SHIPPING MARKET REVIEW

NOVEMBER 2014

DANISH
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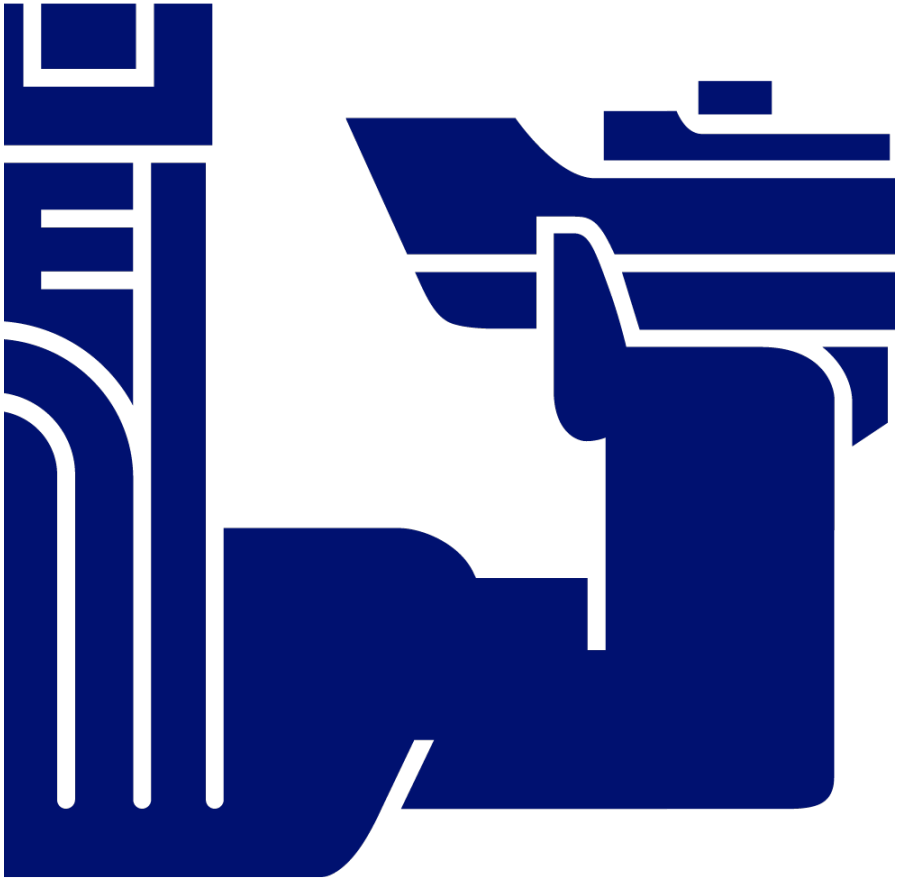

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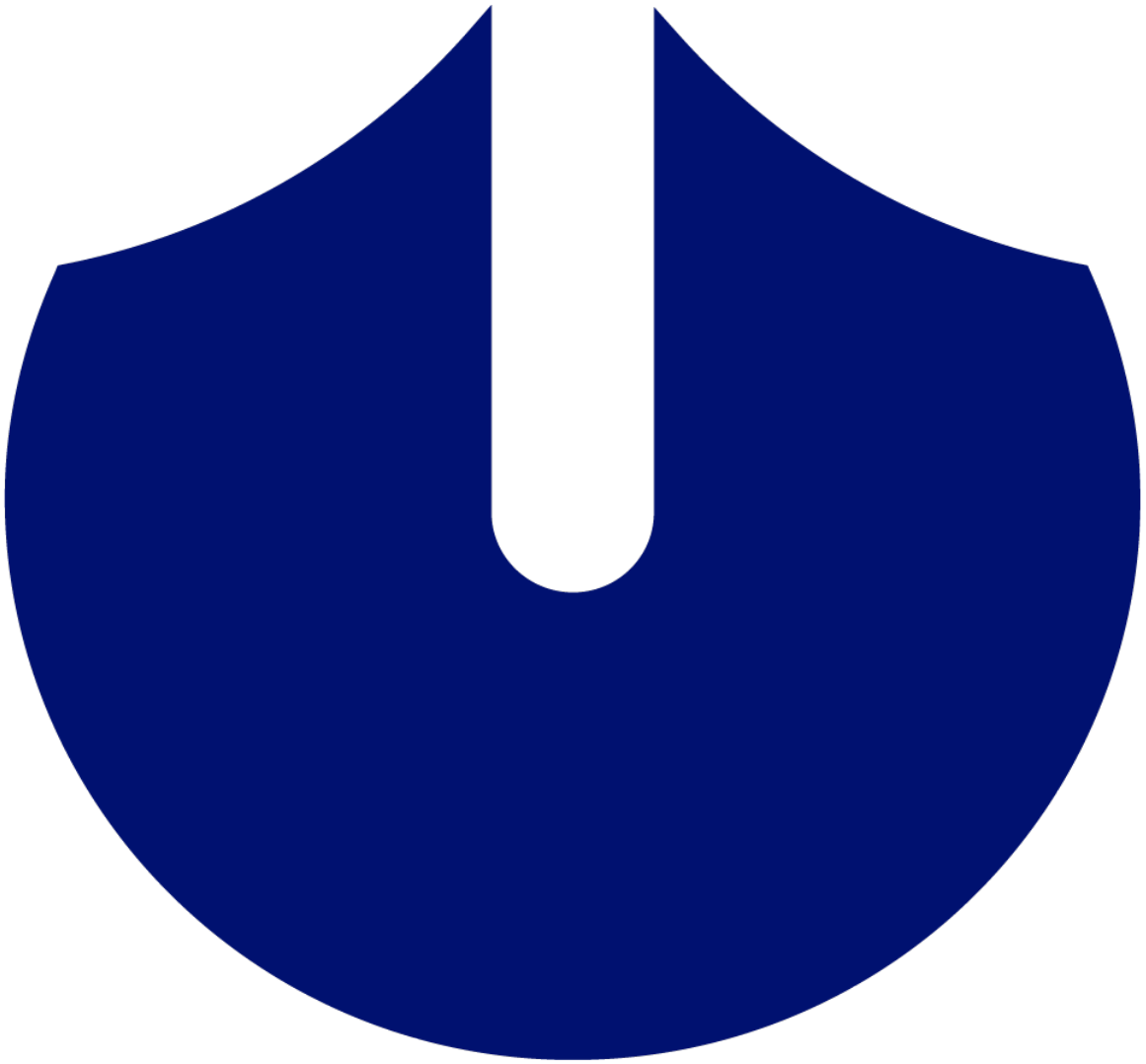

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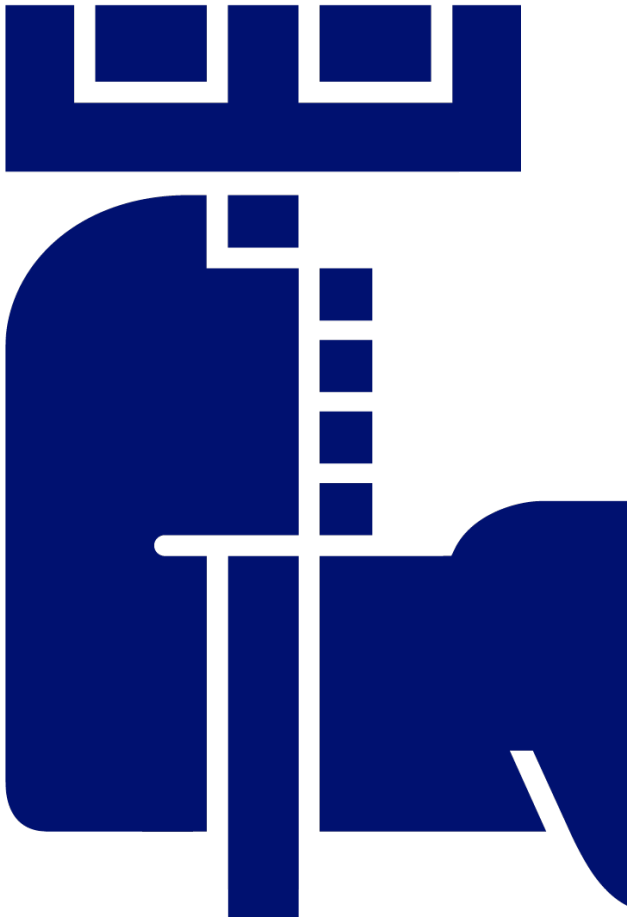

DANISH SHIP FINANCE

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 May 2014 to October 2014 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. Some of the transformations being seen, such as demographic developments and the global economy's increased interconnectedness, are longer term and structural in nature. These transformations are interacting to shape the future, which makes extrapolation from the past an increasingly unreliable lens through which to make predictions. Is there a risk of a situation with a massive number of new – large – vessels in a fundamentally changed global economy by, let's say, 2025? With this discussion, we aim to value not only the ups and downs but also the twists and turns of tomorrow's global economy. The objective is to present our view of how major changes are about to reshape the global economic landscape in general and the outlook for the global shipping industry in particular. A cornerstone of our discussion is therefore to emphasise that the drivers of global GDP growth are at least as important as the size of the growth because not all growth drivers are equally trade-intensive.

The slowdown in global growth in recent years seems not to be temporal but structural. We argue that world trade is in the midst of a transition whereby demographic changes and dramatic shifts in manufacturing costs are driving major changes in the global production chain. There are many indications that globalisation could be near a peak. In a nutshell, the globalisation process – the integration of economic activity across borders – is beginning to plateau because the vast pool of *low-cost* workers in China is no longer available. In time, the impact on seaborne demand volumes and travel distances is expected to be profound.

The primary workhorses of the world fleet – container ships, dry bulk vessels, crude and product tankers – are currently struggling to handle an oversupply of tonnage. Freight rates are low and have been so for quite some time. Most of these segments are expected to take delivery of a large orderbook within the next two to three years. Their fleets are young and few obvious scrapping candidates remain. Some vessel types within these segments could be hit by long-lasting overcapacity if globalisation starts to plateau within their lifetime. Premature scrapping is expected to be the new standard. Freight rates and secondhand prices may stay low for some years and investors playing a short-term asset game may find it difficult to exit with the expected profits.

There are still a few bright spots, primarily within gas carriers. But while these segments benefit from higher freight rates and secondhand prices, they have also been attracting a lot of investment in new vessels. Today, several of these segments have orderbooks that, if freight rates and secondhand prices should remain at high levels, will require the positive expectations for future demand to be realised fully.

SHIPBUILDING

The global shipbuilding industry has been struggling to handle the overcapacity for some time. Newbuilding prices have been declining for years and remain low but have started to increase during the last 12-18 months. It has become clear that the industry is divided into two groups: first-tier yards which are capable of attracting new orders and delivering on schedule, and second-tier yards which have not received any new orders for a year or two. The first-tier group represents approximately 80% of global yard capacity. Utilisation of global yard capacity is estimated at 65% in 2014 and the overcapacity continues to be painfully visible in 2015 and 2016. If we assume that no new orders are placed and capacity is not reduced, only 59% of yard capacity is estimated to be utilised in 2015 and 52% in 2016. The problems are most pronounced for the second-tier group of yards, where utilisation may drop to just 9% in 2015 and 7% in 2016 if capacity is not reduced.

However, we estimate that 50% of the second-tier group's current capacity is at risk of going out of business in 2015, and by 2016, we expect that only 20% of the group's current yard capacity will still be in play. Some parts of the first-tier group will also be at risk of going out of business in 2016. In total, we estimate that approximately 20% of this group's current yard capacity may have closed by year-end 2016. Despite these capacity reductions, we predict that only 65% of global yard capacity will be utilised in both 2015 and 2016. The final question remains whether newbuilding prices will retreat to the previous lows or maintain some of the territory recently gained. From a structural perspective, the answer is that prices will not increase in the presence of overcapacity, but recent years have taught us that only capacity that is in demand has a bearing on the pricing of vessels.

CONTAINER

The container fleet is still expanding rapidly because of the large inflows of ultra-large Post-Panamax vessels. Meanwhile, the Panama-Transitable segments are contracting owing to attempts to accommodate the larger vessels being cascaded down from the main trade lanes. This has resulted in volatile box rates that continue to fall despite liners' endless efforts to increase them to sustainable levels. Timecharter rates also remain at discouragingly low levels, barely above OPEX, which is leaving some tonnage providers struggling. We do not expect to begin to see improvements of the container market until the fleets servicing the main trade lanes have been fully replenished with larger vessels, which, according to the orderbook, could take a couple of years.

Although the demand outlook for 2015 is stronger than it was last year, it is not enough to absorb the supply growth. We estimate that the fleet's spare capacity will grow to almost 24% of the fleet (i.e. 5 million teu) in 2015 and foresee another challenging year for the container market. Moreover, some new challenges could materialise in the future, as global trade is increasingly expected to be centred around regional manufacturing hubs, thereby potentially decreasing future travel distances.

CRUDE TANKER

After short-lived optimism at the beginning of this year, when the BDTI peaked at index 1,124, the freight rate market quickly returned to a lower level. Still, the combination of low fleet growth and stronger than expected demand for crude tankers, primarily due to longer travel distances and storage, has kept the BDTI 19% above the 2013 average. The low but increasing freight rate index encouraged owners to renew their 2013 optimism, and new orders for 14 million dwt were placed during the first nine months of 2014. These orders may prolong the long and bumpy road to recovery. However, regional imbalances may result in temporary freight rate spikes in the coming years, as the overall market balance has improved during 2014.

PRODUCT TANKER

In the first three quarters of 2014 the product tanker market, especially the MR market, suffered from massive oversupply, as the inflow of new vessels was not counterbalanced by a similar rise in demand. Spot rates, in particular the MR spot rate, plummeted to their lowest level in recent years. Some respite was found in the LR1 and LR2 segments, as demand for these two segments was supported by a stronger Pacific market. Even though contracting was low in the first nine months of 2014, the heavy contracting in 2013 continues to postpone a recovery of the product tanker market. Fleet growth is expected to rise further in 2015, exceeding distance-adjusted demand. Consequently, freight rates and secondhand prices may remain under pressure next year.

LPG TANKER

The LPG market is still very tight and freight rates soared to record-high levels over the summer months. Contracting activity took another quantum leap and close to 5 million Cu.M. (25% of the current fleet) was added to the orderbook in the first nine months of the year. Consequently, fleet growth is expected to reach double digits next year and remain high in 2016. Some of the fleet growth is expected to be absorbed by increasing long-haul trade between the US and Asia, as a significant surplus of LPG in the US has ensured a competitive price on US LPG export. It remains to be seen if Asian demand proves strong enough to sustain the high freight rate market. For the next two

years, however, we do expect some softening in freight rates and secondhand values.

DRY BULK

Despite a strong start, the dry bulk market has had another challenging year in 2014. Market sentiment has been subdued by the growing oversupply and the uncertain demand prospects. On a positive note, fleet growth has been dwindling and is now lower than in previous years. But when we look more closely at the actual amount of tonnage entering the fleet and the share of the fleet below the age of five (57%), the fleet growth becomes overwhelming and we find it hard to see an end to the oversupply. The uncertain demand prospects make matters worse. China's ongoing transition towards being a consumption-driven economy is casting a shadow over the dry bulk market. It is hard to envisage an improvement in the market in the short to medium term and we believe premature scrapping will have to play a big part in the recovery process of the dry bulk market.

GENERAL REVIEW AND OUTLOOK

SHIPPING MARKET REVIEW – NOVEMBER 2014

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GENERAL REVIEW AND OUTLOOK

THE SHIPPING INDUSTRY IS FACING GREAT CHALLENGES AHEAD. ON THE DEMAND SIDE THERE ARE A NUMBER OF SIGNS INDICATING THAT GLOBALISATION COULD BE NEAR A PEAK. THE GLOBAL GROWTH SLOWDOWN DOES NOT SEEM TO BE TEMPORAL BUT STRUCTURAL. IN TIME, THE IMPACT ON SEABORNE DEMAND VOLUMES AND TRAVEL DISTANCES IS EXPECTED TO BE PROFOUND. SEVERAL OF THE MAJOR SHIPPING SEGMENTS COULD SUFFER FROM OVERCAPACITY FOR A LONG TIME. PREMATURE SCRAPPING IS EXPECTED TO BECOME THE NEW NORM, AND FREIGHT RATES AND SECONDHAND PRICES MAY STAY LOW FOR SOME YEARS. INVESTORS PLAYING A SHORT-TERM ASSET GAME MAY FIND IT DIFFICULT TO EXIT WITH THE EXPECTED PROFITS.

WORLD DEMAND INDICATORS

WE ARGUE THAT THE GLOBAL ECONOMY IS 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, THE GLOBALISATION PROCESS – 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 *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. A cornerstone of our discussion is to emphasise that the drivers of global GDP growth are at least as important as the size of the growth because not all growth drivers are equally trade-intensive.

The world is becoming more and more integrated in an increasingly complex manner, allowing both prosperity and risks to be spread. Global power is shifting from advanced to emerging markets and developing economies. Advanced economies accounted for two-thirds of global GDP (in purchasing-power parity terms) in 1992 but their contribution had fallen to less than half of global GDP by 2012. Emerging markets and developing economies, led by Asia in general and China in particular, have been generating more than 80% of global GDP growth since 2008. Trade and financial links between countries have grown rapidly, with world export volumes now six times higher than two decades ago. However, the global financial crisis was a wake-up call. The global economy is currently undergoing a series of transformations, making the future highly uncertain, complex and unpredictable. Some transformations, like the recovery from the global financial crisis, are cyclical; others, such as demographic developments and the rapid increase in interconnectedness, are long term and more structural in nature. These transformations are interacting to shape the future, making extrapolation from the past an increasingly unreliable lens through which to make predictions.

LEGACIES, CLOUDS AND UNCERTAINTIES

Six years after the financial crisis hit, we are still in a situation where the global economy is struggling to regain speed. The combination of anaemic growth and weak job creation casts a shadow over the future. Investment has not picked up solidly in many advanced economies, and emerging market economies are adjusting to lower rates of economic growth than those reached during the immediate post-crisis recovery. Growth in advanced economies could continue to disappoint over a prolonged period because of lower potential growth or because of sustained weakness in demand.

GEOPOLITICS AND DEMOGRAPHICS HAVE RETURNED

Moreover, GDP growth in some regions is being negatively affected by ongoing geopolitical tensions. If these tensions persist, it could have negative effects on confidence and contribute to renewed increases in oil prices. In some advanced economies, risks also arise from the effects of protracted low inflation or deflation on activity or on public debt dynamics. Problems that predate the global financial crisis – including the effects of an ageing population on labour force growth, weak productivity growth and infrastructure gaps – are coming back to the fore and affecting the pace of recovery through lower potential growth in a number of

economies. Four years ago, there were one billion people in Africa; that number could rise to 2.7 billion by 2050. Where will all the jobs come from? For the first time in history, by 2020, the world will have more people over 65 years of age than below five years of age. Who will pay for their pensions?

AN UNEVEN GLOBAL RECOVERY CONTINUES

Output actually fell in the first quarter of 2014 in the United States (–2.1%, annualised rate) and in the second quarter in Germany (–0.6%), sapping global import demand. China's GDP growth also slowed from 7.7% in 2013 to 6.1% in the first quarter of 2014 before rebounding in the second. Despite the ups and downs, the IMF maintains GDP forecasts for 2014 and 2015 that basically mirror the 2012 and 2013 levels. Global GDP is expected to expand by 3.3% in 2014 and 3.8% in 2015 whereas the global economy expanded by 3.4% and 3.3%, respectively, during 2012 and 2013. The good news is that the economic outlook for the United States appears to be improving: the IMF expects GDP growth of 1.8% in 2014 and 2.3% in 2015. Europe and Japan are expected to grow by around 1% in both years. China's GDP growth is expected to continue its slide, growing 7.4% in 2014 and 7.1% in 2015.

DOUBLE COUNTING IN CROSS-BORDER TRADE

Let us take a step back and look at the forces at play. For the better part of three decades, globalisation has driven the global economy and the shipping industry. Among others, North America, the EU and Japan have directed corporate manufacturing investment and sourcing towards low-cost regions such as Latin America, Eastern Europe and Asia. These investments have contributed to an explosion in demand for natural resources, which, in turn, has supported the GDP growth of natural resource exporters, thereby generating new demand. In combination, these forces have created much of the foundations for global growth and reinforced global trade integration over the past few decades. Bilateral gross trade data no longer accurately reflects the actual final consumption of value-added output between exporting and importing parties. Increasingly, intermediate inputs are traded across borders, which leads to double counting. When a country is involved in a global value chain, a large portion of its imports are typically not absorbed domestically but instead are re-exported. Exports may thus contain a large part of other countries' value-added exports. The point is that the foundations of globalisation, and thereby also global seaborne demand, may be more responsive to structural changes than the numbers indicate.

GLOBALISATION MAY HAVE REACHED ITS POTENTIAL

We are concerned that the globalisation process may be slowing down in the short to medium 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 may 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, globalisation – 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 may be produced closer to home. These trends 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.

A NEGATIVE SPIRAL

Slowing growth in emerging economies, particularly in Asia, has a significant impact on commodity prices, as the emerging economies now account for the bulk of commodity consumption, with the shares ranging from 45% for energy to 70% for metals. The IMF argues that a 1 percentage point decline in the emerging economies' growth leads to a fall in commodity prices of about 6%. Asia, which has had a huge impact on the global economy, has started to decelerate as their demand growth has waned almost simultaneously with increased commodity availability on the back of heavy investments. This has led to declining commodity prices. When prices drop, these investments may struggle to remain profitable. So here is the catch. The growth in the global

economy was driven primarily by economic growth in emerging and developing economies between 2008 and 2013. This growth involved strong Asian demand for natural resources, which again drove economic growth in commodity-exporting economies. When Asia decelerates, there is a risk that commodity-exporting economies will decelerate as well. If that happens, and there are many indications that it will, it is largely up to the developed economies – which have only contributed 20% to economic growth since 2008 – to maintain momentum in the global economy. We are concerned that they will fail to do so, as North America, Japan and Europe are struggling with debt-related issues as well as ageing populations.

DEMOGRAPHIC PRESSURES

Impending demographic changes are 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 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.

CHINA'S GROWTH SLOWDOWN IS NOT TEMPORARY, BUT STRUCTURAL

For 30 years China has grown at a rate above 8% a year. The economy has doubled in size every seven or eight years. As such, the Chinese economy has been an important contributor to global economic activity. China's impressive growth figures have been supported by a highly capital-intensive engine running on a vast pool of low-cost workers. But the engine has begun to sputter as the fuel has dried up. According to IMF, China's excess supply of labour peaked in 2010 and is now on the verge of a sharp decline: from 151 million in 2010, to 57 million in 2015, and to 33 million in 2020. China is expected to reach the Lewis Turning Point (the point where demand for labour exceeds supply) between 2020 and 2025. Its GDP creation has to a large extent been driven by costly investments, constituting more than 50% of GDP in recent years. Today, its economic growth has slowed to less than 8%, more than 3 percentage points lower than in the pre-crisis period. Consequently, China has recently been investing considerably more only to grow significantly more slowly than in the past. This pattern of growth gives rise to three problems. First, technological advancements as measured by total factor productivity growth have slowed. Simply put, total factor productivity measures the efficiency of an economy's capital and labour. Second, and closely related, the marginal product of capital is dropping: it is taking more and more investment to produce less and less growth. The real-world indicators of this falling capital productivity are empty apartment buildings, unused airports and idle factories in important manufacturing sectors such as shipbuilding and steel – excessive investments that have generated little additional GDP. Third, consumption is now very low, in particular household consumption which is only 34% of GDP. The point is that China's growth slowdown is not temporary, but structural. Therefore, structural reforms are needed to maintain reasonably high rates of growth. The Chinese authorities are in the midst of rebalancing the economy. This is the key factor lowering current growth figures. It is, however, important to remember that a successful rebalancing in China will be a mixed blessing for China's major trading partners, as future growth is expected to be more service sector-intensive and less industry-intensive. The seaborne trade-intensiveness of future GDP creation is therefore expected to be lower than in the past decade.

ASSET PRICES DECLINE IN AN AGEING POPULATION

From the perspective of a standard overlapping generation model, the long-term growth potential of the global economy and the outlook for asset prices seem bleak. In this model, during their working age, people save (i.e. buy assets) and in old age dissave (i.e. sell these assets). When a larger cohort, such as the baby boomers in the post-war United States, enters the workforce, it increases the demand for saving assets, both property and money. The implications for the fixed supply of property are straightforward: stronger demand from the baby boomers drives up real property prices – and, when they retire and sell their property,

prices decline. The reversal trend could surface in the medium to long term in Europe, Japan and China.

SEABORNE TRADE VOLUMES COULD BE ON A STRUCTURAL DECLINE

When the above-mentioned forces come into play simultaneously in Europe, Japan and China, they may hold 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. In the short to medium term economic growth can be stimulated by various means (and may even by supply pushed), but in time it all comes down to consumer demand. Consequently, 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. But income inequality is expected to increase globally. Wealthy older people will accumulate more savings, which will weaken demand. Older people buy fewer things that require heavy investment – notably houses – and consume less energy. Last but not least, older people commute less but require more services, whether in healthcare or tourism. The long-term implications for international trade flows are expected to be significant: seaborne trade volumes could embark on a structural decline within the next decade, as demand for services does not typically require transportation by the world shipping fleet.

POPULATION GROWTH IN AFRICA AND ASIA

Most of the future world population growth within the next 20 years is expected to stem from Asia, and afterwards, throughout the rest of this century, from Africa. By 2100, Asia is expected to have 1 billion more people, and Africa an additional 3 billion. Europe and the Americas will see a decline in each of their 1 billion inhabitants. As early as from 2025, most parts of Europe are expected to face population declines of up to 1 million annually. By 2040, Africa's labour force will probably be larger than China's and India's combined. But for Africa's potential to be realised, a labour force that is educated, healthy and employed is required. So growth must be inclusive. Poverty has declined in recent years, but it remains high. There is still a long way to go before Africa is capable of driving the global economy.

TRADE VOLUMES COULD GROW AT A DISCOUNT TO GLOBAL GDP GROWTH

The impact on potential global trade volumes could be significant. In the past, global trade volumes grew at a multiple of global GDP growth but, in recent years, they have developed approximately on a par. In the medium term, we predict that growth in global trade volumes could develop at a discount to global GDP growth up until the point where economic growth in Asia becomes to a larger extent driven by regional consumers.

LOWER WORLD TRADE GROWTH IN 2014 AND 2015

Let us end the *World demand indicators* section by looking at the expectations for short-term global trade. The WTO has reduced its forecast for world trade growth in 2014 to 3.1% (down from its 4.7% forecast from April) and cut its estimate for 2015 to 4.0%, from 5.3% previously. The primary reason is that global trade stagnated in the first half of 2014 in response to the weaker-than-expected GDP growth. The gradual recovery of import demand in developed countries was offset by declines in both China and other developing countries, particularly in regions exporting natural resources, such as South and Central America. It is, however, too early to conclude from these figures that we have entered a phase of structurally lower growth in world trade volumes.

SEVERAL OF THE MAJOR SHIPPING SEGMENTS ARE ABOUT TO BE HIT BY STRUCTURAL OVERCAPACITY AND PREMATURE SCRAPPING IS EXPECTED TO BE THE NEW NORM. FREIGHT RATES AND SECONDHAND PRICES MAY STAY LOW FOR SOME YEARS. INVESTORS PLAYING A SHORT-TERM ASSET GAME MAY FIND IT DIFFICULT TO EXIT WITH THE EXPECTED PROFITS.

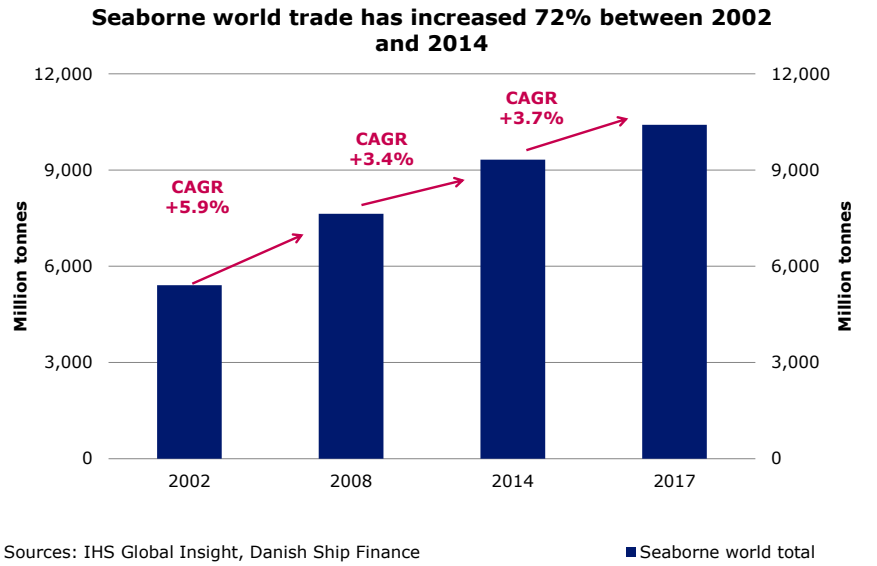
OVERCAPACITY PERSISTS

Globalisation progressed strongly between 2002 and 2008, and global seaborne demand increased by an annual average of 5.9%. In this period, the world fleet expanded by an annual average of 5.3%. The difference of 0.6 percentage points annually laid the foundations for the increased freight rate environment seen in the period. Between 2008 and 2014, this trend has been reversed: global seaborne demand has increased by an annual average of 3.4% while the global fleet has grown by 7% on average. Despite massive scrapping activity, the world fleet is currently 50% larger today than it was at the beginning of 2008 whereas demand has only grown by 23%. It seems evident that not even extensive use of slow-steaming and longer travel distances have been able to bridge this gap between supply and demand (fig. 1).

SEABORNE DEMAND UP BY 4% IN 2015

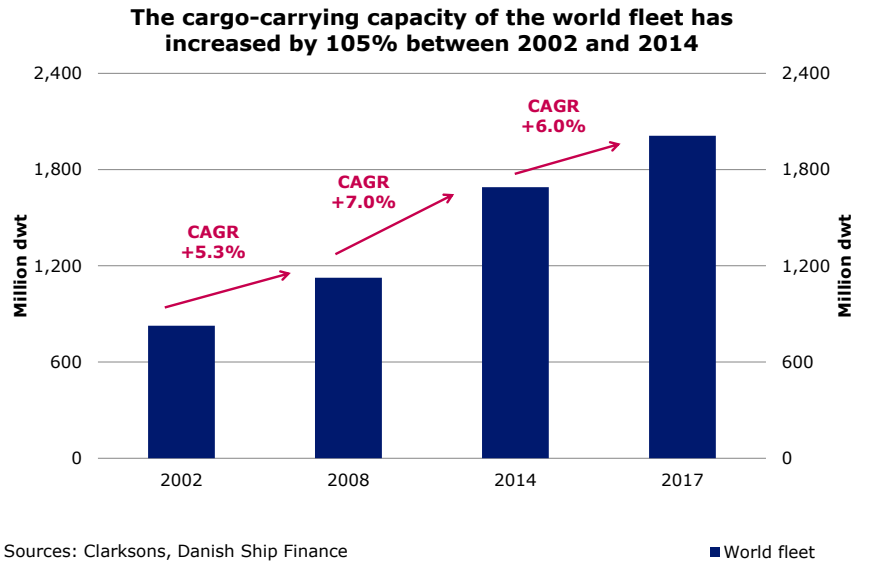
As discussed in the previous section, *World demand indicators*, current expectations for global trade volumes are that at best trade will grow in tandem with global GDP growth. Based on current estimates, global trade volumes are expected to grow at an annual average growth rate of 3.5% to 4%. The world fleet is expected to grow at an annual average gross rate of 6% until 2017. Clearly, vessels will be scrapped and orders will be postponed or cancelled but it seems inevitable that closing the gap between supply and demand that developed between 2008 and 2014 will require extensive effort from the industry (fig. 2).

Figure GRO.1



Sources: IHS Global Insight, Danish Ship Finance

Figure GRO.2



Sources: Clarksons, Danish Ship Finance

FAIRLY EVEN AGE DISTRIBUTION IN 2002

To illustrate the gravity of the situation, we start by looking at the world fleet as it was in 2002. 2002 is often referred to as the shipping industry's previous cyclical low point. Back then, 42% of the fleet was older than 15 years. Overcapacity issues were resolved – eventually – by means of scrapping, lower contracting activity and, most importantly, strong annual demand increases. To really grasp the magnitude of the current challenge, please note the scale of the left y-axes in figures 3 and 4.

PREMATURE SCRAPPING WILL INTENSIFY

In 2014, the fleet has doubled in size compared with 2002 and is significantly younger. There are also virtually no scrapping candidates. True, 6% of the fleet is older than 25 years but many of these vessels are trading in areas where it is not a requirement to have the latest technology available. It is therefore not necessarily the case that many of these vessels will be scrapped during the next year or two – they could be but this is by no means certain. Today, 19% of the world fleet is older than 15 years while the orderbook also stands at 19% of the world fleet. The doubling in size of the world fleet from 2002 to 2014 is likewise mirrored in the orderbook. That is to say, an orderbook-to-fleet ratio of, for example, 10% in 2014 contains capacity that more than doubles the same ratio in 2002.

LOW FLEET UTILISATION AND LOW EARNINGS

The ClarkSea Index has been persistently low during the last five years, reflecting the low fleet utilisation. We would even argue that utilisation of the world fleet has only exceeded 85% for brief periods during this time – and this figure even includes substantial capacity that has been hidden by slow-steaming, trade lane imbalances and in some areas longer port times and efficiency losses. We currently estimate that 83% of the world fleet is being utilised (fig. 5). True, these estimates could be somewhat imprecise but no matter what, the industry's problem remains: too many vessels have been delivered too quickly. Despite massive and record-high scrapping activity, the world fleet has undergone unprecedented expansion. For every vessel scrapped during the last five years, more than two vessels have been delivered. And the incoming vessels have on average been 40% larger than the vessels scrapped.

Figure GRO.3

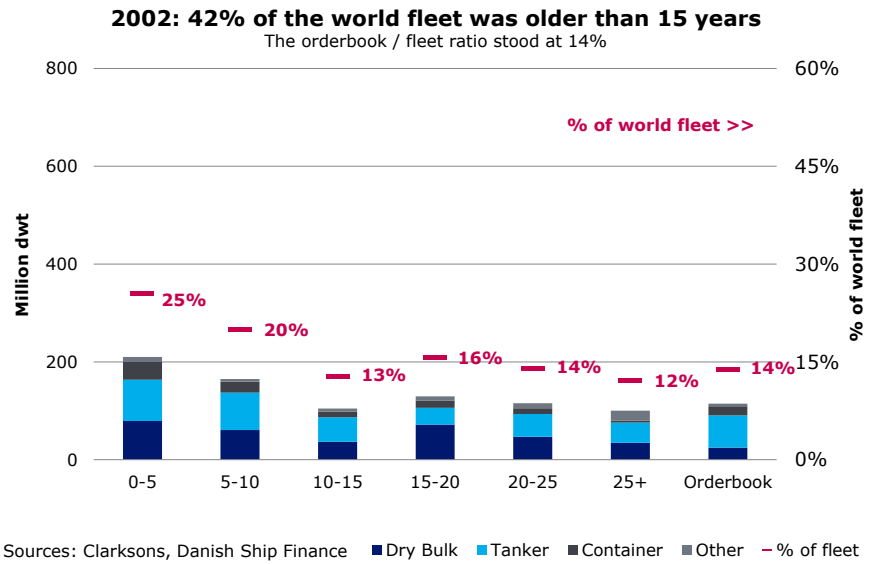
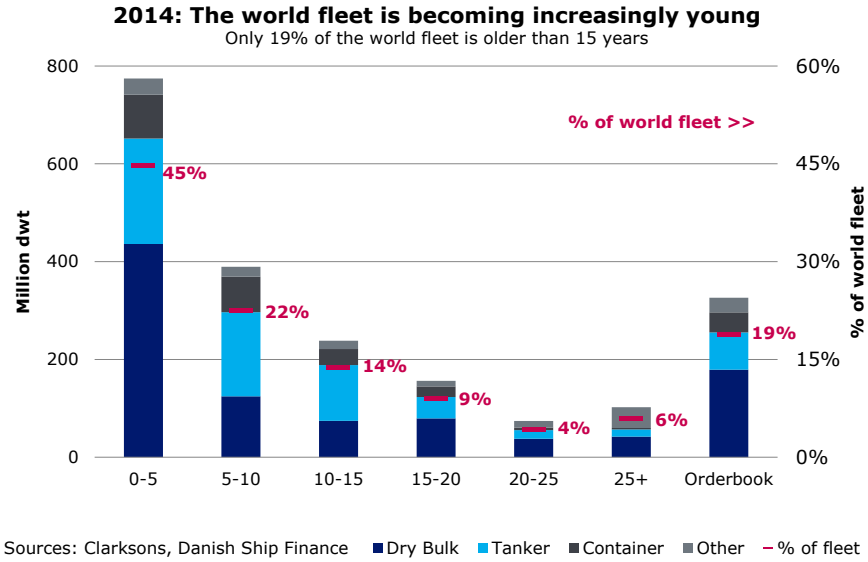


Figure GRO.4



SECONDHAND PRICES MAY DECLINE DUE TO SHORTER VESSEL LIVES

The age distribution of the current fleet leaves little hope for the traditional market mechanisms to close the gap between supply and demand during the next two to three years. Premature scrapping seems inevitable in the light of the current growth expectations and it creates significant downside risk for current secondhand prices. If the average age of vessels scrapped systematically implies a lower operating life than the one currently being applied to valuations, secondhand values may decline accordingly. Importantly, the value of a vessel may not only decline because of lower earnings expectations but also due to a shorter cash flow period. Hence, value is being destroyed by premature scrapping.

PREMATURE SCRAPPING IS THE NEW NORM

In today's shipping markets, premature scrapping systematically happens in some subsegments, especially in crude and product tankers, dry bulk and Panama-Transitable container vessels. In these segments the average scrapping ages are below their expected technical operating life of 25 years. The combination of new vessels entering the fleet, the lack of many obvious scrapping candidates and insufficient demand growth is expected to result in further reductions in the average scrapping age during the next year or two. Note that there may still be vessels trading after the age of, for example, 25 years, even though the average age of scrapped vessels is 18 years.

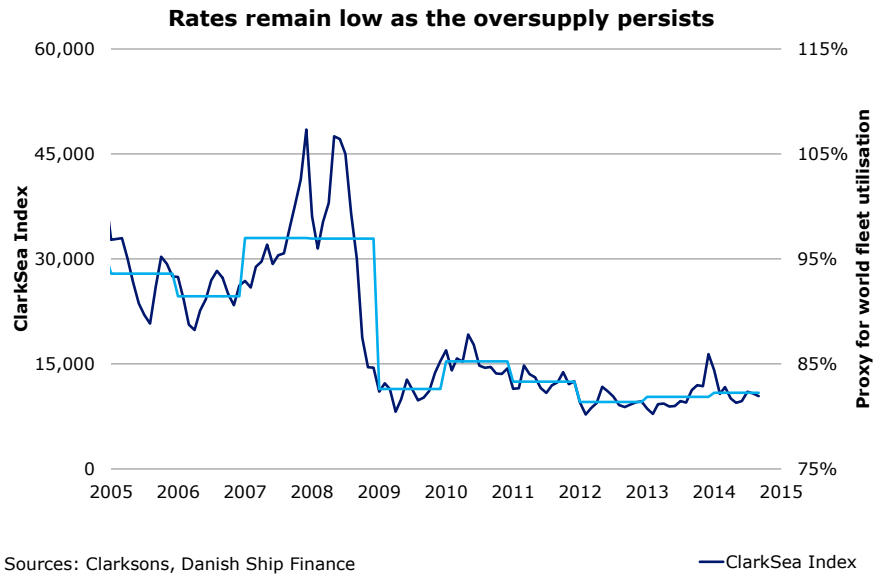
CURRENT PRICES ARE 30-40% ABOVE THE 2002 LEVEL

Still, secondhand prices in many subsegments seem to have decoupled from earnings. Average earnings are at a level resembling 2002 but the average secondhand price is 30-40% above the 2002 level (fig. 6). How can that be? Some would argue that when comparing 2002 ship prices with current prices, they should be adjusted for inflation. Clearly, this argument is compelling, but incorrect. If prices should be adjusted for inflation, how do we explain the fact that many subsegments have seen prices dip below the 2002 lows in the period since 2009?

DYSFUNCTIONAL MARKET MECHANISM

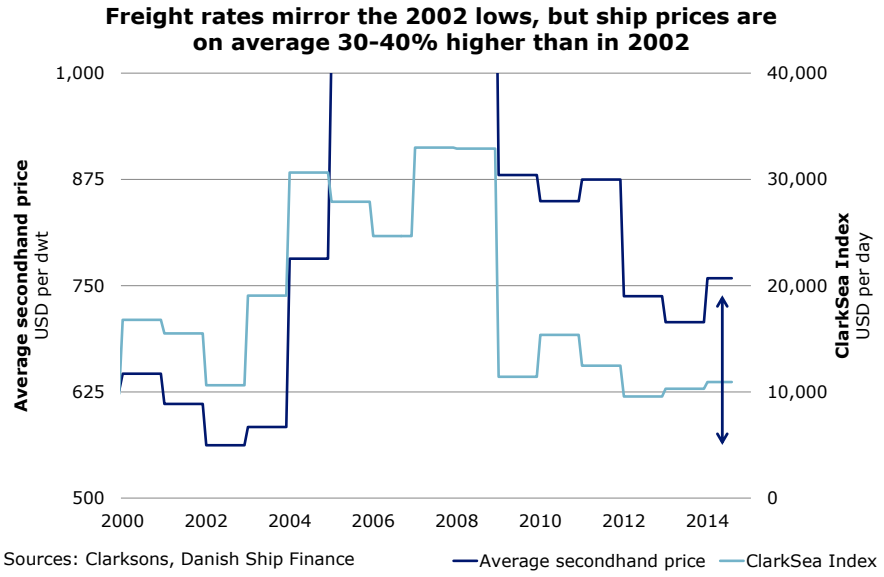
The only true arguments supporting current prices are optimism and increased risk willingness. In our approach to asset value

Figure GRO.5



Sources: Clarksons, Danish Ship Finance

Figure GRO.6



Sources: Clarksons, Danish Ship Finance

formation, three components determine the value: short-term earnings, the long-term earnings expectation and the expected remaining lifetime of the vessel. Short-term earnings are related to the free cash flow from operation (a rate equivalent to the timecharter rate minus OPEX) while the long-term earnings expectation is related to the newbuilding price (i.e. the replacement cost). The expected remaining lifetime is related to the average scrapping age. To us, it seems that the latter two components may be set too high in today's valuations.

SECONDHAND PRICES ARE EXCESSIVE

To illustrate our argumentation, let us take a look at the value of a 10-year-old MR2 product tanker from a price/earnings perspective. Between 2002 and 2008 a 10-year-old MR2 product tanker traded at an average price/earnings ratio of 5. That is to say, a buyer paid 5 dollars to access earnings of 1 dollar. Between 2009 and 2014 the price/earnings ratio has increased to 9.5 on average (fig. 7). The traditional interpretation of a rising price/earnings ratio is higher expectations for long-term earnings.

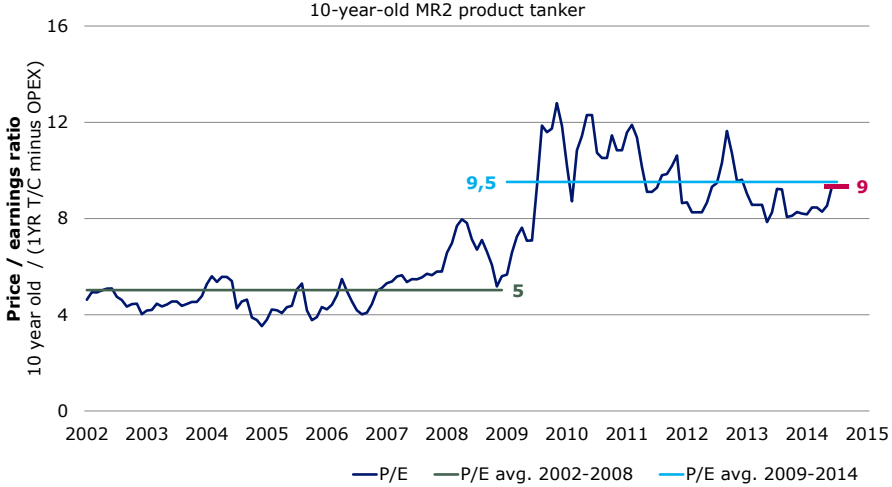
NEWBUILDING PRICES TELL US LITTLE ABOUT THE FUTURE

Clearly, rising newbuilding prices could be an indication of higher long-term earnings expectations but here we need to be careful. First of all, we must remember not to compare apples with oranges. An eco-designed, newly-built vessel compliant with tomorrow's standards today should not be compared on a like-for-like basis with a 10-year-old vessel. The lower fuel consumption alone requires a significant adjustment. Consequently, older and less efficient vessels' long-term earnings potential should be priced at a discount to the newbuilding price. Second, we should ask ourselves *why* the newbuilding price has increased before we take it for granted that increased newbuilding prices signal higher long-term earnings expectations. We argue that current newbuilding prices are rising because *everyone* is chasing lower marginal costs, at the same group of first-tier yards (read the *Shipbuilding* section for further discussion), in order to get ahead of the competition. Lower costs (i.e. better fuel efficiency, lower unit costs and therefore lower break-even levels) are directly reflected on the bottom line in both a low and a high market. Such argumentation is hardly supportive of rising long-term earnings expectations.

Figure GRO.7

The price of a dollar income has almost doubled during 2009-2014 compared to 2002-2008

10-year-old MR2 product tanker



Sources: Clarksons, Danish Ship Finance

OVERCAPACITY HAS BECOME THE NEW NORM

Unfortunately, the logic behind ordering low-priced newbuildings quickly crumbles when everyone is hunting for a bargain, simultaneously and over a longer period of time. We therefore argue that while from an individual investor's perspective, it makes perfect sense to lower marginal costs, it causes the industry as a whole to become dysfunctional when chasing lower marginal costs comes at the price of overcapacity. We argue that, in several of today's shipping markets, overcapacity has become the new norm. Hence, the overordering may have sent the industry into a downward spiral. Freight rates have come down to levels that bear no relation to the economic cost of providing that service. But the combination of low freight rates and high bunker costs are persistently motivating owners to continue to invest in more fuel-efficient vessels. Hence, the current overcapacity is – ironically – both exacerbating and prolonging the current crisis. Expectations of a low freight rate climate appear to be settling in the short to medium term!

COST OF EQUITY OF 11%?

Let us return to the current price/earnings levels. Stretching the argumentation to its limits, the inverse – earnings/price or the earnings yield – can be interpreted as a project specific cost of equity. The average price/earnings ratio between 2002 and 2008 of 5 equals a cost of equity of 20% while the average price/earnings ratio between 2009 and 2014 implies a cost of equity of 11%. Shipping is highly volatile and cyclical. Few would argue that the shipping industry has become or is becoming an investment-grade industry. Has investors' search for yield really pushed the risk premium that low?

PRICES ARE SETTLED IN A LIQUID MARKET

We argue that the arrival of new professional investors seeking investment opportunities seems to have created positive market sentiment for both new and older vessels. The recent value increase reflects the fact that professional investors' demand for investment candidates has been driving up the value of a 1 dollar income. And the appetite has been strong: approximately 4% of the world fleet has changed hands during 2014. To this 4%, we can add new vessels for which orders have been placed, as we may assume that investors in these had the option to buy secondhand vessels but chose to build new ones. So why have prices risen to such levels?

SELLERS ALSO BEAR RESPONSIBILITY FOR THE HIGH MARKET

A price always reflects the point where the seller meets the buyer. So while it is easy to blame the new professional investors for inflating prices, it should be borne in mind that the entire shipping cluster, including the banks, has taken a wait-and-see approach, hoping to recover individual investments at the expense of the industry. Instead of selling the ships at a discount, banks and indebted owners are contributing to the dysfunctionality of the pricing mechanism. In so doing, these players also shoulder some of the responsibility for the build-up of a potential asset bubble in secondhand prices. Thereby unintentionally stimulating the ongoing accumulation of excess capacity because newbuilding prices will continue to look attractive until secondhand prices come down to reasonable levels.

FLOATING ON AN OCEAN OF EXPECTATIONS

But what do investors consider when they are buying secondhand vessels today? First of all, let us not forget that both newbuilding and secondhand prices have been increasing during the last 12-18 months. To many, this is a clear indication of a market that is about to recover. Many seem to have ignored the fact that the only real indicator for a market recovery, freight rates, have remained in the doldrums for quite some time without any signs of recovery. To us, it looks like many of the professional investors are playing a short-term asset game. Several of them are banking not so much on the expected long-term earnings potential but on finding the next risk-willing buyer prepared to take on an even riskier position. They are risking other people's money but hoping to leave the table just in time. We expect that many of them will find it difficult to exit with the expected profits.

RISK OF LOW FREIGHT RATES AND SECONDHAND PRICES

Shipping is not a team sport and it never will be, but everyone will suffer if the current crisis lasts a decade. If the market continues to be characterised by low freight rates, low secondhand values, virtually no orders for new vessels and value-destroying premature scrapping, the wait-and-see approach that market participants have taken on could potentially result in even greater losses in the future. The only way to protect the investments already made is to introduce market discipline, despite the fact that it currently seems logical to continue replacing older vessels with newbuild vessels.

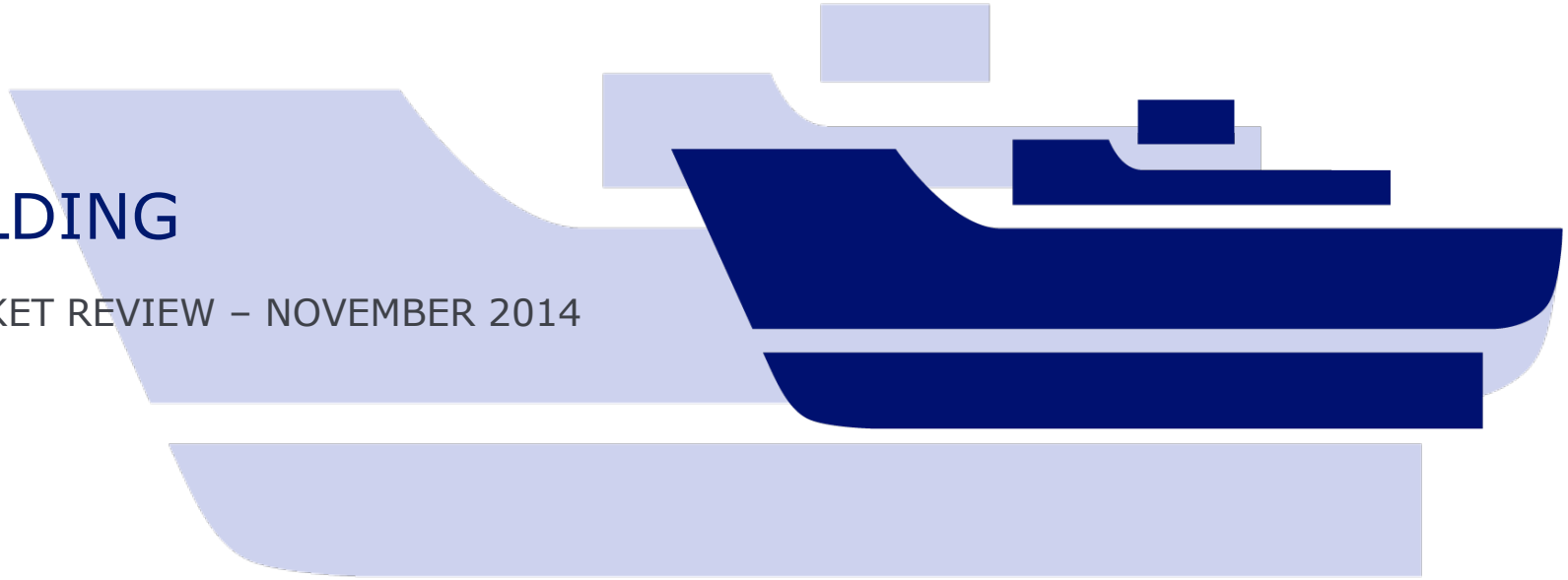
A LONG AND BUMPY ROAD TO RECOVERY

The road to recovery is expected to be long and bumpy. Clearly, the shipping markets will eventually balance and vessels will once again be both traded and valued based on an operating life of 25 years (30 years for specialised vessels). But if the market mechanisms do not return to normal, the road to recovery could be exceptionally long. Still, three fundamental challenges could emerge, putting further pressure on the shipping industry. First of all, bunker prices have shown some signs of weakening. If bunker prices come down to levels where it makes economic sense to increase speeds, the cargo-carrying capacity of the world fleet could increase accordingly. Needless to say, the industry would hardly be able to absorb further capacity. Secondly, ship-

yard capacity is much larger than the level needed for annual replacements in the years to come. We are concerned that low yard utilisation may spur a new round of supply-triggered contracting activity. Investors could, once again, be motivated to contract low-cost vessels, equipped with the newest technology at a low price. The consequences could be severe. Thirdly, a changed macroeconomic outlook, as described in the *World demand indicators* section above, could significantly alter the composition of world trade flows. While such a change would not necessarily imply a decline in world trade volumes, except for the parts that are currently subject to double counting, it could result in shorter travel distances. Separately and in combination, these three forces have the potential to change the outlook for the worse.

SHIPBUILDING

SHIPPING MARKET REVIEW – NOVEMBER 2014



DANISH SHIP FINANCE

SHIPBUILDING

THE SELECTION PROCESS CONTINUES. THE GROUP OF FIRST-TIER YARDS, REPRESENTING 80% OF CAPACITY, HAS INCREASED ITS ORDER COVER BY TWO MONTHS TO 27 MONTHS IN 2014. NEWBUILDING PRICES HAVE GONE UP BY 10%. BUT THE GROUP OF SECOND-TIER YARDS STRUGGLES AS MANY OF THESE HAVE NOT RECEIVED ANY NEW ORDERS FOR ALMOST 2 YEARS. WE EXPECT GLOBAL CAPACITY TO BE REDUCED BY 10% IN 2015 DUE TO A REDUCTION IN THE SECOND-TIER GROUP.

NEWBUILDING PRICES

NEWBUILDING PRICES HAVE INCREASED BY 10% BUT YARD UTILISATION HAS BOTTOMED OUT AT 65% IN 2014.

Global yard utilisation peaked in 2008 at 90% but has been struggling with increasing overcapacity ever since. In 2014, global yard utilisation has bottomed out at 65%. The average newbuilding price, on the other hand, has increased 10% (fig. 1). How can that be possible? Has economic theory not taught us that prices decline when supply exceeds demand and vice versa? True, but only capacity that is in demand has a bearing on the pricing of vessels. Surplus capacity at yards that do not attract new orders does not put any pressure on newbuilding prices. So the main challenge in understanding the current price developments is to understand which yards are in play and which are heading for the exit.

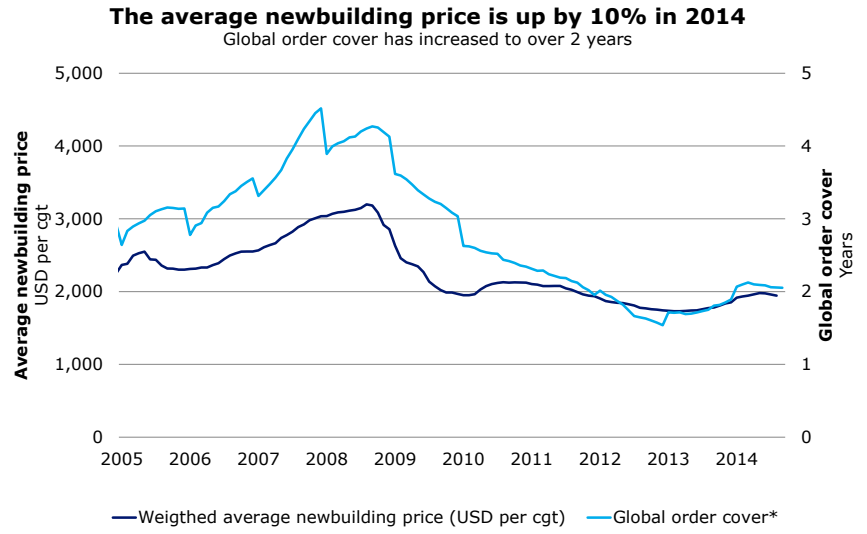
NEWBUILDING PRICES UP BY 10%

In 2014, yards representing 80% of global capacity have attracted new orders, increasing their global order cover by two months to 27 months. These are the ones we label first-tier yards. The remaining 20% that have not received orders we define as the second-tier group. This has translated into an increase in the average newbuilding price of 10%. It is important to underline that the increase is not an indication that the market is in balance. It simply tells us that uncompetitive yards are unable to attract new business and are running out of orders.

THE STEEL PRICE CONTINUES TO DECLINE

The combination of higher newbuilding prices and declining steel prices over the last couple of years may have supported yard profitability, all else being equal (fig. 2).

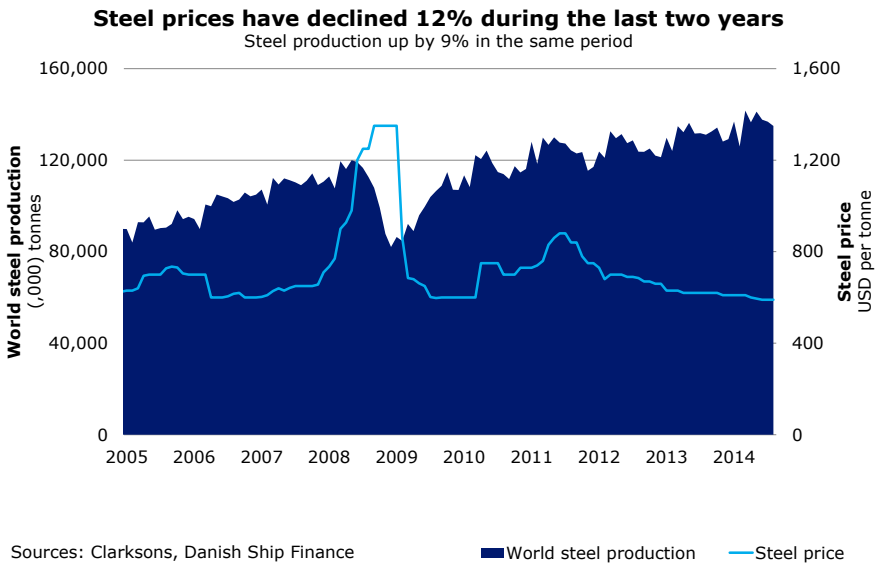
Figure SB.1



Sources: Clarksons, Danish Ship Finance

* Global order cover = orderbook / yard capacity

Figure SB.2



Sources: Clarksons, Danish Ship Finance

YARDS REPRESENTING 80% OF GLOBAL CAPACITY RESTOCKED 68% OF THEIR ANNUAL CAPACITY DURING THE FIRST NINE MONTHS OF 2014. THE REMAINING 20% OF THE INDUSTRY COULD RUN OUT OF ORDERS WITHIN 13 MONTHS.

31 MILLION CGT CONTRACTED IN THE FIRST THREE QUARTERS

During the first nine months of 2014, almost 31 million cgt was contracted, all within the group of first-tier yards (fig. 3). Orders placed occupied only 55% of the estimated global yard capacity of approximately 56 million cgt. Orders were divided between the 220 first-tier yards that, combined, represent 80% of global capacity. Accordingly, these yards restocked 68% of their annual capacity. The 440 yards belonging to the second-tier group, representing 20% of global yard capacity (11 million cgt), did not attract any new orders in 2014. On average, these yards have an order cover (size of the current orderbook relative to the capacity) of just above one year (fig. 4).

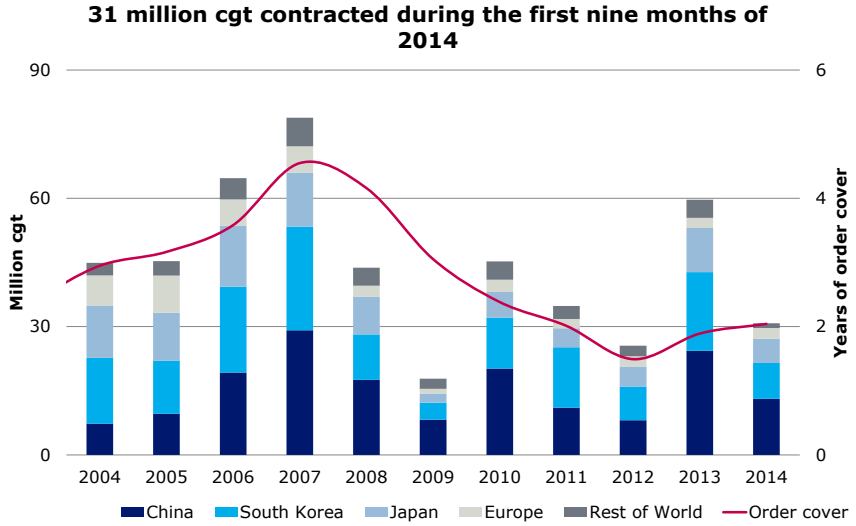
CHINA AND JAPAN EACH RESTOCKED 60% OF ANNUAL CAPACITY

Chinese yards secured new orders of 13 million cgt during the first nine months of 2014 whereas Japanese yards secured new orders of almost 6 million cgt, hence, each occupying around 60% of their estimated domestic capacity. In China the orders were divided between 86 (out of an active 203) yards, representing 79% of its domestic yard capacity. In Japan the orders were divided between 45 (out of 64) yards representing 82% of domestic capacity. This meant that in China, there were 117 yards that did not receive any new orders in the first nine months of 2014 and that risk running out of orders in approximately ten months. In Japan there were 19 yards without new orders in the period and they risk running out of orders in approximately 13 months.

SOUTH KOREA RESTOCKED 52% OF ANNUAL CAPACITY

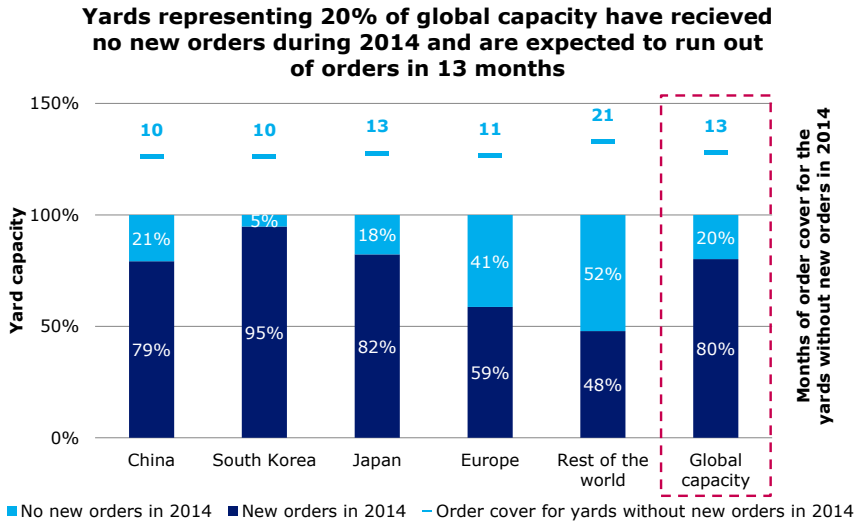
South Korea attracted new orders of 8 million cgt during the first nine months of 2014. Orders placed engaged only 52% of the estimated domestic yard capacity of approximately 16 million cgt, but impacted 12 (out of 16) yards representing 95% of domestic capacity. The remaining four yards, representing 5% of domestic capacity, have received no new orders during 2014 and risk running out of orders in ten months.

Figure SB.3



Sources: Clarksons, Danish Ship Finance

Figure SB.4



Sources: Clarksons, Danish Ship Finance

THE FIRST-TIER GROUP OF YARDS DELIVERED 91% OF ITS SCHEDULED ORDERS FOR THE FIRST NINE MONTHS OF 2014 WHILE THE SECOND-TIER GROUP STRUGGLED TO DELIVER.

27 MILLION CGT DELIVERED

Global deliveries declined from their peak in 2010, when 55 million cgt entered service, to 38 million cgt delivered during 2013. During the first nine months of 2014, another 38 million cgt was scheduled to be delivered. Of this 38 million cgt, almost 7 million cgt (approximately 20%) was considered to be purchase options. Actual deliveries reached 27 million cgt, while almost 3 million cgt (7%) was cancelled and 8 million cgt (21%) was postponed for later delivery (fig. 5). The first-tier group of yards delivered 91% of their firm scheduled orders, while the second-tier group delivered 48% of their scheduled orders.

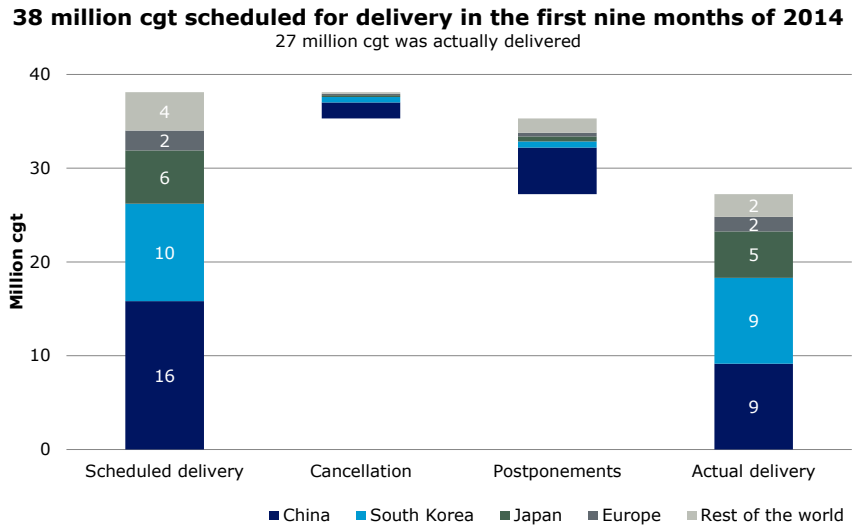
CHINA ONLY DELIVERED 58% OF SCHEDULED ORDERS

Chinese yards were scheduled to deliver 16 million cgt, of which almost 4 million cgt (25%!) was considered purchase options. 9 million cgt was actually delivered, while almost 5 million cgt was postponed for later delivery and 2 million cancelled. On aggregate, Chinese yards appear to have only delivered 58% of scheduled orders (fig. 6). But if we look at the first-tier group, representing almost 80% of domestic yard capacity, the delivery performance increases to 84% of orders with firm delivery dates. The remaining yards delivered only 35% of scheduled orders.

SOUTH KOREA DELIVERED 88% OF SCHEDULED ORDERS

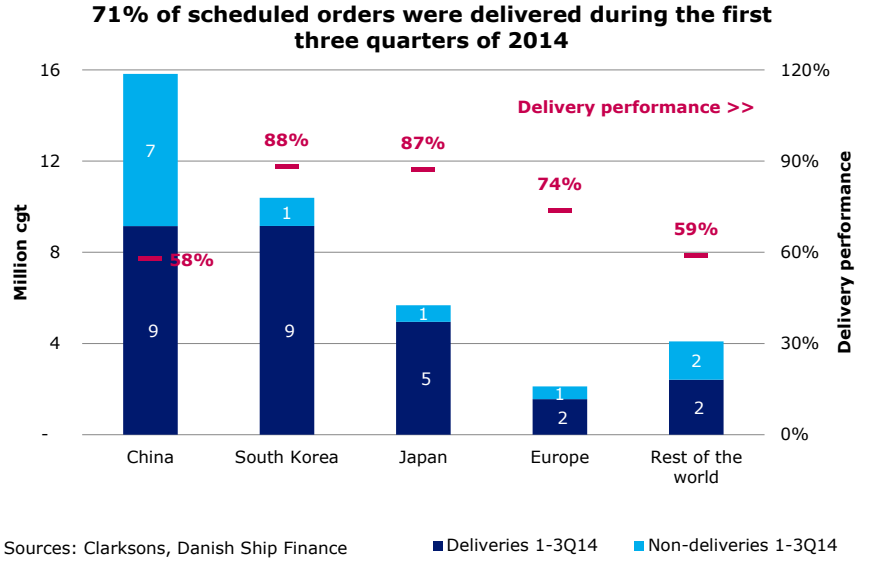
South Korean yards were scheduled to deliver 10 million cgt, of which barely 9% was considered purchase options. 9 million cgt was actually delivered. On an aggregated level, South Korean yards appear to have delivered 88% of scheduled orders. If we look only at the first-tier group, representing 95% of domestic yard capacity, the delivery performance increases to 97% of orders with firm delivery dates. The remaining yards delivered 74% of scheduled orders (fig. 6 and 7).

Figure SB.5



Sources: Clarksons, Danish Ship Finance

Figure SB.6



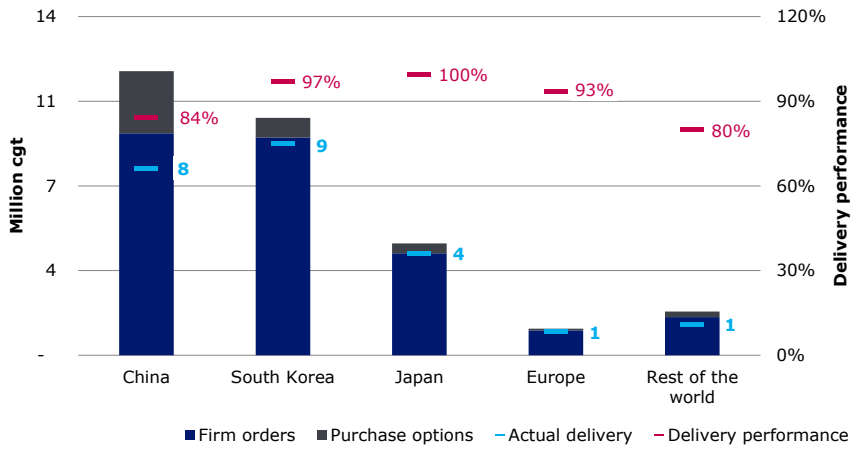
Sources: Clarksons, Danish Ship Finance

JAPAN DELIVERED 87% OF SCHEDULED ORDERS

Japanese yards were scheduled to deliver 6 million cgt, of which just under 9% was considered purchase options. 5 million cgt was actually delivered. On aggregate, Japanese yards appear to have delivered 87% of scheduled orders. But among the first-tier group, representing 82% of domestic yard capacity, the delivery performance increases to 100% of orders with firm delivery dates. The remaining yards delivered 72% of scheduled orders (fig. 6 and 7).

Figure SB.7

In the first nine months of 2014, 91% of firm orders were actually delivered by the yards receiving new orders



Sources: Clarksons, Danish Ship Finance

YARD CAPACITY HAS CONTRACTED IN 2014 AS MORE YARDS HAVE STRUGGLED TO ATTRACT NEW ORDERS. CAPACITY OF ALMOST 4 MILLION CGT IS ESTIMATED TO HAVE CLOSED DOWN IN 2014.

YARD CAPACITY ESTIMATED TO BE DOWN BY 4 MILLION CGT IN 2014

Global yard capacity has been steadily declining since the peak capacity of 66 million cgt in 2011. In 2014, we estimate it to be back at the 2009 level of around 56 million cgt. The capacity reduction has exclusively taken place within the group of second-tier yards. According to our calculations, around 200 small yards, representing 7% of global yard capacity or 4 million cgt, will have closed down during 2014. The Chinese yard industry is expected to have declined by 10%, scaling down capacity by some 2.5 million cgt (60 yards), while South Korean and Japanese yard capacity has remained fairly stable (fig. 8).

90% OF GLOBAL YARD CAPACITY SCHEDULED TO BE UTILISED

At the beginning of this year, 90% of yard capacity was scheduled to be utilised during the first nine months of 2014. Interestingly, the group of second-tier yards was scheduled to have a higher utilisation rate than the first-tier group. The extensive postponement activity has profoundly changed this picture.

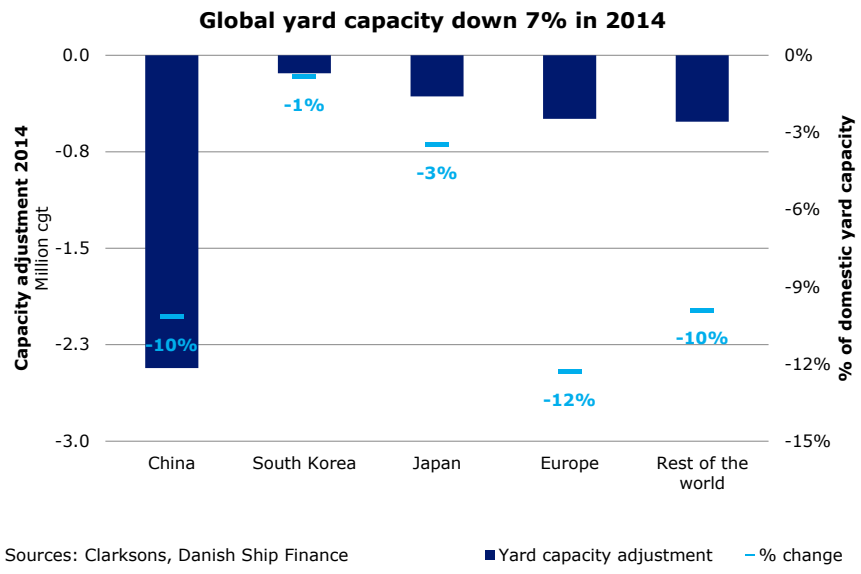
65% OF CAPACITY IS BEING UTILISED

It turns out that global yard utilisation has dropped to the lowest level seen in a decade. Going into the fourth quarter of 2014, yard utilisation is as low as 65%. Still, the first-tier group of yards, representing 80% of global capacity, has utilised 67% of its capacity, while the second-tier group of yards has utilised only 52% of its capacity.

SECOND-TIER YARDS IN CHINA ARE STRUGGLING TO SURVIVE

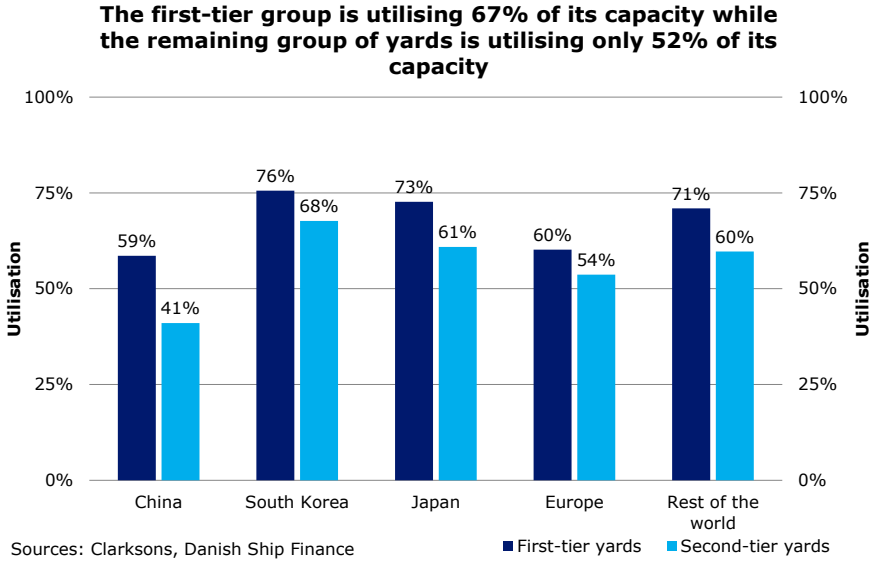
The Chinese part of the second-tier group, currently representing 21% of domestic yard capacity, seems to be struggling the most. The capacity of this group peaked in 2012 at 9 million cgt. Since then, capacity has declined by approximately 2-2.5 million cgt annually. During 2014, this group of yards has only utilised 41% of their combined capacity and has not received a single new order (fig. 9).

Figure SB.8



Sources: Clarksons, Danish Ship Finance

Figure SB.9



Sources: Clarksons, Danish Ship Finance

WE EXPECT THAT THE SECOND-TIER GROUP OF YARDS IS AT RISK OF GOING OUT OF BUSINESS WITHIN TWO YEARS WHILE A SMALLER NUMBER OF YARDS WITHIN THE GROUP OF FIRST-TIER YARDS ARE EXPECTED TO CLOSE IN 2016.

We present an outlook that by many will be considered rather unconventional in terms of the speed and the magnitude of yard closures. And it might be. But our approach is simply based on order cover and utilisation. If a yard fails to utilise at least 40% of its capacity during a year and has an empty orderbook, we consider the yard a candidate for closure the following year. Still, we expect overcapacity to dominate the industry outlook in years to come.

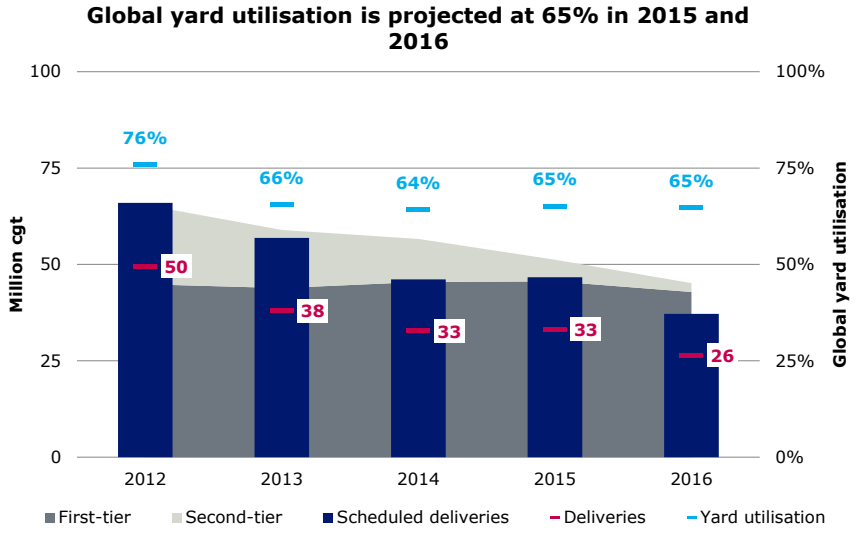
THE NEWBUILDING PRICE CAN BE MISLEADING

By using the newbuilding price as an indicator of the current state of the global yard industry, the market appears to be approaching a delicate balance between yards' capacity and the shipping markets' demand for new vessels. This is, however, somewhat misleading, as this indicator only applies to the yards actually receiving new orders. Moreover, it says very little about the fundamental demand from the shipping markets. The point is that the newbuilding price tells us nothing about the situation for the second-tier group of yards, many of which have been unable to attract new orders in 2013 and 2014. The second-tier group, currently representing 20% of global yard capacity, has been running at a 52% utilisation rate during 2014 and has an orderbook for 2015 and 2016 representing no more than 10% of its current capacity. Given that the yards within this group only delivered 48% of their reported orderbook during the first nine months of 2014, the situation looks bleak.

FEWER BUT LARGER YARDS IN THE FUTURE

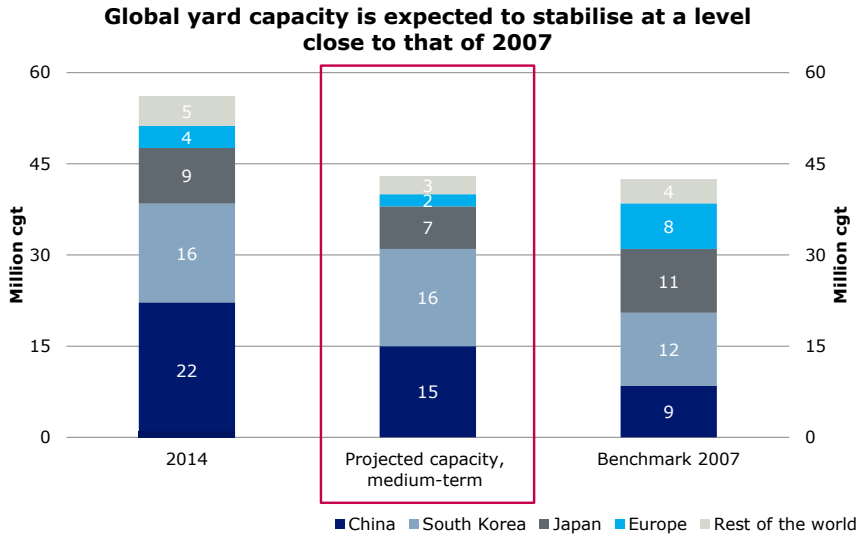
In three to four years, we expect global yard capacity to have been scaled back to a level that resembles that of 2007. But by 2017, Chinese and South Korean yards are predicted to account for almost 70% of capacity, up from 48% in 2007, and the number of yards is expected to have declined significantly (fig. 11). In 2007, more than 750 yards delivered new vessels. In 2010 this number peaked at over 900 yards, while around 650

Figure SB.10



Sources: Clarksons, Danish Ship Finance

Figure SB.11



Sources: Clarksons, Danish Ship Finance

yards have delivered new vessels during 2014. By 2017, we predict that approximately 160 yards will be building new vessels. When evaluating this projection, it should be kept in mind that 80% of the current capacity is divided among a little more than 200 yards globally and that almost half of yards have not received any new orders in either 2014 or 2013.

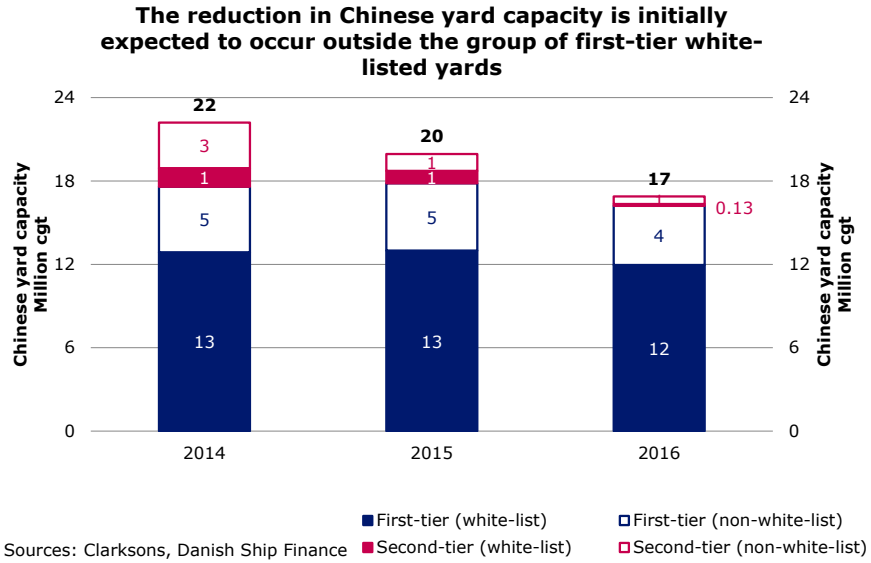
CHINA IS EMBARKING ON A RESTRUCTURING PROCESS

Chinese yards account for almost half of the global capacity reduction predicted for the next two years. But before we get deeply involved in the numbers, let us take a step back and look at where the Chinese yard industry has come from. Chinese yard capacity increased tenfold during the period from 2002 to 2012, when the other regions *only* doubled their capacity. Much of the Chinese capacity expansion was driven by the establishment of new yards, while, in the other regions, the capacity expansion was driven mainly by existing yards. Today, the Chinese yard industry is struggling with massive overcapacity and many yards are folding. Last year, China laid out a three-year plan for an industry restructuring which urged yards to concentrate on building higher-quality vessels and local governments to halt approvals of new projects. China's Ministry of Industry and Information Technology has recently released its first "white list" of 51 shipyards complying with the shipbuilding industry standards that yards must meet to get favourable policy support, such as export tax rebates and bank credit. A further 20 or so yards are expected to be added to the list in the near future. Jointly, the yards on the white list represent about 65% of current Chinese capacity (fig. 12). If we also include the 20 yards not yet announced, we estimate that the white list will contain roughly 80% of current Chinese yard capacity.

CAPACITY OF THE SECOND-TIER GROUP OF YARDS WILL DECLINE

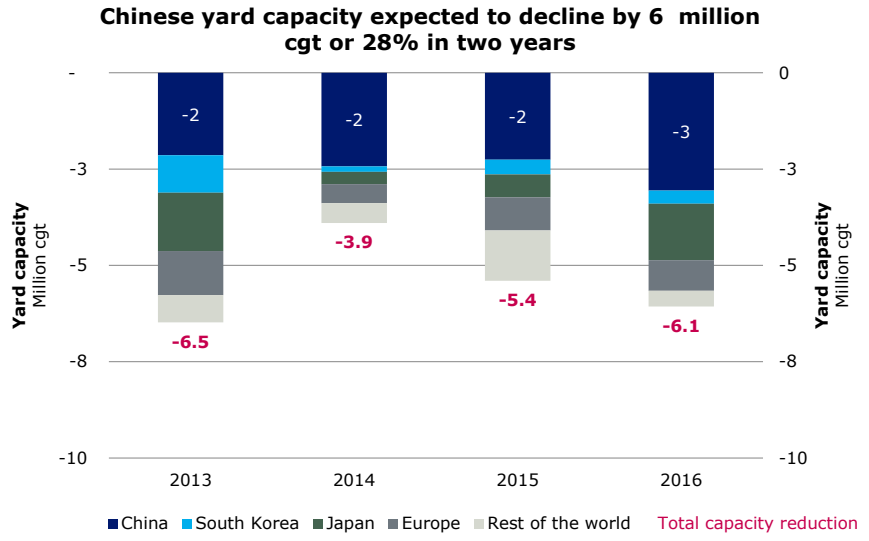
Based on current yard capacity, first-tier yards are expected to utilise approximately 81% of their current capacity in 2015 and 64% in 2016. The second-tier group of yards is currently scheduled to utilise 9% of their current yard capacity in 2015 and 7% in 2016. We predict that yards with a combined capacity of 11.5 million cgt, representing 20% of current yard capacity, will run

Figure SB.12



Sources: Clarksons, Danish Ship Finance

Figure SB.13



Sources: Clarksons, Danish Ship Finance

out of orders during 2015 and 2016 (fig. 13). The majority of yards running out of business are within the second-tier group. The combined capacity of the second-tier group is expected to be halved during 2015 and reduced to 20% of current capacity by 2016. The capacity of the first-tier group is expected to remain almost intact during 2015, but first-tier yards with a combined capacity of 10% of the current level look set to run out of orders in 2016.

65% OF GLOBAL YARD CAPACITY HAS BEEN UTILISED IN 2014

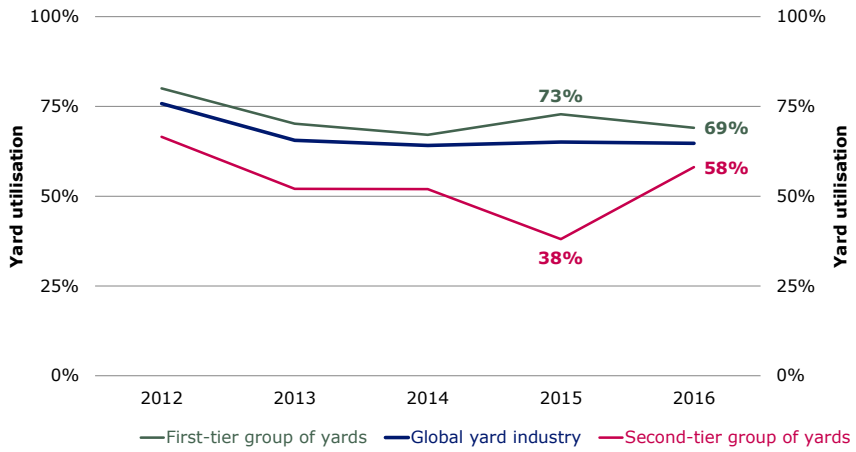
For the rest of 2014, and for 2015 and 2016, we assume that the postponement and cancellation activity of the past nine months will be repeated. In total, 22 million cgt is up for delivery in the final quarter of 2014, which would bring total deliveries for the year close to 47 million cgt. Experience from previous years has shown that actual fourth-quarter deliveries tend to be significantly lower than what was scheduled. Besides, there are many purchase options within the fourth-quarter delivery schedule. We therefore predict that only 6 million cgt of the 22 million cgt scheduled will be delivered during the fourth quarter of 2014. Consequently, we expect that total annual deliveries in 2014 will end up around 33 million cgt. If this prediction turns out to be fairly accurate, the first-tier group of yards will have been running at a utilisation rate of 67%, while the second-tier group will have maintained a rate of just over 50% in 2014. The utilisation rate for global yard capacity in 2014 is expected to be 65% (fig. 14).

GLOBAL YARD UTILISATION STABLE AT 65% IN 2015 AND 2016

More than 46 million cgt is scheduled to be delivered during 2015, but we expect only 33 million to be delivered. Based on our capacity projections, we estimate that 65% of global yard capacity will be utilised, on average (fig. 10). The group of first-tier yards is expected to run at an 80% utilisation rate, while the second-tier group is expected to remain subdued at a utilisation rate of 38%. For 2016, we currently expect that 26 million cgt will be delivered, but new orders, postponements or cancellation of existing orders may alter this figure. The utilisation rate for the yards in the first-tier group is estimated to be in the high 80s on average, while for the second-tier group of yards it is expected to increase to 58%. In this respect, it should be kept in mind that in 2016 we predict that the capacity of the second-

Figure SB.14

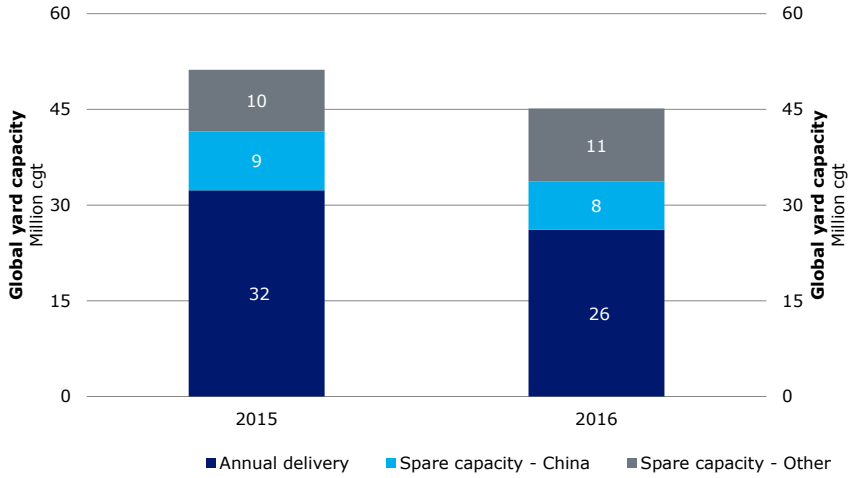
The first-tier group is expected to run at a utilisation rate below 75% if capacity is reduced according to schedule



Sources: Clarksons, Danish Ship Finance

Figure SB.15

Despite massive capacity reductions projected spare capacity remains around 40% of annual capacity



Sources: Clarksons, Danish Ship Finance

tier group of yards will have been reduced to 20% of the current capacity. The Chinese yards are on average expected to perform 10-15 percentage points below the global annual average, despite the anticipated capacity reductions.

WILL NEWBUILDING PRICES STABILISE OR CONTINUE TO INCREASE?

Global shipbuilding capacity is projected to be in excess for the foreseeable future. According to economic theory, prices decline when supply exceeds demand. But in the past two years we have learned that only capacity that is in demand influences the pricing mechanisms of the vessels. Surplus capacity at yards that do not attract new orders do not put any pressure on newbuilding prices. The final question to be asked is whether tomorrow's newbuilding prices are expected to reflect the continued overcapacity. The answer depends on whether yards, particularly in China, will be able to develop their capabilities of building more complex vessels. To put it simply, we find it difficult to see how low-spec vessels (e.g. dry bulk vessels) can maintain newbuilding prices at today's levels. But it is less obvious whether VLGC newbuilding prices or offshore-related tonnage will see declining newbuilding prices over the coming 12 months. Significant price increases are, however, not the most likely scenario for 2015 and 2016.

CONTAINER

SHIPPING MARKET REVIEW – NOVEMBER 2014

DANISH SHIP FINANCE

CONTAINER

THE ERA OF THE POST-PANAMAX VESSELS IS STILL UNFOLDING, LEAVING DEEP MARKS ON THE REST OF THE CONTAINER INDUSTRY. SIGNS OF RECOVERY ARE YET TO BE SEEN.

FREIGHT RATES

VOLATILE BOX RATES AND LOW TIMECHARTER RATES CONTINUE TO BE THE MAIN HEADLINES IN THE CONTAINER MARKET IN 2014.

2014 started out strongly and the average box rate out of China peaked in the middle of February, at a level not seen since late 2012. The positive sentiment did not last and it quickly dropped back down. Thereafter, it trended upwards at an uneven pace before tumbling yet again in September. As of October, the rate was down 4% from the beginning of 2014. The annual average box rate is still up 2% compared with 2013, however (fig. 1). Shipowners have deemed it necessary to continue monthly rate increases in an attempt to sustain an acceptable box rate.

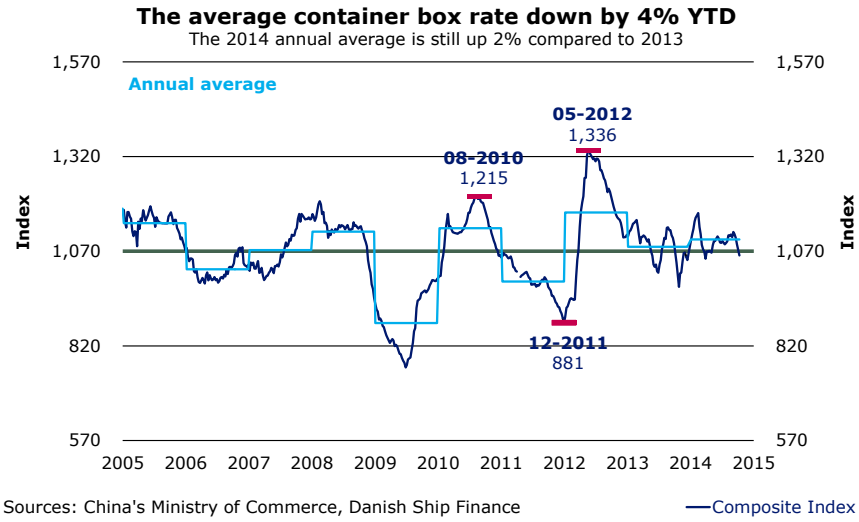
EAST-WEST TRADE DOMINATES BOX RATES

The largest trade lane from China to Europe was accountable for the spike in box rates seen in the first few months of the year. As usual, this was spurred by the Chinese New Year. After a short-lived dip, rates recovered but by the end of the third quarter they started to slide. The smaller container routes are feeling the pressure from the continuous cascading of vessels from the East-West trades. In particular, the Transpacific route has suffered and box rates are down 8% on 2013.

TIMECHARTER RATES REMAIN LOW

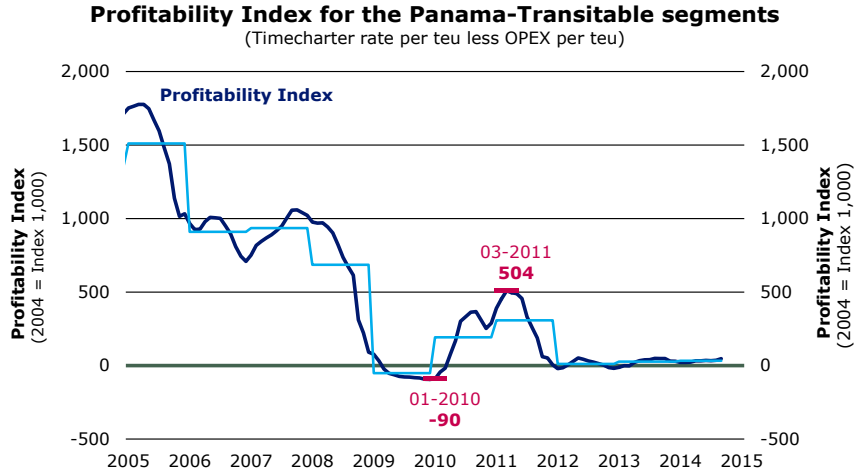
The overcapacity continues to have a firm grip on the timecharter market, and rates have remained more or less unchanged over the last two years at a discouragingly low level. By calculating the average timecharter rate per teu less the average OPEX cost per teu, we see that shipowners have a hard time covering their CAPEX (fig. 2). The annual average has, however, improved slightly YTD and is currently marginally higher than the levels seen in 2012 and 2013. Still, the bigger Panamax vessels have – surprisingly – witnessed almost a 50% increase this year, whereas the geared vessel segments, with the exception of the small feeders, have all declined.

Figure CS.1



Sources: China's Ministry of Commerce, Danish Ship Finance

Figure CS.2

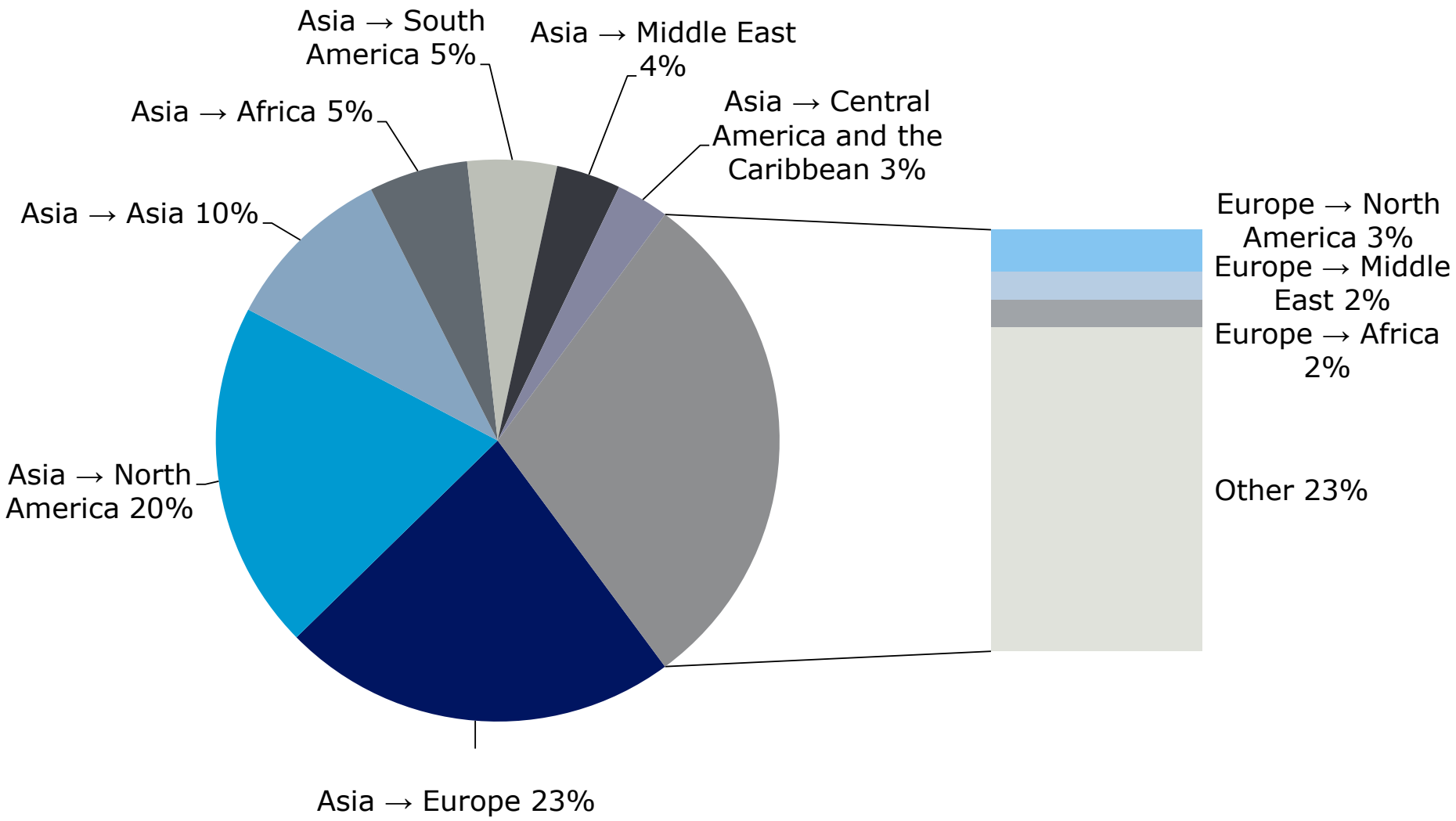


Sources: Clarksons, Drewry, Danish Ship Finance

Figure CS.3

Major head-haul container trades 2014

(measured in teu miles)



Sources: IHS Global Insight, Danish Ship Finance

THE POST-PANAMAX FLEET CONTINUES TO EXPAND WHILE THE THE SMALLER SEGMENTS ARE CONTRACTING. SUPPLY GROWTH IS EXPECTED TO BE 1 PERCENTAGE POINT HIGHER THAN DEMAND GROWTH.

Not much has changed in the container market in 2014. The fleet of Panama-Transitable vessels is still contracting; trying to accommodate the huge amount of tonnage being cascaded down through the system as a result of the continuous large inflow of Post-Panamax vessels.

1.1 MILLION TEU DELIVERED IN 2014 YTD

1.6 million teu was scheduled to be delivered during the first three quarters of 2014. Of this, 12% was purchase options. 1.1 million teu was actually delivered and the remainder was either cancelled or postponed for later delivery. This led to overall net fleet growth of 5% (fig. 4). As has been the case for the last four years, fleet growth was attributable to the Post-Panamax segment, which grew by 10%, whereas the Panama-Transitable segments all contracted. As of October 2014, the Post-Panamax fleet constituted 57% of the total container fleet measured in teu.

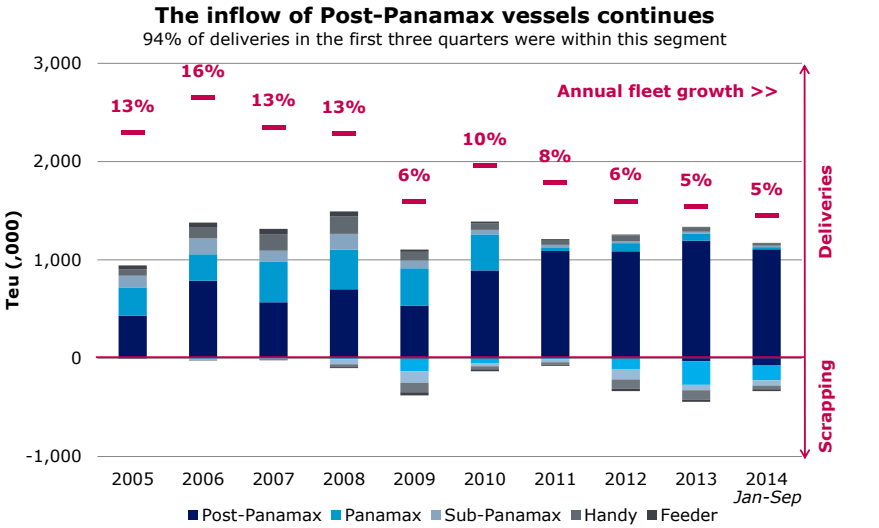
0.3 MILLION TEU SCRAPPED IN THE FIRST THREE QUARTERS

The high scrapping activity has continued in 2014, and as of October, 0.3 million teu had been scrapped, half of this in the Panamax segment. The Post-Panamax segment saw record-high scrapping in the period; however, all the scrapped vessels were in the size range 4,000 to 5,500 teu (i.e. wide-beam Panamax vessels). The average scrapping age for container vessels was 22 years, but among Post-Panamaxes, the average age of vessels scrapped was only 19 - the youngest being a 16-year-old 5,300 teu vessel built in South Korea.

GLOBAL CONTAINER DEMAND UP BY 4%

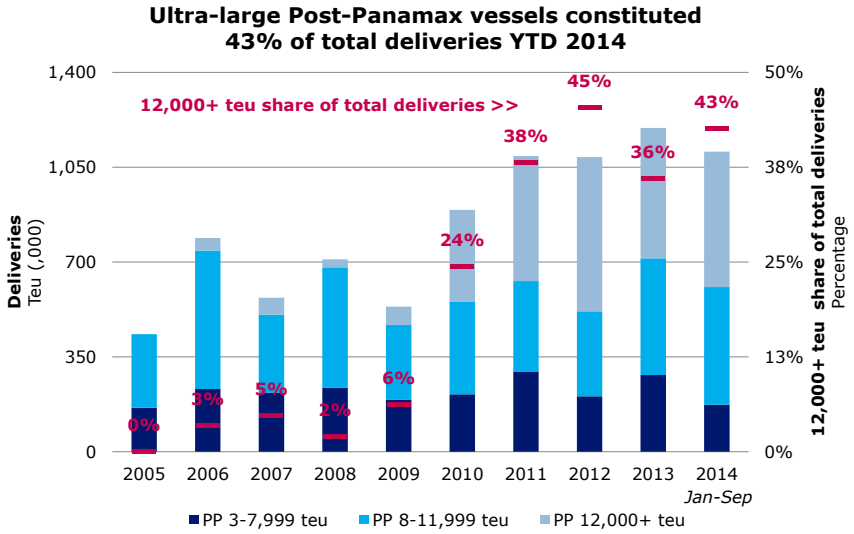
The global recovery seems to have got a better grip in 2014 and overall demand is expected to increase by 4% this year, up from 2% last year. Distance-adjusted demand is also expected to grow by 4% (fig. 6). Still, this is not enough to entirely absorb supply growth. More or less all major regions have experienced positive growth rates in exports, especially South and North America and Asia. Russia, on the other hand, has suffered from

Figure CS.4



Sources: Clarksons, Danish Ship Finance

Figure CS.5



Sources: Clarksons, Danish Ship Finance

the Ukraine crisis and is expected to show negative growth in exports to North America and Europe this year.

NORTH AMERICA IS STRENGTHENING IMPORT AND EXPORT VOLUMES

The US economy experienced a very bad first quarter on the back of a freezing winter and massive stockpiling at the end of 2013, affecting both import and export negatively at the beginning of the year. The economy was quick to recover in the second quarter and has since grown consistently. We expect both import and export of container goods to grow by 5% this year after a stagnant year in 2013 (fig. 7). The majority of the import growth in 2014 has come from Asia; however, South America has been accountable for a significant share as well. Over the last decade, Asia has been the only major region to notably increase container exports to North America, accounting for 94% of North American import growth in this period.

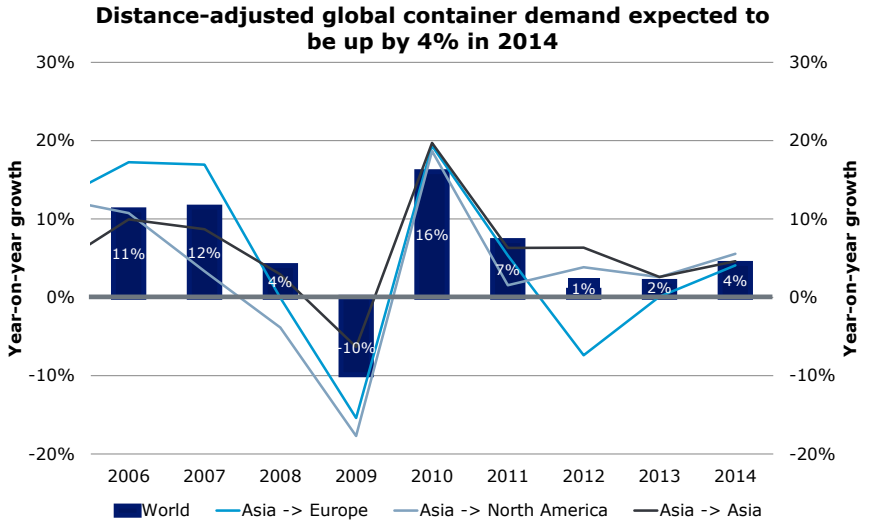
EUROPE IS REGAINING POWER - SLOWLY

Overall European container demand has grown stronger in 2014 and is expected to increase by 3% in 2014. However, the EU continues to be highly fragmented and growth is not evenly distributed. Western Europe, followed by Northern Europe, has shown the most strength, whereas Southern Europe is still lagging behind somewhat. However, it is still expected to increase seaborne container demand by 2%. The Ukraine crisis is affecting Europe's trade with Russia and container imports are set to drop by a little more than 4%.

ASIA'S INTRA-REGIONAL TRADE

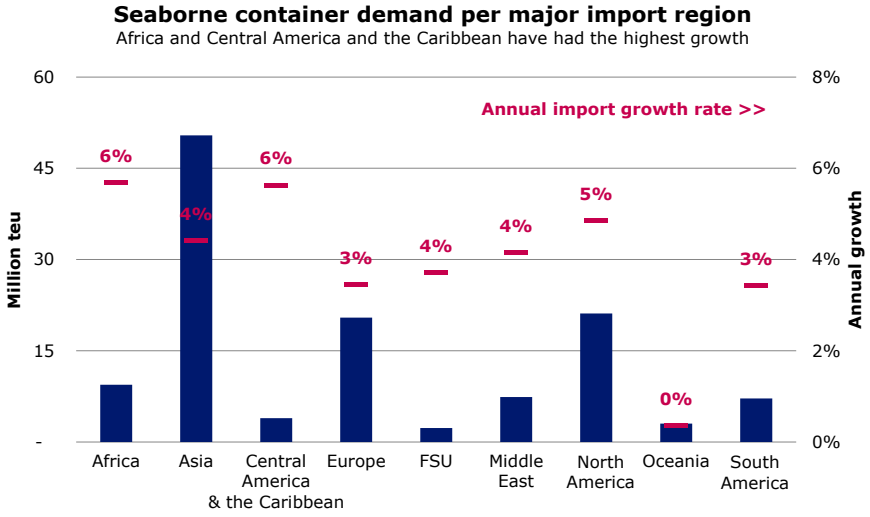
Intra-Asian trades continue, partly driven by component trades, to dictate regional import figures. Around two-thirds of Asian seaborne container imports stem from intra-regional trade. The goods transported internally are plastic in various forms, different chemical products, iron, steel and textiles. If we instead look at Asian container export to North America and Europe, the dominant product groups are furniture, electrical appliances, manufactured plastic products and clothing. But the regional manufacturing costs, especially in China, are rising. The cost competitiveness of regions will therefore be the most interesting factor to monitor in the years to come. Imagine the devastating impact that regional manufacturing hubs would have on the new ultra-large vessels. This could profoundly change the industry.

Figure CS.6



Sources: IHS Global Insight, Danish Ship Finance

Figure CS.7



Sources: IHS Global Insight, Danish Ship Finance

CONTRACTING MODERATED DURING THE FIRST THREE QUARTERS AND SHIP VALUES KEPT RELATIVELY CONSTANT. VALUES ARE STILL OUT OF TOUCH WITH EARNINGS, HOWEVER.

830,000 TEU CONTRACTED IN THE FIRST THREE QUARTERS

The trend continues and more orders for ultra-large container vessels have been placed in 2014. As of October, 830,000 teu had been contracted and 63% of this was for vessels larger than 12,000 teu. Still, contracting activity in 2014 has been far below the extreme level seen in 2013. The contracting boom in 2013 has nonetheless left its mark on delivery time, which has increased by three months on average to 25 months. Average delivery time for Post-Panamax vessels has increased to 28 months (fig. 8). Nonetheless, there is a 19,000 teu vessel to be built at a South Korean yard with an estimated delivery time of only 20 months.

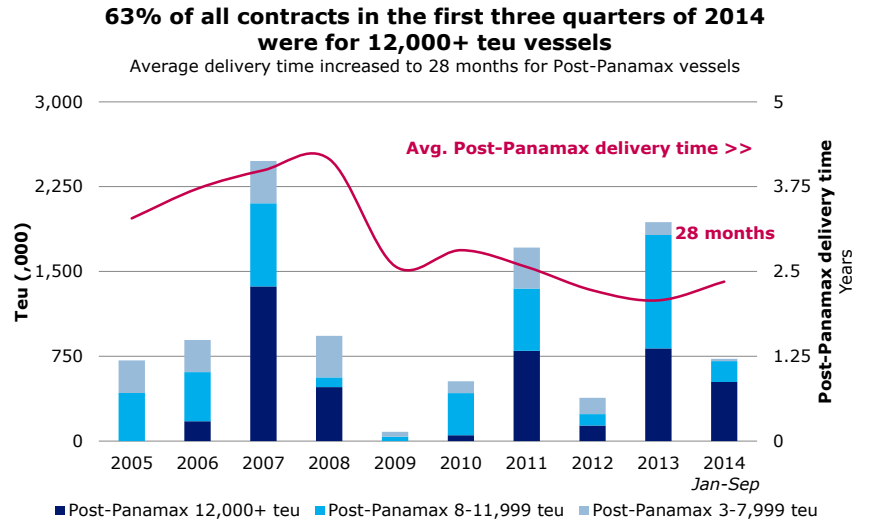
STATUS QUO FOR NEWBUILDING AND SECONDHAND PRICES

The average newbuilding price has kept constant in 2014, 10% above the 2013 average. Secondhand prices have also kept relatively constant in 2014. The Feeder and Handy segments have trended slightly downwards, however, while the Panamax segment is the only one to have trended marginally upwards. This might be a sign of the heavy scrapping beginning to pay off.

PRICES HAVE DECOUPLED FROM EARNINGS IN THE SMALLER SEGMENTS

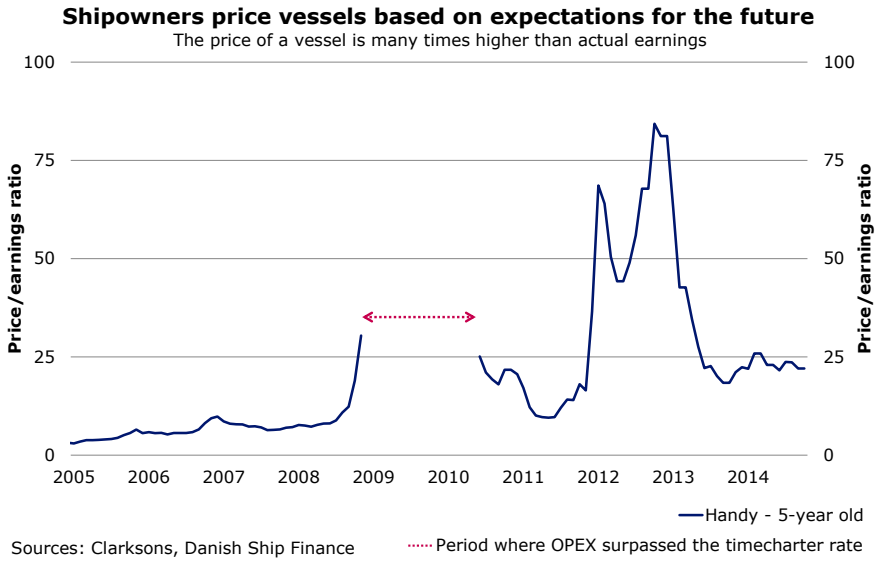
The focus of the container industry has for a long time been on the Post-Panamax segment and the main trade lanes. The Panama-Transitable segments have therefore been forced to absorb the excess vessels from the major trade lanes, cascaded down as they have been replaced by larger and more cost-efficient ones. This has resulted in overcapacity in the smaller segments, which has kept freight rates low – at times lower than OPEX. Meanwhile, values have not followed suit. This is reflected in the price/earnings ratios. Vessels have been priced at abnormally high levels ever since the crisis. The graph on the right shows how the price of a five-year old Handy vessel was 80 times higher than its earnings in 2012 (fig. 9). It has stabilised somewhat in 2013-14 due to higher timecharter rates; however, compared with other shipping segments, price/earnings ratios are still high in the Panama-Transitable segments.

Figure CS.8



Sources: Clarksons, Danish Ship Finance

Figure CS.9



Sources: Clarksons, Danish Ship Finance

THERE IS NO QUICK FIX FOR THE ISSUES AFFECTING THE CONTAINER MARKET AT THE MOMENT. THE RESTRUCTURING PROCESS IS PROGRESSING, BUT THERE IS STILL SOME WAY TO GO.

The prospects of an impending recovery of the container market remain marginal. The overcapacity continues to weigh on freight rates and the restructuring of the industry is far from complete. The Panama-Transitable segments are receiving almost no deliveries, have empty orderbooks and are demolishing vessels in abundance. Yet they are still struggling with low freight rates stemming from overcapacity. All this is due to cascading from the major trade lanes. The North-South trades are struggling to absorb the cascaded vessels from the East-West trades and the average vessel size on the North-South trades has gone up by more than 50% over the last five years. Consequently, we do not believe we will begin to see improvements in the container market until the fleets servicing the East-West trades have been fully replenished with larger vessels. Looking at the current orderbook, the replenishment will not be completed within the next two years.

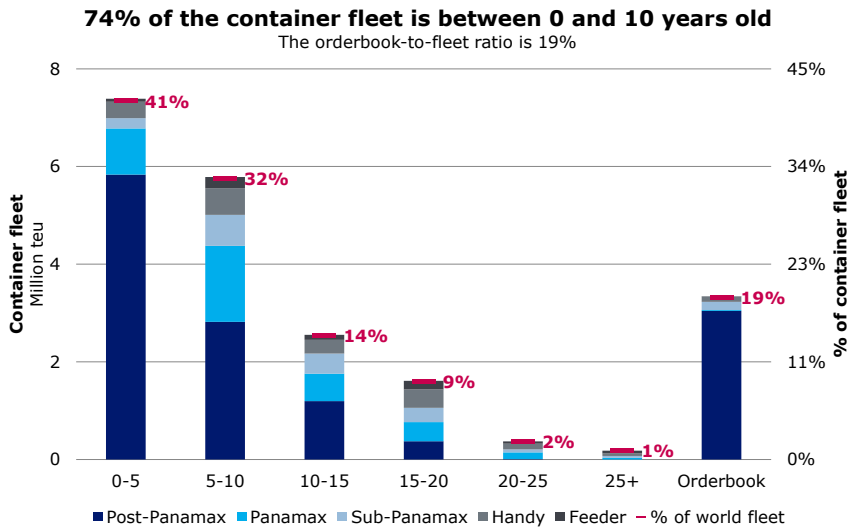
3.3 MILLION TEU IN THE ORDERBOOK

The orderbook declined steadily throughout the first part of the year, as deliveries outpaced contracting. By September, the orderbook had begun to swell once again because more big Post-Panamax orders were placed. Currently, the orderbook equals 19% of the fleet, which is 3 percentage points lower than at the start of the year. To put this into perspective, the Post-Panamax segment has an orderbook-to-fleet ratio of 30%, whereas the Panamax segment has a ratio of only 0.5% (fig. 10).

2014 FLEET GROWTH WILL REMAIN AROUND 5%

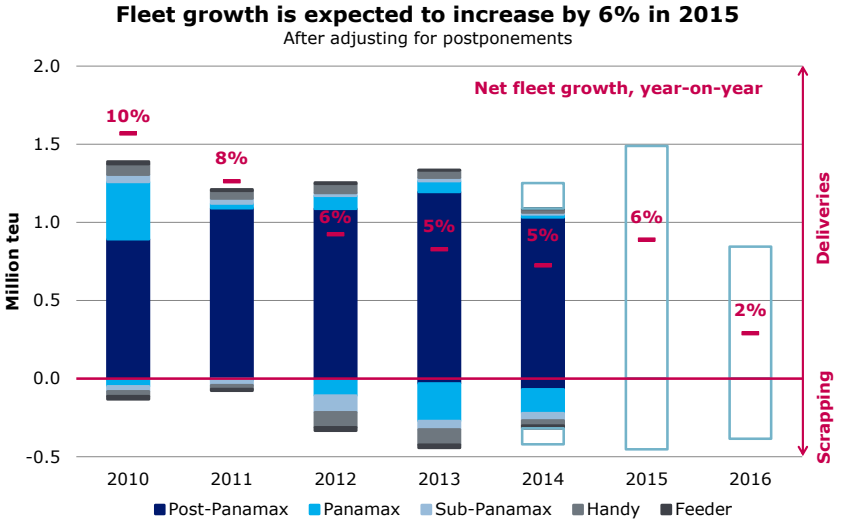
As previously mentioned, the fleet grew 5% during the first three quarters of 2014. If the remaining orderbook for the year is delivered, the annual growth rate for 2014 will be 7%. We expect only around 35% of the scheduled orders to actually be delivered in the fourth quarter and the rest to be postponed to 2015, which has been the case for the last two years. Moreover, according to our calculations, an additional 100,000 teu could

Figure CS.10



Sources: Clarksons, Danish Ship Finance

Figure CS.11



Sources: Clarksons, Danish Ship Finance

potentially be scrapped in the fourth quarter. Consequently, we expect annual fleet growth to end up around 5% in 2014 (fig. 11).

PANAMAX VESSELS WILL CONTINUE TO BE SCRAPPED

We have applied an approach to scrapping whereby vessels become scrapping candidates the year before a special survey, starting at the fourth. This method results in 1.5 million teu of potential scrapping candidates in 2015. Of these, we believe around one-third, or around 450,000 teu, will actually be scrapped. Even though a lot have been scrapped in the Panamax segment in the last couple of years, we have found that the majority of the scrapping candidates remain within this segment. We expect Panamax vessels to account for 80% of the scrapped tonnage in 2015.

2.1 MILLION TEU SCHEDULED FOR DELIVERY IN 2015

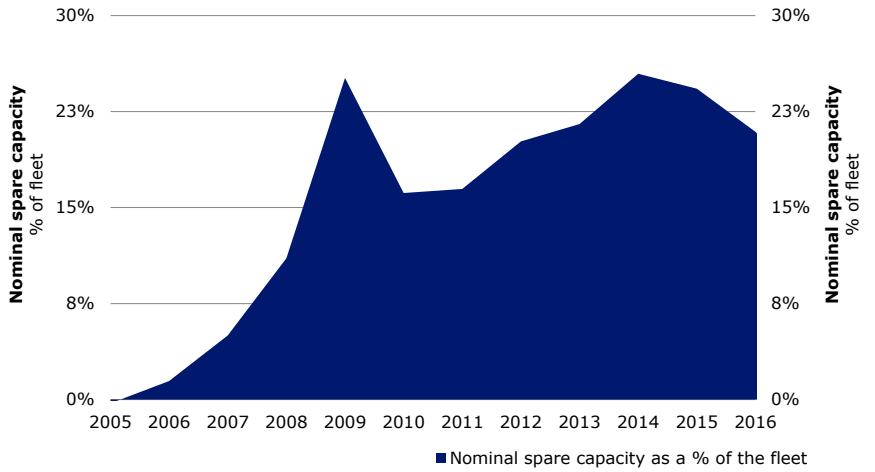
In 2015, 1.8 million teu is currently scheduled for delivery and when adding the expected postponements from 2014, 2.1 million teu is in the 2015 orderbook. When adjusting for an annual postponement ratio of 30%, a still massive 1.5 million teu is set to be delivered. Combined with our scrapping expectation, this means we anticipate fleet growth of 6% next year (fig. 11).

INTRODUCTION OF SULPHUR CHARGES

The final step towards lower sulphur emissions from ships will be taken on 1 January 2015 and will to a large extent affect the container industry. From then on, vessels will not be allowed to emit more than 0.1% sulphur within the Emission Control Areas (ECA), which cover the North and Baltic Seas as well as the US and Canadian coasts. Feeder vessels operating within these waters will have no choice but to comply with these regulations at all times. Some have announced that a sulphur charge will be added to the cargo cost, whereas others are pondering whether they should install scrubbers or prepare the engines to run on alternative fuels. The last two options are however very expensive and it might not be profitable to install them on older vessels. A fourth alternative could be considered by the Post-Panamax vessels serving the main trade lanes because they only briefly enter the areas. They could choose to avoid entering ECA altogether by transporting the containers on feeder vessels within the areas. The question is, though, if this would be economically viable and if there would be enough feeder vessels for this. No single alternative has proved to be the perfect solution to the challenge yet and technology is evolving rapidly. Hence, many operators have taken a wait-and-see approach in order to avoid investing in technology that will be obsolete within a couple of years. The preferred short-term solution might therefore be to shift to Marine Gas Oil or Marine Diesel Oil with low sulphur content.

Figure CS.12

Nominal spare capacity will amount to 4.8 million teu or 24% of the fleet in 2015



Sources: IHS Global Insight, Drewry, Clarksons, Danish Ship Finance

THE OVERCAPACITY WILL WORSEN IN 2015

Seaborne container demand is forecast to pick up in the next three years and on average to grow 5.3% annually, mainly driven by Asia and China (fig. 13). However, as mentioned above, fleet growth is expected to reach 6% in 2015, which will result in a further deterioration of the overcapacity. We estimate that the container fleet will have spare capacity of close to 5 million teu in 2015, equal to 24% of the fleet, at the current average speed levels (fig. 12). The currently low bunker costs could tempt operators to increase speed if freight rates begin to show signs of recovery. If this happens a lot of the capacity 'hidden' by slow-steaming will materialise and potentially force freight rates back down quickly.

SHIFTING TRADE PATTERNS

China has for a long time been an important player in seaborne container trade, meeting more than a quarter of global demand. China has earned this right partly because of the massive economic growth it has generated over the last 15 years and partly because it has possessed all the qualities of an attractive manufacturing hub. This has primarily been due to its low labour costs. In the short to medium term it is expected to retain this role, but times are changing. China is running out of cheap labour and manufacturing costs are rising. Other countries are beginning to surpass it because, as stated by BCG in a recent report, wages, energy costs, currency values and productivity levels have developed unevenly across countries and regions over the last decade or two. Years of wage increases in China have not been accompanied by the same degree of productivity gains, which has caused it to lose ground to countries such as Mexico. In the end, this could result in a shift in trade patterns whereby container goods are to a larger extent sourced from regional production centres.

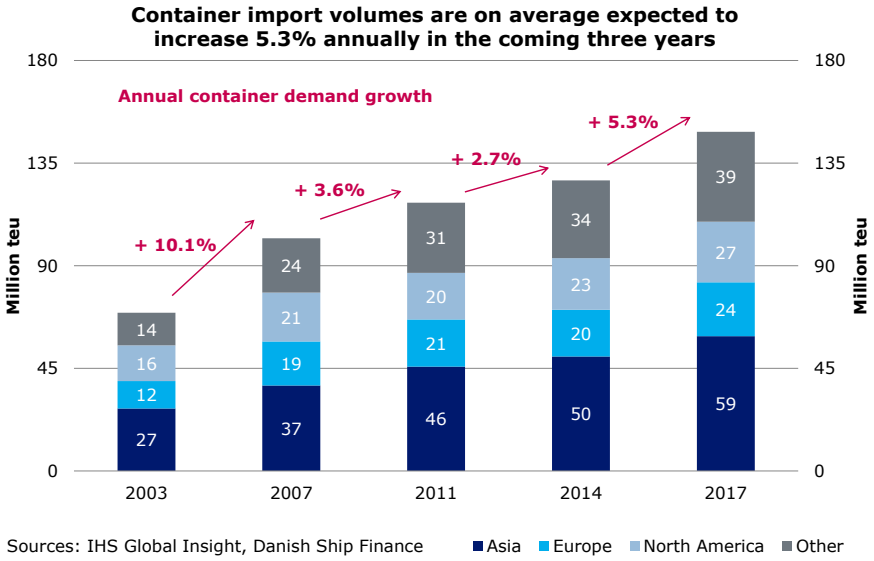
WILL CONTAINER TRADE GO LOCAL?

The US is also one of the countries that has become more competitive on cost over the years. With an abundance of low-cost energy available in the wake of the shale revolution, it can more or less match Chinese production costs. Moreover, with Mexico as a close neighbour and a trade agreement on the drawing board with Europe (TTIP), it might not have much incentive to manufacture and source commodities from Asia and in particular China in the future. Similar trends are materialising in other regions of the world, paving the way for a possible scenario where companies start re-shoring production. Should this happen, it could become very difficult to maintain healthy utilisation of the ultra-large Post-Panamax vessels and distances would shorten. Could it end up causing a renaissance of the Panama-Transitable segments?

THE EXPANSION OF THE PANAMA CANAL

The expansion of the Panama Canal is long awaited and the effects of it highly disputed. When the expansion is complete, the Panama Canal will be able to accommodate container vessel of up to 15,000 teu, which could be a game-changer for the container industry that more and more focuses on economies-of-scale. Hence, even though we might see a shift towards more regional trade, the expansion of the Panama Canal will be another bump in the road for the Panama-Transitable segments. In particular, as more ports begin to develop their infrastructure to better accommodate bigger vessels.

Figure CS.13



THE RECOVERY IS STILL NOT IN SIGHT

At the moment, demand is not expected to be able to outpeform supply within the next year or two, and the market will therefore not get closer to equilibrium in the near future. We expect another tough year for the container industry as a whole in 2015. Recurring artificial rate increases will become a prerequisite for operators and charterers will struggle to stay in the game. We are beginning to discern a rather faint light at the end of the tunnel in the Panamax segment, as rates have begun to strengthen over the year. Combined with our scrapping forecast for next year, this might create the basis for a further improvement of rates in this segment, especially if the expansion of the Panama Canal continues to drag out.

CRUDE TANKER

SHIPPING MARKET REVIEW – NOVEMBER 2014

DANISH SHIP FINANCE

CRUDE TANKERS

2014 STARTED ON A HIGH NOTE, INCREASING OWNERS' CONFIDENCE IN A FUTURE RECOVERY. HOWEVER, THE MARKET QUICKLY RETURNED TO A LOWER LEVEL, BUT CONTRACTING HAS REMAINED HIGH. CONSEQUENTLY, IT HAS BECOME MORE DIFFICULT FOR THE MARKET TO RECOVER FROM THE CURRENT OVERSUPPLY.

FREIGHT RATES

AFTER A POSITIVE START TO THE YEAR, SPOT RATES DROPPED TO A LOWER LEVEL, BEFORE REGAINING SOME MOMENTUM OVER THE SUMMER. TIMECHARTER RATES HAVE BEEN LESS AFFECTED BY THE VOLATILITY IN THE MARKET, AS CONFIDENCE HAS IMPROVED OVER THE YEAR.

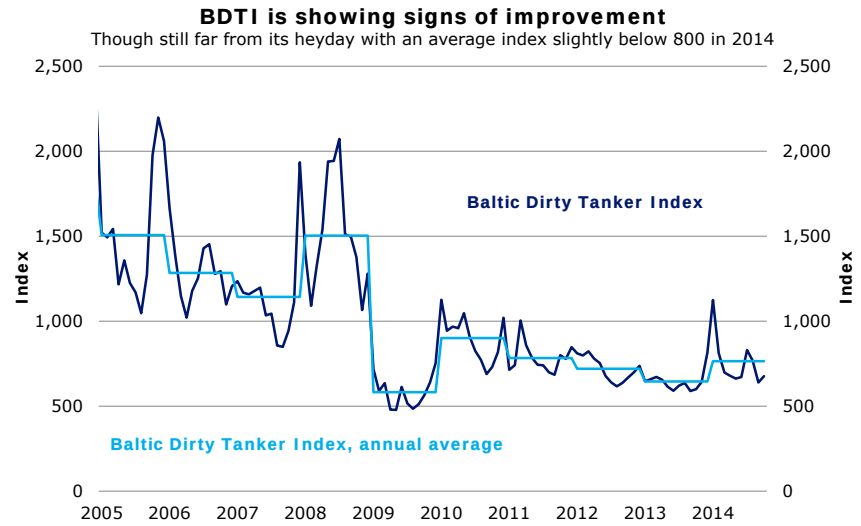
BDTI IS SHOWING SIGNS OF IMPROVEMENT

At the beginning of November 2013, the market soared and in January 2014 the Baltic Dirty Tanker Index peaked at index 1,124, a level not seen since January 2010. However, as the VLCC spot rate had already started to decline and was below USD 20,000 per day in January, the Baltic Dirty Tanker Index was primarily supported by high Suezmax and Aframax spot rates, hovering around USD 55-65,000 per day on average. The market did not stay at this level and the Baltic Dirty Tanker Index slid to around index 660 in May, before regaining some momentum over the summer months (fig. 1).

POSITIVE SENTIMENT SPILLS OVER TO THE TIMECHARTER RATE

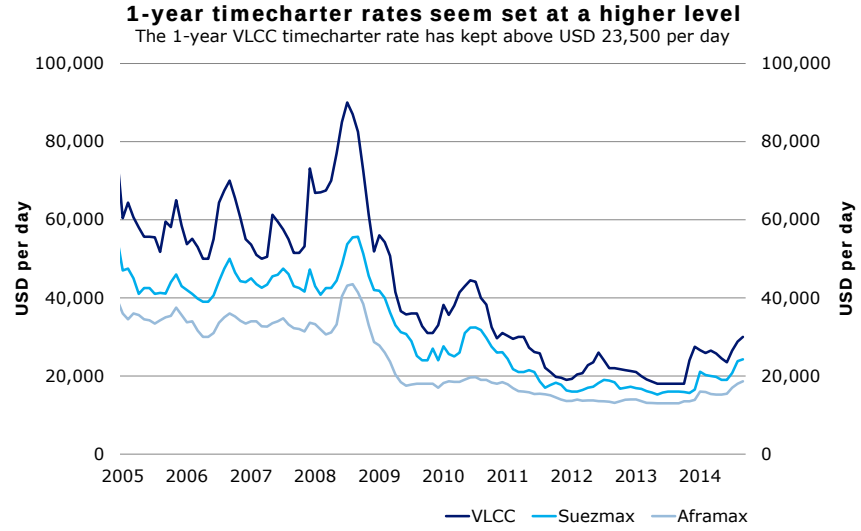
Along with the upsurge in crude tanker spot rates, timecharter rates have also experienced a rise. However, while the spot rate increases have been most pronounced in the Suezmax and Aframax segments, the rise in timecharter rates has been most notable in the VLCC segment. From its low in October 2013 until September 2014, the VLCC timecharter rate increased by more than 60%. The Suezmax and Aframax timecharter rates have been somewhat slower to adapt to the improved demand and the majority of their increase has occurred in 2014. Also, their rise has been somewhat lower (fig. 2).

Figure T.1



Sources: Clarksons, Danish Ship Finance

Figure T.2

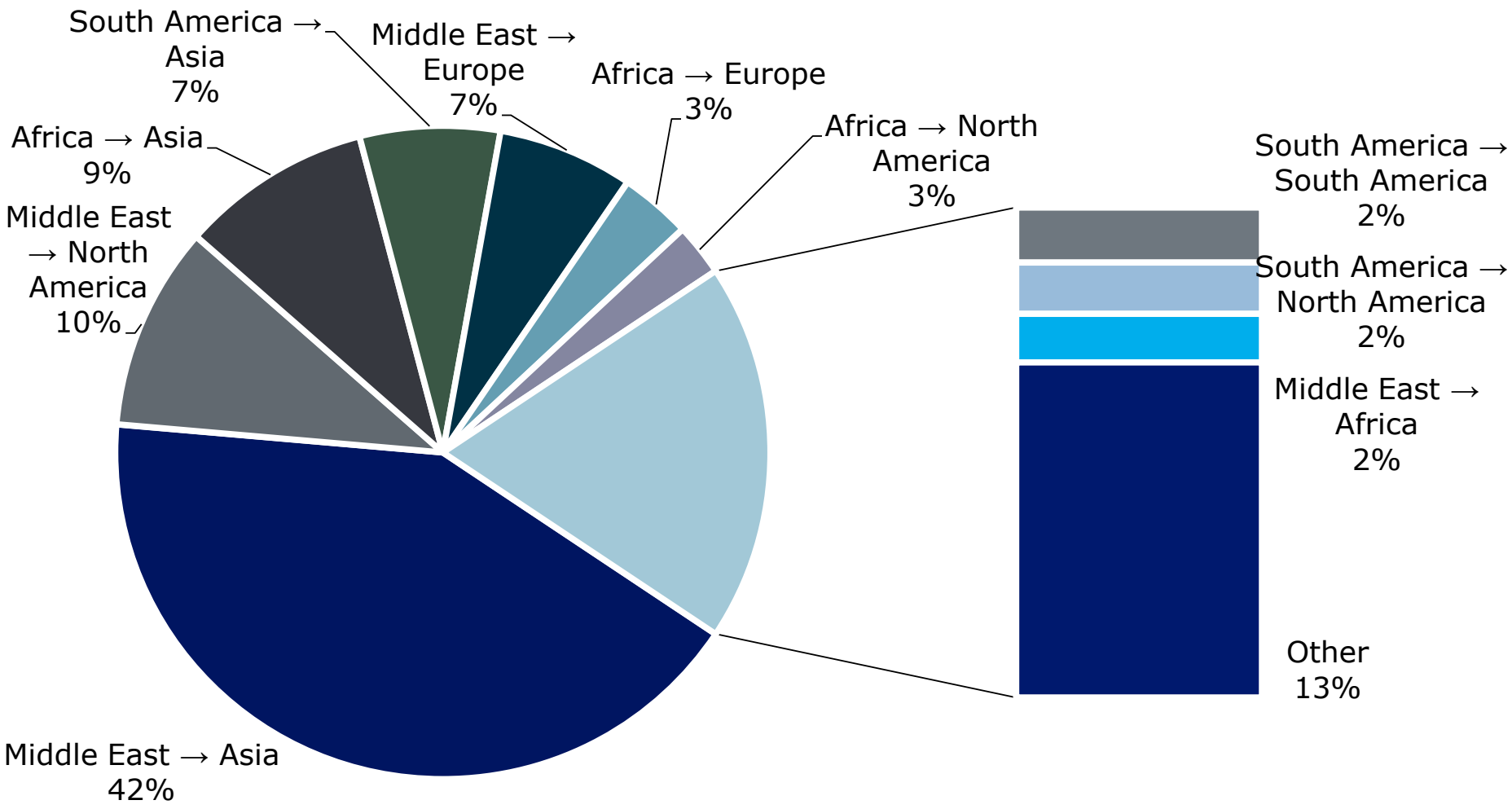


Sources: Clarksons, Danish Ship Finance

Figure T.3

Major crude tanker trades

(Measured in billion tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

IN 2014, THE CRUDE TANKER MARKET HAS RECOVERED SLIGHTLY. HOWEVER, THERE IS STILL AMPLE TONNAGE, WHICH LIMITS FREIGHT RATE SPIKES. DISTANCE-ADJUSTED DEMAND IS EXPECTED TO EXCEED SUPPLY GROWTH IN 2014, ALLEVIATING SOME OF THE EXISTING OVERCAPACITY.

LOWEST FLEET GROWTH IN RECENT YEARS

Fleet growth is expected to come down another notch to 1% in 2014, as the number of new vessels entering the market is at the lowest level seen in recent years. Net deliveries amounted to less than 1 million dwt in the first three quarters of the year (fig. 4).

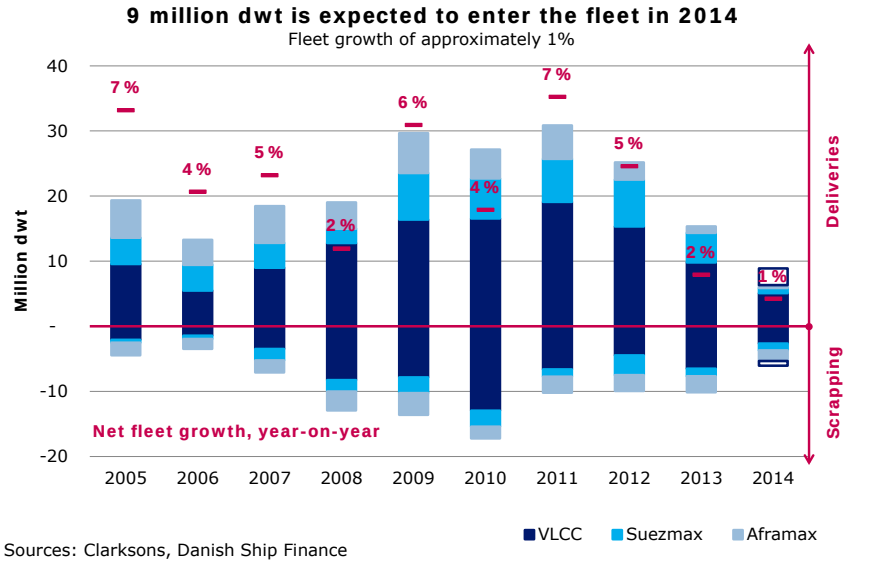
ONLY 48% OF SCHEDULED ORDERS DELIVERED

Deliveries dropped significantly in the first three quarters of 2014, particularly in the Suezmax segment which saw only 21% of its scheduled orders, amounting to 0.8 million dwt, actually enter the fleet. Of the remaining 79%, 46% was postponed, while 33% was cancelled. Cancellations were not as prevalent in the other two segments during the period, as only 12% and 18% were cancelled in the VLCC and Aframax segments, respectively. Together, postponements and cancellations put a lid on deliveries and only 48% of the scheduled orders were delivered. In total, 6 million dwt entered the fleet, the majority in the VLCC segment (fig. 5).

HIGHER SCRAPPING THAN EXPECTED

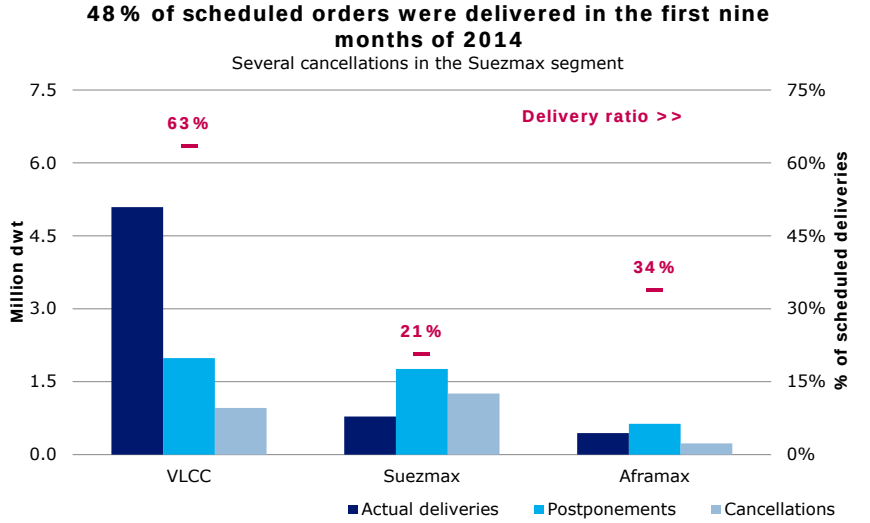
In the first three quarters of 2014, scrapping amounted to a little more than 5 million dwt. This is a slowdown compared with previous years, but still 25% more than we expected at the beginning of the year. We have applied a method whereby we identify eligible scrapping candidates as being vessels approaching their third special survey or higher. This method identified just over 4 million dwt of potential scrapping candidates in the first three quarters of 2014, 1 million dwt short of the actual scrapped tonnage. Scrapping was not limited to one particular segment: all crude tanker segments experienced scrapping above our estimated levels. Hence, in 2014, the VLCC fleet is expected to grow by almost 2%, the Suezmax fleet to remain

Figure T.4



Sources: Clarksons, Danish Ship Finance

Figure T.5



Sources: Clarksons, Danish Ship Finance

roughly unchanged and the Aframax fleet to contract by just under 2%. The average scrapping age of a crude tanker vessel is estimated at 22 years in 2014, up from 20 in 2013.

POSITIVE GROWTH IN SEABORNE CRUDE OIL TRADE

Seaborne crude oil trade in 2014 is expected to increase by roughly 2% to a total of 1.95 billion tonnes. The main driver behind this growth is still Asia, in particular China (fig. 6).

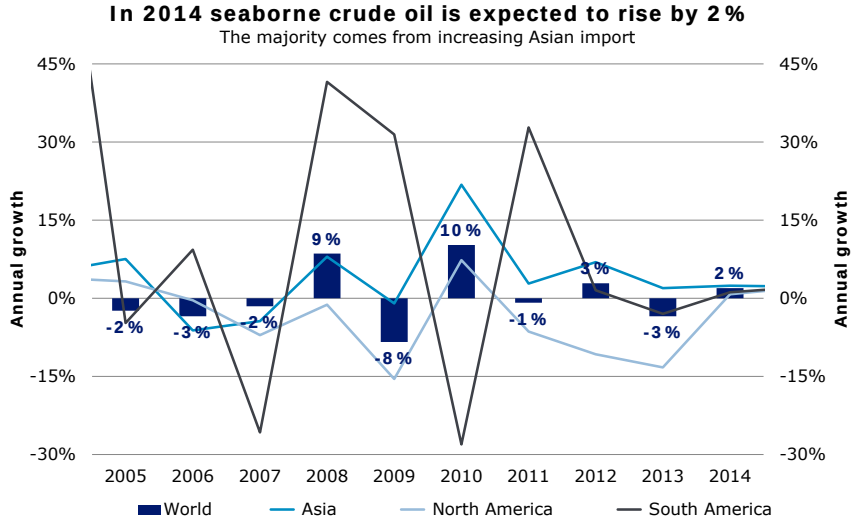
CHINA'S CRUDE OIL UP 10% DURING THE FIRST HALF OF 2014

During the first half of 2014, China increased its import of crude oil by 10%, equivalent to 0.6 million barrels per day, lifting total crude oil demand to 10.3 million barrels per day. Although growth in China's crude oil import is slowing down, longer travel distances are adding to distance-adjusted demand, mainly supported by China's increased intake from the Atlantic basin, in particular West Africa and South America. China's refinery capacity expanded by 0.7 million barrels per day in the same period. However, due to lower utilisation rates, crude oil intake showed a smaller increase and amounted to 10.2 million barrels per day in the first half of 2014. Hence, China's total crude oil demand exceeded total refinery intake by a margin of 0.1 million barrels per day. This surplus went into storage (fig. 7). Even more crude oil has been stored during the second half of 2014, as crude oil prices have fallen. It should be kept in mind, however, that stocking of crude oil only benefits crude tanker demand temporarily, as destocking often occurs later on. It is not known whether the stored crude oil has gone into China's strategic petroleum reserves, at, for instance, Tianjin, or into operating inventories at new and existing refineries.

OVERSUPPLY OF CRUDE OIL IN THE ATLANTIC BASIN

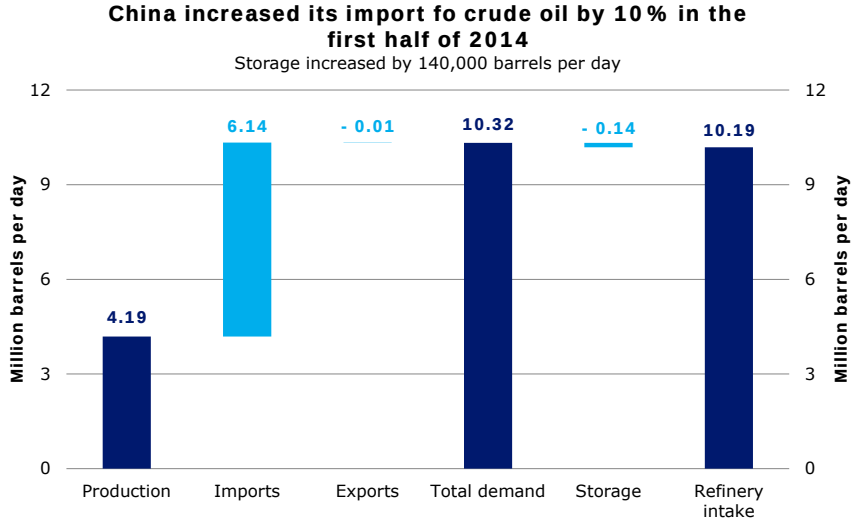
Currently, the Atlantic basin is experiencing an oversupply of crude oil spurred by increased crude oil production in the US. To absorb its domestic production, the US has cut its crude oil imports from especially West Africa, Europe and now also South America. Still, the US is struggling with an abundance of crude oil as refinery capacity is maxed out and exporting is banned. Consequently, the US crude oil producers are trying to circumvent the export ban. The short-term solution has been to ship

Figure T.6



Sources: IHS Global Insight, Danish Ship Finance

Figure T.7



Sources: Jodi, Danish Ship Finance

crude oil to Canada, thereby decreasing Canada's need for additional import. Crude oils benchmarked against North Sea Brent – the international crude oil benchmark most frequently used – have been especially affected as they possess roughly the same characteristics as crude oil produced in the US. Subsequently, a supply glut has been created in the Atlantic basin, as buyers are hard to come by. The oversupply has been further exacerbated by the return of Libyan crude oil production.

LOWEST CRUDE OIL PRICE SINCE 2010

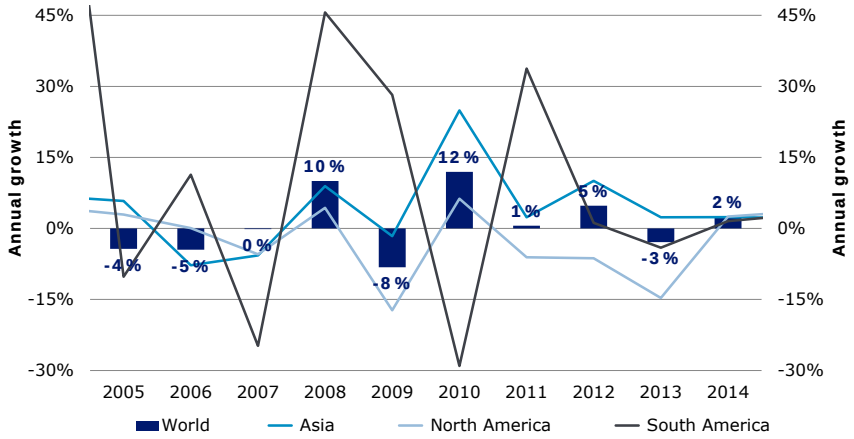
The ample crude oil supply in the Atlantic basin has caused prices to tumble by 20-25% since June. In October 2014, North Sea Brent fell below USD 85 per barrel, its lowest level since 2010. This has minimised its price spread to other crude oil prices, which in turn has made it more competitive. One consequence has been a rise in crude oil imports to the US East Coast, as domestic crude oil prices including transportation costs have been higher than imported crude oil prices. Imports are still low compared with previous highs.

Moreover, the price decline has made it more economical for Asian refiners to import crude oil long-haul from, for instance, West Africa. In 2014, China's import of West African crude oil has risen to the second-highest level ever seen. However, there is a limit to how much China can import from the Atlantic basin, as much of its import is already covered by term contracts with the Middle East. Also, more advanced refinery equipment, like desulphurisation units, require a certain crude oil blend to run optimally. In China's case, this means a specific portion of medium sour crude oil, often found in the Middle East. However, as term contracts run out, more Middle Eastern crude oil can be replaced by Atlantic basin crude oil, benefiting distance-adjusted demand. While China may be somewhat restricted in choosing its import sources, other Asian countries are able to make the switch. Consequently, Asian import of Atlantic basin crude oil may continue to rise.

Figure T.8

In 2014, distance-adjusted demand growth is expected to be on a par with demand growth

Tonne-mile growth is primarily driven by Asia



Sources: IHS Global Insight, Danish Ship Finance

CONTANGO IN THE CRUDE OIL MARKET

During the second half of 2014, the crude oil market has been in contango, meaning that the current crude oil price is lower than the forward price. This has made it profitable to store crude oil, both onshore and offshore. Onshore storage capacity, in particular South African facilities, is sought after, as it provides easy access to both the Eastern and Western markets when the crude oil is to be sold later on. If the contango deepens, more crude oil traders will resort to floating storage. During September, close to 50 million barrels, equivalent to roughly 25 VLCCs, were expected to be stored in tankers off the coast of South Africa and in Asia.

OWNERS' INCREASED CONFIDENCE IN A RECOVERY OF THE CRUDE TANKER MARKET HAS LED CONTRACTING TO PICK UP OVER THE LAST TWO YEARS. SLIGHTLY LOWER ASSET PRICES COMBINED WITH HIGHER EARNINGS HAVE RESULTED IN A LOWER PRICE/EARNINGS RATIO.

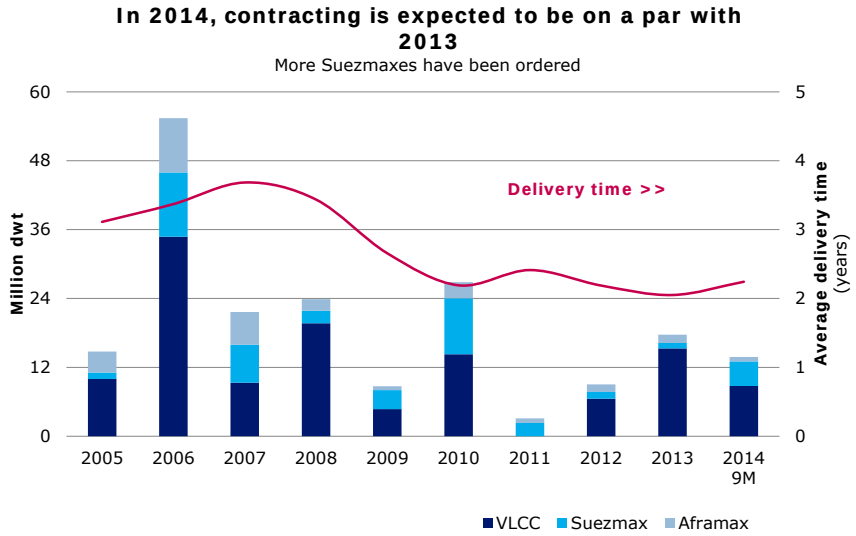
CONTRACTING EXPECTED TO BE ON A PAR WITH 2013

In the first three quarters of 2014, almost 14 million dwt was contracted, 50% of which was ordered in the first quarter. This took place at the top of a freight rate spike which materialised in November 2013 and lasted for the first two months of 2014. In the second quarter, contracting slowed down, only to pick up again in July as freight rates firmed. VLCCs continue to dominate the orderbook, but the Suezmax segment has also seen its fair share of orders in 2014. Overall, 30% of all orders placed have been for Suezmaxes, while 65% have been for VLCCs (fig. 9).

THE PRICE/EARNINGS RATIO IS SLOWLY COMING DOWN

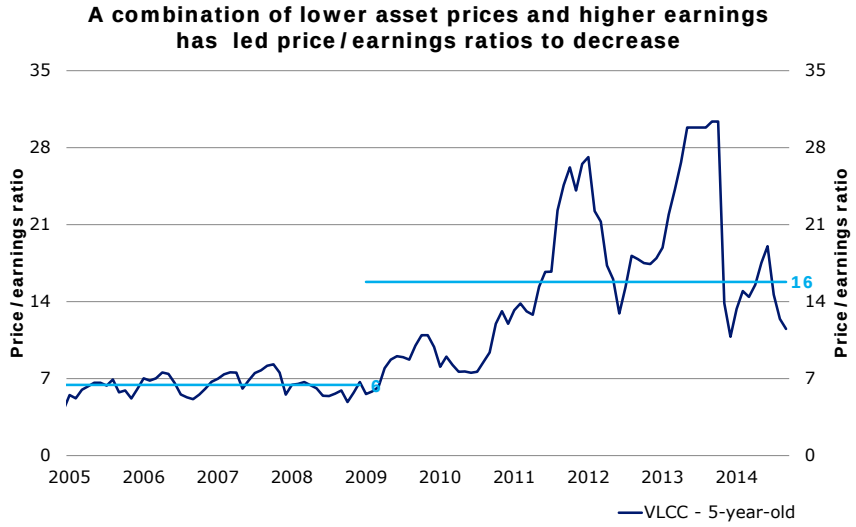
Newbuilding prices have kept fairly constant in 2014, 10-15% higher than the 2013 average. On the other hand, secondhand prices have increased significantly and are now around 30% higher than their value at the beginning of the year. At the same time, timecharter rates have shown a bigger rise, resulting in a declining price/earnings ratio for a 5-year old VLCC. The current price/earnings ratio is just over 11, indicating that the asset price is 11 times higher than its earnings (fig. 10). The declining price/earnings ratio is a positive development for crude tanker buyers, but the average price/earnings ratio in the period 2009-2014 is still more than twice as high as the 2005-2008 average. This signals that the market has high expectations for future earnings, as owners are willing to pay around twice as much for earnings today as they were prior to 2009. If these expectations are not fulfilled, there is a risk that prices may drop significantly. We believe that this risk is genuine, as there is little to indicate that the earnings potential today is twice as high as it was prior to 2009. Based on this, we believe that a 5-year-old VLCC is overpriced even though earnings have risen.

Figure T.9



Sources: Clarksons, Danish Ship Finance

Figure T.10



Sources: Clarksons, Danish Ship Finance

WITH SUPPLY AND DEMAND GROWTH EXPECTED TO BE VIRTUALLY IN LINE OVER THE COMING YEARS, THE MARKET COULD SEE FURTHER IMPROVEMENTS.

LIMITED NUMBER OF SCRAPPING CANDIDATES

Despite relatively high contracting in 2014, the orderbook-to-fleet ratio has stayed roughly unchanged at 13% (fig. 11). At the moment, 90% of the orderbook is scheduled for delivery within the next two years, the majority in 2016. The crude tanker fleet is very young and only 10% of the fleet is above the age of 15, limiting the number of suitable scrapping candidates. Consequently, strong demand is needed to counterbalance the inflow of new vessels.

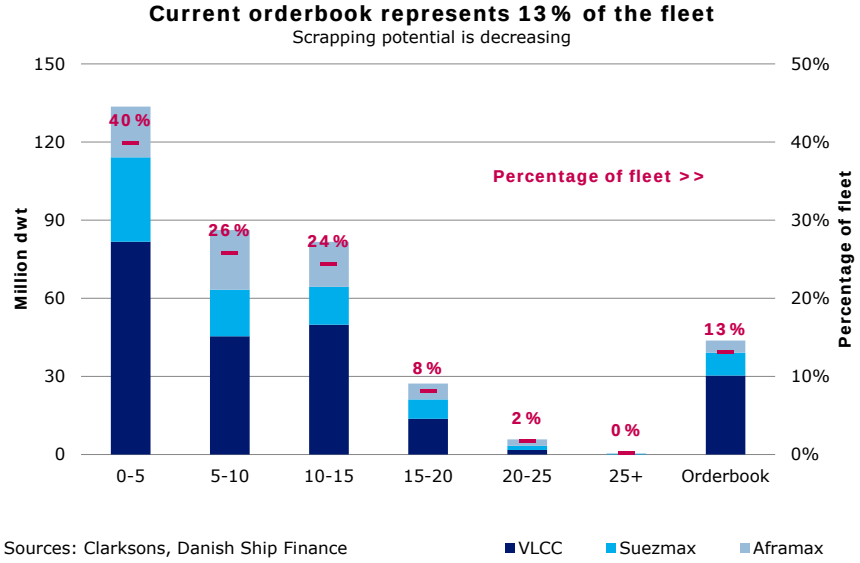
SCRAPPING TO COME DOWN A NOTCH

The orderbook for the coming two years amounts to 32 million dwt. Based on historical observations, we expect that less will actually be delivered. In previous years, several orders have been continually postponed; however, several of these have been cancelled in 2014. Hence, we believe that the postponement ratio will decrease over the coming years. Applying a postponement ratio of 30% results in expected deliveries of 10 and 16 million dwt in the next two years, respectively. At the same time, scrapping is expected to come down a notch, as obvious scrapping candidates are becoming rarer. In a scenario where vessels are scrapped the year before their third special survey or higher, we estimate scrapping of around 7 million dwt per annum over the coming two years. This will bring the average scrapping age down to 20 years, from 22 in 2014. Consequently, we predict that the crude tanker fleet will grow by 1% in 2015 before climbing to 3% in 2016 (fig. 12).

GROWTH IN SEABORNE CRUDE OIL TRADE ESTIMATED AT 2-3%

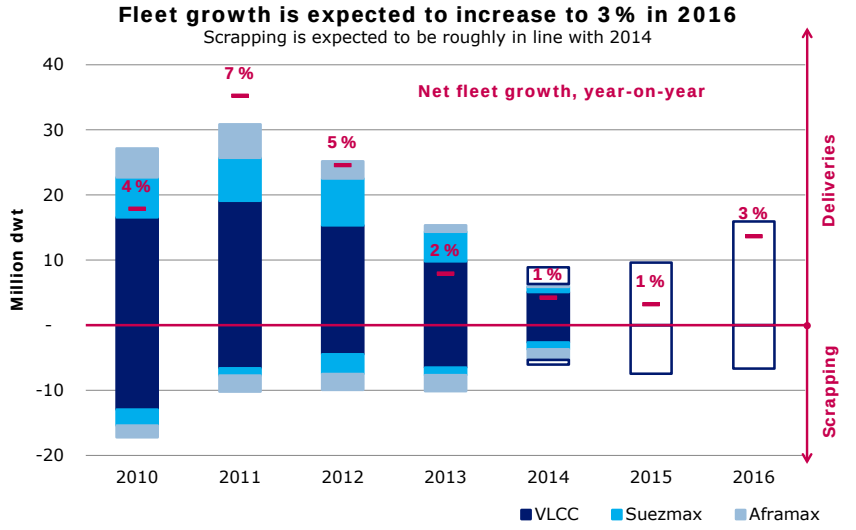
While supply growth is expected to be in the range of 1-3% in the coming two years, growth in seaborne crude oil trade is expected to average 2-3% (fig. 13). Consequently, the market could see further improvements. This development is expected to be driven primarily by Asia, China in particular.

Figure T.11



Sources: Clarksons, Danish Ship Finance

Figure T.12



Sources: Clarksons, Danish Ship Finance

LOWER PRICES MAY TRIGGER ADDITIONAL CONSUMPTION

Demand for crude oil tankers may intensify in the coming year, as the lower crude oil price provides an incentive for additional consumption. The crude oil price may come down even further, as the possible return of Iranian barrels to the market may increase the already ample supply of crude oil. Since the sanctions took effect in 2012, Iran's crude oil export has slumped by more than 1 million barrels per day to 1.3 million barrels per day. To alleviate the pressure on the crude oil price, either demand or production has to give. If OPEC takes decisive action and cuts crude oil production, it may hamper demand for crude oil tankers. However, if production reductions occur in the Middle East, the market could benefit from more long-haul trade, as Atlantic basin crude oil will have to satisfy Asia's increasing appetite.

LOWER OIL PRICES MAY JEOPARDISE US CRUDE OIL PRODUCTION

While the lower crude oil price may boost consumption, it may also jeopardise high-cost crude oil production, especially US shale oil production (fig. 14), as the high depletion rate necessitates ongoing investments in new drilling rigs. New shale oil developments may be affected immediately, as owners may simply refrain from investing any further due to the low oil price. Fields that are already in production can endure a longer and more severe price decline before discontinuing production, as development costs are usually covered within the first 1-2 years of production.

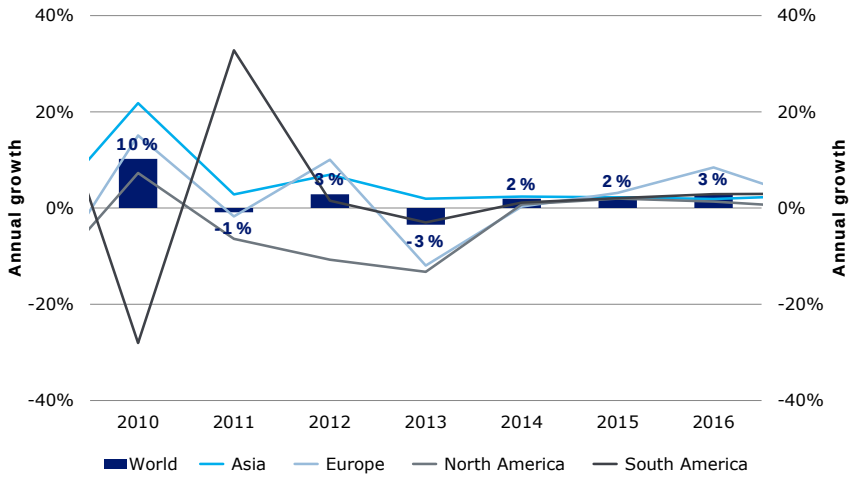
A reduction in US crude oil production would ease some of the pressure on crude oil prices but it would also change trade patterns, as the US would likely begin importing more crude oil. If this happens, the US is likely to resume imports from shorter-haul areas first, such as West Africa. This would limit the availability of long-haul cargoes to Asia and hence have a negative impact on distance-adjusted demand.

LOWER DEMAND FROM CHINA AS REFINERY ADDITIONS ARE CUT

China, the world's second-largest crude oil importer, is expected to lower its demand for additional crude oil import in the coming years due to fewer refinery capacity expansions and fewer new developments. Only 2.4 million barrels per day are expected to come online before 2019, down 33% from previous estimates

Figure T.13

Demand for seaborne crude oil is expected to trend slightly upwards in the coming years

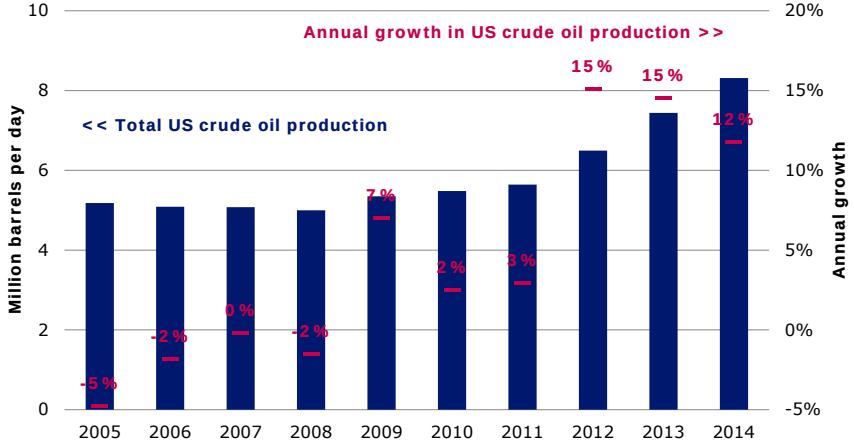


Sources: IHS Global Insight, Danish Ship Finance

Figure T.14

US crude oil production has surged to more than 8 million barrels per day in 2014

In the meantime, import has dropped to close to 7 million barrels per day



Sources: EIA, Danish Ship Finance

(fig. 15). At the moment, China imports the majority of its crude oil from the Middle East. However, refinery developments in the Middle East are expected to limit export volumes and China may have to import more long-haul crude oil from, in particular, West Africa and, to some extent, also from South America. Consequently, even though demand may turn out to be lower than originally anticipated, longer travel distances may counterbalance some of the negative effect.

INCREASING CRUDE OIL TRADE IN VENEZUELA

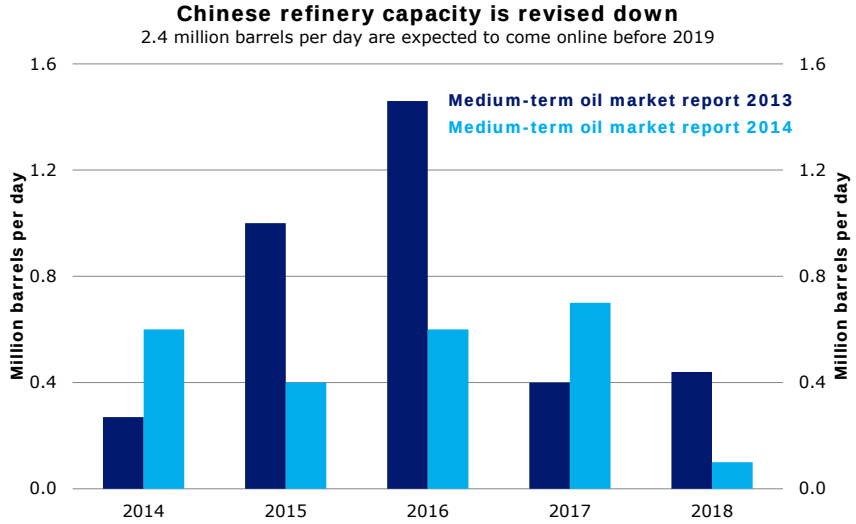
In the coming years, increasing Venezuelan crude oil trade will support distance-adjusted demand for both Suezmaxes and VLCCs. A reason for this development is that Venezuela has to increase its import of diluent to support production of extra heavy crude oil from the Orinoco Belt. In view of Venezuela's financial problems, light crude oil is the cheapest solution. This will be imported mainly from Algeria, and a combination of transport distances and import requirements will make it an ideal Suezmax trade.

Moreover, Venezuela is expected to export more crude oil, as its financial difficulties have resulted in low refinery intake. Today, most of Venezuela's crude oil production is exported and the majority heads to Asia, particularly China, on VLCCs. This trend is expected to continue, as Venezuela has just signed a new agreement with China for the latter to provide it with a new USD 4 billion credit line in exchange for oil. Today, more than 20 VLCCs a month are heading to Asia from Venezuela. This number could increase by 5-10 VLCCs a month.

BUNKER COSTS HAVE COME DOWN, BUT WILL SPEEDS INCREASE?

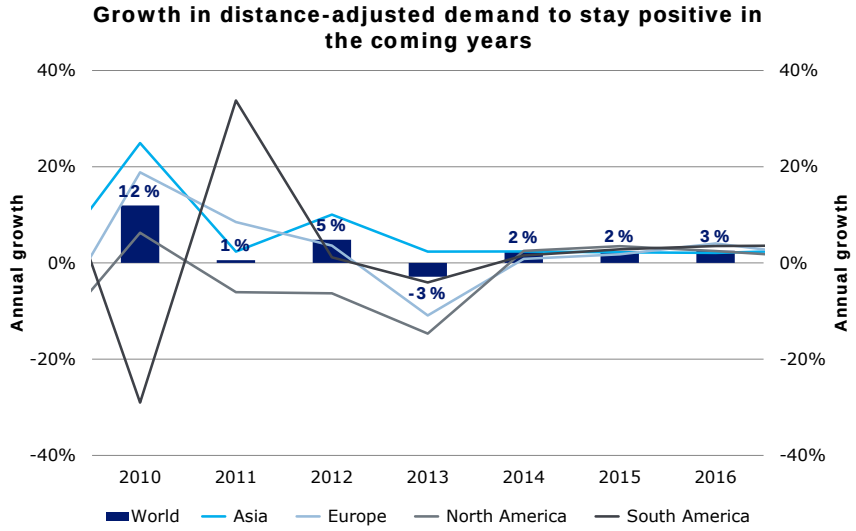
Bunker costs have decreased significantly as a result of the lower crude oil prices. However, for most shipping segments freight rates are still too low for speeds to be increased. But if freight rates recover, this may just happen – perhaps not to full design speed, but close. This would have a negative impact on the supply and demand balance, as higher speeds would increase the cargo-carrying capacity of the fleet. Hence, any freight rate recovery would potentially be short-lived.

Figure T.15



Sources: IEA, Danish Ship Finance

Figure T.16



Sources: IHS Global Insight, Danish Ship Finance

SOME SUPPORT FROM LONGER DISTANCES

Overall, longer distances may provide some support for the market in the coming years (fig. 16). However, the lower oil price could have implications for future trade patterns. Nonetheless, demand for seaborne crude oil is there, but as the market is still suffering from overcapacity, freight rates will remain under pressure. However, regional imbalances between supply and demand may result in temporary freight rates spikes, as the overall market balance has improved during 2014.

PRODUCT TANKER

SHIPPING MARKET REVIEW – NOVEMBER 2014

DANISH SHIP FINANCE

PRODUCT TANKERS

SPOT RATES DROPPED IN THE FIRST NINE MONTHS OF 2014 AS A LARGE INFLOW OF NEW VESSELS AND SLUGGISH DEMAND GROWTH WORSENED MARKET FUNDAMENTALS. THE CURRENT SIZE OF THE ORDERBOOK REDUCES THE CHANCES OF A QUICK MARKET RECOVERY.

FREIGHT RATES

AFTER BEING ON TRACK FOR RECOVERY, SPOT RATES, ESPECIALLY FOR THE MRS, HAVE DESCENDED TOWARDS THE LOWS OF 2009. THIS HAS BEGUN TO WEIGH ON THE TIMECHARTER MARKET WHERE THE 1-YEAR MR TIMECHARTER RATE HAS DROPPED BY USD 1,500 SINCE APRIL 2014.

MR SPOT RATES ONCE AGAIN ON A DECLINING TREND

After a strong 2013, when the market appeared to be approaching a recovery, spot rates in 2014 have dropped to a level resembling the lows of 2009. In particular, the MR spot rate has been hit hard and in May the average monthly spot rate dropped below USD 6,500 per day. After that it bounced back slightly, only to take another dip in August 2014 (fig. 1). Unlike in 2013, when vessels in the Atlantic market continuously achieved the largest returns, 2014 has been more ambiguous. However, since the end of July, the Pacific market has gained strength and thereby supported rate increases for LR1 and LR2 in particular. These vessel types are primarily employed in the Pacific market on, for instance, the naphtha trade between the Middle East and Asia.

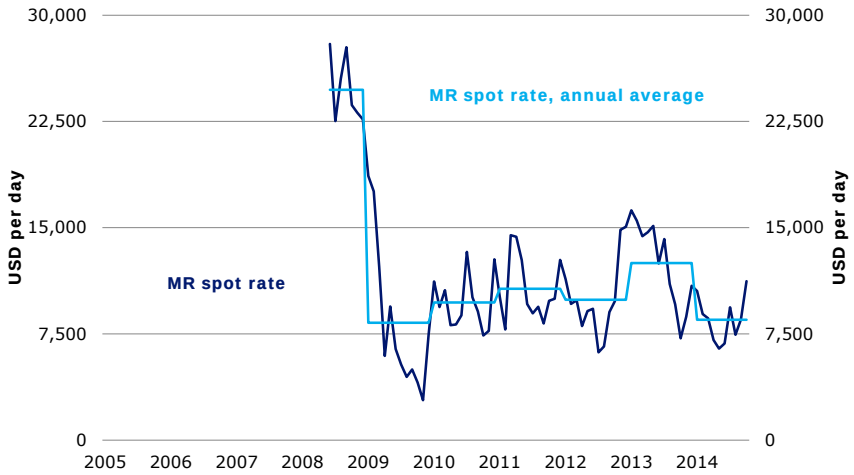
TIMECHARTER RATES HAVE BEEN TAILING OFF IN 2014

Timecharter rates have been slower to adapt to the low spot market, but since the beginning of the summer months, 1-year timecharter rates have been tailing off. This has especially been the case for the 1-year MR timecharter rate, which has dropped approximately USD 1,500 since the beginning of the year. This is still some USD 2,000 from its lowest level in November 2009, though. While the MR timecharter rate continues its downward trend, the LR1 and LR2 timecharter rates have been increasing as a consequence of the currently strong Pacific market (fig. 2).

Figure P.1

Annual average MR spot rate close to the lows of 2009

So far in 2014, the average MR spot rate has been 30% lower than in 2013

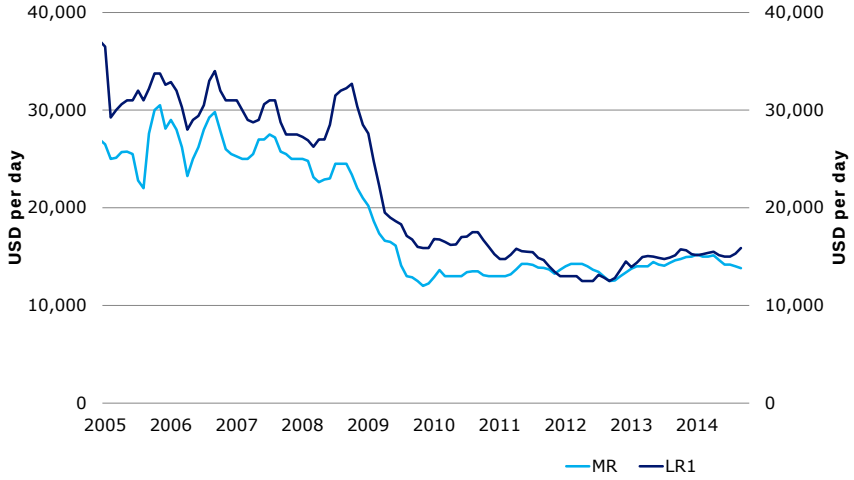


Sources: Clarksons, Danish Ship Finance

Figure P.2

Timecharter rates have been tailing off in 2014

The 1-year MR timecharter rate has decreased USD 1,500 since January 2014

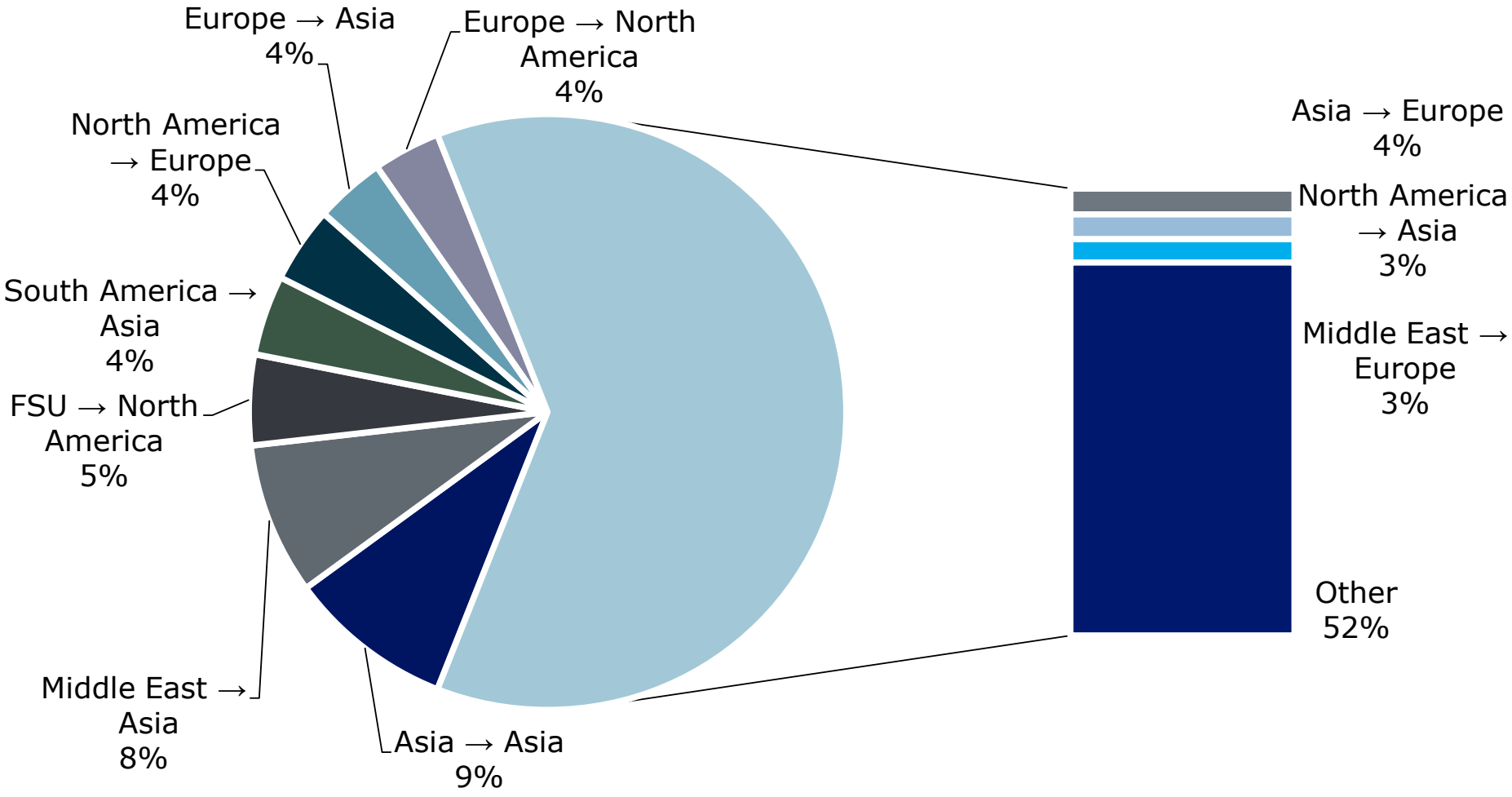


Sources: Clarksons, Danish Ship Finance

Figure P.3

Major product tanker trades

(Measured in billion tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

SUPPLY GROWTH HAS ONCE AGAIN EXCEEDED DISTANCE-ADJUSTED DEMAND. THIS HAS LED TO A CLEAR WORSENING OF THE PRODUCT TANKER MARKET.

FLEET GROWTH IS EXPECTED TO REACH 4% IN 2014

After several years of declining fleet growth, the trend reversed in 2013 and in 2014, the product tanker fleet is expected to expand by 4% (fig. 4).

DELIVERIES HAVE PICKED UP IN THE SECOND HALF OF 2014

Total deliveries in the first three quarters of 2014 amounted to roughly 5 million dwt, on a par with 2013. But while 2013 experienced the bulk of deliveries at the beginning of the year, 2014 has seen an uptick in deliveries since the middle of the year. Deliveries usually slow down in the fourth quarter as owners prefer to receive vessels that, on paper, are one year younger. The current orderbook contains 4 million dwt scheduled for delivery in the fourth quarter of 2014. Based on past fourth quarters, we expect 2 million of these to actually be delivered and total annual deliveries to equal 7 million dwt in 2014.

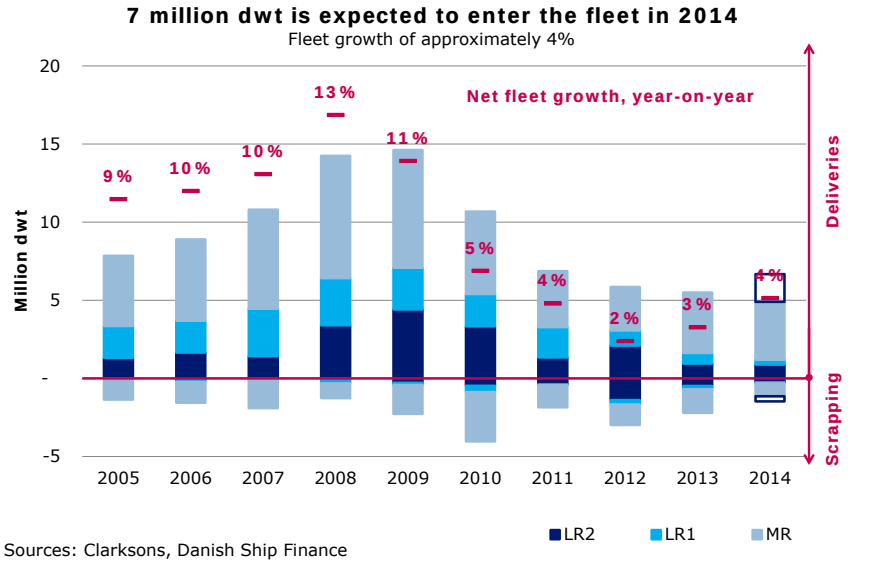
DELIVERY RATIOS REMAIN HIGH

75% of total deliveries have been in the MR segment. In the first three quarters, the segment realised a delivery ratio of 68%, as 26% of scheduled orders were postponed and another 6% cancelled. Neither the LR1 nor the LR2 segment had any cancellations. Their delivery ratios were 48% and 88%, respectively, the remaining orders having been postponed. The low delivery ratio in the LR1 segment is mainly a reflection of the low orderbook and not an unusually high level of postponement (fig. 5).

SCRAPPING ACTIVITY HAS COME DOWN A NOTCH

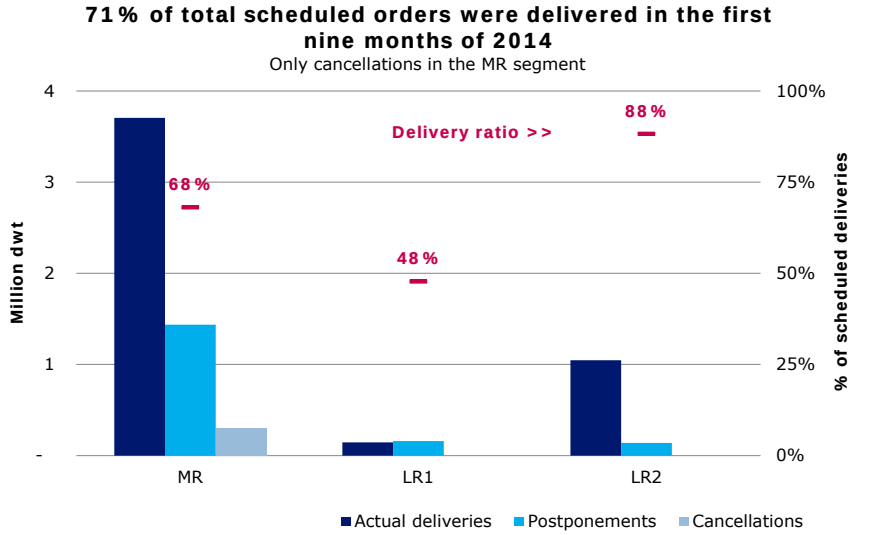
Despite the poor market environment, owners have not felt the urge to scrap more vessels. A little more than 1 million dwt left the fleet during the first three quarters of 2014 – not nearly enough to counterbalance the inflow. This is partly because of the high price/earnings ratios. Prices remain high despite sluggish earnings, thereby, in theory, signalling a market on its way to recovery.

Figure P.4



Sources: Clarksons, Danish Ship Finance

Figure P.5



Sources: Clarksons, Danish Ship Finance

SEABORNE DEMAND FOR PETROLEUM PRODUCTS UP BY 2% IN 2014

Seaborne demand for petroleum products is expected to grow by around 2% in 2014. Measured in volumes, total seaborne trade with petroleum products will grow by 16 million tonnes to 789 million tonnes. This increase is in line with 2013 (fig. 6).

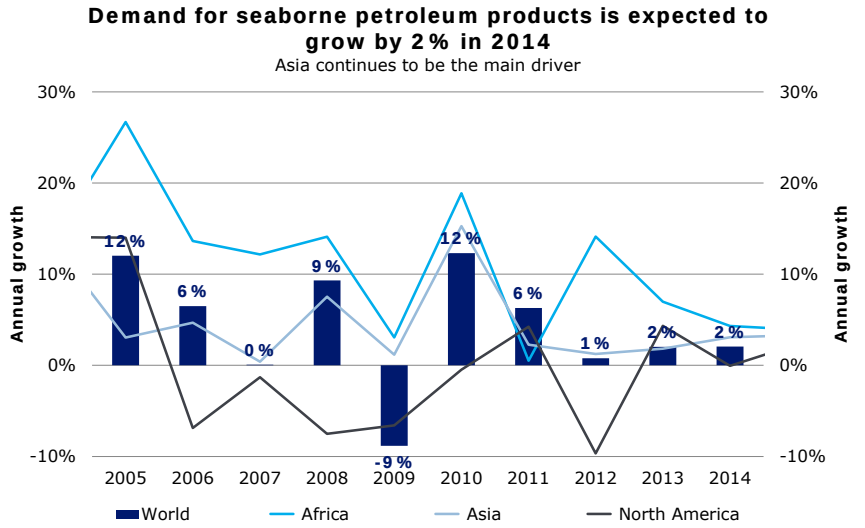
US EXPORT OF PETROLEUM PRODUCTS CONTINUES TO RISE

In previous years, it has been the norm for product tanker vessels to ballast to Europe in search of US-bound cargoes. However, as a result of the US's growing importance as an exporter of petroleum products, this tendency has been reversed and more vessels than ever before are now ballasting to the US Gulf to find cargoes. Consequently, freight rates on the route out of the US Gulf have, in certain periods, been significantly higher than those on the routes towards the US. This was practically unheard of before 2013. In the first nine months of 2014, US export of petroleum products reached a new high, increasing *net export* to more than 2 million barrels per day (fig. 7). More than 50% of this stayed in the Americas and does not add substantial tonne-miles to demand. Despite the major increase in export of petroleum products, the US has remained a net importer of gasoline, but this trade also seems to be fading away. Consequently, Europe has to find alternative buyers for its excess gasoline supply.

EUROPE TURNS ITS EYE TO AFRICA

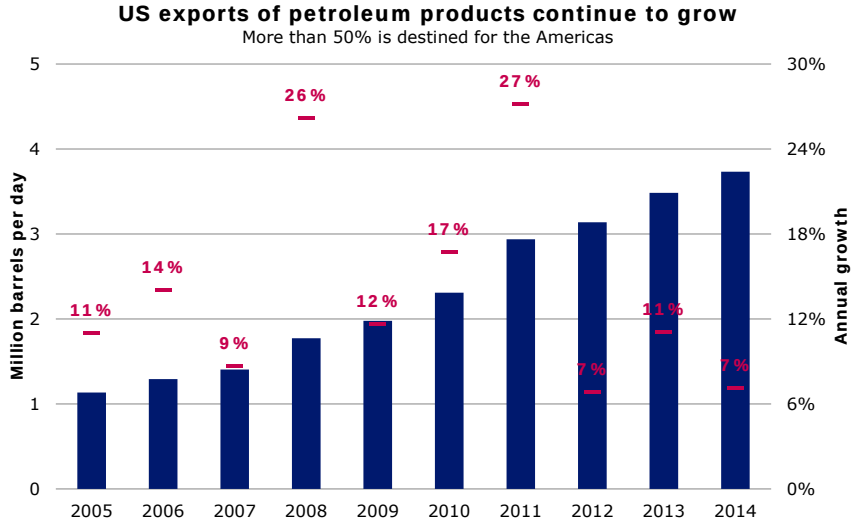
Europe is increasingly targeting Africa as a potential buyer of its excess supply of, in particular, gasoline. In the last couple of years, African imports of petroleum products have gradually increased whereas US imports have continuously declined. 2012 was the first year that Africa exceeded the US as the biggest importer of European petroleum products. In 2014, it is estimated that Africa will import 28% of Europe's excess supply, equivalent to 35 million tonnes of petroleum products. This is primarily being imported by Africa's western and northern countries. The average distance from Europe to these two areas in Africa is shorter than the route to the US East Coast; however, port time often takes longer due to undeveloped infrastructure. This suggests that overall tonnage demand ends up unaffected by this shift, but because the major export hubs in the US Gulf

Figure P.6



Sources: IHS Global Insight, Danish Ship Finance

Figure P.7



Sources: EIA, Danish Ship Finance

and the Middle East are further away, vessels may have to ballast longer distances in search of new cargoes. Thus, in the end, overall tonnage demand may be positively affected.

INCREASING RELIANCE ON AFRICAN DEMAND

Africa continues to be among the key drivers behind seaborne demand for petroleum products. The region now represents 9% of total seaborne import, equivalent to 68 million tonnes, up from 65 million tonnes in 2013. The primary supplier of petroleum products to Africa is Europe, but the Middle East, with its new refineries, is gaining market shares. The Middle East, contrary to Europe, is primarily supplying countries on Africa's east coast. Consequently, both are mainly supplying their nearest markets, which has a negative effect on the average tonne-mile.

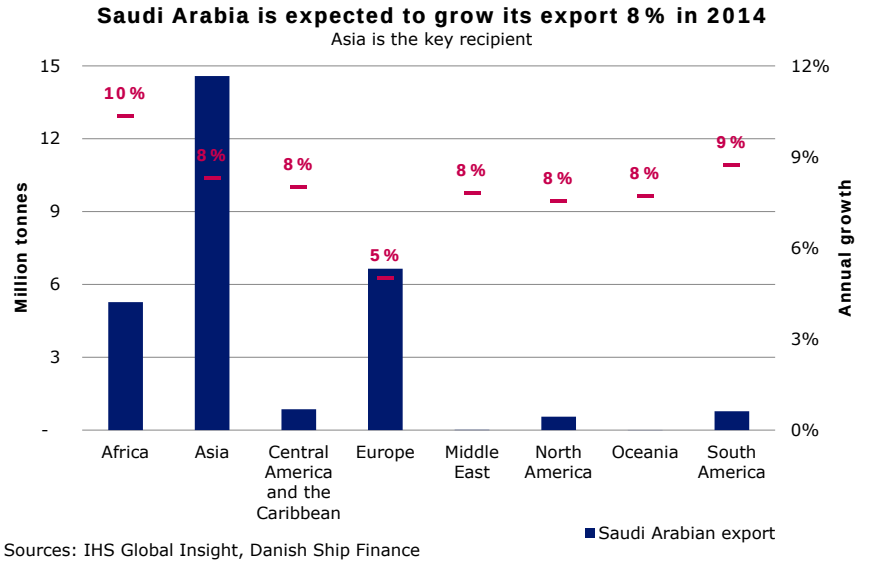
SAUDI ARABIA'S NEW REFINERY HAS A CLEAR IMPACT ON EXPORT

In 2014, Saudi Arabia's newest refinery, Jubail, became fully operational. Jubail, also referred to as Satorp, is a joint venture between the Saudi Arabian oil company Saudi Aramco and the French oil major Total. This development has had a clear impact on Saudi Arabia's export of petroleum products. Overall, Saudi Arabia is estimated to increase its export by almost 3 million tonnes to a total of 42 million tonnes in 2014. The majority is destined for Asia, more specifically Singapore and Japan, while the second-largest portion is bound for Africa, particularly East Africa with an estimated increase of 0.5 million tonnes to 5.3 million tonnes (fig. 8). While Middle Eastern export to Asia is primarily carried on LRs, export to Africa is split between both MRs and LRs because not all ports have the proper equipment to handle LRs. Thus, both MRs and LRs can benefit from increasing African imports.

THE PRODUCT TANKER MARKET IS AGAIN EXPERIENCING OVERSUPPLY

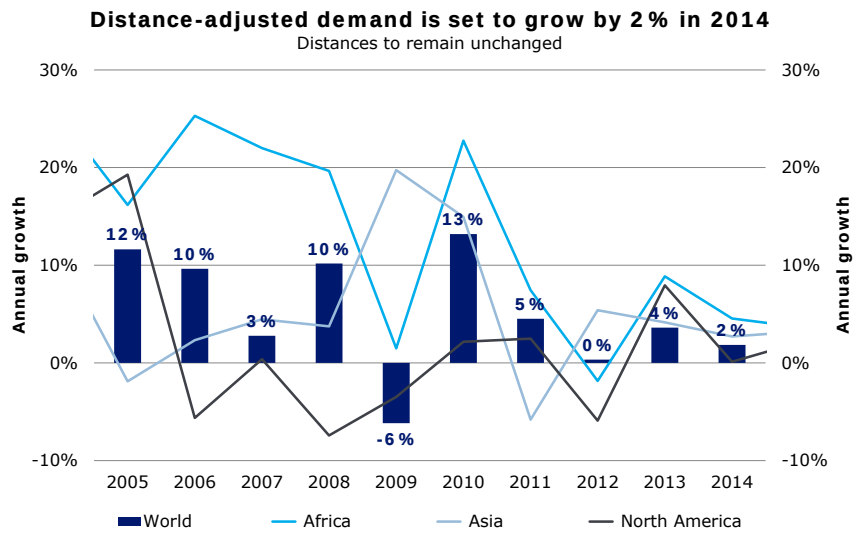
Average travel distances are expected to remain unchanged from 2013, resulting in distance-adjusted demand growth of 2% in 2014 (fig. 9). This is not nearly enough to absorb the inflow of new vessels, which is also reflected in the lower freight rate market. Even though increased market inefficiency has marginally alleviated the oversupply, the product tanker market is once again experiencing a severe overhang of tonnage.

Figure P.8



Sources: IHS Global Insight, Danish Ship Finance

Figure P.9



Sources: IHS Global Insight, Danish Ship Finance

ORDERING ACTIVITY TUMBLED IN THE FIRST NINE MONTHS OF 2014 COMPARED WITH 2013 AS MARKET FUNDAMENTALS DETERIORATED. PRICE/EARNINGS RATIOS REMAIN HIGH, THEREBY, IN THEORY, SIGNALLING A MARKET ON ITS WAY TOWARDS RECOVERY.

ORDERING HAS SLOWED DOWN SIGNIFICANTLY

The constant risk of structural overcapacity seems finally to have lowered investors' appetite for new vessels. In the first three quarters, less than 4 million dwt was contracted, compared with close to 19 million dwt in the whole of 2013 (fig. 10). However, ordering activity could easily take off if freight rates improve in the fourth quarter. This happened in the crude tanker market in 2013 when more than 50% of total orders were placed in December alone.

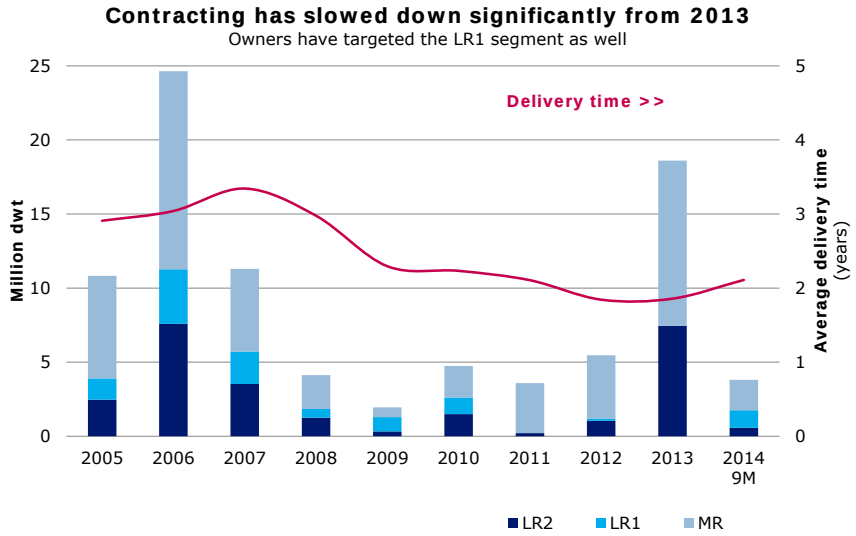
LR1 VESSELS ONCE AGAIN IN DEMAND

After three years with virtually no contracting, owners have again started ordering LR1 vessels. The main reason is that owners have become more positive towards future LR1 earnings, as the orderbook is small and demand for LR1 cargoes has picked up during 2014. Nonetheless, MR is still the preferred vessel type. 2 million dwt has been contracted in the MR segment so far this year compared with 1.2 and 0.6 million dwt in the LR1 and LR2 segments, respectively.

AN UPWARD TREND IN PRICE/EARNINGS RATIOS

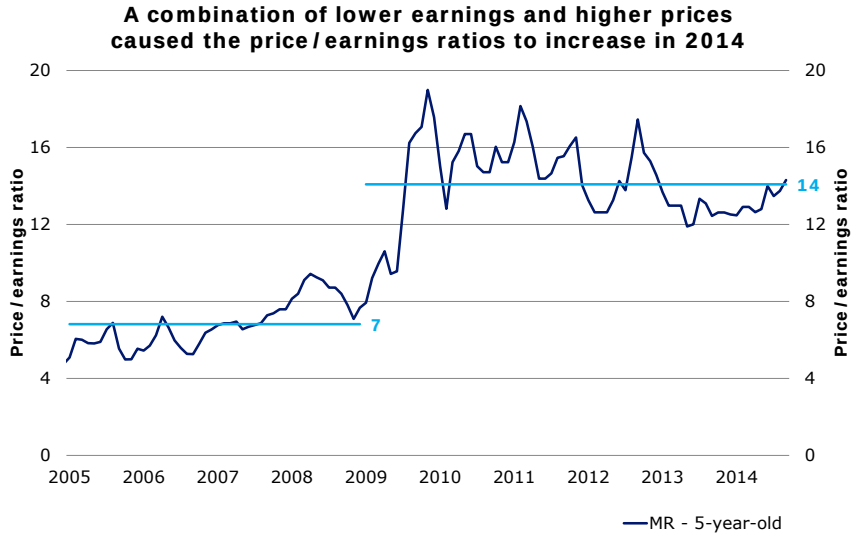
Newbuilding prices have kept constant in 2014, while second-hand price developments have varied between segments. The LR1 and MR segments have trended slightly downwards, while the LR2 segment has risen significantly. At the same time, freight rates have been under pressure. Consequently, the price/earnings ratio of a 5-year-old MR has risen in 2014. Vessels continue to be traded at a high premium to their earnings. In the period 2009-2014, a 5-year-old MR has traded at an average price/earnings ratio twice as high as between 2002 and 2008. This difference indicates that the market has high expectations for future earnings. Asset prices are estimated to decline if these expectations are not fulfilled. We expect to see a price reduction sooner rather than later.

Figure P.10



Sources: Clarksons, Danish Ship Finance

Figure P.11



Sources: Clarksons, Danish Ship Finance

THE MARKET BALANCE HAS TIPPED INTO NEGATIVE TERRITORY AND GROWTH IN DISTANCE-ADJUSTED DEMAND DOES NOT SEEM CAPABLE OF ABSORBING THE MASSIVE INFLOW OF NEW VESSELS IN THE COMING YEARS. THE MARKET MAY BE HEADING FOR A ROUGH PATCH.

After the ordering spree in 2013, contracting has dropped to a more sustainable level in 2014. The orderbook-to-fleet ratio has remained fairly unchanged since the beginning of the year. As of October 2014, the orderbook totalled 25 million dwt, representing 19% of the fleet. Roughly 4 million dwt is scheduled for delivery during the remainder of 2014, while the majority, 11 million dwt, is scheduled to be delivered in 2015 and another 8 million dwt in 2016.

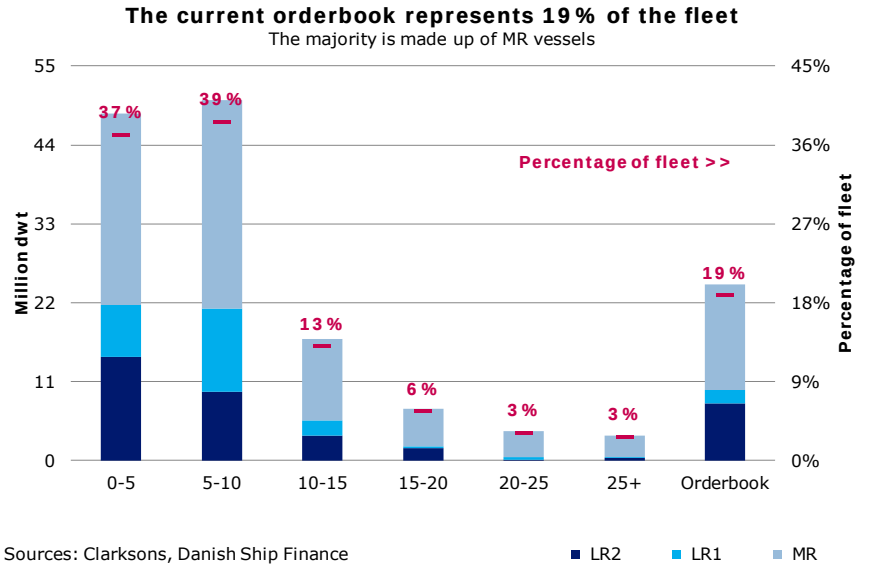
FLEET GROWTH IS EXPECTED TO REACH 5% IN 2015

Due to the age distribution of the current fleet, a significant part of the orderbook has to be absorbed by future demand growth. Only 12% of the fleet is older than 15 years and with an orderbook-to-fleet ratio of 19% this leaves a gap of 7% to be offset by demand growth (fig. 12). It is, however, highly unlikely that all vessels above 15 years will be scrapped. We have applied an approach whereby a vessel becomes a scrapping candidate the year before its next special survey, starting at the third, meaning that only vessels at the age of 14, 19, 24 etc. are eligible scrapping candidates. We have identified roughly 4 million dwt of potential scrapping candidates in 2015 and we estimate that only 70% of these will actually be demolished. At the same time, more than 11 million dwt is scheduled to be delivered in 2015 and when adjusting for an annual postponement ratio of 30%, fleet growth is expected to reach 5% in 2015 and 3% in 2016 (fig. 13).

DISTANCE-ADJUSTED DEMAND IS EXPECTED TO GROW BY 2%

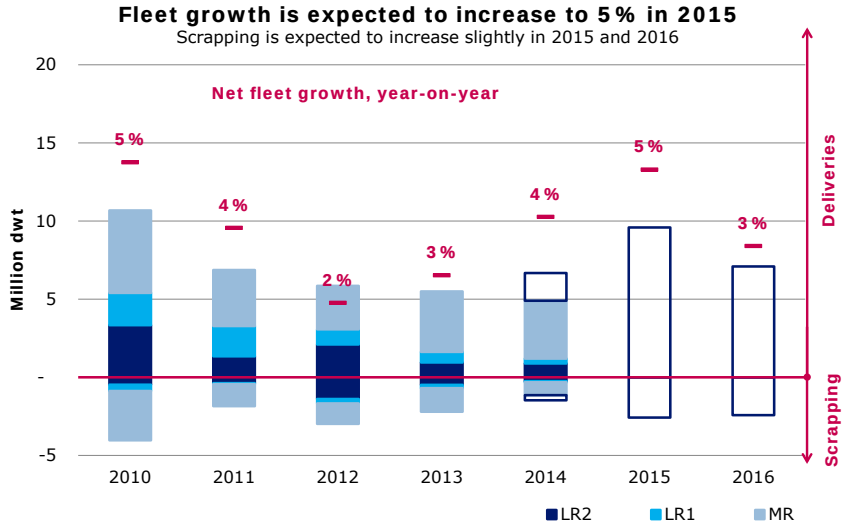
In the coming period, distance-adjusted demand is expected to grow by around 2% per annum. Travel distances are expected to decrease slightly in 2015 while remaining unchanged in 2016. Asia is expected to remain the key driver of growth in seaborne trade, followed by Africa, which has the highest growth rate (fig. 14).

Figure P.12



Sources: Clarksons, Danish Ship Finance

Figure P.13



Sources: Clarksons, Danish Ship Finance

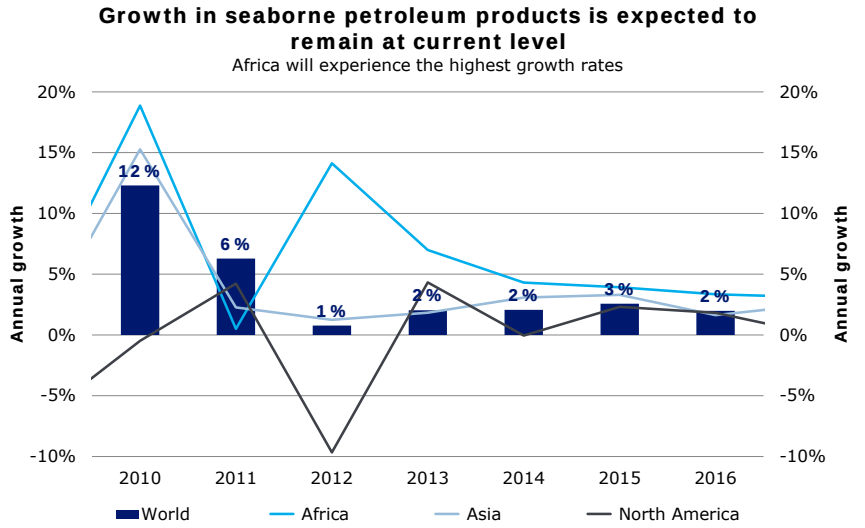
CHINA IS INCREASING ITS GASOLINE DEMAND

Demand for transportation fuels, especially gasoline, is expected to intensify in China. This expectation is based on the fact that some of China's major cities are beginning to take measures to limit the oversupply of houses. Some of these measures include relaxing home purchase restrictions and mortgage policies, for instance down payment requirements. The intention is to incentivise the Chinese people to buy a second home, which in turn could lead to more transportation. Furthermore, China has begun to make regulatory changes that could increase gasoline demand marginally. For example, in an attempt to lower CO2 emissions, some of China's wealthiest provinces have implemented a cap on how much sulphur and MMT (a metallic additive that increases octane levels) petroleum products may contain. This should come into effect by the end of 2015. A side effect of lowering the sulphur and MMT content is a lower octane level, which will decrease the average number of kilometres driven per litre of gasoline. Part of its demand growth could be suppressed, because refiners will most likely charge higher prices for the low-emission petroleum products in order to offset their higher production costs.

PRODUCTION GROWTH IS EXPECTED TO SLOW DOWN IN CHINA

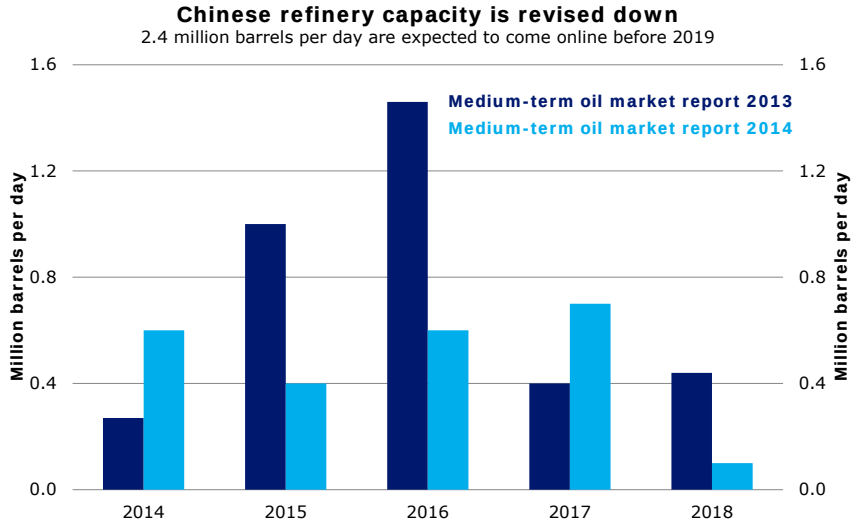
In parallel with the above-mentioned potential demand increases, supply growth is decelerating. Oil companies have slowed down both expansions and new refinery developments in China. Consequently, expected capacity expansions in the next four years have decreased by 1.2 million barrels per day to 2.4 million per day, according to IEA (fig. 15). Furthermore, the Chinese government plans to force refineries to move out of heavily populated areas. This includes not only fairly old refineries, but also relatively new ones built within the last ten years. This could lead to production disruptions and further reduce domestic supply. No refineries have yet begun relocating, but when they do, China may have to increase its imports of petroleum products temporarily, especially gasoline, to support domestic consumption.

Figure P.14



Sources: IHS Global Insight, Danish Ship Finance

Figure P.15



Sources: IEA, Danish Ship Finance

CHINA MAY BECOME A NET IMPORTER OF GASOLINE

All in all, Chinese demand for petroleum products, particularly gasoline, could grow and may even exceed production growth. This could put China in a similar situation to the US, with a gasoline deficit and a surplus of other petroleum products. This may result in increased trade activity around China, with more vessels arriving laden as opposed to in ballast. This will limit ballast time and increase the efficiency of the fleet. Furthermore, travel distances may increase, as Asia's tight gasoline balance will cause more long-haul gasoline import into China. This will mainly benefit the LR tankers.

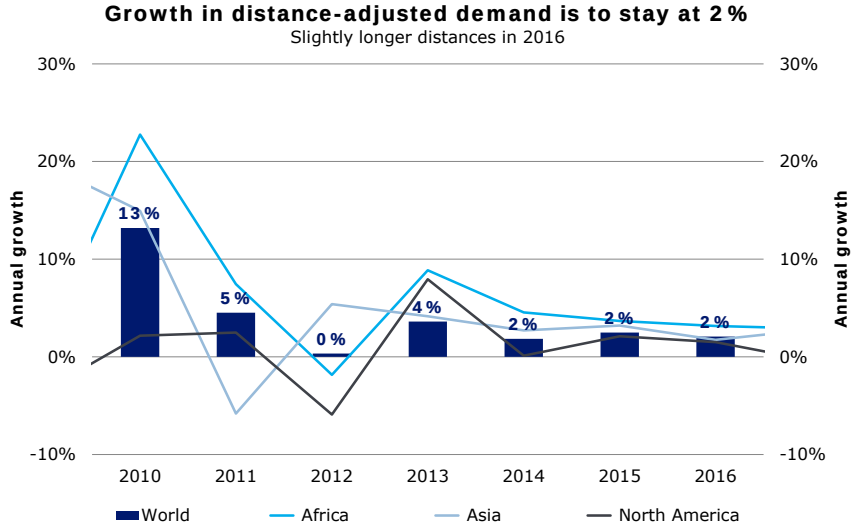
INDIA'S GASOLINE DEMAND MAY INTENSIFY

Apart from China, other Asian countries may also experience higher gasoline consumption in the coming years. One of them is India. India has for a long time subsidised petroleum products, but in 2010, the Indian government removed subsidies from gasoline. This immediately shifted consumption towards diesel which was still subsidised. In the meantime, crude oil prices surged and it became very expensive for the Indian government to maintain the subsidies on diesel. Consequently, it announced a plan in 2012 to gradually increase diesel prices until they reached market levels. Since then, crude oil prices have come back down and international diesel prices are now equal to the artificially set Indian prices. Hence, the subsidies on diesel have been removed without affecting Indian consumers and the incentive for buying diesel has disappeared. Consumption could now shift back to gasoline.

ASIA MAY BECOME A NET IMPORTER OF GASOLINE

The growing gasoline demand in both China and India will further add to Asia's tight gasoline balance. A consequence may be that in the coming years the entire region will see a shortage of gasoline in periods with lower refinery utilisation and strong demand. To satisfy demand, Asia would have to increase import from outside the region, adding miles to distance-adjusted demand.

Figure P.16



Sources: IHS Global Insight, Danish Ship Finance

US CONDENSATE EXPORT TO BENEFIT PRODUCT TANKER TRADE

The US is preparing to increase its condensate export, which could benefit the product tanker market. The low sulphur content of condensate, which theoretically is a type of crude oil, enables product tanker vessels to carry it without jeopardising their next cargoes. The trade will probably mainly benefit LR tankers, as the majority is expected to be shipped long-haul to Asia. In general, more LR tankers have been seen taking US cargoes in 2014. This trend is expected to continue, and thereby cannibalise on what was previously a typical MR trade.

Condensate export has emerged as a result of the effective ban on US crude oil export having been eased in 2014. So far, the US Department of Commerce has approved two applications for exporting condensate, but it is withholding additional approvals until further discussions have clarified the required specifications of the condensate – for instance its API gravity, which measures the specific gravity of liquids compared to water. Further approvals are expected to come as soon as industry guidelines have been established.

FREIGHT RATES WILL REMAIN UNDER PRESSURE

Freight rates are expected to remain under pressure, as fleet growth is expected to exceed demand growth. This will especially be the case in the MR segment because its fleet is highly expansionary at a time when more LRs are beginning to take over what were previously distinctive MR trades. This may result in further downward pressure on MR tanker earnings in the coming years. The LR tankers could see some respite because fleet growth in these segments is more limited. However, there is an invisible cap on earnings differentials because owners will always substitute one LR tanker with two MR tankers if these are cheaper.

LPG TANKER

SHIPPING MARKET REVIEW – NOVEMBER 2014

DANISH SHIP FINANCE

LPG TANKERS

THE LPG MARKET IS CURRENTLY TIGHTLY BALANCED, WHICH HAS RESULTED IN A RECORD-HIGH FREIGHT MARKET IN 2014. HOWEVER, DELIVERIES ARE SET TO INCREASE DRAMATICALLY OVER THE NEXT COUPLE OF YEARS, AND FREIGHT RATES ARE EXPECTED TO DECLINE TO A LOWER, BUT STILL ACCEPTABLE, LEVEL.

FREIGHT RATES

BOTH SPOT AND TIMECHARTER RATES HAVE SOARED TO RECORD-HIGH LEVELS IN 2014 DUE TO THE TIGHT MARKET BALANCE. THIS HAS ESPECIALLY BEEN THE CASE FOR VLGC RATES, BECAUSE THESE ARE BENEFITING THE MOST FROM MORE LONGER-HAUL VOYAGES.

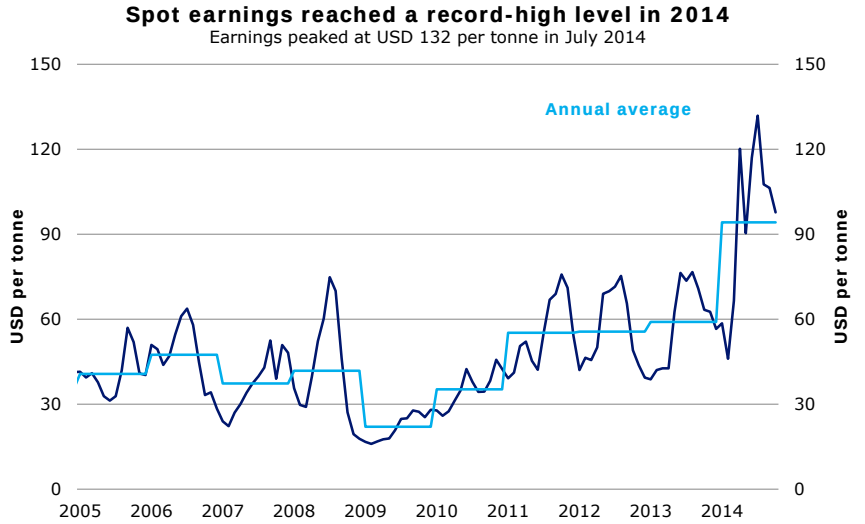
NEW RECORD-HIGH SPOT EARNINGS IN THE LPG MARKET

Spot rates have gone through the roof in 2014, first reaching a record high of USD 120 per tonne in April and then USD 132 per tonne in July on the benchmark route between the Middle East and East Asia. This happened after a short-lived drop around February, when spot rates fell to a level last seen in early 2012 (fig. 1). The surge in US export has resulted in record-high spot rates on the transatlantic route as well, indicating that the high freight market has been created by a global shortage of tonnage and not just regional tightness.

1-YEAR TIMECHARTER RATES HAVE SOARED IN 2014

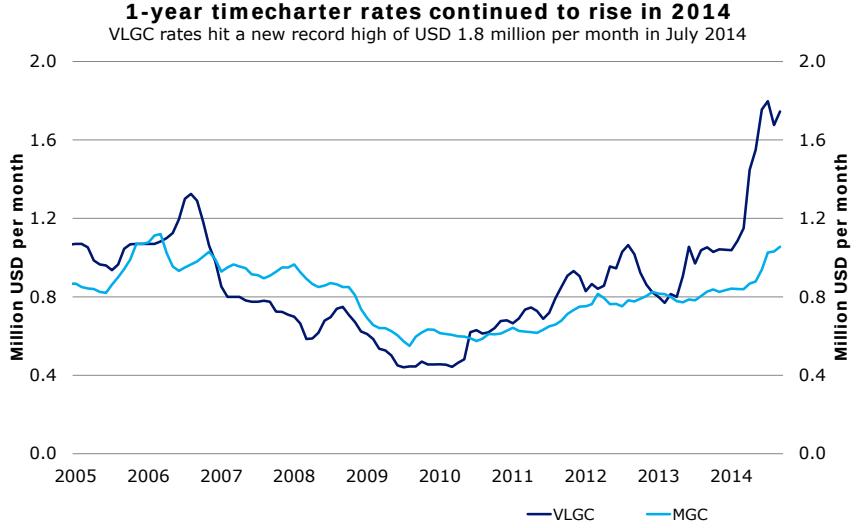
1-year timecharter rates have risen continuously in 2014. The strong market sentiment, especially the high expectations for US LPG export, and record-high spot rates have benefited the 1-year VLGC timecharter rate. In the first three quarters of 2014, it increased by USD 0.7 million, equivalent to roughly 70%, to USD 1.8 million per month. The 1-year MGC timecharter rate followed suit, albeit at a slower pace, only rising about USD 0.2 million to USD 1 million per month in the same period (fig. 2).

Figure LPG.1



Sources: Clarksons, Danish Ship Finance

Figure LPG.2

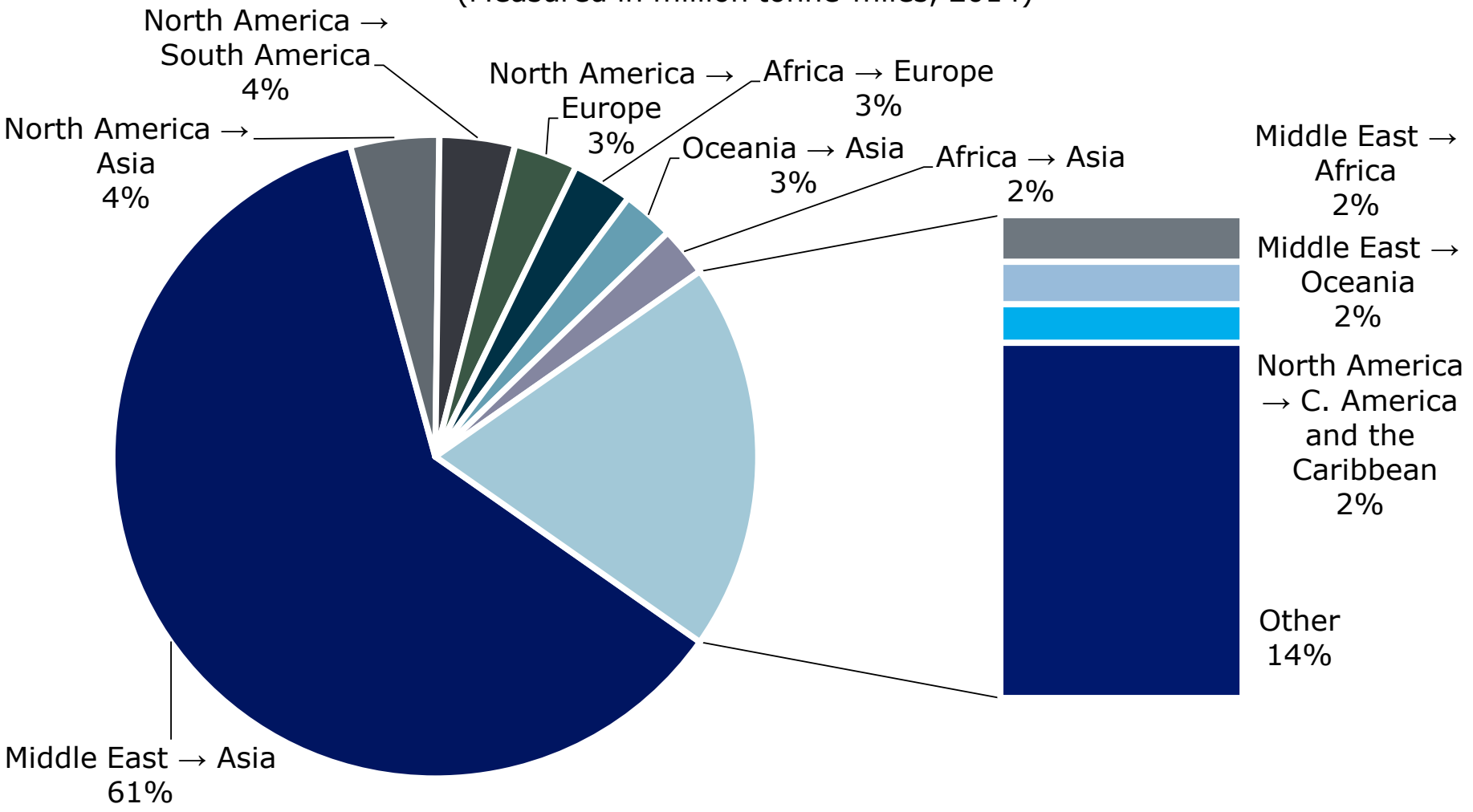


Sources: Clarksons, Danish Ship Finance

Figure LPG.3

Major LPG trades

(Measured in million tonne-miles, 2014)



Sources: IHS Global Insight, Danish Ship Finance

IN 2014, DISTANCE-ADJUSTED DEMAND IS EXPECTED TO EXCEED FLEET GROWTH, THEREBY ADDING TO THE ALREADY VERY TIGHT BALANCE BETWEEN SUPPLY AND DEMAND.

THIRD-HIGHEST FLEET GROWTH IN RECENT YEARS

In 2014, we expect fleet growth of roughly 5% - 3 percentage points lower than in 2013. This is due to a combination of fewer deliveries and marginally higher scrapping than in 2013. Fleet growth is still at the third-highest level seen in recent years.

SCRAPPING CONTINUES TO BE SUBDUED

The strong market has minimised the incentive for scrapping vessels. Consequently, scrapping has been concentrated in the MGC and SGC segments, where less than 0.1 million Cu.M. was scrapped in the first three quarters of 2014 (fig. 4).

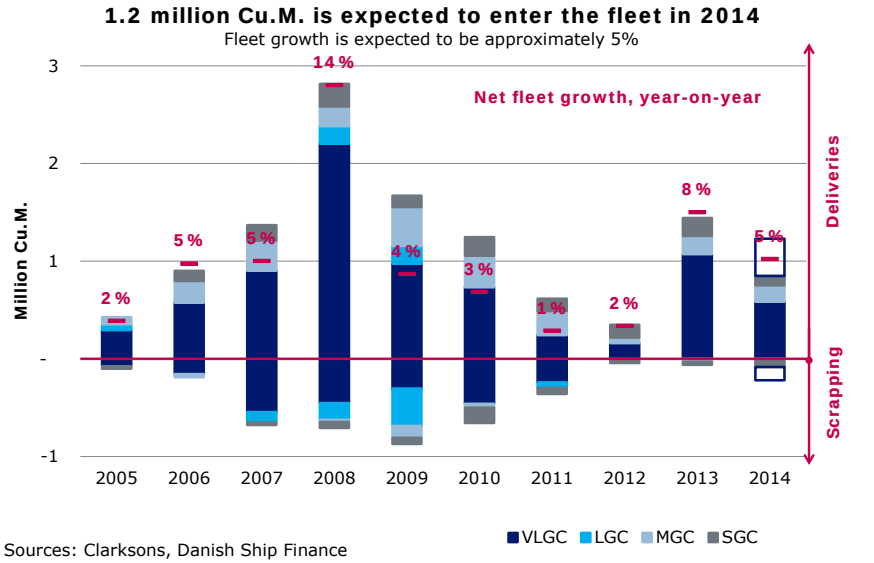
SLOWDOWN IN DELIVERIES IN 2014

In the first three quarters of 2014, a total of 0.8 million Cu.M., equivalent to 24 vessels, was delivered to the fleet. The largest contributor to the LPG fleet growth continues to be the VLGC segment, where close to 0.6 million Cu.M. or seven vessels were delivered. Deliveries in the other segments were on a much smaller scale, as only 0.1 and 0.2 million Cu.M. entered the SGC segment and the MGC segment, respectively (fig. 4). Consequently, despite fleet growth of 5% this year, the inflow of vessels is fairly limited. Hence, not much scrapping or new demand would be required to counterbalance the fleet additions.

VLGC DELIVERIES IN LINE WITH THE ORDERBOOK

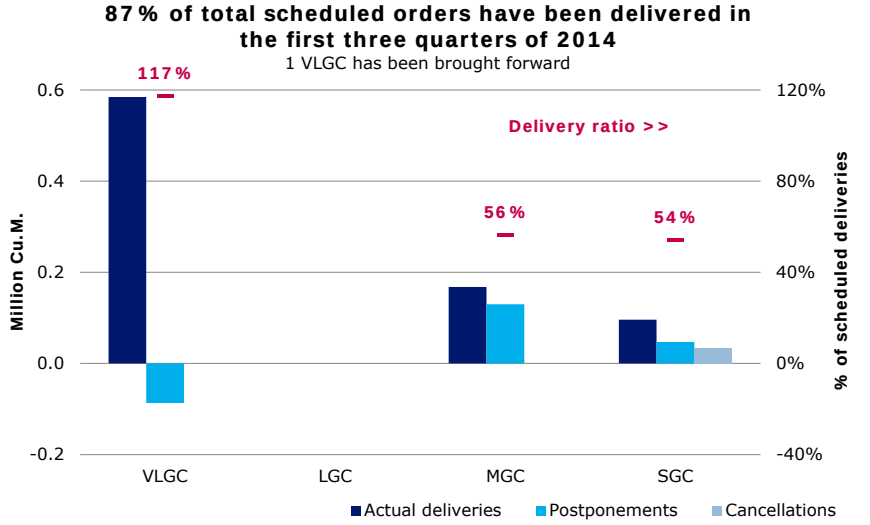
The record-high freight rates have incentivised owners to take delivery according to schedule or perhaps even earlier. Consequently, a high delivery ratio in the LPG segment is expected. During the first three quarters of 2014, 87% of scheduled orders were actually delivered, although the ratio varies between segments. For instance, the VLGC segment had a delivery ratio above 100% because the delivery date of one vessel had been brought forward, enabling the owner to take advantage of the high freight market. Only 56% of the MCG orderbook was delivered, and the rest was postponed. The SGC segment stands out

Figure LPG.4



Sources: Clarksons, Danish Ship Finance

Figure LPG.5



Sources: Clarksons, Danish Ship Finance

from the other segments in that it saw several cancellations. Around 19% of its orders scheduled for delivery in the first three quarters of 2014 were cancelled and 27% were postponed for later delivery, resulting in a delivery ratio of 54% (fig. 5).

SUPPLY GROWTH HAS BEEN ABSORBED BY DEMAND GROWTH

Demand for seaborne LPG trade is expected to grow by 6% in 2014, equivalent to 3.7 million tonnes (~7 million Cu.M.). Additionally, longer distances are estimated to add 1%, bringing distance-adjusted demand growth to 7% (fig. 6).

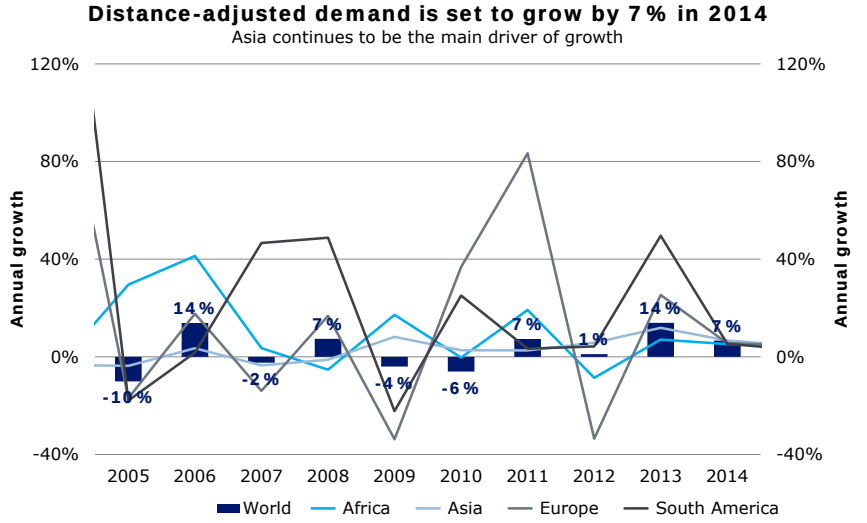
THE MIDDLE EAST AND ASIA REMAIN THE FOCAL POINTS

The LPG market remains centred around Middle Eastern export and Asian import. In 2014, Asia's LPG import is expected to increase by some 2.3 million tonnes (~4 million Cu.M.) to 39.7 million tonnes (~75 million Cu.M.). This corresponds to 63% of the world's total import of 63.3 million tonnes (~120 million Cu.M.). Roughly 38.5 million tonnes (~70 million Cu.M.) of the world's total seaborne LPG originates from the Middle East, which ships approximately 86% of its export to Asia. Besides increasing domestic consumption and an ongoing substitution of feedstock and energy sources (e.g. naphtha and kerosene), the rise in Asian imports reflects the stockpiling requirements from China's three new propane dehydrogenation plants which are expected to begin production in 2014. A propane dehydrogenation plant converts propane into propylene, which is used for manufacturing plastics and other petrochemical products. Moreover, in Japan, several refineries have either shut down or lowered their utilisation rates because of disappointing margins, causing a drop in domestic LPG production and a rise in import requirements. Besides benefiting the LPG market, the lower refinery utilisation in Japan could also benefit the product tanker market, as lower domestic production of petroleum products gives way to higher imports.

CHEAP US LPG IS MAKING ITS WAY TO THE ASIAN MARKET

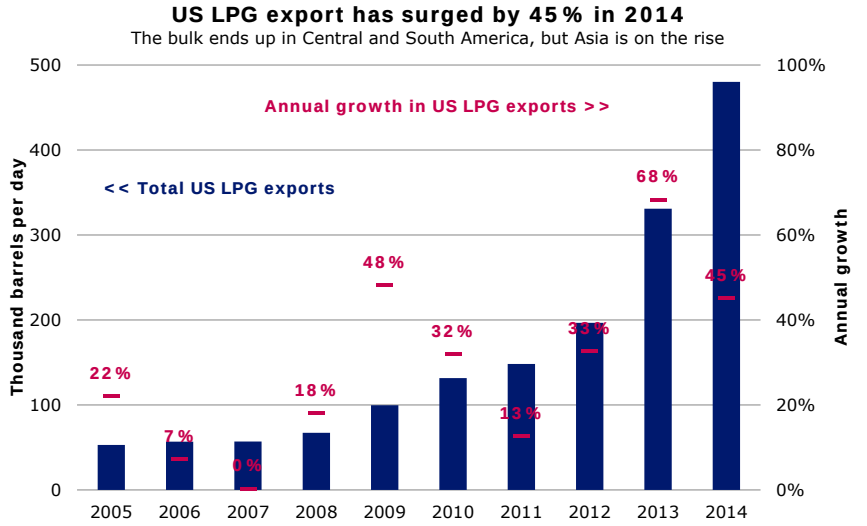
While the Middle East continues to meet the majority of Asia's LPG needs, the competitively priced US LPG is becoming increasingly attractive, especially as Asian countries are looking to diversify their import sources and reduce their dependence on

Figure LPG.6



Sources: IHS Global Insight, Danish Ship Finance

Figure LPG.7



Sources: EIA, Danish Ship Finance

the Middle East. In particular, Japan, Asia's largest LPG consumer, is increasingly targeting US LPG. In the first three quarters of 2014, Japanese LPG import from the US surged by 91% to an average of 45,000 barrels per day (~3 million Cu.M. per year), equivalent to roughly 40 VLGC cargoes per year. Overall, US LPG exports increased by 45% in the first three quarters of 2014, hitting a total of 480,000 barrels per day (~25 million Cu.M. per year). While the majority continues to go to Central America and the Caribbean, an increasing share is being exported to Asia, contributing positively to distance-adjusted demand (fig. 7).

ON THE BACK OF CONTINUOUS HIGH FREIGHT RATES, HEAVY CONTRACTING HAS PERSISTED IN THE LPG MARKET. CLOSE TO 5 MILLION CU.M. WAS ORDERED IN THE FIRST THREE QUARTERS OF 2014. CONSEQUENTLY, ASSET PRICES HAVE SOARED.

CONTRACTING REACHES NEW RECORD-HIGH LEVELS

In the first three quarters of 2014, a new record-high level of contracting was reached. Close to 5 million Cu.M. was ordered, and the trend seems to be continuing. Currently, the orderbook consists of approximately 9.6 million Cu.M., 95% of which has been contracted in either 2013 or 2014. Hence, if contracting persists, there is a severe risk of oversupply in the LPG market.

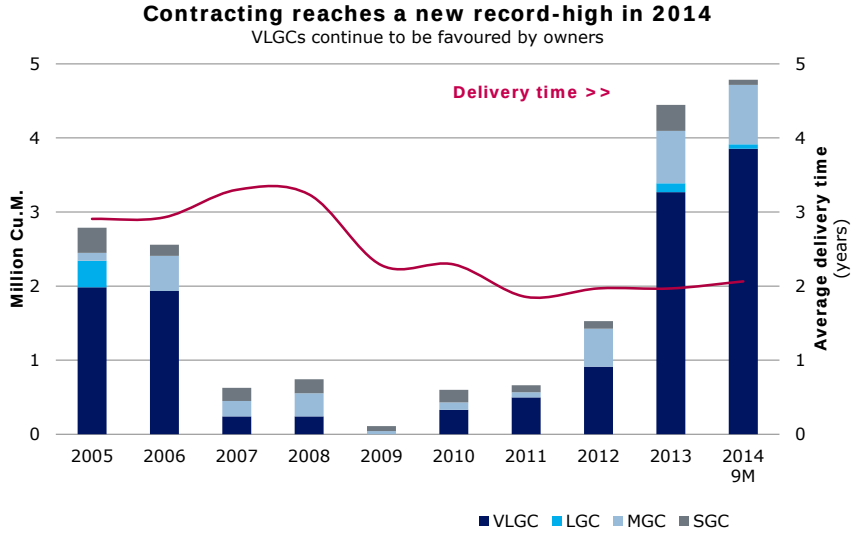
OWNERS PREFER VLGC VESSELS

The majority of ordering activity continues to take place in the VLGC segment, where approximately 80% of all newbuilding orders were placed in the first three quarters in 2014. These large and fairly complex vessels are primarily being built at South Korean yards. Consequently, even though South Korea only accounts for five out of the 16 yards building LPG vessels, it represents 70% of the total orderbook. The other large chunk, close to 20%, was placed in the MGC segment, where both South Korea and China are playing vital roles in the building process (fig. 8).

RECORD-LOW PRICE/EARNINGS RATIO

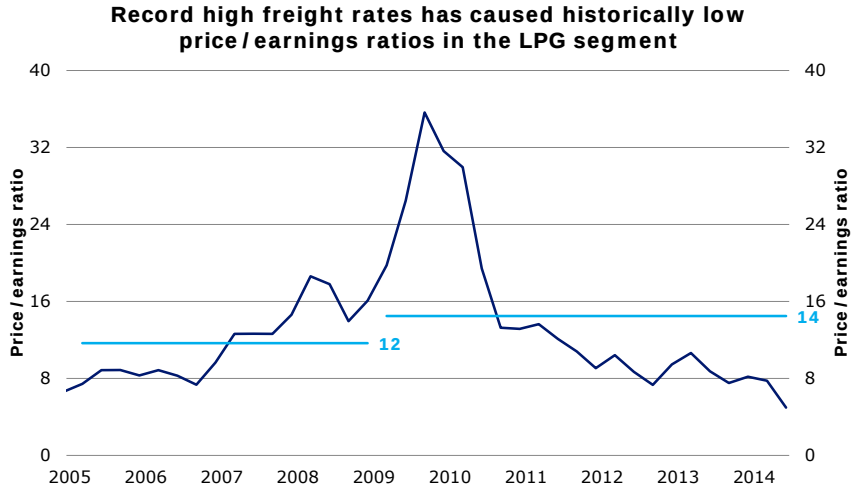
In the course of 2014, record contracting spurred by exceptionally high freight rates has resulted in soaring asset prices. However, while asset prices are still below former highs, freight rates are significantly higher. This has resulted in a record-low price/earnings ratio for a 5-year-old VLGC (fig. 9). A price/earnings ratio below the industry's average reflects the market's lack of optimism concerning its future potential. This is consistent with the risk of oversupply that currently exists in the market, which could result in lower future earnings.

Figure LPG.8



Sources: Clarksons, Danish Ship Finance

Figure LPG.9



Sources: Clarksons, Drewry, Danish Ship Finance

DEMAND GROWTH IS NOT SUFFICIENT TO COUNTERBALANCE THE MASSIVE INFLOW OF NEW VESSELS. HENCE, THE MARKET MAY DECREASE TO A LOWER, BUT STILL ACCEPTABLE, LEVEL.

THE ORDERBOOK HAS TAKEN YET ANOTHER QUANTUM LEAP

Like last year, the orderbook has again taken a quantum leap, reaching 9.6 million Cu.M., up from 5.8 million Cu.M. at the end of 2013. As of October 2014, the entire orderbook represents to 47% of the fleet, although the distribution varies between segments (fig. 10). The VLGC and MGC orderbooks correspond to approximately half of their fleets, whereas the LGC and SGC orderbooks only represent 20%. The majority of this massive inflow of new vessels is scheduled to be delivered over the coming three years, 4 and 5 million Cu.M. in 2015 and 2016, respectively, while the 2017 orderbook currently only contains 0.8 million Cu.M.

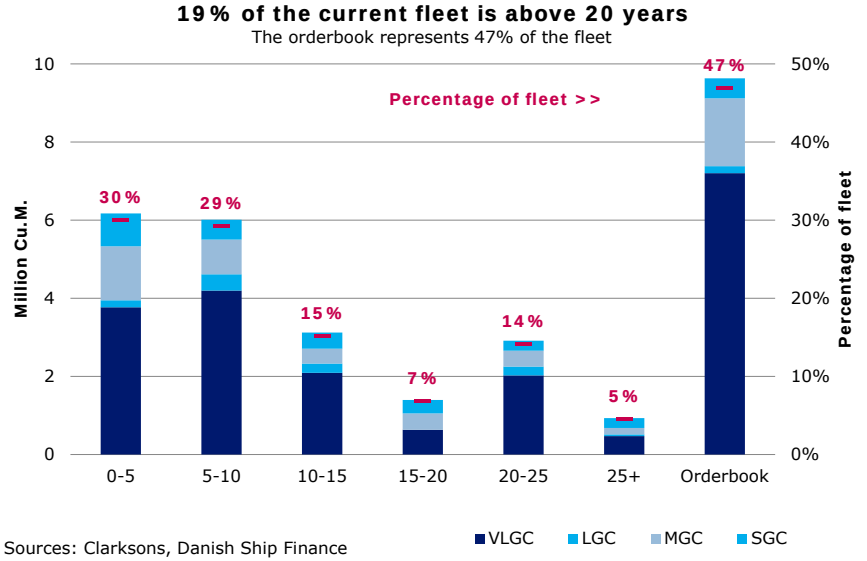
ASIAN DEMAND COULD RELIEVE SOME OF THE PRESSURE

One thing that could ease some of the pressure from the massive inflow of new tonnage is the expected surge in Asia's LPG consumption. Much of this is expected to originate from the US, resulting in longer voyages that favour the VLGC vessels. If, for instance, all of China's new propane dehydrogenation capacity is supported by LPG sourced from the US, it could absorb the majority of the current VLGC orderbook.

HIGH FLEET GROWTH POSES A RISK TO THE MARKET BALANCE

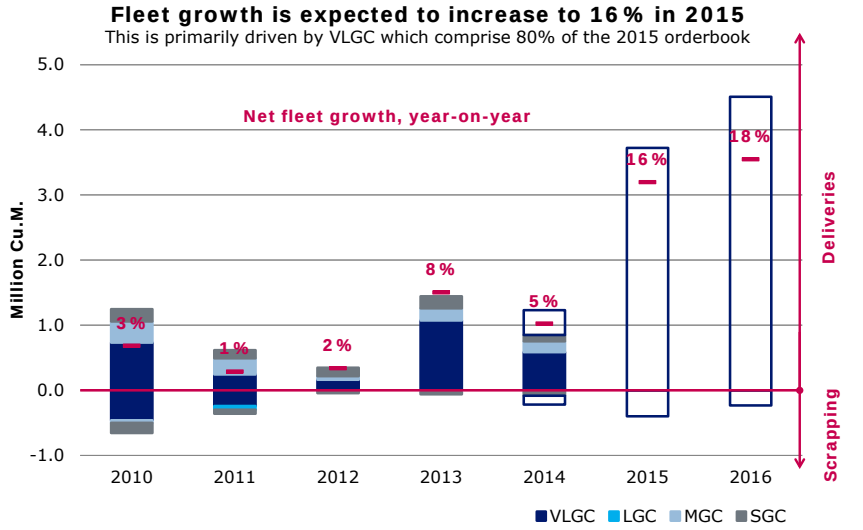
As a consequence of record-high freight rates, scrapping has been minimal over the past three years while the orderbook has continued to rise. We estimate that scrapping activity has to increase slightly in the coming years, as the inflow of new vessels is expected to put downward pressure on freight rates. In a scenario where we assume that vessels become scrapping candidates the year before a special survey, starting at the fourth, we identify roughly 1 million Cu.M. of potential scrapping candidates in 2015. Given the current market conditions, we expect 0.4 million Cu.M. of these to be scrapped. This would result in fleet growth of 16% in 2015 and 18% in 2016 (fig. 11).

Figure LPG.10



Sources: Clarksons, Danish Ship Finance

Figure LPG.11



Sources: Clarksons, Danish Ship Finance

IS DISTANCE-ADJUSTED DEMAND EXPECTED TO DECLINE?

Forecasting the development of future LPG demand is highly dependent on the approach we apply. Estimating distance-adjusted LPG demand using a model considering macroeconomic factors indicates a gradual decline in distance-adjusted demand over the coming years (fig. 12). In contrast, if we use a bottom-up model that adjusts for industry-specific developments, LPG demand is expected to accelerate in the next two years, primarily due to the rise in propane dehydrogenation capacity in China (fig. 13). Nonetheless, demand growth is unlikely to surpass fleet growth in this period and the market is expected to experience some degree of pressure and lower freight rates.

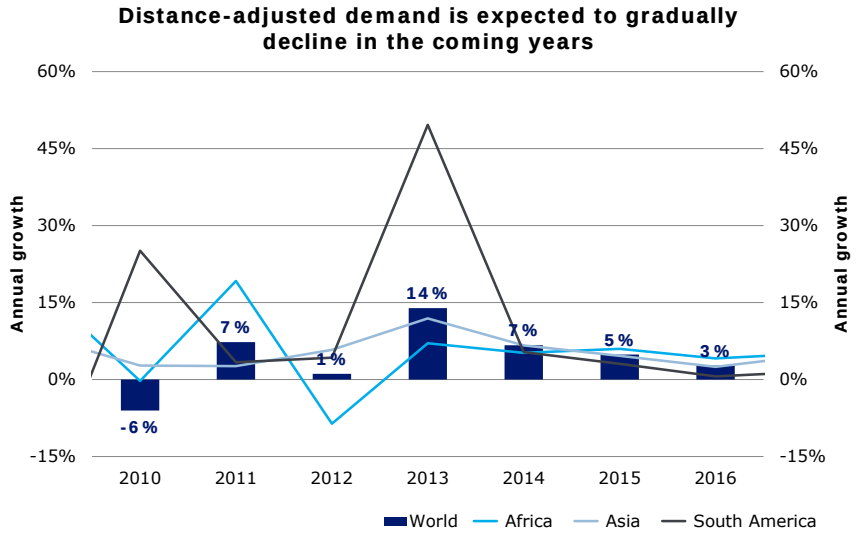
ASIA CONTINUES TO BE THE MAIN DRIVER OF LPG DEMAND

China's new propane dehydrogenation capacity will ensure that Asia remains the main driver of the seaborne LPG trade. Approximately 6 million tonnes (~11 million Cu.M.) of capacity is reported to be coming online between 2014 and 2016. This capacity is able to absorb a total LPG demand increase of about 7 million tonnes (~13 million Cu.M.) (fig. 13). Several of these propane dehydrogenation plants have already signed term contracts for competitively priced US LPG, supporting tonne-mile developments.

US LPG EXPORTS MAY EXCEED CHINESE DEMAND

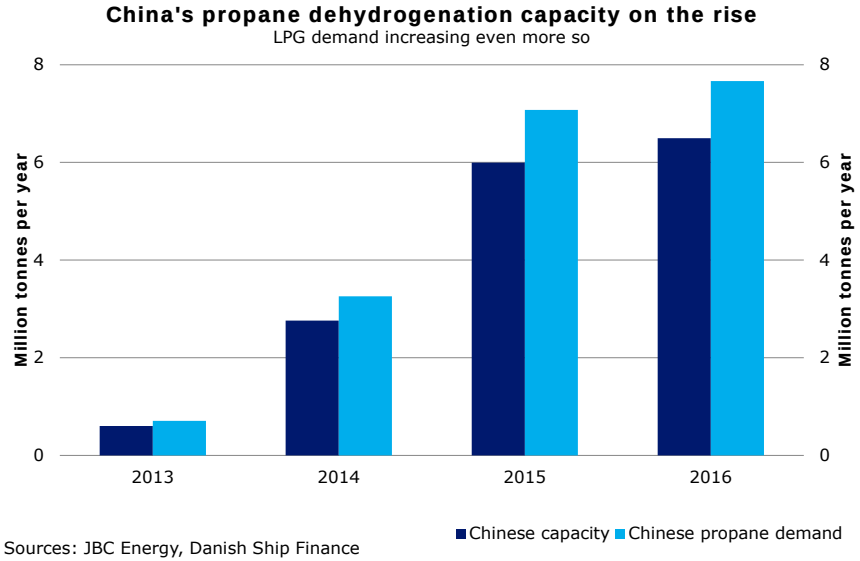
While there are some minor delays on a few of China's propane dehydrogenation projects, the export facilities, currently under development in the US, are seemingly on schedule. In 2014, 2015 and 2016, a total of 26.5 million tonnes (~50 million Cu.M.) of LPG export capacity is scheduled to come online. If these facilities are fully employed, their capacity will exceed the incremental demand from Chinese propane dehydrogenation plants. As a consequence, LPG prices may come under further pressure in the coming years. This, in turn, may increase the competitiveness of LPG compared with other energy and feedstock sources and potentially create a temporary supply-driven increase in demand. Another consequence may be that the market experiences periods of contango, meaning that the forward price is higher than the current spot price. We believe that the possible production disruptions of crude oil production in the US

Figure LPG.12



Sources: IHS Global Insight, Danish Ship Finance

Figure LPG.13



Sources: JBC Energy, Danish Ship Finance

(read the *Crude tanker* section for further info) will only have a marginal effect on LPG production, as most LPG is extracted from gas fields, which are not yet affected by the declining oil price.

INDIA MAY INCREASE LPG SUBSIDIES

Even though China remains the biggest driver of seaborne LPG demand, other Asian countries are also contributing to regional demand. These include India, where the government this year has relaxed its subsidy cap to 12 14.2kg LPG cylinders per year irrespective of the month. India's government is looking to expand the use of LPG to rural areas where wood, coal and kerosene are typically used for cooking. The target is for 75% of all Indian households to use LPG as a cooking fuel by 2015, up from around 50% now. This requires subsidies to be increased to make LPG more affordable for the poorest part of the population. Assuming that all of India's current LPG consumption arises from these subsidised cylinders, demand could potentially increase by 8 million tonnes per year (~15 million Cu.M. per year). And as export volumes are minimal, increased demand has to be supported by import. However, increasing LPG subsidies would be a costly affair for the Indian government. Indian LPG consumption currently accounts for a minor share of total petroleum product consumption whereas it accounts for almost half of the government's total expenses for subsidising petroleum products.

JAPANESE IMPORTS EXPECTED TO COME INCREASINGLY FROM THE US

Japan is currently the largest consumer and importer of LPG in Asia and it is expected to increase imports even more. One of the reasons is that fierce competition with other regional suppliers has brought Japanese refineries to their knees in terms of refinery margins. This has resulted in refinery closures and a decrease in domestic production. Moreover, in the wake of the massive earthquake that triggered a nuclear disaster in 2011, Japan has introduced a national stockpiling programme of LPG. This programme should ensure it has plenty of LPG reserves in the event of another disaster. 1.5 million tonnes (~3 million Cu.M.) has been set as a target, to be reached no later than March 2018. On top of this, importers of LPG will by then be required to have 50 days of import cover, up from the current 40 days. This could potentially increase import by 3 million tonnes (~6 million Cu.M.). A large share of the increase in Japan's import is expected to come from the US because Japan, in an effort to minimise its dependence on the Middle East, has secured term contracts with US suppliers. US LPG is not expected to be significantly more expensive than the Middle Eastern LPG.

US LPG EXPORT REMAINS ON A RISING TREND

Much of the growth in Asian LPG import is expected to originate from the US, where shale oil and gas production has created a significant surplus of competitively priced LPG. The bulk of US LPG export is currently bound for Central and South America, but an increasing share is expected to go to Asia. Today, 15% is destined for Asia, up from 8% in 2010. Over the same period, US LPG export has quadrupled and Asia's import of US LPG now equals 70,000 barrels per day (~4 million Cu.M. per year). This number is expected to increase significantly, adding to distance-adjusted demand.

THE EXPANSION OF THE PANAMA CANAL

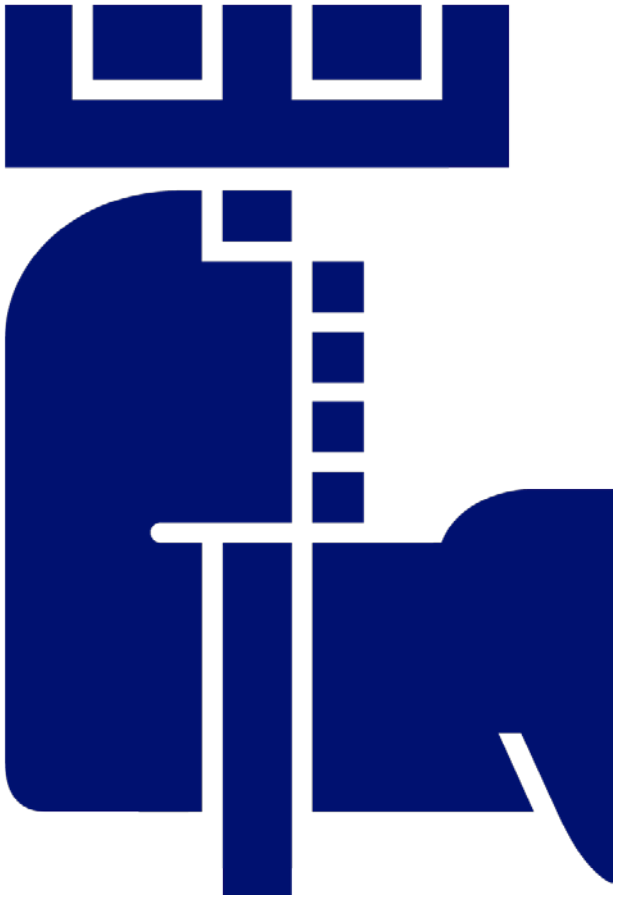
When the expansion of the Panama Canal is finalised in 2016, it is expected to be the preferred route between the US and Asia, dominated by VLGC vessels. However, if transit costs become too high, vessels may prefer to go around Cape Horn on the ballast leg, which could lower fleet productivity significantly. In any event, voyages from the US to Asia are at least twice as long as those from the Middle East and as long as US LPG prices stay competitive, Asia will continue to increase imports.

TIGHT LPG MARKET

Currently, the LPG market is fairly tight, which has led to several freight rate spikes during 2014. However, the massive inflow of new vessels is set to disturb the market balance and put downward pressure on rates. Nonetheless, if owners increase scrapping and keep contracting to a minimum in the coming years, the market should be able to regain its strength fairly quickly.

DRY BULK

SHIPPING MARKET REVIEW – NOVEMBER 2014



DANISH SHIP FINANCE

DRY BULK

THE DRY BULK MARKET HAS HAD ANOTHER CHALLENGING YEAR IN 2014 WITH A DEPRESSED FREIGHT MARKET AND OVERCAPACITY ISSUES THAT HAVE AFFECTED EARNINGS. THE FOURTH QUARTER HAS BEEN LONG AWAITED AS IT USUALLY BRINGS ABOUT STRONGER DEMAND.

FREIGHT RATES

THE FIRST NINE MONTHS OF 2014 HAVE BEEN ANOTHER DISAPPOINTING PERIOD FOR THE DRY BULK MARKET AS FREIGHT RATES HAVE REMAINED LOW. THE TIMECHARTER MARKET HAS FARED BETTER BUT IS STILL AT LOW LEVELS.

After a promising start to 2014, many were convinced that the dry bulk industry would recover before long. However, by the second quarter, the Baltic Dry Index had started to decline, and as of October 2014, the average index value was 9% below the annual average for 2013. While the Capesize segment has benefited from the usual temporary rate spikes during the year, the Panamax segment has been trending steadily downwards and is currently 19% below the 2013 average. Capesize rates slowly began to build up in the middle of August, only to fall back down a month later (fig. 1). Going into the fourth and final quarter, the question on everyone's mind remains whether the seasonal upsurge in the final months of the year will materialise or whether the uncertainty over the future market will suppress it.

TIMECHARTER RATES HAVE IMPROVED SLIGHTLY

The timecharter market has fared better than the spot market and rates are up in all segments from the 2013 average. In particular, the Capesize segment has improved and the average 6-month rate is up 33% YTD on 2013, whereas the Panamax segment is only up by 5%, reflecting the headwind the segment has encountered due to a shaky coal and grain trade. The Handymax 6-month rate is up 8% and the Handysize up 16%.

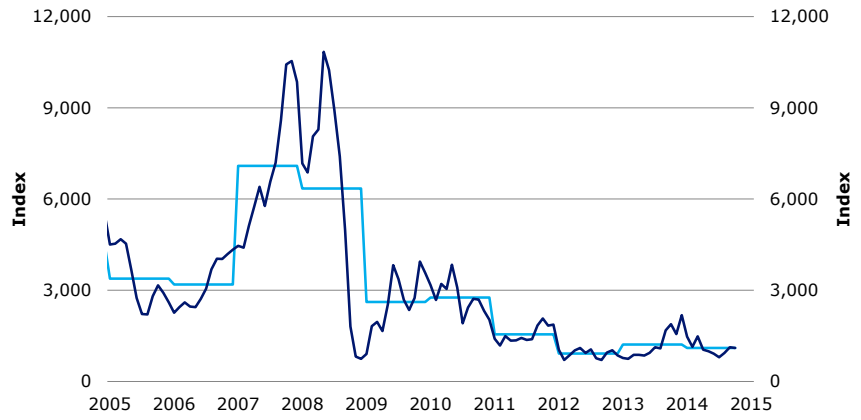
FIXTURE ACTIVITY SLOWED WITH THE MARKET

The majority of period fixtures, especially in the Capesize segment, were made in the first quarter of the year, when market sentiment still looked promising. Activity did, however, begin to decline slightly in tandem with the market. The average fixture period fell to 8.5 months, down from 10 months in 2013.

Figure DB.1

The Baltic Dry Index has fallen 9% on average in 2014 YTD

By October 2014 the index stood around 1,100

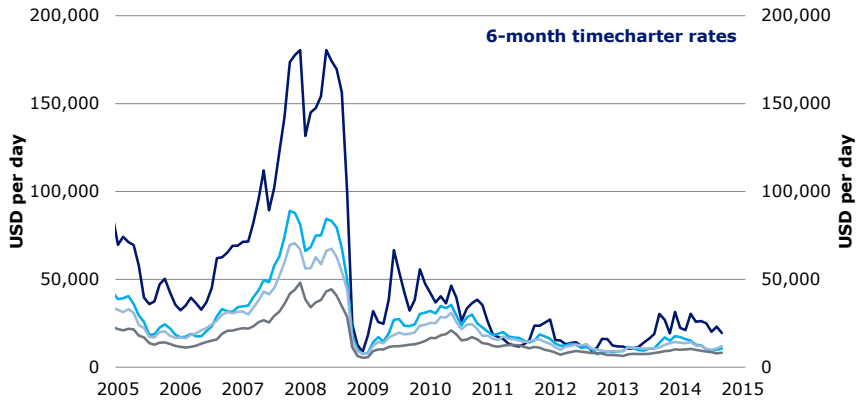


Sources: Clarksons, Danish Ship Finance

Figure DB.2

Average timecharter rates have increased in 2014 YTD

After a strong start to the year rates began to fall in the second quarter

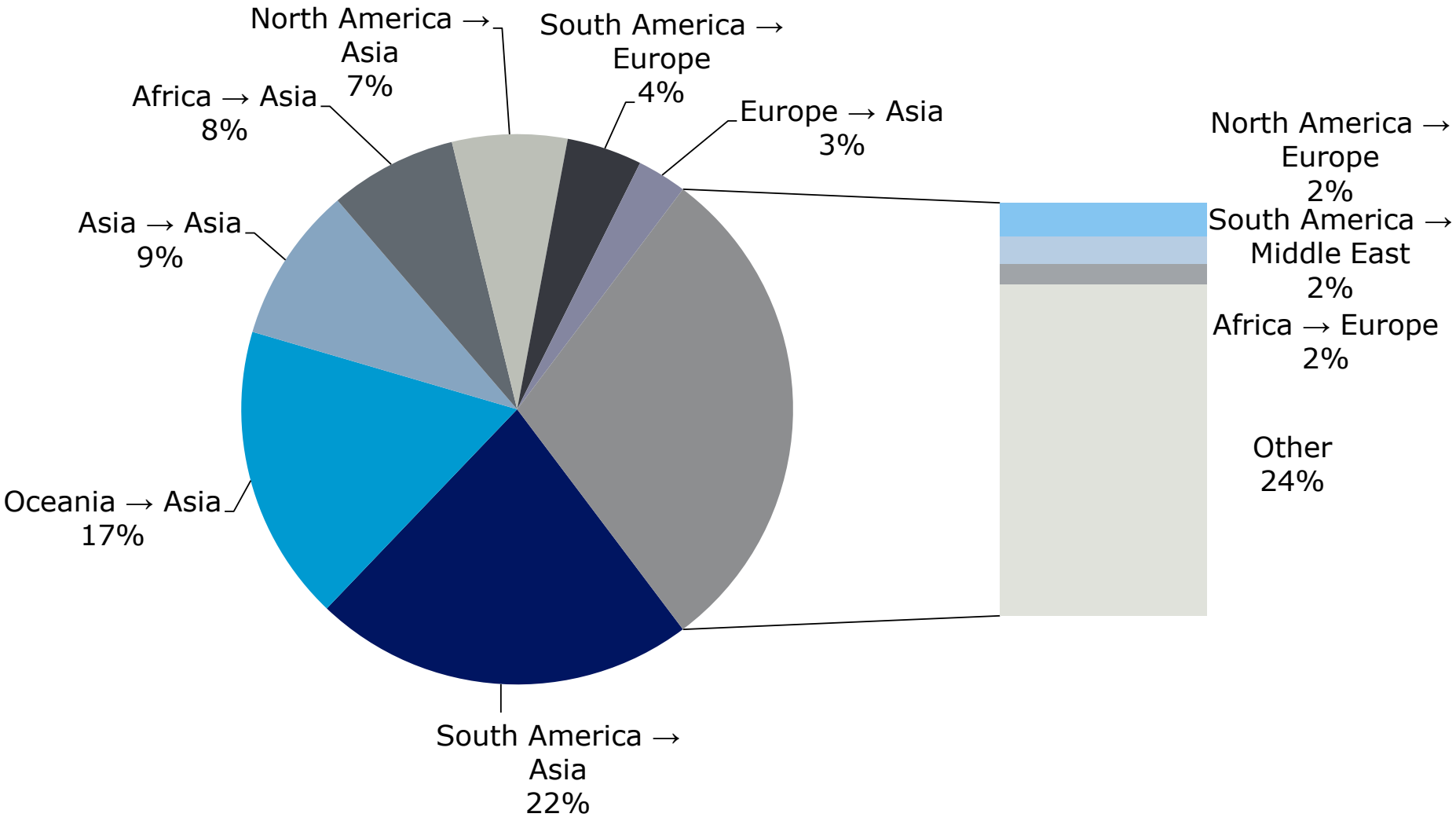


Sources: Clarksons, Danish Ship Finance

Figure DB.3

Major dry bulk trades

(Measured in tonne-miles, 2014)



Source: IHS Global Insight, Danish Ship Finance

THERE HAVE BEEN MANY NEGATIVES FOR THE DRY BULK MARKET IN 2014 SO FAR, THE TWO MOST IMPORTANT BEING THE OVERHANG OF TONNAGE AND THE UNCERTAIN DEMAND PROSPECTS. ON A POSITIVE NOTE, DEMAND GROWTH IS EXPECTED TO BE ABLE TO MORE OR LESS ABSORB SUPPLY GROWTH IN 2014.

2014 has not been the turning point for the dry bulk market that many had hoped. Overcapacity and demand uncertainty continue to have a hold over the industry. There is, however, one notable positive: declining fleet growth! As the graph to the right illustrates (fig. 4), fleet growth has been extremely high in the post-crisis years and has only recently begun to slow. So far in 2014, it has fallen to 4%, raising hopes that demand growth this year could surpass, or at least equal, supply growth.

38 MILLION DWT ENTERED THE FLEET IN THE FIRST THREE QUARTERS

At the beginning of the year, 58 million dwt was scheduled to be delivered during the first three quarters. Of this, 24% was purchase options. Two-thirds was to be delivered in the Capesize and Panamax segments – one-third in each. By October, 38 million dwt had been delivered, representing 65% of scheduled orders. 20% had been postponed for later delivery and the remaining 15% cancelled. A lot of postponement activity occurred in the Panamax segment where 31% of orders were postponed. Deliveries in the first three quarters of 2014 were 23% lower than in the same period last year (fig. 5).

SCRAPPING HAS DECLINED IN TANDEM WITH LOWER DELIVERIES

Against our expectations, some of the urgency for scrapping vessels has been reduced in 2014 and only 11.5 million dwt was demolished in the first three quarters of 2014, 38% less than in the same period last year. The average scrapping age was 27 years, which is a decline of one year compared with 2013. Deconstructing this number, we find that the average scrapping age for Capesize vessels went up by one year to 24 years whereas Handymax vessels saw a decline of two years to 26 years. Panamax declined from 25 to 24 years and the Handysize segment maintained an average scrapping age of 30 years.

Figure DB.4

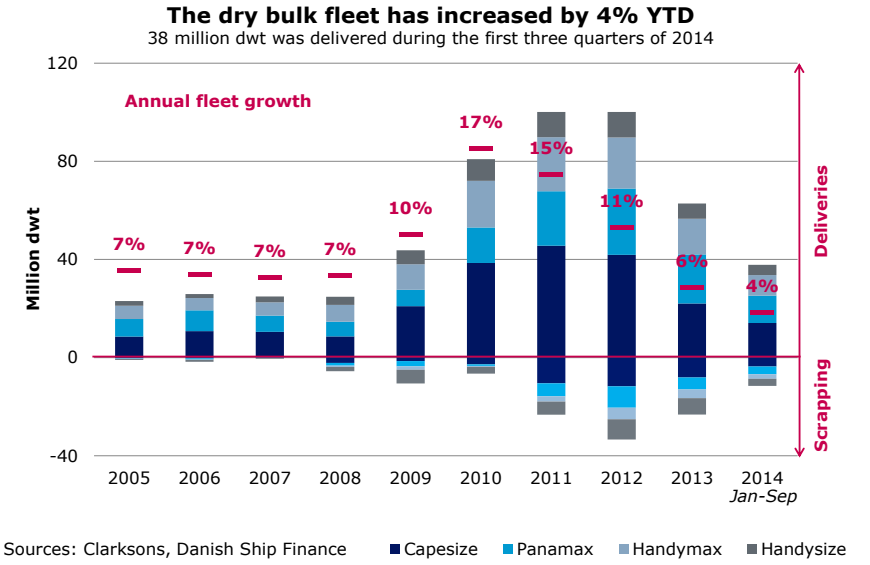
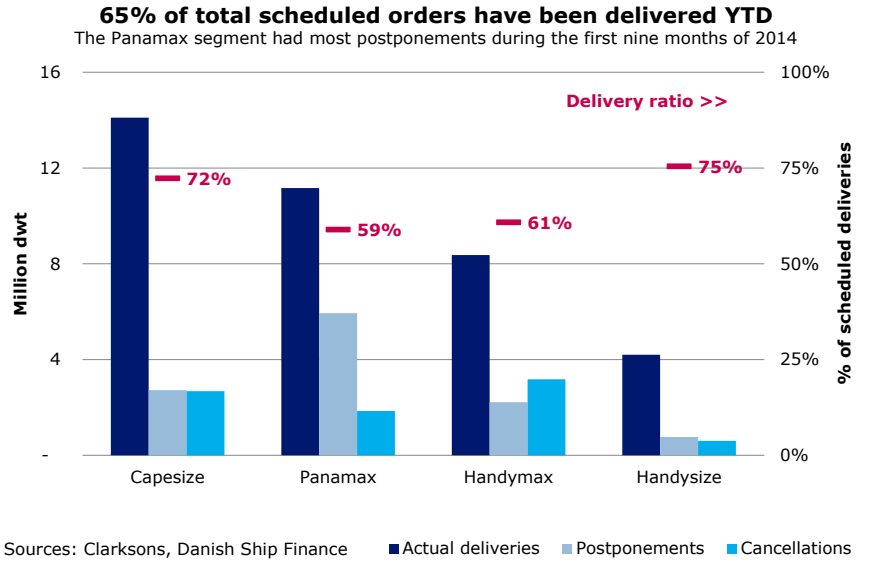


Figure DB.5



SEABORNE DRY BULK DEMAND TO GROW BY 4% IN 2014

Dry bulk demand in 2014 has to a large extent been characterised by falling commodity prices and massive output expansions of the major commodity types. All in all, we expect dry bulk demand to grow by 4% this year with no significant shifts in travel distances (fig. 6).

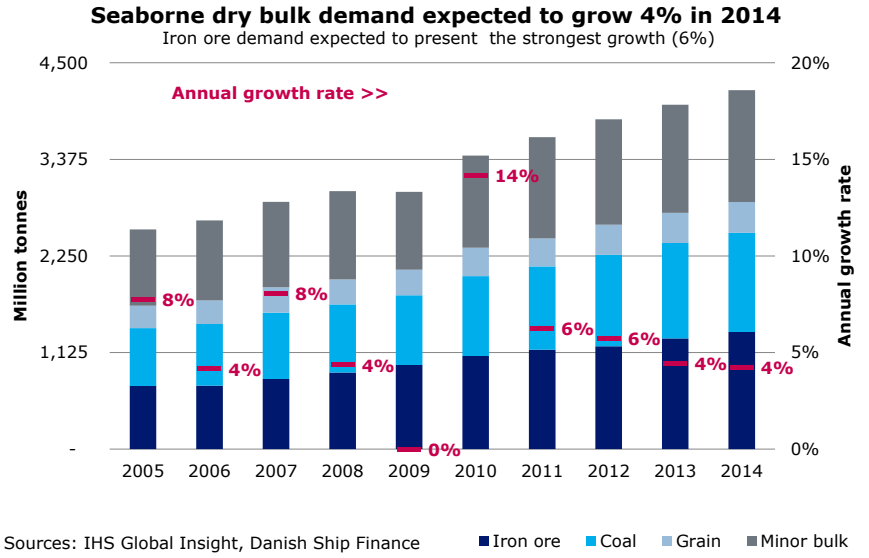
IRON ORE PRICES DIP

The global iron ore trade is expected to have the biggest growth potential of all major commodity groups in 2014 and increase by around 6% over the year. The trade has especially benefited from mine expansions in Australia, which have resulted in record-high export volumes to China. In turn, the oversupply has caused the iron ore price to plummet to a level not seen since 2009. By the end of the third quarter, the average iron ore price had fallen 40% from the beginning of the year. This has incentivised China to continue to import huge amounts of iron ore, despite slowing industrial production, a weak real estate sector and high domestic production. Import so far this year is up by 16% compared with the same period last year, while domestic production is down by only 6% (fig. 7). This has caused a displacement of domestic low-quality iron ore and a lot of Chinese capacity is expected to close down. The Chinese steel mills depleted their stocks in the third quarter, which could help reduce the record-high inventories established around the country. As of the start of October, these inventories contained 106 million tonnes of iron ore, which corresponds to slightly more than one month's consumption.

INDIA RE-ENTERS THE IRON ORE TRADE

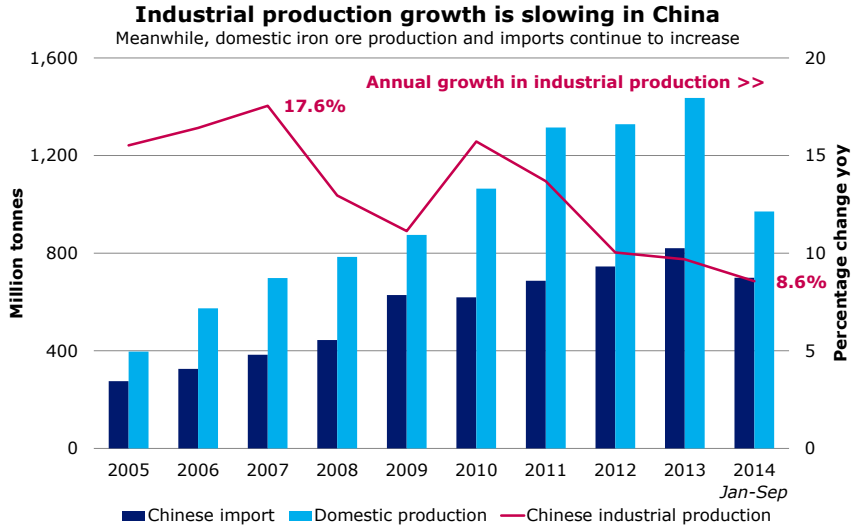
The lifting of the Indian iron ore mining ban in the Goa and Karnataka regions was expected to increase Indian export levels in 2014. However, due to the 30% tax on iron ore export as well as government royalties paid on the amount of iron ore sold, Indian miners are having difficulty selling the iron ore globally in the current low-price environment. This might result in many mines closing down. The Indian government has also been taking its time renewing mining licences, which has forced a lot of steelmakers to increase iron ore imports in 2014. Imports are expected to grow by 17% in 2014.

Figure DB.6



Sources: IHS Global Insight, Danish Ship Finance

Figure DB.7



Sources: Clarksons, Bloomberg, Danish Ship Finance

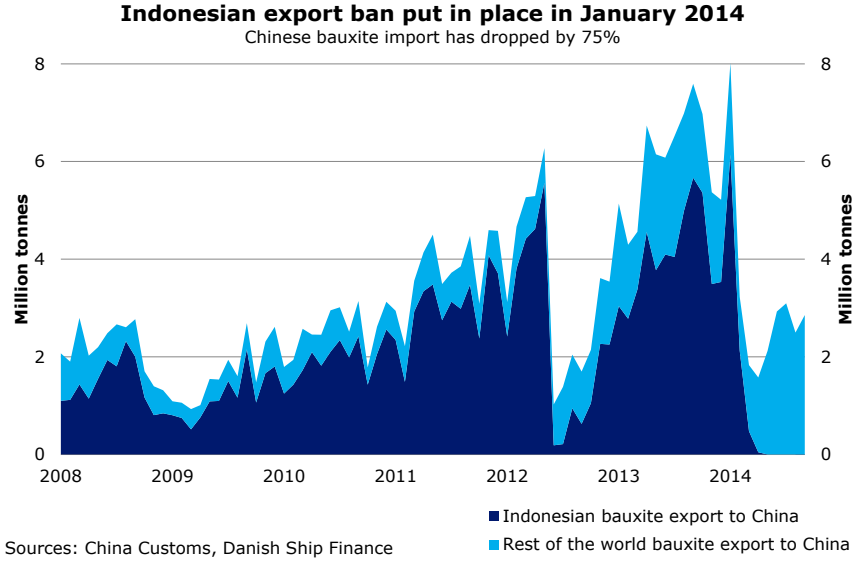
COAL SUPPLY IS EXPANDING

The overcapacity issues in the coal market still prevail. The coal price has come under further pressure this year, as several mine expansions and greenfield projects have come online in Australia, Colombia and Brazil, straining the supply and demand balance. As of October, the average coal price had come down 10% from the beginning of the year. Several mines in the US and Australia have had to close down over the course of 2014, but this has not been enough to offset the new supply. China has also announced that around 1,700 smaller mines will be closed down during 2014, the motivation being to strengthen domestic production of high-quality coal and phase out low-quality producers.

CHINA CUTS COAL IMPORTS TO SAVE DOMESTIC MINERS

China, the largest steam coal producer, user and importer in the world, is beginning to cut imports and is expected to show zero growth in coal imports this year. After nearly a decade without any tariffs on coal imports, the Chinese government decided to reinstate them in October this year. This came in response to intense lobbying by domestic coal miners, which are struggling to turn a profit in the current low-price environment. A 6% tax will be imposed on steam coal imports, which will make it unprofitable for many exporters to ship coal to China. Indonesia, which ships 22% of its steam coal exports to China, is expected to be unaffected by the tariffs because it is part of the trade agreement ASEAN. Australia, on the other hand, is expected to be greatly affected by the introduction of tariffs and it will need to find alternative buyers for its coal. Australia and China have for a long time tried to establish a common free trade agreement. The announcement of the tariffs seems to have created some urgency for Australia to get the deal signed in order to exempt its coal exports from the tariffs. The parties hope to sign the agreement later this year. The real impact of these tariffs will be questionable if the two major coal exporters, accountable for 70% of China's coal import, are both exempt from the tariffs.

Figure DB.8



Sources: China Customs, Danish Ship Finance

THE MINOR BULK TRADE HIT BY INDONESIAN EXPORT BAN

The minor bulk trade is expected to grow by 3% in 2014 despite the mineral export ban in Indonesia which has caused significant declines in especially the bauxite and nickel ore trade. Indonesia has become an important player in the minor bulk trade over the last decade and is currently accountable for 15% of total minor bulk exports, up from 3% in 2004. China is the biggest importer of nickel ore and bauxite from Indonesia, and the ban has already affected its imports. China was, however, able to fully restock its inventories before the ban came into force in January 2014. The ban has led to fewer Chinese imports in 2014, affecting the shipping market negatively, particularly the Handymax segment. China's inventories of bauxite and nickel ore are expected to run out in mid-2015 (fig. 8).

CONTRACTING ACTIVITY IN THE FIRST THREE QUARTERS OF 2014 SLOWED COMPARED WITH 2013. IN THE LIGHT OF THE CURRENT OVERSUPPLY, ORDERING MIGHT STILL BE TOO HIGH. DESPITE A WEAK MARKET, SHIP VALUES HAVE STRENGTHENED.

CONTRACTING ACTIVITY HAS SLOWED A LITTLE

As of October 2014, orders amounting to 51 million dwt had been placed. That is only 8 million dwt less than in the same period last year. The fourth quarter in 2013 saw a massive contracting boom, with more than 40% of the year's total contracting placed. Let us hope that the more pessimistic sentiment at the moment will lead to lower contracting in the final quarter of this year. The average delivery time for orders placed so far in 2014 has increased to 26 months (fig. 9).

THE MAJORITY OF CONTRACTING IS IN THE CAPESIZE SEGMENT

The Capesize segment continues to constitute almost half of the contracting in the dry bulk segment measured in dwt, spread across 114 vessels. One-third of it was placed in January, and since then contracting activity has declined in line with the market weakening. The Handymax segment has received the biggest share of contracting measured by number of vessels (242).

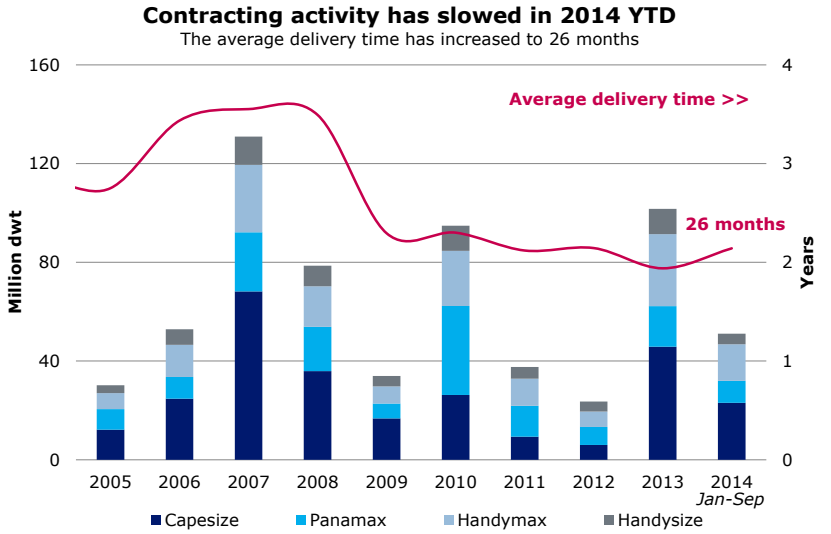
AVERAGE NEWBUILDING PRICES UP BY 10% COMPARED WITH 2013

Newbuilding prices have increased across the board in 2014, peaking in the second quarter. They came down marginally in the third quarter and by October were up by 10% on average on 2013. Secondhand values went up at the end of 2013 and the start of 2014 because of the immediate demand for tonnage created by the market upswing. Values have come down since the start of 2014 but are still higher than the 2013 average.

PRICES REMAIN HIGH DESPITE A LOW EARNINGS ENVIRONMENT

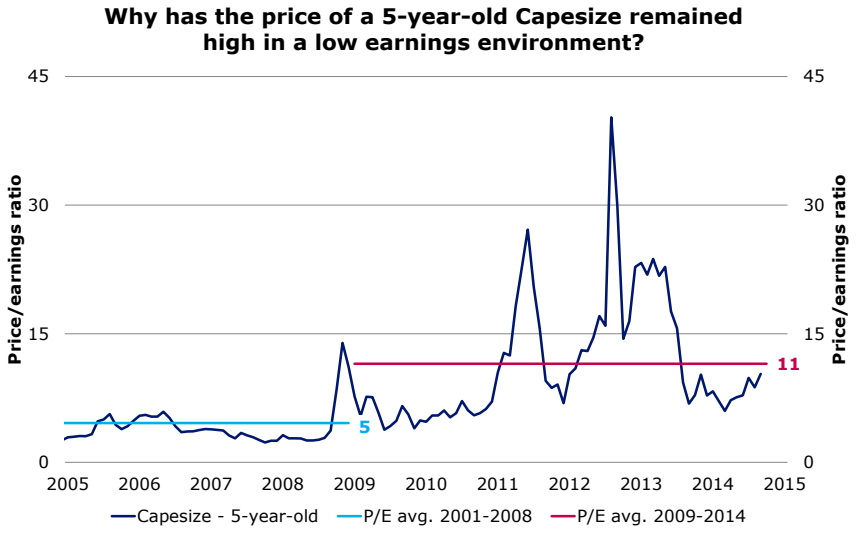
Ships continue to be traded at high premiums to the earnings they are generating. In the period from 2001 to 2008, a 5-year-old Capesize traded at an average price/earnings ratio of 5. This means paying 5 dollars for a 1 dollar cash flow. Since 2009, this ratio has risen to 11 (fig. 10). Such an increase emphasises that the market maintains high expectations for future earnings but that a price reduction could occur if these expectations are not realised. We expect to see a reduction in asset values sooner rather than later.

Figure DB.9



Sources: Clarksons, Danish Ship Finance

Figure DB.10



Sources: Clarksons, Danish Ship Finance

THE OUTLOOK FOR THE DRY BULK MARKET IS CHARACTERISED BY UNCERTAINTY: UNCERTAINTY ABOUT FUTURE DEMAND AND IF – OR MAYBE RATHER WHEN – CHINA WILL BEGIN TO SLOW DOWN.

The age distribution of the current dry bulk fleet is discouraging, as 57% of the fleet is no more than five years old. We feel compelled to repeat the mantra from our last report: premature scrapping will become an inevitable part of the recovery process for the dry bulk segments. Only a scenario with soaring demand could prevent this from happening, but we find it hard to envisage this in the short to medium term.

THE ORDERBOOK CONTINUES TO INCREASE

The orderbook's share of the current fleet has increased by 3 percentage points since the beginning of the year, and now equals 24% of the fleet (fig. 11). Hence, for the incoming new vessels to be absorbed, vessels as young as ten years must be considered scrapping candidates. This is a rather unlikely scenario, because shipowners will have calculated with a much longer operating life when making the decision to invest in a vessel. Nonetheless, it seems that there is no real alternative in the current market, but the question is if anyone wants to go first.

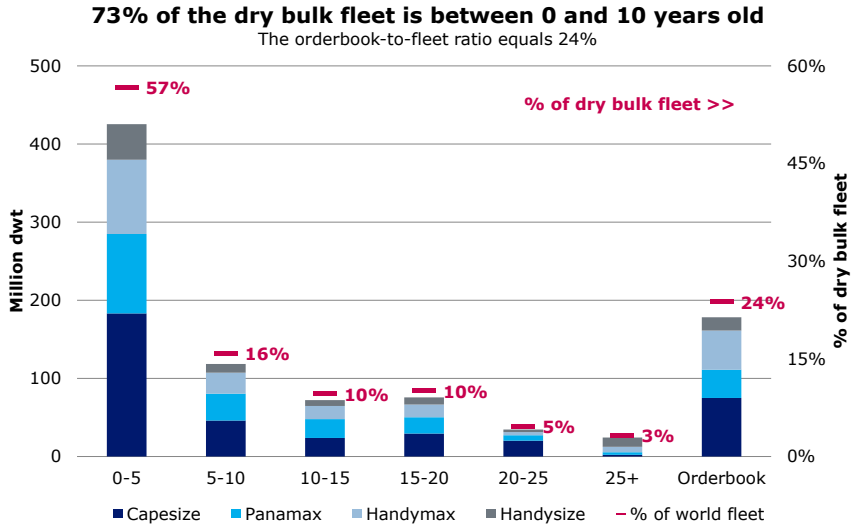
FLEET GROWTH OF 5% IN 2014

The orderbook for the fourth quarter of 2014 contains 28 million dwt. Based on past experience, we forecast that only one-third of this will be delivered and that an additional 2.6 million dwt will be demolished. Therefore, we expect the year to end with 5% net fleet growth, slightly higher than overall demand growth (fig. 12).

FLEET GROWTH EXPECTED TO REMAIN HIGH IN THE COMING YEARS

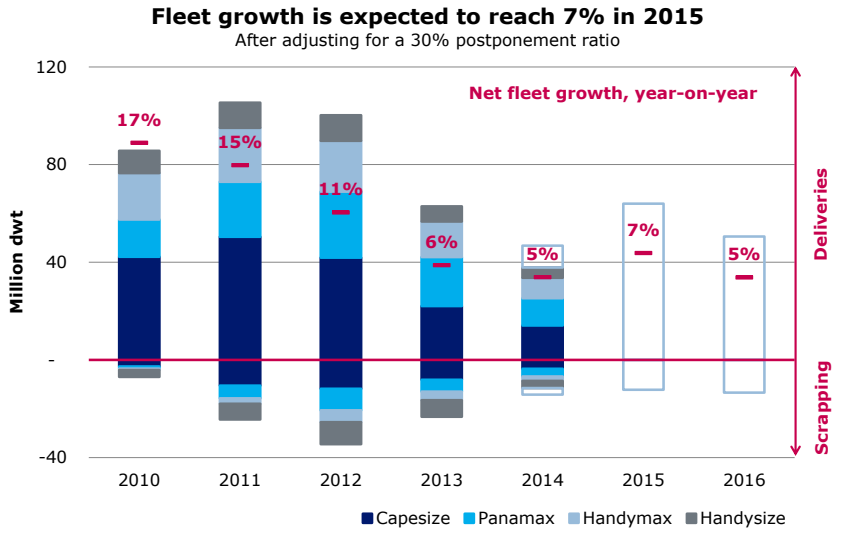
72 million dwt is currently scheduled to be delivered in 2015 and we expect 64 million dwt to actually be delivered. Moreover, by applying our approach to future scrapping, whereby a vessel becomes a scrapping candidate the year before its next special survey, starting at the third, we identify 27 million dwt of potential scrapping candidates in 2015. We expect only one-third of these

Figure DB.11



Sources: Clarksons, Danish Ship Finance

Figure DB.12



Sources: Clarksons, Danish Ship Finance

to actually be demolished. Altogether, this results in an 7% fleet increase in 2015, with more than one-third of the capacity expansion in the form of Capesize vessels.

SEABORNE DEMAND EXPECTED TO GROW 3% IN 2015

Dry bulk demand, on the other hand, is forecast only to grow by 3% in 2015. That is a 1 percentage point decline from the expected 2014 figure, which is primarily due to lower expectations for the iron ore trade. There are, however, many unknowns when it comes to iron ore and demand could end up being stronger than anticipated. In the period from 2014 to 2018 the average annual growth rate for total seaborne dry bulk demand is forecast to be around 2.9% (fig. 13). This falls short of the expected annual average supply growth for the next couple of years of just below 6%.

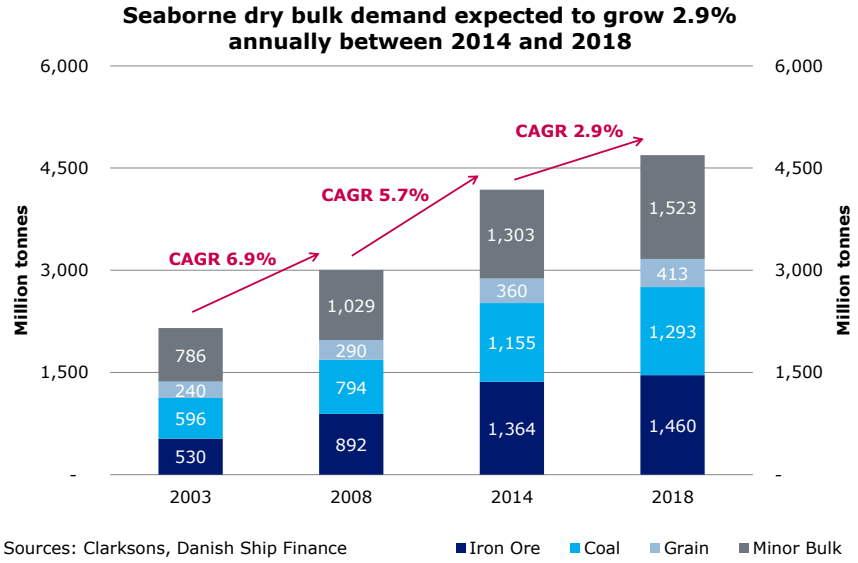
CHINA'S REBALANCING EXERCISE

China has embarked on the process of rebalancing its economy towards becoming more consumption-driven as opposed to investment-driven. The consequences of this are already noticeable and Chinese economic growth has begun to slow in 2014. The dry bulk market is heavily dependent on how China handles this transition. Dry bulk vessels have in many ways facilitated China's massive industrial production in the last decade by supplying the economy with the necessary resources. Hence, the big question remains: to what extent will China require the services of dry bulk vessels after having transitioned into a consumption-driven economy? The key issue will be how China manages to shift resources from one industry to another without creating a huge displacement of labour and resources.

FUTURE IRON ORE DEMAND REMAINS UNCERTAIN

The iron ore industry is to a large extent struggling with similar issues as the shipping industry. The cyclical nature and lengthy process of establishing new mines and expanding existing ones has resulted in a ramp-up of output just as demand growth has begun to slow. The consequence has, as we know, been a dramatic drop in prices, which has put pressure on the high-cost producers in the industry. Many mines are expected to be forced

Figure DB.13



to close down in 2015 – representing more than 100 million tonnes globally, the majority in China. Whether this will be enough to re-establish market balance in 2015 is questionable because the fact that inventories in China have already been filled puts a limit on the amount of iron ore the country can continue to import. Even though many miners are struggling with low margins at the current price level of around USD 80, the low-cost producers are believed to be able to operate with much lower prices. Some analysts assert that the biggest producers have a breakeven rate of around USD 50 for shipping iron ore to China.

CHINA AS A STEEL EXPORTER

But who is to say that lower industrial production and a more service-driven focus in China will lead to lower import of iron ore? An alternative scenario could be that China continues its massive steel production but starts to export a bigger share of the output. In fact, China is already the biggest steel exporter in

the world, primarily exporting steel to countries within Asia. China is selling its steel at cheap prices on the world market and it will be difficult for many producers to compete if China starts to push even bigger amounts of steel onto the world market (fig. 14).

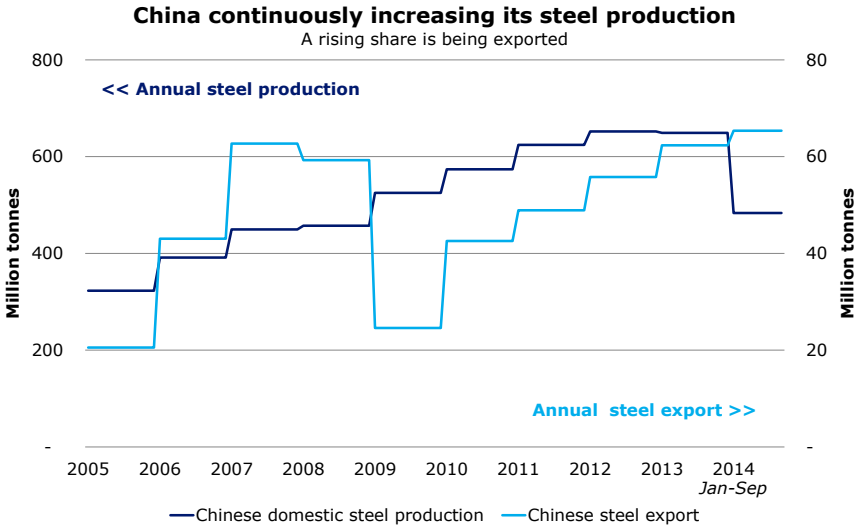
COAL TRADE EXPECTED TO GROW 4% IN 2015

Short-term demand for coal is expected to remain fairly strong and grow by 4% in 2015. The medium to long term is a little more uncertain, however, as some of the biggest coal consumers, such as China, are shifting to cleaner energy fuels. Coal constituted around 70% of China's energy mix in 2011 and the plan has been to lower this share to 65% in 2014. China's total coal consumption almost equals the combined consumption of the rest of the world, which is why the country is struggling with such heavy pollution in many provinces. The Chinese government has strong ambitions to lower CO2 emissions from burning coal, and big investments are being made to develop the use of non-fossil fuels and natural gas. A good example is the deal that China struck with Russia earlier this year, for Russia to supply China with natural gas over a period of 30 years. As a result, Chinese coal import is naturally expected to fall over the long term. Adding to this is the fact that China has one of the biggest coal reserves in the world and the government is trying to support domestic production of high-quality coal with lower ash and sulphur content. Consequently, China could potentially become more or less self-sufficient over time. China currently imports 21% of the world's coal trade.

INDIA COULD BECOME THE KEY DRIVER OF FUTURE COAL DEMAND

India, led by the newly elected Prime Minister Narendra Modi, has huge ambitions when it comes to India's future power supply. First of all, it aims to close the gap between supply and demand and to ensure access to reliable energy for the whole population. Currently, energy demand is about 10% higher than supply and it is estimated that around 300 million Indians are without regular access to electricity. Secondly, it wants the energy supply to be dominated to a large extent by renewable fuels.

Figure DB.14



Sources: Bloomberg, Danish Ship Finance

However, it might be difficult to achieve both ambitions in the short term. To provide affordable energy to the entire population, the only economically feasible solution might be to increase the use of coal. Hence, Indian coal consumption is expected to grow from current levels. The state-owned company Coal India has a monopoly on coal production in India and is accountable for 80% of Indian coal production. The company has, however, failed to meet production targets, which has caused frequent blackouts and led many Indians to be without electricity. This has made India reliant on significant coal imports from especially Indonesia and South Africa, and these imports could increase if domestic production does not improve its efficiency. However, the government is starting to consider opening domestic coal production up to foreign companies to better exploit the domestic coal reserves.

INDONESIAN EXPORT BAN AFFECTING MINOR BULK TRADE

As mentioned earlier, the world has not yet seen the actual effects of the Indonesian export ban on unprocessed minerals, but they are expected to materialise in the coming years. China will have emptied its inventories of bauxite and nickel ore within the coming year. To support its domestic demand, China must increase its import of bauxite and nickel ore from other sources or import refined materials from Indonesia (e.g. nickel pig iron and alumina). China has already acknowledged this and begun to invest in more African mines as well as processing capacity in Indonesia. Should it choose to primarily import processed mineral products, it would have a negative effect on tonnage demand because it would result in smaller import volumes. If, on the other hand, China chooses to import bauxite and nickel ore from alternative sources, this would most likely be from the Philippines and Africa, which could affect distance-adjusted demand positively. The Philippines is currently considering implementing a ban similar to that in Indonesia, but if it does, it will not come into force for five years, giving importers time to invest in the necessary processing capacity.

2015 WILL BE ANOTHER TOUGH YEAR FOR DRY BULK

The developments in the dry bulk market this year have made our expectations for 2015 subdued. We foresee another year with high supply growth and uncertain demand prospects due to the oversupply in many of the main commodity markets. Despite our somewhat gloomy industry outlook, it is important to remember that one of the keywords for the industry right now is uncertainty. Hence, no one really knows the impact that China's rebalancing exercise will have on the world and on the dry bulk sector. One thing that could offer some shelter for shipowners next year is the low bunker cost. If the price of oil remains low in 2015, it could remove some of the pressure on vessel earnings in case demand growth, as expected, does not match supply growth.

GLOSSARY

SHIPPING MARKET REVIEW – NOVEMBER 2014

DANISH
SHIP FINANCE

GLOSSARY

Aframax:	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.
Back-haul:	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'.
Barrel:	A volumetric unit measure for crude oil and petroleum products equivalent to 42 U.S. gallons, or approximately 159 litres.
BHP:	Break Horse Power. The amount of engine horsepower.
Brent:	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.
Bulk vessel:	Description of vessels transporting large cargo quantities, including coal, iron ore, steel, corn, gravel, oil, gas, etc.
Bunker:	Fuel for vessels.
Call on OPEC:	Defined as total global petroleum demand less non-OPEC supply less OPEC natural gas liquid supply.
Capesize:	Dry bulk carrier of more than approximately 100,000 dwt; too large to pass through the Panama Canal.
Cu.M:	Cubic Meter.
Ceu:	Car equivalent unit. Unit of measure indicating the car-carrying capacity of a vessel.
Cgt:	Compensated Gross Tonnage. International unit of measure that facilitates a comparison of different shipyards' production regardless of the types of vessel produced.
Chemical tanker:	DSF's definition: IMO I or IMO II tanker with stainless steel, zinc, epoxy or Marineline coated tanks.
Clarksons:	British ship brokering and research company. www.clarksons.net
Clean products:	Refers to light, refined oil products such as jet fuel, gasoline and naphtha.
CoA:	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.
Coating:	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.
Deep sea:	Refers to trading routes longer than 3,000 nautical miles.
Deep Sea, chemical:	A chemical tanker larger than or equal to 20,000 dwt.
Dirty products:	Refers to heavy oils such as crude oil or refined oil products such as fuel oil, diesel oil or bunker oil.
Drewry:	Drewry Shipping Consultants Ltd. British shipping and transport research company. www.drewry.co.uk
Dwt:	Dead Weight Tons. Indication of a vessel's cargo carrying capacity (including bunkers, ballast, water and food supplies, crew and passengers).
Dynamic Positioning:	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.

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 phosporic 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.

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

Teu:	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.
Teu-knots:	Unit of measure that takes account of the speed of ships when estimating the actual supply of ships within a segment.
Teu-nautical mile:	Unit of measure indicating the volume of cargo, measured in teu, and how far it has been transported, measured in nautical miles.
Tight oil:	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
Ton-nautical mile:	Unit of measure indicating the volume of cargo, measured in ton, and how far it has been transported, measured in nautical miles.
Tonnage:	Synonymous with "vessel".
Town gas:	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.
ULCC:	Ultra Large Crude Carrier. Crude oil tanker of more than 320,000 dwt.
Vegetable oils:	Oils derived from seeds of plants and used for both edible and industrial purposes.
VLCC:	Very Large Crude Carrier. Crude oil tanker of between approximately 200,000 and 320,000 dwt.
VLGC:	Very Large Gas Carrier. LPG ship with a capacity of more than 60,000 Cu.M.

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