice as fast as demand between 2008 and 2014, leaving nominal supply approximately 30% ahead of demand by year-end 2014. Today, few ship segments have many scrapping candidates. The size of the orderbook relative to the age profile of the world fleet leaves little hope for freight rates to increase should demand fail to grow in line with investors' expectations. It therefore seems inevitable that premature scrapping will intensify if all vessels on order are delivered.

BUT NOT ALL SHIP SEGMENTS ARE EQUALLY EXPOSED

Part of the supply gap has been bridged by short-term cyclical factors such as longer travel distances, slower speeds and lower fleet efficiency (e.g. long ballasting routes) in many segments. By continuing to buy fuel-efficient vessels for already oversupplied markets, ship investors have exacerbated a deflationary cycle. The individual ship segments have been impacted differently: some can be regarded as being over the worst (Crude tankers) while others have yet to be impacted (LPG), but most, if not all, ship segments seem to be exposed. Dry bulk is approaching what could be considered the eye of the storm. The larger container segments continue to build up excessive capacity. Product tanker earnings have taken us by surprise, but market sentiment could easily turn negative again if the many new vessels currently on order are delivered.

Figure GRO.5



Sources: Clarksons, Danish Ship Finance

LITTLE ROOM FOR MANOEUVRE IF DEMAND DISAPPOINTS

Looking at the orderbooks for the various main ship segments relative to their fleets' replacement potential, it is apparent that none of the major ship segment has a plan B for the short term. In particular, the strong demand expectations for gas carriers are clearly visible in the size of this segment's orderbook compared with its current fleet. Moreover, the outlook for crude tankers remains fragile due to the age distribution of the fleet. To illustrate the challenge it is facing, for each crude tanker older than 20 years six vessels are scheduled to enter the fleet within the next few years (fig. 5). Let us hope that our prediction of stagnating or outright declining seaborne trade volumes turns out to be incorrect or at least premature.

TEMPORARY FACTORS CAN BE MISLEADING EVEN FOR LONG PERIODS

In general, we must not allow ourselves to be dazzled by powerful demand shocks that are caused by temporary factors. A fundamental overcapacity issue is not resolved, per se, simply because freight rates soar for a year. In shipping, short-term factors such as arbitrage windows (i.e. often related to price volatility), weather disruptions, geopolitical issues or issues related to congestion can be strong enough to lift freight rates above their fundamental balance, even for longer periods. But that does not mean that the market will improve the following year – and it certainly does not call for additional contracting of new vessels.

SHIPPING'S MEAN-REVERTING NATURE WILL RETURN IN DUE COURSE

We believe that the industry's mean-reverting nature has been somehow sacrificed in the search for yield (i.e. overordering of new vessels). While it is true that cyclicalities tend to return in the long term, the low point in the cycle is expected to be long-lasting, especially if demand stagnates or even declines in the short to medium term. Besides, we believe that volatility is structurally reduced in times of significant oversupply.

DEMAND IS FAILING TO ABSORB SUPPLY

An important factor seems to have been forgotten in the years of overinvestment. Supply has been growing much faster than

demand since 2008. By year-end 2014, a 1% increase in demand only absorbed a 0.8% increase in supply. Put simply, the supply gap will continue to widen in the coming years even if both supply and demand are expected to grow at, let's say, 4% per annum. And if the supply gap widens, freight rates are unlikely to increase.

LOW FREIGHT RATES REMAIN DUE TO OVERCAPACITY

The ClarkSea Index, a composite freight rate index sourced by Clarkson, has only surpassed USD 15,000 per day for short periods in the years from 2009 to 2015. The index has mostly hovered between USD 7,500 per day and USD 15,000 per day. The average rate for the period from 2009 to 2015 has been USD 11,800 per day, while the corresponding figure for the previous nine years – from 2000 to 2008 – was USD 23,500 per day. As of 1 May, 2015, the index stood at USD 13,000 per day (fig. 7).

FREIGHT RATES INCREASE WITH HIGHER UTILISATION...

A composite freight rate index in theory reflects the average utilisation of the world fleet adjusted for speed, inefficiencies and travel distances and is unaffected by regional imbalances. For freight rates to rise, demand needs to employ an increasing share of the world fleet.

...BUT UTILISATION IS EXPECTED TO STAY LOW...

Let us look at what it will take for freight rates to stay at current levels. On aggregate, seaborne world trade volumes are predicted to increase at an annual growth rate of 3.3% until 2018. (For a detailed discussion of the outlook for world trade volumes, please refer to the World Demand Indicators section above.) This implies that demand growth will absorb 2.6% fleet growth per year or approximately 50 million dwt.

...DESPITE AN OPTIMISTIC SCRAPPING SCENARIO...

There is, however, no reason to expect that supply will only expand by 2.6% between 2015 and 2018. The orderbook currently constitutes 18% of the fleet, with the vast majority scheduled to be delivered in 2015 and 2016 (more than 100 million dwt per year). To counterbalance the massive inflow of vessels, we as-

sume that approximately 50 million dwt per annum will be scrapped during the period 2015 to 2018. This is a fairly optimistic scenario that represents a 10% higher level of activity than during the previous peak from 2011 to 2014.

...AND AN EXPECTED DELIVERY RATIO OF ONLY 70%

Further, we assume that of the orders scheduled for delivery in a year, 70% will actually be delivered, with the rest postponed to the following year. To accommodate future contracting activity, we assume a level of new orders for 2017 and 2018 such that combined deliveries from 2015 to 2018 will be approximately 25% below the peak deliveries of 2011 to 2014.

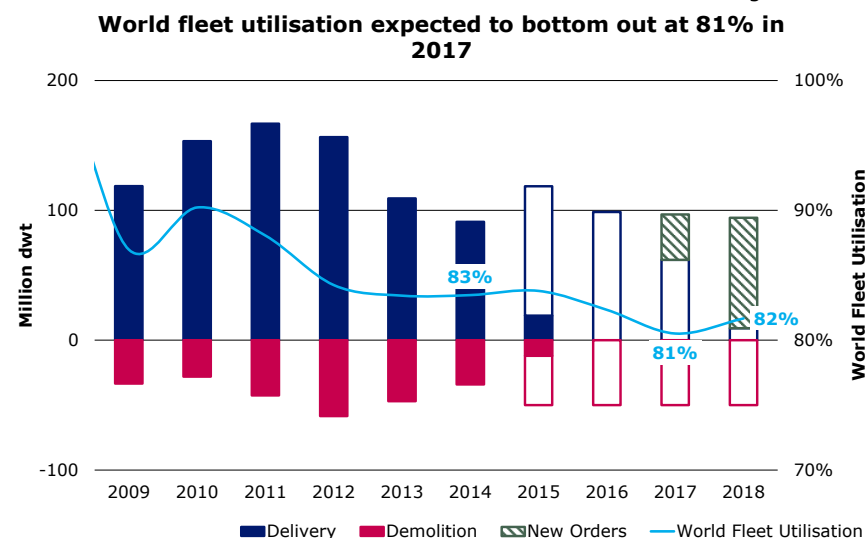
CLARKSEA INDEX COULD STAY LOW FOR THE NEXT TWO YEARS

Based on the above scenario, supply is projected to grow at a compounded average growth rate of 4.2% between 2015 and 2018. Still, the outlook remains bleak. We do not believe that the current fleet utilisation can be maintained beyond 2015 (fig. 7). Consequently, we find it less probable that the ClarkSea Index will rise significantly from its current level of approximately USD 13,000 per day in the next two to three years. So what will happen to secondhand prices during this period?

A DEMOGRAPHIC DEFICIT IS ABOUT TO EMERGE

The protracted duration of the low market has proved extremely challenging for the industry at large. The continuing low freight rate environment continues to weigh on secondhand prices, although the cost of debt remains low. For quite some time we have argued that the age distribution of the world fleet presents a structural challenge for ship value formation. In our approach to ship value formation, the value of a ship is determined by three parameters: short-term earnings (related to the timecharter rate), the long-term earnings potential (often seen as being related to the newbuilding price) and the expected operating life of the vessel. If vessels are on average scrapped prematurely (i.e. before their technical operating life), it represents – per se – a structural downside risk to current ship prices, in particular for older, less efficient vessels that are technically outdated. For some, but not all, ship segments in today's market, that could mean vessels older than ten years.

Figure GRO.6



Sources: Clarksons, Danish Ship Finance

THE AVERAGE SHIP IS PRICED ABOVE ITS EARNINGS POTENTIAL

Ship price formation has decoupled from earnings throughout most of the period from 2009 to 2015. Between 2000 and 2008, the average ship was priced at a price-to-earnings ratio (P/E) of 4, but this figure has increased to 7 since 2009 (fig. 8). Throughout the period since 2009, freight rates have often been insufficient to cover costs. In these circumstances, where equity is being spent on a daily basis, the pricing mechanism for secondhand vessels fails to assess the impact of short-term demand for equity relative to the expected longer-term recovery. However, the recent freight rate improvements and continued softening in prices seem to have restored pricing to a more balanced level.

SECONDHAND PRICES ARE LIKELY TO DECLINE FURTHER

Prices have come down considerably. Yet, the essential issue to address is whether secondhand prices will decline further. Current prices seem to indicate that many investors are still anticipating a short- to medium-term recovery in freight rates. This hypothesis is supportive of the market convention that shipping is a cyclical and mean-reverting industry. As discussed above, we do not argue against the cyclical nature of the industry, but neither do we expect to see significant freight rate increases in the short to medium term. Freight rates will eventually go up, but we are less certain that secondhand prices will increase in the short to medium term. We simply believe that current prices already reflect overly high expectations for future income in many segments. For freight rates to justify today's secondhand prices, the ClarkSea Index would need to increase to USD 19,000 per day (+46%). We consider it fairly unlikely that the 2015 annual average of the ClarkSea Index will reach USD 19,000 per day. There are simply too many vessels at sea and there are more to come.

11% OF THE WORLD FLEET IS OLDER THAN 20 YEARS

The age profile of the world fleet clearly illustrates that years of massive inflow of new and larger vessels in combination with low freight rates have maintained the pressure on owners to scrap older, less efficient vessels. Today, only 11% of the world fleet is 20 years or older, while 65% of the world fleet is ten years or younger (fig. 9). Above, we argued that for an acceptable level of world fleet utilisation to be maintained, very high demolition activity of approximately 50 million dwt per annum is necessary between 2015 and 2018. We therefore assume that the record-high demolition activity from 2011 to 2014 will be repeated in the coming years.

ARE WE ENTERING A PHASE OF STRUCTURALLY DECLINING PRICES?

In theory, this could be achieved on an aggregated level by scrapping almost all vessels currently older than 20 years by year-end 2018. The reality, however, may turn out to be a much less smooth process. In a more conventional scenario both younger and older vessels are scrapped collectively. This apparently irrelevant technical nuance may be of great significance for

Figure GRO.7

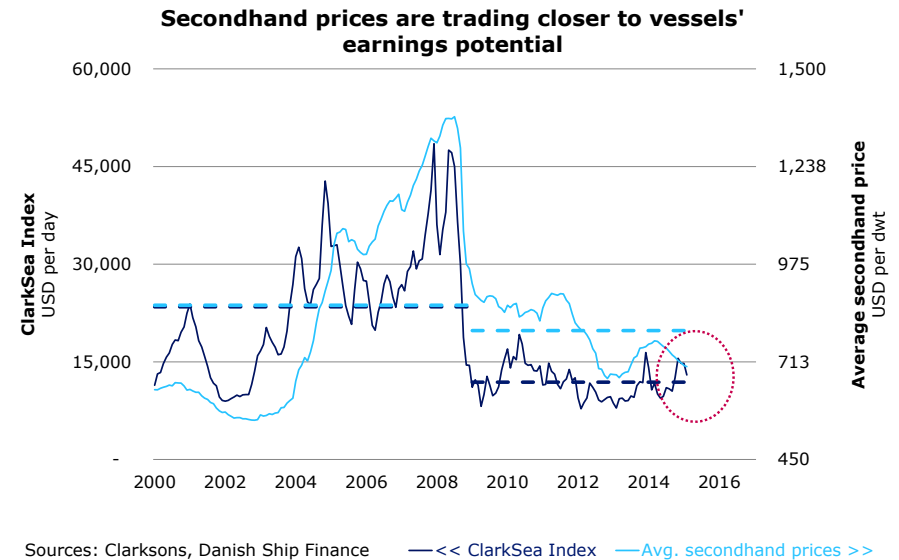
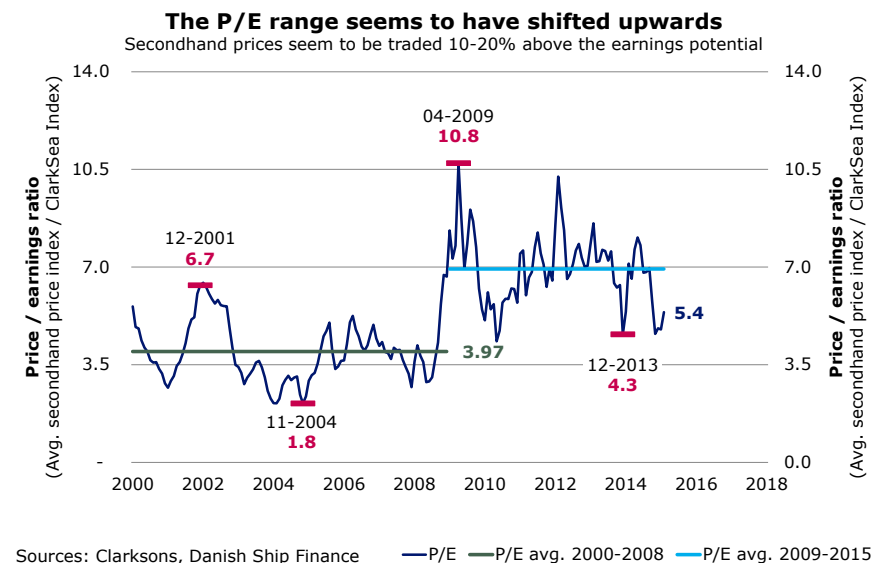


Figure GRO.8



the future development of secondhand prices. In years when the average age of vessels scrapped stays above the vessels' technical operating lifetime the industry faces little, if any, structural headwinds from the demographic distribution of the fleet.

A SHORTENING OF THE CASH FLOW PERIOD REDUCES VALUE

The critical issue to consider is a scenario where vessels are systematically scrapped prematurely. In the event of this, will valuation continue to be subject to a stable life expectancy of for example 25 years? If this is not the case, will secondhand values for older vessels begin to decline due to a shortening of their remaining lifetime (i.e. the outstanding cash flow period)? In today's market, the aggregated average scrapping age is 27 years, which is two years above the life expectancy for standard vessels (fig. 11). But there are clear discrepancies between individual segments. Larger vessels have, on average, a younger age profile than smaller vessels and are therefore often scrapped prematurely. In several of today's subsegments, the average vessel is scrapped prematurely and when vessels are scrapped prematurely, value is destroyed. We expect the trend of vessels being scrapped prematurely to continue until year-end 2018.

NEWBUILDING PRICES MAY DECLINE TO NEW RECORD-LOW LEVELS

Above, we argue that the life expectancy of older vessels is likely to bottom out within the next three to four years. Further, we argue that demand seems unlikely to be sufficient to ensure that an increasing share of the world fleet is employed, which is why we expect freight rates to remain low, or even decline. Both factors are weighing on the outlook for secondhand values. The last component determining the outlook for secondhand values is the vessels' expected long-term earnings potential. The newbuilding price is often regarded as an indicator for future earnings potential, since it reveals the buyer's reservation price. But the price paid provides no guarantee of the money actually earned. In today's market, where many seem to be investing in new ships in order to lower their marginal costs per moved unit, the price paid is hardly a good indicator for future earnings. But since the newbuilding price has been on a structural deflationary trend since 2008, and this is expected to continue to be the case until global yard capacity has been scaled down to more sus-

Figure GRO.9

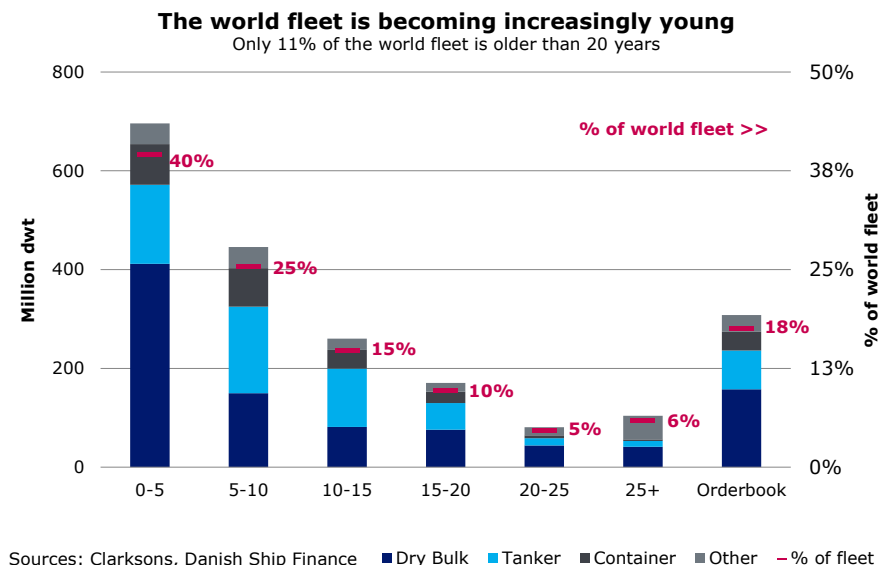
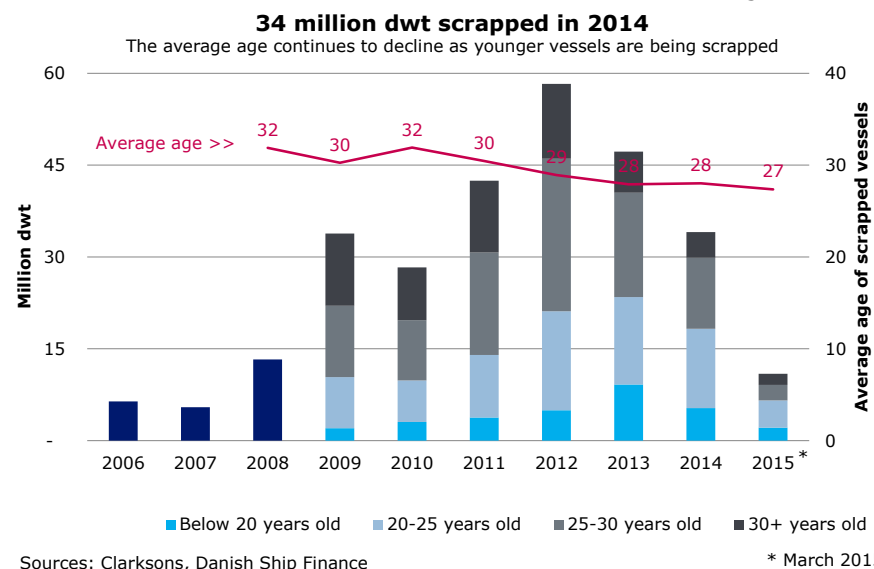


Figure GRO.10



tainable levels, this indicator offers little hope. We expect new-building prices to double-dip, with new record-low levels seen in the coming years.

SECONDHAND VALUES COULD DECLINE BY AS MUCH AS 20%

In longer periods of low earnings the market tends to underestimate the risks, since many argue that we are near the bottom. And we might well be. But investors who have been planning to ride the global recovery will realise that what goes down sometimes stays down for quite a few years. Many investors seem to have planned for a recovery this year or next. The timing has been good for tanker investments while the opposite has been true for dry bulk and containers. For these two segments we expect to see low freight rates and low ship prices for the next two to three years. So the critical question to ask is how much further can prices decline? There is an argument to say that prices have reached a structural low point and that further reductions appear unrealistic. From a cost perspective the argument is solid, but from the perspective of supply and demand we see little to prevent further value depreciations. In fact, we argue that secondhand values for older vessels, in several subsegments, could be at risk of value depreciations of as much as 20-25% within the next year or two.

Figure GRO.11

AVERAGE SCRAPPING AGE	2014	2015*	AVERAGE SCRAPPING AGE	2014	2015*
Crude Tanker			Container		
VLCC	21	24	3-7,999 Post-Panamax	18	
Suezmax	20		Panamax	20	24
Aframax	22	23	Sub-Panamax	22	21
Panamax	20	19	Handy	22	21
Handysize	24		Feedermax	22	21
Small Tankers	30	37	Feeder	33	35
			8-11,999 Post Panamax		
Bulk Carrier			Product Tanker		
Capesize	23	20	LR2	27	
Panamax	24	23	LR1	21	31
Handymax	26	26	MR	25	27
Handysize	29	28	Small Tankers	33	34
Small	33	27			

* as per March 2015



SHIPBUILDING

SHIPPING MARKET REVIEW – MAY 2015



DANISH
SHIP FINANCE

SHIPBUILDING

THE SHIPBUILDING INDUSTRY HAS ENTERED A PERIOD OF ADJUSTMENT. SOME YARDS ARE MANAGING TO BRING IN ORDERS AND SCALE UP CAPACITY, WHILE OTHERS ARE STRUGGLING TO ATTRACT ORDERS. AS A CONSEQUENCE, THEY ARE BEING FORCED TO REDUCE CAPACITY AND ULTIMATELY CLOSE.

NEWBUILDING PRICES

AVERAGE NEWBUILDING PRICES WERE HIGHER IN 2014 THAN IN 2013, BUT HAVE BEEN DECLINING SINCE MID-2014.

The shipbuilding industry is in the midst of what could be described as an elimination race. There is a clear divide between those yards that bring in new orders and those that do not. Consequently, we expect an adjustment of global yard capacity where a group of yards re-activate idled capacity and another group close down. In the end, we expect the result to be a consolidation of the industry with fewer but larger active yards.

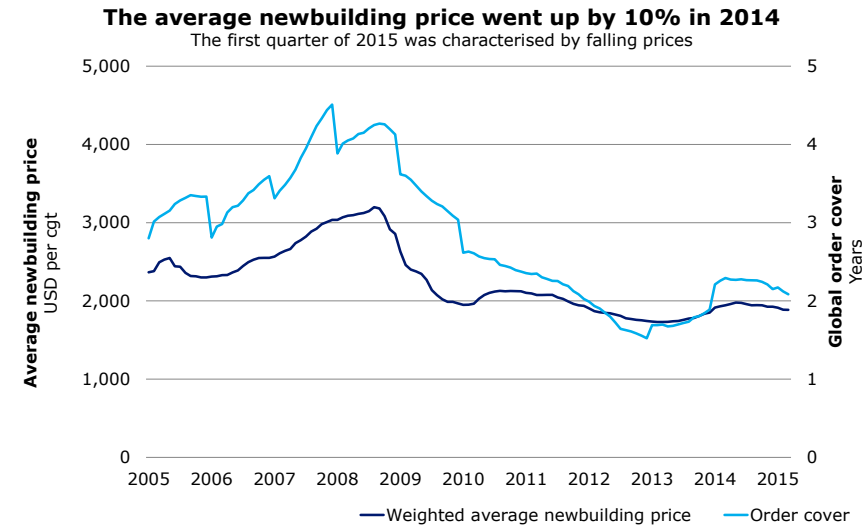
NEWBUILDING PRICES UP ON AVERAGE IN 2014

Newbuilding prices have been on a downward trajectory since 2009. The contracting boom in 2013 and 2014 provided a short-lived boost. In the period from March 2013 to May 2014 prices increased by 14% after which they once again started to decline (fig. 1). Nevertheless, this boost meant that the average newbuilding price for 2014 as a whole was 10% higher than the very low level seen in 2013. Since May 2014, the average price has come down 5%, primarily due to falling bulk and tanker prices.

A CLEAR DIVIDE IN THE INDUSTRY

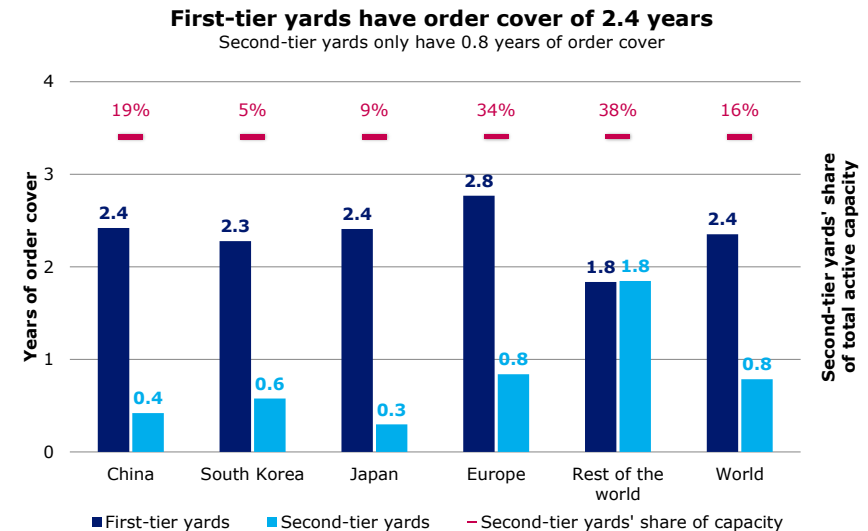
The falling prices are a clear result of the shipyards' declining order cover. The overall global yard order cover witnessed a short-term improvement due to the high contracting activity in 2013 and 2014, but quickly began to move downwards (fig. 1). There is a big divide in the industry between first-tier yards, yards that have received new orders within the last 15 months, and second-tier yards, those that have not. 84% of active yard capacity is in the first-tier group, while the remaining 16% constitutes the second-tier group. The order cover for the first-tier group is 2.4 years, while for the second-tier group it is 0.8 years (fig. 2).

Figure SB.1



Sources: Clarksons, Danish Ship Finance

Figure SB.2



Sources: Clarksons, Danish Ship Finance

FIRST-TIER YARDS RESTOCKED 93% OF THEIR COMBINED CAPACITY IN 2014. CHINA RESTOCKED 93% OF ACTIVE FIRST-TIER CAPACITY, SOUTH KOREA 86% AND JAPAN 94%.

41 MILLION CGT WAS CONTRACTED IN 2014

In 2014, 41 million cgt was contracted at the industry's 300 first-tier yards, equivalent to 5% of the total world fleet. Although this was moderate compared with 2013, it was a substantial volume in the light of the overcapacity in many ship segments. 48% of the contracts placed in 2014 are scheduled to be delivered in 2016. We estimate that there were around 700 active newbuilding yards in 2014, hence, there were approximately 400 second-tier yards that did not receive any orders. In the first quarter of 2015, 5.6 million cgt were contracted at 67 yards, 35% less than in the same period in 2014.

CHINA RESTOCKED 93% OF FIRST-TIER CAPACITY IN 2014

The majority of orders placed in 2014 went to Chinese yards (16 million cgt or 38% of total contracting), primarily in the form of bulk orders. Of China's 200 active newbuilding yards, 100 yards, representing 81% of capacity, received new orders, restocking 93% of their active capacity. In the first quarter of 2015, Chinese yards only received orders amounting to 1.3 million cgt, or 24% of total world contracting. This was 80% lower than in the same period in 2014, probably as a consequence of the sluggish market for bulk vessels, still dominating the Chinese orderbooks.

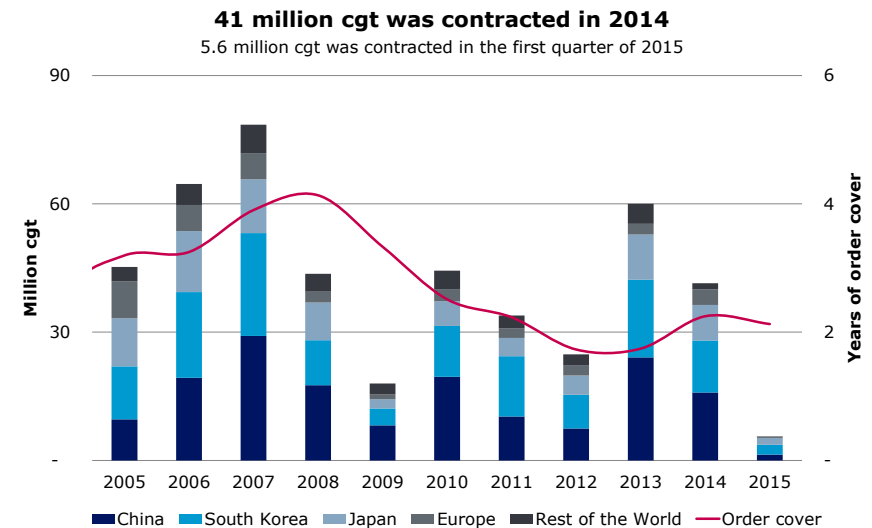
SOUTH KOREA RESTOCKED 86% OF FIRST-TIER CAPACITY IN 2014

South Korean yards attracted orders amounting to 12 million cgt in 2014. Of these, 49% were for gas vessels and another 25% were for tankers. Of South Korea's 26 active yards, 12 received new orders and restocked 86% of their capacity. So far in 2015, 2.3 million cgt has been contracted at South Korean yards, 50% less than in the same period last year.

JAPAN RESTOCKED 94% OF FIRST-TIER CAPACITY IN 2014

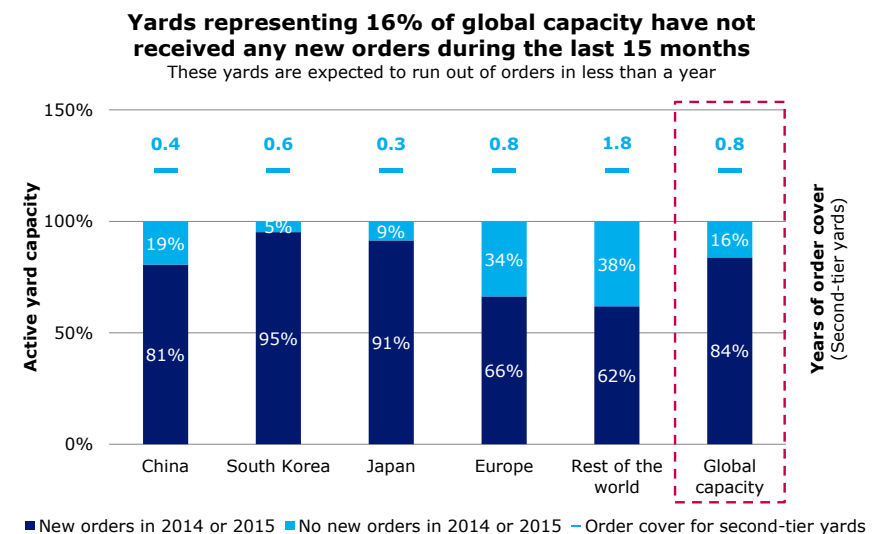
8.3 million cgt was contracted at Japanese yards in 2014, more than half bulk orders. Contracts were divided between Japan's 56 first-tier yards, representing 97% of domestic capacity. These yards restocked 94% of their capacity. In the first quarter of 2015, Japan received 1.6 million cgt, 48% less than in the first quarter of 2014.

Figure SB.3



Sources: Clarksons, Danish Ship Finance

Figure SB.4



Sources: Clarksons, Danish Ship Finance

GLOBAL DELIVERIES

75% OF SCHEDULED ORDERS WERE DELIVERED IN 2014. FIRST-TIER YARDS MANAGED TO DELIVER 81% OF SCHEDULED ORDERS, WHILE SECOND-TIER YARDS ONLY DELIVERED 44%.

At the beginning of 2014, 49 million cgt was scheduled to enter the world fleet. 75% of scheduled orders were delivered over the year, equal to 36 million cgt, which was 6% less than in 2013. During the year, orders amounting to 6 million cgt were cancelled and another 6 million cgt postponed for later delivery (fig. 5). The first-tier yards accounted for 90% of deliveries and performed significantly better than the second-tier yards, delivering 81% of scheduled orders, whereas second-tier yards only delivered 44%. In the first quarter of 2015, 18 million cgt was scheduled to be delivered, but only 9.6 million cgt entered the fleet during the period.

CHINA DELIVERED 64% OF SCHEDULED ORDERS IN 2014

Chinese yards had 19 million cgt of orders scheduled for 2014. Only 12 million cgt was actually delivered, representing a delivery ratio of 64% (fig 6). The first-tier yards delivered 74% of scheduled orders (10.7 million cgt), while the second-tier yards delivered 30%, equal to 1.3 million cgt. In the first quarter of 2015, 3.4 million cgt of the 7.7 million cgt scheduled orders was delivered. First-tier yards delivered 48% and second-tier yards 28% of scheduled orders in the first quarter.

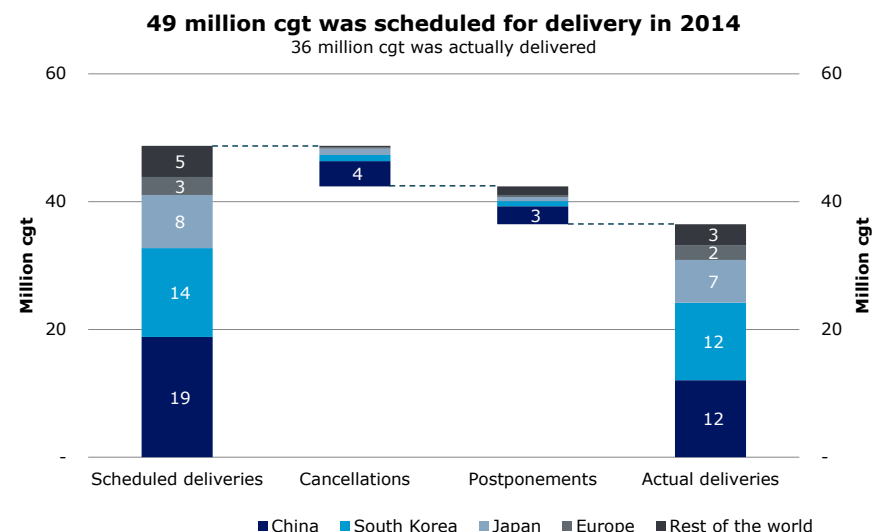
SOUTH KOREA DELIVERED 87% OF SCHEDULED ORDERS IN 2014

14 million cgt was scheduled to be delivered from South Korean yards in 2014, and by year-end, 12 million cgt had actually been delivered. First-tier yards delivered 87% of scheduled orders and second-tier yards 83%. In the first quarter of 2015, South Korea was scheduled to deliver 4.6 million cgt, but 3 million cgt was actually delivered. First-tier yards delivered 84% of scheduled orders in this quarter and second-tier yards 75%.

JAPAN DELIVERED 80% OF SCHEDULED ORDERS IN 2014

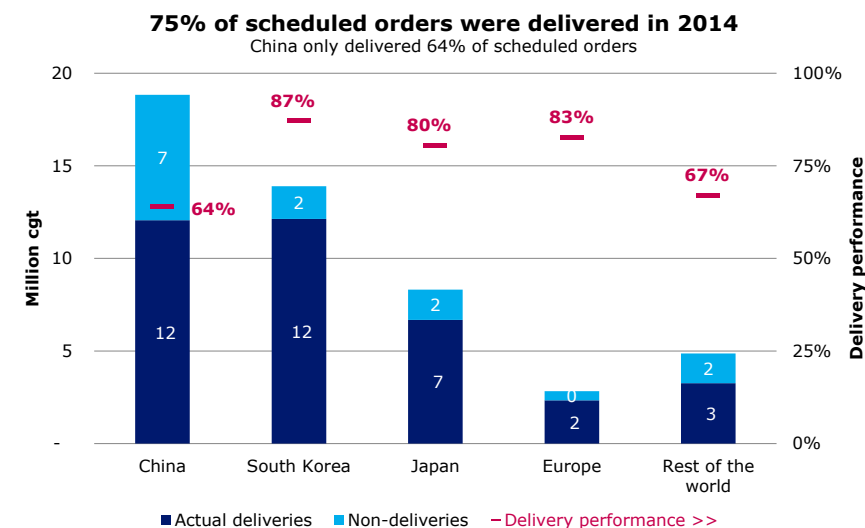
Japanese yards intended to deliver 9 million cgt in 2014, and managed to deliver 7 million cgt. First-tier yards delivered 82% of scheduled orders, while second-tier yards only delivered 59%. In the first quarter of 2015, Japan delivered 79% of scheduled orders. The first-tier yards' delivery performance was 78% and the second-tier yards' was 98%.

Figure SB.5



Sources: Clarksons, Danish Ship Finance

Figure SB.6



Sources: Clarksons, Danish Ship Finance

YARD CAPACITY AND UTILISATION

YARD CAPACITY CONTINUES TO DECLINE, BUT NOT ENOUGH TO INCREASE UTILISATION RATES SIGNIFICANTLY. YARDS UTILISED 68% OF THEIR ACTIVE CAPACITY IN 2014 UP FROM 66% IN 2013.

To get a better handle on the rather abstract concept of yard capacity, we have chosen to distinguish between a yard's historical maximum capacity, capacity that has been idled and that can be re-activated if necessary, and active capacity, capacity that is currently being utilised. For a detailed discussion of yard capacity, please refer to the textbox at the end of this chapter.

YARD CAPACITY DECLINED BY 10% IN 2014

We estimate that active yard capacity was reduced by 6 million cgt in 2014 (fig. 7). Of this, 3.4 million cgt was at yards that closed down (around 200 yards) and 2.4 million cgt was at yards that reduced active capacity (200 yards). As a result, active global yard capacity was reduced to 53 million cgt.

CHINA AND SOUTH KOREA SCALED BACK ACTIVE CAPACITY

China reduced its active capacity by 12%. 69 yards with a combined capacity of 1.8 million cgt closed down in 2014, while another 24 yards reduced capacity by 1 million cgt. South Korea reduced its active yard capacity by 10%. Of this, only five yards closed down (0.3 million cgt), while 10-15 reduced their active capacity by 1.5 million cgt.

GLOBAL YARD UTILISATION WAS 68% IN 2014

At the beginning of 2014, yard utilisation was estimated at 91% for first-tier yards and 96% for second-tier yards. However, with a delivery ratio of only 75% for the industry as a whole, the group of first-tier yards only utilised 73% of their active capacity in 2014, while the second-tier group only utilised 43%. On aggregate, 68% of global yard capacity was utilised in 2014, 2 percentage points higher than in 2013.

SECOND-TIER YARD UTILISATION LOW IN CHINA AND SOUTH KOREA

Chinese second-tier yards performed the worst of all, only utilising 32% of their active capacity (fig. 8). Second-tier yards in South Korea and Japan did not perform much better; however, note that the second-tier yards in South Korea and Japan only constitute 5% and 9% of domestic yard capacity, respectively, while in China they account for 19%.

Figure SB.7

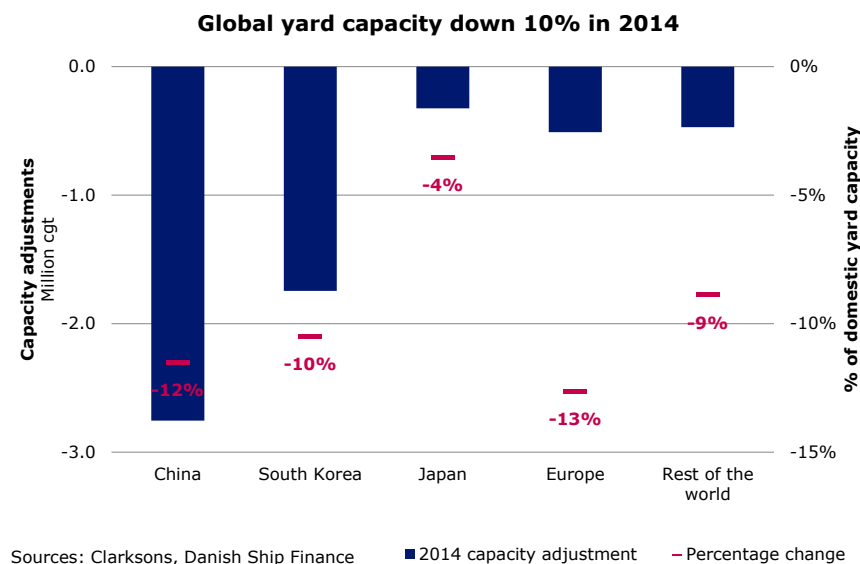
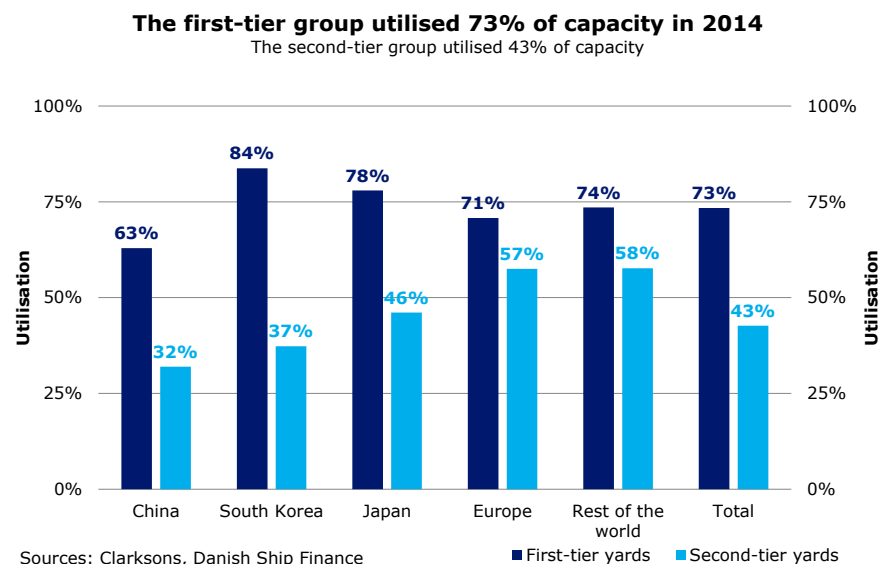


Figure SB.8



OUTLOOK

THE SHIPBUILDING INDUSTRY IS ADJUSTING TO A NEW NORMAL. AFTER SEVERAL YEARS OF EXPANSION, IT IS NOW SCALING DOWN TO A MORE BALANCED LEVEL AND AS A CONSEQUENCE MANY YARDS ARE BEING LEFT BEHIND. WE BELIEVE THAT THERE ARE STILL MORE ADJUSTMENTS TO COME IN THE NEXT COUPLE OF YEARS.

It could be tempting to conclude that the shipbuilding market has begun to improve based on the fact that contracting was higher than deliveries in 2013 and 2014. The industry has improved in the sense that the order cover has increased from the very low levels of 2012 to more sustainable levels – at least for most first-tier yards. However, with the young fleets and high orderbooks in several vessel segments, we think that the order cover could once again start to decline. Order cover for Chinese and Japanese yards in particular could come under pressure due to their heavy reliance on dry bulk contracts. Moreover, more yards appear to be struggling to make a profit in both China and South Korea. We are convinced that further capacity cuts are required before a real recovery of the industry as a whole can begin.

FUTURE YARD CAPACITY

According to our estimates, global yard capacity has been reduced by around 20% over the last few years, from 66 million cgt in 2011 to 53 million cgt by year-end 2014 (fig. 9). During this period we have seen yards closing down as well as capacity being reduced at several yards. A reduction of capacity is fundamentally different from a closure, in the sense that a reduction only entails temporary shutdowns of parts of a yard's capacity, whereas a closure means that the yard terminates all newbuilding operations. Just looking at the currently active newbuilding yards, we find that they have reduced capacity by 28% compared with their historical maximum capacity. This 28% is assumed to be lying idle (fig. 10), and the shipyards will be able to re-activate this capacity if they are able to attract enough orders. Hence, in the event of another contracting boom, shipbuilders will be able to scale up capacity.

GLOBAL YARD CAPACITY EXPECTED TO REMAIN STABLE IN 2015

We estimate that there were around 700 active newbuilding

Figure SB.9

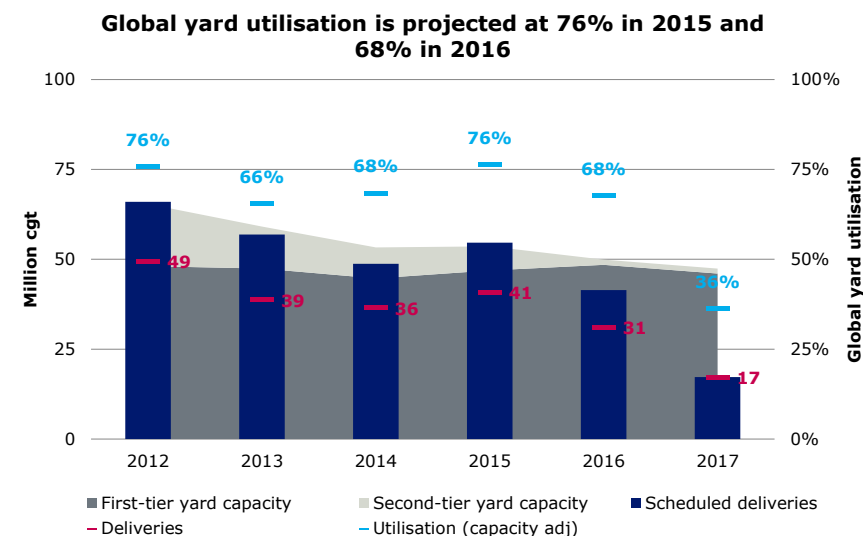
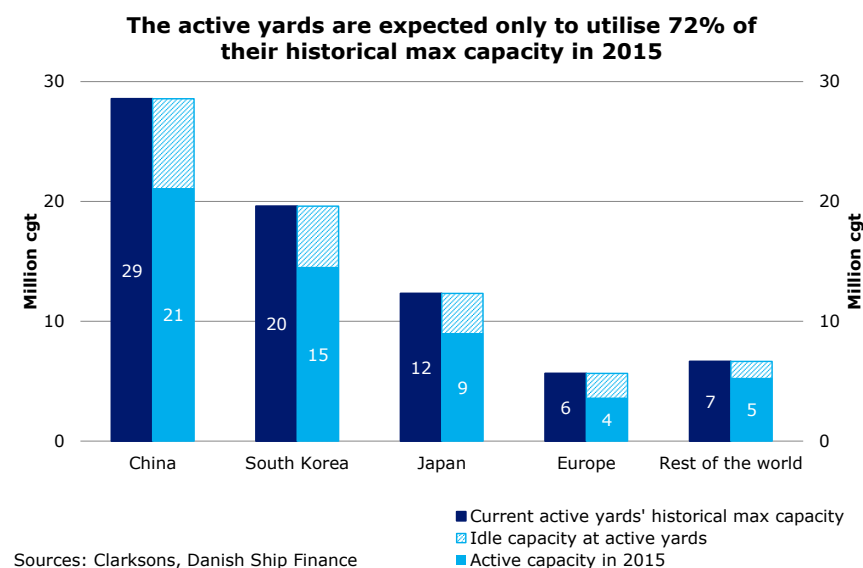


Figure SB.10



yards in 2014, with an aggregate active capacity of 53 million cgt. Thus, by delivering 36 million cgt last year, the industry utilised 68% of its annual capacity. In 2015, we estimate that the number of active yards will be reduced to around 560, with a combined capacity of 53 million cgt. That is to say, capacity will remain constant despite several yards closing down because some of the existing yards will have re-activated capacity that has previously been idled.

SOME YARDS CLOSE WHILE OTHERS RE-ACTIVATE IDLED CAPACITY

This trend has primarily been caused by the very high level of contracting in 2013 and 2014, which has separated the wheat from the chaff and left some yards better off than others. As a consequence, we estimate that 230-240 yards with a combined capacity of 3.3 million cgt will close down in 2015 and that 50-60 yards will reduce their active capacity by 2.3 million cgt (fig. 11). Meanwhile, the majority of the first-tier yards (200 yards) that benefited the most from the contracting boom in 2013 and 2014 are expected to re-activate capacity of 3.9 million cgt in 2015 (fig. 12). Additional 100 yards that have not been building new vessels for a period of time will re-enter the newbuilding scene in 2015 and re-activate capacity amounting to 1.5 million cgt. All in all, this will result in a marginal increase in overall yard capacity in 2015.

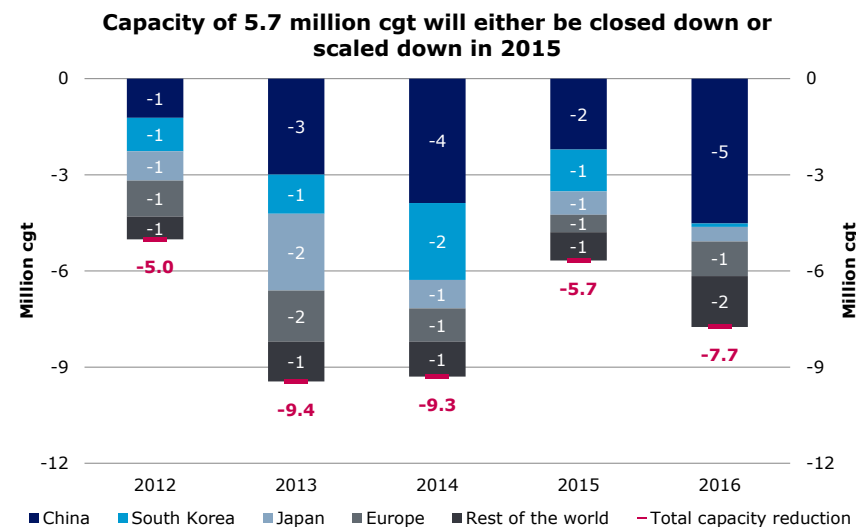
SECOND-TIER YARDS ARE CLOSING DOWN

All of the yards that are expected to close down in 2015 are second-tier yards and total second-tier yard capacity is expected to drop from 9 million cgt to 7 million, with one-third of the decline in China. Despite this reduction, second-tier yards will have a poor utilisation rate of 32% in 2015. We do not believe there are many yards that can survive with such low utilisation levels, and we therefore anticipate a sharp reduction in second-tier yard capacity in 2016 to 1.5 million cgt, divided between just below 200 yards.

FIRST-TIER YARDS WILL RE-ACTIVATE IDLED CAPACITY

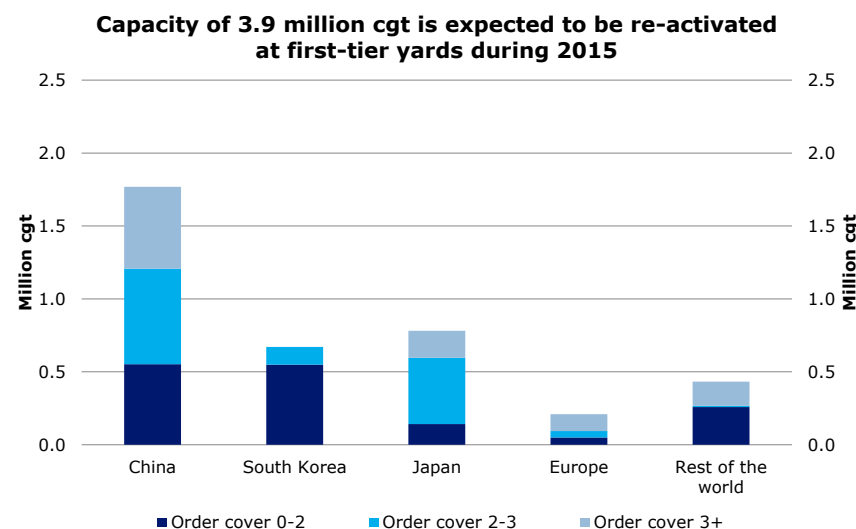
Despite the fact that the global yard capacity is expected to decline by 3.7 million cgt in 2016, the capacity of the first-tier group of yards is expected to increase (fig. 9). By the end of 2016, the first-tier yards are expected to have re-activated idled capacity amounting to 3.8 million cgt, in addition to the capacity activated in 2015.

Figure SB.11



Sources: Clarksons, Danish Ship Finance

Figure SB.12



Sources: Clarksons, Danish Ship Finance

A CLEAR DIVIDE IN THE INDUSTRY

Even though we expect global yard capacity to decline over the next couple of years, this is not a representative trend for the industry as a whole. As mentioned, there are big differences between the first-tier and second-tier yards, but there are also variations within the first-tier group. A relatively small group of first-tier yards (60-70 yards) attracts the majority of orders and can be considered the core of the industry. In our view, these yards representing 28% of first-tier yard capacity, equal to 13 million cgt, and with order cover of more than three years can be considered the top of the first-tier group (fig. 13). Another 49% of first-tier yards have order cover of less than two years, and 11% of these have order cover of less than one year. This basically means that there is 5 million cgt of first-tier capacity that could run out of orders within the next year if they do not attract any new orders in 2015. Some of them can potentially be added to our list of yards closing down in 2015 and 2016.

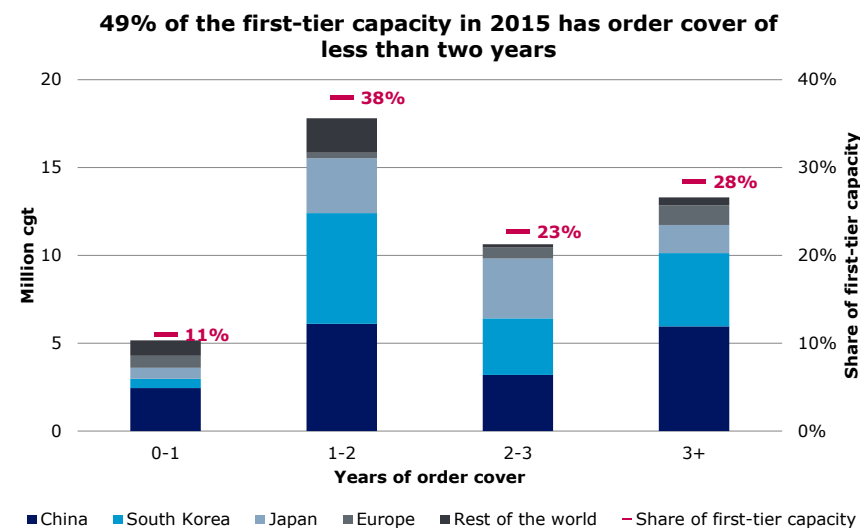
UTILISATION STATUS AND EXPECTATIONS

Given the large size of the orderbook for 2015 we expect global yard utilisation to spike this year. We assume that postponements and cancellations will mirror the trend from last year and consequently that 41 million cgt of the scheduled 55 million cgt will be delivered. If these assumptions turn out to be fairly accurate, global yard utilisation will be 76% this year, up from 68% in 2014 (fig. 14). First-tier yard utilisation will jump to 87%, while second-tier utilisation, as mentioned, will drop to just 32%. In 2016, global yard utilisation is expected to return to 68%. First-tier utilisation will also go down due to all the capacity that will have been re-activated, while second-tier utilisation will go up to 60% as a result of the significant reduction in second-tier yard capacity.

NEWBUILDING PRICES COULD DECLINE FURTHER IN 2015

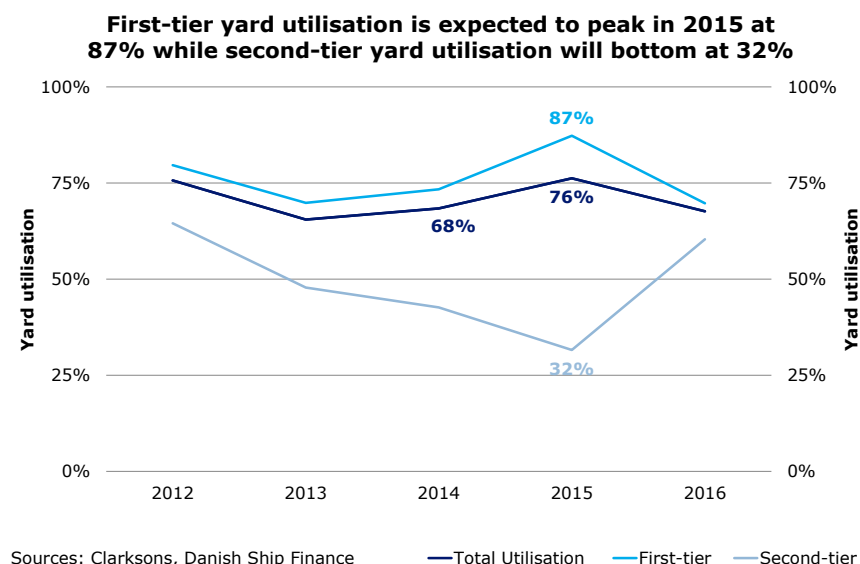
The outlook above does not clearly illustrate what will happen to newbuilding prices. Even though contracting in the shipbuilding industry has fallen sharply in the first few months of 2015, a big portion of the first-tier yards still have some cushion from the huge order intake in 2013 and 2014. Hence, they are in no immediate rush to cut newbuilding prices. There are, however, some first-tier yards that cannot wait too much longer for new

Figure SB.13



Sources: Clarksons, Danish Ship Finance

Figure SB.14



Sources: Clarksons, Danish Ship Finance

orders and that may feel under pressure to lower newbuilding prices within the next couple of months. And maybe that is exactly what the shipping industry is waiting for albeit few vessel segments are in need of additional capacity being ordered. The slowdown in contracting during the first quarter of 2015 might have been partly spurred by shipowners expecting newbuilding prices to decline in 2015 and therefore holding back on contracting. We are inclined to agree and believe that newbuilding prices could go down in 2015. Moreover, since the average newbuilding price is above the low levels of 2013, it could be argued that there is room for it to move lower. Clearly, there will be variations between the different vessel segments and some segments will be more prone to price declines than others. Even though, we believe newbuilding prices could decline further, we see no clear indication of another contracting boom this year.

OUR APPROACH TO YARD CAPACITY

Yard capacity is a rather intangible concept. To provide some insight into the industry we have made some assumptions that will be reflected in our findings.

We approach the industry by looking at each individual yard: its delivery performance and the size of its orderbook. The estimated maximum yard capacity reflects the highest annual output that a yard has achieved within the last ten years. The current active yard capacity might differ from the maximum capacity in periods of overcapacity. Berths or docks can be idled during periods of low order intake, but if orders start rolling in, this capacity can be re-activated relatively easily.

For a yard to be considered active, it needs to have an orderbook or have delivered newbuildings within the previous year. If a yard is active, its active capacity is estimated by looking at scheduled orders for that year compared with the estimated capacity of the previous year, as well as the orderbook for the coming years. If annual scheduled orders for the coming years are lower than in previous years, we assume that some capacity will be laid idle and consequently that active capacity will fall. If the opposite is the case, active capacity will increase and idled capacity will be re-activated.

This approach clearly has some shortcomings, since not all yards solely build new vessels. In cases where yards fill up vacant capacity with repair orders or take in orders for offshore units (e.g. rigs or jack-ups), our approach underestimates active capacity and utilisation. Moreover, with our approach yard capacity is highly responsive to changes in demand. Actual yard capacity may be less agile. Despite these shortcomings, we believe that our approach provides some useful insight into the dynamics of the industry.



CONTAINER

SHIPPING MARKET REVIEW – MAY 2015



**DANISH
SHIP FINANCE**

CONTAINER

THE MARKET PLAYERS CONTINUE TO INVEST IN THE FUTURE BASED ON ASSUMPTIONS OF THE PAST. WE ARGUE THAT THE POTENTIAL FOR FUTURE CONTAINER DEMAND IS STRUCTURALLY REDUCED, AND THAT LONG-TERM CONTAINER VOLUMES COULD CONTRACT IF MANUFACTURING IS RE-SHORED.

FREIGHT RATES

2014 STARTED OFF WITH MORE STABLE BOX RATES, BUT IN THE SECOND HALF, BOX RATES BEGAN TO DECLINE. IN 2015, THEY HAVE FALLEN TO THEIR LOWEST LEVEL IN THREE YEARS.

THE 2014 AVERAGE BOX RATE REMAINED AT THE 2013 LEVEL

The average box rate out of China weakened in the fourth quarter of 2014 due to lower freight rates on the trade to Europe. This led to the annual average rate in 2014 being only marginally higher than in 2013. Yet, the route from China to the Mediterranean experienced the largest percentage rate increase year-on-year compared with 2013 (+14%), whereas the service to Australia/New Zealand experienced the biggest decline (-11%).

BOX RATES DECLINED IN THE FIRST QUARTER OF 2015

Since the beginning of 2015, the average rate out of China has fallen by 9%, to the lowest level in three years. Once again, it is the trade from China to Europe that is struggling to maintain stable rates despite several General Rate Increase attempts. As of April 2015, the box rate on this trade has fallen 17%. The reason for this is the massive inflow of large vessels, which has upset the trade balance and pushed down utilisation. To address this, the Transpacific Stabilization Agreement is recommending introducing general rate minimums instead of rate increases.

TIMECHARTER RATES ON AN UPWARD TRAJECTORY

For quite some time, timecharter rates have remained at very low levels that have barely covered OPEX (fig. 2). By the fourth quarter of 2014, timecharter rates began to rise, especially in the Panamax segment, where the ongoing fleet contraction coincided with the congestion problems on the US west coast. The rate increases have continued in 2015, spilling over into the Sub-Panamax and Handy segments in particular. Overall, the average timecharter rate went up by 2% in 2014 year-on-year, and by a further 6% in the first quarter of 2015.

Figure C.1

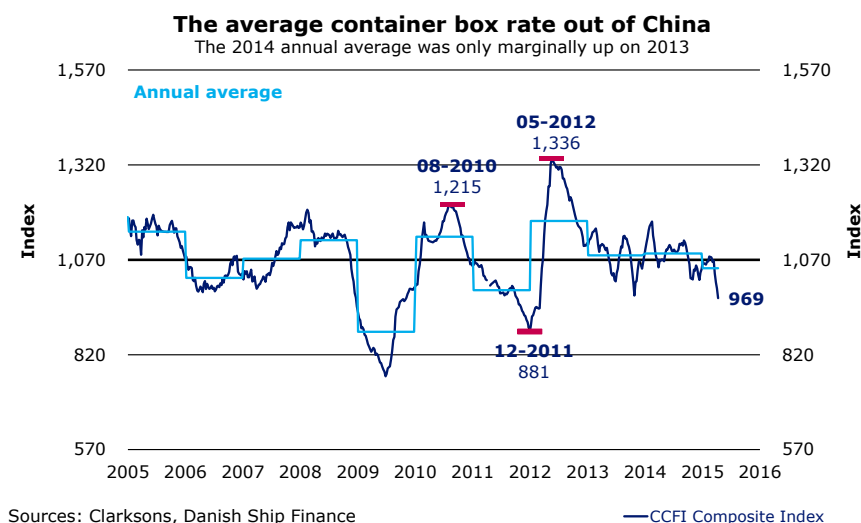
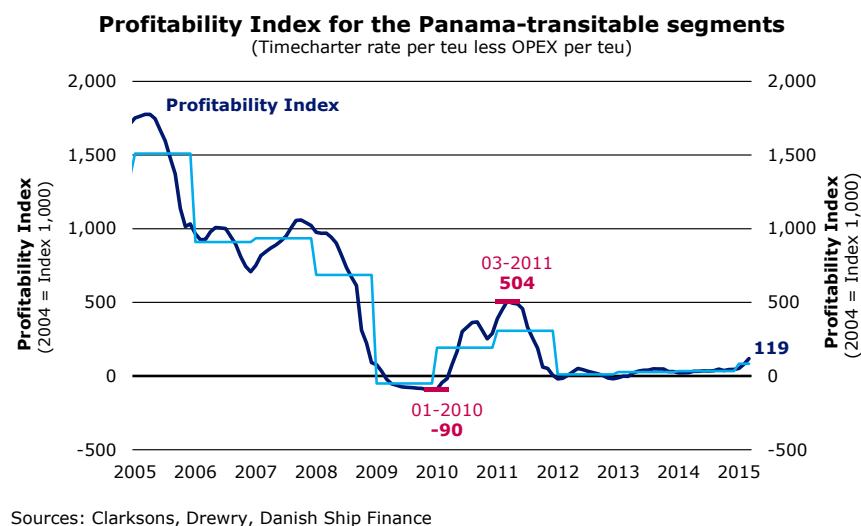
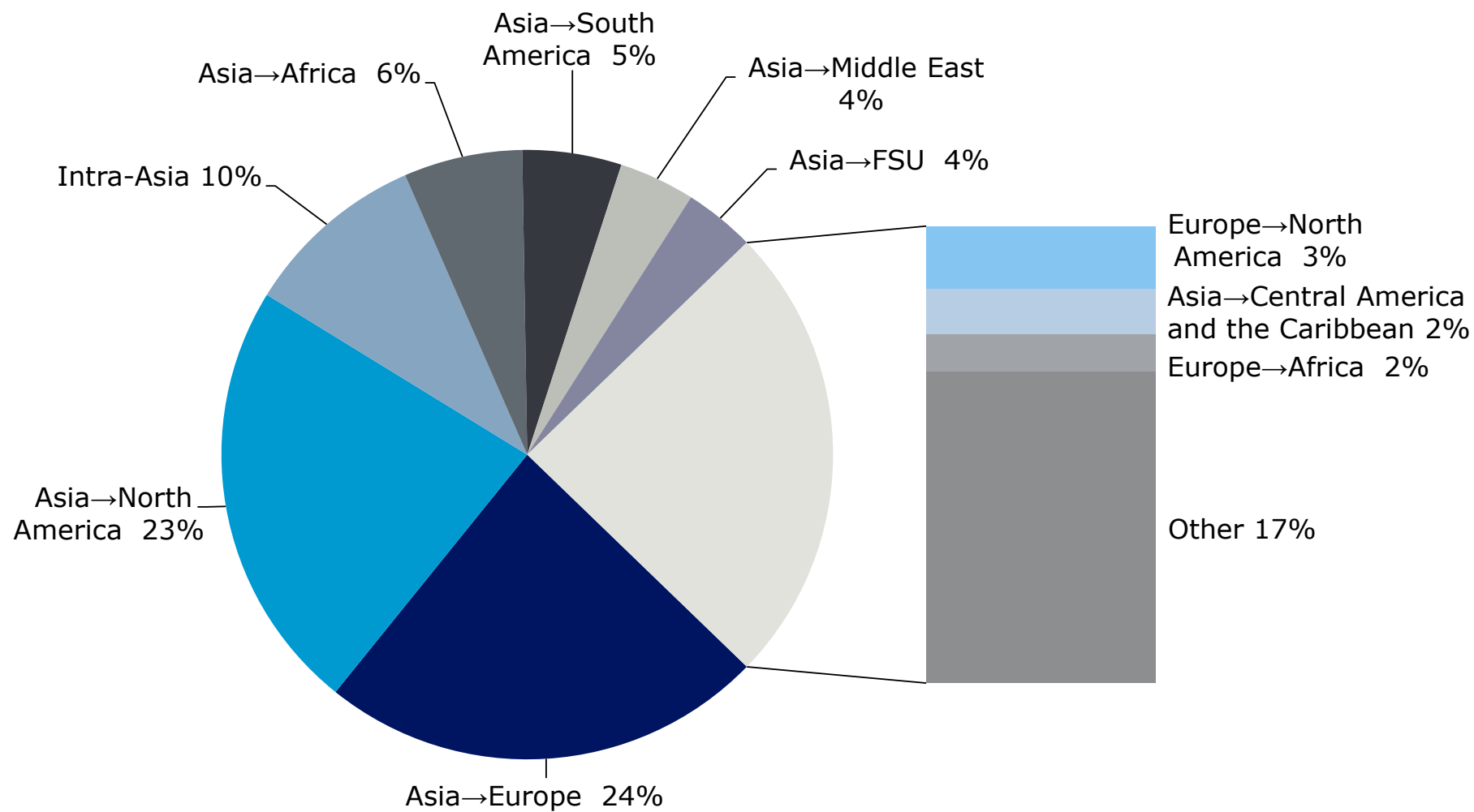


Figure C.2



Top-ten head-haul container trades 2014

Measured in teu miles



Sources: IHS Global Insight, Danish Ship Finance

SUPPLY & DEMAND

SUPPLY ONCE AGAIN OUTPACED DEMAND, WHICH INCREASED THE OVERSUPPLY FURTHER. HEALTHY DEMAND GROWTH AND RELATIVELY HIGH SCRAPPING ACTIVITY WAS NOT ENOUGH TO COUNTERBALANCE THE HUGE INFLOW OF TONNAGE.

The container market continued down the road of larger vessel sizes and lower marginal costs. So far, some of the overcapacity problems have been passed on to the smaller segment via cascading, but as more ultra large vessels enter the fleet, it is becoming harder for the main trade lanes to maintain utilisation and keep box rates high.

THE FLEET GREW BY 7% IN 2014

The fleet grew by 7% in 2014, 2 percentage points more than we were expecting in our last report at the end of the third quarter (fig. 4). This was due to a much lower rate of postponement than expected. At the beginning of 2014, around 1.6 million teu was scheduled to enter the fleet, and 1.5 million teu actually materialised. This implied a delivery ratio of as much as 92%, which was primarily due to the fact that postponed orders were offset by the advancement of orders originally scheduled for delivery in 2015 (fig. 5). The average size of the vessels delivered was 7,500 teu, up from 6,600 teu in 2013. In total, we estimate that orders equal to 125,000 teu were cancelled during 2014, 170,000 teu was postponed, and orders of around 170,000 teu were brought forward into 2014. In the first quarter of 2015, 350,000 teu was delivered, primarily in the size range 8-12,000 teu. The fleet increased by 2%.

0.38 MILLION TEU SCRAPPED IN 2014

Scrapping activity in 2014 could not keep up with the high level seen in 2013, and 380,000 teu was scrapped compared with 445,000 teu in 2013. The biggest vessel scrapped was a Post-Panamax of 5,300 teu. The average age of the vessels scrapped increased from 22.9 years in 2013 to 23.5 years in 2014, and the youngest vessel was no more than 14 years old. In the first three months of 2015, 59,000 teu was demolished at an average age of 23 years, of which 41% was in the Panamax segment. The scrap price declined in the first quarter of 2015, reducing some of the incentive for scrapping.

Figure C.4

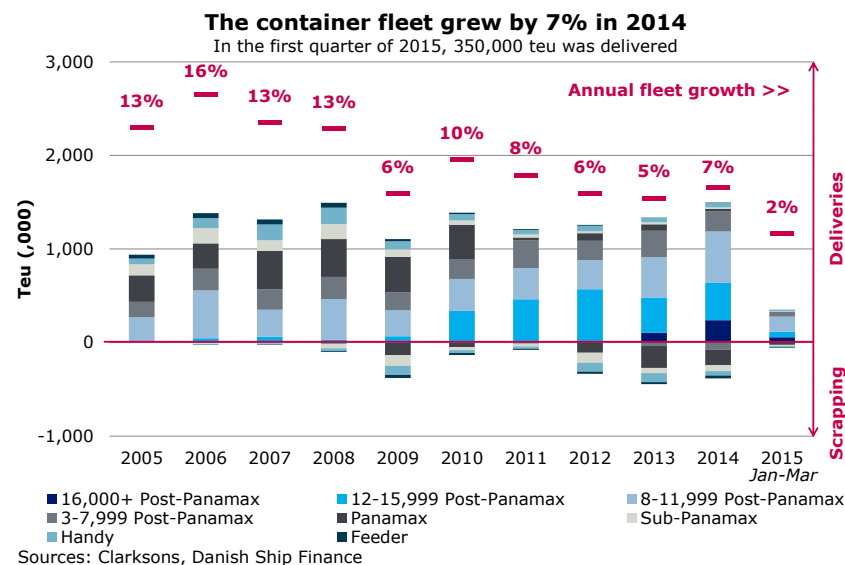
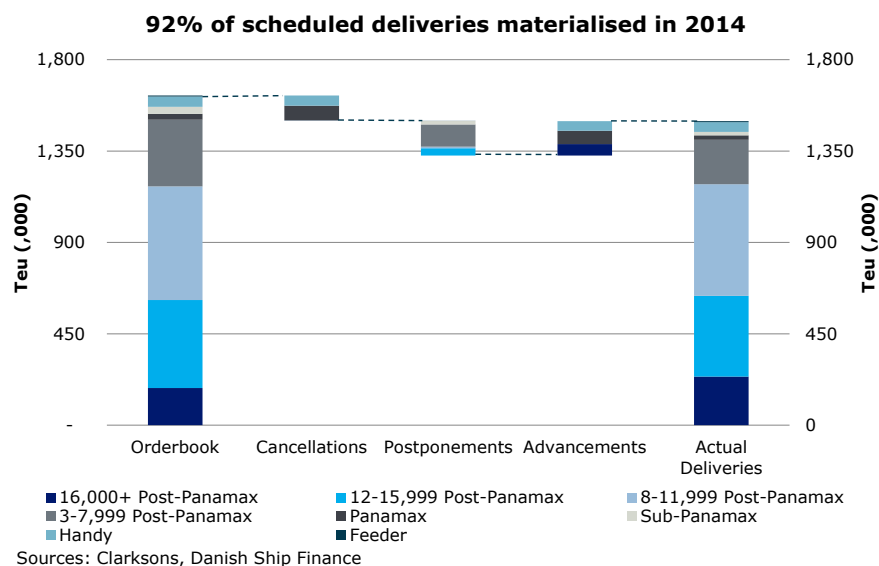


Figure C.5



GLOBAL CONTAINER DEMAND UP BY 4.2% IN 2014

Total demand for containerised goods increased by around 4% in 2014. Head-haul demand grew by 6%, while back-haul demand went up by 3%. In 2014, head-haul trade was just over double the size of back-haul. Asia accounted for the highest import volumes due to strong intraregional trade, while Central America experienced the highest import growth, due to higher Mexican imports from especially North America (fig. 6).

AVERAGE TRAVELLING DISTANCES MARGINALLY UP IN 2014

The average travelling distance increased in 2014 and distance-adjusted container demand grew by 4.9%, 0.7 percentage points more than nominal demand. Nevertheless, supply growth once again outpaced demand growth. Continued slow-steaming absorbed some of the supply/demand gap. If operators were to resume normal speeds, the effective oversupply would be around 23% (fig. 7). This underlines the fragility of the market. Lower bunker prices have created an incentive for higher speeds, but for now it seems the industry has decided to wait.

AROUND 7% GROWTH ON THE EAST-WEST TRADE IN 2014

Nominal head-haul demand on the Transpacific trade lane between Asia and North America grew by almost 7% in 2014. Trade between Asia and Europe grew by just over 7% and thereby continues to be the dominant container trade lane – though it is only 1 percentage point larger than the Transpacific head-haul route. The labour disputes on the US West Coast created some prolonged congestion problems off the ports of Los Angeles and Long Beach. This caused considerable delays and created a short-lived boost in demand for some vessel types.

NORTH-SOUTH TRADE UP BY 6%

The biggest North-South trade, from Asia to Africa, increased distance-adjusted demand by 7% in 2014. The second-largest trade, from Asia to South America, experienced modest growth of only 1% on the back of overall declining container imports into South America (fig. 6).

INTRA-ASIAN TRADE UP BY 4%

Asian container imports grew by 4% in 2014. 60% of Asian container imports stem from intraregional trade, which also increased by 4% last year. Vietnam and India saw the highest import growth, with strong growth rates in both countries of 9%.

Figure C.6

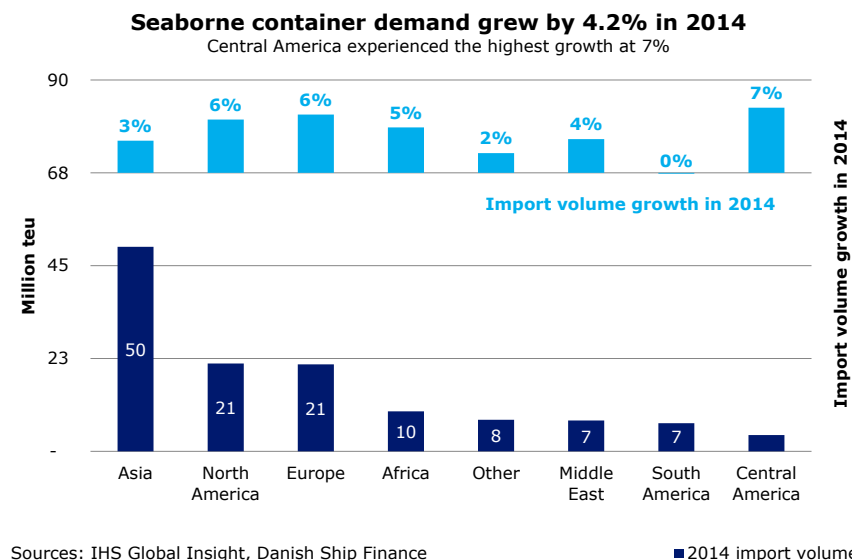
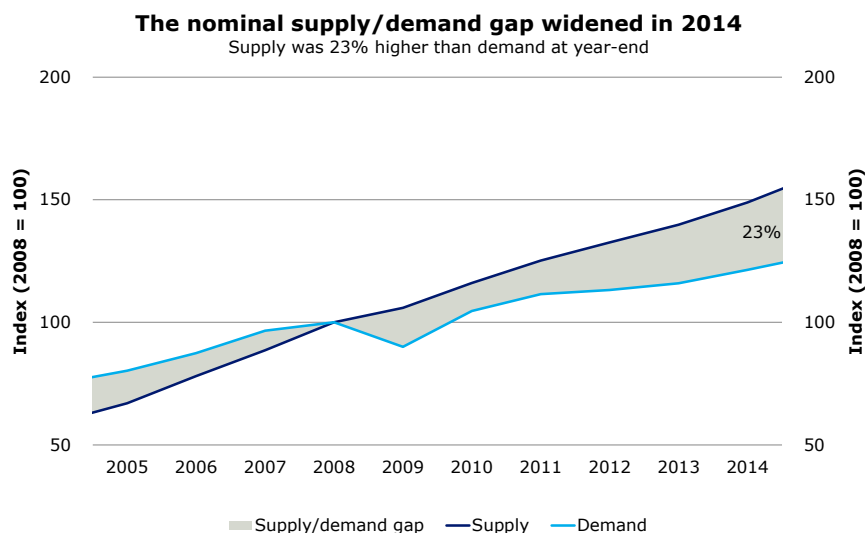


Figure C.7



CONTRACTING AND SHIP VALUES

CONTRACTING SLOWED IN 2014 AND CONTINUED TO BE DOMINATED BY ORDERS FOR LARGE POST-PANAMAX VESSELS. AVERAGE NEWBUILDING PRICES WENT UP, WHILE SECONDHAND VALUES DROPPED TOWARDS THE END OF THE YEAR.

956,000 TEU CONTRACTED IN 2014

The contracting preferences of the last couple of years were repeated in 2014, as 87% of all contracts, equal to 820,000 teu or 64 vessels, were for Post-Panamax vessels. Of these contracts, 72% were for vessels of 12,000 teu or above. There was also some activity in the Sub-Panamax and Handy segments, where 29 and 39 vessels, respectively, were ordered. In the first quarter of 2015, 359,000 teu was contracted, 89% for vessels larger than 16,000 teu (fig. 8). In March, we saw the first orders for 21,100 teu vessels and rumour has it that it might not be long before orders are placed for even larger vessels.

RIISING NEWBUILDING PRICES, FALLING SECONDHAND VALUES

Average newbuilding prices went up by 8% across all segments in 2014. Reportedly, the biggest increases were for the beleaguered Panamax vessels which finally caught some tailwind. However, no orders have been placed for Panamax vessels in the past two years, which makes the price development somewhat theoretical. Even though contracting slowed significantly in 2014 from 2013, the increasing trend in newbuilding prices could be a consequence of the rather small number of yards building the very large Post-Panamax vessels. Only 14 different yards have historically built vessels above 12,000 teu, and hence there is less price competition between these yards. Secondhand values declined by 6% year-on-year in 2014. Prices started to dip in the fourth quarter, and by the end of March 2015, average secondhand prices were down almost 20% on the 2014 average. Values for the larger Panama-transitable segments, however, increased slightly in the first quarter.

PRICE/EARNINGS RATIOS IMPROVED IN 2014

The relationship between earnings and vessel prices remained relatively stable in 2014. Price/earnings ratios hovered around 24 over the year (i.e. USD 24 was paid for a USD 1 cash flow), down from an average of 30 in 2013. In 2015, ratios have fallen to a level in line with the average from 2000 to 2015 (fig. 9).

Figure C.8

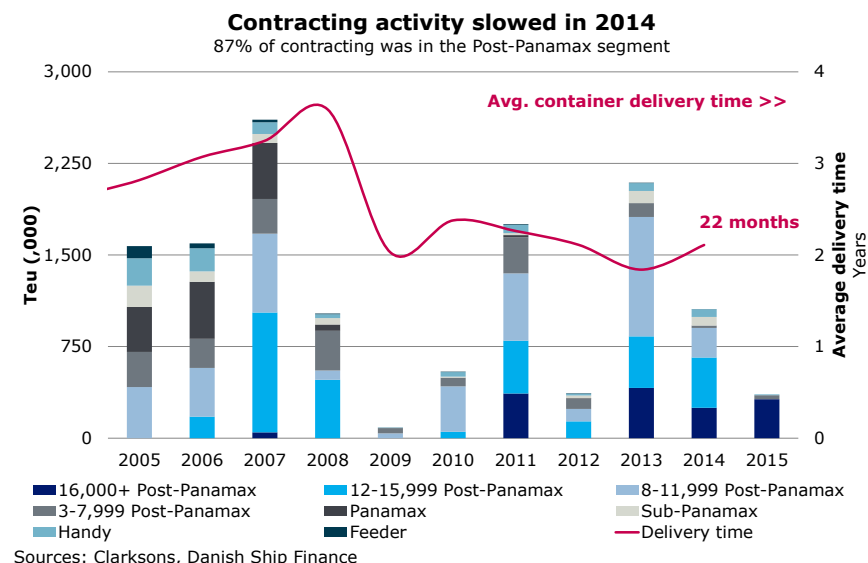
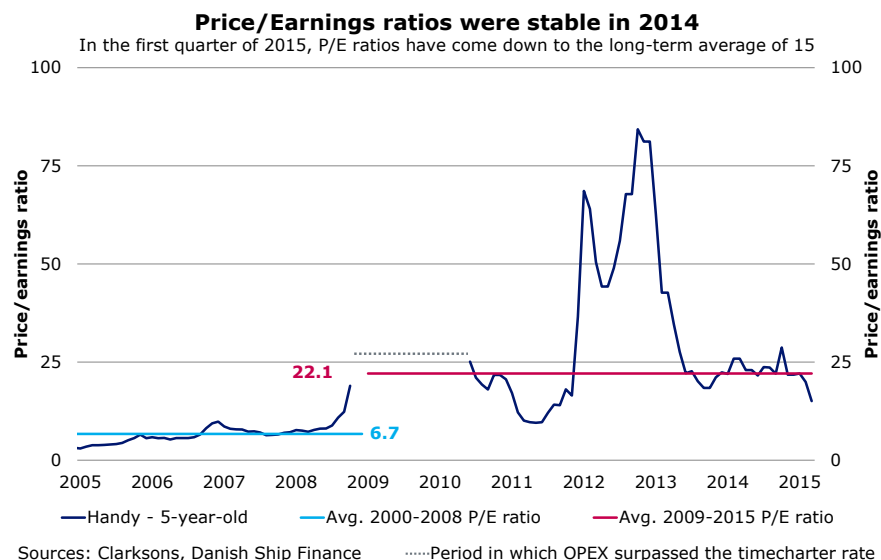


Figure C.9



OUTLOOK

THE CONTAINER INDUSTRY WILL CONTINUE TO BE UNDER PRESSURE IN THE COMING YEARS FROM THE MASSIVE OVER-SUPPLY. FROM 2017, THE MARKET MIGHT IMPROVE IF CONTRACTING IS KEPT LOW AND DEMAND CONTINUES TO GROW AT HEALTHY RATES.

Despite years of weak trade growth, the container industry continues to plan for the future as if past patterns will still apply. But will they? Past trade expansions were shaped by some rather strong effects that seem unlikely to be repeated in the future (e.g. China's WTO membership in December 2001). The global shift in manufacturing from advanced economies to lower-cost countries was a one-time effect that is now losing steam. Once production has been offshored, it does not add to incremental trade growth. Besides, the level of containerisation seems to have plateaued and significant additional jumps are unlikely in the years to come. The container industry is scaling up to bigger vessel sizes. It could be argued that a new container market is about to emerge, but the path to higher freight rates is expected to be long and bumpy. As virtually none of the larger vessels are candidates for scrapping due to old age, any future capacity adjustments among the larger sizes will have to be premature and thereby value-destructive for the owners (fig. 10).

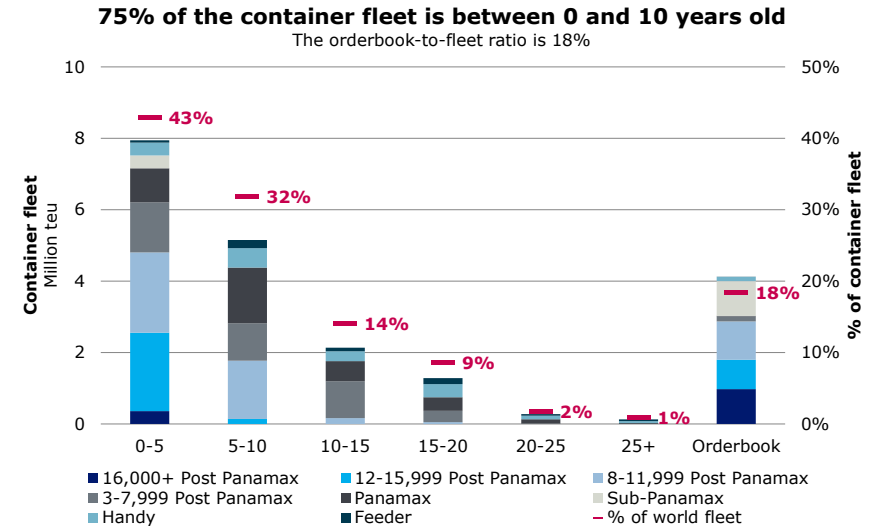
TONNAGE PROVIDERS SCALE UP MARKET EXPOSURE

Liner companies have seized the opportunity in the weak market to cut costs, scale back newbuilding plans on their own books and form strategic alliances with competitors. Some tonnage providers are, to a certain extent, being left behind. Others are bravely scaling up their dependence on the liners by making heavy investments in new, larger vessels (fig. 11). Let us hope that the short-term returns on their investments are large enough to be worth the considerable residual risk after the end of the charter period.

THE COST-CUTTING STRATEGY IS DRIVING FREIGHT RATES DOWN

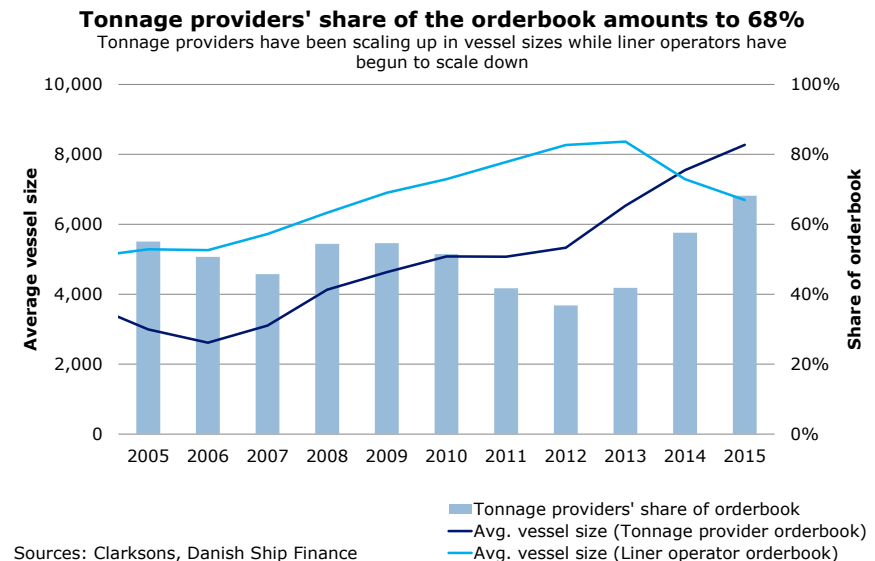
According to economic theory, freight rates will approach marginal costs in perfectly competitive markets. True, the container industry is far from perfectly competitive, but the continued overordering of larger vessels, adding to the supply surplus, has

Figure C.10



Sources: Clarksons, Danish Ship Finance

Figure C.11



Sources: Clarksons, Danish Ship Finance

been driving a deflationary freight rate trend. Consequently, few owners are making the expected short-term profits on their current investments.

THE ORDERBOOK AMOUNTS TO 3.3 MILLION TEU

The orderbook is gradually declining, but remains massive. As of April 2015, it has come down to 3.3 million teu, equal to 18% of the current fleet. 50% of the orderbook is scheduled to be delivered as early as this year (fig. 10). Tonnage providers have increased their share of the orderbook from around 38% in 2012 to 68% today. The average vessel on order by tonnage providers is 25% larger than that of the liner operators (fig. 11). Half of the tonnage providers' current orderbook is for vessels of more than 14,000 teu. Is the change in the composition of the orderbook an indication that many of the liners do not have the financial strength to order the vessels themselves? Or does it reflect the fact that liners continue to prefer a balanced mix of owned and chartered vessels in order to maintain operational flexibility? We do not know the answer. But the residual risk for tonnage providers after the end of a charter period seems set to increase if the strategic alliances are sustained.

1.9 MILLION TEU SCHEDULED FOR DELIVERY IN 2015

At the beginning of this year, 1.9 million teu was scheduled to be delivered in 2015. As of April, remaining deliveries for the rest of the year amount to around 1.5 million teu. Hence, before accounting for any additional scrapping or postponements, the fleet is scheduled to grow by 10% in 2015.

350,000 TEU EXPECTED TO BE SCRAPPED IN 2015

We have identified 1.4 million teu of potential scrapping candidates in 2015, our criteria being that a vessel becomes eligible for scrapping the year before its next special survey, starting at the fourth. In addition to the 59,000 teu already scrapped in 2015, we estimate that just over 300,000 teu of the 1.4 million scrapping candidates will be demolished. All in all, this would result in total demolition of around 350,000 teu, which is 8% lower than in 2014.

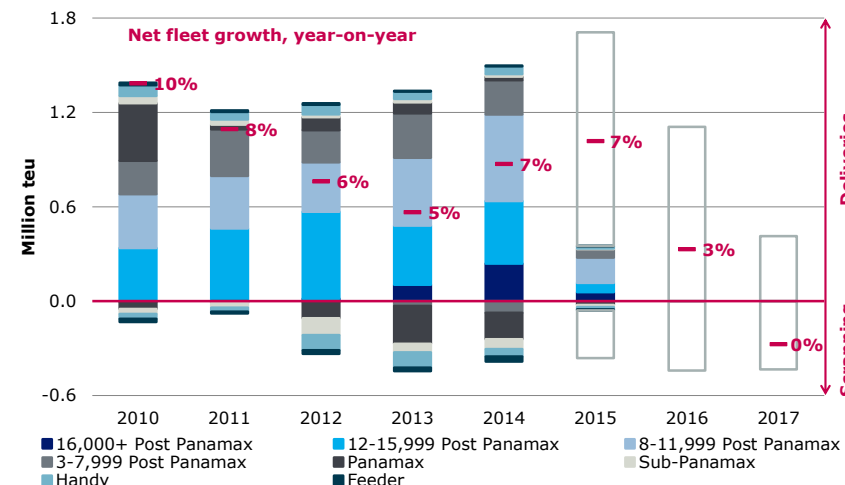
7% FLEET GROWTH IN 2015

In addition to scrapping, we also assume that a share of scheduled orders will be postponed to 2016. The container segment has historically seen fairly high delivery ratios. We presume that

Figure C.12

The container fleet is expected to grow by 7% in 2015

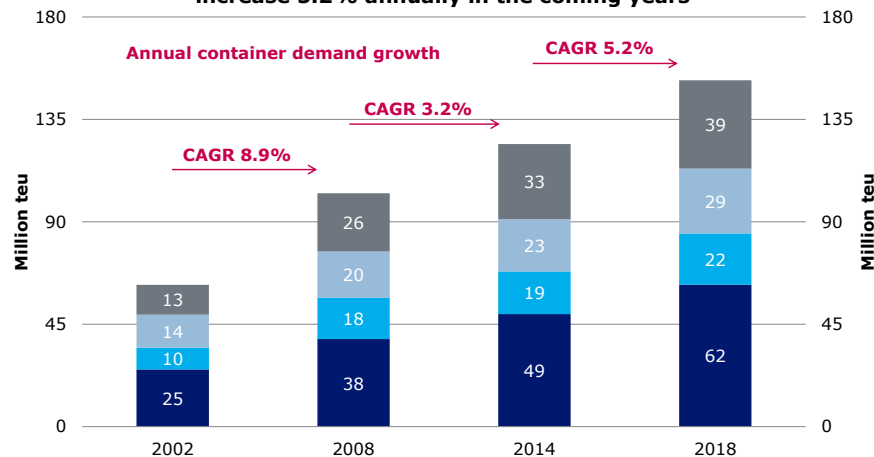
After adjusting for postponements and scrapping



Sources: Clarksons, Danish Ship Finance

Figure C.13

Container import volumes are on average expected to increase 5.2% annually in the coming years



Sources: IHS Global Insight, Danish Ship Finance

Legend: Asia (Dark Blue), Europe (Light Blue), North America (Medium Blue), Other (Dark Grey).

this will be repeated in 2015 and expect a delivery ratio of around 90%. If our estimates for scrapping and postponements hold, the fleet will grow by close to 7% in 2015, increasing the overall fleet by 1.4 million teu, the highest teu intake since 2008 (fig. 12).

HIGH EXPECTATIONS FOR SEABORNE CONTAINER DEMAND IN 2015

Demand for seaborne container goods in 2015 is expected to remain relatively strong and grow by 5%. Asia is expected to show the highest demand growth at 6%, primarily driven by 7% growth in intraregional trade. Over the next four years, seaborne container demand is projected to grow at an annual average rate of 5.2% (fig. 13).

CONTAINER DISTANCES EXPECTED TO BECOME SLIGHTLY SHORTER

Distance-adjusted demand is expected to grow in line with nominal demand in 2015. According to our forecasts, distances are set to become slightly shorter over the next three years (fig. 14). The graph shows that distances have only made a marginal contribution to container demand since 2008. In the years from 2002 to 2008, distances added almost 2 percentage points to demand, but in the years ahead we anticipate a slightly negative growth contribution from distances.

THE OVERCAPACITY WILL NOT DECLINE UNTIL 2017

Given our current expectations for both supply and demand growth in 2015, we anticipate a further deterioration in the overcapacity situation this year. According to our calculations, the nominal oversupply will increase to 26% of the fleet in 2015 before peaking at 27% in 2016. Thereafter, if contracting can be kept at reasonable levels – lower than in the previous two years – we believe that the overcapacity will slowly begin to decline by 2017 (fig. 15).

THE REVIVAL OF THE PANAMA-TRANSITABLE SEGMENTS

The upturn in the Panama-transitable segments in the first quarter of 2015 came as something of a surprise, as fundamentals have not improved significantly since last year. The congestion problems did undeniably help boost demand for these segments, but the problems have now been more or less resolved and can no longer be credited for the upturn. It could be that

Figure C.14

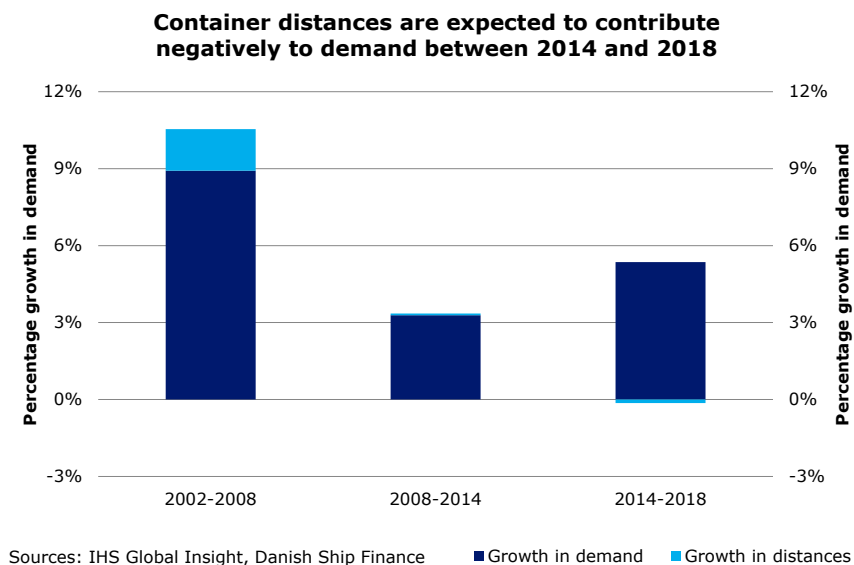
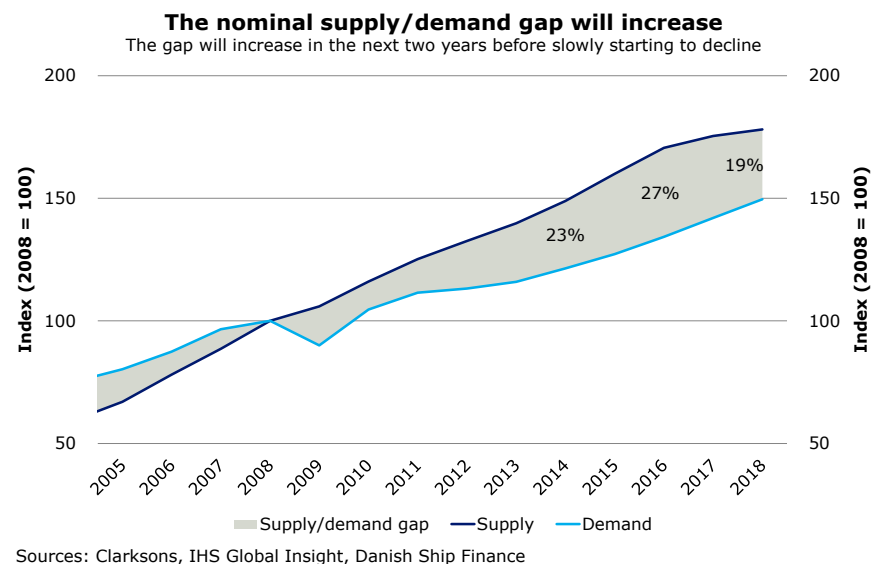


Figure C.15



the contraction of the fleet has reached a point where tonnage providers have finally gained some bargaining power over liners and thereby are able to push up rates and ultimately values. As the Panama-transitable fleet is expected to continue to contract, the upturn could continue during the rest of 2015.

FLEET UTILISATION WILL BOTTOM OUT BY YEAR-END 2016

For the larger segments the short-term outlook seems less bright. Still, we do see potential for improvement in the market within the next four years, unless lower newbuilding prices spark another contracting boom this year or in 2016. If contracting is kept at reasonably low levels and demand grows by 5% on average each year, we expect fleet utilisation to drop in 2015 and 2016 to around 79% and thereafter begin to increase, reaching 84% in 2018 (fig. 16). Nevertheless, we believe liners will struggle to keep box rates artificially high in the next couple of years, as the low oil price will test the discipline of slow-steaming.

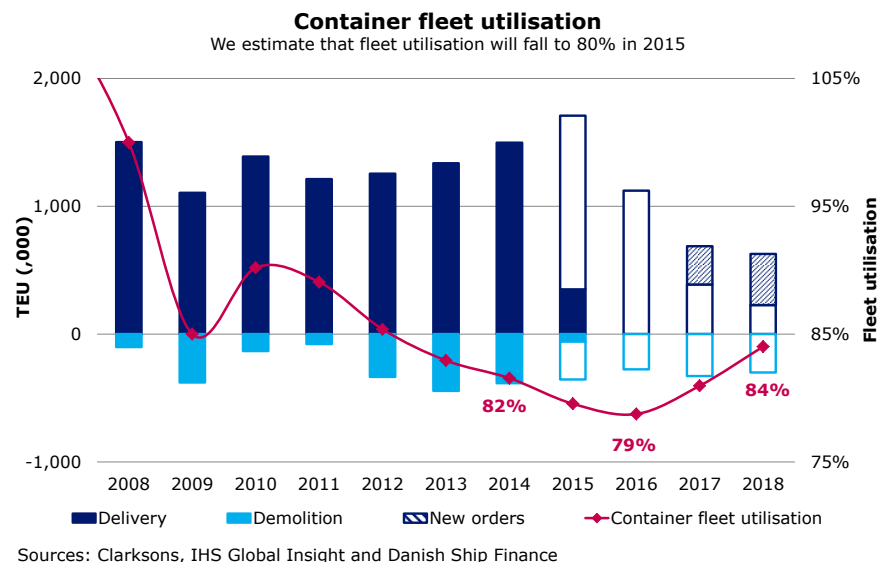
ALLIANCES CONSTITUTE A THREAT TO TONNAGE PROVIDERS

When liner operators struggle to maintain utilisation and box rates, tonnage providers will be the next to suffer. Moreover, as alliances are becoming an integral part of the liner strategy, operators are becoming less dependent on tonnage providers. In times of oversupply, it is therefore often the tonnage providers that are left with idle vessels. As a result, vessels coming off hire in a market suffering from overcapacity are expected to have a reduced market value. We therefore see potential downward pressure on secondhand values.

SEABORNE CONTAINER DEMAND COULD BE FUNDAMENTALLY CHANGED

In our last report, we highlighted the possibility of shorter container distances due to re-shoring of manufacturing. This, we argued, was because of shifting manufacturing costs that could result in more regional manufacturing hubs. In this report, we would like to refine this argument. Changing manufacturing costs are not the only reason companies are considering re-shoring or moving production. Technological advancements are gradually reducing the importance of labour costs in the manufacturing process, which is enabling companies to move production closer to the consumers, allowing them to respond more quickly to changes in consumer preferences.

Figure C.16



THE NEXT INDUSTRIAL REVOLUTION

Consider the potential of new technologies, for example 3-D printers (i.e. additive manufacturing). In time, this technology will allow low-cost and large-scale production close to the consumer anywhere in the world. General Electric (GE) has already begun to use 3-D printers and other advanced manufacturing tools for making parts and products that were earlier considered impossible to produce. This technology is producing a growing list of different parts for numerous industries, making stronger components with less material waste. In general, technological advancements are expected to trigger the next industrial evolution. Consequently, the long-term outlook for container demand is for lower volumes (partly driven by a tighter supply chain requiring fewer transfers of intermediate products and parts) and shorter distances.

A BLEAK LONG-TERM OUTLOOK FOR CONTAINER DEMAND

Clearly, we do not think that new technologies such as 3-D printing will affect the near-term future for container demand,

but we do believe that lower volumes and shorter distances could shape the long-term outlook for container demand within the lifetime of vessels recently ordered (i.e. before 2040). The consequences could be significant, not just for the long head-haul routes from Asia to Europe and North America, but also for the intra-Asian component trades and the back-haul volumes from North America and Europe to Asia.

VOLUMES AND DISTANCES MAY DECLINE IN THE FUTURE

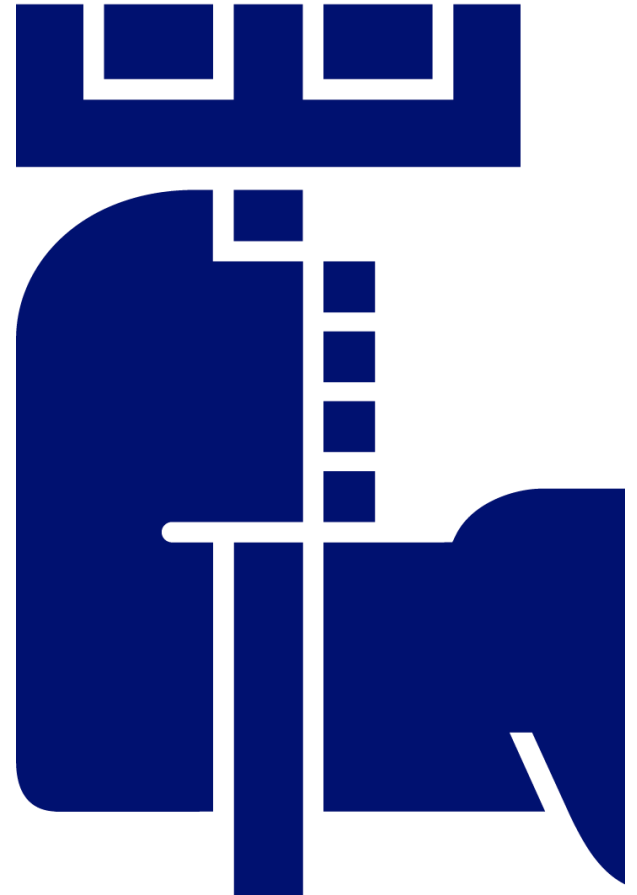
So while the Chinese membership of the WTO in December 2001 marked the beginning of the rising tide that lifted all vessels between 2002 and 2008, the next industrial revolution, potentially initiated by the 3-D printer or the like, could put a drain on volumes and travelling distances. If these rather challenging forces come into play simultaneously, it will mean a fairly bleak outlook for the largest container vessels, while some of the smaller segments may experience a renaissance some day in the future.

DRY BULK

SHIPPING MARKET REVIEW – MAY 2015



**DANISH
SHIP FINANCE**



DRY BULK

IN OUR LAST REPORT, WE AIRED OUR APPREHENSIONS ABOUT THE FOURTH QUARTER OF 2014 AND WHETHER WE WOULD EXPERIENCE THE SEASONAL UPSURGE USUALLY ASSOCIATED WITH THAT TIME OF YEAR. UNFORTUNATELY, OUR SCEPTICISM ABOUT THE STATE OF THE MARKET WAS MORE THAN JUSTIFIED, AND THE SITUATION HAS DETERIORATED FURTHER IN 2015. AS OF APRIL 2015, THE DRY BULK MARKET CAN ONLY BE DESCRIBED AS DIRE.

FREIGHT RATES

DRY BULK FREIGHT RATES FELL TO DISCOURAGING LEVELS AT THE BEGINNING OF 2015 AND THE BALTIC DRY INDEX REACHED A HISTORICAL LOW. TIMECHARTER RATES FOLLOWED SUIT AND ARE ONLY marginally ABOVE OPEX.

The end of 2014 turned out to be a dismal time for the dry bulk market and rates have dropped to the lowest levels in history. The biggest crash has been seen in the Capesize market, as the inflow of vessels has continued while Brazilian exports of iron ore have failed to contribute significantly to distance-adjusted demand and China has shown negative demand growth for coal.

THE BDI HIT A HISTORICAL LOW IN FEBRUARY 2015

The Baltic Dry Index fell 9% on average in 2014 compared with 2013 (fig. 1). Looking at the year as a whole, the Panamax segment showed the worst development; however, the dramatic plunge in Capesize freight rates in December 2014 and well into 2015 was not matched by any of the other segments. Average spot earnings for Capesize fell 14% in 2014 to around USD 14,500 per day, while Panamax spot earnings dropped 7% to around USD 7,000 per day. Average Supramax spot earnings fell 12% to around USD 10,500 per day. In the first quarter of 2015, average spot earnings for a Capesize vessel were reported to be below USD 5,000 per day.

TIMECHARTER RATES UP ON AVERAGE IN 2014

Timecharter rates performed better in 2014 than in 2013, and were higher on average in all segments. Rates began declining in the fourth quarter, most significantly for Capesize, and this has continued in 2015. As of April 2015, all segments are flirting with timecharter rates around their respective all-time lows.

Figure DB.1

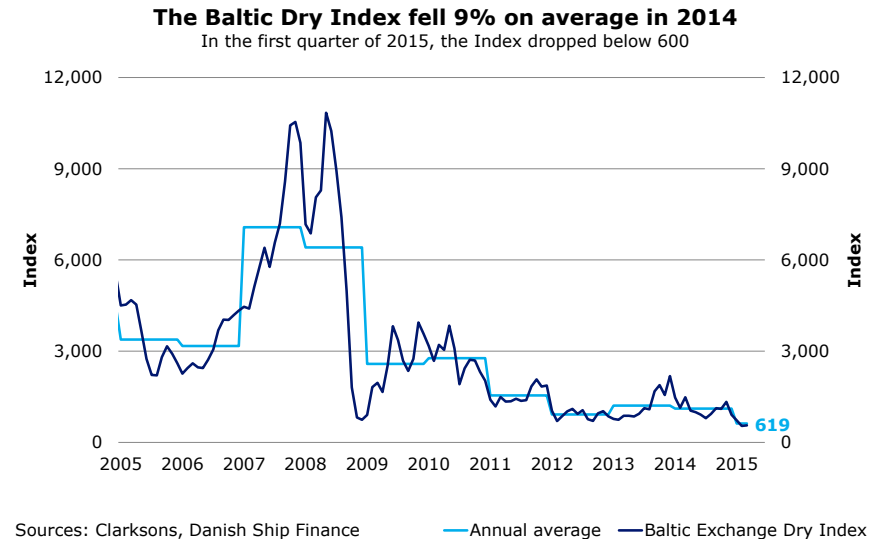
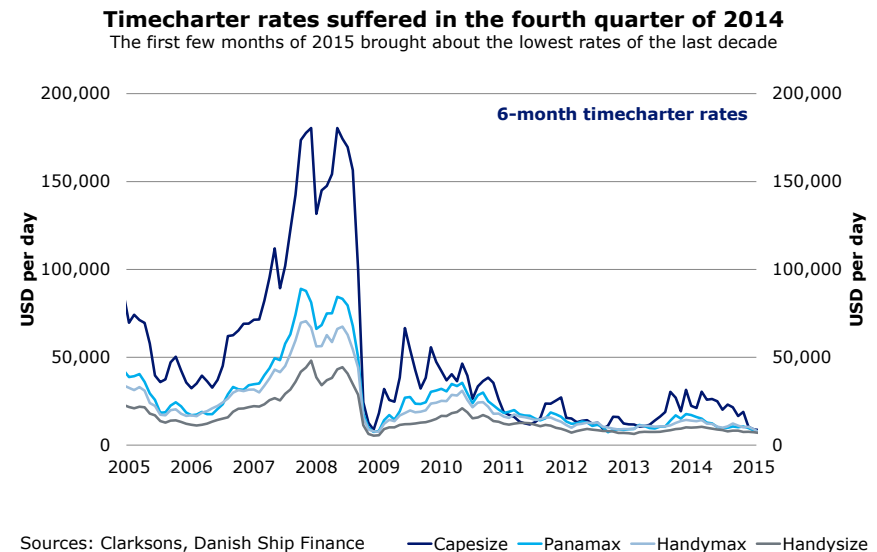
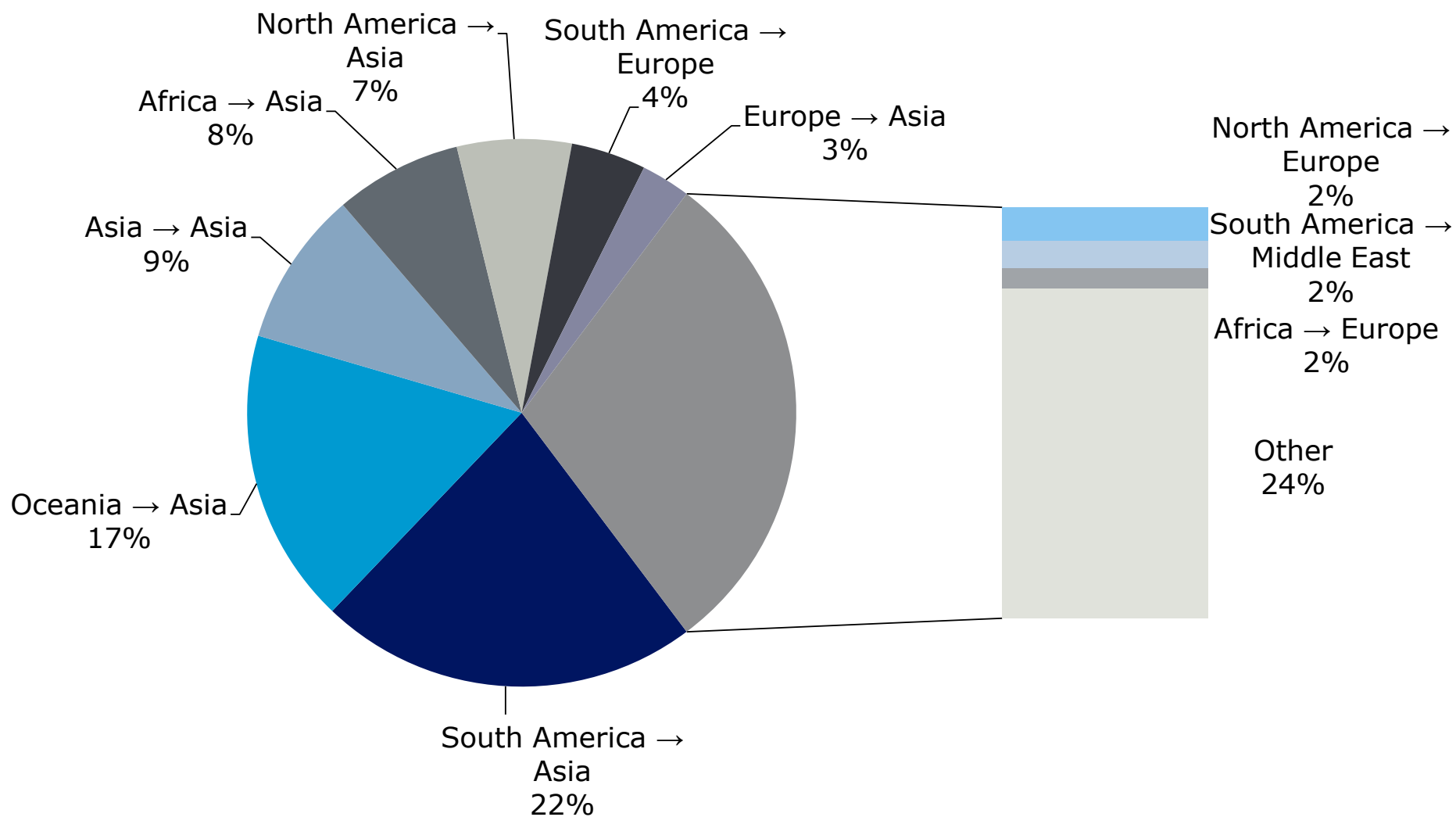


Figure DB.2



Major dry bulk trades

(Measured in tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

SUPPLY & DEMAND

THERE IS ALMOST NOTHING POSITIVE TO SAY ABOUT THE DRY BULK SUPPLY SITUATION AT THE MOMENT. WHAT IT BOILS DOWN TO IS THAT THERE ARE TOO MANY VESSELS AT SEA, AND IN THE ORDERBOOK, AND THAT DEMAND DOES NOT HAVE THE SUFFICIENT STRENGTH TO MAKE A DIFFERENCE.

48 MILLION DWT WAS DELIVERED IN 2014

At the beginning of 2014, 75 million dwt was scheduled to enter the fleet, and by year-end, 48 million had actually been delivered, 23% less than in 2013 (fig. 4). Orders amounting to 16 million dwt were cancelled over the year, while another 11 million were deferred for delivery in 2015. Hence, 64% of all scheduled orders were delivered in 2014. 38% of the delivered orders, in dwt terms, were Capesize vessels. Measured by the number of vessels, Handymax was the most frequently delivered vessel type and also saw the most cancellations (fig. 5). In the first quarter of 2015, 15 million dwt was delivered.

SCRAPPING ACTIVITY DROPPED 31% IN 2014 COMPARED WITH 2013

Scrapping activity slowed in 2014 and only 16 million dwt was scrapped. The average scrapping age fell from 28 years in 2013 to 27 years in 2014. All segments saw declines in the average scrapping age with the exception of the Capesize segment, where the average age increased slightly from 23.2 years to 23.6. However, the average scrapping age for Capesize vessels so far in 2015 has dropped below 21 years.

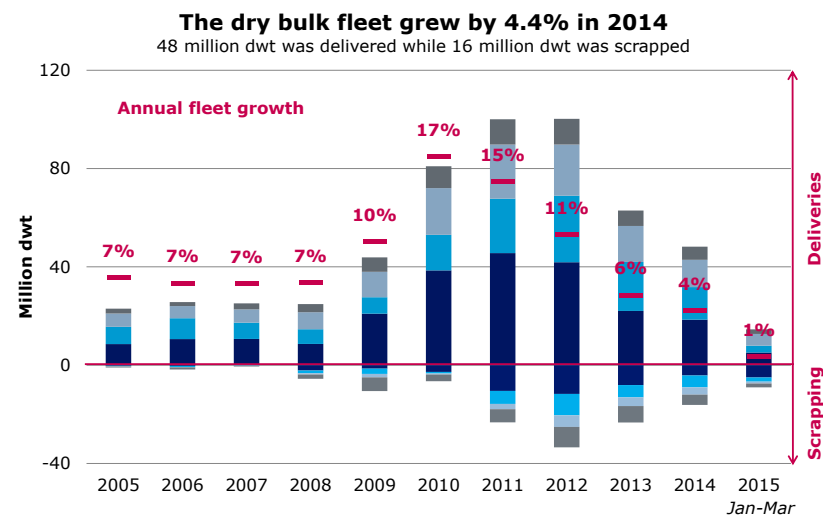
THE DRY BULK FLEET GREW BY 4.4% IN 2014

The dry bulk fleet grew by 4.4% in 2014, which was only marginally lower than the level we were expecting by the end of the third quarter. The depressed market conditions in the fourth quarter, however, resulted in slightly higher scrapping activity than we had expected, which lowered the fleet growth.

DRY BULK DEMAND GREW BY 4.1% IN 2014

In line with the lacklustre performance of the industry in 2014, demand grew by 4.1% - 0.3 percentage points less than supply (fig. 6). Hence, the oversupply widened further. Supply has grown significantly faster than demand over a long period of time and as a consequence, a 1% increase in demand is no longer able to absorb a 1% increase in supply (fig. 7). Distance-adjusted demand increased by 4.6%, indicating that distances

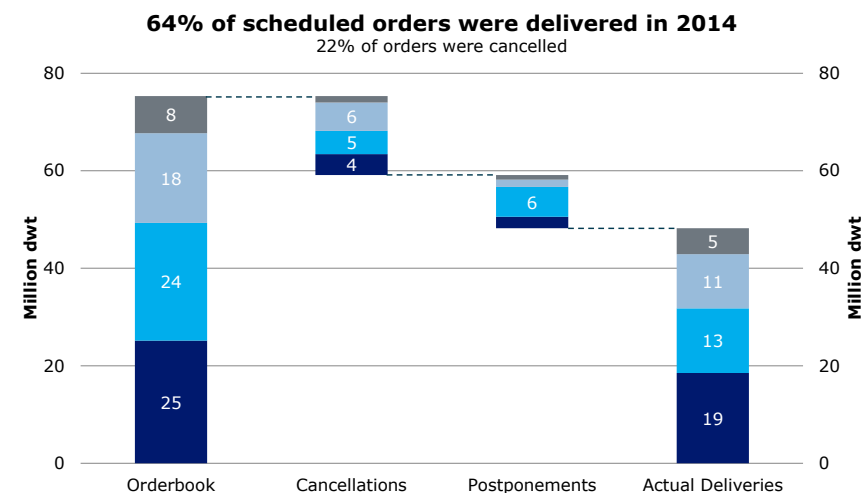
Figure DB.4



Sources: Clarksons, Danish Ship Finance

■ Capesize ■ Panamax ■ Handymax ■ Handysize

Figure DB.5



Sources: Clarksons, Danish Ship Finance

■ Capesize ■ Panamax ■ Handymax ■ Handysize

contributed to lowering the cargo-carrying capacity of the fleet.

IRON ORE DEMAND WENT UP BY 13%

Annual global steel production only grew by 1% in 2014, down from 4% in 2013. Counterintuitively, this slow-down did not affect the iron ore trade. Demand increased by 13% on the back of the declining iron ore price, which fell by around 50% in 2014 and by another 25% in the first quarter of 2015. On 1 April, the price reached a historical low of USD 48 per tonne.

CHINA CONTINUED IMPORTING DESPITE SLOWING STEEL PRODUCTION

China's steel production, constituting 50% of the world total, saw zero growth, whereas its nominal iron ore imports grew by 19%. 81% of the volume growth stemmed from higher imports from Australia, where there were significant mine expansions. Only 8% came from Brazil. This led to historically high Chinese inventory levels of more than 1 million tonnes on average in 2014.

THE DOWNFALL OF THE CAPE SIZE SEGMENT

As mentioned, the majority of the growth in the iron ore trade was from Australia to China. Consequently, distances did not contribute significantly to distance-adjusted demand, which grew by 10% in 2014, compared to the nominal growth of 13%. The smaller contribution from travel distances was one of the reasons why the Capesize segment fared so badly in the fourth quarter of 2014 and at the beginning of 2015. Given the relatively short distance from Australia to China, these imports resulted in an increase in the cargo-carrying capacity of the Capesize fleet compared with if they had come from Brazil. For a long time Australia has been the biggest exporter of nominal iron ore volumes into China, whereas Brazil has been the biggest exporter in terms of distance-adjusted demand. This has, however, been changing over the last couple of years. In 2014, Australia caught up with Brazil and is now contributing just as much to distance-adjusted demand, lowering the utilisation of the Capesize fleet. The unemployed Capesize vessels sought comfort in the already strained Panamax market by cannibalising on some of the traditional Panamax trades.

COAL DEMAND UP BY 1%

The main headlines from the coal trade in 2014 were the decline in Chinese imports, China's slowing domestic production and the general oversupply on the world market. In the past few years,

Figure DB.6

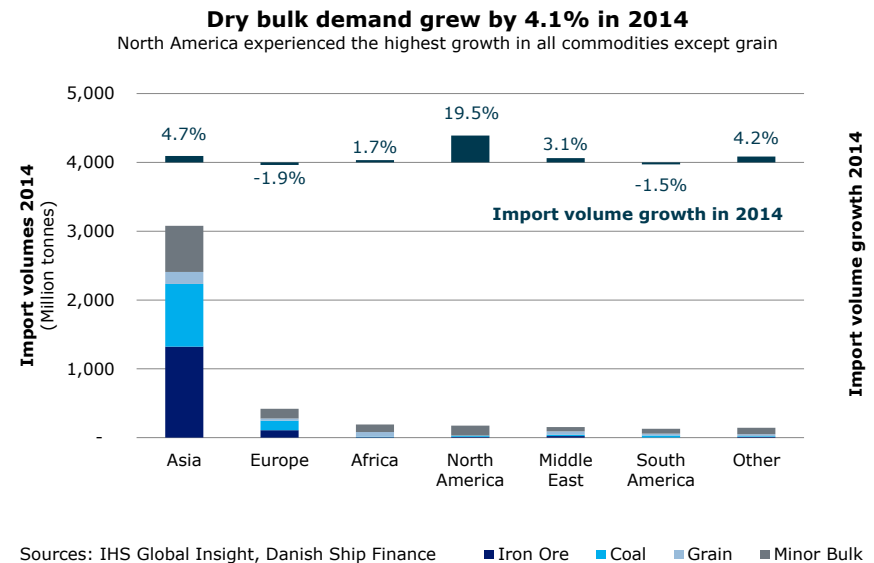
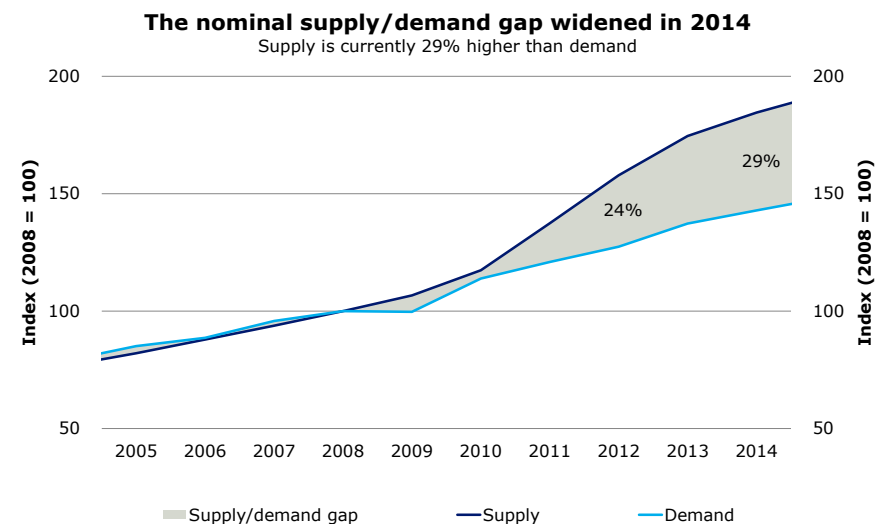


Figure DB.7



Chinese coal imports have boomed. In 2012, China surpassed Japan as the world's biggest importer of coal, but in 2014, Chinese coal imports slowed down, declining 20%. There were several factors affecting Chinese seaborne coal demand last year. First, China experienced above-average rainfall, which boosted hydropower generation. Second, Mongolia is becoming an increasingly important source of coal imports into China, which naturally does not generate any dry bulk demand. In 2014 Chinese imports of Mongolian coal grew by 15% and constituted 9% of total Chinese coal imports, up from only 4% in 2010. Third, political initiatives aimed at lowering pollution from burning coal started to take effect. The measures include import taxes, import quality restrictions and export tax reductions. Finally, growth in industrial production slowed, which in turn reduced demand for electricity and thereby also steam coal. The secondary industry (the manufacturing and construction sectors) accounted for 73% of China's power consumption in 2014.

INDIA BECAME THE WORLD'S BIGGEST SEABORNE COAL IMPORTER

India has for some time been expected to replace China as the world's biggest coal importer, and the transition is well under way. India increased its coal imports by a staggering 20% in 2014, surpassing Chinese seaborne import volumes by 8%. As a large part of the Indian population still has no access to electricity, the short-term potential for further growth in Indian coal import demand seems very promising (fig. 8).

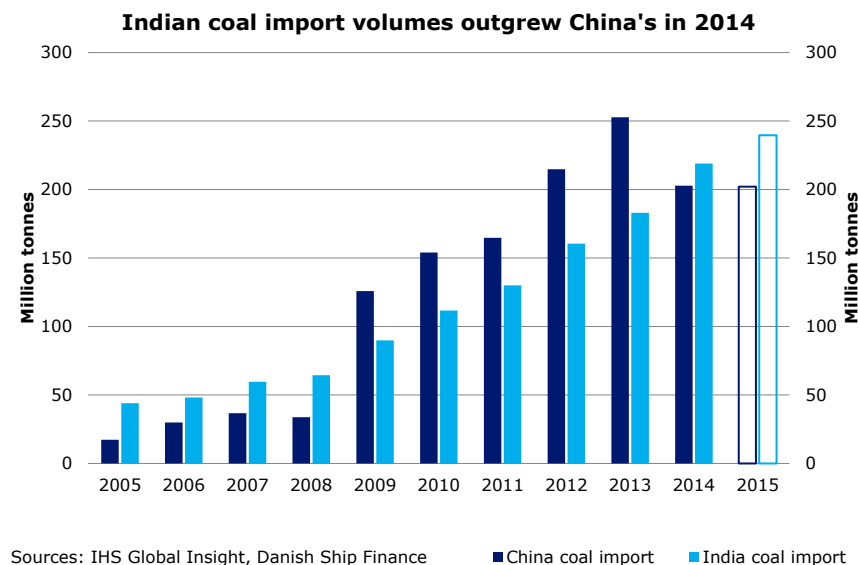
THE LOW OIL PRICE IS PROLONGING THE OVERSUPPLY OF COAL

The currently low coal prices were hoped to force small, high cost producers to close down and thereby slowly rebalance the industry. This has happened to some extent; however, the low oil price has also lowered mining production costs, prolonging the oversupply of coal. Energy costs in the production process is said to account for around 30% of total production cost.

SEABORNE GRAIN TRADE UP BY 6% IN 2014

Grain production has been strong during the last two years, but trade is expected to slow somewhat in the crop year 2014/2015. This slowdown will primarily be a consequence of a strong European harvest, which increased European consumption of domestic production at the expense of imports. Moreover, China also had a strong harvest, which limited its import needs. Lastly, the US struggled in 2014 due to restrictions on genetically modified

Figure DB.8



grain imports into China. These restrictions were removed in December, but then problems arose from the appreciation of the dollar, which made US grain exports expensive and more difficult to sell abroad.

MINOR BULK

The minor bulk trade decreased by 3% in 2014. Despite healthy growth in some of the major commodities, such as steel products, forest products and agribulks, the overall picture was marred by the decrease in nickel ore trade, where demand fell by 30%, and bauxite trade, where demand was down 25%. This was entirely due to the Indonesian export ban on unprocessed minerals. The Philippines has taken over some of the nickel ore production, while South Africa, Malaysia and Guinea have taken over some of the bauxite trade. The rationale behind the ban was to incentivise Indonesian miners to build their own aluminium smelters and thereby create more value within Indonesia. However, the effect of the ban has been lower earnings for miners and not enough capital to invest in the smelters. The Indonesian government has therefore started to reconsider allowing bauxite exports for those miners that have begun the process of building aluminium smelters (>30% complete).

THE DEPRESSED MARKET CONDITIONS HAVE FINALLY BROUGHT CONTRACTING ACTIVITY IN THE DRY BULK SEGMENT TO AN ABRUPT HALT, WHICH IN TURN HAS PUT DOWNWARD PRESSURE ON NEWBUILDING PRICES. SECONDHAND VALUES HAVE, HOWEVER, SUFFERED THE MOST AND HAVE BEEN ON A STEEP DECLINE DURING THE LAST SIX MONTHS.

CONTRACTING ACTIVITY SLOWED IN 2014...

In 2014, 58 million dwt was contracted, which was a significant decline from 2013. Close to half of all contracting was in the Capesize segment, while a quarter was in the Handymax segment. The majority of the contracted Handymax vessels (88%) were Ultramax vessels (60,000-64,999 dwt). The third most ordered vessel type was Kamsarmax, which constituted 17% of total contracting in 2014 (fig. 9).

...AND GROUND TO A HALT IN THE FIRST QUARTER OF 2015

The weak market sentiment in the last few months of 2014 and at the start of 2015 has made shipowners cautious and very little was contracted in the first quarter of 2015 (≈1.2 million dwt) (fig. 9). Nothing was contracted in the Capesize segment. Moreover, shipowners have even begun converting dry bulk orders that have already been placed into tanker vessels to reduce their exposure.

NEWBUILDING PRICES UP ON AVERAGE IN 2014

In 2014, average newbuilding prices of dry bulk vessels increased across the board from 2013. The average cost of a Capesize vessel in 2013 was around USD 49 million and in 2014 it was around USD 56 million. For a bigger Panamax vessel the average cost increased from USD 31 million to USD 37 million. The smallest increases were for Handysize vessels. Prices started to decline in the fourth quarter, and by the end of the first quarter of 2015, newbuilding prices were down 2-6% in all segments. Whether the low contracting activity reflects expectations of deflationary newbuilding prices or simply that the market has stopped expecting stronger future demand is unknown to us.

SECONDHAND PRICES TUMBLED TOWARDS THE END OF 2014

The positive sentiment in the first part of 2014 also spurred significant increases in average secondhand prices. By the end of the third quarter, secondhand prices were up in all segments.

Figure DB.9

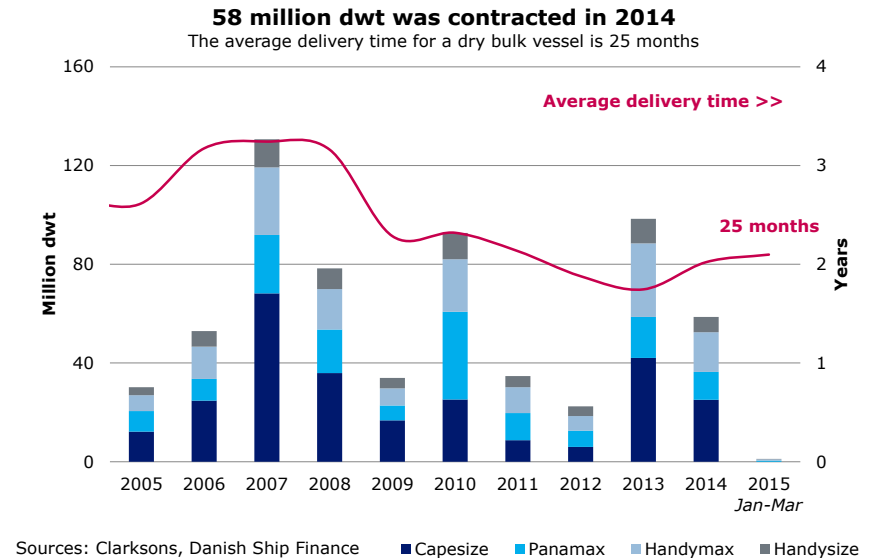
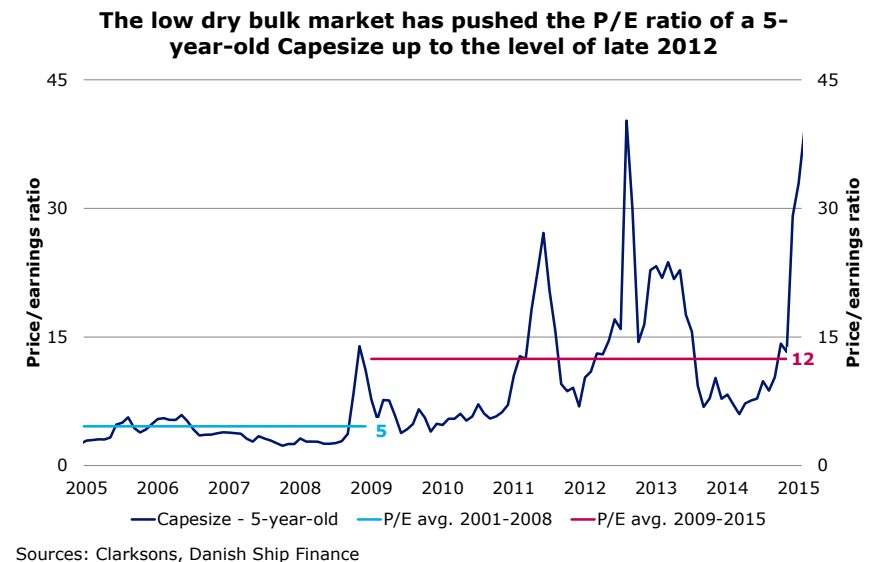


Figure DB.10



Capesize values saw a particularly strong increase during this period, which was why they suffered the steepest descent when the market turned in the fourth quarter. Since the third quarter of 2014, secondhand values across all subsegments have declined by around 30% and we fear they could go even lower.

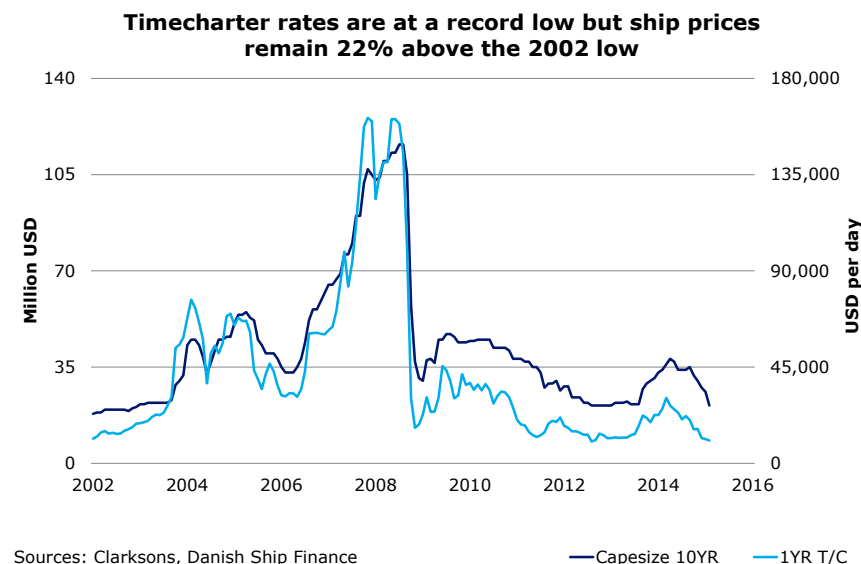
EARNINGS STILL DECOUPLED FROM PRICES

Despite having fallen significantly in 2014, we have believed for some time that secondhand values are too high considering the current earnings environment. The decline has not been sufficient to counterbalance the drop in timecharter earnings, and the price/earnings ratio of a five-year-old Capesize vessel soared in the first part of 2015 (fig. 10). Hence, it seems that owners are placing more and more value in the option of higher future earnings.

MISMATCH BETWEEN SELLERS' AND BUYERS' ATTITUDES

There could be many reasons why there continues to be a mismatch between earnings and values (fig. 11). We believe one of the main reasons is that sellers are not willing to take the losses that would be incurred in the current market and are therefore holding on to their vessels rather than selling them at discounted levels. This tendency resulted in a relatively slow sale and purchase market, especially for Capesize vessels, in the first quarter of 2015. Sales candidates have to a large extent been taken off the market due to significant discrepancies in sellers' and buyers' attitudes towards a vessel's worth. Hence, we believe that it is only a matter of time before values will have to give way to accommodate buyers' preferences.

Figure DB.11



OUTLOOK

IN THE PAST COUPLE OF YEARS THERE HAS BEEN MUCH TALK OF AN UPTURN IN THE DRY BULK MARKET BEING JUST AROUND THE CORNER. UP UNTIL NOW, THIS HAS BEEN PREMATURE AND THE MARKET HAS CONTINUED TO SINK DEEPER INTO A SEVERELY DEPRESSED STATE. MAYBE NOW, WHEN EVERYTHING SEEMS HOPELESS, IS THE TIME TO PROCLAIM A MARKET UPTURN? ON THE CONTRARY, WE FEAR THE SITUATION COULD GET EVEN WORSE BEFORE IT GETS BETTER.

The dry bulk market has entered a transitional phase. The traditional demand drivers are changing at the same time as the fleet is expanding rapidly, straining the already strained supply/demand balance. The fact that China has begun to cut coal imports and that there is a real possibility that it will do the same with iron ore creates an uncertain demand scenario. An improvement in the dry bulk market has therefore shifted even further out into the future. Many have begun to feel the urgency of the current market situation and scrapping activity accelerated in the first quarter of 2015.

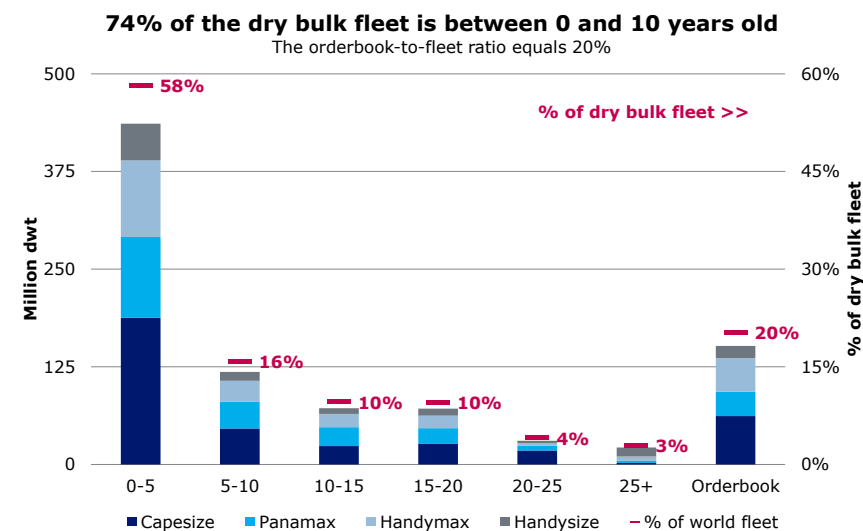
THE ORDERBOOK STANDS AT 157 MILLION DWT

The total dry bulk orderbook has been gradually declining since July 2014, and as of April 2015, it constitutes 20% of the current fleet (152 million dwt) (fig. 12). It should be borne in mind that the dry bulk fleet has doubled in size since 2007 and that an orderbook of 20% in the light of this is massive. If the extremely low contracting activity seen in the first quarter continues, it might be reasonable to hope that the orderbook will have declined even further by the end of 2015.

85 MILLION DWT COULD ENTER THE FLEET IN 2015

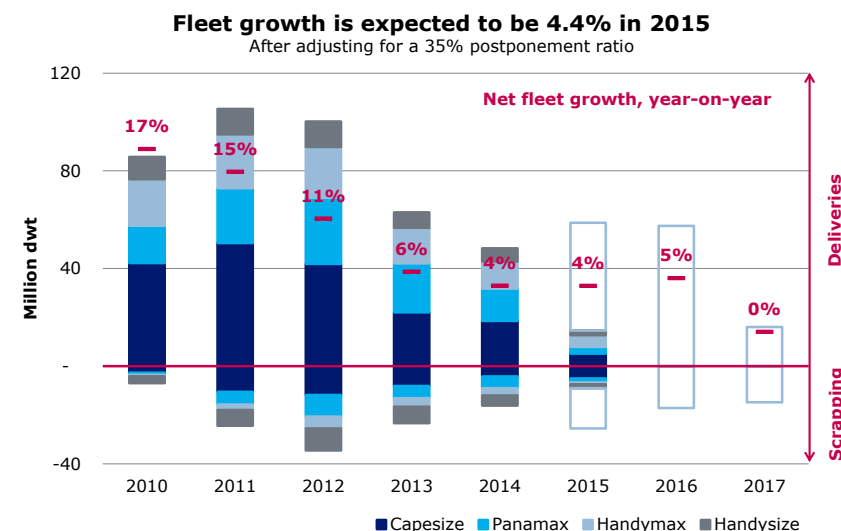
In the remainder of 2015, 73 million dwt is scheduled to be delivered, and adding this to the tonnage already delivered, 85 million dwt could enter the fleet this year. If everything is delivered, 31 million dwt will enter the already afflicted Capesize segment, 67% more than in 2014. The lion's share of the orderbook is scheduled to be delivered in 2015 and 2016. We therefore fear that shipyards could feel pressured to lower newbuilding prices

Figure DB.12



Sources: Clarksons, Danish Ship Finance

Figure DB.13



Sources: Clarksons, Danish Ship Finance

further and create an incentive for shipowners to order more ships.

SCRAPPING COULD PICK UP THE PACE

As mentioned, the market players have accelerated their scrapping activity. In addition to the 9 million dwt already scrapped in 2015, we estimate that a further 13 million dwt could be scrapped this year, 7 million dwt more than in 2014. This number could be even higher if there is no significant and sustained improvement in rates during the year, possibly as high as 35 million dwt in total, which would be a welcome scenario for the market. Moreover, only around 65% of scheduled orders have actually been delivered in each of the last two years, and considering the current market, we expect a similar trend to be seen in 2015. Overall, if 22 million dwt is scrapped and 35% of scheduled orders cancelled or postponed, the dry bulk fleet will grow by around 4.4% in 2015 (fig. 13).

SEABORNE DEMAND EXPECTED TO GROW ALMOST 4% IN 2015

Both nominal and distance-adjusted demand is expected to grow by just under 4% in 2015, around 1 percentage point less than supply. Looking at demand in the medium term, from 2015 until 2018, we expect seaborne demand to continue to grow at an annual rate of around 3.7%, which is significantly lower than in previous years (fig. 14). Deconstructing this aggregate number, we find that it is the iron ore trade that is expected to slow down the most. From 2002 to 2014, iron ore demand grew by 8-10%, but going forward, we expect no more than 4.2% growth. Coal is also expected to almost halve its growth rate from around 6.5% to 3.3% annually (fig. 15).

REDEFINING DRY BULK DEMAND DRIVERS

These figures clearly illustrate that the dry bulk industry has entered a transitional phase, where the primary demand drivers have to be redefined. For more than a decade, the main drivers of dry bulk demand have been industrial production and the ongoing urbanisation process in China, which have fuelled seemingly insatiable demand for steel and energy. The general market consensus for a long time was that there was no limit to China's demand. China would consume whatever was made available to it. In 2014, this illusion was shattered and we got a preview of

Figure DB.14

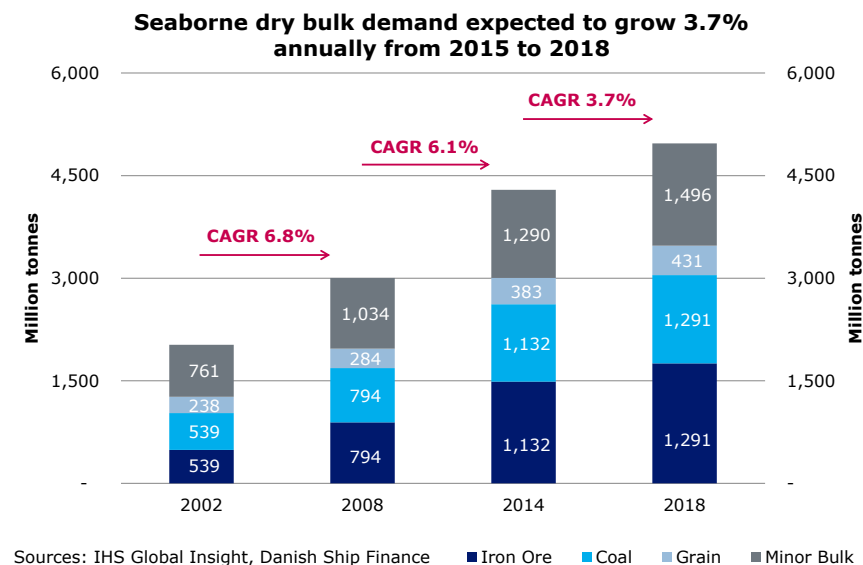
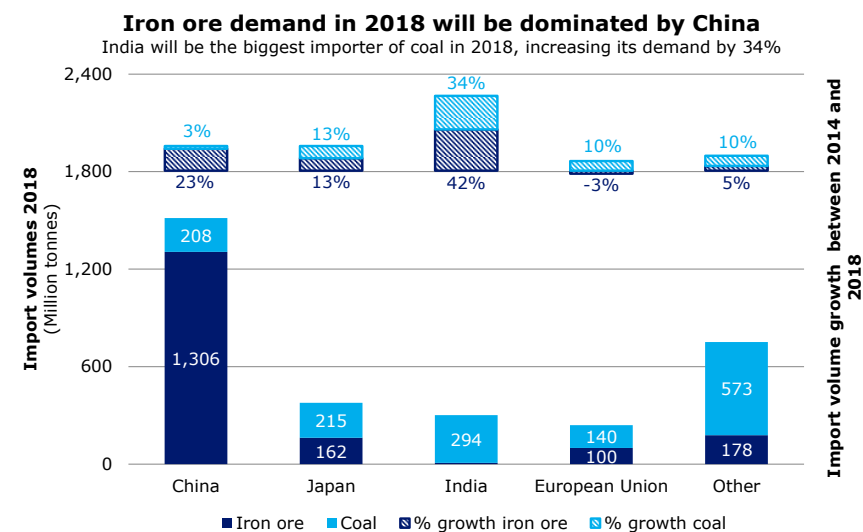


Figure DB.15



the impact that slower industrial production growth and a weakening real estate sector in China will have on dry bulk shipping. All vessel segments will be affected by this slowdown, as they all transport some type of material used in the construction or energy sectors. We believe that the coming years will be a struggle for most market players as they try to find a foothold in this new demand scenario with China slowly declining in importance.

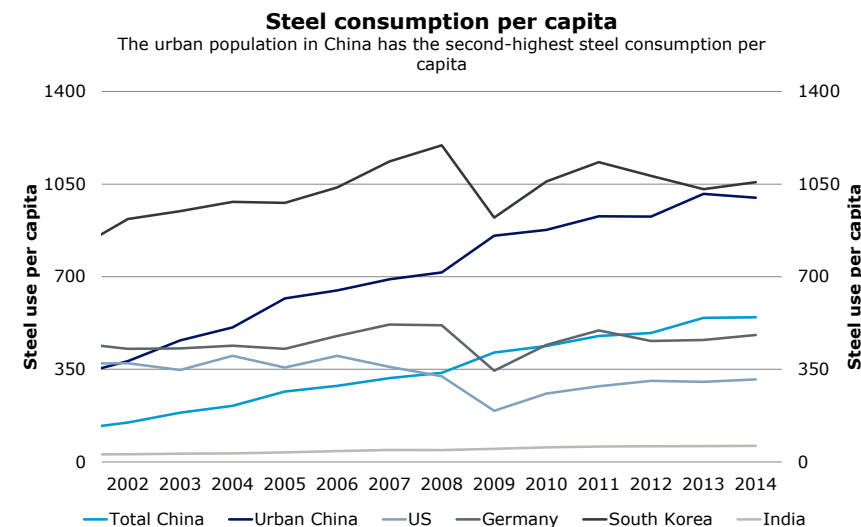
EXPECTATIONS FOR THE CHINESE STEEL MARKET IN 2015

The Chinese economy is forecast to grow by 7% in 2015 and this decline is expected to be visible in the steel industry. Steel output in China is expected to fall by a further 1% or so in 2015. The industry will therefore remain under pressure and more steel mills will be forced to close down. The harsh market environment is prompting mills to keep their iron ore inventories as low as possible. Rather than replenishing inventories by buying foreign iron ore, the mills are largely buying from port stocks where it is possible to buy smaller quantities with shorter lead times (compared with buying a Capesize cargo from, for example, Australia). Furthermore, steel production is not being helped by the Chinese government's attempts to curb pollution, due to the fact that 70% of the steel industry does not meet the country's environmental standards, according to the China Iron and Steel Association.

CHINESE STEEL CONSUMPTION PER CAPITA

Another factor supporting lower steel production is China's current steel consumption per capita. According to this measure, China's steel production is reaching its peak. China's overall consumption per capita is not much higher than Germany's. However, it should be kept in mind that around half of China's population lives in the western part of the country, a region dominated by deserts and mountains. It is an area that presumably will not be urbanised to as high a degree as the overall national level and therefore will retain a lower steel consumption per capita. In contrast, the steel consumption of the eastern part of the country is huge and on a par with that of South Korea, the country with the highest steel consumption per capita in the world due to

Figure DB.16



Sources: Ecwin, Danish Ship Finance

its relatively small size but big auto and shipbuilding industries (fig. 16). We think the eastern regions might have reached the peak or at least be close to realising its potential in terms of steel consumption.

IRON ORE DEMAND STRONG DESPITE WEAKER FUNDAMENTALS

The healthy growth in Chinese iron ore imports seen in 2014 was unfortunately not a reflection of stronger demand, but was rather supply-pushed. The oversupply of iron ore pushed prices down to historically low levels and a lot of cheap iron ore onto the market. In 2015, it looks as though prices could go even lower. Underlying demand for iron ore is weakening as a consequence of the slowdown in the Chinese economy and the oversupply looks set to continue in the coming years as several of the major mining companies complete significant mine expansions.

MORE IRON ORE CAPACITY ON ITS WAY

The decline in iron ore prices was primarily a result of the massive expansion in Australian iron ore capacity, which triggered the significant growth in seaborne iron ore volumes into China. Even more capacity is expected to come online up until 2017, which could mean that the low price environment continues in the coming years. The big miners are hoping that the low prices will lead to closures of smaller, high-cost mines, especially in China.

CHINA IS PROTECTING ITS DOMESTIC PRODUCTION

The Chinese government seems reluctant to allow its domestic iron ore miners to go bankrupt. To support the domestic industry, the government has announced that it will lower the resource tax on iron ore by 50%. With the introduction of this initiative, there is no reason to believe that the iron ore market will be rebalanced any time soon or that prices will begin to rise.

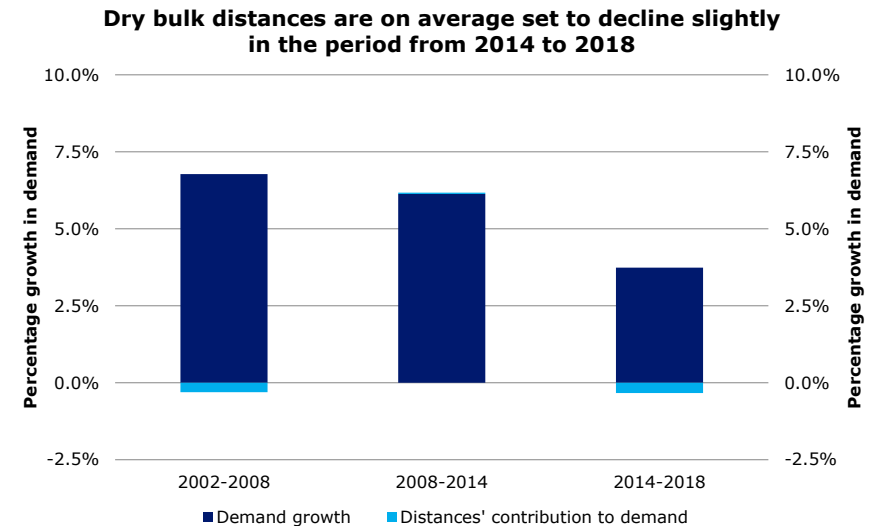
WILL LOWER PRICES LEAD TO HIGHER FREIGHT RATES?

If prices remain low, this could benefit the dry bulk market by providing China with an incentive to continue to import increasing amounts of iron ore, despite its lower steel demand. Whether this will translate into higher freight rates depends on Brazilian miners and whether they are able to regain some of the ground lost to their Australian counterparts in 2014. Nevertheless, even though lower prices sometimes lead to more trade, they can also lead to a deflationary market where buyers postpone purchases in case prices decline further, bringing the market to a temporary standstill.

WHERE IS CHINESE COAL DEMAND HEADED?

There are two factors determining China's future coal demand: electricity demand and anti-pollution measures. Coal constitutes around 65% of China's current power mix, and because 73% of electricity is consumed by the secondary industry, the coal industry would be severely affected by a slowdown in Chinese industrial production. Meanwhile, air pollution in China has reached unprecedented highs and the government, now more than ever, is feeling pressure to act. As 60% of China's air pollution stems from burning coal and oil, China has begun to invest more in renewable energy, especially hydro- and solar power. Whether or not this will cause China's coal imports to continue to decrease is

Figure DB.17



uncertain. However, considering the government's heavy focus on rebalancing the economy and curbing pollution, as well as its attempts to strengthen domestic production, it is highly likely that coal imports will drop further this year. It should be kept in mind, though, that the decline in 2014 was exacerbated by heavy rainfall, which contributed significantly to hydropower generation. If this is not repeated in 2015, China might have no choice but to import more coal.

INDIA'S COAL CONSUMPTION

With China slowing down, all eyes are on India. Will India be able to provide some of the demand lost from China? In 2014, India became the world's fastest-growing economy, allegedly growing 0.1 percentage points more than China, and it has huge unmet energy demand to supply. As mentioned earlier, India's coal demand is expected to surpass that of China in 2015. India has plenty of coal in the ground to meet its growing energy needs; however, it has not been very efficient in extracting that coal. There is a growing focus on improving the industry, but there is still a long way to go, and in the short-term, India's demand for imported coal is expected to grow.

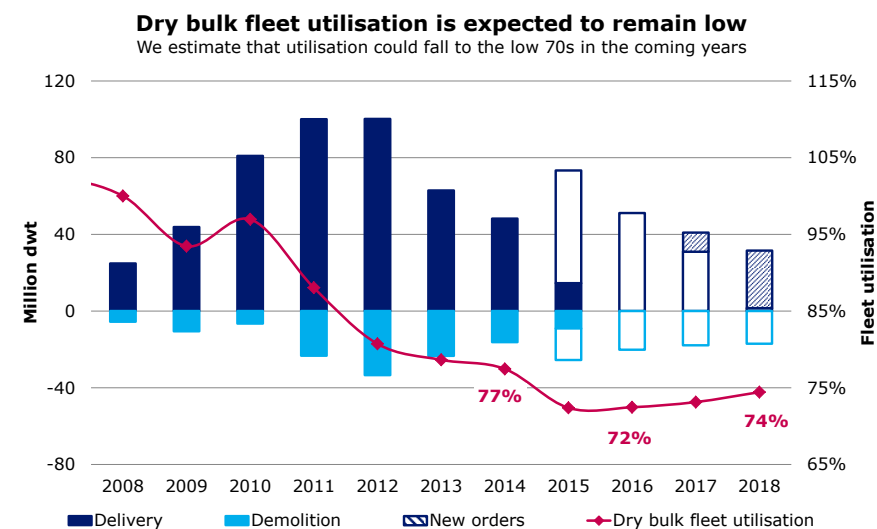
WHERE DOES THIS LEAVE THE DRY BULK MARKET?

The slowing demand outlook described above does little to support higher fleet utilisation. If Chinese imports of iron ore begin to decline as we have seen for coal, the dry bulk fleet will be subject to severe overcapacity. Nevertheless, even if Chinese iron ore imports are maintained at current levels, fleet utilisation could still decline in 2015. With the current demand forecast in mind and a supply scenario that takes into account both new orders and scrapping forecasts, we estimate that fleet utilisation could fall gradually to the mid-70s by year-end 2018 (fig. 18). Freight rates are unlikely to increase in a situation with declining fleet utilisation. According to our calculations, it will take a 5% increase in demand volumes for the 2015 fleet utilisation to increase by 1 percentage point.

VALUES COULD DECLINE FURTHER

Secondhand prices are usually expected to increase due to higher short-term earnings, improved future earnings expectations and longer cash flow periods. Current fleet utilisation projections leave little hope for freight rates in the short to medium term. For both Capesize and Panamax vessels, the average age of vessels scrapped remains below their expected technical operating life. Consequently, all three parameters mentioned above, in the short to medium term, point towards lower prices. However, past experience has taught us that secondhand prices, particularly for younger vessels, are at times significantly above the vessels' short-term earnings potential. But for vessels older than eight to ten years, we believe that current secondhand prices may drop below their previous all-time lows within the next 12-18 months. In our worst-case scenario, dry bulk values will fall by an additional 20% from the March 2015 levels. Let us hope that this does not happen!

Figure DB.18



Sources: Clarksons, IHS Global Insight and Danish Ship Finance

CRUDE TANKER

SHIPPING MARKET REVIEW – MAY 2015



**DANISH
SHIP FINANCE**

CRUDE TANKER

2014 MAY HAVE BEEN A TURNING POINT FOR THE CRUDE TANKER MARKET, BUT UNLESS SUPPLY GROWTH BEYOND 2016 IS KEPT LOW, THE RECOVERY MAY TURN OUT TO BE SHORT-LIVED.

FREIGHT RATES

THE FREIGHT RATE MARKET IMPROVED SIGNIFICANTLY IN 2014. FIRST, THE BDTI SOARED ABOVE 1,000 IN JANUARY, AND THEN THE 1-YEAR VLCC TIMECHARTER RATE SURGED TO THE HIGHEST LEVEL SINCE THE START OF THE FINANCIAL CRISIS.

2014 turned out to be much better than expected, particularly towards the end of the year, when the drop in crude oil prices propelled demand for crude tankers and with it freight rates. But not only did 2014 end on a high note, it started off well too.

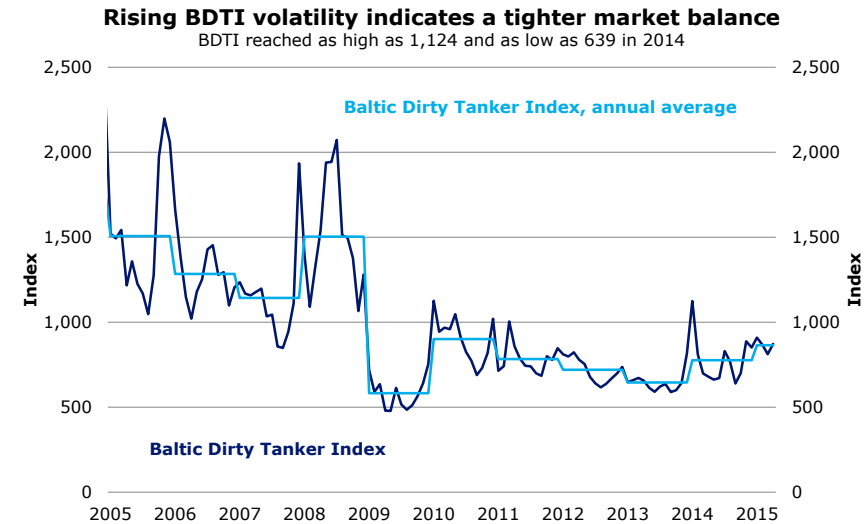
BDTI CONTINUES TO SHOW SIGNS OF IMPROVEMENT

The Baltic Dirty Tanker Index (BDTI) reached a four-year high of 1,124 in January 2014, spurred on by high Suezmax and Aframax earnings. However, spot rates soon began to slide as spring maintenance set in. During the summer, spot rates became increasingly volatile as dwindling crude oil prices increased vessel demand. In November, the market balance became even tighter and the BDTI reached roughly 900. Overall, spot rates in the crude tanker market fared much better in 2014. The Suezmax segment in particular continued to experience the highest annual average spot earnings, at almost USD 27,000 per day in 2014, compared with USD 10,000 and USD 22,000 per day in the VLCC and Aframax segments, respectively. Spot rates held up strongly in the first quarter of 2015, earning more than USD 40,000 per day across all segments (fig. 1). This is the highest quarterly level of spot earnings since 2008.

SURGE IN TIMECHARTER RATES TOWARDS THE END OF 2014

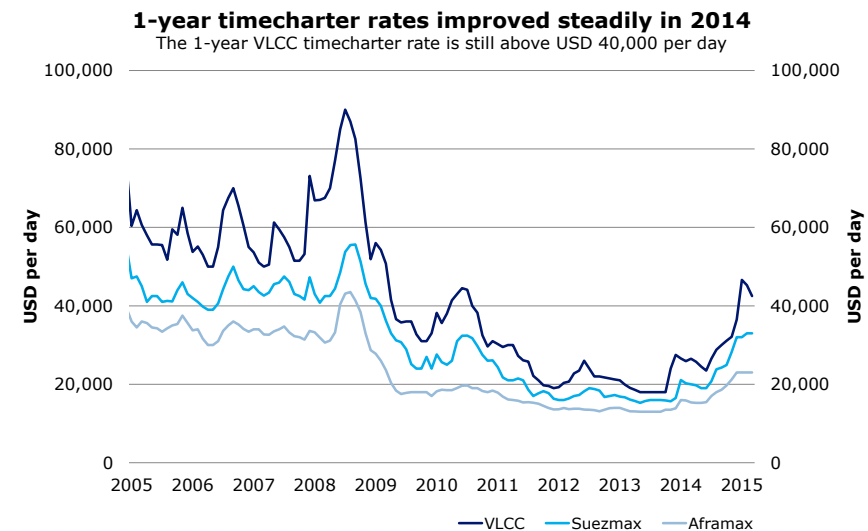
This development also impacted the timecharter market, where 2014 average rates were 40% higher than in 2013. The rise has continued into 2015 with levels not seen since the beginning of 2009: the 1-year VLCC timecharter rate hit USD 52,500 per day in January 2015 (fig. 2).

Figure T.1



Sources: Clarksons, Danish Ship Finance

Figure T.2

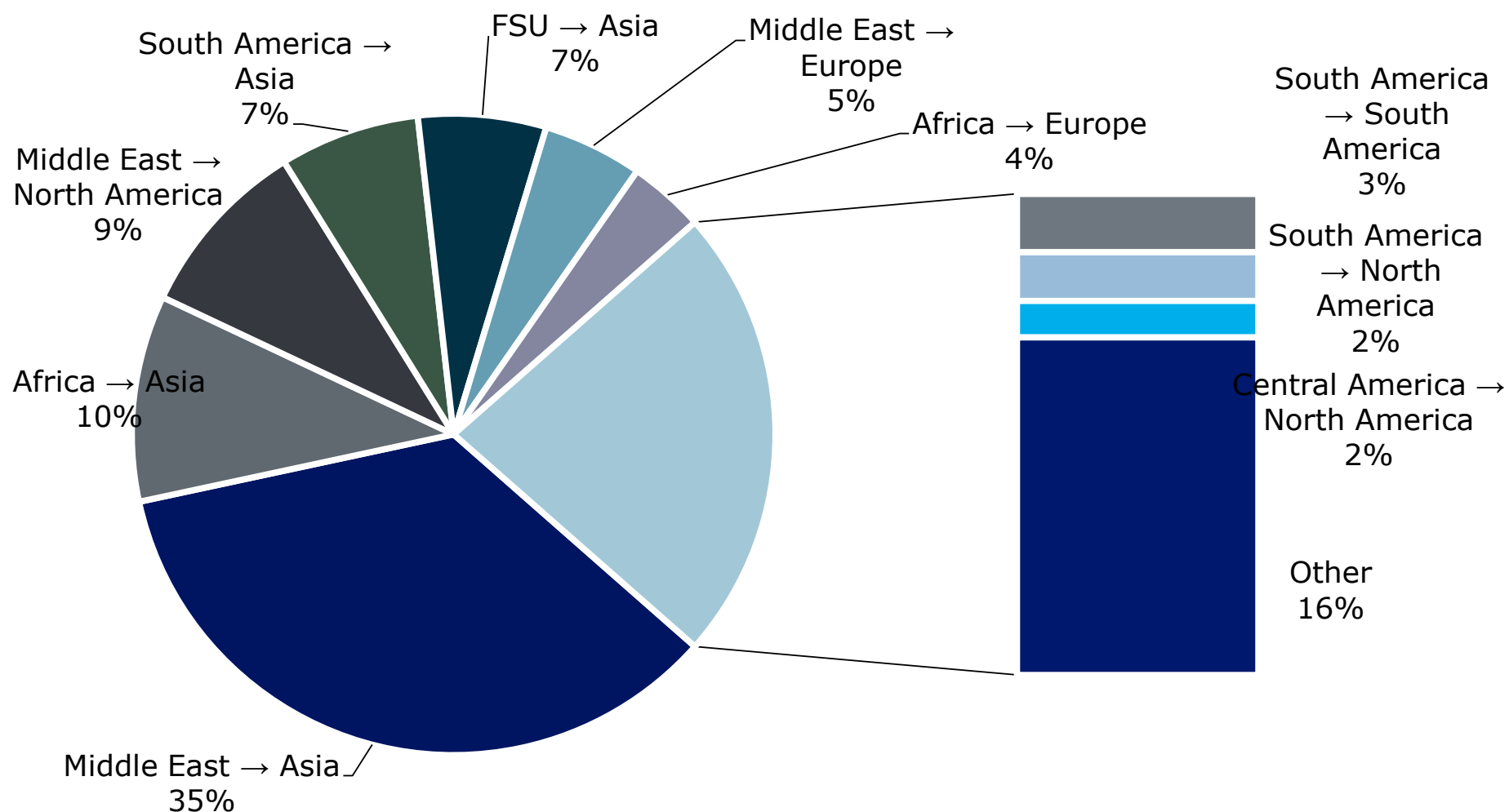


Sources: Clarksons, Danish Ship Finance

Figure T.3

Major crude tanker trades

(Measured in billion tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

SUPPLY & DEMAND

2014 TURNED OUT TO BE MUCH BETTER THAN MANY HAD EXPECTED. OVERCAPACITY WAS ALLEVIATED BY A COMBINATION OF SLOWING FLEET GROWTH AND SLOW STEAMING, WHILE CRUDE TANKER DEMAND WAS SUPPORTED BY LONGER TRAVELLING DISTANCES AND SOME FLOATING STORAGE. TOGETHER, THESE FACTORS SEEM TO HAVE FINALLY BEEN ABLE TO ABSORB SOME OF THE OVERSUPPLY.

FLEET GROWTH CAME DOWN BELOW 1% IN 2014

After having peaked at more than 7% in 2011, crude tanker fleet growth has been declining and in 2014 it slowed to less than 1%, the lowest level recorded in recent years (fig. 4).

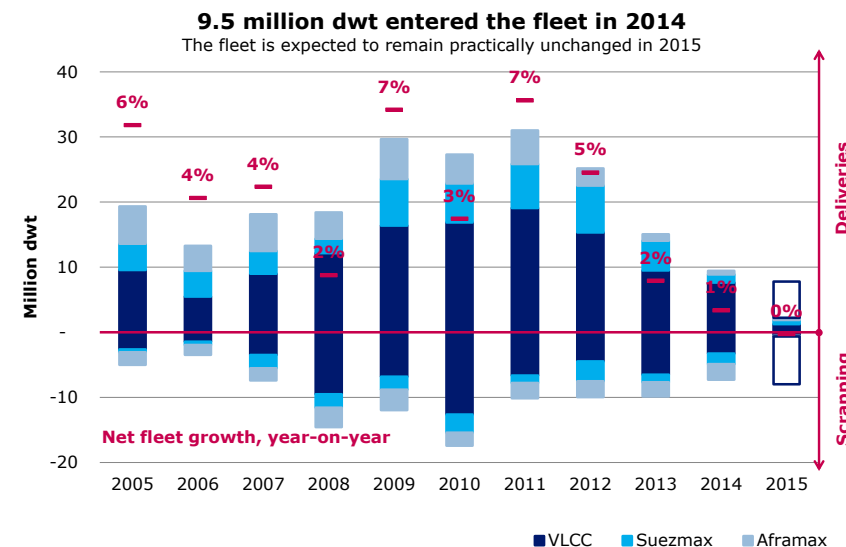
9.5 MILLION DWT WAS DELIVERED TO THE FLEET IN 2014

Deliveries declined further in 2014, with less than 9.5 million dwt entering the fleet as opposed to the 30 million dwt seen in 2011. VLCC vessels accounted for 80% of the deliveries, while the remaining 20% was divided between Suez- and Aframaxes. At the beginning of the year, 16.5 million dwt was scheduled for delivery. Consequently, 2014 attained a delivery ratio of 57%. The orderbook was dominated by VLCC orders and 77% of these were delivered. Both Suez- and Aframax, however, only saw 27% of their scheduled orders materialise in 2014. Three-quarters of all Suezmax cancellations were explained by Jiangsu Rongsheng, a Chinese yard, going into restructuring, making the low delivery ratio a one-off-event. The majority of the undelivered vessels, 26%, were postponed to a later date, while the rest were cancelled. Suezmax vessels accounted for the bulk of both postponements and cancellations. In total, 3.5 million dwt was undelivered in the Suezmax segment, equal to the total for the other two segments combined (fig. 5).

SCRAPPING EXCEEDED OUR EXPECTATIONS

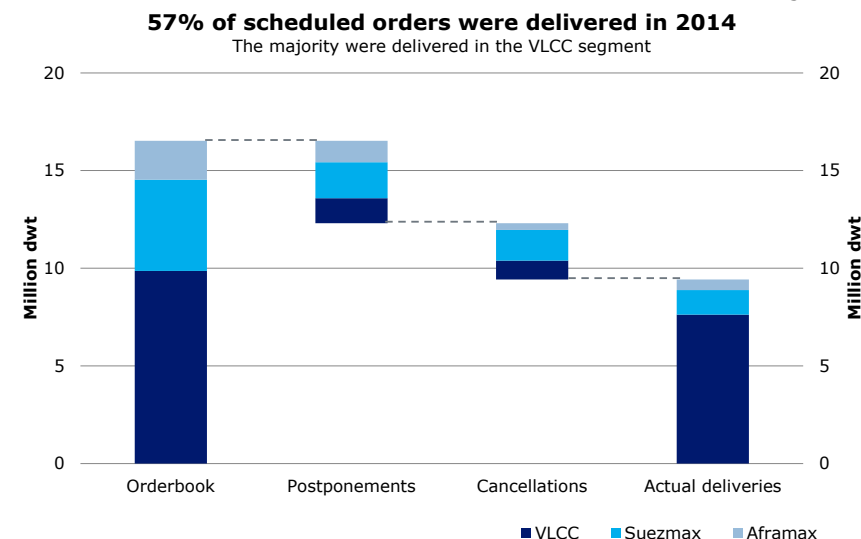
At the beginning of 2014, we identified roughly 5 million dwt of potential scrapping candidates, our criteria being that a vessel becomes eligible for scrapping the year before its next special survey, starting at the fourth. By the end of 2014, scrapping amounted to 7.3 million dwt, mainly VLCCs, exceeding our expectations by almost 50%. This was still lower than in previous years, however (fig. 4).

Figure T.4



Sources: Clarksons, Danish Ship Finance

Figure T.5



Sources: Clarksons, Danish Ship Finance

SEABORNE CRUDE OIL DEMAND WAS HIGHEST AT THE END OF 2014

On average over the past five years, crude oil consumption has been 1.2 million barrels per day higher in the second half of the year. In 2014 the lower crude oil prices are likely to have boosted this number even further. Consequently, despite having decreased by 0.5% overall in 2014, seaborne crude oil volumes might have experienced positive growth in the second half of the year, paving the way for higher crude tanker demand and thus improved freight rates.

THE OVERSUPPLY CAME DOWN SLIGHTLY IN 2014

Crude tanker demand was also supported by an increase in average travelling distances and consequently distance-adjusted demand ended 2014 roughly unchanged. Nevertheless, supply growth still outpaced demand growth in 2014, widening the gap between supply and demand (fig. 6). Increased use of slow steaming, whereby vessels lowered their average speeds to less than 9 knots in 2014 from above 11 knots in 2008, absorbed some of the excess crude tanker capacity, but in 2015 it appears that high freight rates together with lower bunker costs have prompted owners to increase speeds again.

SEABORNE CRUDE OIL VOLUMES TO ASIA CONTINUE TO RISE

Asia, particularly China, continues to be the main driver of growth in seaborne crude oil trade. In 2014, Asia increased its imports of seaborne crude oil by 1%, equivalent to 15 million tonnes or roughly 300,000 barrels per day. China accounted for three quarters of this (fig. 7).

ASIA HAS INCREASED ITS IMPORTS OF ATLANTIC BASIN CRUDE OIL

The Middle East continues to be the main supplier of crude oil to the Asian market, but Africa is gaining market share, supporting distance-adjusted demand. In the second half of 2014, Asia also upped its crude oil intake from several other Atlantic Basin suppliers, particularly South American suppliers, whose crude oil became increasingly attractive. Most global crude oil prices are pegged to three international crude oil benchmarks, Brent, WTI or Dubai, depending on their grade. In the case of the South Americans it was the WTI-linked crude oil grades that proved attractive, as WTI prices showed a far steeper decline than other benchmark crude oil prices in the second half of 2014.

Figure T.6

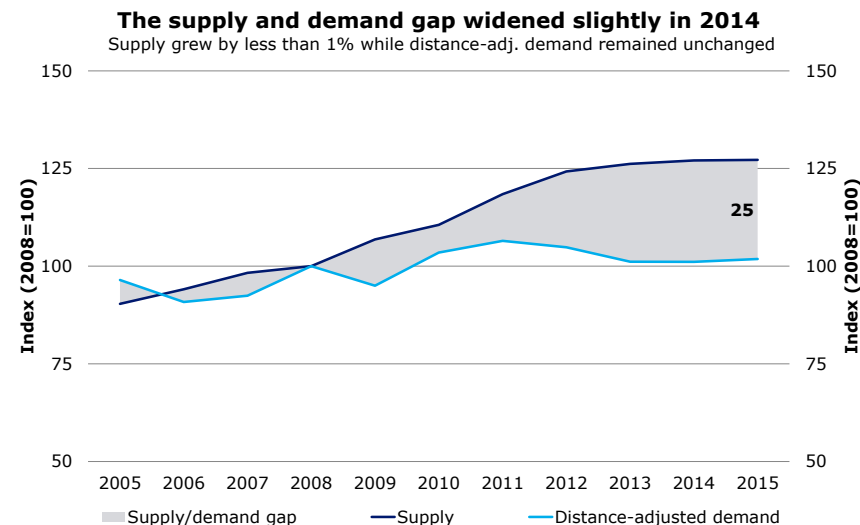
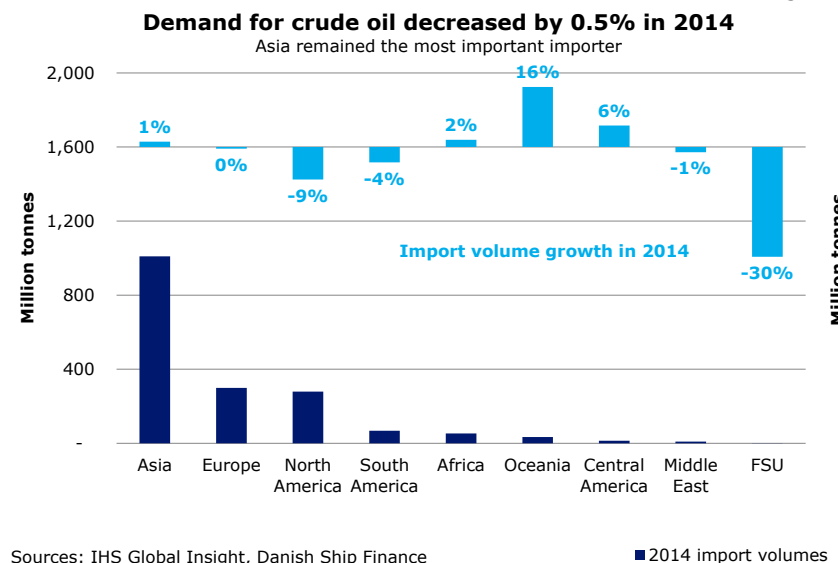


Figure T.7



TEMPORARY DEMAND FROM STORAGE BUILDS IN ASIA

Refinery intake continues to be the main driver of Asian sea-borne crude oil demand, but in 2014 focus was also on increasing domestic crude oil storage. Taking China as an example, apparent demand, a function of domestic crude oil production, imports and exports, exceeded refinery intake by 215,000 barrels per day. This surplus went into strategic petroleum reserves in particular, but also into operating inventories at new and existing refineries. It should, however, be kept in mind that storage builds only benefit crude tanker demand temporarily.

NORTH AMERICA CUTS IMPORTS ON THE BACK OF RISING PRODUCTION

In North America, on the other hand, rising domestic crude oil production meant that it did not need to import as much crude oil, and imports dropped by 10% in 2014, equivalent to 30 million tonnes or 600,000 barrels per day. US crude oil production edged above 8.6 million barrels per day or 400 million tonnes in 2014, the highest level since 1986 (fig. 8). However, towards the end of the year, imports increased for a short time, as the price spread between WTI and Brent narrowed significantly. Put simply, the price spread became so narrow that it made it cheaper to import seaborne crude oil volumes rather than transport landlocked domestic crude oil by rail to coastal refineries.

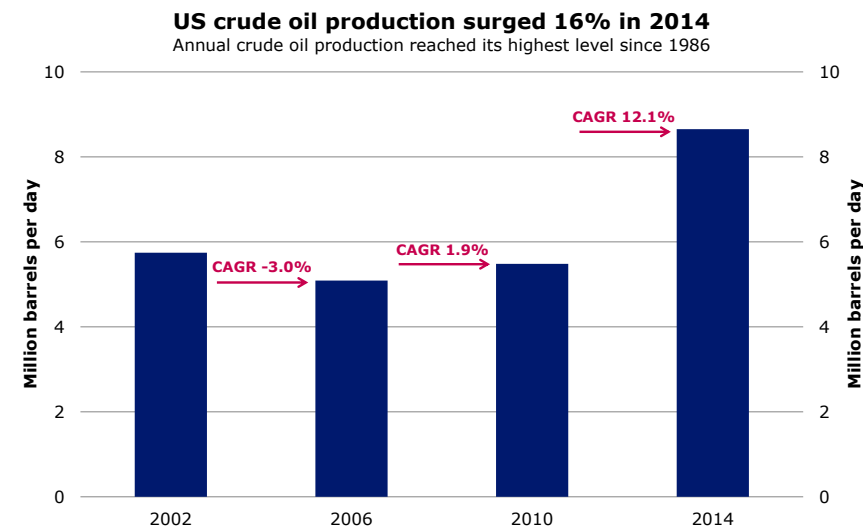
CRUDE OIL PRICES TUMBLED IN THE SECOND HALF OF 2014

Overall in 2014, crude oil supply outpaced demand, resulting in a drop in crude oil prices of roughly 50-60% between June and December. To begin with, the decline was fairly gradual, but in November, when OPEC announced an unchanged production target of 30 million barrels per day, the crude oil price tumbled to less than USD 55 per barrel in December 2014.

REFINERIES HAVE BEEN MAXIMISING CRUDE OIL INTAKE

While crude oil producers are suffering badly, refineries are maximising utilisation rates, cashing in as lower crude oil prices have boosted refinery margins. The reason for this is that petroleum product prices have declined more slowly than crude oil prices.

Figure T.8



Sources: EIA, Danish Ship Finance

CRUDE OIL STORAGE HAS INCREASED SIGNIFICANTLY

Despite higher refinery intake, there continues to be an ample supply of crude oil, and consequently a contango situation has arisen, whereby the current crude oil price is lower than the forward price. This has made it profitable to store crude oil, both onshore and offshore depending on the storage availability, storage costs and level of contango. As of now, onshore stocks of crude oil are at their highest level for four years and the US alone has added almost 1 million barrels per day to its crude oil stocks, reaching close to 70% of its maximum storage capacity. However, even though the crude oil market was in contango for a large part of 2014, the contango was seldom steep enough to justify the associated costs involved with floating storage. Hence, after peaking at what is believed to be 50 million barrels at the beginning of 2015, oil storage at sea halved to 25 million barrels, equivalent to roughly 12 VLCC vessels, in March 2015. However, if freight rates drop or the contango steepens, floating storage could increase again.

CONTRACTING AND SHIP VALUES

WHILE CONTRACTING WAS STILL HIGH IN 2014, SECONDHAND SALES REACHED THEIR HIGHEST LEVEL IN RECENT YEARS, RESULTING IN STEADILY INCREASING SECONDHAND PRICES DURING THE YEAR. DESPITE THIS, THE PEAK IN TIMECHARTER RATES WAS SUFFICIENTLY HIGH TO MAKE PRICE/EARNINGS RATIOS SLIDE ALMOST TO PRE-CRISIS LEVELS.

17 MILLION DWT WAS CONTRACTED IN 2014

In total, 17 million dwt was contracted in 2014, on a par with 2013. VLCC was the most popular vessel type and more than half was ordered in this segment. After a few years with virtually no contracting, owners returned to the Suezmax segment and contracted 7 million dwt in 2014 (fig. 9). The majority was contracted in the second half of 2014, as owners regained confidence in future Suezmax earnings. In the first quarter of 2015, Suezmax tankers were still in great demand, accounting for 30% of the 7 million dwt that was contracted in the quarter.

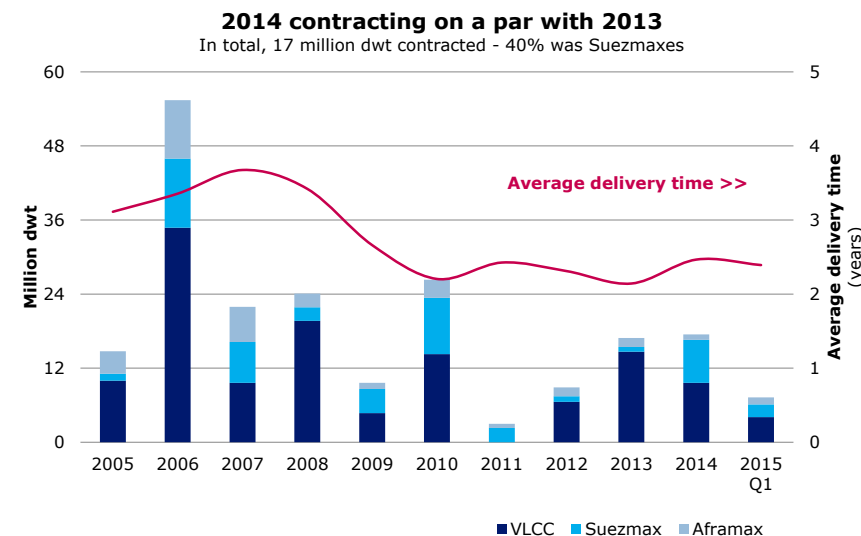
SECONDHAND VESSELS ARE IN HIGH DEMAND

After having risen in the first half of 2014, newbuilding prices started to ease in the second half and ended the year practically unchanged, although on average they were 12% higher than in 2013. On the other hand, secondhand prices saw a steady increase throughout 2014 and were on average 30% higher than in 2013.

PRICE/EARNINGS RATIOS ALMOST AT HISTORICAL LEVELS

While secondhand prices increased steadily during the year, timecharter rates spiked towards the end of 2014, causing price/earnings ratios to slide almost to pre-crisis levels (fig. 10). This could indicate that past earnings expectations have been met.

Figure T.9



Sources: Clarksons, Danish Ship Finance

Figure T.10



Sources: Clarksons, Danish Ship Finance

OUTLOOK

DESPITE THE CURRENT POSITIVE OUTLOOK FOR THE CRUDE TANKER MARKET, THERE ARE STILL SOME POINTS OF UNCERTAINTY. SUPPLY GROWTH IS ONE. WILL OWNERS BE ABLE TO REFRAIN FROM CONTRACTING DESPITE THE HIGH FREIGHT RATE MARKET? SECOND, DEMAND GROWTH HINGES TO A LARGE EXTENT ON CHINA.

THE ORDERBOOK'S SIZE MATCHES THE NUMBER OF VESSELS OVER 15

The transition to 2015 has shifted the age distribution of the fleet, such that the percentage of the fleet aged between 0 and five has decreased from 40% in 2014 to 32% currently. In itself, 32% does not bode well for the future, but the number of vessels over 15 years has risen to 13%, up from 10% in 2014, increasing the number of potential scrapping candidates.

Irrespective of the age distribution, the orderbook still comprises 13% of the fleet, amounting to 44 million dwt. Unlike in most other shipping segments, the size of the current orderbook corresponds to the proportion of vessels over 15 in the fleet (fig. 11). We consider these vessels possible scrapping candidates and assume that they will be scrapped within the next four years. Consequently, if contracting activity stops, the current orderbook may be absorbed by scrapping alone within the next four years. However, as the majority of the orderbook is scheduled for delivery within the coming two years, positive demand growth is necessary for the market to maintain its current highs.

FLEET GROWTH IS EXPECTED TO COME DOWN FURTHER IN 2015

We have identified each year's scrapping candidates as vessels approaching their next special survey, starting at the fourth. We assume that all scrapping candidates will be demolished, bringing scrapping in 2015 and 2016 on a par with 2014, before increasing to 12 million dwt in 2017. We assume that the orderbook will see a delivery ratio of 57%, the same as in 2014, while the remaining 43% will be postponed one year. This results in fleet growth of approximately 0% in 2015, 3% in 2016 and 1% in 2017 (fig. 12). However, it should be noted that the 2017 orderbook is not yet full and hence 2017 fleet growth could turn out to be higher.

Figure T.11

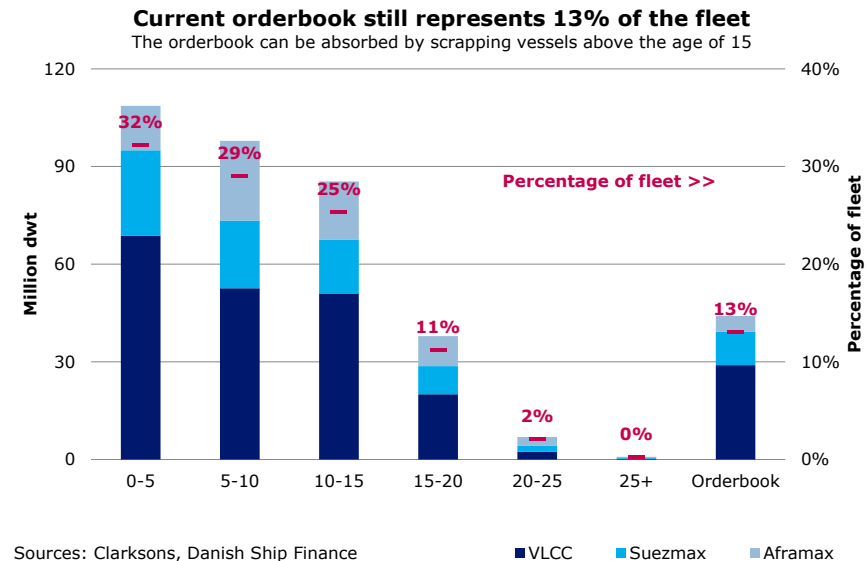
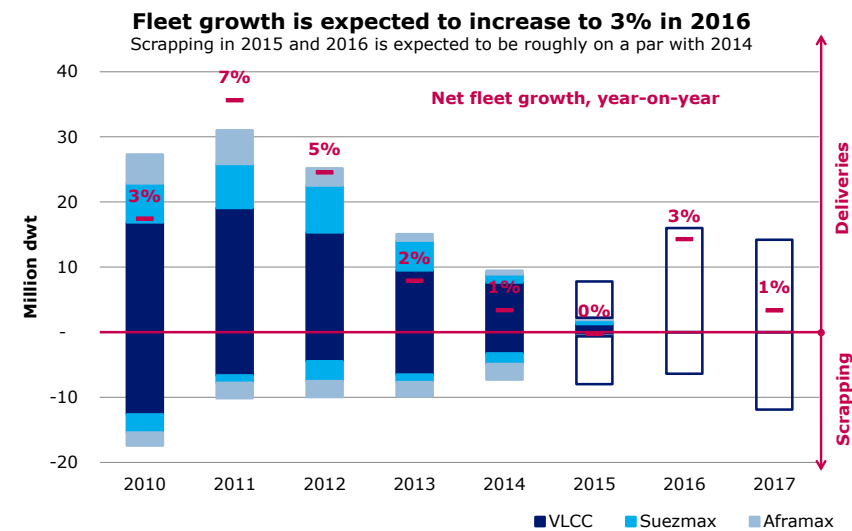


Figure T.12



DEMAND FOR SEABORNE CRUDE OIL IS EXPECTED TO GROW STRONGLY

After several years of subdued growth, volumes of seaborne crude oil are expected to grow more strongly over the coming years (fig. 13). Moreover, voyage distances are expected to get longer as the Asian market consumes more crude oil from West Africa and South America (fig. 14). Demand for seaborne crude is, however, highly uncertain and at times very volatile, as demand not only depends on the underlying economic conditions, but is also affected by price spreads and weather-related disruptions.

ASIA IS EXPECTED TO REMAIN THE BIGGEST DRIVER

Asia is expected to remain the most important driver of growth in the market for seaborne crude oil, while the other regions are not expected to cause any significant volume changes (fig. 15). Consequently, future growth in crude tanker demand hinges to a large extent on Asia, and China in particular.

WILL CHINA REMAIN THE WORLD'S GROWTH ENGINE?

China is in the process of transforming its economy into being more consumption-driven than investment-driven. The long-term impact of this on crude tanker demand may be significant, as a slowdown in both economic growth and industrial production is likely to lower growth in oil demand. To adjust for the lower growth in oil consumption, China has scaled back new refinery capacity and hence reduced additional import requirements. However, in the coming years, crude tanker demand may be supported by storage builds, as China seems to be taking advantage of the lower crude oil prices, increasing its strategic petroleum reserves to cover 90 days of imports, up from 30 days currently.

THE FUTURE OF THE US CRUDE OIL EXPORT BAN

US crude oil production has surged in the past three years (fig. 8), reducing its import requirements significantly (fig. 16), while exports have been kept highly restricted. US refineries have partly been able to absorb the additional supply by maximising utilisation rates and lowering imports of similar crude oil grades. However, it is highly doubtful that the refineries will be able to consume much more domestically produced light sweet crude

Figure T.13

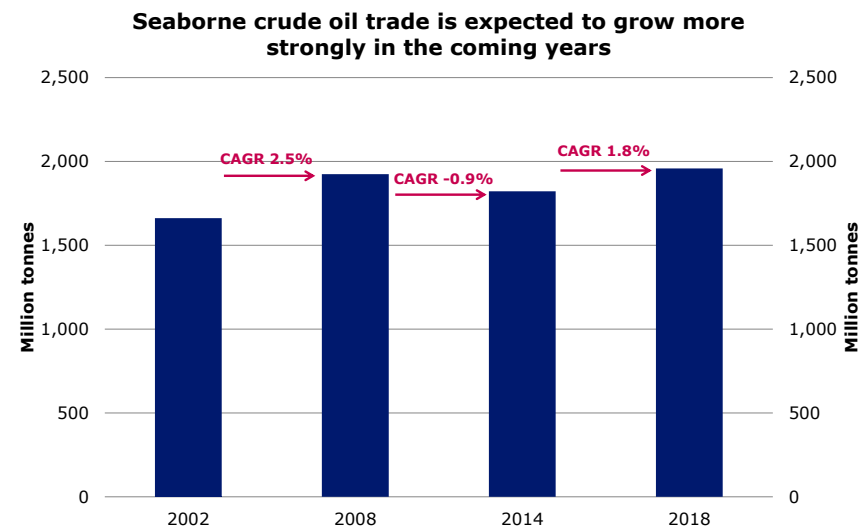
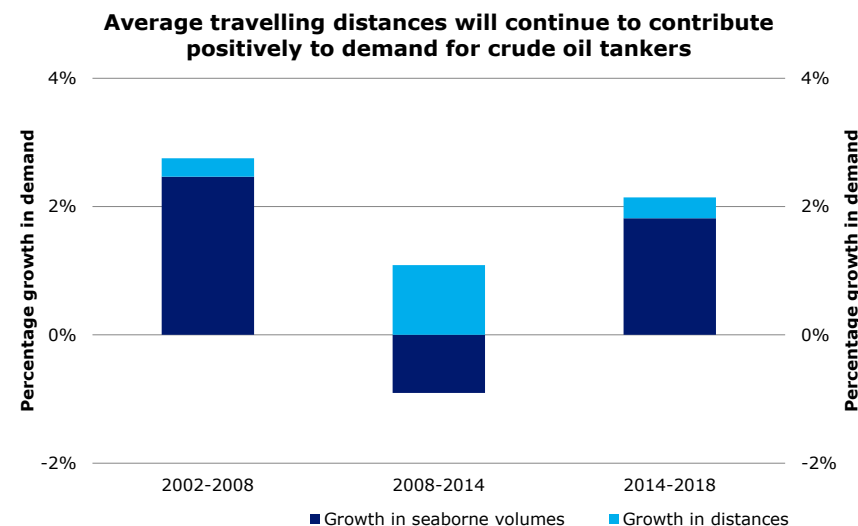


Figure T.14



oil, as their configuration restricts extensive use of this particular crude oil grade. Consequently, if the US continues to uphold its restrictions on crude oil exports, US crude oil prices might become even more discounted and imports could drop further, reducing demand for crude tankers. However, if the restrictions are removed, it would most likely benefit the US economy and the global crude tanker market, as trading activity in and out of the US would increase given that regional prices and refinery yields vary throughout the year.

THE EXPORT BAN FAVOURS US REFINERIES BUT HITS OIL PRODUCERS

US refineries are benefiting the most from the current restrictions on US crude oil exports, as they are experiencing above-average refining margins. These high margins have been attained as refineries have been able to buy crude oil at heavily discounted prices while selling petroleum products at international levels. The main losers are, of course, the oil producers, especially now that crude oil prices have dropped below marginal costs in many areas in the US. On top of that, producers are selling their crude oil at discounted prices, further dampening upstream investments, economic activity and job creation. Also, the global crude tanker market is missing out on US crude oil demand. Between 2006 and 2014, crude oil imports to the US dropped by nearly 3 million barrels per day to average only 7 million barrels per day in 2014. Suezmax tankers have suffered the most from this, as they have lost one of their key trading areas.

THE CONSEQUENCES OF ALLOWING US CRUDE OIL EXPORTS

The situation would obviously be reversed if the export restrictions were removed. However, it seems that allowing the export of US crude oil would be an economically feasible solution: removing the export restrictions would ultimately lift US crude oil prices to international levels, encouraging upstream investments, economic activity and job creation. The refining sector, on the other hand, would lose one advantage in the form of discounted feedstock prices, but they would still have access to lower-priced electricity, enabling them to sustain part of their competitive advantage. Furthermore, flooding the international crude oil market with US crude oil should help keep crude oil prices low and hence also international prices on petroleum

Figure T.15

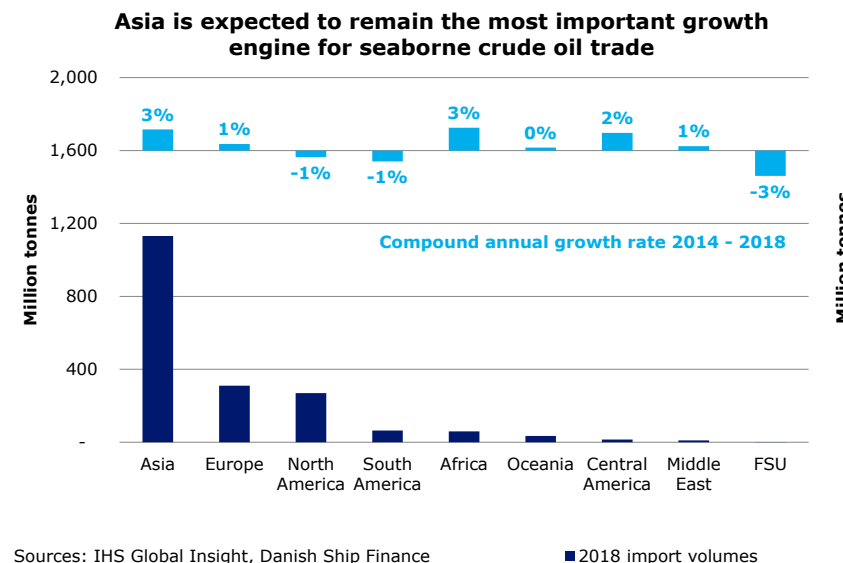
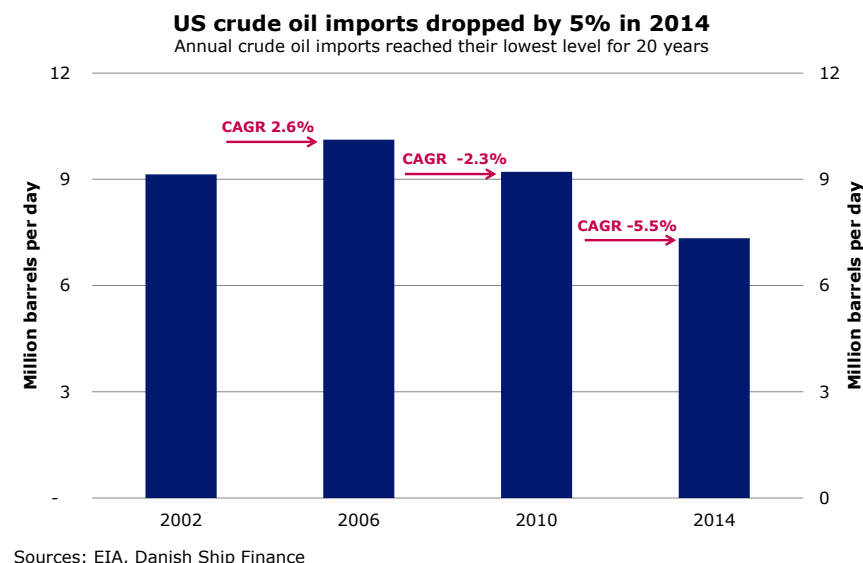


Figure T.16



products. Overall, it seems that removing the export restrictions could benefit most of the US economy. However, this is easier said than done. Much of the domestic industry in the US, for example the Jones Act fleet, is dependent on these export restrictions, making the consequences of removing the restrictions much harder to grasp.

But for the shipping industry in general, a recent study by the American Petroleum Institute estimated that exports could average 2.1 million barrels per day between 2015 and 2035, equivalent to one VLCC per day. Furthermore, trading activity could increase if both domestic and international refineries decide to optimise crude oil runs based on all available crude oil grades; as refineries in different regions prefer different crude oil grades, this would enable US crude oil to be exported all over the world. For instance, European refineries might place a higher value on condensate as their appetite for light sweet crude oil is already satisfied by the production in the North Sea or Mediterranean regions, while Mars, a medium sour crude oil produced in the Gulf of Mexico, might be more attractive in Asia, as Asian refineries are configured to process more heavy and sour crude oil grades. Overall, international trade flows would likely change and demand for crude oil tankers would increase.

LIGHTLY PROCESSED CONDENSATE HAS BEEN APPROVED FOR EXPORT

During the last six months, the US Department of Commerce has eased the export ban by allowing the export of lightly processed condensate, a very light and sweet crude oil grade. However, heavy investment is still needed to process US condensate production and this begs the question of who will be willing to invest given the current uncertainty surrounding the export restrictions. However, the export of lightly processed US condensate might not benefit crude tankers significantly, as condensate can be shipped on product tankers (see Shipping Market Review – November 2014 for further details). However, the preferred vessel type will depend on parcel sizes and the cargo's destination.

LOWER OIL PRICES HAVE BOOSTED DEMAND FOR CRUDE TANKERS

Ample crude oil supply and limited demand have caused crude oil prices to tumble 50-60% since June 2014. In January 2015,

Brent fell below USD 50 per barrel, its lowest level for six years. Prices have since rebounded to around USD 65 per barrel after Saudi Arabia and its allies launched air strikes in Yemen, sparking fears of a wider regional confrontation that could disrupt world crude oil supplies. In general, the lower crude oil prices have boosted demand for crude tankers. As of March, 12 VLCCs are believed to be engaged in floating storage, while another 15 are thought to be storing Iranian crude oil. Furthermore, trade patterns have changed and crude oil demand has gone up, causing volumes of crude oil in transit to increase strongly and thereby boosting demand for crude tankers.

OIL PRICES MAY REMAIN UNDER PRESSURE IN THE SECOND QUARTER

The effect of the air strike in Yemen might only be temporary, and prices could come under further pressure in the second quarter of 2015 if the global oversupply of crude oil increases. This could occur if China puts its build-up of strategic reserves on hold and refineries slow their crude oil intake ahead of spring maintenance. A larger crude oil surplus could possibly push the market into a deeper contango, increasing demand for floating storage facilities, which in turn could mitigate the effect the lower crude oil demand could have on crude tankers. A deeper contango could also alleviate some of the pressure on onshore storage capacity, which is currently beginning to reach its limit.

SANCTIONS AGAINST IRAN COULD BE LIFTED IN JUNE

A nuclear deal with Iran, which could end sanctions and potentially lift Iranian crude oil exports, is also a possibility. As mentioned, it is believed that 15 VLCCs, each carrying 2 million barrels of crude oil, are currently deployed for floating storage offshore Iran. Needless to say, if a deal is struck, an additional 30 million barrels of crude oil and hence 15 VLCC vessels might be available to the market overnight. These VLCCs are mainly Iranian vessels, though, and would probably be occupied transporting additional Iranian exports. In the event that Iranian crude oil replaces other Middle Eastern barrels, freight rates could come under pressure as more vessels would be available in the crude tanker market.

PRICES COULD STRENGTHEN IN THE SECOND HALF OF 2015

In the second half of 2015, crude oil prices could gain some strength due to a combination of lower production and higher demand. International rig counts outside the US and Canada have already fallen 4%, and in the US alone, rig counts have dropped to their lowest level since 2011, potentially lowering crude oil production. At the same time, lower prices have begun encouraging more consumption, particularly in the US, where lower prices have prompted motorists to add mileage and buy larger vehicles. This, together with higher seasonal demand, could accelerate oil consumption and hence crude tanker demand in the second half of 2015. China could also add some support to crude tanker demand, as it is to open strategic petroleum reserves of 80 million barrels, the majority during the second half of 2015.

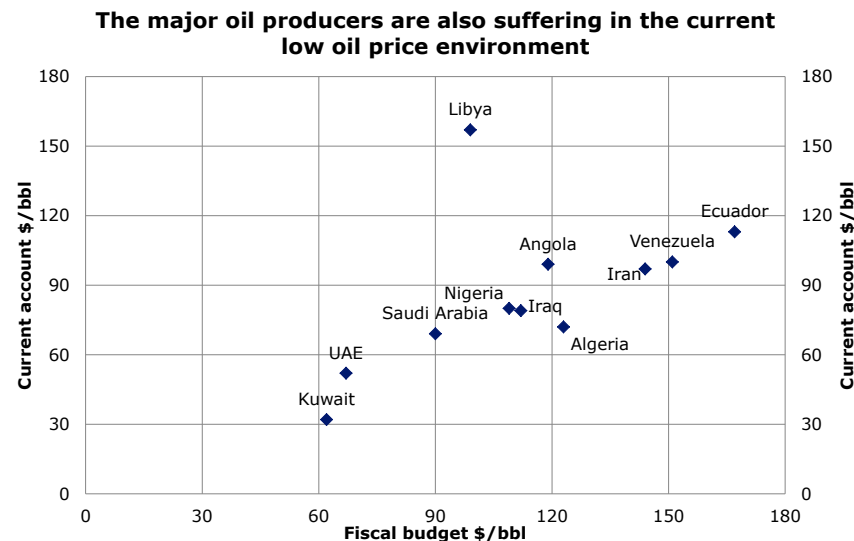
THE US IS THE MAIN BENEFICIARY OF LOWER CRUDE OIL PRICES

While all parties agree that the drop in crude oil prices has given a boost to global growth, the main beneficiaries are the US consumers. European consumers, on the other hand, only partly benefit because of the relatively high taxes on petroleum products. Emerging markets, such as Asia, are also benefiting less, as prices were already artificially low due to subsidies. Here, some governments have used the current situation to eliminate their subsidy burden and in some cases have even raised consumption taxes on petroleum products, reducing the benefits even further. Consequently, as mentioned, we may see increasing import requirements from several countries, boosting crude tanker demand.

HIGH OPEC PRODUCTION DESPITE LOW OIL PRICES

The losers are, of course, oil producers with high production costs and oil exporters, especially those with public finances where the fiscal breakeven point is above USD 100 per barrel (fig. 17). Some countries have built up financial reserves in previous years, but most OPEC members, along with Russia, have for years been increasing their dependence on crude oil prices and are therefore suffering tremendously. Still, these countries seem unable to formulate an agreement to cut crude oil produc-

Figure T.17



Sources: IHS Global Insight, Danish Ship Finance

tion. The next OPEC meeting takes place in June in Vienna, where the matter will be discussed further; however, there is nothing to indicate that an agreement will be reached. Consequently, independent oil producers in the US may be the first to fold (see Shipping Market Review – November 2014 for further details).

2015 MAY OFFER SOME RELIEF TO THE MARKET

The developments in the crude tanker market in the second half of 2014 and the strong start to this year have led us to raise our expectations for 2015. We foresee average 2015 freight rates improving from previous years, as supply growth continues to be subdued, and demand growth, especially in the second half of 2015, is expected to regain some of its past strength. Thereafter, the development is more uncertain with significant downside risks, as crude tanker demand depends to a large extent on continued growth in Chinese crude oil demand, while supply growth beyond 2016 is highly uncertain.

PRODUCT TANKER

SHIPPING MARKET REVIEW – MAY 2015



**DANISH
SHIP FINANCE**

PRODUCT TANKER

BY THE END OF 2014, LOWER AND MORE VOLATILE OIL PRICES GAVE AN ADDITIONAL BOOST TO DEMAND FOR PRODUCT TANKERS AND FREIGHT RATES. HOWEVER, A LARGE INFLUX OF NEW VESSELS THIS YEAR AND NEXT CONTINUES TO RAISE DOUBTS OVER THE SUSTAINABILITY OF THE CURRENT RECOVERY.

FREIGHT RATES

AFTER A ROUGH START TO 2014, FREIGHT RATES SURGED IN THE FOURTH QUARTER AND 1-YEAR TIMECHARTER RATES REACHED THEIR HIGHEST ANNUAL AVERAGE SINCE 2010.

2014 looked set to be one of the worst years ever for product tankers. However, towards the end of the year, higher refinery throughputs and lower oil prices boosted product tanker demand, enabling freight rates to increase.

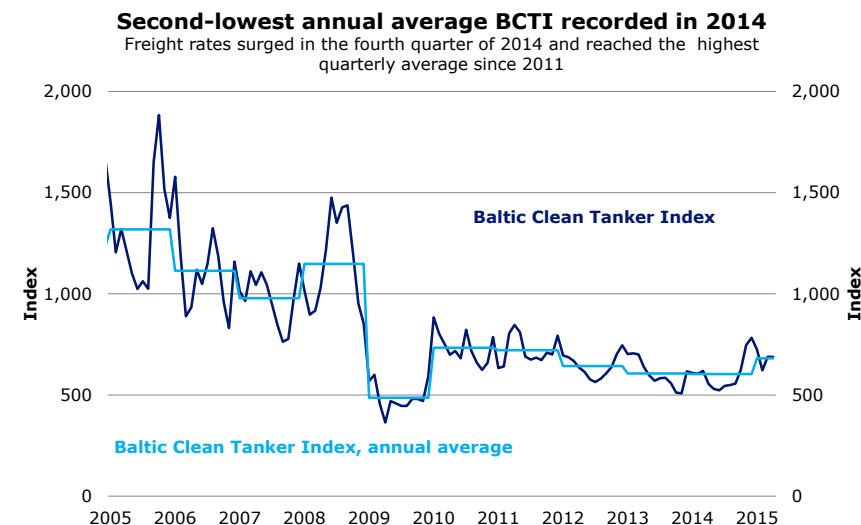
AFTER A SLOW START, 2014 REIGNITED AT YEAR-END

This development is clearly illustrated in the Baltic Clean Tanker Index (BCTI), which showed an average for 2014 of just 604, the second lowest ever reported. It was saved from being even lower by a surge in spot rates during the fourth quarter, when the index averaged 718 compared with 566 over the first three quarters. The average in the fourth quarter was the highest quarterly figure since 2011, and provided owners with some confidence in future earnings. Going into 2015, spot rates have come down a notch, but are still significantly above the level seen in the same period in 2014 (fig. 1).

TIMECHARTER RATES INCREASED STRONGLY TOWARDS YEAR-END

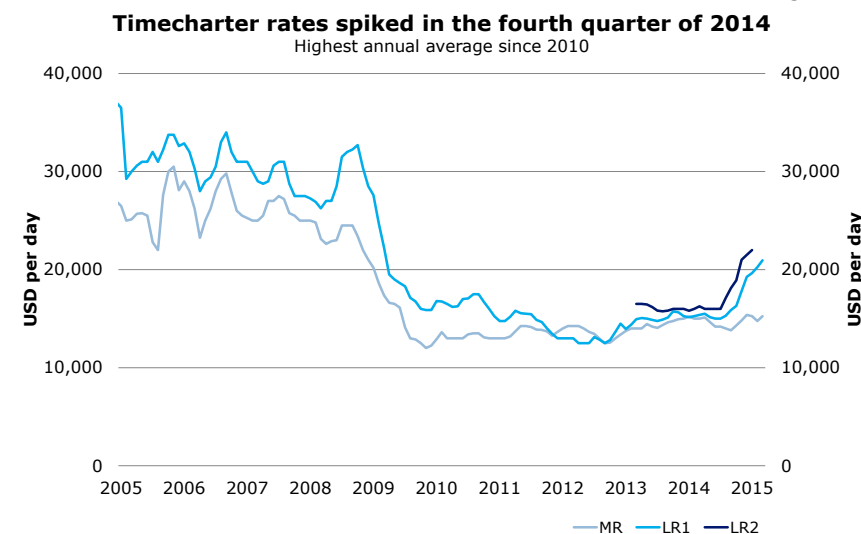
Like spot rates, timecharter rates rose significantly in the fourth quarter of 2014. However, unlike for spot rates, this late surge lifted the 2014 annual average to the highest level since 2010. In particular, the 1-year LR1 and LR2 timecharter rates increased sharply in anticipation of more Middle Eastern exports. The average 1-year LR1 and LR2 timecharter rates were up by 6% and 30% from 2013 to 2014, respectively. The average 1-year MR timecharter rate only increased by 2% as a high influx of new vessels dampened expectations (fig. 2).

Figure P.1



Sources: Clarksons, Danish Ship Finance

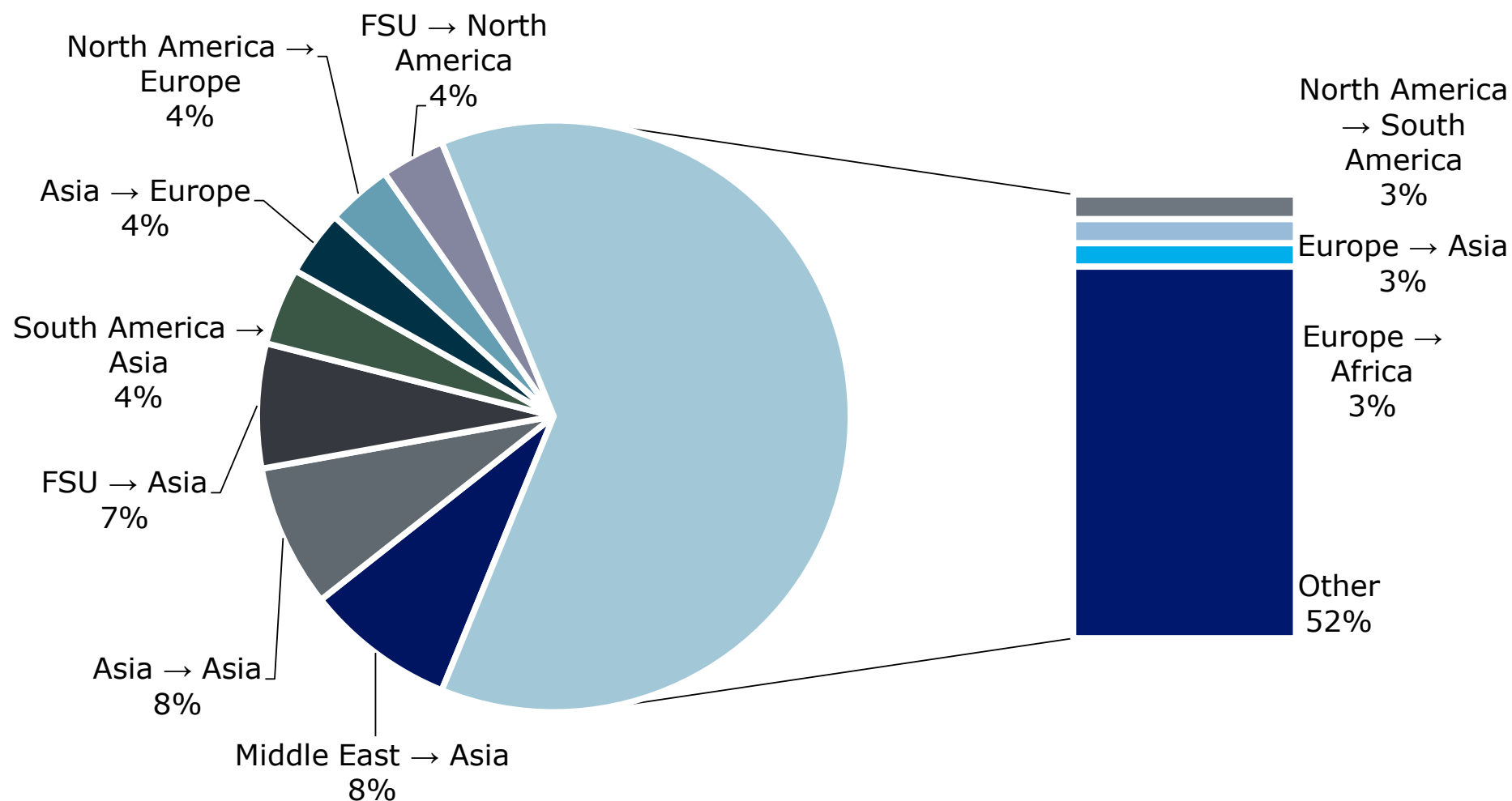
Figure P.2



Sources: Clarksons, Danish Ship Finance

Major product tanker trades

(Measured in billion tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

SUPPLY & DEMAND

SUPPLY GROWTH ONCE AGAIN EXCEEDED DISTANCE-ADJUSTED DEMAND. BUT TOWARDS THE END OF 2014 SEASONAL DEMAND, TEMPORARY FACTORS AND THE LOWER OIL PRICES BENEFITED THE PRODUCT TANKER MARKET.

As expected, the rising fleet growth left its mark on the product tanker market. However, only the first half of 2014 was affected, as the drop in oil prices propelled product tanker demand in the fourth quarter and helped alleviate some of the apparent oversupply.

FLEET GROWTH IS TRENDING UPWARDS AND REACHED 4% IN 2014

After reaching its trough in 2012, fleet growth reversed and has been trending upwards ever since, reaching 3% in 2013 and 4% in 2014 (fig. 4).

67% OF SCHEDULED ORDERS WERE DELIVERED IN 2014

At the beginning of 2014, almost 9.7 million dwt was scheduled to be delivered to the fleet, the majority in the MR segment, as neither of the LR segments has seen any significant contracting in recent years, except for 2013. Surprisingly, though, despite an average delivery time of around two years, nearly 20% of the vessels contracted in 2013 hit the water during 2014. At year-end, 6.5 million dwt had entered the product tanker fleet, representing 67% of scheduled orders. This figure was supported in particular by the MR segment, which showed a delivery ratio of 70% and accounted for the bulk of the deliveries. Most of the remaining 33% of the scheduled 2014 orders were postponed, while a few MR orders were cancelled, consistent with the bleaker outlook for this segment (fig. 5).

SCRAPPING DID NOT MEET OUR EXPECTATIONS IN 2014

Contrary to our expectations, the underlying risk of overcapacity in the product tanker market in combination with the poor market environment at the beginning of 2014 did not prompt owners to increase scrapping. In fact, the opposite occurred: scrapping decreased from 2.2 million dwt in 2013 to less than 1.5 million dwt in 2014 (fig. 4). Despite the lower scrapping activity, the average scrapping age went down by two years, from 27 in 2013 to 25 in 2014.

Figure P.4

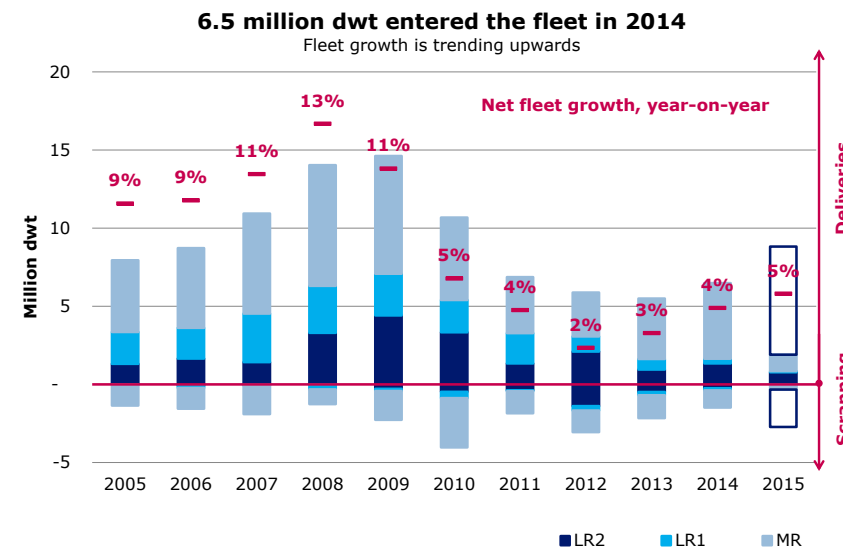
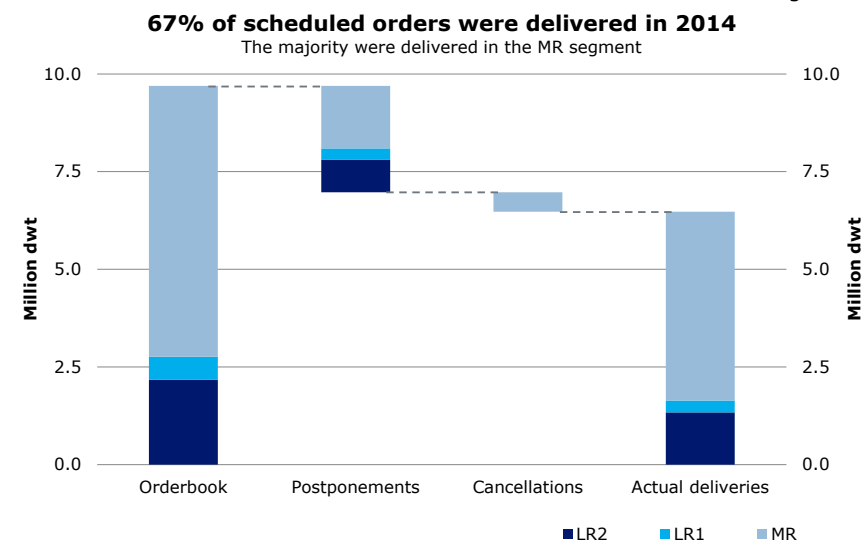


Figure P.5



PRODUCT TANKER DEMAND REBOUNDED AT YEAR-END

Volumes of seaborne petroleum products decreased by almost 1.5% in 2014, but falling commodity prices and the opening of arbitrage windows in combination with seasonally higher consumption led demand to pick up towards the end of the year, causing freight rates to improve.

THE GAP BETWEEN SUPPLY AND DEMAND WIDENED IN 2014

While average travelling distances provided some support for the product tanker market in 2013, they were less favourable in 2014. Average travelling distances remained unchanged, causing the gap between supply and demand to increase during 2014 (fig. 6). The gap between supply and demand has widened significantly over the last two years, but increased use of slow steaming has absorbed some of the excess tonnage from the market, artificially narrowing the gap. This clearly provides an incentive to continue or even increase the use of slow steaming. However, this seems to be less prevalent in a market with higher freight rates and lower bunker prices, as seen during recent winter months.

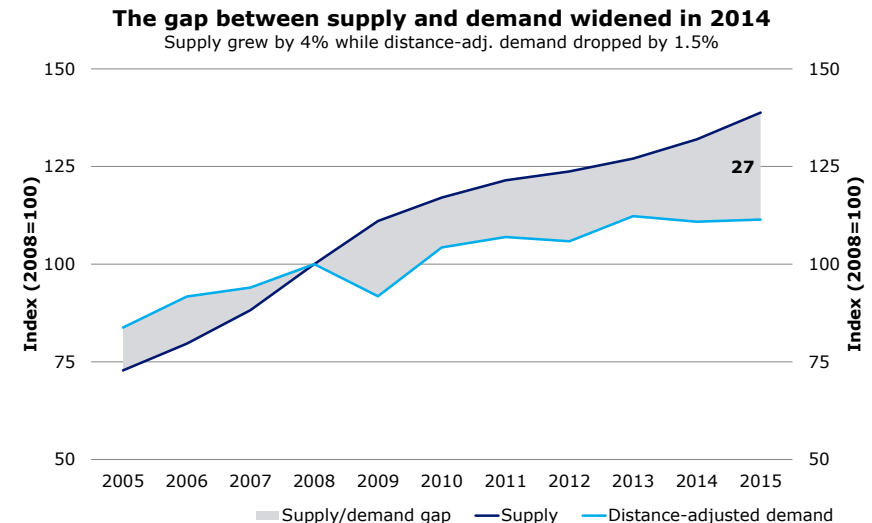
INTRA-REGIONAL TRADE DOMINATES THE ASIAN MARKET

Asia continues to play a dominant role in the market for seaborne petroleum products, soaking up a significant number of vessels for intra-regional trade in particular. Although the overall region showed 2% decrease in seaborne imports of petroleum products in 2014, it still accounts for 35% of total seaborne volumes of petroleum products (fig. 7).

INCREASED FOCUS ON TRADE WITH NEIGHBOURING REGIONS IN 2014

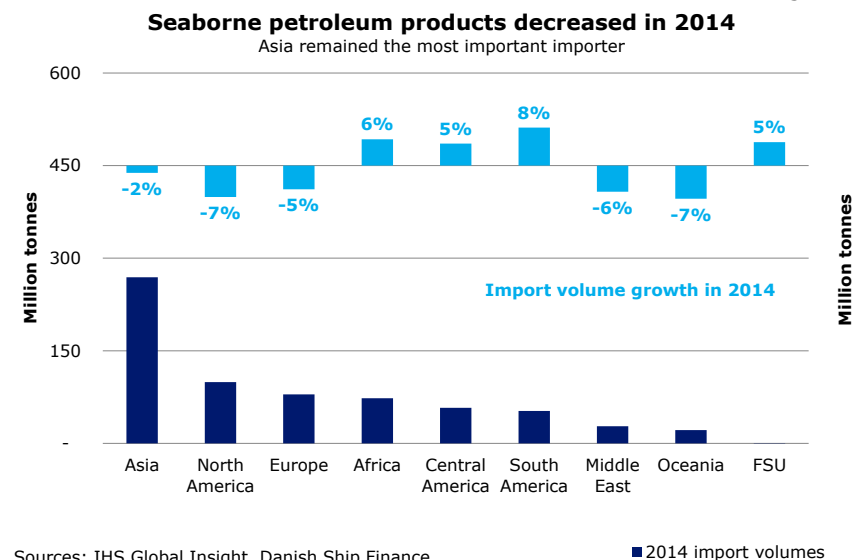
Regions such as Africa and Central and South America, on the other hand, are far more dependent on inter-regional trade, as downstream investments such as refineries have been insufficient to support rising domestic consumption. In 2014, imported volume growth for these regions exceeded growth in distance-adjusted demand, indicating that average travelling distances decreased as neighbouring regions increased their market shares. Of these regions, South America showed the largest growth in volumes of imported seaborne petroleum products in 2014 of 8% to a total of 55 million tonnes (fig. 7).

Figure P.6



Sources: Clarksons, IHS Global Insight, Danish Ship Finance

Figure P.7



Sources: IHS Global Insight, Danish Ship Finance

Brazil, the region's largest consumer, continues to show resilient import figures, despite the partial start-up of its Abreu e Lima refinery in November and its weak economy. Still, subsidised prices on petroleum products boosted domestic demand, while a persistent drought in most of the country required the government to increase imports of particularly fuel oil in order to offset a decline in hydropower generation.

US IMPORTS REACHED PRE-RECESSION LEVELS IN 2015

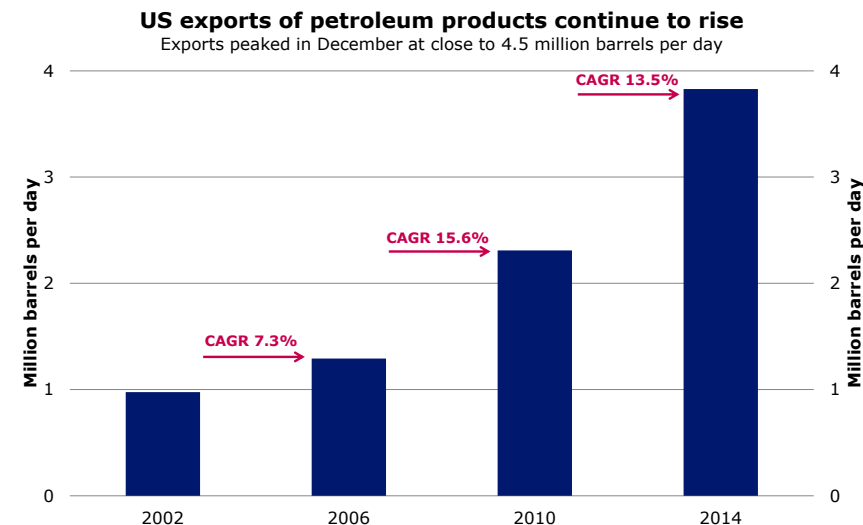
US exports of petroleum products reached a new record high in 2014 after continuous growth throughout the year. Exports peaked at close to 4.5 million barrels per day in December, averaging 3.8 million barrels per day overall in 2014 (fig. 8). US imports, on the other hand, decreased by 7% on average in 2014. In the first quarter of 2015, however, US imports recovered as a combination of increasing demand and refinery outages drew in more imports, especially from Europe. Unusually, even diesel cargoes found their way to the US as the Atlantic arbitrage flow reversed for a short period. The reason for this rare occurrence was the double-whammy of refinery unit outages triggered by very cold weather and the largest US refinery strike since 1980, involving 12 refineries or one-fifth of domestic capacity.

Besides subduing production, the colder than usual winter drove up heating oil consumption at the same time as the new ECA regulations boosted demand for marine gas oil. One reason for the successful implementation of the new regulations might be that the drop in crude oil prices has reduced additional bunker costs associated with the switch from regular bunker fuel to marine gas oil to a level equal to non-compliance penalties. The lower oil prices have also encouraged more private consumption as motorists have added mileage and begun buying larger vehicles. Altogether, these factors have brought about some imbalances between supply and demand, increasing the import requirements to the US, the East Coast in particular.

TANKER DEMAND HELPED BY LOWER AND MORE VOLATILE OIL PRICES

Lower crude oil prices have supported robust refining margins, encouraging refiners to process as much crude oil as possible.

Figure P.8



Sources: EIA, Danish Ship Finance

Throughputs in Europe, Asia and Oceania were almost 2 million barrels per day higher at the beginning of 2015 than in the same period in 2014. Firm refinery throughputs have not yet led to any large build-up in petroleum product inventories, though, indicating that oil demand is strong enough to absorb the extra supplies. Consequently, demand for product tankers has been boosted by increased transport requirements. In conjunction with declining oil prices, prices on petroleum products have become more volatile, causing regional arbitrage windows to be opened and closed more frequently and hence intensifying trading activity. The result of this has been that voyage durations have increased, supporting demand for product tankers.

CONTRACTING ACTIVITY SLOWED CONSIDERABLY DURING 2014 AND THE FIRST QUARTER OF 2015. IF THIS DEVELOPMENT CONTINUES, IT MAY PROVIDE A GLIMMER OF HOPE FOR THE PRODUCT TANKER MARKET IN THE COMING YEARS.

CONTRACTING SEEMS TO BE SLOWING DOWN CONSIDERABLY

Since 2013, contracting has returned to a more sustainable level, and in 2014 a total of 6 million dwt was contracted. Unlike in previous years, contracting was almost equally divided between the three segments. Historically, most newbuilding contracts have been placed in the first quarter, making it a good indicator for total contracting. In the first quarter of 2015 close to 2 million dwt was contracted, 22% less than in the same period in 2014, raising hopes that contracting has slowed down even further and that the market balance can be restored in the future. Despite the lower contracting level in 2014, the average delivery time rose slightly, to just over two years. However, if contracting remains low, we expect average delivery times to drop below two years again (fig. 9).

MORE FOCUS ON SECONDHAND VESSELS HAS CAUSED PRICES TO RISE

In tandem with the considerable improvement in the freight rate market, owners' appetite for secondhand vessels has increased. Prices on secondhand vessels have followed suit and risen since the beginning of 2015. This is a change from 2014, when secondhand MR prices decreased slightly throughout the year, while secondhand LR2 prices increased. However, both secondhand and newbuilding prices were 18% and 9% higher on average in 2014 than in 2013, respectively.

PRICE/EARNINGS RATIOS REMAIN HIGH

At the end of 2014, price/earnings ratios dropped significantly as timecharter rates increased sharply at the same time as asset prices decreased. However, in the first quarter of 2015 rising secondhand prices caused price/earnings ratios to rebound. Current price/earnings ratios are still abnormally high compared with historical levels, indicating owners' willingness to pay for expected future earnings (fig. 10). However, if these expectations are not fulfilled, asset prices could decline as a consequence.

Figure P.9

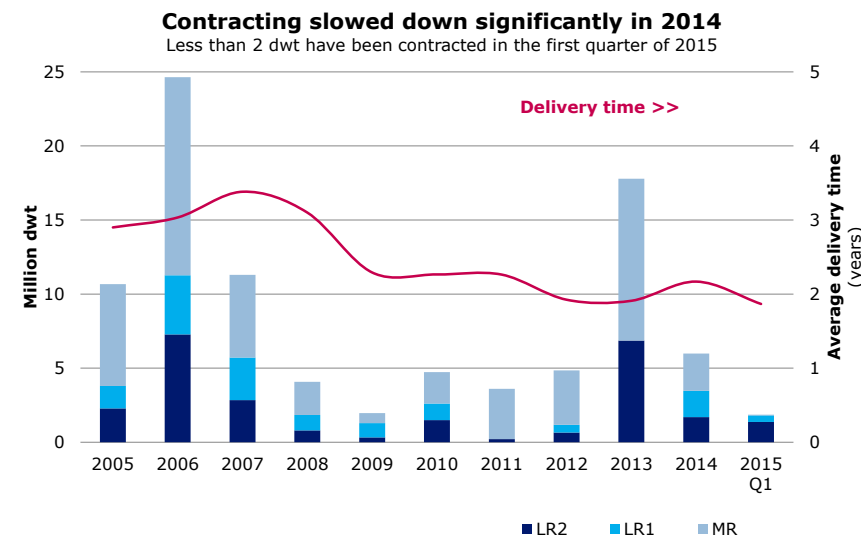
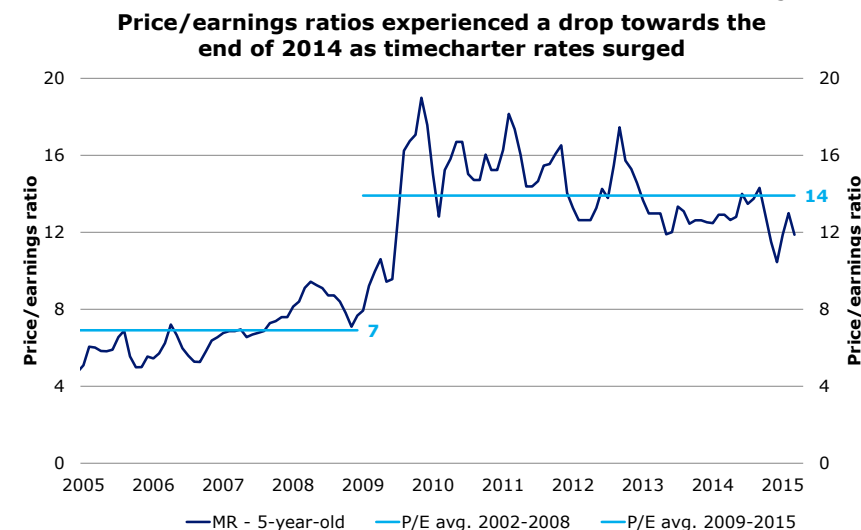


Figure P.10



OUTLOOK

DISTANCE-ADJUSTED DEMAND IS NOT SUFFICIENT TO OFFSET THE RELATIVELY HIGH INFLUX OF NEW VESSELS. HOWEVER, TEMPORARY FACTORS ARE CURRENTLY SUPPORTING THE PRODUCT TANKER MARKET. IF THESE DISAPPEAR, THE PRODUCT TANKER MARKET MAY BE HEADING FOR A VERY ROUGH PATH IN THE COMING YEARS.

THE MAJORITY OF THE FLEET IS BELOW THE AGE OF TEN

After the ordering spree in 2013, contracting dropped to a more sustainable level in 2014. The orderbook-to-fleet ratio has remained largely unchanged since the beginning of 2014. As of April 2015, the orderbook totals 24 million dwt, representing 18% of the fleet. Roughly 10 million dwt is scheduled for delivery this year, while an equal amount is scheduled to be delivered in 2016. The remainder is scheduled for 2017. It should be noted that the MR orderbook is balanced by the number of vessels above the age of 15, while the LR1 and LR2 orderbook contains between four to six times as many vessels as there are vessels above the age of 15 in their respective fleets. Overall, only 10% of the product tanker fleet is more than 15 years old (fig. 11), making it impossible for the orderbook to be absorbed unless premature scrapping increases or demand picks up significantly. In general, this does not bode well for the product tanker market.

FLEET GROWTH IS EXPECTED TO RISE FURTHER IN THE COMING YEARS

As mentioned above, 20 million dwt is scheduled to be delivered during the remainder of 2015 and 2016 combined. For each year we assume a delivery ratio of 67%, the same as in 2014. The remaining 33% is postponed to the following year. Consequently, we expect a total of 18.6 million dwt to be delivered to the fleet in 2015 and 2016. Scrapping will of course counterbalance some of this. However, by assuming that a vessel becomes a scrapping candidate the year before its next special survey, starting at the fourth, we only identify roughly 3.5 million dwt of potential scrapping candidates in each of the next two years. Moreover, we only expect two-thirds of these to actually be scrapped. This will result in net fleet growth of 5%, equivalent to 7 million dwt in 2015 and 2016 (fig. 12).

Figure P.11

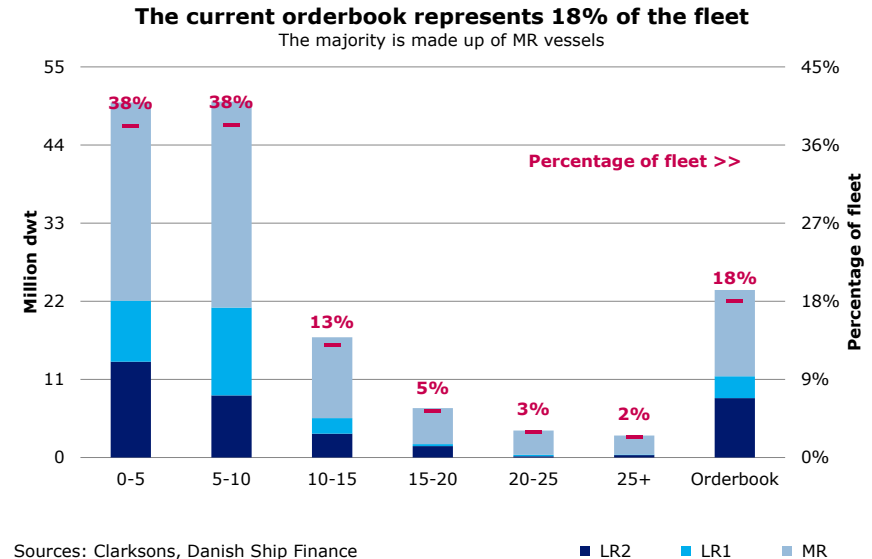
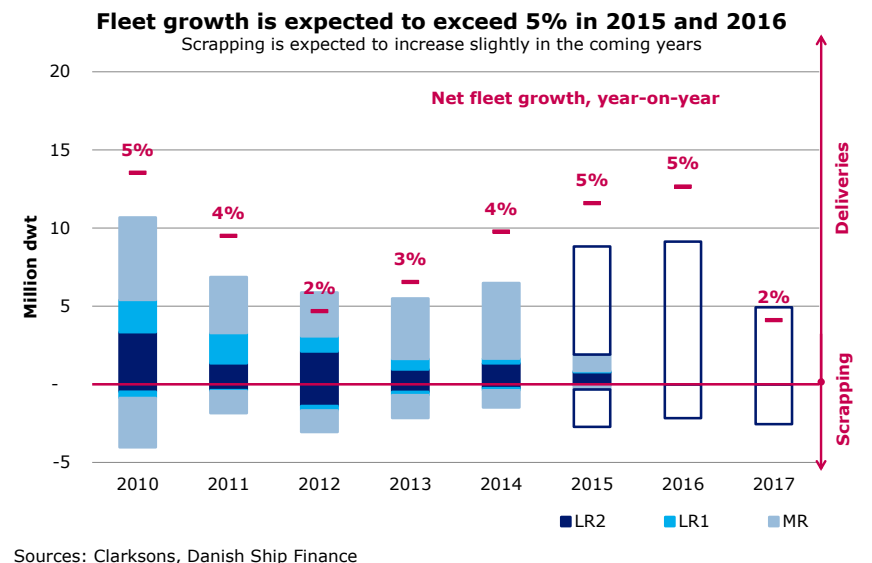


Figure P.12



DEMAND GROWTH FOR SEABORNE PETROLEUM PRODUCTS SET TO RISE

Growth in demand for seaborne petroleum products is expected to grow by 1.9% in the coming years (fig. 13). Asia is expected to continue to soak up an increasing number of product tankers, but import requirements from most other regions are also expected to rise, albeit on a much smaller scale, volume-wise (fig. 14). Average traveling distances are expected to decrease slightly as exporters increasingly focus on neighbouring regions in order to minimise transportation costs (fig. 15). However, temporary factors could spur demand for product tankers further. For instance, more volatile oil prices could boost trading activity as regional arbitrage windows could be opened and closed more frequently. Furthermore, a significantly improved crude tanker market could increase vessel substitution, i.e. more product tankers could start carrying crude oil.

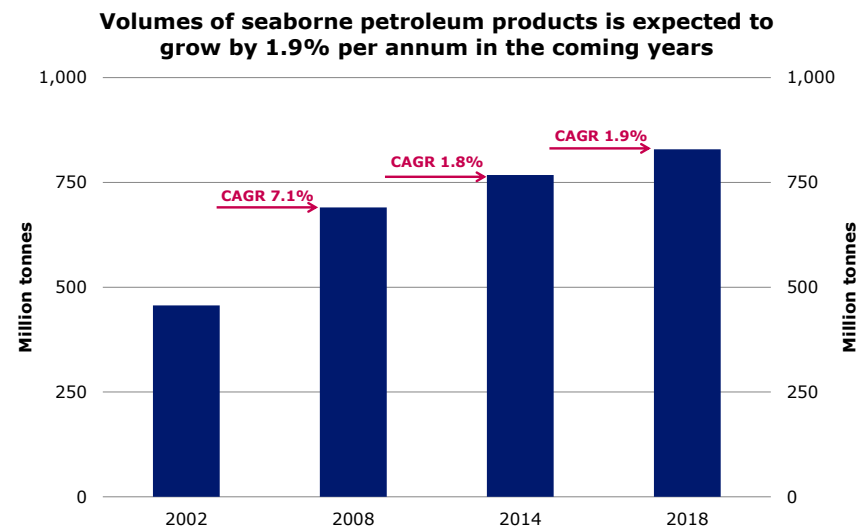
LOWER OIL PRICES ARE EXPECTED TO BOOST DEMAND

Since June 2014, crude oil prices have fallen sharply, and prices of petroleum products have followed suit, though with a persistent lag. Lower prices are one of the main factors behind the expected strengthening in demand for seaborne petroleum products and recent observations already paint a much healthier demand picture. Take Europe for example: despite an elevated level of refinery throughput, petroleum product stocks have remained fairly stable, indicating robust oil demand in the region. The situation is similar in India and South Korea, where gasoline demand is experiencing double-digit growth rates, while it is quite strong in China too. In the US, gasoline consumption is now close to its former highs (fig. 16).

EXPECTED DEMAND FOR GLOBAL PETROLEUM PRODUCTS IN 2015

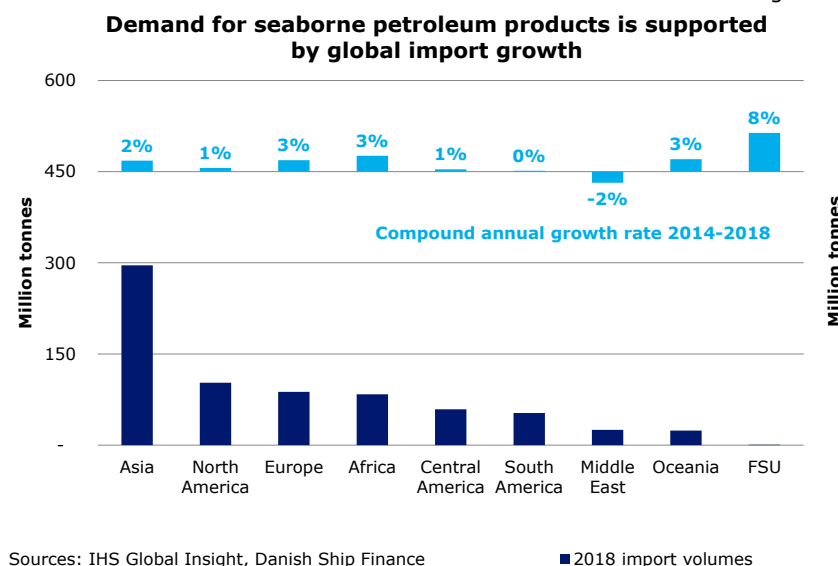
From a seasonal perspective, demand in the spring tends to be softer as winter-related consumption fades. Going into the second half of the year, however, demand could grow significantly as improving economic conditions, lower unemployment and lower pump prices could boost consumption even further than normal. In particular, the upcoming summer driving season in the US could prove very strong as lower oil prices have already led motorists to add mileage and buy larger, less efficient vehicles.

Figure P.13



Sources: IHS Global Insight, Danish Ship Finance

Figure P.14



Sources: IHS Global Insight, Danish Ship Finance

WORLD-CLASS REFINING HUBS ARE EXPECTED TO SUPPORT DEMAND

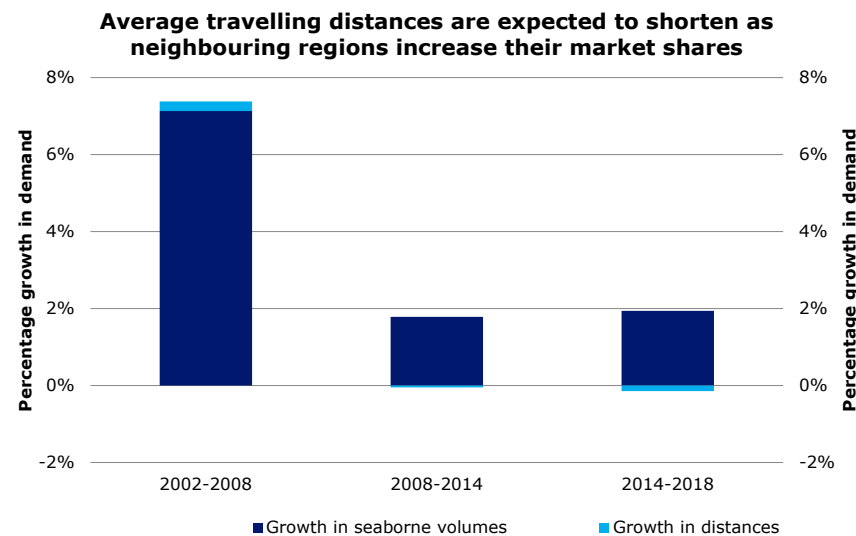
World-class refining hubs in Asia, the Middle East and the US are expected to become increasingly important in the market for seaborne petroleum products. These new refining hubs will consist of highly complex refineries enjoying economies of scale and, for Middle Eastern and US refineries, also easy access to feedstock. This will make them very competitive and able to outperform less complex refineries. We have already seen evidence of this development. In the European refining industry around 1 million barrels per day of capacity have been shut down within the last five years, while the remaining refineries are operating at lower utilisation rates. A similar situation has arisen in Japan and Australia, where several refineries have shut down in the last couple of years. Consequently, demand for product tankers is expected to be driven to a large extent by a relocation of refineries rather than an above average rise in the production of petroleum products.

SEVERAL CONDENSATE SPLITTERS ARE SET TO START UP IN THE US

US refineries have long enjoyed economies of scale, easy access to terminals and state-of-the-art technology, but their access to new, unconventional sources of crude oil has given them an additional competitive advantage in the form of cheaper feedstock and lower energy costs. With a decline in domestic consumption, the US has become the world's largest exporter of petroleum products.

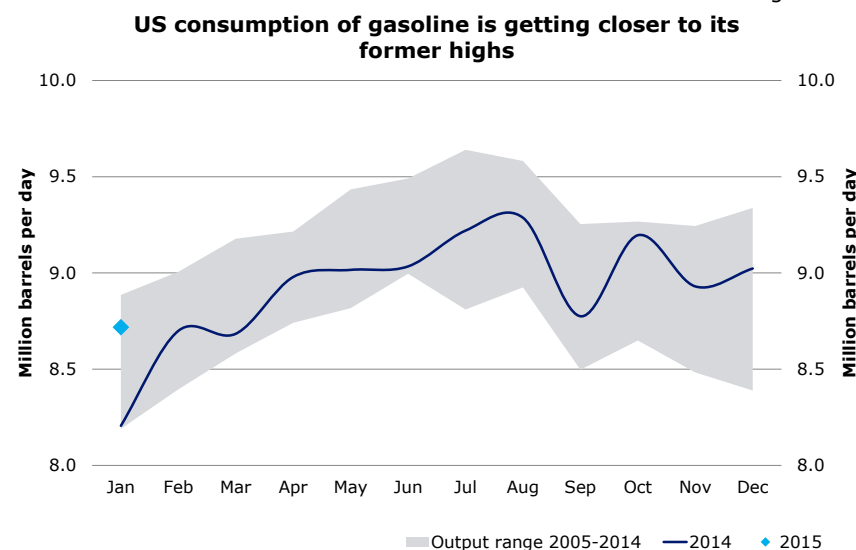
Several new distillation units, more specifically condensate splitters, are expected to start up in the US between 2015 and 2016, providing further support for US product tanker trade (fig. 17) (see Shipping Market Review – November 2014 for further details). A condensate splitter is a cheaper and simpler form of processing crude oil compared with building a standard crude distillation unit, and its throughput generally requires further processing before use. Consequently, lightly processed condensate will form part of the refineries' feedstock on a par with more regular crude oil grades. This means that demand for product tankers may rise further as they could become involved in the entire process, from supplying the refinery with feedstock to shipping petroleum products to consumers.

Figure P.15



Sources: IHS Global Insight, Danish Ship Finance

Figure P.16



Sources: EIA, Danish Ship Finance

ASIA'S REFINERY ADDITIONS TO SUPPORT INTRA-REGIONAL TRADE

In Asia, significant growth in demand for petroleum products was the key driver behind its plans for refinery capacity. Consequently, most new refineries will be focusing on supplying the domestic market, while a few will also be increasingly export-driven. Recently, Asia has experienced slowing regional demand for petroleum products, making several new refinery projects superfluous. On the back of this development, refinery capacity expansions in Asia has been scaled back by more than 1 million barrels per day, but 2.5 million barrels per day of new refining capacity is still expected to come online in the coming five years (fig. 17). This will lead to further intra-regional trade, but temporary discrepancies between regional supply and demand figures may occur for specific petroleum products, fostering inter-regional trade (see Shipping Market Review – November 2014 for further details).

MIDDLE EASTERN EXPORTS COULD INCREASE SUBSTANTIALLY

Regional growth in demand for petroleum products was also a key driver behind the Middle East's plans for refinery additions. However, the region also has the advantage of easy access to feedstock, enabling it to profit from domestic refinery capacity. This ability has made the Middle East more export-driven and consequently less reliant on domestic consumption. Middle Eastern refinery capacity is set to increase by 1.7 million barrels per day in the next five years (fig. 17), significantly more than regional demand growth. This is in line with the predicted decline in regional imports of petroleum products as the new refinery capacity is expected to make additional imports of petroleum products unnecessary given that it will be more than able to satisfy regional consumption growth (fig. 14). However, due to differing regional quality requirements, the Middle East could decide to maximise profits by exporting high-quality petroleum products, while importing cheaper low-quality petroleum products. This would likely increase trading activity and hence product tanker demand (see Shipping Market review – May 2014 for further details).

Refinery capacity additions in the Middle East are expected to support inter-regional trade, and exports of petroleum products

Figure P.17

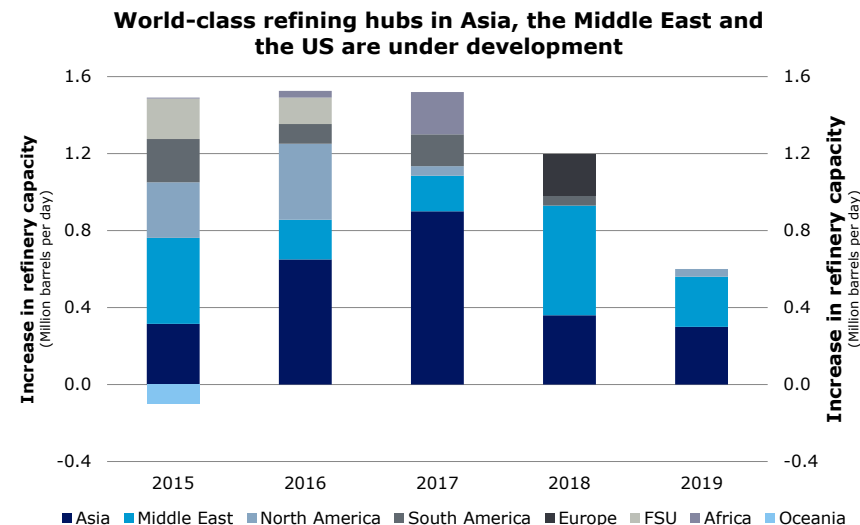
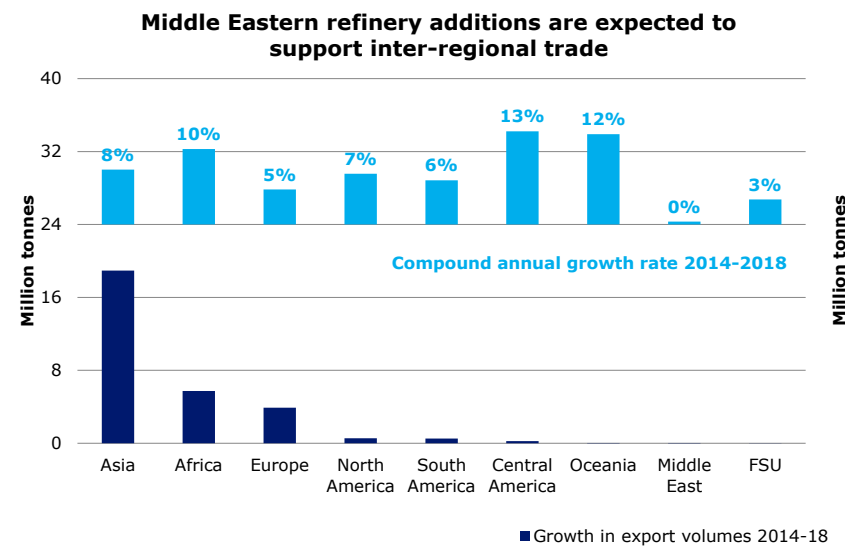


Figure P.18



are expected to increase by roughly half of the new refinery capacity over the coming five years or so (fig. 18). Diesel, in particular, will be the product of choice for exporters, as the new refineries will be configured to maximise diesel output, while domestic consumption seems to favour lighter distillates such as gasoline. Consequently, it seems that the configuration of these plants will be somewhat misaligned with predicted regional demand, which could mean that temporary imports of lighter distillates are required.

MIDDLE EASTERN CONSUMPTION IS ON THE RISE

Middle Eastern consumption of petroleum products has been rising fast and is, as mentioned, expected to continue growing in the coming years. This will be driven by a growing population, an expanding middle class and increasing consumerism, whereby a lack of public transport makes cars both a functional necessity and a symbol of wealth and status. Currently, car sales are experiencing double-digit growth rates. Consumption growth is being boosted further by huge oil subsidies, which besides supporting demand also encourage inefficiencies. If Middle Eastern countries succeed in implementing policies on energy efficiency and reduce the level of subsidies, demand growth could moderate, making more petroleum products available for the export market. These added volumes would be highly competitive on the world market and would likely replace domestically-produced petroleum products in, for instance, Europe. Consequently, demand for product tankers would increase.

UNDERLYING FACTORS COULD SUPPORT PRODUCT TANKER DEMAND

Product tankers earnings have declined but after relatively strong freight rates in the fourth quarter of 2015, they are still at an acceptable level. This has alleviated some of our concerns about the product tanker market in 2015, but the gap between supply and demand is still expected to widen. However, it seems that a shift in underlying factors such as lower and more volatile petroleum product prices has been able to provide some support for the market. If this development does not continue, the product tanker market may be heading for a rough path in 2016.

LPG TANKER

SHIPPING MARKET REVIEW – MAY 2015



DANISH
SHIP FINANCE

LPG TANKER

DURING 2014 DEMAND FOR LPG TANKERS WAS BOOSTED BY RISING ASIAN IMPORTS OF LONG-HAUL US LPG. ALTHOUGH DEMAND IS EXPECTED TO CONTINUE ITS POSITIVE DEVELOPMENT, A LARGE INFLUX OF NEW VESSELS, PARTICULAR VLGCs, IS SET TO PUT DOWNWARD PRESSURE ON FUTURE FREIGHT RATES.

FREIGHT RATES

2014 TURNED OUT TO BE THE BEST YEAR SO FAR FOR LPG OWNERS. FREIGHT RATES SOARED TO RECORD-HIGH LEVELS DURING THE SECOND QUARTER AND CONTINUED TO SURGE THROUGH MOST OF THE SUMMER MONTHS. SPOT RATES HAVE SINCE RETURNED TO A LOWER, BUT STILL SATISFACTORY, LEVEL. TIMECHARTER RATES, ON THE OTHER HAND, HAVE LARGELY STABILISED, WHILE THE VLGC TIMECHARTER RATE, HAS INCREASED AGAIN IN 2015.

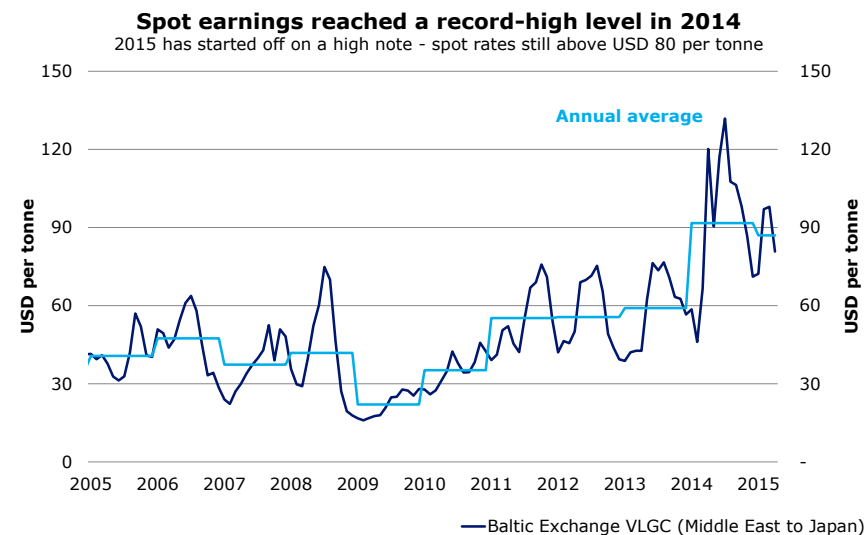
LPG SPOT RATES INCREASED 55% YEAR-ON-YEAR IN 2014

Spot rates rose as high as USD 132 per tonne on average in July 2014 on the benchmark route between the Middle East and Asia. This surge was not confined to this particular route, but benefited all other trading routes as well. Overall, the spot market was, on average, 55% above the level seen in 2013. Since the summer months, spot rates have dropped to a lower level in accordance with seasonal refinery maintenance. However, while freight rates often reach their lowest point in the year during the first quarter, spot rates unexpectedly gained momentum in the first quarter of 2015, averaging USD 90 per tonne, 56% higher than in the same period in 2014 (fig. 1).

TIMECHARTER RATES SOFTENED IN THE SECOND HALF OF 2014

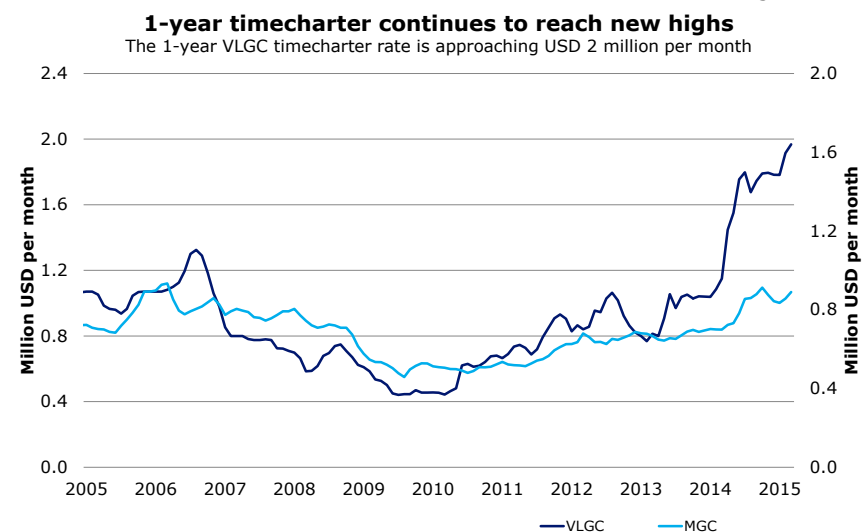
After its very strong run throughout the first half of 2014, the 1-year VLGC timecharter rate eased during the second half of the year, only to increase again in the first quarter of 2015. It is now approaching USD 2 million per month, the highest level ever recorded. The 1-year MGC timecharter rate has stabilised at around USD 1 million per month since the summer months (fig. 2).

Figure LPG.1



Sources: Clarksons, Danish Ship Finance

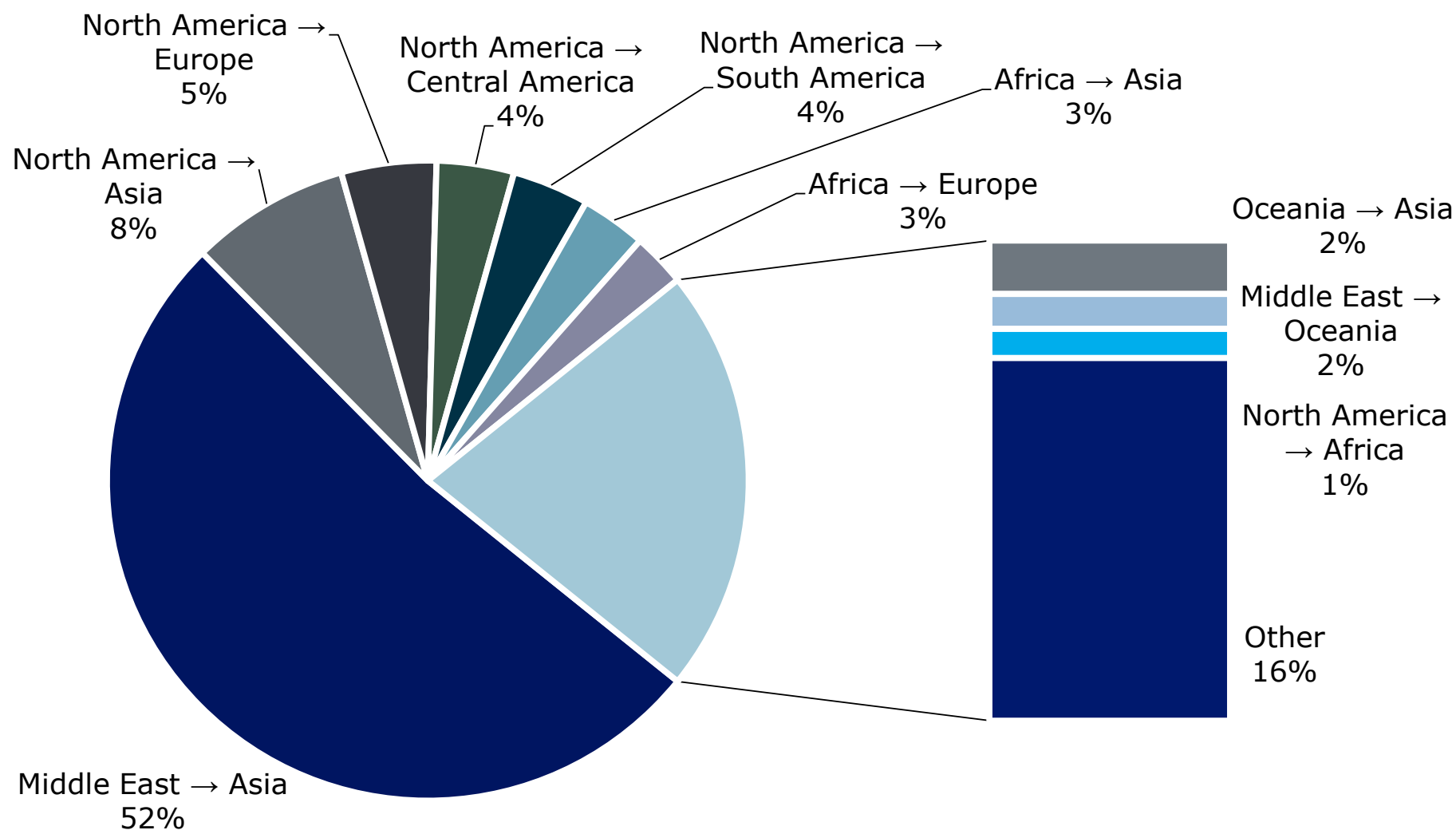
Figure LPG.2



Sources: Clarksons, Danish Ship Finance

Major LPG trades

(Measured in million tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

SUPPLY & DEMAND

DURING 2014, DISTANCE-ADJUSTED DEMAND FOR SEABORNE LPG VOLUMES OUTPACED SUPPLY GROWTH BY 11 PERCENTAGE POINTS. CONSEQUENTLY, UTILISATION RATES ROSE TO ALMOST 100%.

THE FLEET GREW BY LESS THAN 5% IN 2014 DUE TO POSTPONEMENTS

The LPG fleet expanded by nearly 5% in 2014, slightly less than the level we were expecting at the end of the third quarter (fig. 4). This slight decline was attributable to an increase in postponements during the fourth quarter. Postponements usually increase towards the end of the year, as owners prefer to receive vessels that, on paper, are one year younger, but this year the sharp drop in spot rates during the second half of 2014 might have given owners a further incentive to reschedule orders. Altogether, 24% of scheduled orders were postponed in 2014, while 2%, all of them SGC vessels, were cancelled. In total, almost 1.5 million Cu.M. was scheduled to enter the fleet in 2014, but only 1.1 million Cu.M. actually materialised, resulting in a delivery ratio of 74% (fig. 5). As expected, deliveries have picked up in 2015, and in the first quarter alone, they have already exceeded 0.5 million Cu.M., half the level seen for the whole of 2014.

SCRAPPING CONTINUES TO BE SUBDUED

The record-high freight rate market discouraged owners from scrapping vessels in 2014. Consequently, scrapping remained low at less than 0.15 million Cu.M. However, as freight rates came down from their previous highs in the second half of the year, scrapping picked up, and overall, was more than 50% higher in the second half of the year. Scrapping was mainly confined to the SGC segment, which had a higher proportion of older vessels than other segments. At the same time, the drop in freight rates was more pronounced in the smaller vessel sizes. Going into 2015, scrapping returned to a minimal level, with only two SGC vessels sent to the scrapyards in the first quarter (fig. 4). The average scrapping age remained high in 2014 and so far in 2015 it has been 28 years, i.e. two years below the vessels' expected operating lifetime. This is an increase of one year compared with 2013.

Figure LPG.4

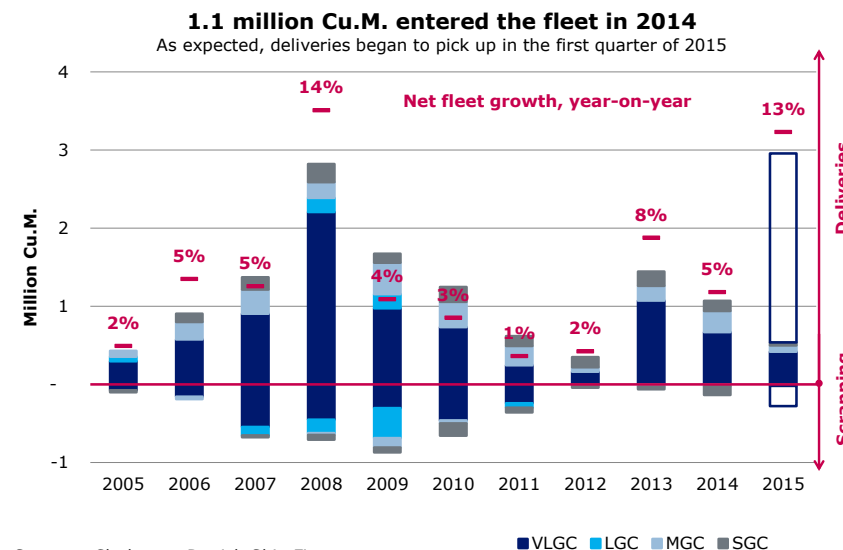
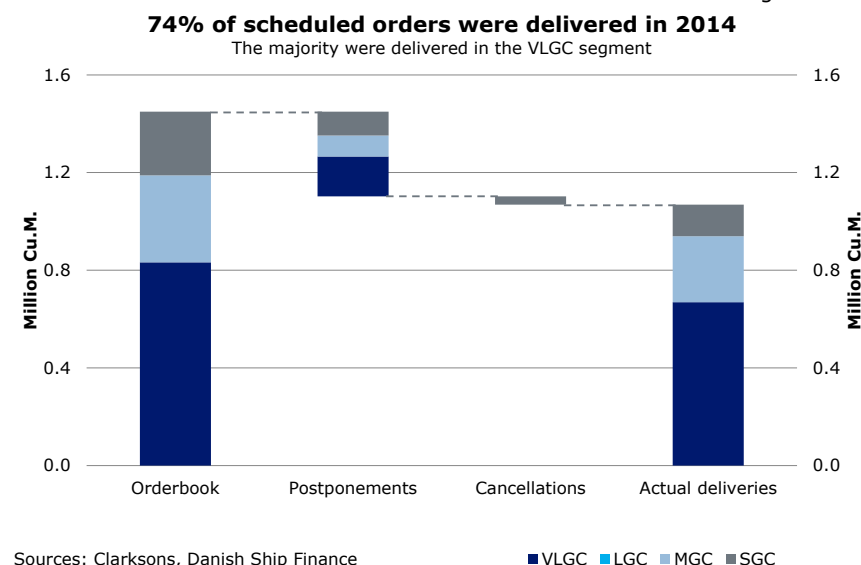


Figure LPG.5



UTILISATION REACHED CLOSE TO 100% IN 2014

Seaborne LPG volumes grew by a massive 14% in 2014, boosted by impressive demand growth from the petrochemical sector, in particular. On top of that, demand for LPG tankers increased as a result of longer average travelling distances. Overall in 2014, distance-adjusted demand increased by 16%, 11 percentage points above supply growth. Utilisation rates in the LPG market thus reached close to 100% during certain periods in 2014 and LPG tankers increased their speeds slightly in order to keep up with demand. Speeds, though, are still significantly lower than before the financial crisis and were reduced further in the first quarter of 2015 in anticipation of the recurrent seasonal drop in demand (fig. 6). However, the rapid slowdown in speeds may have contributed to the unusual situation of freight rates actually picking up in the first quarter of 2015.

ASIA'S SEABORNE LPG IMPORT VOLUMES GREW BY 9% IN 2014

In 2014, Asia increased its imports of seaborne LPG volumes by 9% to 38 million tonnes, and hence accounted for close to 60% of the total market for seaborne LPG volumes, making it the main driver of growth in seaborne LPG trade (fig. 7).

NORTH AMERICA IS GAINING MARKET SHARES IN ASIA

The Middle East remains the leading supplier of LPG to the Asian market, but North America, the US in particular, is gaining market share (fig. 8). The reason for this is that competitively-priced US LPG is becoming increasingly attractive at the same time as Asian countries are looking to reduce their dependence on the Middle East. This shift is supporting distance-adjusted demand and the route from North America to Asia has been the single largest contributor to growth in distance-adjusted demand in the last two years.

PANAMA TRANSITS INCREASED IN 2014

The main route from North America to Asia is round Cape Horn, as very few VLGC tankers are able to pass through the Panama Canal. During 2014, however, this route became unviable as the LPG price spread between the US and Asia was insufficient to cover the additional transportation costs. Consequently, transits through the Panama Canal increased. However, for this trade to be profitable, economy of scale is still important. Hence, four so-

Figure LPG.6

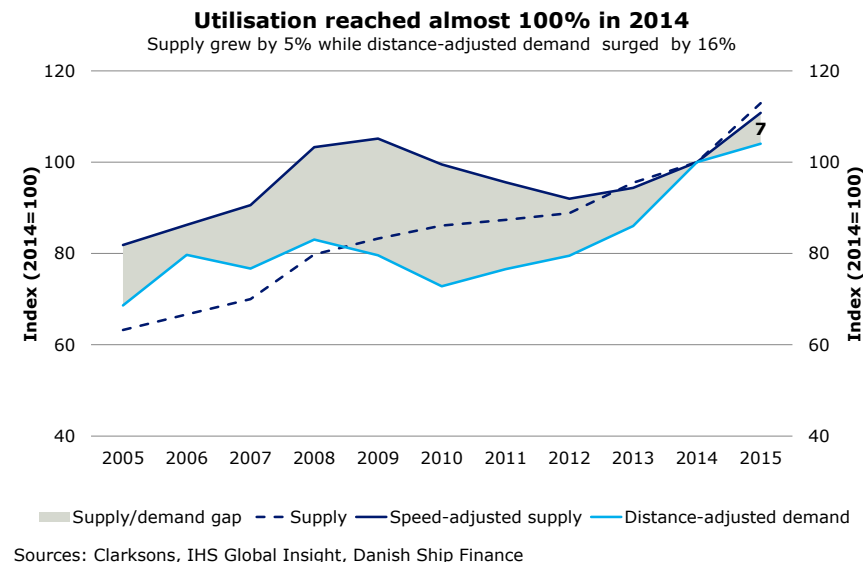
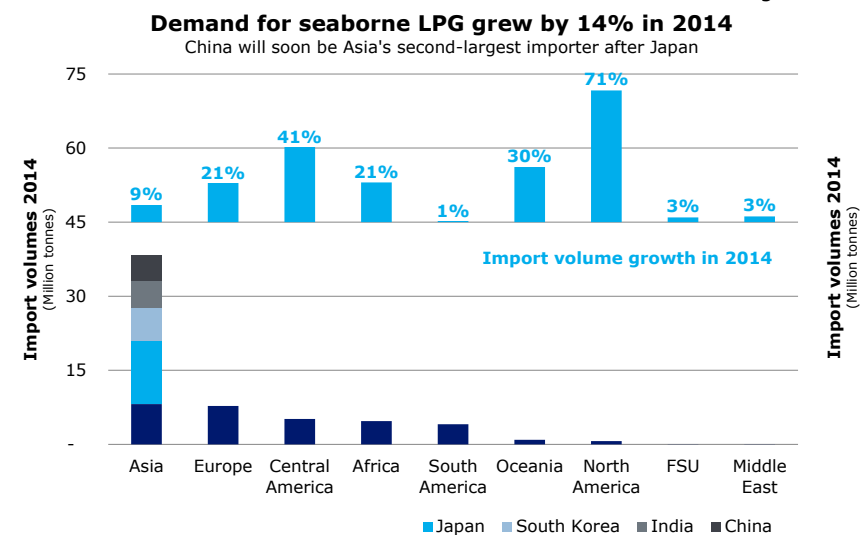


Figure LPG.7



called Panamax VLGCs – possibly the only ones of their kind – were utilised to navigate the existing Panama Canal. After transiting the Canal, the vessels discharged their cargoes directly onto more traditional VLGCs waiting outside Balboa (a district of Panama City, located at the Pacific entrance to the Panama Canal). These VLGCs then transported the cargoes to their final destinations in Asia. While this of course reduced average travel distances, the distances on this route were still significantly longer than those from the Middle East to Asia, supporting distance-adjusted demand. Furthermore, ship-to-ship transfers outside Balboa provided extra waiting time, prolonging voyages and reducing the cargo-carrying capacity of the fleet. The increased number of transits through the Panama Canal in 2014 could also mitigate the effect on the market when the expansion of the Panama Canal finally takes place in 2016, as the market seems to have already factored in the shorter travelling distances.

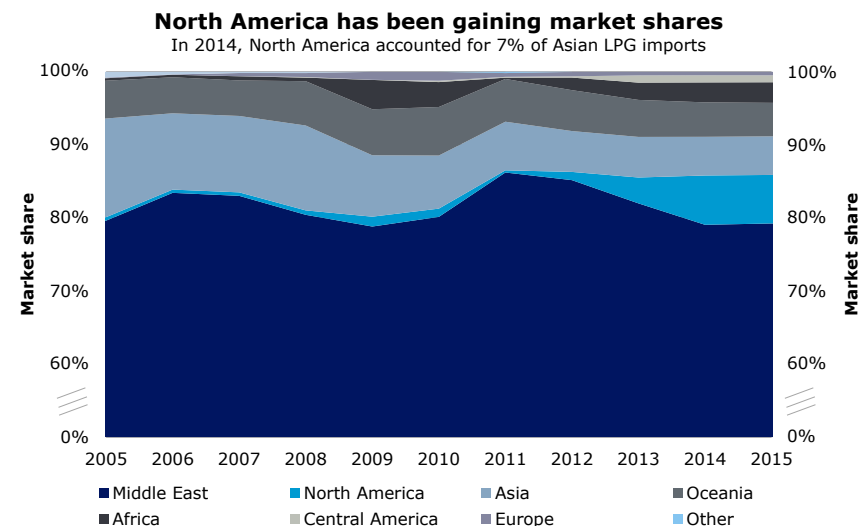
CHINA'S IMPORTS OF LPG SURGED IN 2014

In 2014, three new propane dehydrogenation plants began operating in China, along with a fourth in the first quarter of 2015. A propane dehydrogenation plant converts propane into propylene, a key component in the manufacture of plastics and other petrochemical products. This development caused Chinese LPG imports to increase by more than 20% in 2014, as additional domestic LPG production was not nearly sufficient to support the high feedstock and stockpiling requirements at these propane dehydrogenation plants.

INDIA'S IMPORTS ARE EARMARKED FOR HOUSEHOLD CONSUMPTION

India's seaborne LPG imports also surged in 2014, due to two factors. Firstly, a policy adjustment relaxing India's subsidy cap to 12 cylinders containing 14.2 kg of LPG per year, up from nine cylinders, promoted a 10% rise in household consumption. Secondly, there was no significant change in refinery capacity and thereby no significant change in domestic LPG production in 2014. In previous years, domestic consumption growth has been partly offset by additional domestic LPG production, but that was not the case in 2014. Thus, the growth in LPG demand had to be met by additional seaborne LPG imports.

Figure LPG.8



Sources: IHS Global Insight, Danish Ship Finance

JAPANESE IMPORT REQUIREMENTS INCREASED SLIGHTLY IN 2014

Overall, Japanese LPG consumption is tailing off, but Japan is still Asia's largest importer by far (fig. 7). In 2014, imports increased marginally as domestic LPG production declined. This decline was triggered by a combination of lower refinery utilisation rates and a drop in domestic refinery capacity. Domestic refinery capacity dropped 12 million tonnes as refiners opted to remove capacity rather than carry out expensive refinery upgrades, which are necessary in order to comply with new government regulations. These regulations require refiners to increase the volume of high-value fuels, like gasoline and diesel, at the expense of the output of low-value products. Furthermore, falling domestic demand and limited scope for export growth have squeezed margins, making the refining business even less attractive. This is also the reason the remaining refineries have lowered their utilisation rates.

CONTRACTING HAS TAKEN A QUANTUM LEAP IN THE LAST TWO YEARS. HOWEVER, SINCE THE BEGINNING OF THE THIRD QUARTER IT HAS SUBSIDED, SPARKING HOPES THAT IT WILL RETURN TO A LOWER AND MORE SUSTAINABLE LEVEL IN THE COMING YEARS. AS A RESULT OF THE POSITIVE SENTIMENT IN THE LPG MARKET, SECONDHAND VESSELS ARE ALSO IN HIGH DEMAND, CAUSING SOME SECONDHAND PRICES TO SURPASS NEWBUILDING PRICES.

CONTRACTING HAS DECLINED TO A MINIMAL LEVEL IN 2015

Contracting remained at a high level in 2014, with a massive 6 million Cu.M. contracted. This was close to four times higher than the average annual level in the last ten years. Contracting was highest in the first half of the year on the back of the freight rate market surging to an all-time high. In the second half of 2014 contracting started to slow as freight rates began to ease, highlighting that the market is highly vulnerable to sudden changes in freight rates. Contracting has continued to slow and in the first quarter of 2015 less than 0.5 million Cu.M. was contracted (fig. 9). Despite the very high level of contracting seen in the last two years, the average delivery time has remained stable at around two years.

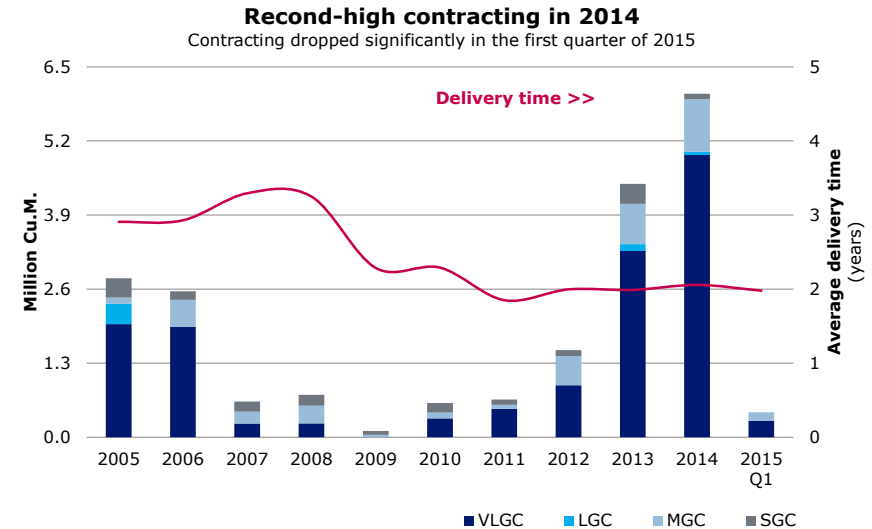
ASSET PRICES STABILISED IN THE SECOND HALF OF 2014

To take advantage of the record-high freight rate market, owners have increased their focus on secondhand vessels, causing prices to shoot up during 2014. As early as the second quarter of 2014, a 5-year-old VLGC was more expensive than ordering a newbuild. This situation has not been seen since the heyday of 2008. In tandem with a softer freight rate market in the second half of the year, asset prices stabilised, albeit still at a significantly higher level than the year before. In 2014, average newbuilding and secondhand prices were 6% and 10% higher, respectively, than in 2013, while a secondhand VLGC vessel, up to the age of five, was as much as 25% higher.

PRICE/EARNINGS RATIOS CAME DOWN FURTHER IN 2014

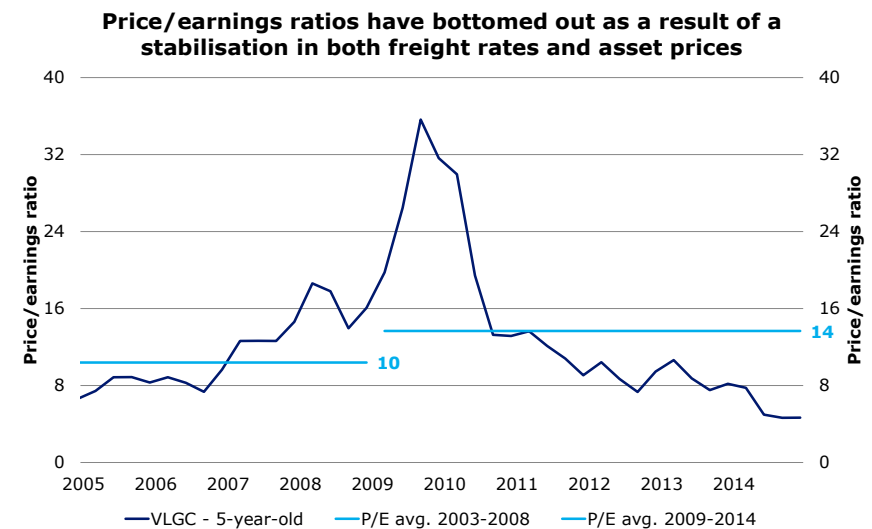
Asset prices have risen by less than freight rates, driving price/earnings ratios down to their lowest level ever (fig. 10). Ratios dropped below five as early as the second quarter of 2014 and have remained relatively stable since then.

Figure LPG.9



Sources: Clarksons, Danish Ship Finance

Figure LPG.10



Sources: Clarksons, Drewry, Danish Ship Finance

OUTLOOK

SUPPLY GROWTH IS EXPECTED TO EXCEED DISTANCE-ADJUSTED DEMAND GROWTH IN THE COMING YEARS, LOWERING UTILISATION RATES FROM THEIR CURRENT HIGHS. THIS IS BOUND TO HAVE A NEGATIVE IMPACT ON FREIGHT RATES.

The future of the LPG market is shrouded in uncertainty. Today, the freight market is strong and the outlook for demand seems promising. However, dark clouds have been building up on the supply side. The orderbook-to-fleet ratio equals 51%, and almost 100 VLGCs are scheduled to enter the fleet within the next three years (fig. 11). Given that the current VLGC fleet comprises 170 vessels, it seems obvious that there is little room for demand to disappoint. Clearly, it is all about timing. The market fundamentals could remain in a delicate balance, but if supply outpaces demand, we may see strong short-term corrections to freight rates, such as those seen during the second half of 2008.

THE ORDERBOOK NOW EQUALS 51% OF THE CURRENT FLEET

An orderbook-to-fleet ratio of 51%, equivalent to 10 million Cu.M., is the highest level ever recorded. All else being equal, if the orderbook is delivered according to schedule, i.e. within the next three years, more than 50% of the fleet will be below the age of five by 2017, making the age distribution of the LPG fleet resemble that of the Dry Bulk fleet. Scrapping may alleviate some of the pressure that the delivery of the orderbook is bound to have on the freight rate market. The technical operating lifetime of LPG vessels is expected to be around 30 years, as these vessels' purer cargoes enable them to trade at an older age. Only 4% of the current fleet is older than 25, while 18% is older than 20, limiting the number of possible scrapping candidates (fig. 11).

FLEET GROWTH WILL REACH A NEW RECORD HIGH IN 2016

We expect scrapping to remain subdued in the coming years, having only identified an average of 0.7 million Cu.M. of potential scrapping candidates in each of the coming three years. This figure includes vessels approaching their next special survey, starting at the fifth. We assume that only a quarter of these will actually be sent to the scrapyard, and therefore we see little to indicate that future deliveries can be counterbalanced.

Figure LPG.11

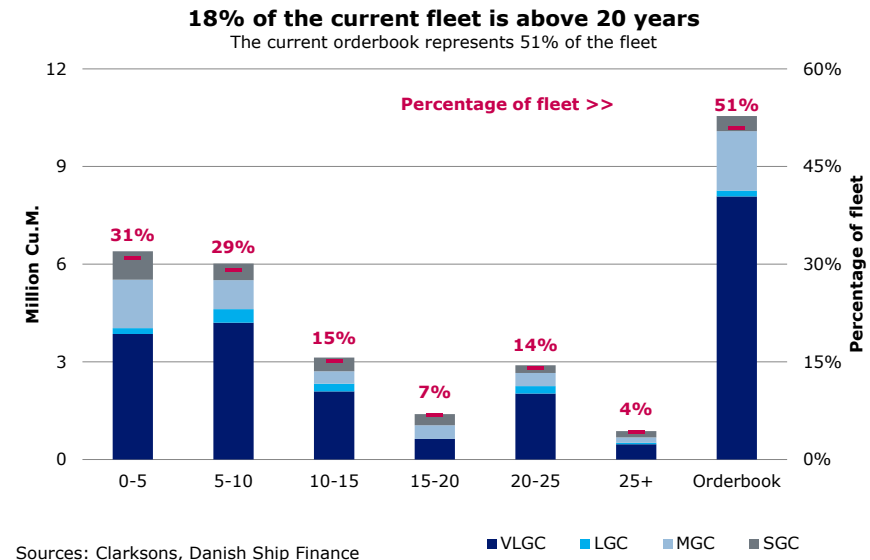
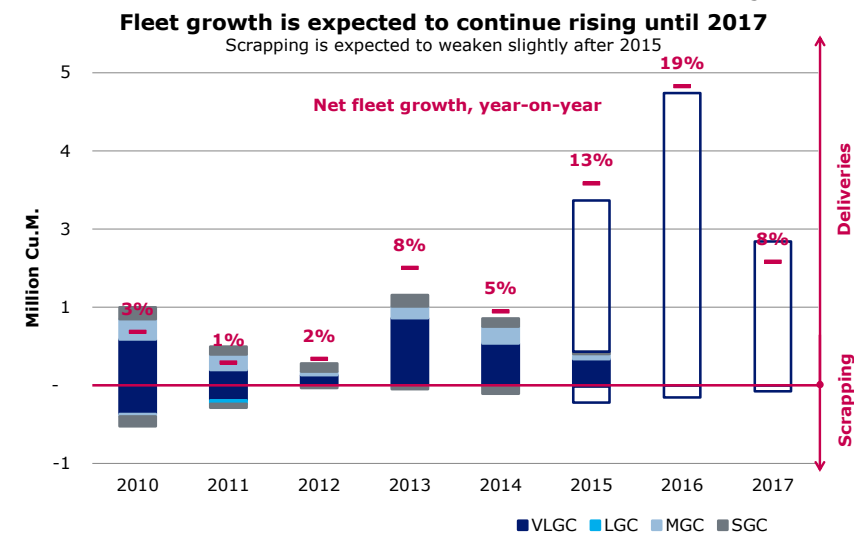


Figure LPG.12



Given that the average delivery time has remained stable despite the record-high level of contracting, there is a chance that postponements may stay fairly high. Thus, we expect only three-quarters of the orderbook each year to actually materialise, and the remaining quarter to be postponed. This results in double-digit fleet growth in the next two years, with a new record high of 19% being reached in 2016 (fig. 12).

STRONG GROWTH IN SEABORNE LPG VOLUMES IS EXPECTED

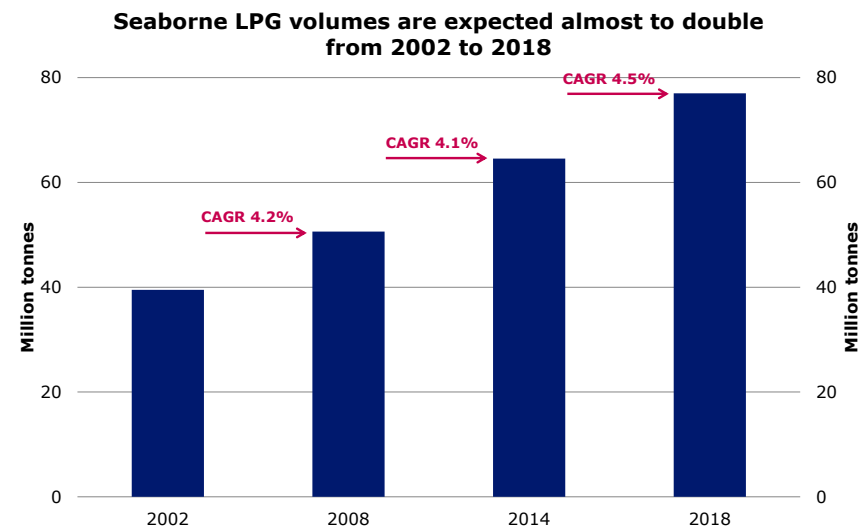
Seaborne LPG volumes rose by more than 60% from 2002 to 2014 and are expected to rise by another 20% or so from 2014 to 2018, resulting in almost a doubling of seaborne LPG volumes in the period from 2002 to 2018 (fig. 13). Growth in seaborne LPG volumes is expected to move in tandem with the development of new export capacity and higher import requirements. Longer average travelling distances are also expected to contribute to demand for LPG tankers, as more US LPG exports find their way to Asia.

Roughly speaking, the LPG market is split into importers and exporters, limiting the opportunities for triangulation and making ballast time an important factor in the market. Although ballast/laden ratios may not change significantly in the coming years, longer travelling distances mean more ballast time. Ultimately, the cargo-carrying capacity of the fleet is expected to decrease, which means that for volumes to be maintained more vessels are required.

LPG IN THE PETROCHEMICAL INDUSTRY

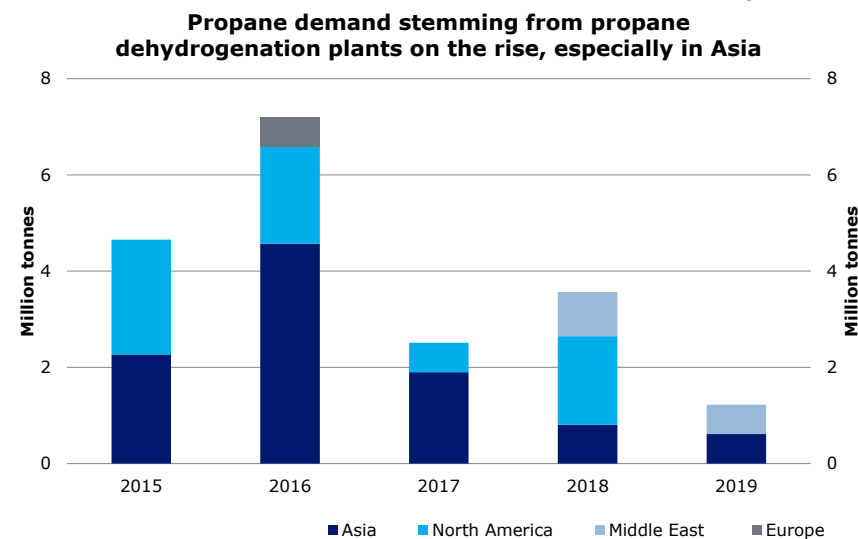
In the petrochemical industry, feedstocks such as naphtha, LPG (mainly propane and butane) and ethane are used in cracking units to produce different yields of, for instance, ethylene, propylene, butadiene, etc, all key elements in the chemical industry. Each feedstock generates a specific yield. For example, cracking ethane yields close to 100% ethylene, while naphtha yields a wider range of products. Cracking units in Asia are relatively inflexible in terms of their feedstock requirements, while those in Western Europe and North America are more versatile and thus able to switch more easily between feedstocks depending on which offers the most favourable prices and margins.

Figure LPG.13



Sources: IHS Global Insight, Danish Ship Finance

Figure LPG.14



Sources: Platts, Danish Ship Finance

LOWER OIL PRICES POSE A THREAT TO PETROCHEMICAL LPG DEMAND

A key driver of LPG demand in the petrochemical industry is its price compared with alternative feedstocks. The reason for this is that its yield – ethylene, propylene, etc – is less profitable than the naphtha yield. Hence, buyers only have an incentive to substitute naphtha with LPG if the price of LPG is lower. As a rule of thumb, LPG is a viable alternative to naphtha if its price is around 90% of that of naphtha or when it is more than USD 50 per tonne cheaper. In addition, the price difference must be able to cover the extra costs associated with the transport of LPG. Crude oil prices and hence naphtha prices have fallen sharply since June 2014, narrowing the price spread between LPG and naphtha significantly. If the spread remains narrow for a prolonged period, cracking units may opt to use only naphtha, and additional projects requiring LPG – both cracking units and propane dehydrogenation plants – may be at risk. However, in tandem with lower feedstock prices, plastics prices have decreased as well, with a positive impact on demand.

MORE LPG DEMAND WILL COME FROM THE PETROCHEMICAL INDUSTRY

Currently, the petrochemical industry accounts for roughly 25% of global LPG demand. In the coming years, most, but not all, of the growth in LPG demand is expected to stem from changes in petrochemical use, more specifically from the development of cracking units and propane dehydrogenation plants, using LPG or ethane as feedstocks. Previously, naphtha was the most widely used feedstock in the petrochemical industry, but the increased availability of NGL (Natural Gas Liquids) – which, put simply, consists of all gaseous products except methane (which is also known as LNG) – has made LPG and ethane viable alternatives to naphtha, a petroleum product. This has boosted demand for LPG tankers.

SEVERAL CRACKING UNITS ARE EXPECTED TO COME ON LINE

Several cracking units are scheduled to begin operations in the coming five years. Most of these are expected to run on naphtha, but flexible crackers along with pure LPG and ethane crackers are becoming increasingly common.

NORTH AMERICA FAVOURS ETHANE CRACKING UNITS

Ethane cracking units are primarily being built in North America, particularly in the US, where the shale revolution has led to a surge in ethane production. As its use is limited almost entirely to the production of ethylene, ethane is relatively cheap compared with other feedstocks. Ethylene is the most important raw material in the downstream plastics industry and accounts for almost 50% of global chemical volumes. Ethylene prices are closely linked to the highest-priced feedstock used in its production. This is most often naphtha and hence the price spread between ethane and naphtha roughly determines the ethane cracking margin. Consequently, as long as US ethane is cheaper than naphtha, ethane cracking units in the US will be very profitable and the US will continue with its expansion plans. As a result of these expansion plans, the US might end up with excess supply of ethylene, which could result in rising ethylene exports. This could benefit the LPG market, as ethylene is usually transported on specialised LPG carriers designed to take cargoes at temperatures as low as -104 degrees Celsius and with a maximum tank pressure of 5.4 bar.

ASIA IS MAINLY FOCUSED ON DEVELOPING NAPHTHA CRACKING UNITS

Naphtha is still the preferred feedstock for cracking units in Asia, as it is domestically produced and yields a wide range of products, including ethylene, propylene and butadiene, used in the production of different materials ranging from PVC to detergents. However, both flexible and pure LPG cracking units are expected to begin operations in the coming years, increasing demand for seaborne LPG.

GROWING NEED FOR PROPANE DEHYDROGENATION PLANTS

Both North America and Asia are expected to invest in purpose-built propylene production capacity, as their domestic propylene production, for different reasons, is insufficient to satisfy domestic propylene demand (fig. 14).

NORTH AMERICA IS GROWING PROPYLENE PRODUCTION

In North America the change of feedstock from naphtha to ethane in cracking units has meant that production of propylene has fallen to an unsustainable level. Propylene is a key chemical building block second in demand only to ethylene. Consequently, the petrochemical industry in the US has several propane dehydrogenation plants planned in order to restore levels of propylene production. Even though this may increase domestic consumption of LPG, the shale revolution has resulted in ample supply of domestically-produced LPG and US LPG exports are expected to continue to increase in tandem with new export capacity. Much of the exported LPG is expected to be shipped long-haul to Asia to support the region's rising import requirements. It remains to be seen whether this will be shipped through the Panama Canal or around Cape Horn; it depends on transit costs and the LPG price spread between the US and Asia. In general, though, demand for LPG tankers on this route is expected to rise.

ASIA'S DEMAND FOR PROPYLENE IS EXPECTED TO SURGE

While overall demand for propylene in North America is expected to remain fairly unchanged, Asia is expected to experience a surge in propylene demand from the plastics industry. Consequently, Asia is also developing propane dehydrogenation plants. An estimated propylene capacity of almost 10 million tonnes is expected to come online in the next few years, which will require roughly 12 million tonnes of propane (fig. 14). Domestic propane production is considered to be insufficient to support the surge in demand, thereby making seaborne LPG imports a necessity. Several of these propane dehydrogenation plants have already signed term contracts for competitively-priced US LPG, boosting distance-adjusted demand.

EARNINGS MAY COME UNDER PRESSURE AS SUPPLY GROWTH SETS IN

A large influx of new vessels is expected to put downward pressure on freight rates in the coming years. However, very strong freight rates in the first quarter of 2015 have eased our concerns about overall earnings in 2015, although we are not out of the woods yet, as many newbuildings are expected to hit the

water during the second half of 2015. Next year could prove even more difficult, given that fleet growth is expected to reach a new record high of 19%. However, if demand from the petrochemical sector develops in accordance with current plans, this industry will be able to employ a significant portion of the scheduled orders. Nevertheless, we expect average freight rates to drop to a significantly lower level in 2016 and 2017.

CONSUMPTION-DRIVEN GDP CREATION MAY STRENGTHEN LPG DEMAND

A large part of our LPG demand outlook hinges on the development in the petrochemical industry and the assumption that additional petrochemical products can be absorbed by end-user demand, securing high petrochemical utilisation rates and hence LPG demand. However, this is not necessarily the case: in the dry bulk market, for example, ample supply and inadequate demand has resulted in severe overcapacity on both the commodity and the shipping side, lowering both commodity prices and freight rates. Fundamentals in the LPG market currently look quite similar to those in the Dry Bulk market back in 2007, but the question remains whether demand for LPG continues to be robust. For freight rates to stay at healthy levels, though, there is little room for demand to disappoint.

In our 'General Review and Outlook' we argued that the global economy is in a transition phase, whereby new growth engines are taking over from old ones and Chinese GDP creation, in particular, will be driven more by consumption and services than investments. While this transformation is expected to worsen the outlook for dry bulk demand, the LPG market may, conversely, strengthen, as demand, especially Chinese, for products manufactured with an LPG-related component, such as detergents, pharmaceuticals and electrical appliances, could increase.



GLOSSARY

SHIPPING MARKET REVIEW – MAY 2015



DANISH
SHIP FINANCE

GLOSSARY

<i>Aframax:</i>	Crude oil tanker or product tanker too large to pass through the Panama Canal and with a capacity of 80,000 to 120,000 dwt.	<i>Chemical tanker:</i>	DSF's definition: IMO I or IMO II tanker with stainless steel, zinc, epoxy or Marineline coated tanks.
<i>Back-haul:</i>	The leg of a trade route that has the lowest container volumes is often called 'back-haul, whereas the return leg is often referred to as 'head-haul'.	<i>Clarksons:</i>	British ship brokering and research company. www.clarksons.net
<i>Barrel:</i>	A volumetric unit measure for crude oil and petroleum products equivalent to 42 U.S. gallons, or approximately 159 litres.	<i>Clean products:</i>	Refers to light, refined oil products such as jet fuel, gasoline and naphtha.
<i>BHP:</i>	Break Horse Power. The amount of engine horsepower.	<i>CoA:</i>	Contract of Affreightment. Contract between a shipping company and a shipper concerning the freight of a predetermined volume of goods within a given period of time and/or at given intervals.
<i>Brent:</i>	Term used for crude oil from the North Sea. Brent oil is traded on the International Petroleum Exchange in London, and the price of Brent is used as a benchmark for several other types of European oil.	<i>Coating:</i>	The internal coatings applied to the tanks of a product or chemical tanker. Coated tanks enable the ship to transport corrosive refined oil or chemical products and it facilitates extensive cleaning of the tanks, which may be required in the transportation of certain product types.
<i>Bulk vessel:</i>	Description of vessels transporting large cargo quantities, including coal, iron ore, steel, corn, gravel, oil, gas, etc.	<i>Deep sea:</i>	Refers to trading routes longer than 3,000 nautical miles.
<i>Bunker:</i>	Fuel for vessels.	<i>Deep Sea, chemical:</i>	A chemical tanker larger than or equal to 20,000 dwt.
<i>Call on OPEC:</i>	Defined as total global petroleum demand less non-OPEC supply less OPEC natural gas liquid supply.	<i>Dirty products:</i>	Refers to heavy oils such as crude oil or refined oil products such as fuel oil, diesel oil or bunker oil.
<i>Capesize:</i>	Dry bulk carrier of more than approximately 100,000 dwt; too large to pass through the Panama Canal.	<i>Drewry:</i>	Drewry Shipping Consultants Ltd. British shipping and transport research company. www.drewry.co.uk
<i>Cu.M:</i>	Cubic Meter.	<i>Dwt:</i>	Dead Weight Tons. Indication of a vessel's cargo carrying capacity (including bunkers, ballast, water and food supplies, crew and passengers).
<i>Ceu:</i>	Car equivalent unit. Unit of measure indicating the car-carrying capacity of a vessel.	<i>Dynamic Positioning:</i>	Special instruments on board that in conjunction with bow thrusters and main propellers enable a ship to position itself in a fixed position in relation to the seabed.
<i>Cgt:</i>	Compensated Gross Tonnage. International unit of measure that facilitates a comparison of different shipyards' production regardless of the types of vessel produced.		

EIA: Energy Information Administration. A subsidiary of the US Department of Energy. www.eia.doe.gov

E&P: Exploration and Production.

Feeders: Small container carrier with a capacity of less than 1,000 teu.

FPSO: Floating Production Storage Off-loading unit. Vessel used in the offshore industry to process and store oil from an underwater (sub-sea) installation.

Front-haul: The leg of a trade route that has the highest cargo volumes is often called 'front-haul' whereas the return leg is often referred to as 'back-haul'.

Geared: Indicates that a vessel is equipped with a crane or other lifting device.

Gearless: Indicates that a vessel is not equipped with a crane or other lifting device.

Global order cover: Global order is the global orderbook divided by annual yard capacity.

Gt: Gross Tons. Unit of 100 cubic feet or 2,831 cubic meters, used in arriving at the calculation of gross tonnage.

Handy, container: Container vessel of between 1,000-1,999 teu.

Handymax, dry cargo: Dry bulk carrier of between approximately 40,000 and 65,000 dwt.

Handysize, dry cargo: Dry bulk carrier of between approximately 10,000 and 40,000 dwt.

Head-haul: The leg of a trade route that has the highest container volumes is often called 'head-haul, whereas the return leg is often referred to as 'back-haul'. On routes where there is a great trading volume mismatch between head-haul and back-haul, the head-haul demand will most often determine the freight rate level.

Heavy distillates: This oil type includes fuel oils and lubes.

IEA: International Energy Agency. A subsidiary of the OECD. www.iea.org

IHS Global Insight: American economic consulting company. www.globalinsight.com

IMO: International Maritime Organization. An organisation under the UN.

IMO I-III: Quality grades for tankers for the permission to transport different chemical and oil products. IMO I are the most hazardous products, IMO III the least hazardous.

Inorganic chemicals: A combination of chemical elements not containing carbon. The three most common inorganic chemicals are phosphoric acid, sulphuric acid and caustic soda. Phosphoric acid and sulphuric acid are used in the fertilizer industry, whilst caustic soda is used in the aluminium industry. As these chemicals are corrosive to many metals, they are transported in stainless steel tanks.

Intermediate: Medium-sized chemical carrier with a capacity of between 10,000 and 20,000 dwt.

LGC: Large Gas Carrier. LPG ship with a capacity of between 40,000 and 60,000 Cu.M.

Light distillates: This oil type includes gasoline, naphtha and solvents.

LPG vessels: Liquefied Petroleum Gas. Vessels used to transport ammonia and liquid gases (ethane, ethylene, propane, propylene, butane, butylenes, isobutene and isobutylene). The gases are transported under pressure and/or refrigerated.

<i>LR1, product tanker:</i>	Long Range 1. Product tanker with the maximum dimensions for passing through the Panama Canal (width of 32.21 metres and length of 289.5 metres) of approximately 60,000-79,999 dwt.	<i>Panamax, dry cargo:</i>	Dry bulk vessel with the maximum dimensions for passing through the Panama Canal (width of 32.21 metres and length of 289.5 metres) of approximately 65,000—100,000 dwt.
<i>LR2, product tanker:</i>	Long Range 2. Product tanker too large to pass through the Panama Canal and with a capacity of 80,000 to 120,000 dwt.	<i>Post-Panamax:</i>	Container vessel of approximately 3,000+ teu that is too large to pass through the Panama Canal.
<i>Medium, tanker (MR):</i>	Medium Range. Product tanker of between 10,000 and 60,000 dwt.	<i>Product tanker:</i>	Tanker vessel with coated tanks used to transport refined oil products.
<i>MGC:</i>	Medium Gas Carrier. LPG ship with a capacity of between 20,000 and 40,000 Cu.M.	<i>PSV:</i>	Platform Supply Vessel. Offshore vessel serving the offshore oil installations.
<i>Middle distillates:</i>	This oil type includes diesel, kerosene and gasoil.	<i>Refinery turnarounds:</i>	A planned, periodic shut down (total or partial) of a refinery process unit or plant to perform maintenance, overhaul and repair operations and to inspect, test and replace process materials and equipment.
<i>Multi-Purpose:</i>	Dry bulk carrier with multiple applications, mainly as a feeder vessel or for special cargo.	<i>Ro-Ro:</i>	Roll On – Roll Off. Common description of vessels on which the cargo is rolled on board and ashore.
<i>Nautical Mile:</i>	Distance unit measure of 1,852 meters, or 6,076.12 ft.	<i>Short sea:</i>	Refers to trading routes shorter than 3,000 nautical miles.
<i>Offshore vessel:</i>	Vessel serving the offshore oil industry.	<i>Short Sea, chemical:</i>	Chemical tanker smaller than 10,000 dwt.
<i>OPEC:</i>	Organisation of Petroleum Exporting Countries.	<i>Small gas carrier:</i>	LPG ship smaller than 20,000 Cu.M.
<i>Organic chemicals:</i>	Contain carbon and are also referred to as petrochemicals. Are used to produce virtually all products made from plastics or artificial fibres.	<i>SSY:</i>	Simpson Spence & Young, British ship brokering and research company. www.ssy.co.uk
<i>Panamax, container:</i>	Container carrier with the maximum dimensions for passing through the Panama Canal (width of 32.21 metres, length of 291 metres) of approximately 3,000—5,100 teu.	<i>Sub-Panamax</i>	Container vessel of approximately 2,000-2,999 teu.
<i>Panamax, tanker:</i>	Crude oil tanker or product tanker with the maximum dimensions for passing through the Panama Canal (width of 32.21 metres and length of 289.5 metres) of approximately 60,000—79,999 dwt.	<i>Suezmax:</i>	Crude oil tanker with the maximum dimensions for passing through the Suez Canal (approximately 120,000—199,999 dwt.).
		<i>Super Post-Panamax:</i>	Newest type of container vessel of approximately +12,000 teu.
		<i>TCE:</i>	Time Charter Equivalent.

<i>Teu:</i>	Twenty Foot Equivalent Unit. Container with a length of 20 feet (about 6 metres) which forms the basis of describing the capacity of a container vessel.
<i>Teu-knots:</i>	Unit of measure that takes account of the speed of ships when estimating the actual supply of ships within a segment.
<i>Teu-nautical mile:</i>	Unit of measure indicating the volume of cargo, measured in teu, and how far it has been transported, measured in nautical miles.
<i>Tight oil:</i>	Tight oil (also known as light tight oil) is a petroleum play that consists of light crude oil contained in petroleum-bearing formations of relatively low porosity and permeability
<i>Ton-nautical mile:</i>	Unit of measure indicating the volume of cargo, measured in ton, and how far it has been transported, measured in nautical miles.
<i>Tonnage:</i>	Synonymous with "vessel".
<i>Town gas:</i>	A mixture of gases produced by the distillation of bituminous coal and used for heating and lighting: consists mainly of hydrogen, methane, and carbon monoxide.
<i>ULCC:</i>	Ultra Large Crude Carrier. Crude oil tanker of more than 320,000 dwt.
<i>Vegetable oils:</i>	Oils derived from seeds of plants and used for both edible and industrial purposes.
<i>VLCC:</i>	Very Large Crude Carrier. Crude oil tanker of between approximately 200,000 and 320,000 dwt.
<i>VLGC:</i>	Very Large Gas Carrier. LPG ship with a capacity of more than 60,000 Cu.M.

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