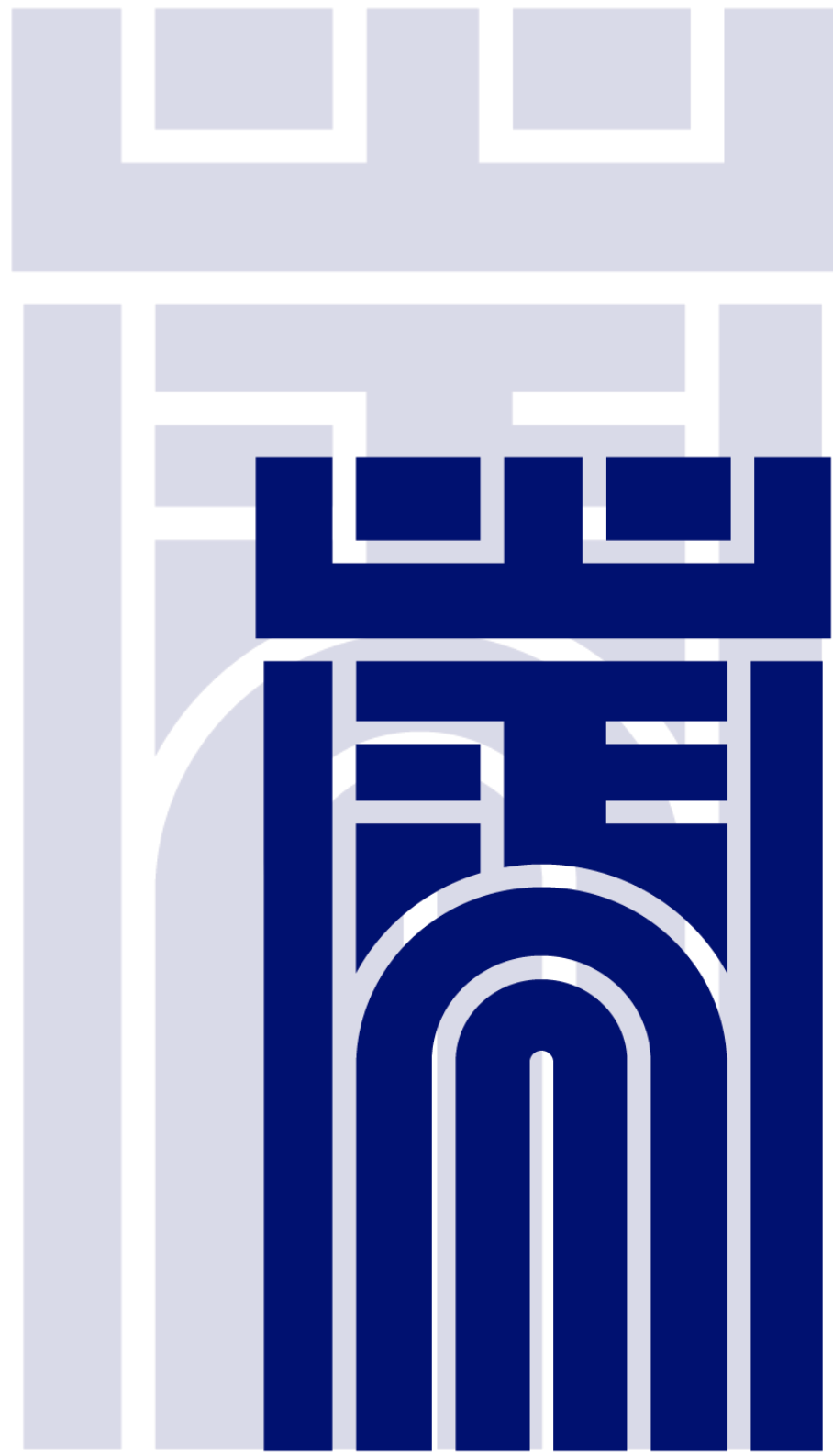


SHIPPING MARKET REVIEW

MAY 2020



DANISH
SHIP FINANCE



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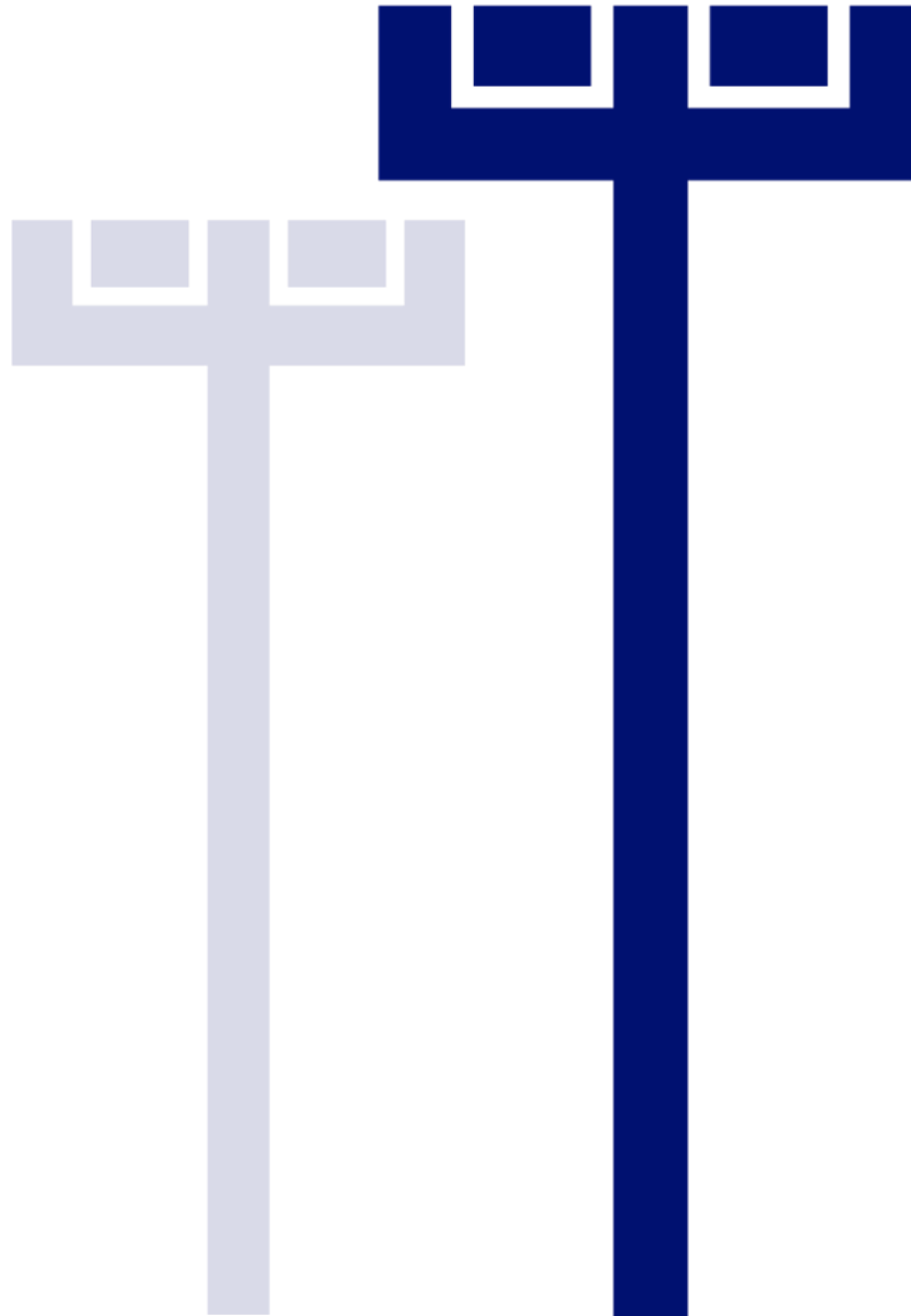


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COVID-19 HAS LOWERED ECONOMIC ACTIVITY AND WORLD TRADE

Non-essential spending is being postponed or cancelled, investments are being delayed, and few businesses are hiring workers

The pandemic is having a widespread effect on **seaborne demand** throughout all vessel segments.



DRY BULK

Industrial activity weakens which lower commodity demand. Dry Bulk volumes will decline accordingly.



OFFSHORE

Oil producers are struggling to handle a massive supply surplus. High-cost producers are most exposed.



GAS CARRIER

Gas volumes are stagnating, and some could even decline due to lower economic growth.



CHEMICAL CARRIER

Chemical demand is likely to decline, but the Product Tanker boom is currently supporting demand for Chemical Tankers.



PRODUCT TANKER

Global demand for refined oil products has declined sharply. Surplus oil products are creating infrastructural bottlenecks and many vessels are being used for floating storage.



CRUDE TANKER

Crude Tankers are increasingly being used for floating storage, as surplus oil volumes are flooding the market.



CONTAINER

Consumers are reducing non-essential spending. Container volumes have declined.



CAR CARRIER

Car Carrier demand is very low, reflecting low consumer spending and weak car sales.



CRUISE / FERRY / RO-RO

Travel bans, border closures and quarantine measures are keeping most people-carrying vessel segments in port.

The WTO expects world trade to decline by between **13% and 32% in 2020**





EXECUTIVE SUMMARY



DANISH
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EXECUTIVE SUMMARY

This report reviews key developments in shipping markets and the main shipping segments and indicates possible future market directions. Please read the disclaimer at the beginning of this report carefully.

In previous editions of this report, we have discussed extensively our contention that the shipping industry is on the brink of a massive shift in value distribution. We have highlighted that the introduction of new environmental regulations and the push to digitise call for business model innovation and significant investments in new technologies and fuel types, while also exposing shipowners to the risk of stranded assets. Costs are rising, but there is little to indicate that revenues will follow suit.

The longer-term outlook is also shaped by the next generation of technologies, which may reduce trade flows by changing the economics and location of production and transforming the actual content of what is traded across borders: from energy to manufacturing to construction. New technologies are disrupting some very basic mechanisms that have been facilitating massive growth in seaborne trade volumes over the past decades. These mechanisms could become outdated sooner than generally expected.

We urge our readers to consider some of these structural challenges that we believe are transforming the outlook for many parts of the shipping industry. Consolidation among shipowners is likely, since the highly fragmented structure of the current industry structure makes it ill-prepared to take advantage of the emerging changes.

In this edition, we shift our focus momentarily to analyse and digest the short and medium-term consequences of the escalating coronavirus crisis.

GENERAL REVIEW AND OUTLOOK

The first section of this report – our General Review and Outlook – is devoted to analysing the short to medium-term consequences of the Covid-19 pandemic. We focus on the outlook for global economic growth and world trade through the lens of private consumption, supply chains and global labour market dynamics.

The pandemic has already caused an economic and labour market shock, impacting not only production of goods and services – global supply – but also global demand through consumption, investment and global trade.

Disruptions to production, initially in Asia, have now spread to supply chains across the world. Many businesses are facing serious challenges, especially those in the service sector, and in the transportation, tourism and hospitality industries, with a real threat of significant revenue declines, solvencies and job losses.

Economic activity is declining following travel bans, border closures and quarantine measures. Covid-19 will have far-reaching consequences for the labour market, implying large income losses for workers. At this point, a preliminary estimate from the ILO suggests that 2.7 billion workers, representing around 81% of the world's workforce, have now been impacted.

Many consumers are postponing or cancelling non-essential spending. Businesses are likely to delay investments, purchases of goods and hiring of workers. Governments and central banks have introduced ambitious stimulus programmes to support economic growth but have so far not been able to reduce the level of uncertainty.

The health crisis has also demonstrated our vulnerability when we do not have access to diversified supply bases to hedge against disruption to a specific commodity, component or producer. It has reminded us that our super cost-effective, just-in-time manufacturing ecosystem, with many companies holding near-zero inventories, comes at a cost.

In some industries, such as healthcare, the repercussions may be even greater than generally expected, as not many businesses know where the suppliers of their suppliers are located. Few, if any, businesses have a viable plan B. In today's market, it has become clear how dependent the global economy has become on China, directly or indirectly.

The combined impact on the global economy is projected to be massive. We could be heading towards the worst recession since the Great Depression of the 1930s. The IMF currently predicts that global GDP will shrink by 3% in 2020 (compared to -0.6% in 2009). China and India are still forecast to grow their economies by some 1-2% in 2020, while Japan, North America and Europe are expected to shrink by 5%, 6% and 7%, respectively.

World trade volumes have already been impacted significantly. The question is how substantial this impact will be. The uncertainty over the precise economic impact of Covid-19 leaves room for a significant range of outcomes. The latest prediction from the IMF shows an 11% reduction in world trade in 2020, while the WTO

operates with a spread between scenarios ranging from -13% to -32% for 2020.

SHIPPING MARKETS AT A GLANCE

The shipping industry is facing a challenging year. All vessel segments are scheduled for growth, while world trade is expected to shrink significantly.

Comparisons can be made with past crises, but it should be kept in mind that the supply side is much less leveraged today than it was in 2009. Broadly speaking, the industry should be able to recover within a few years if world trade regains some of the lost ground quickly, since the orderbook is low and asset values are largely in balance.

The call to decarbonise the shipping industry is still on, but the barriers are higher. Profit margins are thinner in times of surplus capacity and the low oil price is causing the price differential between existing marine fuels and green alternatives to widen.

The fuel transition presents many challenges, but the inability to identify a viable business model with a significantly higher fuel cost structure seem the most critical.

The introduction of a decarbonised fuel alternative to marine fuels shifts the focus from a CAPEX perspective to an OPEX perspective in business models. Today's business models cannot handle a significantly higher costs. Business models needs to be reinvented together with the value proposition offered to customers.

SHIPBUILDING

The shipbuilding industry remains heavily burdened by surplus capacity. It has been consolidating for much of the past decade, but much more needs to be done. Global yard capacity totals 56 million cgt, divided between 281 yards.

Since 2013, more than 240 yards with a combined capacity of 16 million cgt have left the industry. However, the current orderbook and surplus capacity across most vessel segments suggest that more capacity needs to close.

Our research has identified a group of 64 yards that represent half of global yard capacity but more than 75% of the current orderbook. We expect these first-tier yards to form the core of the future yard landscape.

The remaining 217 yards will soon run out of orders. This year, 114 second-tier yards with a combined capacity of 7.5 million cgt are expected to deliver their last orders. In 2021, an additional 106 yards with a combined capacity of 16 million cgt are set to run out of orders. Combined, these yards represent more than 40% of the current yard capacity. The situation will only worsen after 2021.

Yard capacity always takes longer than expected to close, but the current outlook is very bleak for many of the second-tier yards.

CONTAINER

The escalating global economic recession is reshaping the Container market. The steady inflow of large vessels continues to dictate market dynamics and exacerbate the overcapacity. The market has attempted to absorb the increased capacity through cascading of larger vessels onto smaller vessels' routes. Since the

Covid-19 outbreak, however, volumes have declined, and consequently supply-constraining measures have been stepped up. Vessels are being laid up, chartered-in vessels are being returned to their owners and the number of void sailings is multiplying. These measures have managed to decrease available capacity and maintain an acceptable box rate level among liner companies.

Our research suggests that a large number of older feeder vessels dependent on intra-Asian trade will come under pressure from declining demand as well as from larger vessels entering their trades. These vessels are likely to become scrapping candidates this year. Demolition activity is likely to increase, which may reduce the economic lifetimes of vessels in several segments and lower the values of older vessels.

The current supply chain disruptions are invalidating short-term Container demand. However, the long-term consequences could be incalculable for the Container market if global trade linkages are changed permanently.

DRY BULK

The Dry Bulk market has also been hit by the consequences of the pandemic. Mining output and industrial activity have declined, impacting all vessel segments. But the larger vessels, Capesizes in particular, are struggling the most, since their supply side is growing strongly. The smaller vessels are enjoying a better supply and demand balance.

Weak fundamentals are pressuring the one-year timecharter rate for Capesize vessels. Secondhand prices for both young and old Capesize vessels are declining and are approaching the levels for

Panamax vessels. Freight rates and secondhand prices are stable for the smaller vessels.

The Capesize segment will continue to suffer headwinds. The fleet is scheduled to grow massively, while demand for mining commodities is facing short-term challenges. China's plans to stimulate the economy are much needed, but it remains to be seen whether they are enough to balance the Capesize market.

We believe that Capesize vessels with low fuel efficiency are the most exposed to unemployment in the current distressed market. The challenges being faced by the Capesize segment could spread to the smaller vessels carrying non-ferrous ore commodities, especially if parcel sizes can be scaled up.

CRUDE TANKER

The Crude Tanker market is experiencing a period of extraordinarily high freight rates, while underlying demand is plummeting. Vessels are being used for floating storage, as global oil supply is running significantly ahead of demand.

Global oil demand has fallen, since large parts of the global economy have been locked down due to the Covid-19 pandemic. Current estimates suggest that oil demand will decline by approximately 9-10 million barrels per day in 2020. However, demand is much lower at the moment.

Global oil supply has been artificially high for a period since Saudi Arabia decided to increase production by an additional 2.5 million barrels per day in an effort to convince Russia to re-engage in global supply management.

The surplus oil production has nearly filled all oil inventories and many vessels have been used for floating storage. At the time of

writing, a temporal arrangement to cut production has been agreed. Whether this is enough to balance the market remains to be seen.

Crude Tankers are heading for a very difficult period with the supply of oil being curbed to meet lower global demand and demand being served from inventories.

PRODUCT TANKER

Product Tankers were expected to see a boom this year as Crude volumes were shifted to Product Tankers with the implementation of the IMO 2020 sulphur cap. Earnings are high, since more vessels are being employed as floating storage, but volumes are shrinking due to travel bans and quarantine measures. Onshore inventories are filling up rapidly which is causing infrastructural bottlenecks, port congestion and longer discharging times. Some volumes are trading longer distances, especially diesel, potentially related to low availability of storage capacity in some locations.

Our research suggests that Product Tanker demand will shrink by 1-2 million barrels per day in 2020. This corresponds to a 5-6% decline in demand. The fleet is scheduled for growth with an orderbook that equals 7% of the fleet. The MR fleet has older vessels to scrap, but LR's will soon run out of scrapping candidates.

Freight rates and secondhand prices are likely to come under pressure and the value of older vessels may be subject to extraordinary depreciation, as economic lifetimes will shorten when there are no more older vessels to scrap.

LPG CARRIER

The LPG market has resisted the turbulence created by the coronavirus well. During the first quarter, freight rates were supported by long-haul trade and reduced vessel supply. Fleet availability was temporarily low because some vessels were being retrofitted with scrubbers. Still, demand softened during March and freight rates have since declined.

The outlook for freight rates and secondhand prices is deteriorating, as supply is expected to expand ahead of demand. The economic recession that is currently escalating is dampening demand, while the fleet continues to grow. Seaborne trade volumes are expected to grow by 2-4% in 2020, whereas the fleet is scheduled to expand by 7%.

Shipowners could look to postpone deliveries of newbuild vessels in order to reduce supply growth, but extensive scrapping is needed to balance the market up to 2022. Freight rates are expected to decline and may stay low until balance is restored.

LNG CARRIER

The effects of the Covid-19 pandemic have so far been limited in the LNG market. Increasing liquefaction capacity continues to push LNG volumes into the market. In the first three months of 2020, cargo volumes and tonne-miles increased markedly compared to the same period last year. Nonetheless, freight rates declined during the period, reflecting vessel oversupply. The outlook for the LNG market is gloomy, though. The fleet is set to grow by 25% over the next three years and only half of the incoming vessels are projected to be absorbed by increasing demand. We believe freight rates are likely to stay low until 2024, when new liquefaction capacity could propel a market recovery.

OFFSHORE OIL ACTIVITY

(Not included in the report)

Global oil markets are struggling to adapt to a massive supply surplus. Inventories are being filled quickly and production will have to be closed if the oil cannot be sold or stored. High-cost producers are most exposed. OPEC+ has agreed to reduce oil availability massively by temporarily lowering oil production in an unprecedented effort to balance the market. However, it seems unlikely that this will be enough.

Global oil demand is very weak following travel bans, border closures and quarantine measures. The global economy is projected to be heading into the worst economic recession since the Great Depression. Global oil demand was down by 20-30% in March and April and is expected to end the year 9-10 million barrels per day lower than last year.

Oil majors are reducing capital spending, exploration activity and operational costs, and delaying final investment decisions. High-cost wells are being closed. US shale oil producers are struggling. Output is expected to be reduced by up to 2-3 million barrels per day (-15%) in 2020 from the peak of 13 million per day in February. The number of rigs operating on US shale fields dropped by 40% in April alone, causing output to plummet by 900,000 barrels per day.

Offshore drilling activity is set to fall by more than a third in 2020, primarily caused by reduced exploration activity. Mature fields could be decommissioned early. Redundant drilling rigs are stacking up as oil producers reduce costs. As a result, some tenders and projects are being delayed, cancelled or terminated early. This is adversely affecting commercial prospects across the supply chain of Subsea Vessels and Offshore Supply Vessels.

Expectations of a short-term market recovery have been withdrawn. Average fleet utilisation is expected to drop below 50% even during the high summer season. Operators primarily serving oil production may find some shelter, while a great deal of exploration activity is being postponed or cancelled. Contracts are being renegotiated at lower levels. Market consolidation is needed, and the fleet needs to shrink further.

The medium-term outlook is still encouraging despite the short-term risks related to lower activity. Demand for Offshore Supply Vessels and Subsea Vessels is likely to resume when oil markets have rebalanced. Offshore oil production currently delivers approximately 26 million barrels per day (25% of global oil production). Short-term production capacity could be increased by 1-1.2 million per day within a period of a year or two. Norwegian offshore oil production could be increased by approximately 30% – 0.5 million barrels – within this timeframe.

GENERAL REVIEW & OUTLOOK



GENERAL REVIEW AND OUTLOOK

THE SIZE, SPEED AND BREADTH OF THE COVID-19 PANDEMIC SHOULD CONCERN US ALL. IT HAS THE POTENTIAL TO SEND THE GLOBAL ECONOMY INTO THE WORST RECESSION SINCE THE GREAT DEPRESSION OF THE 1930s. GLOBAL TRADE IS LIKELY TO SHRINK BY MORE THAN 10% IN 2020. CURRENT FORECASTS PREDICT A QUICK RECOVERY, BUT THAT REQUIRES THE PANDEMIC TO ABATE FROM THE THIRD QUARTER THIS YEAR.

The Covid-19 pandemic has pushed the global economy into a recession of historic proportions and brought to a halt the longest-lasting equity bull market on record. The economic damage is global. A growing number of countries have introduced restrictions on commercial and industrial activity, with the result that 50% of global GDP is in lockdown. The collapse in economic activity is far more severe than in previous recessions. Spillover effects are being transmitted through numerous channels, ranging from a supply-side shock over domestic demand to a decline in global trade. Job market conditions are deteriorating rapidly during confinement periods. In many countries, unemployment claims have skyrocketed to a degree never seen before and employment has fallen dramatically.

EXTENSIVE STIMULUS PROGRAMMES

Governments and central banks are launching a series of stimulus programmes to support economic growth. Measures are needed to avoid even deeper economic losses by keeping businesses afloat and workers away from unemployment. They are aimed at lowering defaults and bankruptcies, limiting the risk of financial sector instability and facilitating a recovery.

MANY PEOPLE ARE STAYING AT HOME

The situation is, in many ways, very different from past crises. According to some estimates, about 40% of the world's population are as of mid-April being advised to stay at home to limit the spread of Covid-19.

MONEY DOES NOT REDUCE INFECTIONS

The fiscal and monetary responses that have been introduced may prove to be much less effective than past experience suggests, since they do not reduce the rate of infection and have, so far, not been enough to reduce the level of uncertainty.

LOWER HEALTHCARE PROTECTION WITHOUT JOBS

The near-term dynamics of demand and economic activity will depend on the length and severity of the lockdown. There will be a sharp downward adjustment in private consumption in the short term. Healthcare spending is often related to employment, and the surge in unemployment will only increase the population's vulnerability in the face of the pandemic. The International Labour Organisation estimates that almost 38% of the global workforce – some 1.25 billion workers – are highly exposed to lay-offs.

PRECAUTIONARY SAVINGS WILL NOT KICKSTART ECONOMIC GROWTH

What is the outlook for economic growth? Households will adopt a precautionary savings attitude, seeking to re-establish some financial cushion. Many have lost their jobs, while others will see their wages renegotiated at lower levels when they return to employment. Some will have to pay off their latest healthcare expenditure. The outlook for consumer spending is low across most regions. Governments and central banks will find it increasingly difficult to restore consumer spending to past levels.

THE RECOVERY MAY TAKE LONGER

The speed at which the pandemic has spread has made a V-shaped economic recovery increasingly unlikely. Demand is falling rapidly as consumers postpone or even cancel their spending. Also, spending patterns are changing. Increased risk of healthcare spending is leading consumers to reduce spending on domestic and international travel, leisure and domestic services.

PROTECTION OF TAXPAYERS' MONEY

Governments are working to design corporate bail-out schemes that offer support to businesses while protecting taxpayers. Eventually, bail-out schemes will have to end. If businesses become heavily indebted, there is no point in crippling them further. Longer-term assistance could be limited to suppliers of essential services (i.e. telecoms, utilities or payments) or critical industrial supply chains.

THE PANDEMIC IS DISRUPTING THE GLOBAL ECONOMY

The latest indices from purchasing manager surveys point to sharp slowdowns in manufacturing output in many countries, reflecting drops in external demand and growing expectations of declining domestic demand. Disruptions are rippling through the global supply chain. Some of the effects will be long-lasting and introduce structural changes to the global economy and the underlying industries.

SMALL SIGNS OF INCREASED ECONOMIC ACTIVITY IN CHINA

Satellite data suggests that economic activity in China is improving. Nitrogen dioxide concentrations in the local atmosphere – a proxy for industrial and transport activity (but also the density of pollution as a by-product of fossil fuel consumption) – have started to increase. The recovery in China, albeit limited, is encouraging, suggesting that containment measures can succeed in controlling the pandemic and pave the way for a resumption of economic activity. But there is huge uncertainty about the future path of the pandemic. It has gone global and its impact on the global economy appears to be massive. Hence, it is too early to suggest that we could be past the bottom of the cycle. What we are currently seeing could simply be the first effects of the government stimuli.

COMMODITY DEMAND IS ALSO WEAKENING

The lower consumer spending is translating into lower commodity demand. Commodity prices have been falling in recent months, but in many cases, output is also subject to instability, since lockdowns are preventing workers from maintaining production. The situation is fragile, and the risk of defaults and bankruptcies is on the rise.

DEMAND FOR RAW MATERIALS IS LOW

About a fifth of the global mining industry, including zinc, copper and aluminium, is currently being affected by a supply cut aimed at balancing supply and demand. Some mines are offline, while others are operating at reduced capacity. Steelmakers are also cutting production and idling factory lines, as several of their customers are struggling. The car industries in Europe and North America have closed most of their plants. In China, car sales dropped to almost zero at one point but are by mid-April back up to about 40% below pre-crisis levels. Car sales across Europe declined by about two-thirds in March, while North American sales fell to the lowest level in ten years. The volume of cars and parts shipped on America's railways has dropped by 70%. Many firms only have enough inventories and cash to survive for three to six months. Carmakers have placed hundreds of thousands of workers on government unemployment schemes and drawn large amounts of debt to try to weather the pandemic.

OIL DEMAND IS DOWN BY 30%

The oil market is struggling to handle an unprecedented drop in global oil demand. The latest figures suggest that demand is down by 20-30%. This figure clearly reflects the fact that industrial activity is reduced, fewer people are commuting and that most flights are grounded. Some of the lost barrels will return when the pandemic is over, but future oil supply may be subject to

increasing risk of lower oil production. This is not only due to the low level of final investment decisions being taken by the oil majors, but also because some production could be forced to close if inventories are fully utilised.

OIL SUPPLY MANAGEMENT IS PROBLEMATIC

Crude oil prices have fallen sharply since the beginning of 2020, largely driven by the economic contraction caused by the pandemic and a sudden increase in global crude oil supply following the suspension of previously agreed production cuts among the Organization of the Petroleum Exporting Countries (OPEC) and partner countries. Similar uncertainties persist for other energy sources, including natural gas and electricity.

SLIGHTLY LOWER COAL DEMAND BUT LNG DEMAND COULD INCREASE

Renewable energy sources account for the largest proportion of new generating capacity in 2020 across regions. Renewable energy is typically dispatched whenever it is available because of its low operating costs. The forecast of lower overall electricity demand has led to expectations of a decline in fossil fuel generation, especially at coal-fired power plants. Global coal demand is expected to decline by 0.5% in 2020. Natural gas generation may continue to rise modestly this year, though, reflecting favourable fuel costs and the addition of new power plants.

ECONOMIC DYNAMICS AT PLAY

THE WORLD ECONOMIC OUTLOOK IS EXCEPTIONALLY UNCERTAIN, WITH RISKS STILL TILTED TO THE DOWNSIDE. A KEY CONCERN IS THAT POLICIES MAY BE INSUFFICIENT TO HALT THE NEGATIVE CONSEQUENCES OF DETERIORATING FINANCIAL CONDITIONS AND WEAKENING DEMAND. MANY PEOPLE AND COMPANIES WILL FACE AN UNSUSTAINABLE DEBT BURDEN.

There is no question that 2020 will be exceptionally difficult. If the pandemic abates in the second half of the year, thereby allowing containment measures to be gradually lifted and the economy to be reopened, global GDP could see a partial recovery in 2021. Conversely, it could deteriorate further depending on many variable factors, including the duration of the pandemic.

LOW ECONOMIC ACTIVITY

Restrictions on movement and the introduction of social distancing to slow the spread of the virus mean that labour supply, transport and travel have been reduced to a degree that leaves a significant dent in the economy. Whole sectors of domestic economies have been shut down, including hotels, restaurants, non-essential retail trade, tourism and significant parts of manufacturing.

GREAT SPILLOVER EFFECTS

If the global economy misses a year of growth, it is not something it can bounce back from easily. Dividends and investment are being slashed. A lot of R&D spending, investments and innovation is being postponed or cancelled this year, while next year remains uncertain. It will take time for the oil industry, for example, to recuperate. Financial stability could deteriorate, and the risk of financial distress is likely to increase.

FEW SIGNS OF A V-SHAPED RECOVERY

Contingency planning has become mission critical. The longer the pandemic continues, the more it will expose the underlying fragility of the global economy. There are hopes that a V-shaped recovery will restore economic growth quickly, but the risk of bankruptcy is increasing for many, and the longer the pandemic lasts, the bigger the loss of income will be for millions of people and businesses. The pain will intensify as defaults cascade down through payment chains.

HIGHER CREDIT RISK

In the past two recessions, about 10% of corporates with credit ratings defaulted globally. Which companies survive this time depends on their industry, their balance sheets and how easily they can tap government loans, guarantees and aid. The lure of cheap money from the central banks and investor pressure to maximise earnings have in recent years led many companies to increase leverage on their balance sheets, making them less able to withstand a profit downturn.

HEALTHY COMPANIES RISK GOING BANKRUPT

The inevitable concern is whether the health crisis translates into a financial crisis. At the current juncture, there are few indications that this will be the case. Banks are in a much better capital position than before the financial crisis of 2008-09. However, many people and businesses will have difficulty repaying loans and mortgages. We are already seeing large withdrawals of credit lines. The risk of hefty losses is looming. Bank shares have fallen by twice as much as the stock market this year on fears of rising defaults. But unlike in 2008, the issue for most bank customers currently is earnings and liquidity rather than balance sheets – at least at the moment. With otherwise healthy companies at risk of going bankrupt, many policymakers have introduced some degree of

regulatory forbearance to limit the potential negative consequences. Nobody knows how the situation will unfold, but for now it seems that a financial crisis can be averted.

LITTLE POLICY AMMUNITION AVAILABLE

Few governments and central banks have refilled their coffers to enable a new round of stimuli. In recent years, they have been spending to prolong prosperity rather than building muscle to prepare to pull their economies out of a future recession. Their limited stocks of policy ammunition are rather worrying, and it appears that many countries are heading into the current crisis short of fuel. Take the Fed funds rate, which was only 1.5% at the beginning of the crisis. While it is true that slashing it to 0% did restart asset purchases and provide additional liquidity and gave the market a dose of shock therapy that may or may not be enough. But in most previous recessions the Fed has been able to cut rates by approximately 5%. This could signal that we will be heading into uncharted territory if the crisis deteriorates more than currently expected.

GLOBAL SUPPLY CHAINS

THE COVID-19 CRISIS HAS REMINDED US THAT OUR SUPER COST-EFFECTIVE, JUST-IN-TIME MANUFACTURING ECOSYSTEM, WITH MANY COMPANIES HOLDING NEAR-ZERO INVENTORIES, COMES AT A COST.

It has become clear that companies or sectors are exposing themselves to risk by not having access to a diversified supply base to hedge against disruption to a specific commodity, component or producer.

SUPPLY CHAIN DISRUPTION IS NOT NEW

It is, however, important to recall that minor supply chain disruptions are not new. Supply chains see temporary disruptions regularly when economic activity is affected by local events such as hurricanes, tsunamis, floods, strikes, etc. The shipping industry deals with these interruptions on a regular basis.

HIGH DEPENDENCE ON CHINA

In some industries, such as healthcare, the repercussions may be even greater than generally expected, as not many businesses know where the suppliers of their suppliers are located. Few businesses or industries have a viable plan B. In today's market, it has become clear how dependent the global economy has become on China, directly or indirectly.

SOME MAY BE BEGINNING TO BUILD UP LARGER INVENTORIES

Executives may be starting to rethink their global value chains and some may even begin to hold bigger inventories. However, increasing resilience comes at a cost, which will without doubt be reflected in companies' relative competitiveness and consumer prices.

PRODUCTION MAY MOVE CLOSER TO CONSUMERS

Companies selling high-value-added products may consider building bigger safety buffers by increasing their inventory levels closer to consumers. Some may even explore the potential in investing in more automation and remote operations, moving production closer to consumers. These companies are likely to become less profitable in the short term but more resilient. If these trends gain pace and spread outside the domain of high-value-added products and critical healthcare products, they are likely to bring forward the peak for long-distance Container trade. *Please read Shipping Market Review – May 2016 for a broader discussion of this topic.*

THE LONG-TERM IMPLICATIONS COULD BE SIGNIFICANT

The long-term implications for not only large Container vessels but also the energy outlook and raw material demand could be massive. As well as reducing the labour market outlook for many emerging economies, increased decentralisation will lower demand for most other seaborne commodities when the effects of unemployment ripple through the domestic economies.

WORLD ECONOMIC AND TRADE OUTLOOK

UNTIL WE GET A BETTER SENSE OF WHEN AND HOW THE COVID-19 HEALTH CRISIS WILL BE RESOLVED, WE CANNOT PREDICT THE END OF THE RECESSION. STILL, THIS DOWNTURN MAY BE DEEPER AND POTENTIALLY LONGER THAN THE FINANCIAL CRISIS OF 2009.

A GLOBAL ECONOMIC CRISIS IS UNFOLDING

Large parts of the global economy are struggling to manage an escalating health crisis that is set to disrupt vital elements of not only their domestic economies but also their access to export markets and financial markets. The risks seem to be increasing still. The IMF suggests that most countries will experience negative economic growth in 2020. This is significantly worse than during the financial crisis of 2009, when China's 9-10% economic growth allowed many of the Asian economies to be cushioned from the negative spillover effects.

IT COULD TURN OUT TO BE THE WORST RECESSION SINCE THE 1930S

It seems likely that Covid-19 will cause the global economy's worst recession since the Great Depression of the 1930s. The IMF currently predicts that global GDP will shrink by 3% in 2020 (compared to -0.1% in 2009). China and India are still forecast to grow their economies by some 1-2% in 2020, while the economies of

Japan, North America and Europe are expected to shrink by 5%, 6% and 7%, respectively.

WEAK GLOBAL CONSUMER SPENDING...

But if the global consumer powerhouses of North America, Japan and Europe are shrinking, who will be buying Chinese and Indian manufacturing output? There seems to be little point in restoring manufacturing capacity if customers are not buying. Although economic growth can be delivered from other sources, including fixed asset investments, the impact on labour market dynamics and longer-term economic growth could be considerable. The damage to businesses and debt markets will have lasting effects, especially given that debt was already at record levels before the crisis.

...EVEN IF THE PANDEMIC SUBSIDES IN THE SECOND HALF OF 2020

The latest forecasts from the IMF assume that the pandemic will abate during the second half of 2020, allowing for a gradual lifting of containment measures as early as the third quarter. If the pandemic and containment measures last longer, the growth outcome will be much worse. Current projections suggest a partial recovery in 2021, but global GDP growth is expected to remain below the pre-crisis trend.

GLOBAL TRADE IS DETERIORATING FAST

Covid-19 will leave a substantial imprint on international trade. The big question is how substantial it will be. The uncertainty over its precise economic impact leaves room for a significant range of outcomes. The latest prediction from the IMF shows an 11% reduction in world trade in 2020. The WTO operates with a spread between scenarios ranging from -13% to -32% for 2020.

SHIPPING MARKETS COULD BECOME OVERSUPPLIED

It remains to be seen how trade volumes will develop over the next 12-18 months, but it seems likely that they will decline

significantly. Experience from past crises has taught us that large drops in trade volumes may leave shipping markets oversupplied for a long time. Trade volumes never returned to their previous trend after the financial crisis in 2009.

HOWEVER, THERE IS STILL SOME ROOM FOR OPTIMISM

If the pandemic wanes from the third quarter of 2020 and if businesses and consumers regain confidence, a strong rebound could happen. In the event of this, spending on investment goods and consumer durables could be resumed at close to previous levels once the crisis abates.

SHIPPING MARKETS AT A GLANCE

THE SHIPPING INDUSTRY IS FACING A DIFFICULT YEAR WITH HIGH FLEET GROWTH AND SHRINKING DEMAND. SECONDHAND VALUES ARE LIKELY TO DECLINE. HOWEVER, THE INDUSTRY SEEMS WELL POSITIONED TO RECOVER FURTHER AHEAD. THE ORDERBOOK IS LOW AND ASSET VALUES ARE NOT INFLATED. THE LOWER OIL PRICE IS RAISING THE BARRIERS FOR DECARBONISING SEABORNE TRANSPORTATION BUT THE CALL IS STILL ON.

The impact on the shipping sector of a massive decline in world trade could be profound, but the industry seems much better positioned to handle a drop in world trade volumes than it was in 2009. The supply side is much less leveraged this time. The fleet is only expected to take delivery of 8% more vessels over the next two years compared to 50%-plus over four years in 2009. This corresponds to approximately 10,000 fewer vessels on order today than in 2009. Vessel prices are much lower and largely in line with current earnings. This does not guarantee that asset prices will not decline, but it lowers the downside risk to some extent.

SEABORNE VOLUMES SHRANK IN 2019

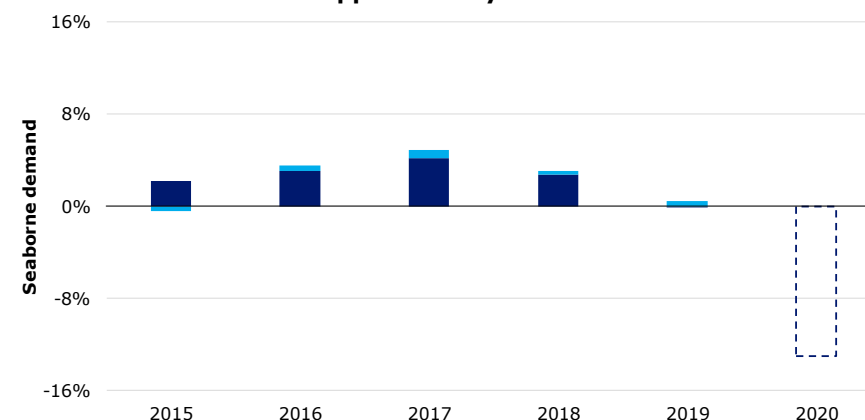
Global trade stalled in 2019 under the weight of weak economic growth and persistent trade tensions combined with a range of one-off effects including the Vale dam collapse which affected the dry bulk segment. Seaborne trade volumes contracted slightly during 2019, but vessel demand was somehow supported by slightly longer distances, which lifted growth in distance-adjusted seaborne demand to almost 0.5% (fig. 1). This is the slowest growth since 2009, when distance-adjusted seaborne demand declined by 4.5%.

SUPPLY IS EXPANDING AHEAD OF DEMAND

The world fleet continues to expand ahead of demand, even though the orderbook-to-fleet ratio has come down to more manageable levels. More than 99 million dwt entered service in 2019, which is 23% more than the year before, while only 18 million dwt

Figure GRO.1

Seaborne trade volumes contracted slightly in 2019 but longer distances pushed vessel demand up by approximately 0.5%

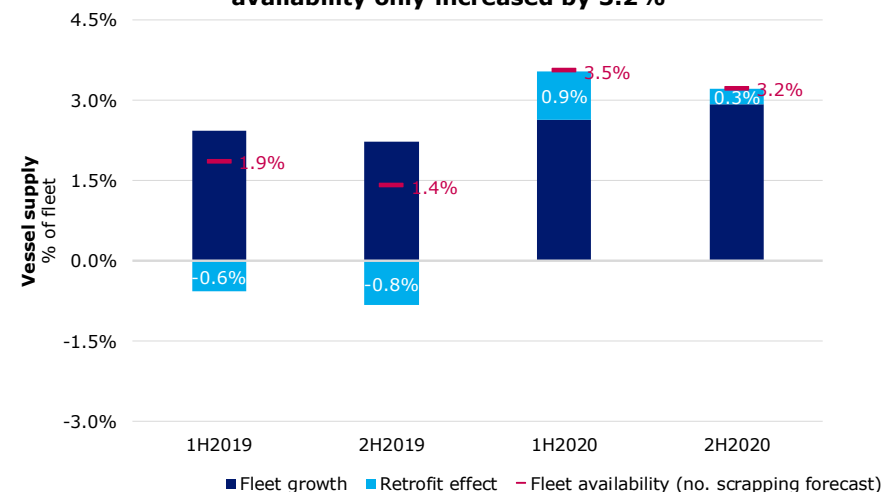


Sources: WTO, Danish Ship Finance

■ Seaborne trade volumes ■ Distance effect

Figure GRO.2

The world fleet increased by 4.7% in 2019 but vessel availability only increased by 3.2%



Sources: Clarksons, Danish Ship Finance

was scrapped. The world fleet increased by approximately 4.5%, but fleet availability was temporarily reduced by approximately 1.4%, since 994 vessels were taken out of service to be retrofitted with scrubbers. Today, approximately 2% of all vessels have been retrofitted with scrubbers (20% of larger vessels).

SPEEDS REMAIN LARGELY STABLE

Vessel speeds were kept fairly stable during 2019, and therefore average fleet utilisation is estimated to have fallen by approximately 4% in 2019. The implementation of the IMO 2020 regulation caused fuel costs to surge for vessels without scrubbers. The price spread between high and low-sulphur bunker fuel started on a high note, causing average speeds to decline in the first couple of months of 2020. But the combination of lower crude oil prices and a narrowing spread between high and low-sulphur bunker fuel has since caused speeds to return to 2019 levels.

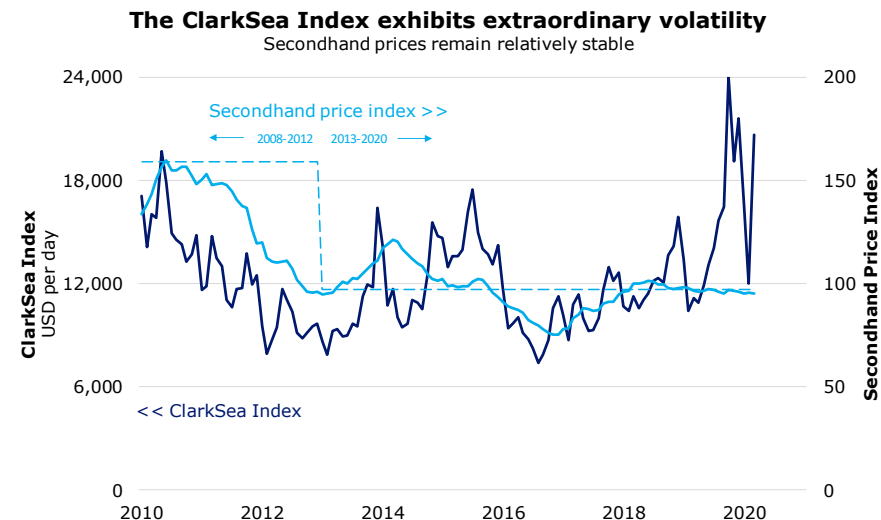
CLARKSEA INDEX INCREASED IN 2019

The ClarkSea Index started 2019 at USD 13,500 per day and ended the year on a high note at USD 21,500 per day. It more than doubled between April and October, clearly illustrating that some segments significantly improved their earnings, although there was little indication that any of the larger segments improved their fundamental balance between supply and demand. The Tanker and Gas segments drove the increase in the ClarkSea Index, while Dry Bulk and Containers struggled to keep pace. Secondhand prices depreciated by 2% during 2019 (fig. 3).

EARNINGS INCREASED IN 2020

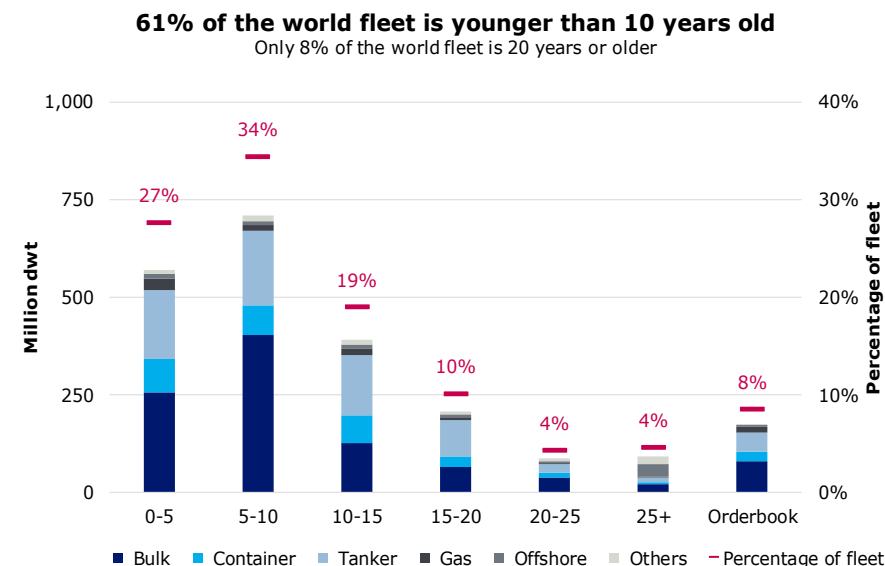
Secondhand prices did not change much in the first quarter of 2020, but the ClarkSea Index showed increased volatility – largely mirroring the tanker markets – and soared through April where it stood at USD 23,000 per day, around USD 1,500 per day above the December level (fig. 3). Our research suggests that freight rates are being driven by a combination of factors beyond the

Figure GRO.3



Sources: Clarksons, Danish Ship Finance

Figure GRO.4



Sources: Clarksons, Danish Ship Finance

freight markets. The underlying balance between supply and demand seems to be continuing to deteriorate.

LOWER EFFICIENCY BUT STILL OPERATING

Measures to contain Covid-19 have disrupted logistics and weakened demand, but ports remain largely open and operational. Still, the cargo-carrying capacity of the merchant fleet is somewhat reduced. The 14-day quarantine rule for crews poses challenges for several ports and countries around the world. Widespread restrictions are making crew changes very difficult, but authorities are allowing longer work periods and some countries including China have started to relax such restrictions.

THE SUPPLY SIDE IS BECOMING MORE MANAGEABLE...

Another piece of good news is that the supply side is becoming more manageable: the orderbook-to-fleet ratio has come down to 8% of the fleet and few new orders are being placed (fig. 4). Today, fewer than 2,500 vessels (larger than 2,000 dwt) are on order. This is the lowest number in 17 years. The primary concern relates to the timetable of the orderbook; more than half is scheduled to be delivered in 2020 (fig. 5).

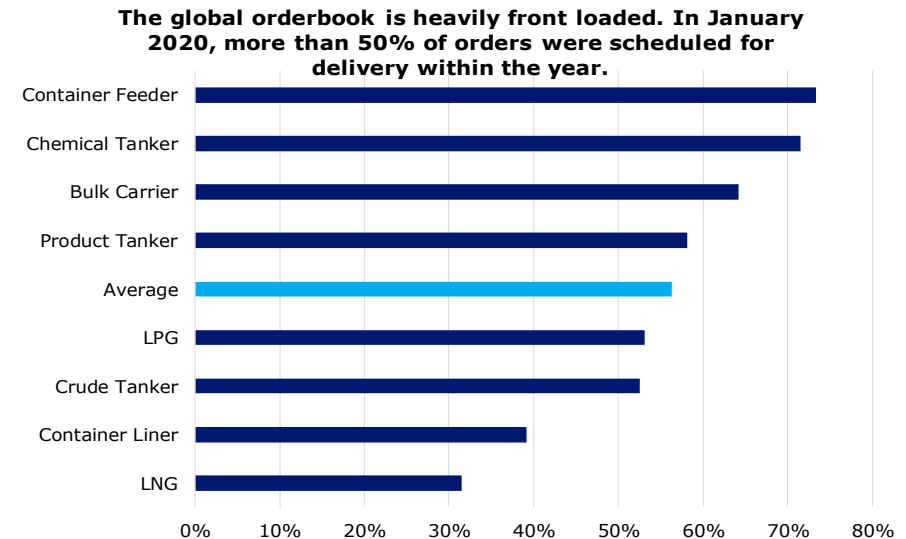
...BUT 2020 IS SET FOR A MASSIVE INFLOW OF NEW VESSELS

Container Feeders, Chemical Tankers, Dry Bulk carriers and Product Tankers are exposed to a front loaded orderbook in 2020. More than 50% of their orderbooks are scheduled for delivery in 2020. LPG carriers, Crude Tankers and LNG carriers seem to be facing a more balanced newbuilding programme (fig. 5). Still, all segments could be subject to extensive postponement activity should demand weaken as quickly as currently projected.

OVERCAPACITY IS LURKING IN MANY SEGMENTS

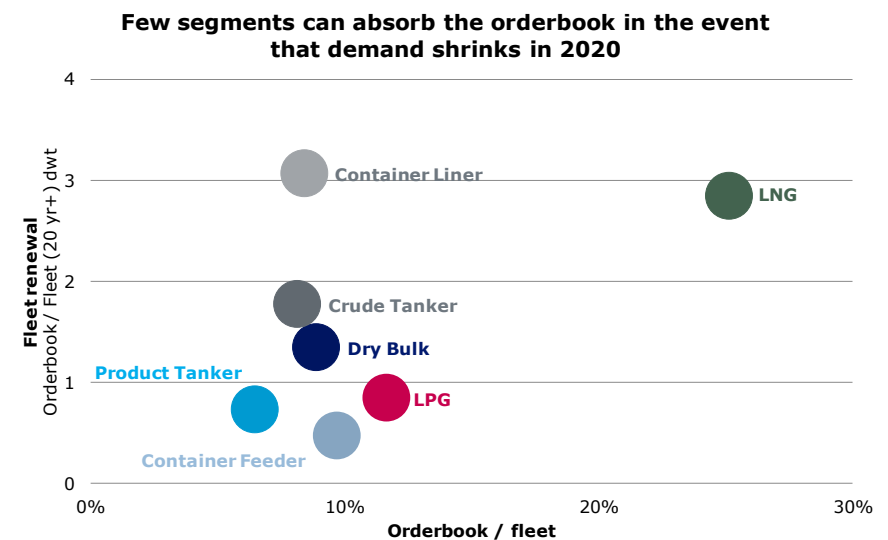
Most vessel segments are positioned for further growth in demand, but some are better able to handle a demand shock than others. The big Container vessels and LNG carriers do not have many options available apart from premature scrapping in the event of a

Figure GRO.5



Sources: Clarksons, Danish Ship Finance

Figure GRO.6



Sources: Clarksons, Danish Ship Finance

substantial drop in demand. Most of the larger vessels in each segment will find it difficult to withstand a demand shock, while the majority of smaller vessel segments have more older vessels in their fleets (fig. 6).

FEW VESSELS SCRAPPED IN 2019 AND 2020

Scrapping has been declining since 2016. Only 18 million dwt was scrapped in 2019 and 6.7 million dwt during the first quarter of 2020. The first-quarter figure was 60% lower than in the same period in 2016. The scrapping age remains high at approximately 28 years, although most fleets will run out of old vessels very soon (fig. 6). Many segments will most likely see unexpected declines in the average scrapping age during 2020 or 2021. This will impact the secondhand prices of older vessels though a shortening of their economic lifetimes.

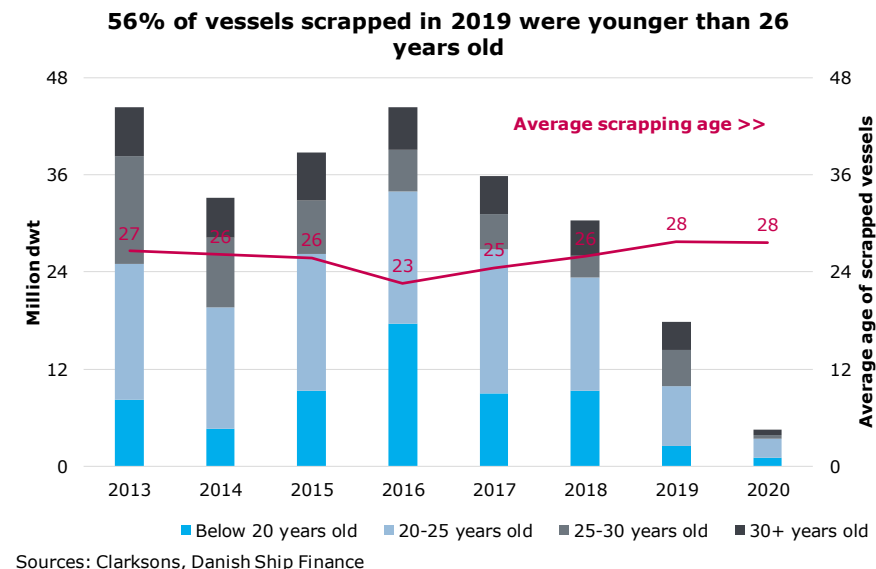
HIGH EXPECTATIONS FOR FUTURE SCRAPPING

When we published our December 2019 edition of this report, oil prices were high and new environmental regulations were on the brink of being enforced. Our expectations for demolition in 2020 were high, since we believed that vessels with inefficient fuel consumption would be scrapped. Today, oil prices have come down – lowering the cost burden for less fuel-efficient vessels – but the demand side is predicted to decline. We therefore maintain a high scrapping forecast for 2020, albeit for other reasons than in our last report. Still, the current lockdown of recycling yards in the Indian Sub-Continent may lower scrap volumes somewhat in 2020.

2020 IS LIKELY TO BE A VERY DIFFICULT YEAR

Nevertheless, 2020 will be a very challenging year for the shipping industry. Supply is already running ahead of demand and vessels returning to service from scrubber retrofitting will only intensify the situation. The demand outlook appears bleak but hopes persist that volumes will recover quickly. A prolonged period of surplus capacity will keep freight rates low and scrapping high until a new balance is established. But what will happen after that?

Figure GRO.6



LONG-TERM VALUE CREATION

THE SHIPPING INDUSTRY IS FACING A DIFFICULT PERIOD WITH LOW FREIGHT RATES, INCREASING INVESTMENT REQUIREMENTS AND DEPRECIATING ASSET VALUES. THE ROAD TO A DECARBONISED FUTURE WILL BE POWERED BY DATA AND NEW VALUE DRIVERS.

The coronavirus pandemic may have pushed the climate agenda – and the need to digitise and innovate business models – off the front page, but these issues have not gone away. The call to decarbonise the shipping industry is still on, but the barriers are higher. Profit margins are thinner in times of surplus capacity and the low oil price is causing the price differential between existing marine fuels and green alternatives to widen.

HOW TO INTRODUCE A DECARBONISED FUEL ALTERNATIVE?

Let us start by looking at one of the most debated challenges: how to decarbonise shipping by introducing a green fuel alternative to marine fuels. The most widely considered synthetic fuel alternatives are methanol and ammonia. These, among other similar energy carriers, can be produced via the conversion of electricity to hydrogen and liquid fuels – so-called power-to-X conversion technologies. The fuel transition entails many challenges, but the inability to identify a viable business model with a significantly higher fuel cost structure seems the most critical.

WE NEED TO INTRODUCE PROFITABILITY...

In previous editions of this report, we have argued that shipowners need to reduce costs further by reaping the benefits of economies of scale and standardisation to achieve long-term profitability. We envisage vessels being supplied to the market as a utility. But lower costs alone will not build a bridge to a decarbonised future.

...BY IDENTIFYING GROWTH OPPORTUNITIES

The shipping industry also needs to identify growth opportunities. The aim is to identify new untapped value pools that can be developed. But these might not necessarily be related to the freight

markets. The digitalisation of the global economy and its supply chains is slowly redefining markets, the borders of industries, existing players' licence to operate, the role of assets and the entire competitive landscape. Traditional players are struggling to survive on thinner margins. Costs are rising in tandem with the demands to digitise and decarbonise. The ability to yield a return on invested capital continues to weaken.

CURRENT VALUE DRIVERS ARE WEAK

Some may oppose these arguments by highlighting the current bull run among owners of tanker vessels. However, the high earnings in the tanker industry are not being driven by the supremacy of shipowners' current business models, but by a dispute among oil producers resulting in all available storage capacity, including many vessels, being filled, despite a devastating short-term oil demand outlook.

FROM A CAPEX TO AN OPEX PERSPECTIVE

A paradigm shift adds to the complexity of the situation. The introduction of a decarbonised fuel alternative to marine fuels shifts the focus from a CAPEX perspective to an OPEX perspective across business models. Today's business models cannot handle a significantly higher cost structure.

AN INVITATION TO CO-CREATE

Alternative fuels are all more expensive than current fuels and less globally available. Building expensive prototypes for testing purposes will clearly give us more knowledge but will hardly enable us to identify the value drivers on which to base the next-generation business model.

SHIPBUILDING



SHIPBUILDING

THE SHIPBUILDING INDUSTRY IS FACING YET ANOTHER DIFFICULT YEAR. THE INDUSTRY'S DECADE-LONG SURPLUS OF CAPACITY IS SPIRALLING AS ORDERING REACHES A NEW LOW. UNCERTAINTY OVER THE NEXT-GENERATION VESSELS AND THE MACRO ECONOMIC OUTLOOK ARE DAMPENING SHIPOWNERS' APPETITE FOR ORDERING NEW VESSELS.

NEWBUILDING PRICES

OVERSUPPLY IN MOST SHIPPING MARKETS AND UNCERTAINTY OVER FUTURE VESSEL DEMAND AND DESIGN ARE KEEPING NEWBUILDING PRICES LOW BUT STABLE.

Newbuilding prices were stable but weak across all segments in the first quarter of 2020. The overall newbuilding price index decreased by less than 1% but returned to the lowest level since June 2018 (Fig. 1).

OVERCAPACITY IS KEEPING PRICES LOW AND STABLE

Capacity cuts, along with a structural shift towards fewer and potentially larger yards, may begin to allow some shipyards to increase prices at some point, but more yards need to close. Low demand combined with massive oversupply is keeping newbuilding prices low and minimal price fluctuations exist between yards.

IDENTIFICATION OF FIRST-TIER YARDS

281 yards participated in settling the price of the current orderbook. These are defined as active yards. Out of these, we have identified a group of 64 yards that stand out on a number of parameters based on their ability to attract orders and utilise production capacity (See credentials on page 32). The group consists of 34 Chinese yards, five South Korean, ten Japanese, 13 European and two yards from 'the rest of the world'. We label these 'first-tier' yards and the remainder 'second-tier'.

Figure SB.1

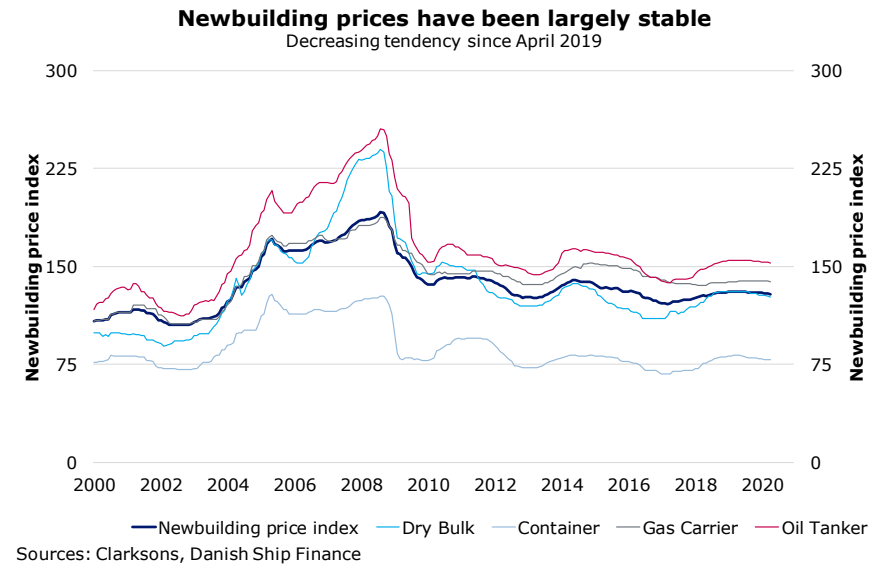
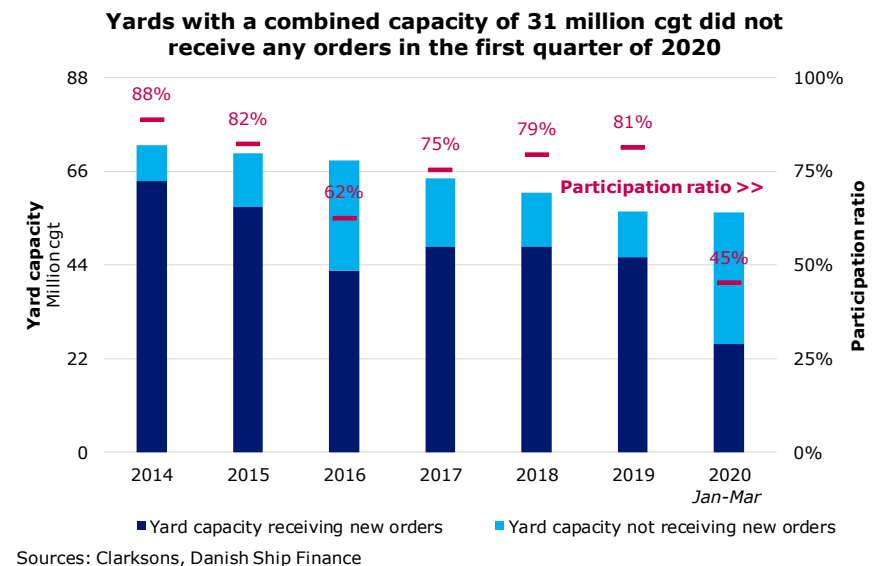


Figure SB.2



CONTRACTING ACTIVITY CONTINUES TO DISAPPOINT, WITH YARDS EXPERIENCING THE SLOWEST FIRST QUARTER IN MORE THAN 20 YEARS.

Contracting activity has been declining since 2018, but in the first quarter of 2020 it was extraordinarily low. Only 90 vessels with a combined capacity of 2.2 million cgt were ordered among only 35 yards (fig. 3). This was 70% lower than in the first quarter of 2019. The temporary closure of Chinese and European yards due to the Covid-19 pandemic and renewed uncertainty for ship owners may be part of the reason, but low freight rates in mostly oversupplied shipping markets are the main explanation.

HALF OF ACTIVE YARDS HAVE NOT SEEN ANY NEW ORDERS SINCE 2018

Of the 281 yards that are scheduled to build the vessels in the current orderbook, 154 attracted new orders between January 2019 and March 2020. These yards secured new orders corresponding to 38% of total yard capacity. There is great variation between the yards, however (Fig. 4).

FIRST-TIER YARDS RECEIVED THE LION'S SHARE OF ORDERS

The 64 first-tier yards received 79% of the orders placed between January 2019 and March 2020. The majority were distributed between 34 Chinese and five South Korean yards, which landed 31% and 30% of the global orders, respectively.

SCALE BECOMES A DISADVANTAGE IN TIMES OF LOW ACTIVITY

Scale becomes a disadvantage in times of low contracting activity and significant surplus capacity. Of the world's ten largest shipyards, only five are considered first-tier in terms of their ability to utilise production capacity. The other five are struggling to attract enough new orders. These only secured new orders corresponding to 20% of their combined yard capacity from January 2019 to March 2020, compared with 53% for the five first-tier yards.

Figure SB.3

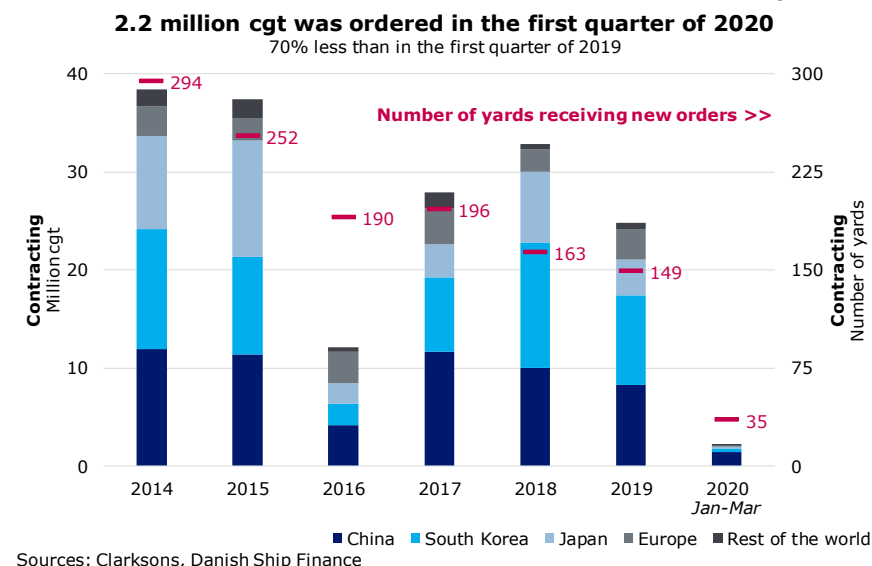
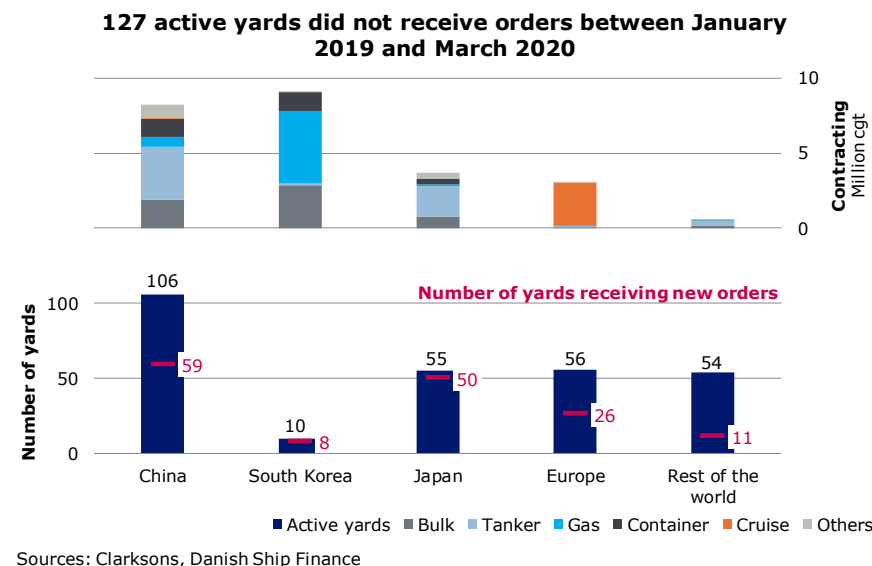


Figure SB.4



GLOBAL DELIVERIES

THE COVID-19 PANDEMIC HAS CAUSED ORDERS TO BE POSTPONED, PARTICULARLY IN CHINA, BUT MOST ORDERS HAVE BEEN RESCHEDULED FOR DELIVERY LATER THIS YEAR. WE HAVE SO FAR SEEN LITTLE IMPACT FROM THE COVID-19 OUTBREAK ON DELIVERIES OUTSIDE CHINA, BUT THIS WILL LIKELY CHANGE AS THE PANDEMIC CONTINUES.

Total yard output remains stable despite fewer yards building. A total of 32 million cgt was delivered in 2019 and 6.7 million cgt was delivered during the first quarter of 2020 (fig. 5).

COVID-19 LOWERED CHINESE DELIVERIES IN THE FIRST QUARTER

Delivery performance declined temporarily during the first quarter of 2020, due to the Covid-19 pandemic. Delivered output resembles 70% of expectations. This was down 9 percentage points compared to the same period last year. The vast majority of postponed vessels have been rescheduled for delivery later this year. China accounts for 60% of postponed deliveries, as several yards were temporarily closed for parts of the first quarter (fig. 6).

THE BEST YARDS SEEM LESS IMPACTED BY COVID-19

The delivery performance of the 64 first-tier yards seems to have been less affected by Covid-19 than the average yard. These yards delivered 85% of scheduled deliveries during the first quarter, while the remaining 217 delivered just 66%.

STEADY DELIVERY PERFORMANCE

Looking beyond the coronavirus impact, consolidation among the yards has brought a more stable delivery performance. A steadily declining share of orders have been postponed and cancelled. The consolidation process has been especially beneficial for the delivery performance of the Chinese yards, which increased from 54% in 2017 to 72% in 2019, but performance has improved significantly across all regions (fig. 5).

Figure SB.5

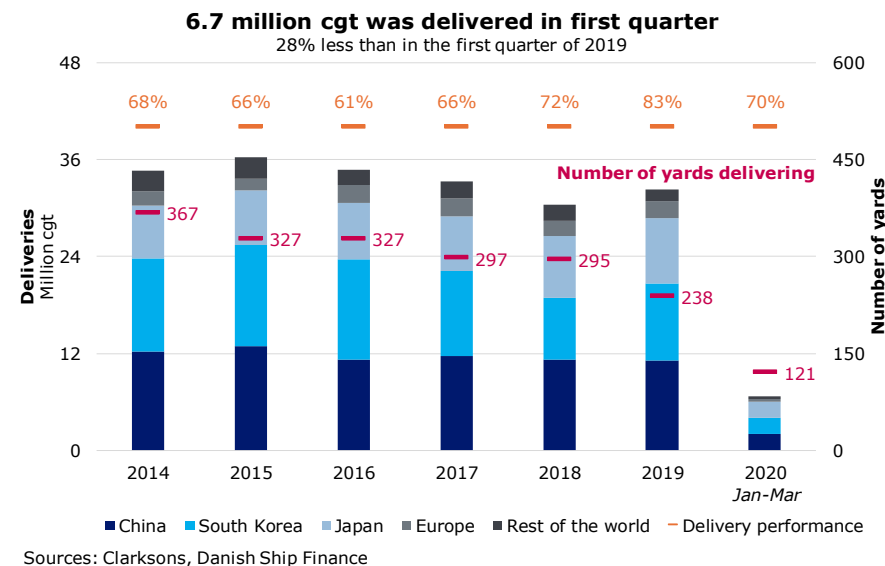
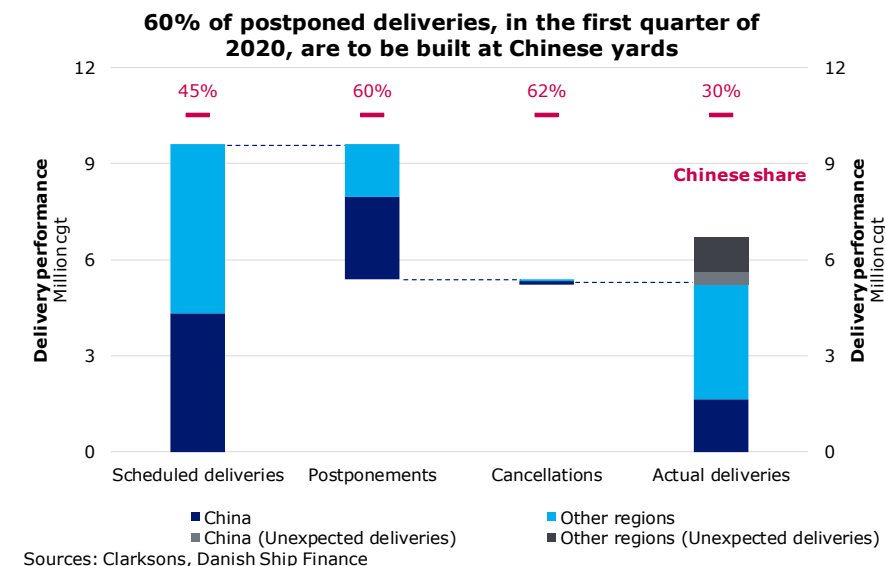


Figure SB.6



MANY YARDS WILL SOON RUN OUT OF ORDERS, BUT THE 64 FIRST-TIER YARDS SEEM TO PERFORM WELL. THEY ACCOUNT FOR 75% OF THE ORDERBOOK AND 50% OF GLOBAL CAPACITY.

The global orderbook has declined by 13% since the end of 2018. The orderbook, as of March 2020, contains 69 million cgt divided between 2,500 vessels to be built at 281 yards. The orderbook is unevenly distributed among yards and heavily front-loaded.

FIRST-TIER YARDS ACCOUNT FOR 75% OF THE ORDERBOOK

The 64 first-tier yards account for 75% of the orderbook and half of global yard capacity. Their orderbook has declined 4% since year-end 2018, but their order cover (i.e. size of orderbook relative to capacity) remains at almost two years. The 217 second-tier yards, representing the other half of global capacity, have experienced an orderbook decline of 34%. Their order cover has come down to seven months (fig. 7).

SOUTH KOREAN YARDS HAVE INCREASED MARKET SHARE

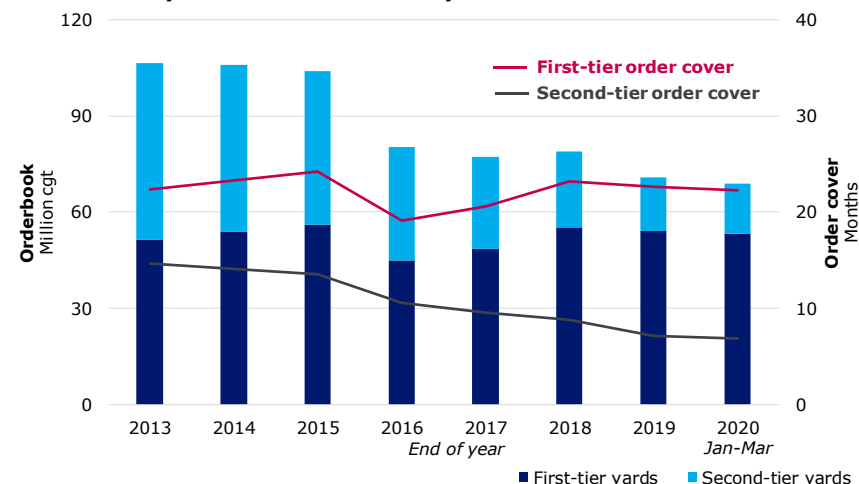
The South Korean yards increased their market share from 27% to 29% between year-end 2018 and March 2020. This was driven by orders for LNG Carriers. The five first-tier yards account for 91% of the national orderbook with an order cover of 18 months. The other five yards could run out of orders within six months.

THE MAJORITY OF JAPANESE YARDS COULD RUN OUT OF ORDERS SOON

Most Japanese yards seem challenged. Only ten out of 55 yards are first-tier, representing just 25% of the Japanese yard capacity but 50% of the orderbook (fig. 8). They have an order cover of 19 months. The other 45 yards represent the remaining 75% of Japanese yard capacity and 18% of global capacity. If operated on full capacity, they could deliver their last orders within six months. However, the Japanese orderbooks might be up to 30% larger than reported due to tax-related issues on domestic orders.

Figure SB.7

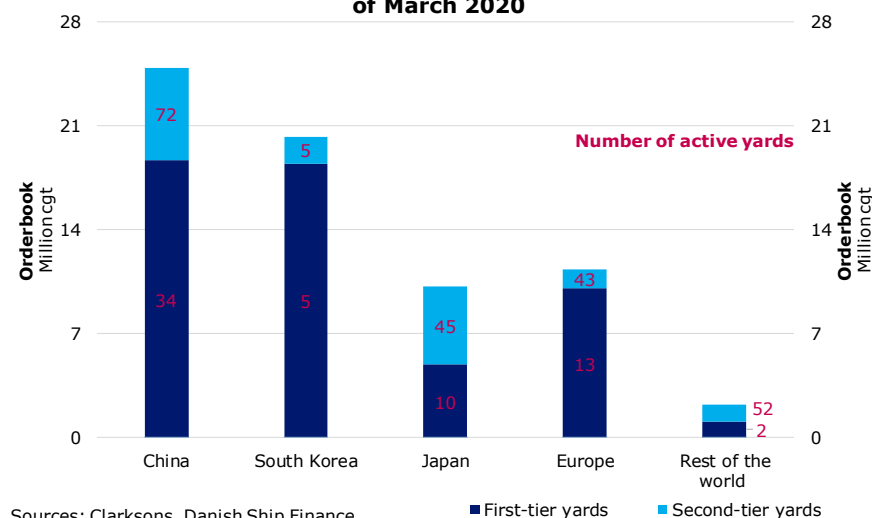
Low contracting activity caused the orderbook to decline by 13% between January 2019 and March 2020



Sources: Clarksons, Danish Ship Finance

Figure SB.8

64 first-tier yards account for 75% of the orderbook as of March 2020



Sources: Clarksons, Danish Ship Finance

YARD CAPACITY AND UTILISATION

THE CONSOLIDATION PROCESS HAS REDUCED THE SURPLUS CAPACITY AND INCREASED UTILISATION, BUT THE SECOND-TIER YARDS ARE STRUGGLING TO EMPLOY CAPACITY.

Global yard capacity is estimated at 56 million cgt divided among 281 yards. The market is consolidating. Some yards have closed, some have been acquired, while others have been merged. In the period from January 2019 to March 2020, 84 yards left the order-book, while 24 new yards appeared, corresponding to a net decline in capacity of 8% or 4.7 million cgt (fig. 9). It was mostly smaller yards that closed, but a few medium-sized Chinese yards also shut down.

IMPROVED UTILISATION BUT CAPACITY NOT CUT SUFFICIENTLY

The closure of yards helped improve yard utilisation from approximately 47% in 2018 to 53% in 2019. Utilisation is expected to reach 61% in 2020. This is the highest average utilisation since 2012.

FIRST-TIER YARDS ARE DRIVING UTILISATION

The 64 first-tier yards utilised 69% of their capacity in 2019 and are expected to achieve 79% in 2020. The South Korean first-tier yards are expected to see a drop in 2020 utilisation from 65% in 2019 to 62% in 2020, while first-tier yards in the remaining regions are increasing their utilisation in 2020. The remaining 217 yards only utilised 39% in 2019 and are scheduled to utilise 42% in 2020 (Fig. 10).

ENHANCED UTILISATION AMONG JAPANESE FIRST-TIER YARDS

The Japanese yards performed best among the five regions in terms of utilisation of yard capacity. The ten first-tier yards managed to utilise 87% in 2019 and are scheduled to operate at almost full capacity in 2020. The second-tier yards are only scheduled to utilise 43% in 2020 (fig. 10).

Figure SB.9

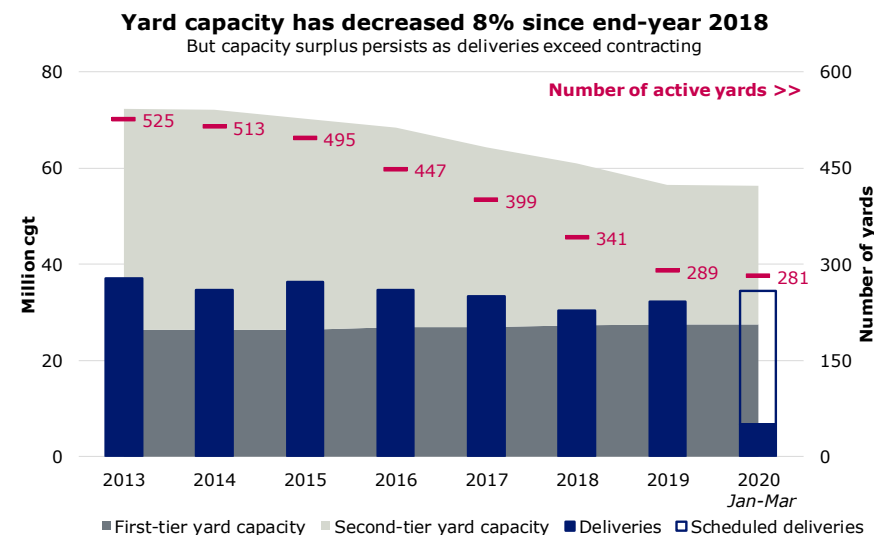
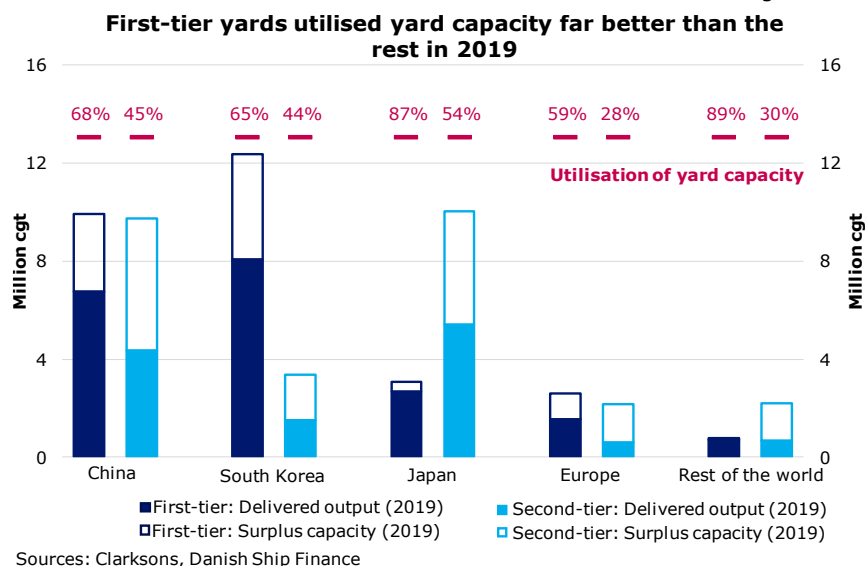


Figure SB.10



OUTLOOK

THE OUTLOOK IS BLEAK FOR THE SECOND-TIER YARDS. THE 64 FIRST-TIER YARDS WILL LARGELY BE IN A GOOD POSITION UNTIL THE END OF NEXT YEAR, BUT NEW ORDERS NEED TO BE SECURED FOR DELIVERY BEYOND THEN. MANY SECOND-TIER YARDS WILL RUN OUT OF ORDERS IN 2020 AND 2021.

The number of yards almost doubled between 2003 and 2011 peaking in a global yard capacity of around 82 million cgt. Capacity has been reduced by approximately 30% since 2011 and the number of yards has fallen by more than 450. However, the consolidation process needs to continue, since most shipping markets are oversupplied, and few yards can attract enough orders to utilise their full capacity.

FEW NEW ORDERS TO BE PLACED IN THE NEXT FEW YEARS

It seems unlikely that we will see any major ordering activity during the next two to three years. The next wave of contracting activity may come when consensus is emerging regarding the future fuel mix, leading to the next generation of more decarbonised and automated vessels. The timing is still uncertain.

EIGHT OUT OF TEN VESSELS ARE DUE TO BE DELIVERED BY END-2021

The current orderbook stretches beyond 2025 but is heavily front-loaded, with 40% scheduled for delivery in the remaining nine months of 2020 and almost 80% by end-2021. The 64 first-tier yards are scheduled to deliver 35% of their orderbook by end-2020, compared to 60% for the remaining 217 yards (fig. 11).

STABLE UTILISATION OF YARD CAPACITY FOR FIRST TIER YARDS

The 64 first-tier yards will largely be able to maintain a utilisation rate above 70% in 2020 and 2021, while the second-tier yards are scheduled to utilise only 19% of their current capacity in 2021. The situation is set to deteriorate rapidly across all yards beyond 2021 (fig. 13).

Figure SB.11

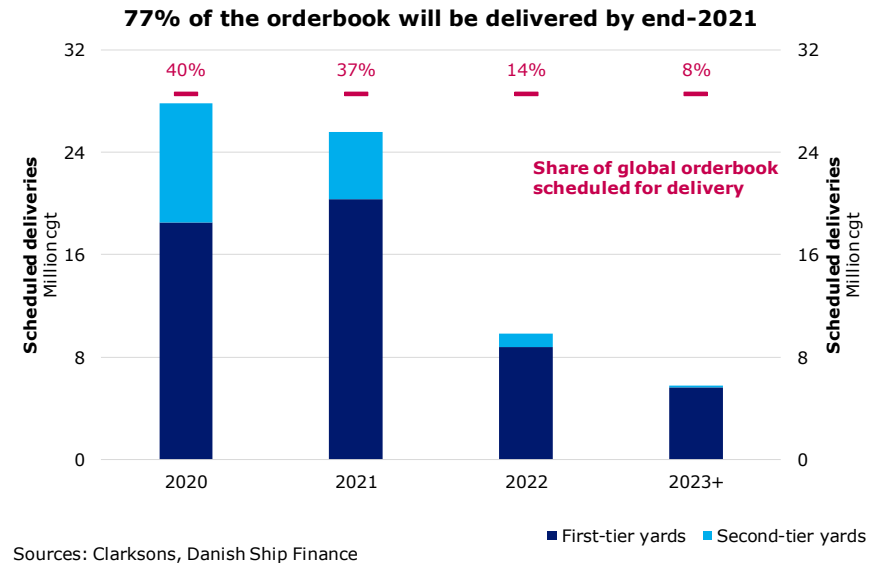
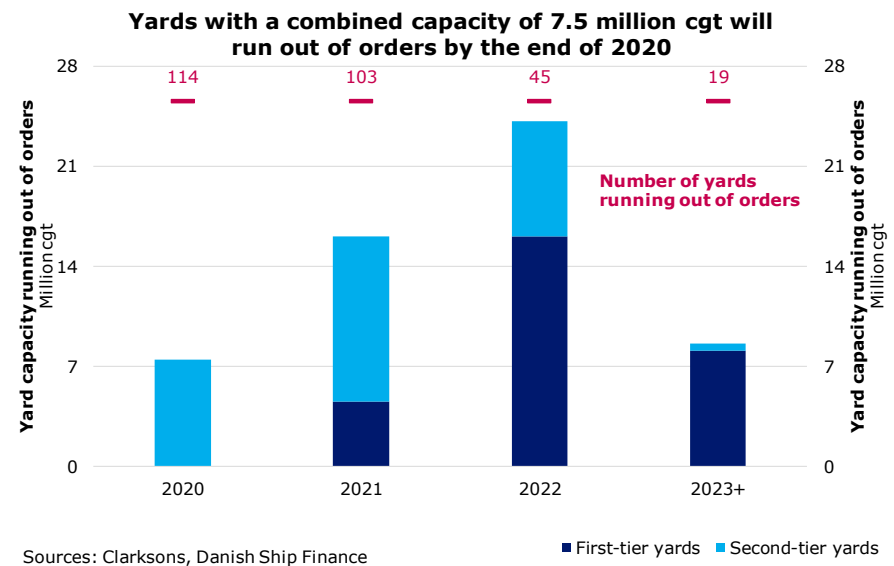


Figure SB.12



13% VACANT CAPACITY AS EARLY AS THIS YEAR

114 second-tier yards, representing 7.5 million cgt (almost 13% of global yard capacity), are scheduled to deliver their last orders in 2020. The majority of these are small yards in China, Europe and the Rest of the world, but the list also contains old Japanese yards (fig. 12).

ADDITIONAL 29% VACANT CAPACITY BY END-2021

In 2021, 103 yards representing a combined capacity of 16 million cgt – 29% of current capacity - will deliver their last orders. Japanese yards account for more than half of this. 70% of the second-tier yard capacity might run out of orders by end-2021 against just 16% of the first-tier yards (fig. 12).

HALF THE CHINESE CAPACITY IS RUNNING OUT OF ORDERS

The Chinese yard industry consists of 106 yards with active orderbooks and a combined capacity of 19.7 million cgt. Half the capacity is distributed among 34 first-tier yards which are scheduled to operate at 90% and 75% utilisation in 2020 and 2021, while the remaining 76 yards at just 45% and 20%. The 76 second-tier yards are scheduled to deliver more than 60% of their combined orderbooks in the remaining nine months of 2020. 43 yards, representing 3.8 million cgt, deliver their last orders in 2020 (fig. 14).

TEN JAPANESE YARDS ARE PERFORMING STRONGLY

The Japanese yard industry has 55 yards with active orderbooks and a combined capacity of 13.1 million cgt. Ten first-tier yards, accounting for 23% of the national capacity, is scheduled to utilise full capacity in 2020 and 61% in 2021. The remaining 45 yards, representing 10 million cgt, could soon run out of orders. 36 second-tier yards, representing 7.5 million cgt, are due to deliver their last orders in 2021 and 75% of the Japanese yard capacity is currently scheduled to be vacant by end-2021 (fig. 14).

Figure SB.13

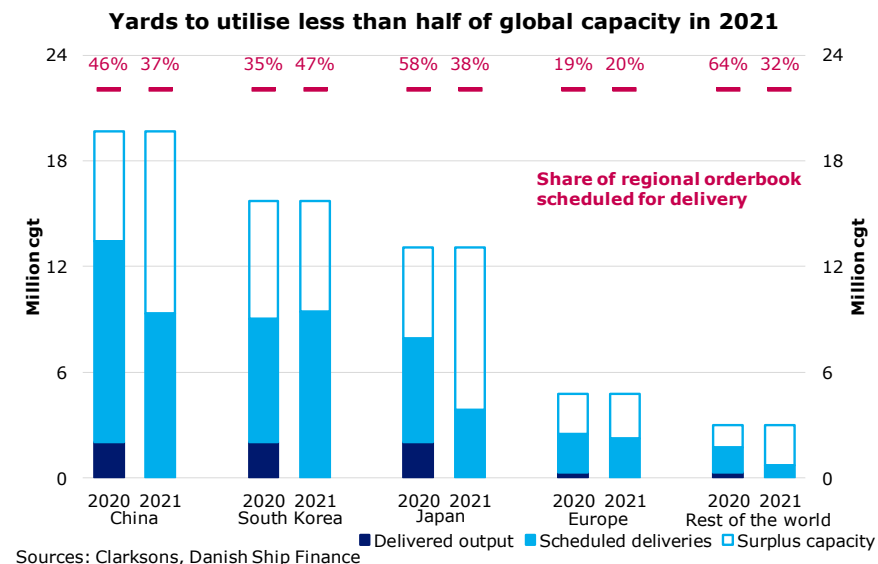
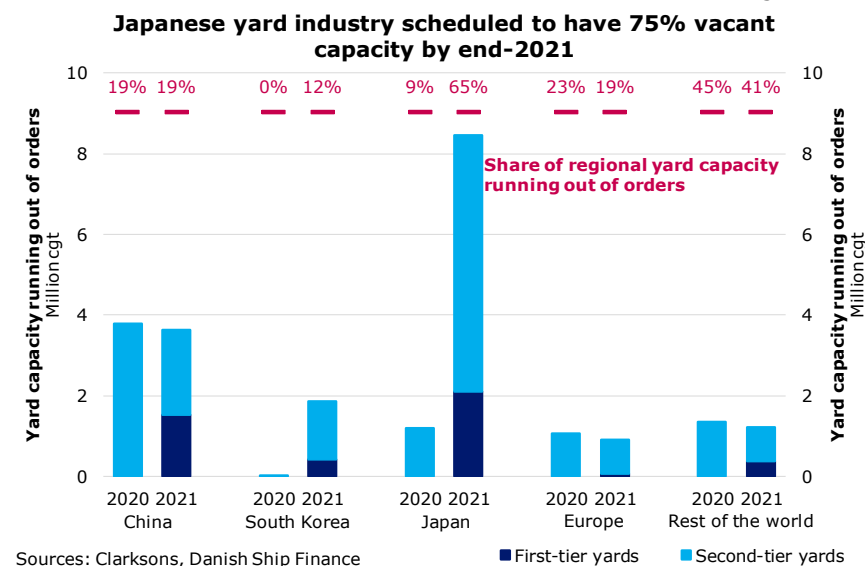


Figure SB.14



JAPAN TO FOLLOW CHINA AND SOUTH KOREA IN CONSOLIDATION

The Japanese orderbook has declined 60% since 2015. But while all other regions have been consolidating and reducing yard capacity, Japanese yard capacity has remained largely stable. Some of the larger Japanese yard corporates are in the process of capital tie-ups and the government recently proposed a grand merger of 15 yards. We expect the Japanese yard industry to start consolidating soon, as it will need to improve on economies of scale and decrease capacity to be able to compete with the Chinese and South Korean multi-yard corporations.

SMALLER SOUTH KOREAN YARDS ARE STRUGGLING

The South Korean yard industry consists of ten yards with active orderbooks and a combined capacity of 15.7 million cgt. 80% of their capacity is distributed among five first-tier yards which are scheduled to operate at just 62% utilisation in 2020 but 70% in 2021. The remaining five yards, representing 3.4 million cgt, are running out of orders. Two yards will deliver their last orders in 2020 and all vessels from the South Korean second-tier yards will be delivered by end-2021 (fig. 14).

SOUTH KOREAN YARDS VASTLY EXPOSED TO LNG SHIPPING

The South Korean orderbook is highly concentrated. Almost half of it consists of LNG Carriers placed among the four largest yards. The high dependence on a small segment like LNG Carriers (the fleet consists of only 600 vessels) may prove risky. The LNG shipping market is heading towards oversupply, and hence few new vessels are expected to be ordered within the next year or two. The yards can switch to building other types of vessel, but they achieve the highest profit margins and utilisation of yard capacity building high spec vessels like LNG Carriers. The two largest South Korean yards are currently working on a merger, but this will not change the situation substantially if yard capacity is not reduced simultaneously.

SHIPBUILDING METHODOLOGY

- Vessels >2,000 dwt
- Yards with an orderbook are defined as active
- Yard capacity is defined as maximum one-year historical output
- Everything is measured in *compensated gross tonnage* (cgt), unless stated otherwise

CREDENTIALS FOR FIRST-TIER YARDS

- Order cover \geq one year
- New orders received in the past 18 months
 - Or output delivered in the past 18 months and order cover > two years
- Minimum two vessels in the orderbook
- Orderbook stretches beyond the current year
- Output delivered in the past two years
 - Or is a newly established yard

CONTAINER



DANISH
SHIP FINANCE

CONTAINER

THE CONTAINER MARKET IS BEING SHAPED BY OVERSUPPLY, WHILE INCREASING IDLE CAPACITY HAS BEEN SUPPORTING BOX RATES. DEMAND IS CONTRACTING DUE TO THE GLOBAL LOCK-DOWN OF ECONOMIES. THIS INCREASES THE NEED FOR CAPACITY MANAGEMENT, BUT TRADITIONAL OPTIONS SEEM TO HAVE BEEN LARGELY EXHAUSTED. HENCE BOX RATES AND SECONDHAND PRICES LOOK SET TO COME UNDER PRESSURE.

FREIGHT RATES

IMPLEMENTATION OF IMO 2020 CAUSED BOX RATES TO RISE AS LINER COMPANIES ATTEMPTED TO PASS ON HIGHER BUNKER COSTS. AFTER THE COVID-19 OUTBREAK, BOX RATES STARTED TO FALL. SCRUBBER RETROFITTING SUPPORTED FREIGHT RATES BRIEFLY UNTIL GLOBAL LOCKDOWNS REDUCED DEMAND.

BUNKER SURCHARGE AND INCREASED BOX RATES

Container fundamentals are weak due to a fast-expanding fleet and slowing international trade. Still, box rates rose by 20% from index 779 in October 2019 to index 938 in January 2020, as a surcharge was added to compensate for higher bunker costs at the end of 2019 (fig. 1) and the number of scrubber retrofits increased. The gains began to shrink as the coronavirus spread globally, creating a demand shock that caused box rates to fall. As of mid-April, the box rate was down 6% compared to January, mainly driven by a 10% decline on the Asia-Europe route.

TIMECHARTER RATES ARE DOWN DUE TO THE CORONAVIRUS OUTBREAK

In the last two months of 2019, 2% of the fleet below 6,000 teu was retrofitted with scrubbers. This caused a temporary reduction in vessel availability and lifted timecharter rates to the highest level in a year across the smaller segments. However, timecharter rates were impacted by the coronavirus outbreak from the beginning of 2020. Demand for container vessel capacity started to decline as the virus spread. By mid-April, one-year timecharter rates have fallen by 17% on average, while for the 1,000 teu segment the decrease has been limited to 10% (fig. 2).

Figure C.1

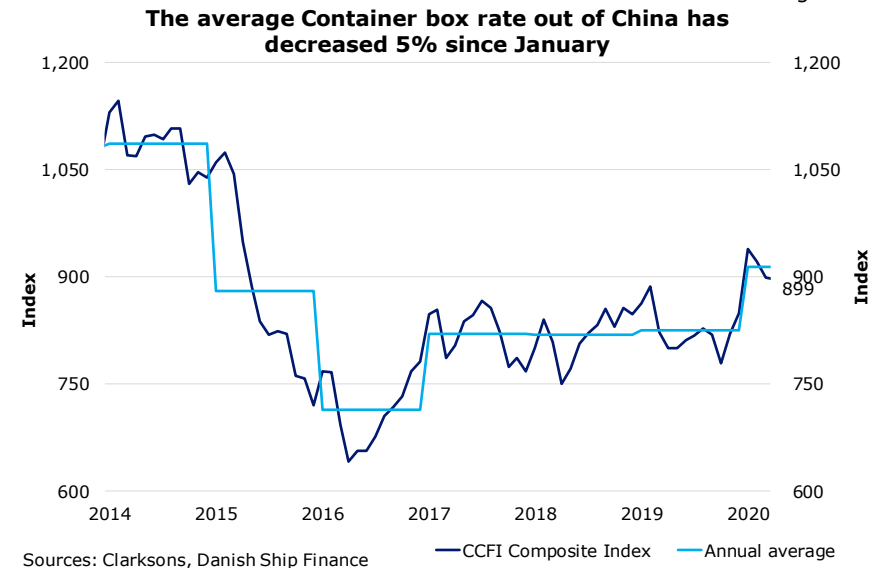
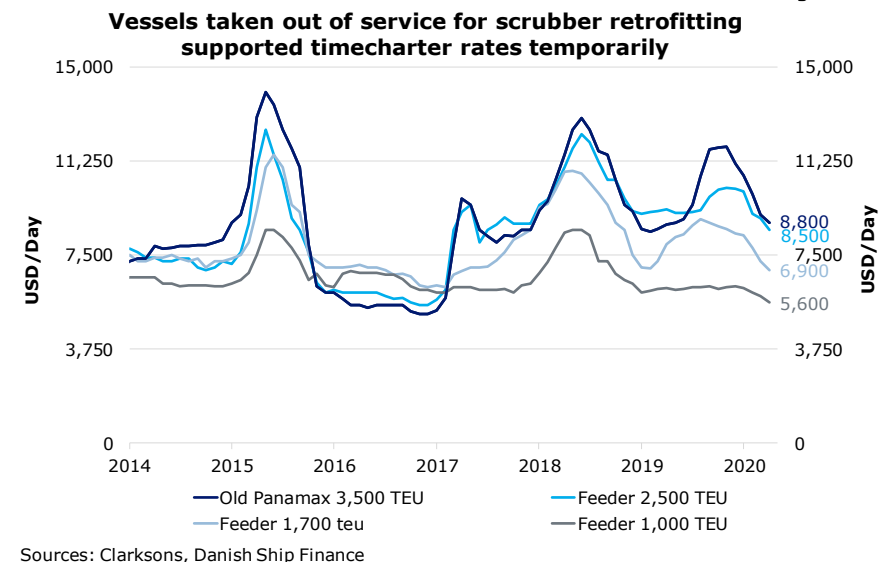


Figure C.2



THE INFLOW OF POST-PANAMAX VESSELS, LOW DEMAND AND THE GLOBAL LOCKDOWN ARE PRESSURING UTILISATION RATES.

FLEET GROWTH PERSISTS BUT INCREASED IDLE CAPACITY EASES THIS

The Post-Panamax segment (>12,000 teu) continues to drive the Container fleet expansion, with 6% fleet growth since October 2019 (fig. 3). Almost all Post-Panamax vessels are being deployed on the Asia-North Europe trade, forcing smaller vessels onto other lanes. As a result, cascading of smaller vessels has caused the average vessel size on the Transpacific and Atlantic lanes to increase by 7% and 6%, respectively. Since our last report, retrofitting of vessels has peaked and 2.4 million teu (10% of the fleet) has been out of service. Meanwhile, cancelled sailings reached 232 (17% of scheduled East-West services) in 2020, due to the Covid-19 pandemic. Both these factors have had a mitigating effect on capacity expansion and cut active fleet growth to 0.5%.

SLUGGISH DEMAND WORSENER BY THE GLOBAL ECONOMIC LOCKDOWN

In 2019, Container demand grew by around 1.8%, which was the lowest growth rate since 2009. Destocking and low European economic growth resulted in a poor second half of 2019, which limited growth on the Asia-North Europe lane to 0.9% for the whole year (fig. 4). The inflow of Post-Panamax vessels onto this lane reduced the utilisation rate in this period. In 2019, Transpacific trade was shaped by the US-China trade tensions, which led to a decline in head-haul volumes of 1.6%. Yet, the utilisation rate remained stable due to increased capacity management. Fuelled by the entry of larger vessels, the utilisation rate declined on the Transatlantic lane in 2019, despite an increase in demand of 6%. In the first quarter of 2020, the coronavirus outbreak affected all Container trade lanes owing to declining consumer activity and supply chain disruption. Thus, global Container throughput dropped by 10.9 percentage points in February – the largest decline ever recorded, according to the RWI/ISL index.

Figure C.3

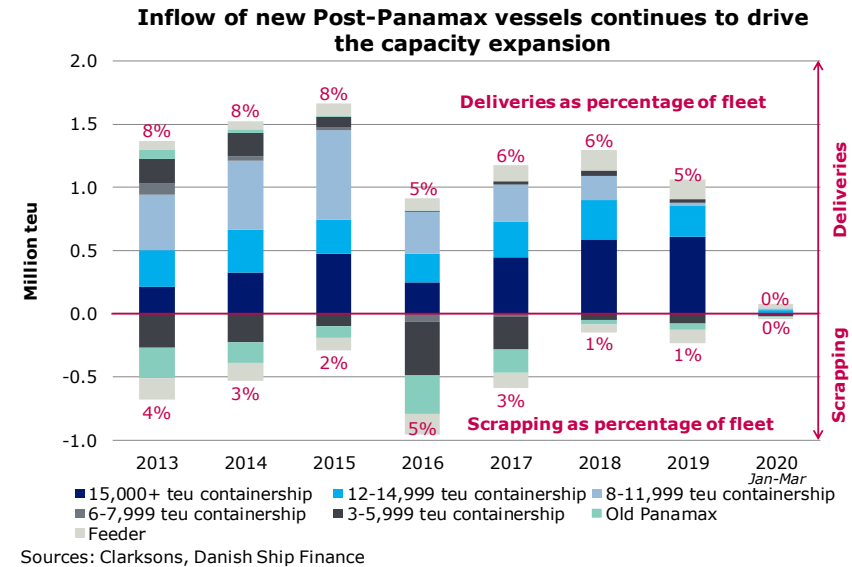
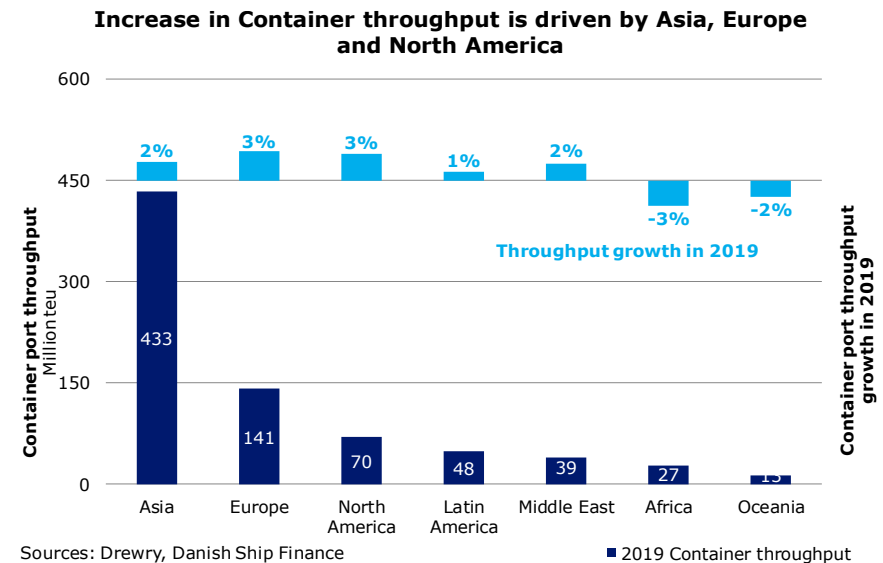


Figure C.4



CONTRACTING AND S&P ACTIVITY ARE BOTH LOW, MAINLY EXPLAINED BY THE COVID-19 PANDEMIC. NEW ORDERS ARE SPLIT BETWEEN LARGE AND SMALL VESSELS, WHILE FUEL-EFFICIENT VESSELS ARE DRIVING THE SECONDHAND MARKET.

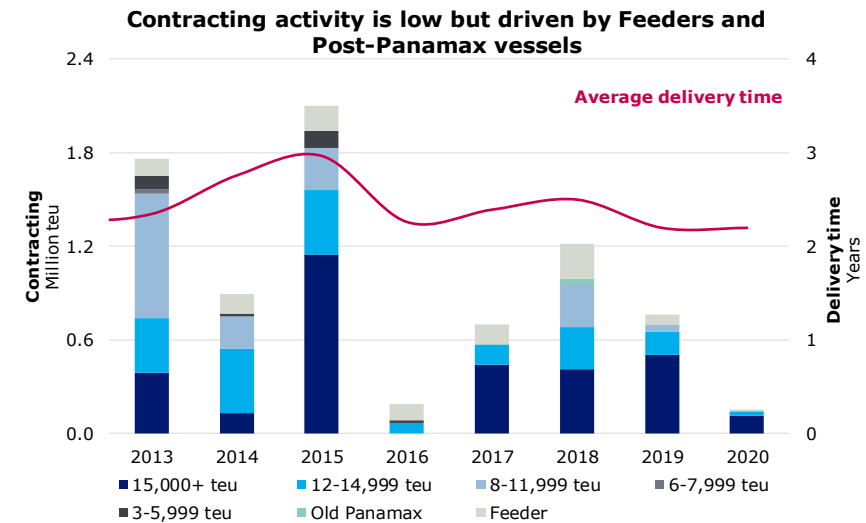
LARGE AND SMALL VESSELS ARE FUELLING CONTRACTING ACTIVITY

Contracting activity is being kept low by overcapacity and uncertainty over future vessel design. In recent months, the low level of activity has been amplified by weak market sentiment due to the coronavirus pandemic. During the last six months, 0.6 million teu has been contracted, equivalent to 2.5% of the fleet (fig. 5). New orders are split into 23 Feeder (<3,000 teu) and 28 Post-Panamax vessels. The lack of activity in the other subsegments reflects market expectations that larger vessels will enter the smaller vessels' trade lanes, reducing the future need for mid-sized vessels. Fuel considerations seem to be playing a growing part in owners' contracting concerns. During the last 12 months, 32% of all new orders have been LNG fuelled, up from 18% the previous year.

FUEL-EFFICIENT VESSELS ARE PREFERRED IN A LOW MARKET

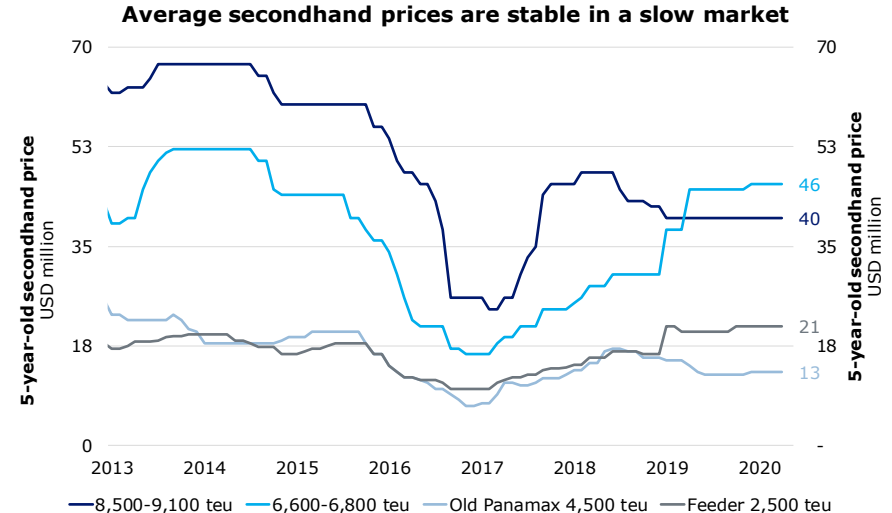
The risk of shortening economic lifetimes of older and less fuel-efficient vessels continues to shape the secondhand market, while the coronavirus outbreak seems to have lowered the appetite for buying vessels. Since our last report, the secondhand price for Feeder vessels younger than five years has increased by up to 15%, while Feeder vessels older than ten years have seen a price depreciation of up to 25%. This highlights the market's conviction that young and fuel-efficient vessels offer a competitive advantage. In the larger segments, secondhand prices seem to be more stable, although S&P activity is very low (fig. 6). In total, 1.6% of the fleet has changed hands during the last six months. Tonnage providers and financial leasing companies dominate both the buying and selling sides of transactions.

Figure C.5



Sources: Clarksons, Danish Ship Finance

Figure C.6



Sources: Clarksons, Danish Ship Finance

OUTLOOK

THE CONTAINER FLEET IS GEARED FOR GLOBAL ECONOMIC GROWTH – NOT A CONTRACTION. THE COVID-19 PANDEMIC AND THE ASSOCIATED LOCKDOWN OF THE GLOBAL ECONOMY PRESENT A HUGE CHALLENGE. EXPANSION OF THE POST-PANAMAX FLEET WILL CONTINUE TO ADD CAPACITY TO REGIONAL AND GLOBAL NETWORKS. THE RESULT IS A WORRYING OUTLOOK.

The large number of new Post-Panamax vessels entering a young fleet will continue to increase capacity across Container networks. Meanwhile, a large, front-loaded orderbook is driving massive fleet expansion among small vessels. Therefore, the timing of the coronavirus outbreak is extremely painful for the Container market. The lockdown of economies is depressing Container trade, and strict capacity management is necessary. In 2020, Container demand will decline noticeably, but the challenges are likely to be long-term. When the pandemic is over, global supply chains and the just-in-time system are likely to be re-evaluated. The Container fleet is geared for this set-up and any moves towards reshoring or modifying supply chains will be toxic for the Container market.

THE LARGE INFLOW OF POST-PANAMAX VESSELS WILL CONTINUE

The inflow of Post-Panamax vessels will continue to create new capacity in the global networks in the coming years. In 2020 and 2021 the Post-Panamax fleet is set to expand by 10% and 9%, respectively (fig. 8). The medium-sized Container fleet, meanwhile, is hardly expanding at all. In the Feeder segment, a highly front-loaded orderbook (10% of the fleet) is likely to put pressure on utilisation rates in 2020. We anticipate an expansion of the Feeder fleet of 7.5% in 2020, falling to 2.6% in 2021. A fairly large number of Feeder vessels are older than 20 years (25% of the fleet), which could dampen the rapid fleet expansion significantly if owners take the opportunity to scrap vessels (fig. 7). In contrast, the average age of Post-Panamax vessels is five years

Figure C.7

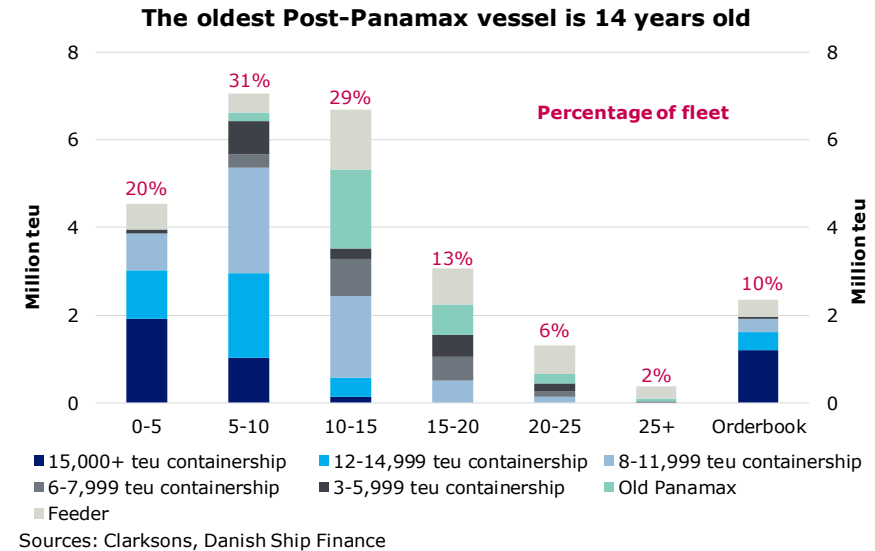
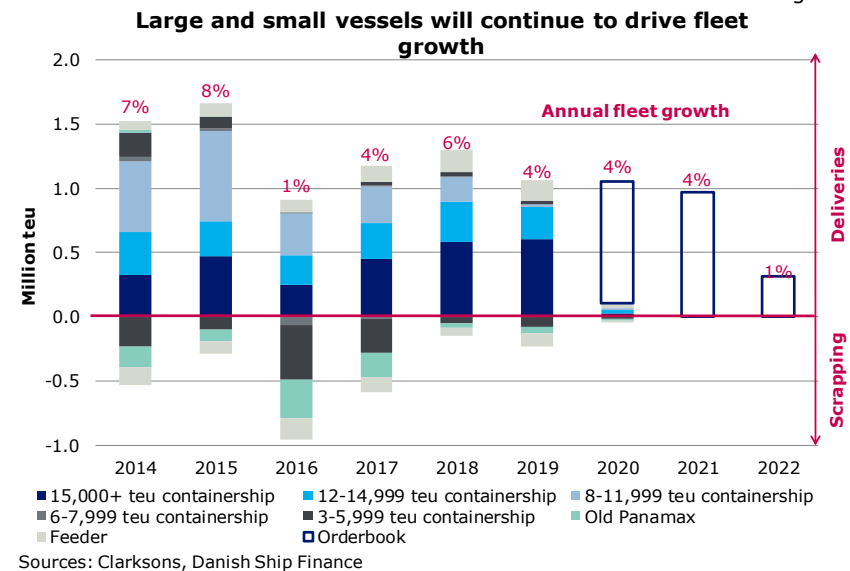


Figure C.8



and the oldest vessel is 14 years old. The fleet expansion in the Post-Panamax segment is concerning.

HOW BIG IS THE SCRAPPING POTENTIAL IN THE FEEDER FLEET?

The average age of the Feeder fleet is 15 years, while 861 vessels – or 25% - are 20 years or older. The coronavirus pandemic could kickstart a rejuvenation of the Feeder fleet. Approximately 55% of the 20+ years Feeder vessels are deployed on intra-Asian trade (fig. 9). However, the global economic lockdown seems to have reduced intra-Asian demand noticeably in 2020. Meanwhile, 3,000-5,000 teu vessels are increasing their market share on this trade as a result of cascading of capacity. The larger vessels have both scale and fuel efficiency in their favour. The market outlook is challenging for the older Feeders. A total of 133 vessels in this category are particularly vulnerable and are due for their special surveys in 2020. This would be an obvious opportunity for owners to consider scrapping many of the vessels. In the unlikely event that all these vessels were scrapped, Feeder fleet growth would be reduced by 1.7% percentage points to 5.8% in 2020.

CAPACITY MANAGEMENT IS KEY

The inflow of Post-Panamax vessels followed by cascading of capacity has created oversupply across most Container routes, while the coronavirus outbreak is capping demand. In order to ensure a sufficient vessel utilisation rate, liner companies have increased the number of cancelled East-West sailings from a total of 106 in the fourth quarter of 2019 to 232 so far in 2020 (fig. 10). However, it will take months, maybe years, before Container demand recovers, while the Post-Panamax fleet will have grown by 19% by the end of 2021. More void sailings, laying up vessels, returning chartered-in vessels to their owners and slow steaming are all tools operators need to actively manage the massive overcapacity in the months ahead. If the oversupply is not addressed, liner companies' earnings will come under severe pressure,

Figure C.9

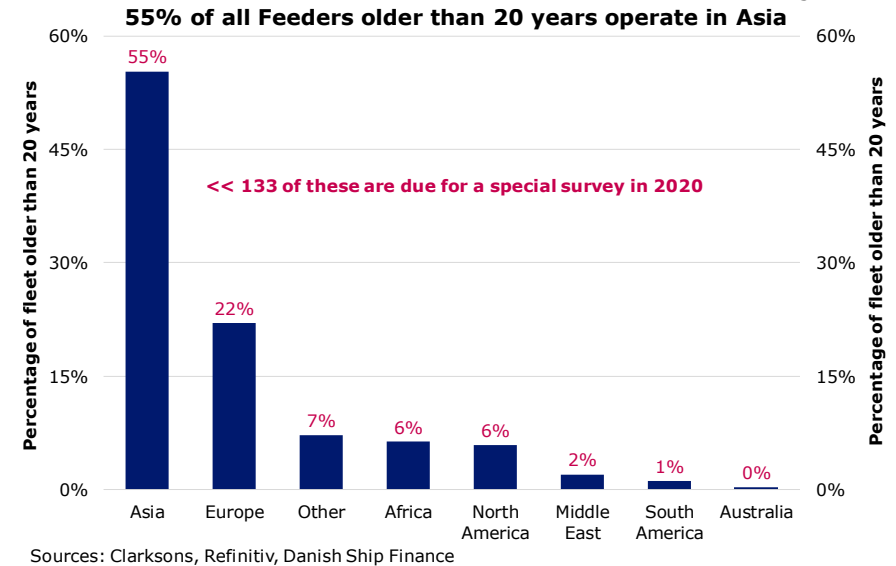
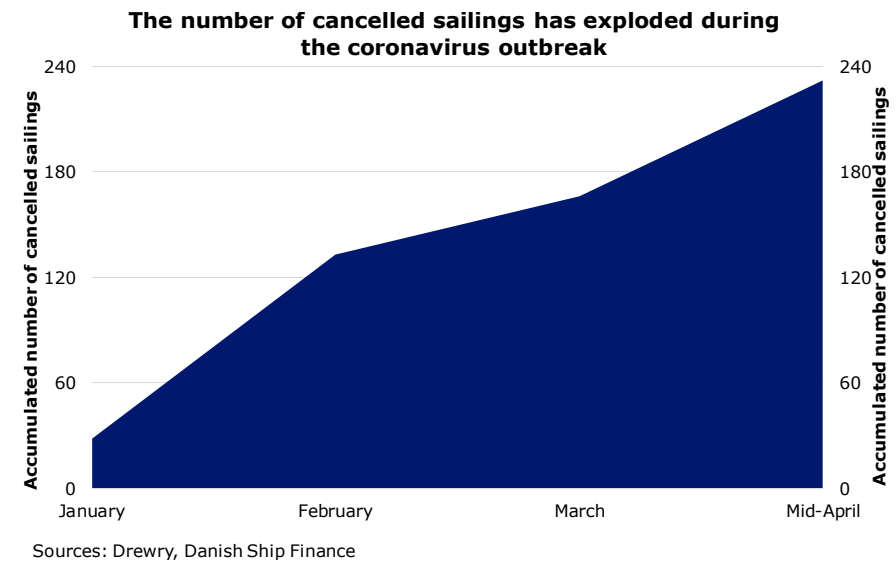


Figure C.10



testing their financial resilience. Tonnage providers with re-employment risk will be extremely exposed. The Container fleet is indeed not geared for a global economic contraction.

DISTRIBUTION OF INCREASED BUNKER COST

In a challenging market, there will inevitably be attempts by liner companies to pass on increased bunker costs to cargo owners that have no alternative to Container shipping. However, the oversupply in the Container market makes it extremely difficult for liner companies to adjust the equilibrium between demand and supply and therefore price. Extremely strict capacity discipline collectively is necessary. We expect that fewer vessels will be chartered in, which means tonnage providers may end up paying some of the cost.

DECLINING DEMAND FOR CONTAINER TRADE

The Brexit deal and the trade war truce between the US and China should have brought greater clarity about the future than we have seen since before 2016 – but then the coronavirus outbreak happened. According to the IMF, the pandemic will cause the worst economic downturn since the Great Depression. International trade is suffering: the IMF expects international trade to contract by 11% in 2020. Financial stimulus programmes will be launched to kickstart economies. However, these will typically benefit shipping segments servicing the construction industry, such as the Dry Bulk segment, and will not directly boost Container demand, which is mostly dependent on private consumption and supply chains. The financial crisis in 2008-09 demonstrated that households prefer to increase savings at the expense of consumption when an economic crisis occurs. This can cripple Container demand from a short to medium-term perspective. Clarksons expect Container demand to decrease by 11% in 2020 and increase by 10% in 2021 (fig. 11).

Figure C.11



COVID-19 COULD CHANGE GLOBAL CONTAINER TRADE FOR GOOD

The rollout of global supply chains has been a major growth engine for international Container trade over the last 20 years. This is clearly illustrated by electronic goods, for which components are sourced from various countries, nearly all shipped in containers. Today, the share of foreign value added in electronics exports is around 10%, 25%, 30%, 40% and 50% for the US, China, Korea, Singapore and Vietnam, respectively. However, the widespread lockdowns due to the coronavirus outbreak have disrupted global trade linkages and inflicted costs and uncertainty on manufacturers. This is the second major hit to global supply chains (US-China trade tensions being the first) in two years. As a result, manufacturers are likely to re-evaluate their supply chains and the implied risk, which we believe could lead to the degree of supply chain complexity being reduced and even some reshoring of production. Such changes will reduce capacity demand and shorten distances structurally going forward. Hence, Covid-19 is likely to harm the Container market long after a cure for the disease is found.

DRY BULK



DRY BULK

STRONG HEADWIND CONTINUES TO TROUBLE THE CAPE SIZE SEGMENT WHERE BOTH FREIGHT RATES AND SECONDHAND PRICES ARE DECLINING. THIS WILL IMPACT INEFFICIENT VESSELS THE MOST. FUTURE EARNINGS AND SECONDHAND PRICES LOOK MORE PROMISING FOR THE SMALLER VESSEL SEGMENTS ALBEIT SHORT-TERM DEMAND GROWTH IS CHALLENGED BY THE COVID-19 PANADOMIC.

FREIGHT RATES

SEASONALITY AND THE CORONAVIRUS OUTBREAK HAVE FORCED FREIGHT RATES DOWN TO AN EXCEPTIONALLY LOW LEVEL. TIMECHARTER RATES FOR THE LARGER VESSELS ARE DOWN OWING TO WEAK FUNDAMENTALS.

WEAK FUNDAMENTALS ARE INCREASING MARKET VOLATILITY

The larger Dry Bulk segments continue to be shaped by extreme freight rate fluctuations. The growing oversupply among larger vessels and the Chinese industrial shutdown due to the coronavirus pandemic seems to have exacerbated the seasonal market volatility. The Baltic Dry Index peaked before Christmas at 1,380. Around Chinese New Year, the index bottomed out at 461 – the lowest level in four years. Demand is typically weak at this time of the year, but volumes have been exceptionally low (fig. 1).

OVERSUPPLY IS CAUSING TIMECHARTER RATES TO DETERIORATE

Oversupply is shaping the Capesize market and consequently the 1-year timecharter rate has been low in 2020. Still, longer-period Capesize fixtures indicate that the market is set to weaken even further. The smaller segments are not performing much better and the 1-year timecharter rates have decreased across the board. As of April, the 1-year timecharter rate stood at USD 13,000 per day for a Capesize vessel, USD 11,000 per day for a Panamax, USD 9,000 per day for a Handymax and USD 9,000 per day for a Handysize vessel (fig. 2).

Figure DB.1

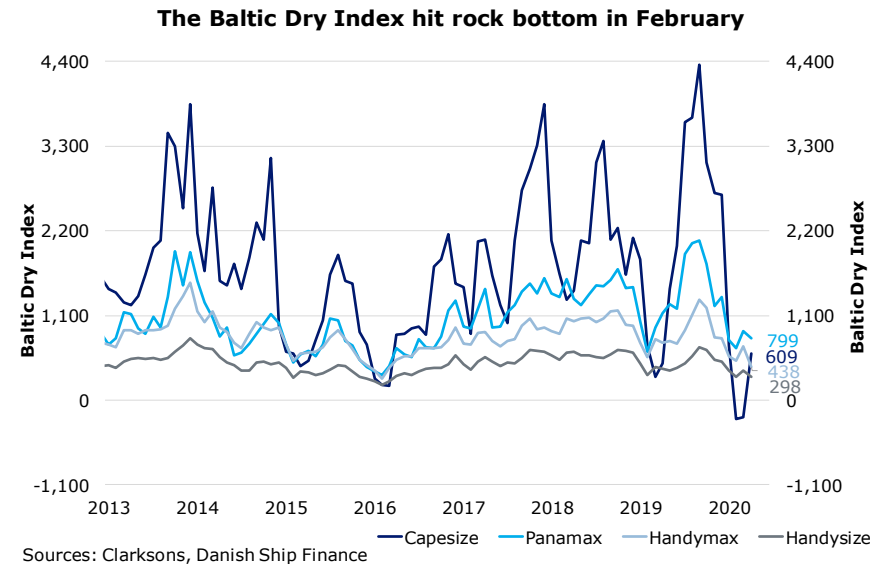
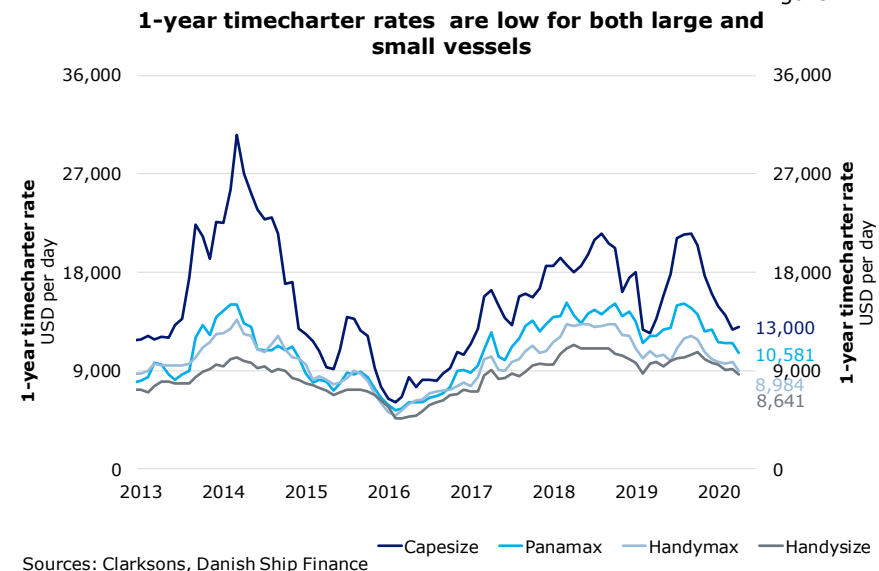


Figure DB.2



AN ACCELERATION IN DELIVERIES SHAPED THE FLEET DEVELOPMENT UNTIL THE CORONA VIRUS OUTBREAK INCREASED POSTPONEMENTS. DEMAND IS GROWING AT A MODEST RATE, DRIVEN BY MINOR BULK TRADES.

THE ACTIVE DRY BULK FLEET IS GROWING FAST

In 2019, the inflow of Dry Bulk vessels once again accelerated, and this continued in January, while deliveries dampened in February and March due to postponements caused by the coronavirus. In the first three months of 2020, the fleet saw a gross increase of 0.9%. Scrapping activity remained low and reduced fleet availability by 0.5% in the beginning of 2020 (fig. 3). Negative market sentiment is boosting demolition of the young Capesize fleet, but increasing demand is keeping scrapping activity low in the other segments. Scrubber retrofitting is decreasing, and in the first three months of 2020 more vessels returned to the fleet than left for scrubber installation, which increased active fleet growth to 1.1%.

GROWTH DRIVERS ARE BENEFITING SMALLER VESSELS

Between 2018-2020, Dry Bulk demand grew at an annual rate of 1.8%, driven by minor bulk trades, while the contribution from demand of other commodities has been limited (fig. 4). Distance-adjusted demand for Capesize vessels declined by 2.6% in 2019, as Chinese iron ore demand growth continued to weaken due to increasing use of scrap metals in steel production and a temporary reduction in iron ore availability following natural disasters. In contrast, distance-adjusted demand for minor bulk rose by 2.5%, powered by strong Chinese demand for bauxite, nickel ore and manganese ore. The coronavirus outbreak dampened Dry Bulk demand by up to 10% in January and February. However, recent increase in Chinese industrial activities boosted metal demand, ensuring that the volume contraction should be minor in the first quarter of 2020 compared to the same period last year.

Figure DB.3

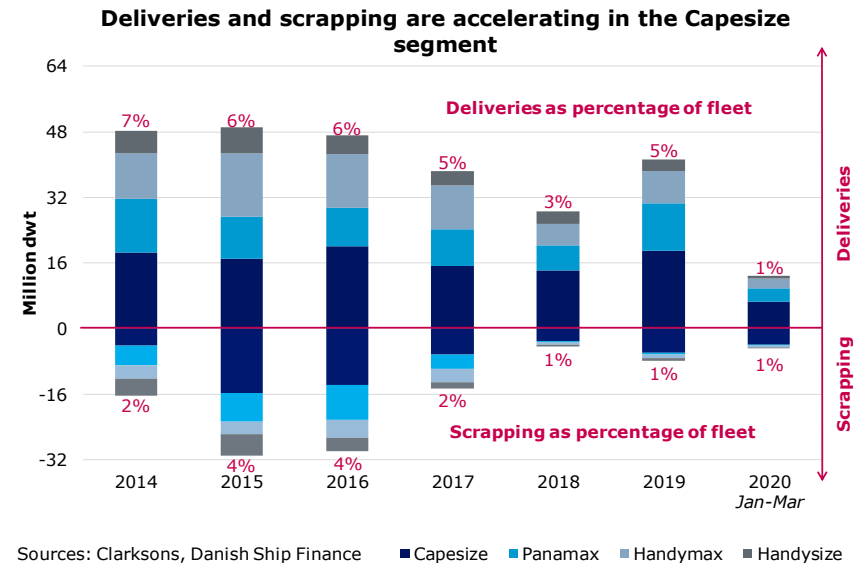
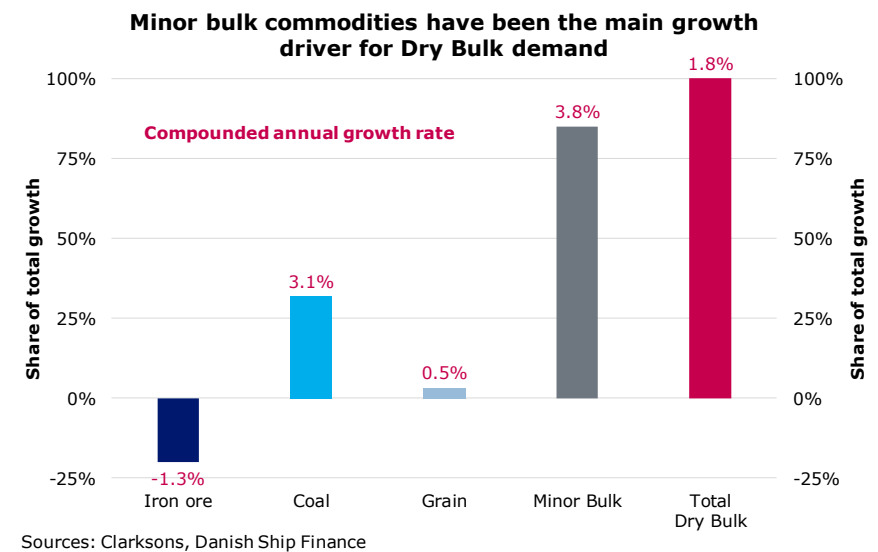


Figure DB.4



CONTRACTING AND SHIP VALUES

CONTRACTING ACTIVITY CONTINUES TO BE DRIVEN BY LARGER VESSELS DESPITE SURPLUS CAPACITY. LOW EARNINGS ARE WEAKENING THE SECONDHAND PRICE FOR CAPE SIZE VESSELS.

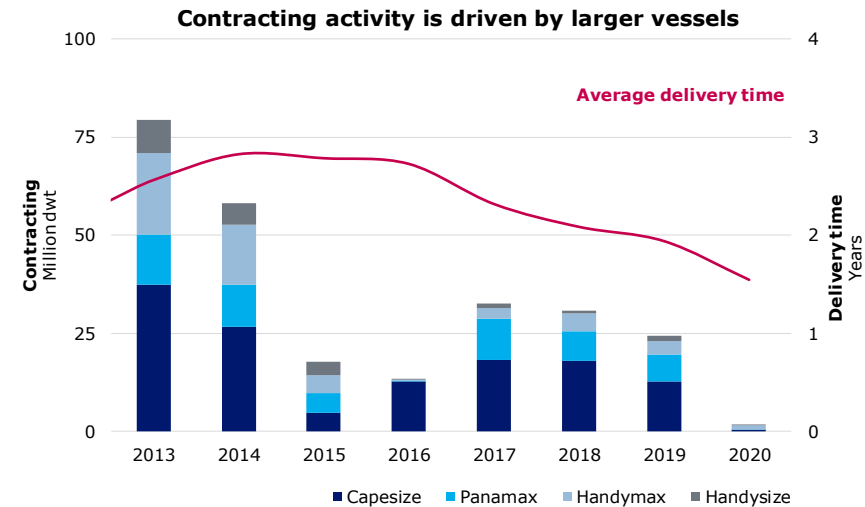
THE CAPE SIZE SEGMENT CONTINUES TO DRIVE CONTRACTING ACTIVITY

At the beginning of 2020, contracting activity has been low, albeit still driven by the struggling Capesize segment (fig. 5). The expected value depreciation of a newly built Capesize vessel has not been this severe since 2009 and the demand outlook is bleak. Regardless, contracting of Capesize vessels continues although at a low level. So far in 2020, 1.6 million dwt have been ordered, representing 0.2% of the fleet, versus 0.8% in the same period last year. Capesize contracting appears to be the result of domestic players placing orders at national yards primarily in China and Japan. The other segments are relatively inactive, which could indicate uncertainty related to the current ship technology in a world that demands carbon free shipping.

SECONDHAND PRICES FOR CAPE SIZE VESSELS CONTINUE TO DECREASE

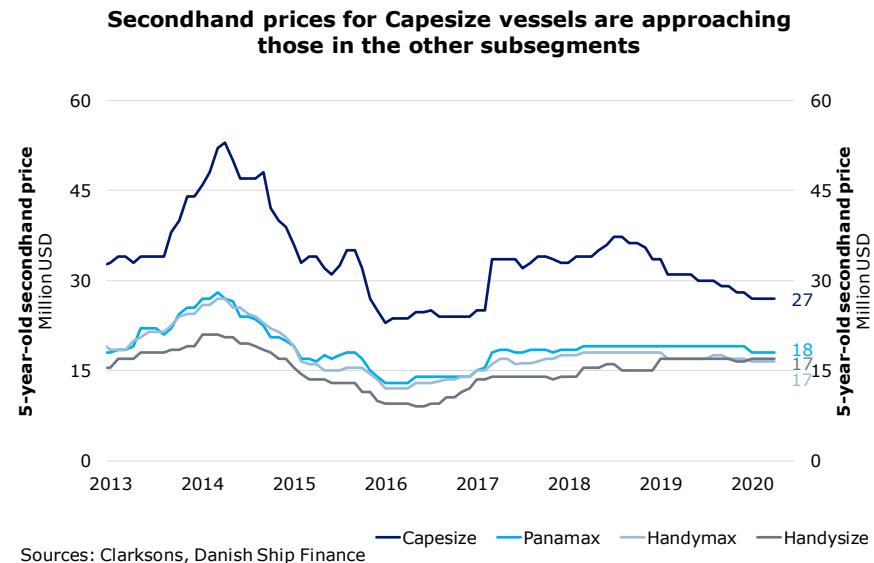
Sales and purchasing activity among larger vessels have hit a low level, while turnover of both Handymax and Handysize vessels has been moderate in the first three months of 2020 compared to previous years. The current low timecharter rates are putting pressure on secondhand prices in the Capesize segment (fig. 6). However, the steady decline for both young and old Capesize vessels signals a firm concern for surplus capacity in the market. In the smaller segments, older vessels are experiencing value depreciation as well, while secondhand prices for younger vessels are stable. We believe this reflects rising uncertainty over older vessels' ability to compete in a fuel-efficient environment. In April 2020, the average prices for five-year-old Capesize, Panamax, Handymax and Handysize vessels stood at USD 27 million, USD 18 million, USD 17 million and USD 17 million, respectively.

Figure DB.5



Sources: Clarksons, Danish Ship Finance

Figure DB.6



Sources: Clarksons, Danish Ship Finance

OUTLOOK

A LARGE FRONT-LOADED ORDERBOOK, A LACK OF SCRAPPING CANDIDATES AND CHANGES TO THE UNDERLYING DEMAND LANDSCAPE ARE CHALLENGING THE CAPE SIZE SEGMENT. THE SMALLER SEGMENTS HAVE LOW FLEET GROWTH AND A FAVOURABLE AGE DISTRIBUTION OF THEIR FLEETS, WHICH IS FUELLING OPTIMISM OVER HIGHER FREIGHT RATES AND SECONDHAND PRICES ON A LONG-TERM PERSPECTIVE. HOWEVER, LOWER INDUSTRIAL ACTIVITY AND MINING SHUTDOWNS WEAKEN SHORT-TERM DEMAND ACROSS THE BOARD.

The outlook for the Dry Bulk market reflects increasing pressure on the larger vessels. The Capesize fleet is set to grow rapidly in 2020, while demand for iron ore and coal is low. In contrast, the Handysize, Handymax and Panamax segments are enjoying modest fleet growth, while long-term demand in their underlying industries favours the smaller vessels. Low industrial activity and mining shutdowns due to the Covid-19 pandemic will have a negative demand effect for all subsegments. Dry Bulk demand is expected to decline by 4% in 2020. We believe older Capesize vessels with low fuel efficiency are the most exposed to unemployment in the current distressed market. Nevertheless, the challenges being faced by the Capesize segment could spread to the smaller vessels carrying non-ferrous ore commodities if parcel sizes can be scaled up. The Chinese announcement of a USD 485bn stimulus programme following the corona crisis is not expected to kick in until late in the year.

MASSIVE EXPANSION OF THE DRY BULK FLEET

In 2020, a heavily front-loaded orderbook will hit the Dry Bulk market. Two-thirds of the orderbook, representing 9% of the fleet, is scheduled to be delivered this year, which will lead to fleet expansion of 6%. This adds up to 57 million dwt, which is the highest amount since 2013 (fig. 8). In 2021, the fleet expansion

Figure DB.7

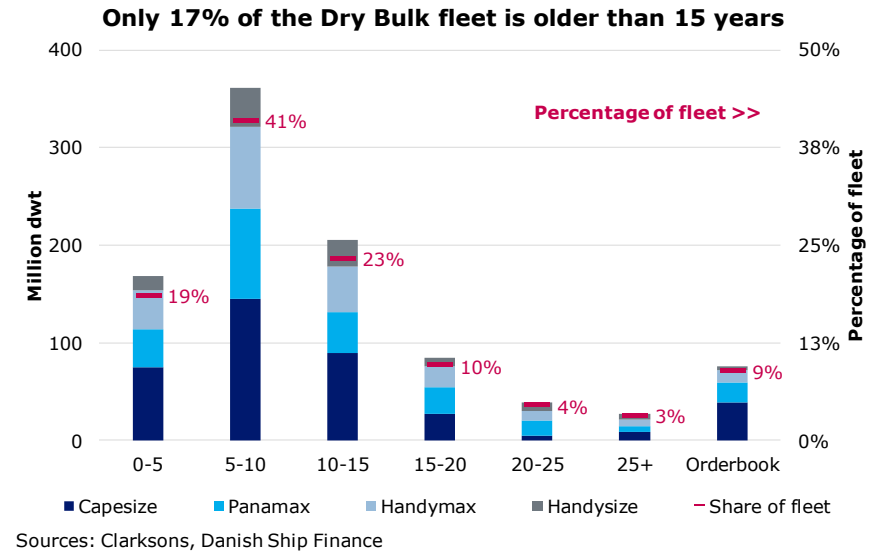
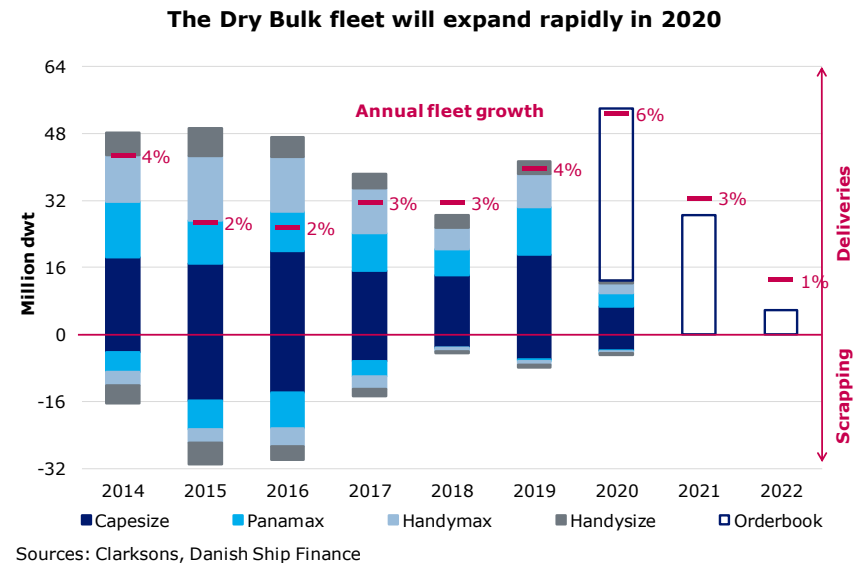


Figure DB.8



will slow to about 3%. Owners' reluctance to invest in newbuilds could keep fleet growth low in the short to medium term.

RETURNED SCRUBBER-FITTED VESSELS RISE ACTIVE FLEET GROWTH

The coronavirus has postponed some deliveries in early 2020 but spare capacity at most yards suggest that the delayed activity can be delivered during the year. Increasing use of slow steaming in order to save on the cost of low-sulphur fuel could have a reducing impact on active fleet growth in 2020. However, we expect this to be offset by the return of scrubber-fitted vessels to the fleet. In the fast-growing Capesize fleet, 39% of vessels have scrubbers installed or are awaiting installation and thus they will not have the same motivation for slow steaming.

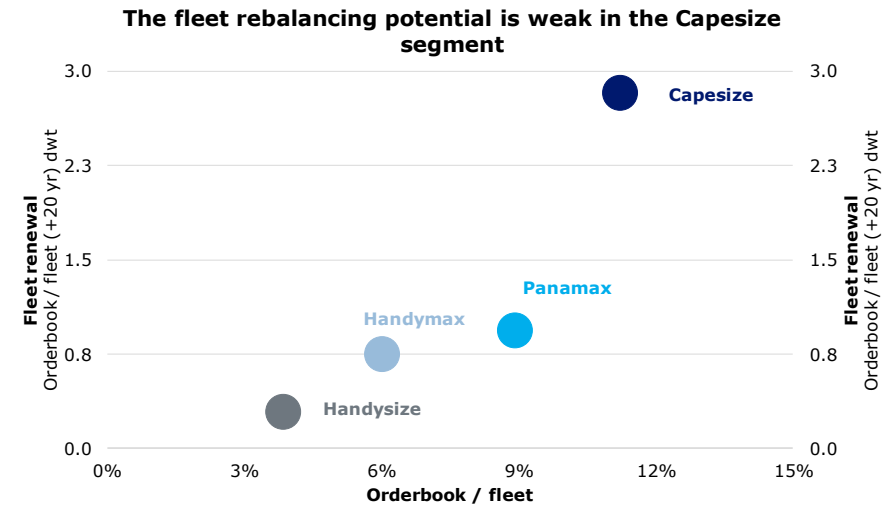
CAPE SIZE DELIVERIES ARE DRIVING FLEET GROWTH

The Dry Bulk fleet expansion is mainly being driven by vessels larger than 160,000 dwt. These are all highly dependent on iron ore trades to China. The Capesize fleet is expected to grow by 8% in 2020. The supply side is therefore set to significantly outpace demand, even in a scenario with massive fiscal stimuli in the wake of the Covid-19 pandemic. The smaller segments will continue to grow at a modest rate (i.e. 3-5%).

FUEL-INEFFICIENT VESSELS ARE OBVIOUSLY SCRAPPING CANDIDATES

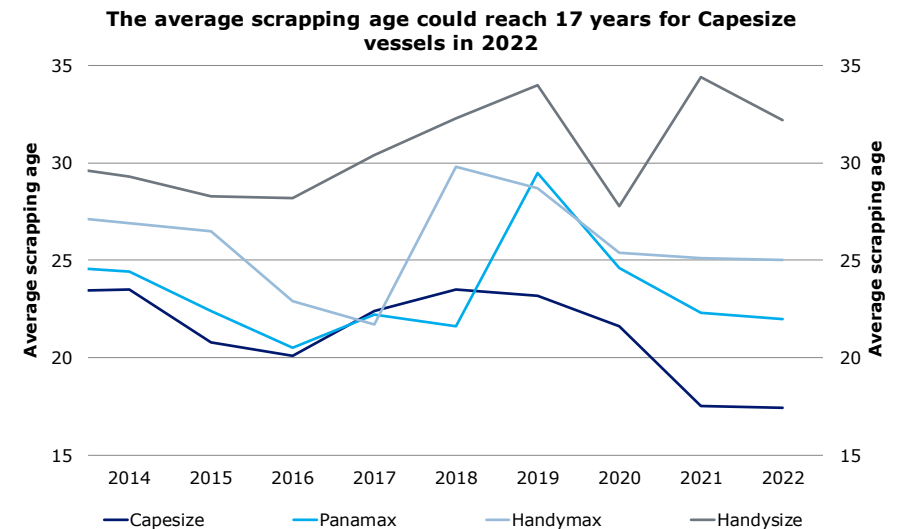
The incoming fuel-efficient vessels will put substantial pressure on older vessels in a surplus capacity scenario. All Capesize vessels older than ten years have been built with camshaft-controlled engines, which are less fuel-efficient than electronically controlled engines (fig. 11). Moreover, few older vessels are scrubber retrofitted, which exposes them to high costs for low-sulphur fuel. In 2020, 20 Capesize vessels of this specification – all older than 15 years – are up for special surveys. These vessels appear to be obvious scrapping candidates in a low market. If they are all scrapped, this will reduce Capesize fleet growth by 1.2 percentage points to 6.6% in 2020.

Figure DB.9



Sources: Clarksons, Danish Ship Finance

Figure DB.10



Sources: Clarksons, Danish Ship Finance

AVERAGE SCRAPPING AGE OF CAPE-SIZE VESSELS IS DECREASING

Today, 63% of the Capesize fleet is younger than ten years (fig. 7), while for each vessel older than 20 years (fig. 9), almost three vessels will be delivered over the coming two years. This fleet composition will come at a cost. Already, the average scrapping age has dropped to 22 years in 2020. We expect this trend to continue, with the average reaching 17 years in 2022, which is likely to have a significant impact in terms of value depreciation (fig. 10). With no sign of the market recovering, owners could be forced to shorten the economic lifetimes of Capesize vessels. The age composition in the smaller segments looks more promising, assuming that demolition of older vessels begins to take off in 2020. We do not anticipate any major pressure on the average scrapping age of these vessels.

STRUCTURAL CHALLENGES FOR CAPE-SIZE DEMAND

From a short-term perspective, the Covid-19 pandemic weakens industrial activity which lowers dry bulk commodity demand while the following Chinese fiscal stimuli plan will boost demand for iron ore. Nevertheless, we believe that Chinese demand for iron ore will decrease on a medium to long-term perspective. Chinese steel mills are cautious, as domestic real estate and car sales are slowing. At the same time, growing usage of electric arc furnaces in the Chinese steel industry will decrease iron ore demand, while scrap metals will be favored in the steel-making process. We do not expect coal trade to lift Dry Bulk demand either. The energy transition towards renewable sources is reducing demand for coal from a long-term perspective. A sluggish demand outlook for both commodities highlights the future unemployment risk for Capesize vessels. We expect demand for Capesize vessels to decrease by 2.3% in 2020 and increase by 3.3% in 2021 (fig. 12).

MINOR BULK IS A KEY GROWTH DRIVER

In 2020 and 2021, demand for minor bulk is expected to decline by 7% and increase by 8%, respectively. Reduced manufacturing output and mining shutdowns due to the coronavirus outbreak is

Figure DB.11

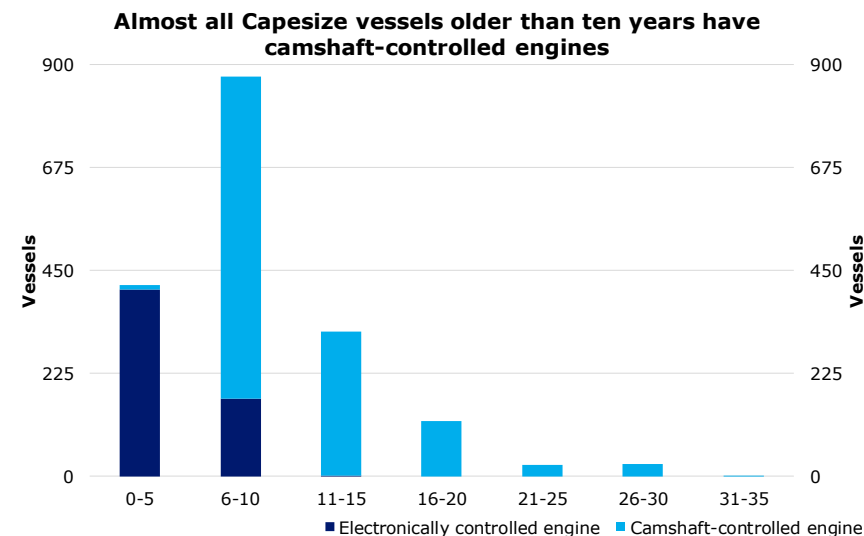
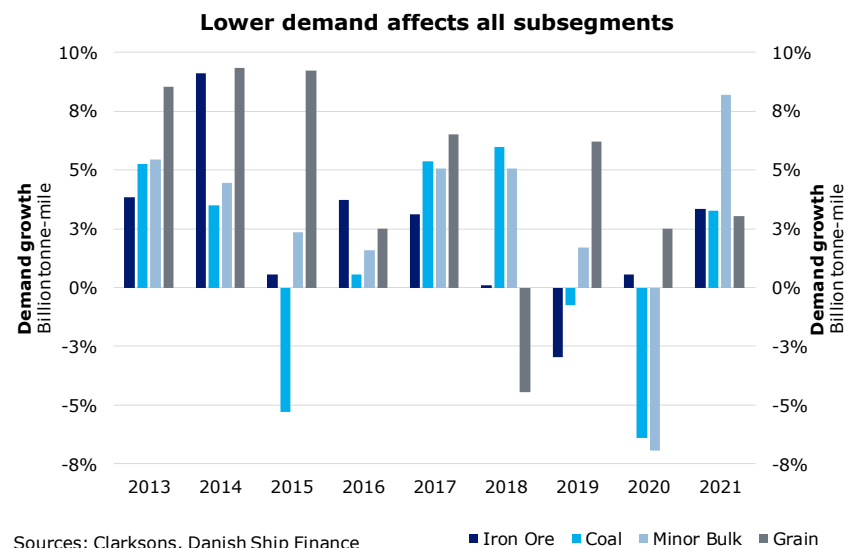


Figure DB.12



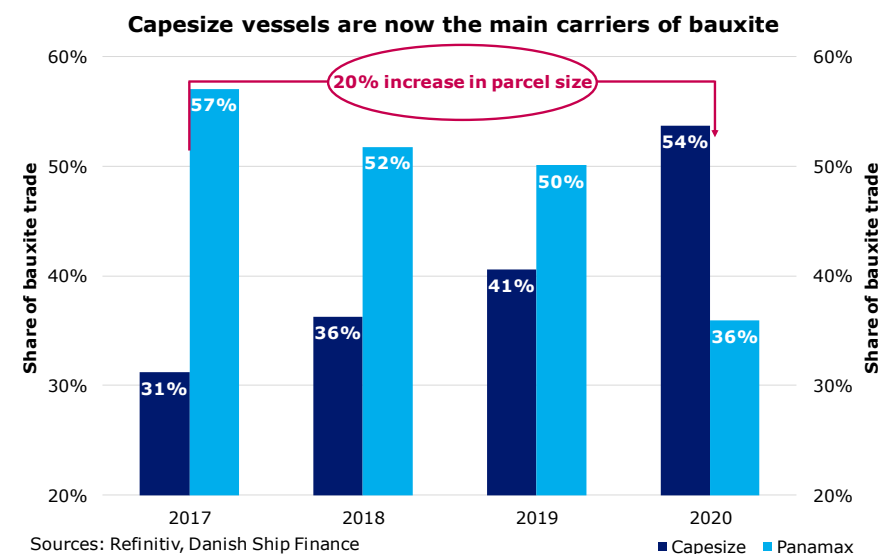
lowering minor bulk demand markedly in 2020. Nevertheless, on a medium to long term perspective, rising demand for electric vehicles, solar panels and wind turbines is increasing the need for non-ferrous ores such as bauxite, manganese ore and copper. We view this trend as sustainable, which will support increased freight rates in the Handysize, Handymax and Panamax segments. A potential downside risk to the outlook is future mining restrictions, since most non-ferrous ore is centered around few deposits.

INCREASING GRAIN DEMAND LOOKS TO BE TEMPORARY

Expanding grain supply in South America and the Black Sea area and growing demand in Southeast Asia and the Middle East are the main drivers for expected growth in seaborne grain trade of 3% in 2020 and 2021 (fig. 12). From a long-term perspective, the absence of obvious future growth drivers is worrying, and owners should not expect grain trade to propel a market recovery.

IS CASCADING OF CAPACITY POSSIBLE IN THE DRY BULK MARKET?

The Capesize vessels' and smaller vessels' trades are often seen as detached from each other, but in the struggle to find available cargo, Capesize owners could be forced to enter new trades. Take bauxite trade as an example. In 2017, bauxite accounted for 1% of all Capesize cargo, but this has increased to 3% today. While Handymax and Panamax vessels have dominated bauxite trade historically, Capesize vessels have overtaken Panamax vessels as the main carrier for bauxite in 2020. The larger vessels' takeover of bauxite trade is being driven by an increase in parcel sizes of 20% since 2017 (fig. 13). The bauxite example shows that the minor bulk segment could see cascading capacity from larger vessels if parcel sizes can be increased. For now, this trend is limited, but further cascading of Capesize capacity into the minor bulk segment would put pressure on earnings across the Dry Bulk market.



CRUDE TANKER



CRUDE TANKER

THE CRUDE TANKER MARKET IS CONTENDING WITH NOT ONLY COVID-19 BUT ALSO REPERCUSSIONS OF THE PRICE WAR BETWEEN SAUDI ARABIA AND RUSSIA. EARNINGS WERE SUPER-STRONG IN THE FIRST QUARTER, SINCE MANY VESSELS HAVE BEEN HIRED FOR FLOATING STORAGE, BUT OIL DEMAND IS VERY WEAK AND THE MARKET REMAINS OVERSUPPLIED.

FREIGHT RATES

A SERIES OF SUPPLY AND DEMAND SHOCKS HAVE HIT THE CRUDE TANKER MARKET SINCE OUR LAST REPORT. DURING THE FIRST QUARTER OF THE YEAR, EARNINGS REACTED STRONGLY WITH EXTRAORDINARILY HIGH PEAKS.

The oil market is testing uncharted territory. Global oil supply increased temporarily since Saudi Arabia increased production in order to convince Russia to reengage in global supply management. Covid-19 has shut down large parts of the global economy, which has caused oil demand to collapse on an unprecedented scale. Global oil demand has shown the biggest monthly drop in history, declining by 20 to 30 million barrels per day in April. Oil demand is expected to shrink 9-10 million barrels per day in 2020.

MANY VESSELS ARE BEING USED FOR FLOATING STORAGE

The Crude Tanker market has been riding the huge but extremely fragile wave of a massive supply push. Global demand has been weak, but surplus oil production must go somewhere – and that means into storage. Approximately 10% of the VLCC fleet was used for floating storage during the first quarter of 2020.

EARNINGS HAVE BEEN VOLATILE WITH SHORT-TERM SPIKES

Tanker earnings were very high and volatile during the first quarter (fig. 1). As of 24 April, the one-year timecharter rates increased by 33%, 31% and 5% for VLCCs, Suezmaxes and Aframaxes from the start of the year, respectively (fig. 2).

Figure T.1

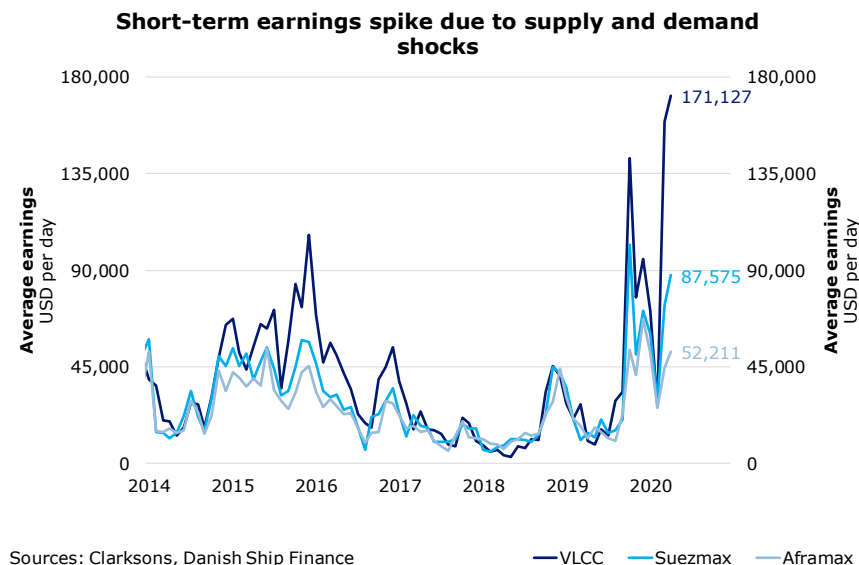
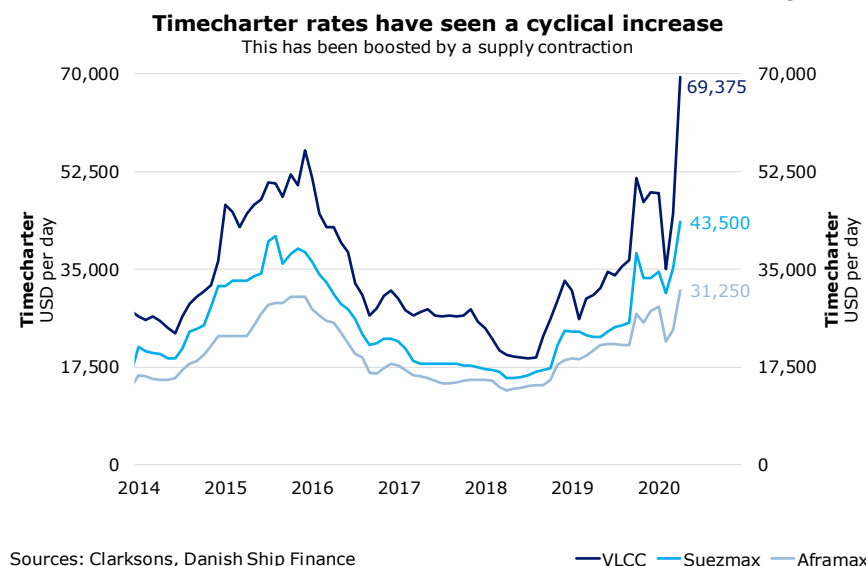


Figure T.2



SHIPS RETURNING FROM SCRUBBER RETROFITTING CAUSED GROWTH IN THE ACTIVE FLEET TO SURPASS NET DELIVERIES IN THE FIRST QUARTER OF 2020. EXTENSIVE USE OF VESSELS FOR FLOATING STORAGE CAUSED FLEET GROWTH IN APRIL TO BE NEGATIVE AND KEPT ALL VESSELS EMPLOYED.

TIMELY DELIVERIES AND LOW SCRAPPING SUPPORT FLEET GROWTH

Newbuildings continue to be delivered with few postponements. Moreover, the high timecharter rates are causing scrapping to remain low. In the first four months of 2020, 5.4 million dwt was delivered, while only 0.1 million dwt was scrapped, resulting in fleet growth of 1% (fig. 3).

MANY VESSELS ARE BEING EMPLOYED AS FLOATING STORAGE

Shipping is a volume game, sometimes supply pushed and at other times demand pulled. Crude Tankers have increasingly been employed as floating storage since the collapse in global oil demand during the first quarter of 2020. The decline in global oil consumption so far in April alone is seven times larger than the biggest quarterly decline following the 2008-09 financial crisis. Moreover, scrubber retrofitting has temporarily removed ships from the fleet. This has caused ships available for hire to decline 7% since fourth quarter of 2019 (fig. 4).

SAUDI OUTPUT BOOST HAS REVERSED THE DROP IN SEABORNE DEMAND

Seaborne crude volumes increased during the first quarter. In February, US oil production reached its highest level ever, 13.1 million barrels a day. Saudi Arabia's decision to increase production by another 2.5 million barrels per day boosted seaborne crude volumes further but also reduced the average travel distance.

Figure T.3

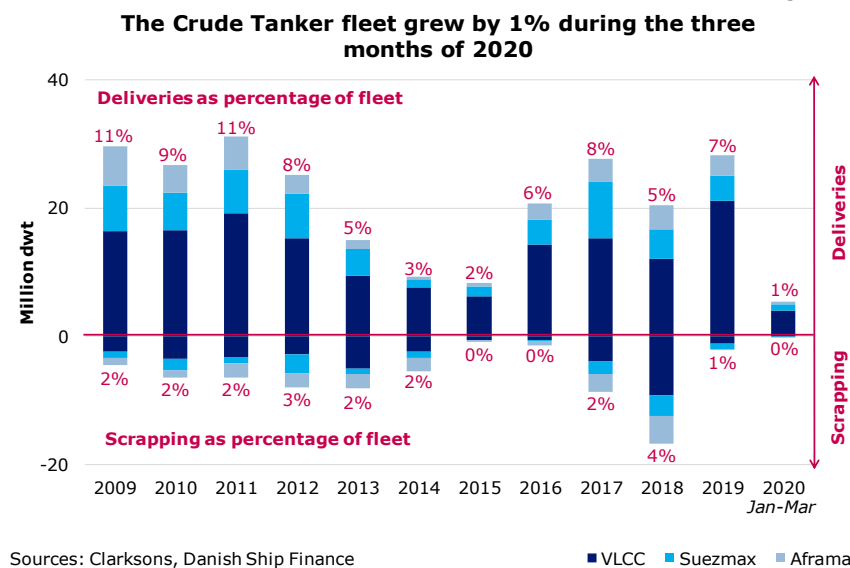
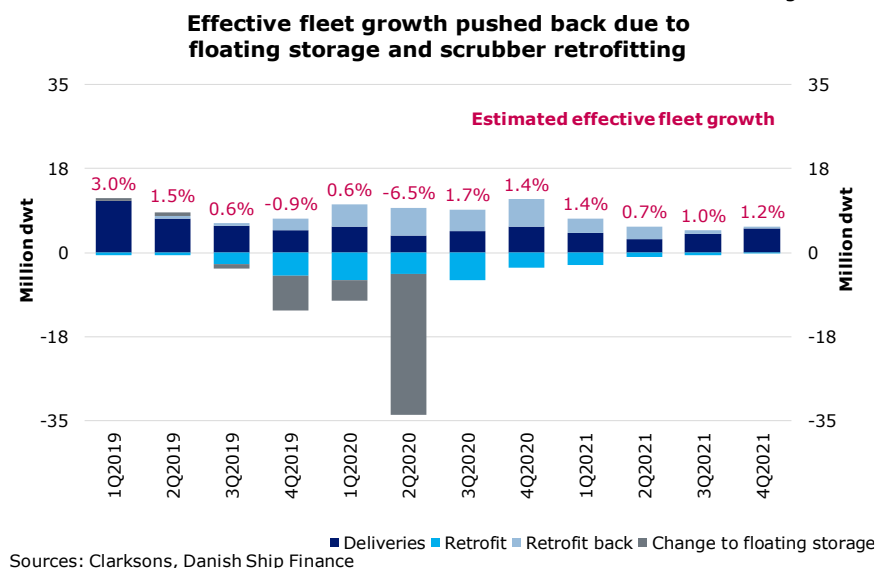


Figure T.4



CONTRACTING SURGED IN DECEMBER AFTER A SLOW YEAR. IN EARLY 2020, ORDERING SLOWED AGAIN. SECONDHAND PRICES HAVE FOLLOWED THE UPWARD TRAJECTORY IN TIMECHARTER RATES.

CONTRACTING IS DECLINING AFTER A SURGE IN DECEMBER

Contracting rebounded in December 2019, with 16 vessels added to the orderbook, representing about 20% of all orders placed in 2019 measured in dwt. In early 2020, contracting slowed down. As of 27 April, 19 newbuildings had been ordered, the equivalent of 0.1% of the fleet, measured in capacity (fig. 5). Normally, high earnings coupled with low newbuilding prices are associated with strong ordering activity, but Crude Tanker market volatility, long-term oil demand uncertainty and possibly future ship technology (e.g. the journey towards CO₂-neutral ships) may have held back contracting. In April, newbuilding prices for VLCCs, Suezmaxes and Aframaxes were USD 91 million, USD 61 million and USD 49 million, respectively.

SECONDHAND PRICES UNAFFECTED BY SHORT-LIVED EARNINGS SPIKE

Secondhand prices have followed timecharter rates' upward trajectory, with the oldest vessels benefiting the most. However, prices have been largely unaffected by the volatility in timecharter rates in late 2019 and early 2020 (fig. 6). This suggests that the market considers a timecharter rate above USD 45,000 per day for VLCCs unsustainable, and that the consensus medium-term outlook remains unchanged.

SLOW S&P ACTIVITY FOR SUEZMAXES AND AFRAMAXES

Sale and purchase activity in the first two months of 2020 was low for Suezmaxes and Aframaxes, but VLCC liquidity was healthier. Since then the challenging outlook and Covid-19 have meant transaction volume has almost disappeared. Covid-19 has caused vessel inspections to become difficult and few owners are willing to buy an uninspected vessel.

Figure T.5

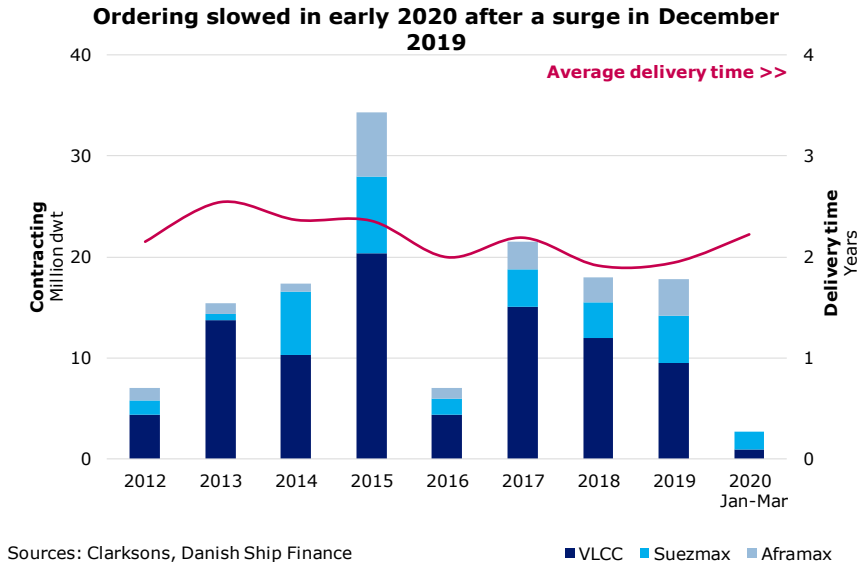
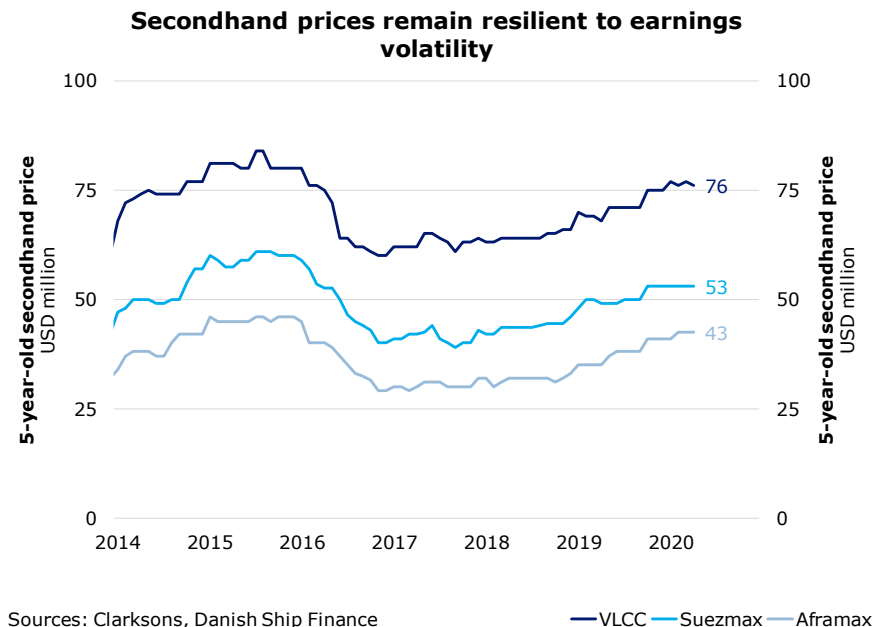


Figure T.6



OUTLOOK

THE CRUDE TANKER MARKET IS EXPERIENCING A PERIOD OF EXTRAORDINARILY HIGH FREIGHT RATES, WHILE UNDERLYING DEMAND IS PLUMMETING. VESSELS ARE BEING USED FOR FLOATING STORAGE, AS GLOBAL OIL SUPPLY IS RUNNING SIGNIFICANTLY AHEAD OF DEMAND. THE NEED TO CUT GLOBAL OIL SUPPLY IS SIGNIFICANTLY GREATER THAN IT HAS BEEN IN DECADES. LOWER OIL SUPPLY REDUCES THE LONGER-TERM OUTLOOK FOR CRUDE TANKER DEMAND. CRUDE TANKERS MAY BE HEADING FOR A VERY DIFFICULT OUTLOOK WHEN THE SUPPLY OF OIL IS CURBED TO MEET LOWER GLOBAL DEMAND.

The fleet and orderbook are largely balanced. The current orderbook stands at 8% of the fleet (fig. 6), with most orders scheduled for delivery within the next two years (fig. 7). About 10% of the current fleet will be at least 20 years old by the end of 2021. This means the Crude Tanker fleet can absorb the orderbook and a slight decline in demand.

AVAILABILITY INCREASES WHEN VESSELS RETURN TO THE FLEET

20% of the Crude Tanker fleet has now been retrofitted with scrubbers, with primarily new and younger vessels having been upgraded. Older vessels were at risk of early retirement when the bunker price was high, but the current low oil price environment is likely to extend the life of these vessels. Fleet availability is temporarily reduced when vessels are out of service to be retrofitted. The active fleet declined in the fourth quarter of 2019, but vessels returning to service have increased the fleet by approximately 1 percentage point so far in 2020. This has been more than offset by vessels used as floating storage.

FLOATING STORAGE IS KEEPING VESSELS IN SHORT SUPPLY

The fleet is scheduled to increase by approximately 4% before scrapping in both 2020 and 2021 (fig. 4). Demand beyond vessels being used for floating storage is currently extremely weak, but the high freight rate environment is putting paid to the chances

Figure T.7

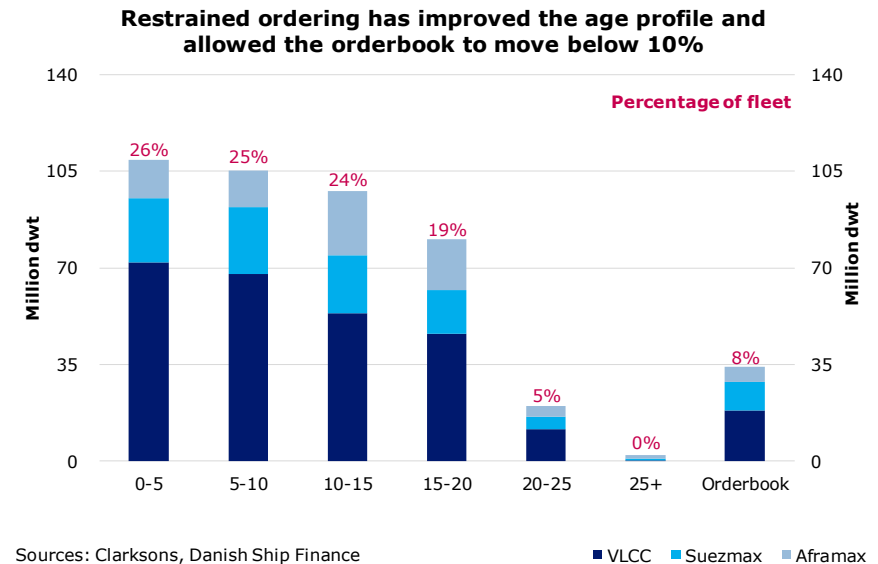
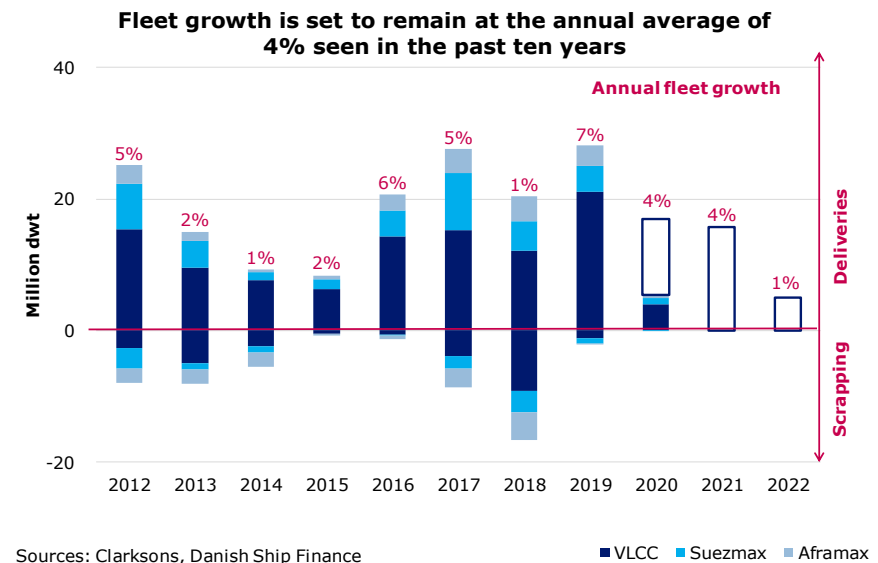


Figure T.8



of older vessels being demolished as long as oil production significantly outpaces demand.

COVID-19 WILL MOST LIKELY TRIGGER A GLOBAL RECESSION

The global economy is currently at a standstill. The risk of recession due to Covid-19 is imminent. Governments are initiating ambitious stimuli programmes to kickstart global GDP. These measures are aimed at restoring economic activity at all levels through not only infrastructure spending and loan guarantees but also outright cash handouts.

GLOBAL OIL SUPPLY COULD SUDDENLY DECLINE

Global oil demand is very weak. Global oil demand was down by 20-30% in March and April and is expected to end the year 9-10 million barrels per day lower than the year before. The newly agreed reduction in oil supply does not change the balance fundamentally – the world is still oversupplied with oil. Moreover, inventories will continue to fill quickly until the agreement takes effect. As prices remain low and storage fills up, some oil producers may suddenly be forced to cut output dramatically.

A LARGE PART OF THE FLEET COULD BE USED FOR FLOATING STORAGE

Little volumes have been shut down yet in response to the fall in prices, but onshore storage is being filled quickly. Some observers predict that onshore storage could be maxed out late April or early May. If this happens, extensive use of VLCCs may be the only option available. We are currently seeing more than 200 Crude Tankers engaged in floating storage.

US SHALE PRODUCTION MAY NEED TO BE SCALED DOWN

The future oil supply is at significant risk. With an oversupplied market and large inventories oil prices will most likely remain low. This means high-cost producers will begin to close wells when it costs more to operate them than to close them or store the oil. US shale producers are already under pressure due to their often-leveraged business models.

Figure T.9

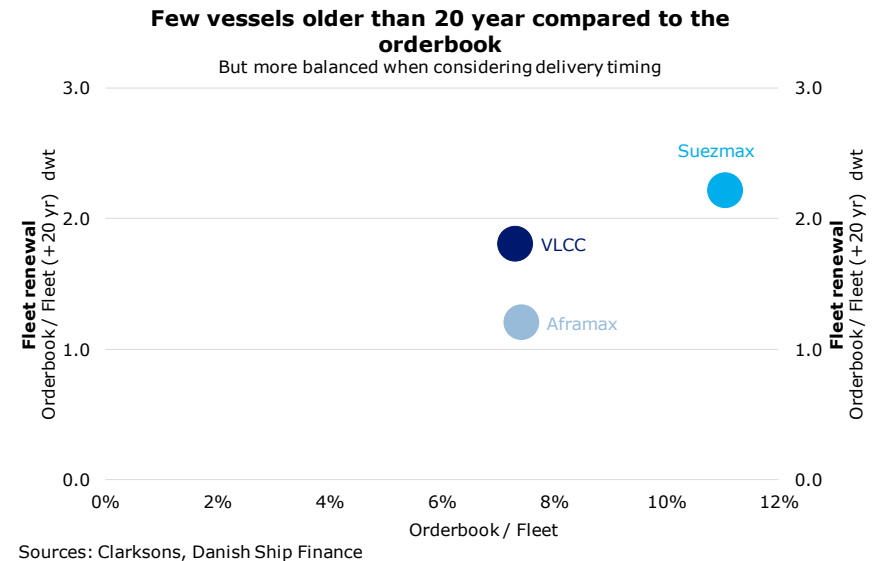
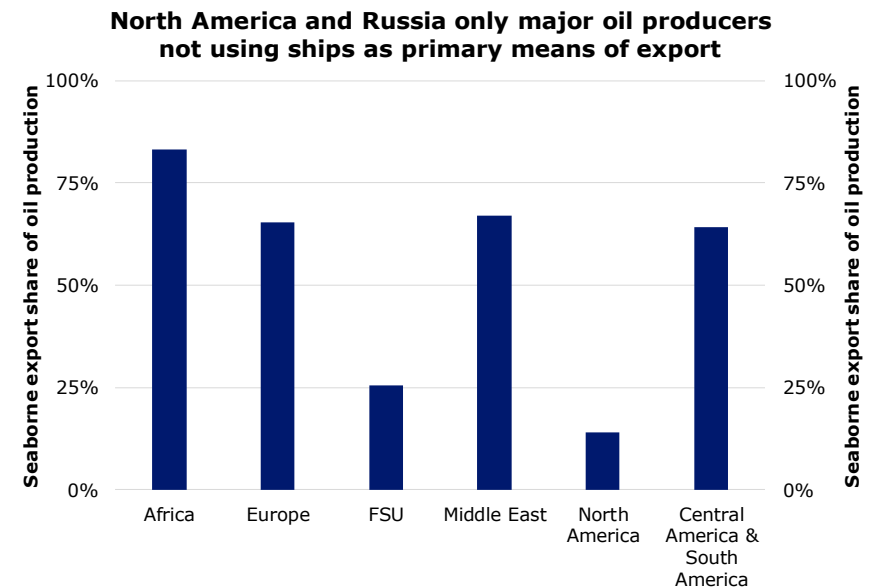


Figure T.10



TEMPORARY PRODUCTION CUT BUT LONG-TERM CONSEQUENCES

In April, Russia, Saudi Arabia and the US agreed to lower global oil production by 9.7 million barrels per day in May and June in an unprecedented effort to balance the market. The agreement will taper into a 7.7 million barrels per day cut from July to December and then 5.8 million barrels per day from January 2021 to April 2022. This is aimed at reducing the surplus oil flowing into the market and taking some of the pressure off storage – which will have a severely negative impact on Crude Tanker earnings.

OIL WELLS ARE CLOSING DOWN

The production cut brings only temporary relief. Oil production is expected to fall in 2020, since oil wells are being closed. American oil production could decline by 2-4 million barrels per day in 2020. The number of active oil rigs is currently down by 30%. Russian oil production could also decline, as it has limited processing capacity and its refineries have insufficient storage facilities. Some costly Siberian oil and gas wells could be at risk of closure and it may not be economically viable to recover them in the future.

OIL COULD BE IN SHORT SUPPLY IN THE MID-2020s

The lack of final investment decisions in recent years is likely to create a supply crunch. This has been a topic for years. The current crash in global oil demand has clearly postponed the timing, but a supply shortage could still happen if demand recovers most of the lost ground during the next years. Oil majors remain averse to making large-scale greenfield investments, and hence we see downside risk to a future build-up of oil supply.

SIGNIFICANT PRODUCTION CUTS MAY BE REQUIRED

The production cuts by OPEC+ are significantly larger than anything seen in the past, but it remains to be seen whether this will be enough. Still, we can be certain that global oil demand will regain some of the lost territory when Covid-19 is brought under control, although it may take several years for demand to recover

fully. Consequently, Crude Tankers may be in excess supply for quite some time.

AN EXTENDED PERIOD OF LOW RATES POST COVID-19

When the effects of the price war end, Crude Tankers will face some difficult months, as much of the oil demand is likely to be served by stored barrels. Crude Tanker owners will need to begin scrapping vessels, maybe even younger vessels. Few new vessels are likely to be ordered and freight rates may stay low for quite some time, since even a small increase in fleet availability may be difficult to absorb in a low demand environment. When demand recovers, things may become a bit easier, but we should be prepared for a prolonged period of low freight rates post Covid-19.

PRODUCT TANKER



DANISH
SHIP FINANCE

PRODUCT TANKER

PRODUCT TANKER EARNINGS WERE EXPECTED TO BOOM IN 2020, BUT THE COVID-19 PANDEMIC HAS CAUSED LARGE PARTS OF THE GLOBAL ECONOMY TO BE LOCKED DOWN, CRIPPLING DEMAND. SURPLUS OIL VOLUMES HAVE QUICKLY FILLED INVENTORIES AND LENGTHENED DISTANCES ON SEVERAL TRADES. PRODUCT TANKERS ARE INCREASINGLY USED AS FLOATING STORAGE, SOME SIMPLY BECAUSE THEY ARE UNABLE TO DISCHARGE, UNDERPINNING VERY HIGH RATES BY END-APRIL. HOWEVER, THE HIGH FREIGHT RATES ARE ONLY TEMPORARY. WE EXPECT PRODUCT TANKER DEMAND TO SHRINK BY 1-2 MILLION BARRELS PER DAY WHEN THE COVID-19 CRISIS IS OVER.

FREIGHT RATES

PRODUCT TANKER EARNINGS HAVE BENEFITED FROM VESSELS BEING USED AS FLOATING STORAGE AND LONGER DISTANCES IN 2020 DESPITE WEAK DEMAND.

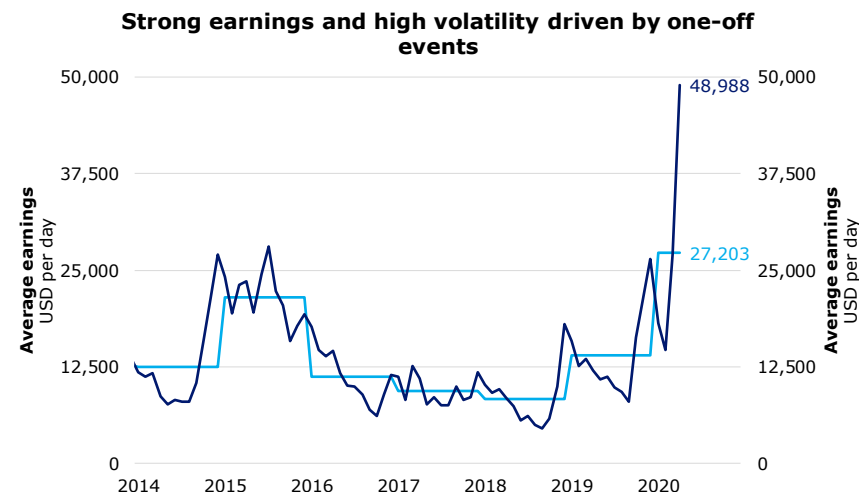
SPOT EARNINGS ARE HIGHLY VOLATILE

Product Tanker earnings have been extremely volatile since our last report. Spot earnings declined by a combined 44% in January and February, only to increase by 233% in March and April. The large swings in earnings have been caused by four factors: strong expectations initially, Covid-19, longer travel distances and lower vessel supply, as many tankers are being employed as floating storage. Earnings started 2020 on a high note due to an anticipated shortage of low-sulphur fuel oil leading to increased demand for diesel products. Then, Covid-19 lowered global oil demand by 20-30% and seaborne product export volumes by 15%. However, the impact of lower export volumes was more than offset by longer travel distances and fewer open vessels.

TIMECHARTER RATES HAVE ALSO INCREASED

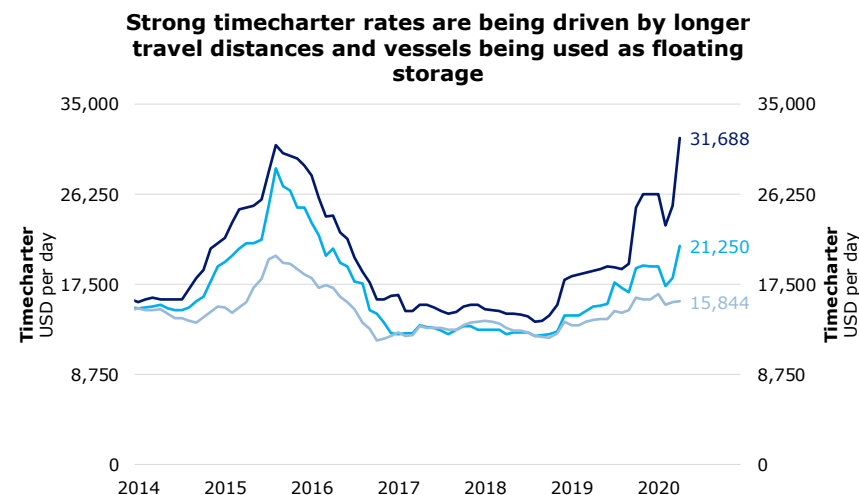
Timecharter rates have moved in tandem with spot earnings, but with much less extreme jumps. As of 10 April, timecharter rates were up 52% and 18% for LR2s and LR1s, respectively, from the beginning of the year, and unchanged for MRs (fig. 2).

Figure P.1



Sources: Clarksons, Danish Ship Finance — Annual average — Average Product Tanker earnings

Figure P.2



Sources: Clarksons, Danish Ship Finance — LR2 — LR1 — MR

SUPPLY & DEMAND

SUPPLY CONTINUES TO GROW BUT THE NUMBER OF OPEN SHIPS HAS DECLINED, AS MANY ARE BEING EMPLOYED AS FLOATING STORAGE. EXPORT VOLUMES HAVE COLLAPSED. THE MARKET BALANCE HAS CHANGED SIGNIFICANTLY IN JUST A FEW MONTHS. BEFORE THE COVID-19 CRISIS, A DEMAND BOOM WAS ANTICIPATED DUE TO THE IMPLEMENTATION OF IMO 2020.

STORAGE AND INFRASTRUCTURE LIMITATIONS REDUCE SHIP SUPPLY

The collapse in refined oil demand has resulted in a massive oversupply. Onshore inventories are filling up rapidly, and so more Product Tankers are being used for floating storage. This has reduced the active supply of vessels and thereby increased fleet utilisation strongly. The oversupply of oil is creating infrastructural bottlenecks that are not only delaying discharging but also increasing the average travel distance. On 24 April, 13-15% of the Product Tanker fleet was laden and lying idle. To some extent, this is normal, due to waiting times at ports. However, as much as 7% of the fleet is loaded and has not moved for at least 14 days. It is not known how many of these ships are on storage contracts, but we believe it could be fewer than half. In the first three months of 2020, the fleet grew by 1%, mainly in the MR segment (fig. 3).

INCREASING TRAVEL DISTANCES PUSHED UP PRODUCT TANKER DEMAND

Product Tanker volumes declined in the second quarter of 2019 and have since remained stable at around 60 million tonnes per month. In the same period, travel distances have increased, with distance-adjusted Product Tanker demand reaching an all-time high in March 2020 (fig. 4). We believe the demand boost in March will be short-lived due to the impending recession and less commodity repositioning. In the first quarter of 2020, Product Tanker volumes were down 15% compared with the same period last year, whereas distance-adjusted demand only declined 2%, since substantial diesel volumes travelled longer distances.

Figure P.3

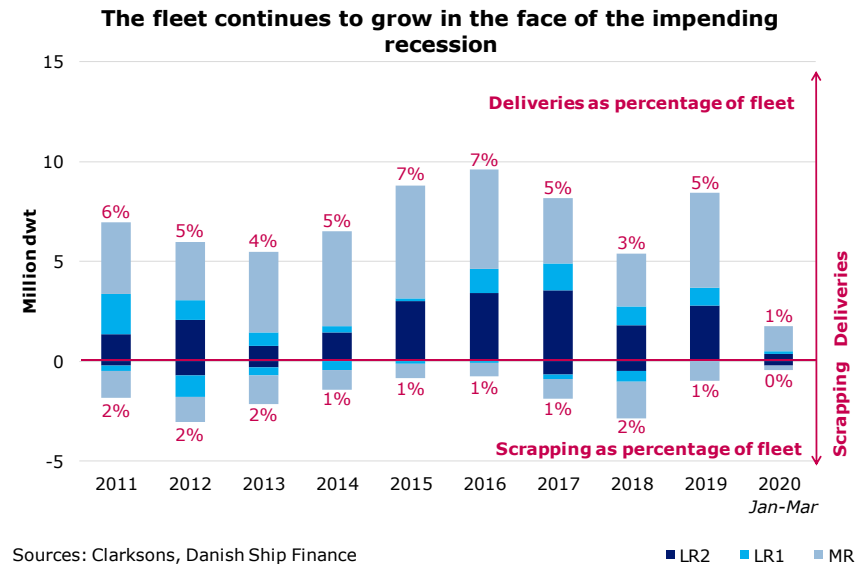
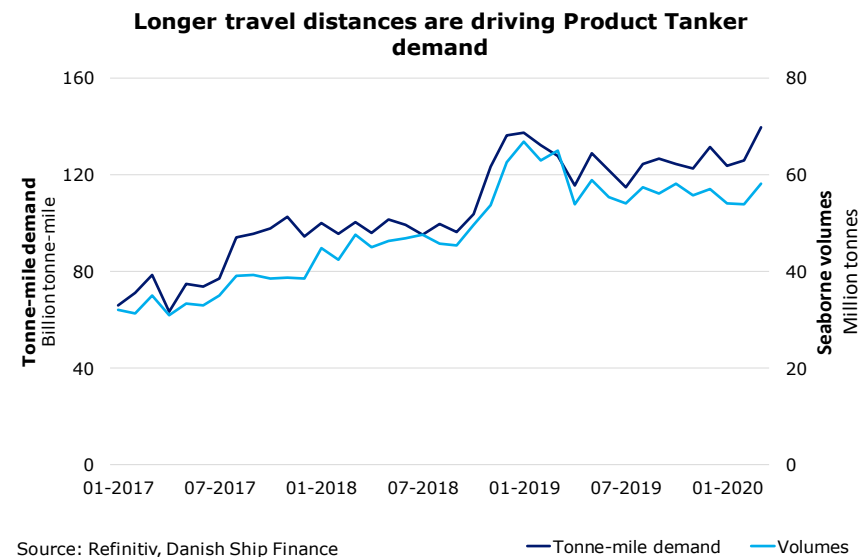


Figure P.4



CONTRACTING AND SHIP VALUES

S&P ACTIVITY AND CONTRACTING ARE BEING HELD BACK BY BOTH SHORT AND LONG-TERM UNCERTAINTY. DESPITE THE TURMOIL, SECONDHAND PRICES REMAIN UNCHANGED.

LONG-TERM RISKS ARE HOLDING BACK CONTRACTING

Even before Covid-19 became the focus of global attention, ordering was low (fig. 5). High earnings and low newbuilding prices are normally associated with strong contracting, but the uncertain outlook for both product demand and development within propulsion technology may be holding shipowners back. This has been aggravated by the Covid-19 crisis. The LR1 segment continues to struggle the most; it has not had any orders since October 2018.

SECONDHAND PRICES ARE UNAFFECTED BY THE OIL MARKET TURMOIL

Secondhand prices have so far been largely unaffected by the unfolding economic crisis (fig. 6). In historical terms, secondhand prices for LR2s and MRs are high, while LR1 prices remain closer to the average. Current timecharter rates do not justify the secondhand prices for MR vessels less than ten years old. At the same time, secondhand prices for LR2 vessels of all ages are low given the current timecharter market. The secondhand price of a five-year-old MR would have to decline by about 10% to adjusted to the current timecharter rate. The value of a five-year-old LR2 would have to increase by more than 60% to adjust to the current one-year timecharter rate, beating the existing all-time high by more than 60%.

S&P ACTIVITY STARTED OFF STRONG IN 2020 BUT HAS SINCE SUBSIDED

The S&P market started the year as it ended 2019, with high activity. However, from March sales numbers started to decline. The high activity was driven by MR owners capitalising on increasing values of older tonnage and values running ahead of timecharter rates for vessels less than ten years old. As of 27 April, a total of 28 vessels (25 MRs) had changed hands in 2020, equivalent to 1% of the fleet.

Figure P.5

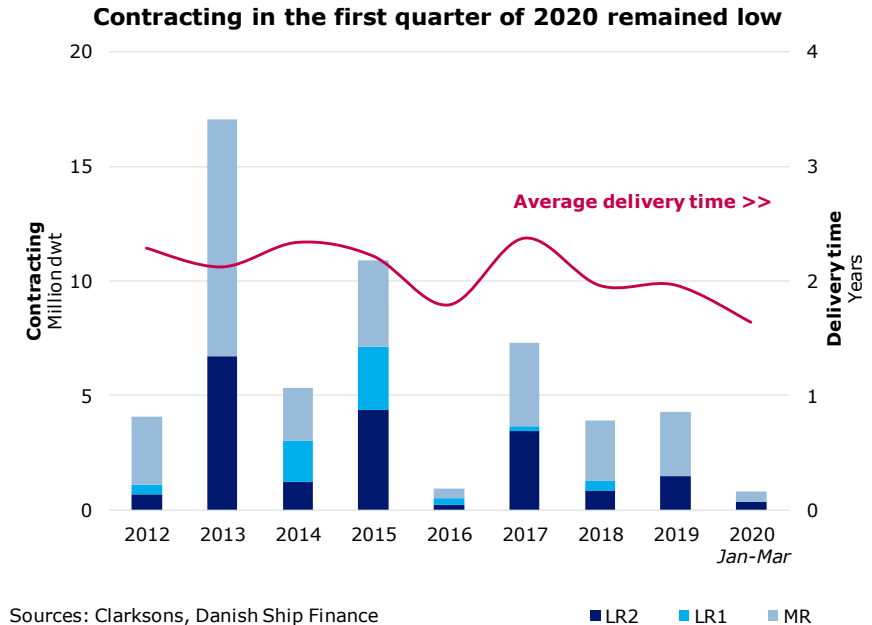
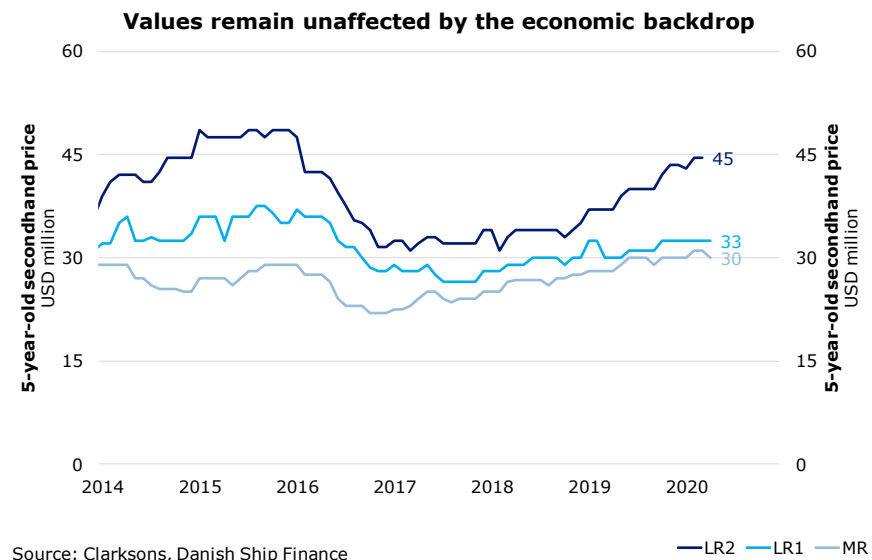


Figure P.6



OUTLOOK

PRODUCT TANKER EARNINGS ARE STRONG CURRENTLY, BUT HEADWINDS ARE INCREASING. THE DECLINE IN SEABORNE EXPORT VOLUMES IS LIKELY TO CONTINUE, WHEREAS THE FLEET IS GEARED FOR GROWTH. CURRENTLY, EARNINGS ARE BEING SUPPORTED BY LONG TRAVEL DISTANCES, VESSELS BEING USED AS STORAGE, AND INFRASTRUCTURE LIMITATIONS, BUT THIS WILL COME TO AN END. THE ANTICIPATED LONG-TERM GROWTH IN OIL DEMAND MAY BE DELAYED, INCREASING THE RISK OF IT NOT MATERIALISING AT ALL.

The Product Tanker fleet is ill-prepared to absorb a demand shock: only 7% of the fleet is older than 20 years and the orderbook is due to add 7% to the fleet during the next few years (fig. 7). The fleet is expected to increase by 5% in 2020 before scrapping (fig. 8). MR tankers are better positioned, but most owners are highly vulnerable to a demand contraction (fig. 9). In the event of this, freight rates will decline and secondhand values for vessels older than ten years could suffer significant value depreciation, possibly triggering renewed scrapping activity.

LARGE SHORT-TERM IMPACT FROM COVID-19 AND PARTIAL REBOUND

Oil demand is under pressure from the Covid-19-induced global economic recession. Governments have quarantined large parts of their populations in response to the Covid-19 health crisis. This has reduced economic activity substantially, lowering demand for fossil fuels by 20-30% in the first quarter of 2020. Some experts fear that the equivalent to a decade's demand growth could be at risk. Our research suggests that when the global lockdown ends, Product Tanker demand will be 5-6% below 2019 levels and stay below trend in 2021.

FLOATING STORAGE WILL CAUSE A SUPPLY PUSH AND A DEMAND PULL

Storage capacity represents a constraint until there is a rebound in oil demand. A large share of the Product Tanker fleet is currently loaded and lying idle at port. This is due to both contango

Figure P.7

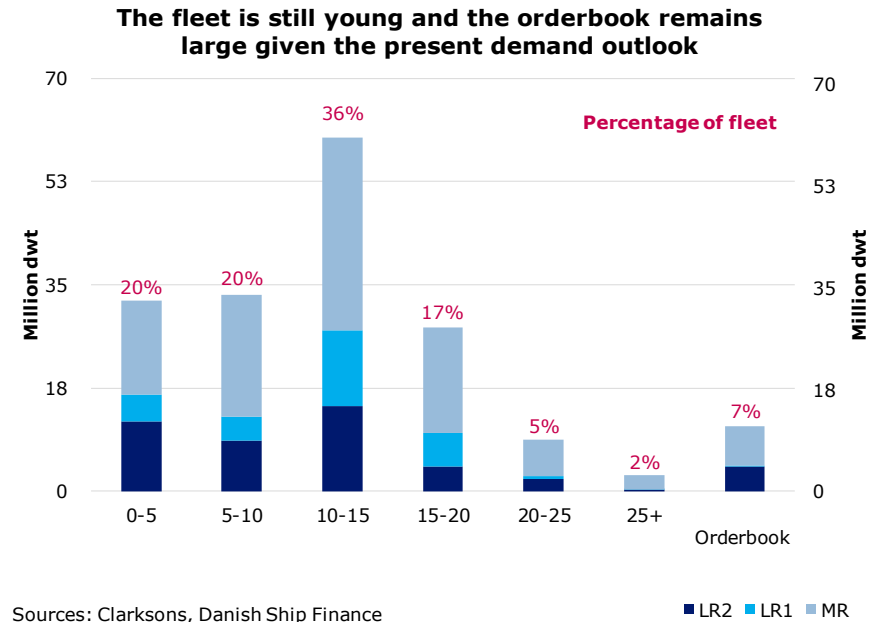
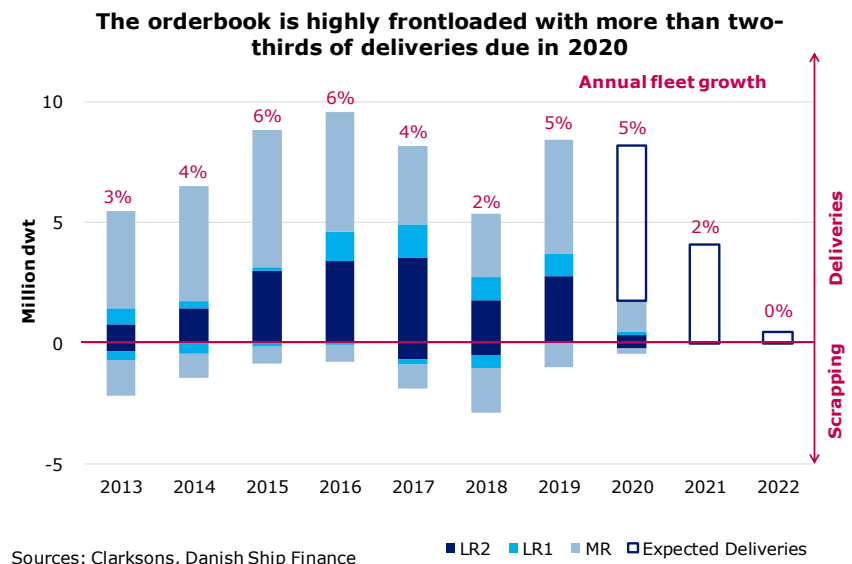


Figure P.8



in the oil products market and the limited storage infrastructure. A significant part of the fleet cannot discharge due to insufficient onshore storage capacity. When demand returns, offshore storage will be drawn first.

FREIGHT RATES ARE LIKELY TO SUFFER WHEN OIL MARKET BALANCES

Freight rates are likely to take a severe hit, as vessel availability will increase in tandem with lower Product Tanker demand. Much of the demand for refined oil products will be met by inventory withdrawals until inventory levels return to normal. Some inventories may not be located close to consumers, though, and therefore some withdrawals will create Product Tanker demand.

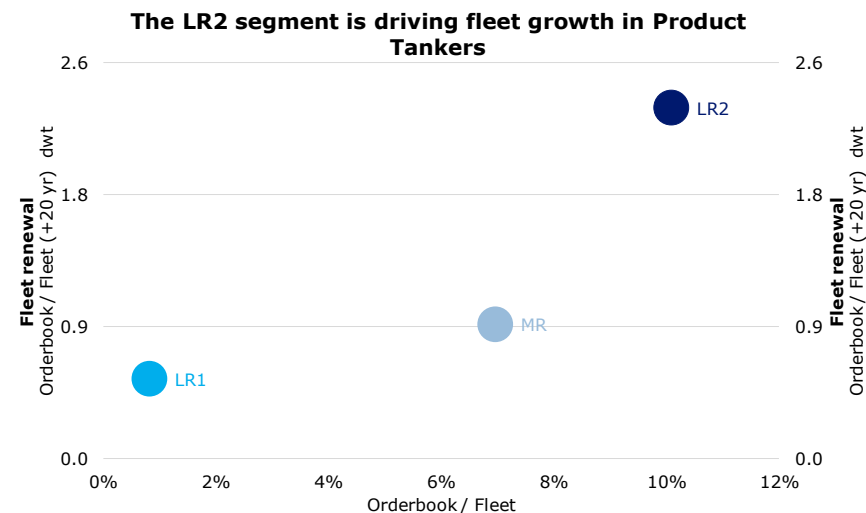
NAPHTHA IS LONG-DISTANCE TRANSPORT AND DRIVEN BY CONSUMERS

Naphtha plays a key role in the Product Tanker market due to its long travel distances. It contributed 28% of distance-adjusted demand in 2019, compared to only 15% of seaborne export volumes (fig. 10). This means that even small declines in seaborne volumes affect Product Tanker demand. A global recession puts pressure on consumer spending and delays low income people joining the global consumer class. Both these factors may lower naphtha demand in the short to medium term. During the financial crisis, plastics demand declined by 5% (fig. 11). An equivalent decline in seaborne naphtha volumes would, all else being equal, lower Product Tanker volumes by 0.7% and distance-adjusted Product Tanker demand by 1.3%. Despite the challenging short-term outlook, the long-term prospects for plastics demand are largely unchanged: more people joining the global consumer class means higher plastics demand. At the same time, the green transition will hold back growth and may at some point cause a decline in virgin plastics demand.

GASOLINE DEMAND IS DOWN BUT MUCH OF THIS WILL BE RECOVERED

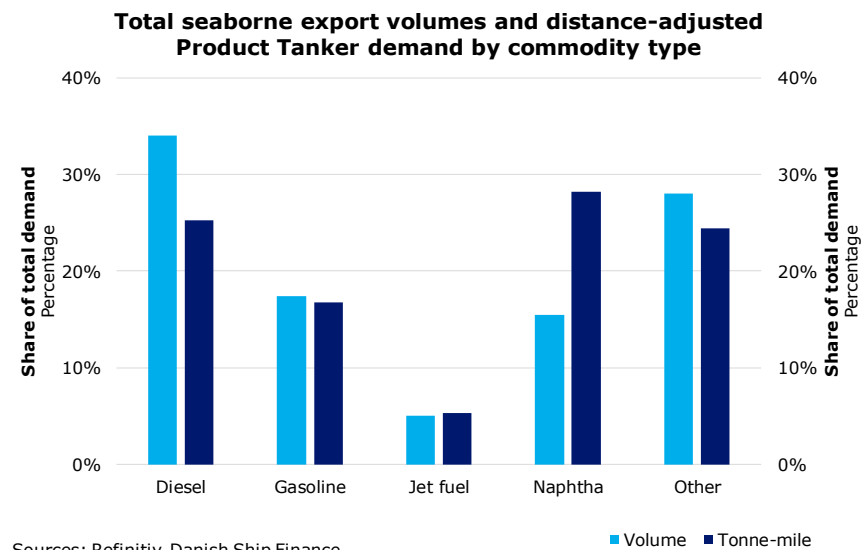
Gasoline demand is currently diminished due to the lockdown of half the global population. In the period from late February to

Figure P.9



Sources: Clarksons, Danish Ship Finance

Figure P.10



Sources: Refinitiv, Danish Ship Finance

mid-April, US gasoline demand declined by 32%. Numbers were likely similar in the other large economic regions. We expect economies to be reopened slowly to prevent a resurgence of Covid-19. This means the bulk of gasoline demand may return gradually over the coming six to 12 months as daily commuting accelerates.

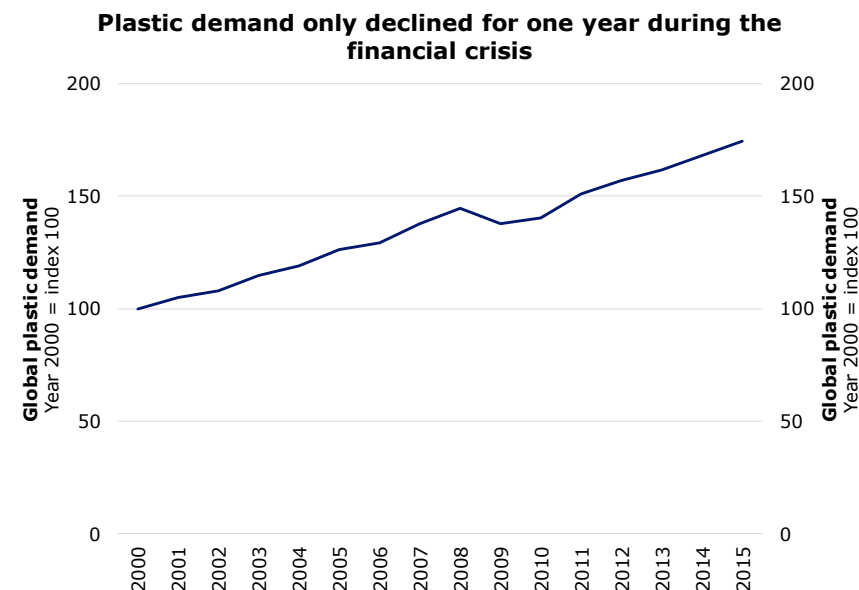
GASOLINE DEMAND SET TO RETURN BUT LASTING EFFECTS ARE LIKELY

In the first year of the financial crisis, US gasoline demand declined by 3% and took eight years to return to pre-crisis levels (fig. 12). This suggests that the effects of an economic recession could be long-lasting. Before the pandemic, the prospects for gasoline demand were not bright; forecasts predicted gasoline demand per mile driven to decline due to improvements in engine efficiency and electric car market penetration. This was expected to cause growth in gasoline demand to decrease, and much of the growth was expected to be driven by emerging markets. However, a global recession will most likely postpone incremental car ownership, which could have long-term implications for gasoline demand. If car ownership is postponed sufficiently far into the future, the decline in gasoline consumption per mile driven may cause total gasoline demand to decline.

THE EFFECT ON SHIPPING OF A GASOLINE RECOVERY IS UNCERTAIN

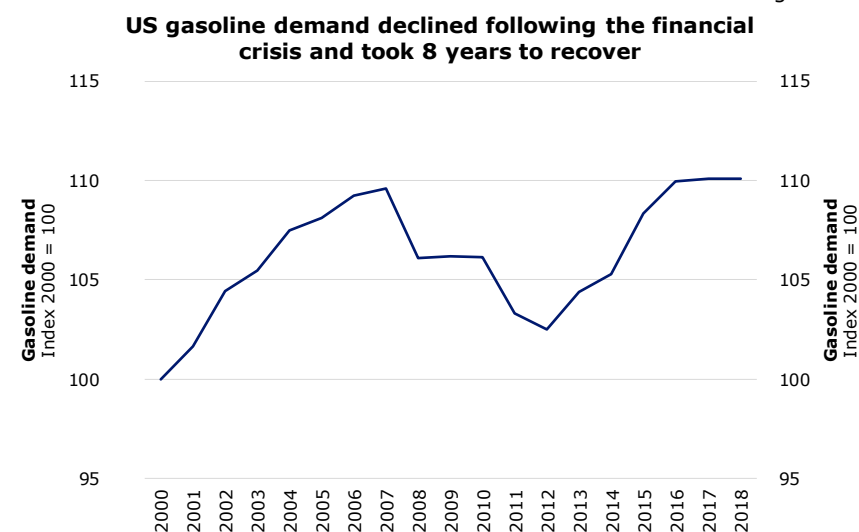
The effect on shipping from lower gasoline demand is hard to predict. Most gasoline is supplied by refineries close to the consumer. Gasoline contributed 16% of Product Tanker demand in 2019, well below the global gasoline refinery yield. In 2019, the US gasoline yield was about 50%. Declining oil demand will lower global refinery runs, but this may not be evenly distributed. This means that Product Tanker demand from gasoline could either decrease or increase depending on which refineries lower production. In the first quarter of 2020, export volumes increased by 21%, but shorter travel distances halved the impact on demand for Product Tankers. It is too early to tell whether this trend will continue.

Figure P.11



Sources: IEA, Danish Ship Finance

Figure P.12



Sources: EIA, Danish Ship Finance

THE DIESEL DEMAND OUTLOOK IS DETERIORATING

Both short-term and long-term diesel demand may take a hit from the ongoing crisis. In the short term, diesel demand will be lowered by weak global consumer spending and thereby fewer trucks transporting goods. Moreover, European cars account for a significant share of global diesel demand, and with most countries still in lockdown, this will lower short-term demand as well. IMO 2020 and longer travel distances seem to be a saving grace for diesel demand. However, this is not expected to be long-lasting. Before the pandemic, forecasts predicted diesel demand to grow in emerging markets and decline in OECD countries. The net effect was expected to be 0-2% annually from 2021. However, a global recession will curb emerging markets' ability to counter the expected decline in diesel demand from OECD countries.

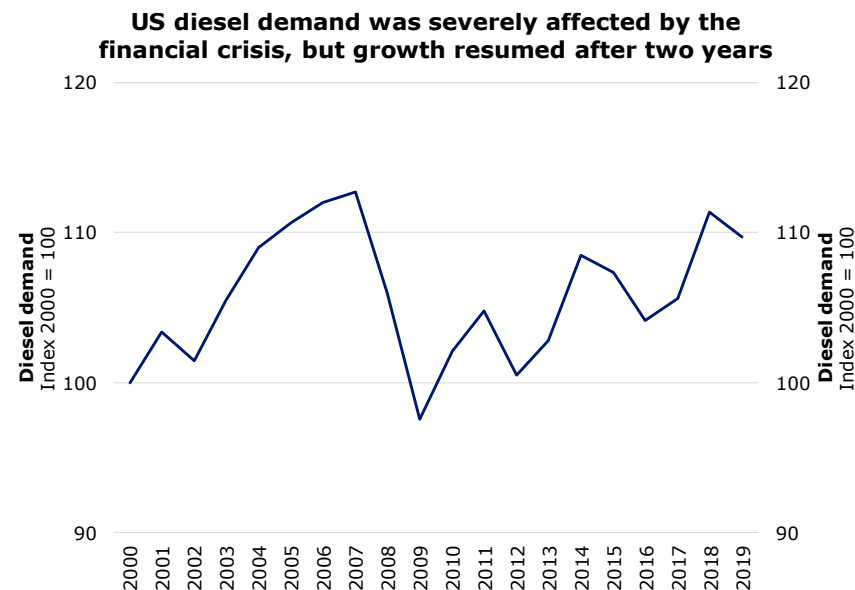
DIESEL MAY LOWER PRODUCT TANKER DEMAND BY 3%

Seaborne export volumes of diesel increased by 8% year-on-year in the first three months of 2020 and distance-adjusted demand increased by 24%. This was most likely attributable to temporary IMO 2020 effects. During the first two years of the financial crisis, US diesel demand declined by a total of 13% (fig. 13). Assuming an equivalent one-year decline would, all else being equal, cause distance-adjusted Product Tanker demand to fall by 3%.

JET FUEL DEMAND IS A VERY SMALL PART OF THE GLOBAL OIL MARKET

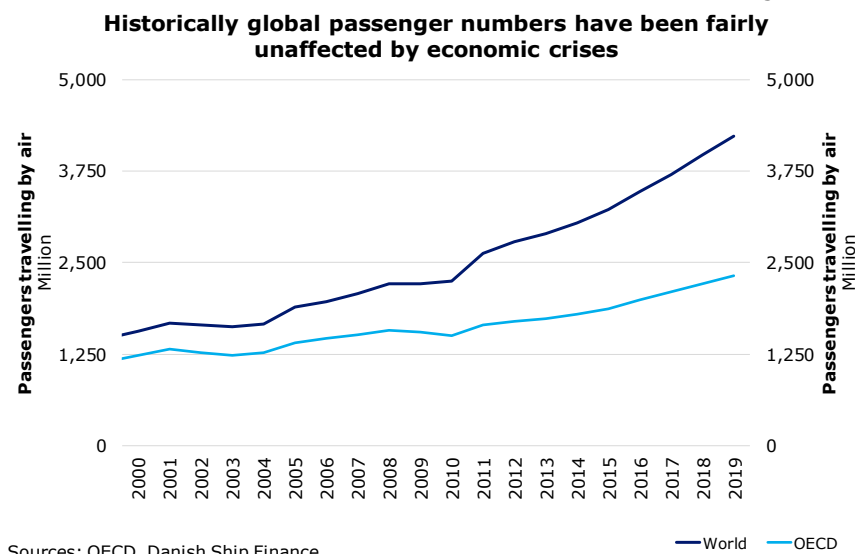
Jet fuel represents a very small part of both the broader oil market and the Product Tanker market. This means it takes a huge change in demand for the supply-demand balance to be affected. In 2019, only 5% of Product Tanker demand was from jet fuel. This means jet fuel demand would have to decline by 20% to lower Product Tanker demand by 1%, all else being equal. In the last two large economic crises, passenger numbers for commercial aircraft were resilient (fig. 14). Long-term restrictions on international travel may have economic consequences that most governments will try to avert, while passenger numbers have historically been resilient to fears surrounding air travel, e.g. after

Figure P.13



Sources: EIA, Danish Ship Finance

Figure P. 14

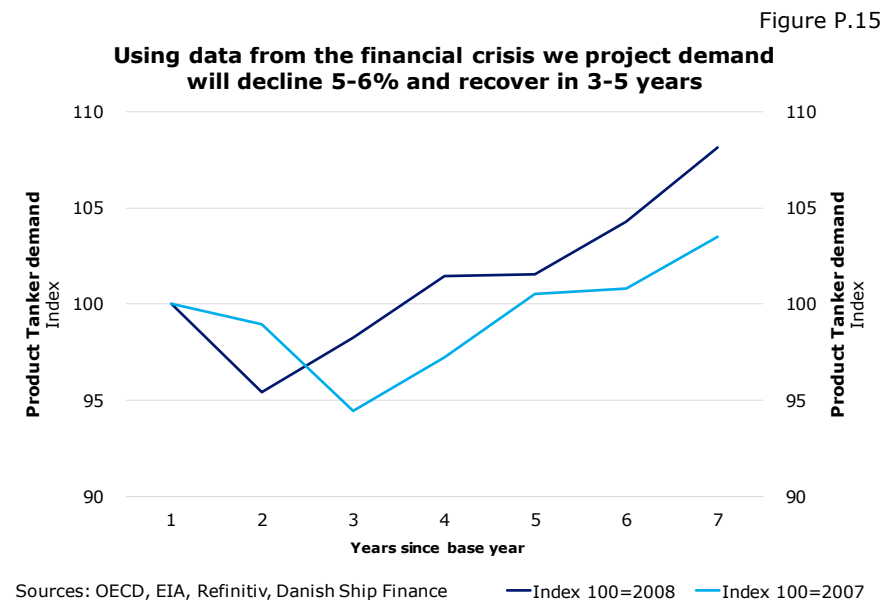


Sources: OECD, Danish Ship Finance

the 9/11 terrorist attacks in New York. We therefore expect air travel to regain most of the lost ground quickly.

DEMAND IS UNDER PRESSURE AND MAY REMAIN SO FOR 3-5 YEARS

The global lockdowns are likely to continue to put pressure on oil demand in the short term. However, we expect most of the monthly volumes to recover once the lockdowns end. Assuming a decline in each commodity equivalent to the steepest one-year fall during the financial crisis and constant seaborne intensity, distance-adjusted Product Tanker demand will decline by 5-6%. This is equivalent to 1-2 million barrels per day lower than before the coronavirus outbreak. Moreover, if timing differences during the financial crisis are accounted for, Product Tanker demand will decline less and recover fully within three to five years (fig. 15). However, freight rates may recover sooner due to restrained ordering and scrapping.



LPG CARRIER



DANISH
SHIP FINANCE

LPG CARRIER

THE LPG MARKET HAS SO FAR WITHSTOOD THE TURBULENCE CREATED BY THE CORONAVIRUS WELL. HOWEVER, MARKET CONDITIONS ARE SET TO WORSEN, AND WE BELIEVE TRADE VOLUMES AND FREIGHT RATES COULD DECLINE MARKEDLY IN 2020. THE SITUATION MAY IMPROVE IF MORE VESSELS ARE SCRAPPED, BUT STRONG FLEET GROWTH IS LIKELY TO KEEP FREIGHT RATES LOW OVER THE NEXT TWO YEARS.

THE MARKET AT A GLANCE

THE LPG MARKET HAS STARTED TO SHOW SIGNS OF WEAKNESS. DEMAND IS SOFTENING, WHILE SUPPLY CONTINUES TO GROW. THE EFFECT OF THE COVID-19 PANDEMIC IS SET TO INTENSIFY.

The LPG market remained relatively strong in the first quarter of 2020, with freight rates supported by restricted supply growth and increasing demand for long-haul US LPG. Although freight rates started to soften during March, the coronavirus outbreak has had a limited effect on the LPG market so far. However, demand from the petrochemical sector is under pressure due to declining downstream demand. This could trigger a reduction in trade volumes and lower freight rates in the coming quarters.

THE LPG MARKET HAS BEEN SUPPORTED BY LONG-HAUL TRADE

In the first two months of 2020, long-haul trade volumes continued to support freight rates; demand for US LPG increased, as availability of Middle Eastern LPG shrank due to growth in volumes tied to long-term contracts and stable production. Furthermore, scrubber retrofitting and quarantining of vessels due to the coronavirus reduced vessel availability. This supported LPG freight rates through a period when demand was expected to contract due to the winter season coming to an end and low demand from China, Japan and South Korea following the coronavirus outbreak. Since March, freight rates reverted to the seasonal pattern and started to decline (fig. 1 and 2).

Figure LPG.1

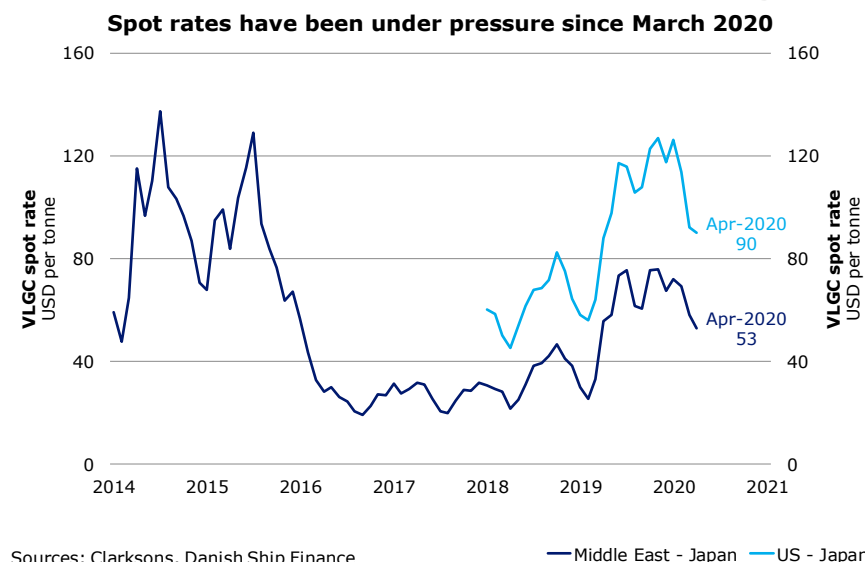
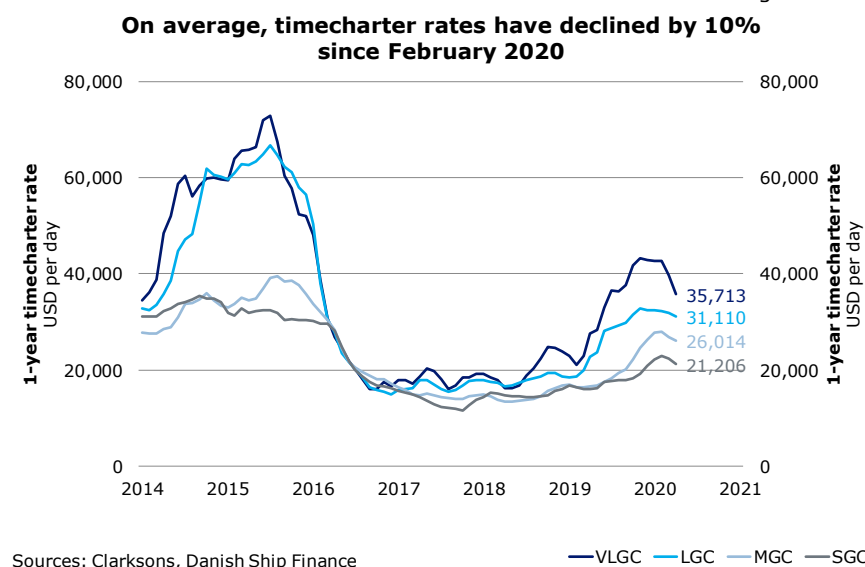


Figure LPG.2



SUPPLY & DEMAND

SUPPLY AND DEMAND WAS RELATIVELY BALANCED IN THE FIRST QUARTER OF 2020. DEMOLITION ACTIVITY CONTINUES TO BE LOW SINCE FREIGHT RATES REMAIN AT A HIGH LEVEL.

SUPPLY GROWTH IS ACCELERATING, POWERED BY VLGC DELIVERIES

Newbuild deliveries have entered the market according to schedule and the fleet grew by 2% in the first quarter of 2020 (fig. 3). Entering vessels have been absorbed by long-haul trade. Active supply has been reduced by scrubber retrofitting (-0.4% in the first quarter) and detention of ships by health authorities to contain the coronavirus outbreak. Demolition activity has been low since peaking in 2018, resulting in a build-up of scrapping candidates in the LPG fleet. So far this year, however, demolitions have been subdued owing to the positive market sentiment, with only three SGC vessels demolished.

SEABORNE LPG DEMAND HAS BEEN STRONGER THAN EXPECTED

In the first two months of 2020, LPG demand was driven by a five-year-high price spread between Middle Eastern and US LPG. Middle Eastern prices increased driven by stable production and growing demand, while US LPG prices softened as production increased and winter heating demand dropped due to mild weather. Limited supply of Middle Eastern LPG into the Asian and European markets boosted demand for US LPG and supported vessel demand through longer travel distances. On the import side, short-term trading patterns are shifting due to the coronavirus pandemic. Asian imports, especially Chinese, Japanese and South Korean, have declined significantly, but LPG cargoes have been absorbed by other regions. Since March, Middle Eastern LPG prices have declined following an increase in production. Furthermore, LPG trade declined as the corona pandemic spread around the world. In total seaborne LPG trade decline by 5% in the first quarter of 2020 compared to the fourth quarter of 2019 (fig. 4).

Figure LPG.3

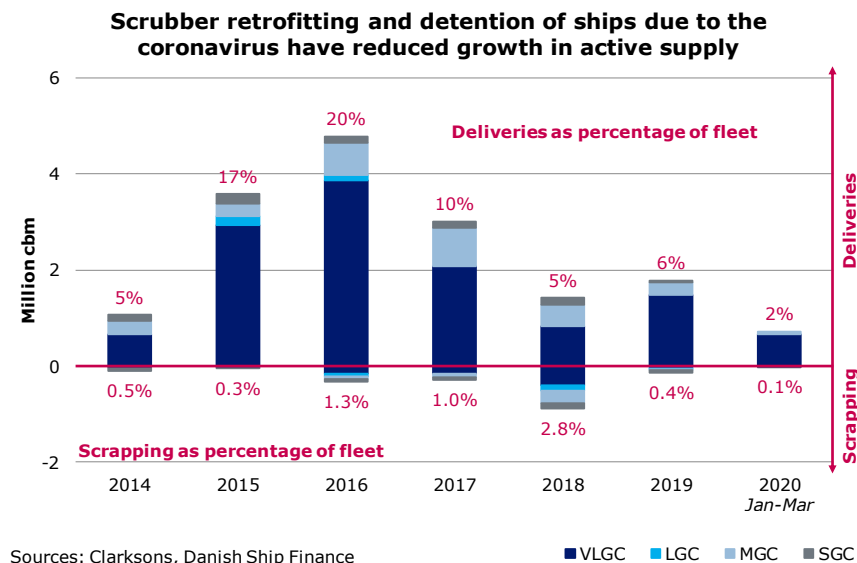
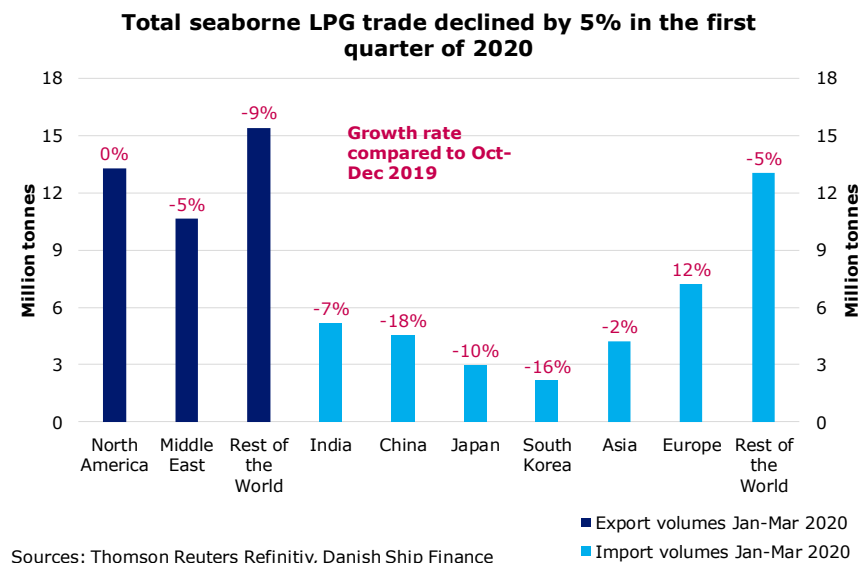


Figure LPG.4



CONTRACTING AND SHIP VALUES

CONTRACTING ACTIVITY WAS MUTED IN THE FIRST FEW MONTHS OF 2020, BUT WE EXPECT TO SEE ACTIVITY RISE AS BACKLOG REGISTRATIONS ARE RECORDED. HOWEVER, ORDERING ACTIVITY NEEDS TO DECLINE SIGNIFICANTLY FOR MARKET BALANCE TO BE SECURED IN THE MEDIUM TERM.

STRONG CONTRACTING ACTIVITY REQUIRES FUTURE DEMAND GROWTH

Since 2016, contracting activity has increased by about 4 percentage points per year (fig. 5). During this period, 65% of vessels ordered have been fitted with scrubbers and 20% with LPG as an alternative propulsion fuel, while the remaining 15%, mostly smaller vessels, are dependent on low-sulphur fuel. The added costs of dual-fuelled engines and scrubber installations are pushing up newbuilding prices. These investments may contribute to increasing value of ships in both the charter and secondhand markets. However, the value of scrubber investments is currently being reduced by lower bunker spreads. The steady rise in contracting activity is increasing the need for future demand growth in the LPG market.

IMPROVING SENTIMENT IN THE SECONDHAND MARKET

The strong growth in freight rates over the last year has improved sentiment and pushed up prices in the secondhand market (fig. 6). Several shipowners have used the more favourable market conditions to exit specific LPG subsegments or the LPG market altogether. On average, the price of a ten-year-old LPG vessel increased by 15% in 2019. Going forward, we expect to see the secondhand price gap between old and young ships widen. This shift will be driven by newbuild fuel-flexible vessels, especially dual-fuelled. Older vessels without fuel flexibility are likely to become less attractive in the secondhand market and owners could be forced to scrap these vessels prematurely at some point.

Figure LPG.5

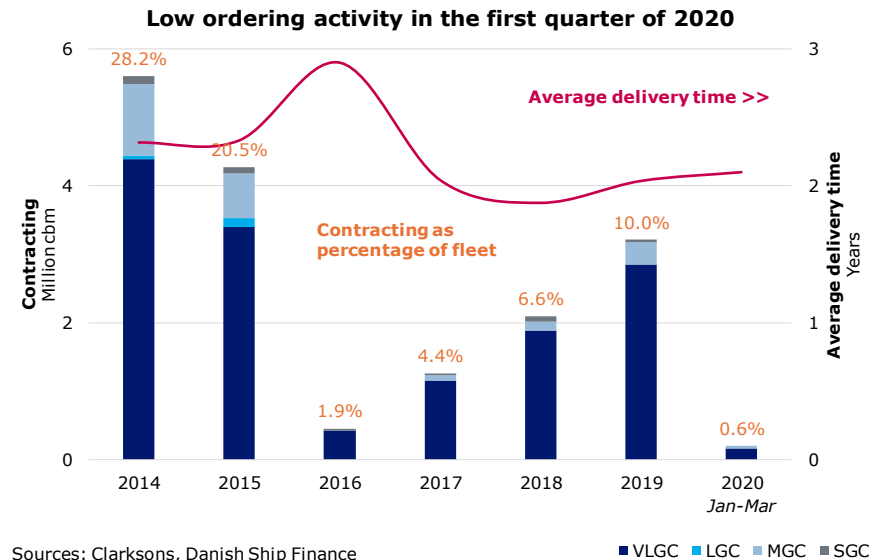
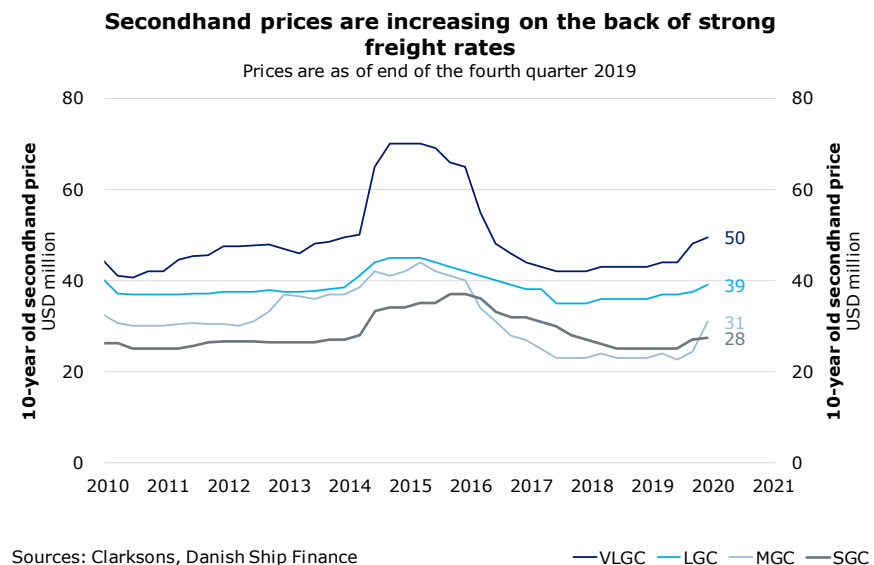


Figure LPG.6



OUTLOOK

THE MARKET OUTLOOK IS DETERIORATING. A SHORT-TERM DECLINE IN BOTH TRADE VOLUMES AND TRAVEL DISTANCES SEEMS LIKELY. THE TEMPORAL SHORTAGE OF CARGO VOLUMES MAY CREATE AN IMBALANCE BETWEEN SUPPLY AND DEMAND THAT WILL BE DIFFICULT TO BRIDGE UNTIL 2022. EXTRAORDINARY SCRAPPING COULD RESTORE MARKET BALANCE SOONER.

Market conditions in the LPG market are expected to worsen from the second quarter of 2020. Seaborne demand is expected to grow by only 2-4% this year, while the fleet is scheduled to expand by 7% before scrapping. The 2 percentage point reduction in seaborne demand from previous years is explained not only by less cargo shipped but also by shorter travel distances. Demand is expected to recover somewhat in 2021, but the supply surplus created in 2020 will be difficult to absorb up to 2022 without extraordinary demolition activity. Freight rates are likely to stay low until surplus capacity has been absorbed.

WEAK NEAR-TERM DEMAND FROM THE PETROCHEMICAL SECTOR

Low demand from the petrochemical sector is set to reduce LPG cargo flows markedly as early as from the second quarter of 2020. In the second and third quarters, the petrochemical sector is normally the main driver of demand, as it takes advantage of rising LPG availability and softening commodity prices caused by decreasing heating demand from the household sector. This year, the coronavirus pandemic is lowering demand for petrochemical end-products. Many petrochemical plants are therefore limiting their production, which is reducing short-term LPG cargo flows.

DEMAND MIGHT STAY LOW IF THE PANDEMIC WORSENS

The longer-term effects of the pandemic are still impossible to forecast, but there is little indication that the recovery will be quick. The massive oversupply of oil is keeping the naphtha price at a 15-year low, which leaves little room for LPG to cannibalise

Figure LPG.7

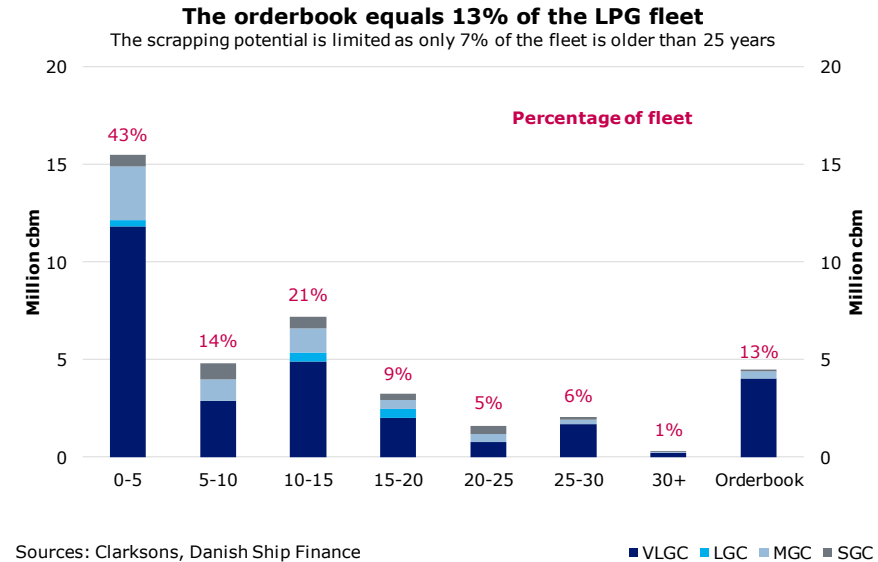
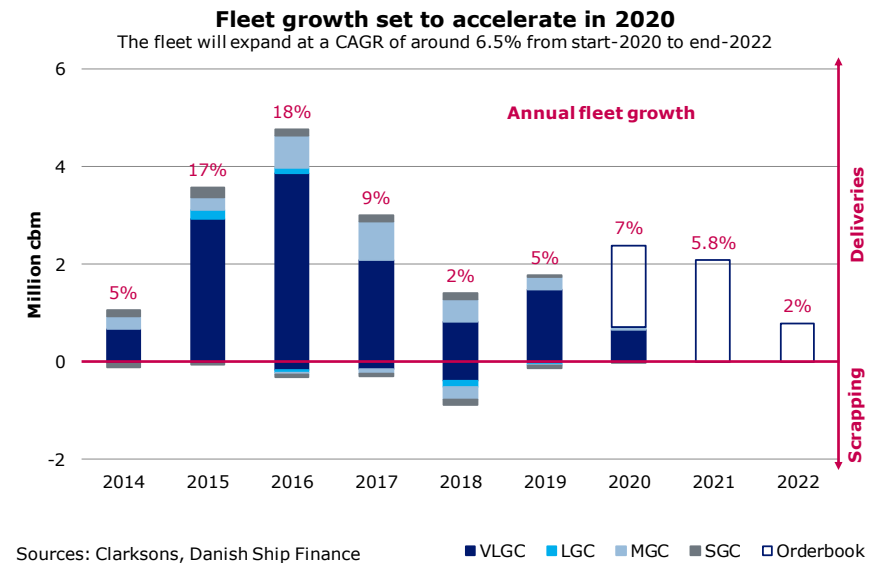


Figure LPG.8



on naphtha as a feedstock. Still, most forecasts currently predict annual growth in LPG demand in the region of 4-6% between 2021 and 2023 (fig. 10). We believe these growth estimates will prove too optimistic should the pandemic bite more fiercely than currently expected.

GROWING MIDDLE EASTERN EXPORTS WILL LOWER TRAVEL DISTANCES

Increasing oil production in the Middle East is likely to boost regional LPG production and export volumes. Travel distances will decline if Middle Eastern volumes substitute US export volumes, particularly for VLGCs. Each Middle Eastern cargo bound for Asia that substitutes a US cargo travels only two-thirds of the distance. Increased Middle Eastern LPG production is therefore reducing the average travel distance and increasing the cargo-carrying capacity of the LPG fleet.

US-CHINA TRADE UNLIKELY TO BOOST SHORT-TERM TRAVEL DISTANCES

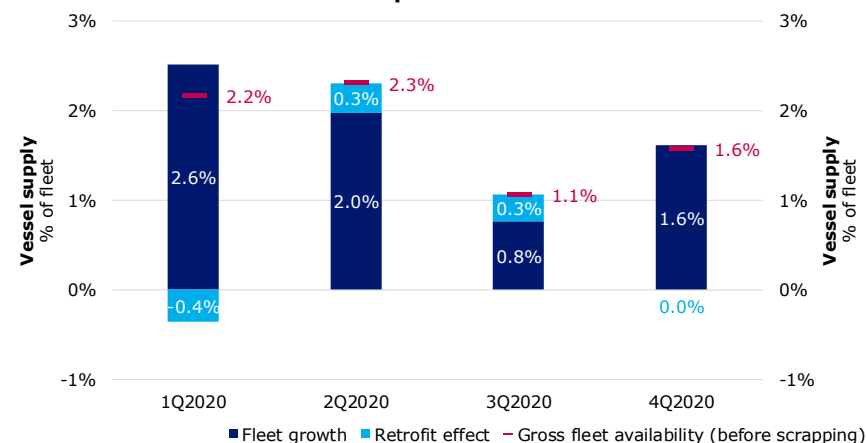
Chinese LPG import volumes are recovering from the coronavirus outbreak, but LPG consumption in the petrochemical sector is low, as end-product demand remains weak. US export volumes to China have been reduced by the trade war, but since March 2020, Chinese importers have been able to apply for tariff exemptions on US LPG imports. Still, US volumes bound for China remain weak: the tariff exemptions must be renewed on a monthly basis. As a result, Chinese import volumes are unlikely to increase short-term travel distances, since most volumes will originate from the Middle East.

DELAYED DELIVERIES COULD CURB ACCELERATION IN FLEET GROWTH...

As conditions are likely to deteriorate in the freight market over the coming months, shipowners may delay delivery of some new-build vessels towards the end of 2020 or even into 2021. Fleet growth is expected to accelerate to around 7% in 2020, before accounting for any scrapping or delayed deliveries, with around 2.6% scheduled to be delivered by the end of the first quarter

Figure LPG.9

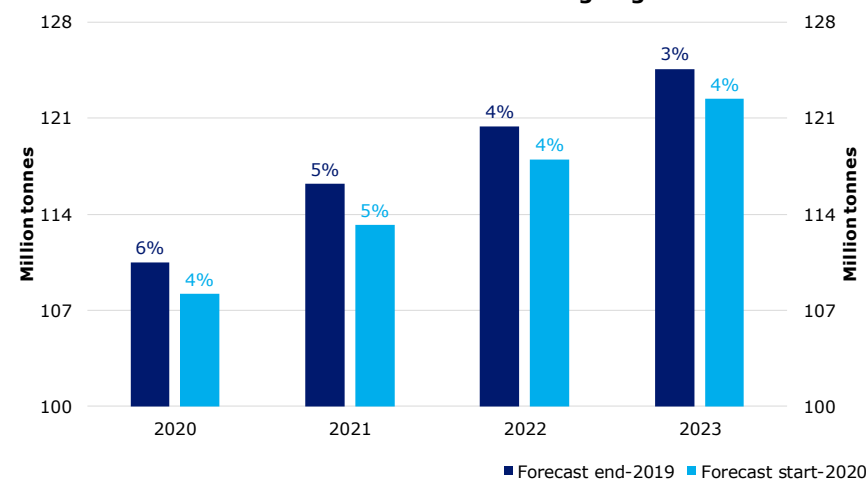
Ships returning to the fleet, following retrofitting, are set to increase fleet availability in the second and third quarters



Sources: Clarksons, Danish Ship Finance

Figure LPG.10

The coronavirus is set to lower LPG demand by 2% in 2020 which will lower trade volumes going forward



Sources: Drewry, Danish Ship Finance

Axes have been scaled to highlight difference in volume

(fig. 7 and 8). Postponement of deliveries will mitigate the negative effects of a temporary decline in demand. However, the possible deceleration in fleet growth could be somewhat diluted by ships returning to the fleet following scrubber retrofitting. Re-entering ships are set to add 0.3% to fleet availability in both the second and the third quarters of 2020.

...BUT THE FLEET IS HEADING INTO OVERSUPPLY

In 2021, the fleet is set to expand by 6%, before accounting for any scrapping or delayed deliveries, while demand is currently expected to increase by 4-6%. Thereby, vessel oversupply is likely to build up during 2020 and persist until 2022, when demand is set to increase ahead of supply (fig. 8 and fig. 10). However, ordering activity needs to decline significantly over the next 12 months if fleet growth is to be kept below demand growth in 2022, allowing excess supply capacity to be absorbed.

INCREASED SCRAPPING COULD DELAY OVERSUPPLY UNTIL 2021

Scheduled deliveries in the period April to December this year could be absorbed by demolition of vessels without a significant reduction in the average scrapping age. Scrapping the oldest ship for each newbuild delivery would result in an average scrapping age of 29 years for VLGCs. While this would reduce 2020 fleet growth to around 3%, the fleet could still be pushed into oversupply during 2021. A reduction in fleet growth in 2021 from 6% to 4% would lower the average age of VLGCs to 26 years.

LNG CARRIER



DANISH
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LNG CARRIER

THE LNG MARKET IS HEADING FOR OVERSUPPLY. WE BELIEVE ONLY HALF OF ALL NEWBUILD DELIVERIES WILL BE ABSORBED BY DEMAND GROWTH OVER THE NEXT THREE YEARS, AND HENCE WE EXPECT FREIGHT RATES TO STAY LOW DURING THE PERIOD. THE MARKET COULD RECOVER BY 2024 IF ORDERING ACTIVITY REMAINS MINIMAL.

FREIGHT RATES

SPOT RATES HAVE DECLINED ACCORDING TO SEASONAL DEMAND TRENDS, WHILE SENTIMENT IN THE TIMECHARTER MARKET IS BEING WEAKENED BY THE EXPECTED INCREASE IN NEAR-TERM VESSEL AVAILABILITY.

The effects of the coronavirus pandemic have so far been limited in the LNG market. Increasing liquefaction capacity continues to push LNG volumes into the market. In the first three months of 2020, cargo volumes and tonne-miles increased markedly compared to the same period last year. However, pressure is mounting, as vessel supply is set to increase ahead of demand.

VOLATILITY IN THE SPOT MARKET REMAINS HIGH IN 2020

Spot rates have declined by around 65% since their seasonal peak in November 2019 (fig. 1). This has mainly been driven by seasonality as the winter season ended and to a lesser extent the Covid-19 pandemic. From January to March 2020, LNG volumes were up by 12% compared to the same period last year. Spot rates are becoming more volatile, since more LNG cargo volumes are spot trades and thereby subject to local or regional dynamics.

TIMECHARTER RATES ARE DECLINING AS MARKET SENTIMENT WEAKENS

Sentiment in the timecharter market is weakening, as vessel supply is set to increase ahead of demand. Timecharter rates have declined continuously since the peak in the second quarter of 2019 but are still above the five-year mean. The coronavirus pandemic is creating uncertainty over the near-term market outlook, which is limiting chartering activity and putting further downward pressure on rates (fig. 2).

Figure LNG.1

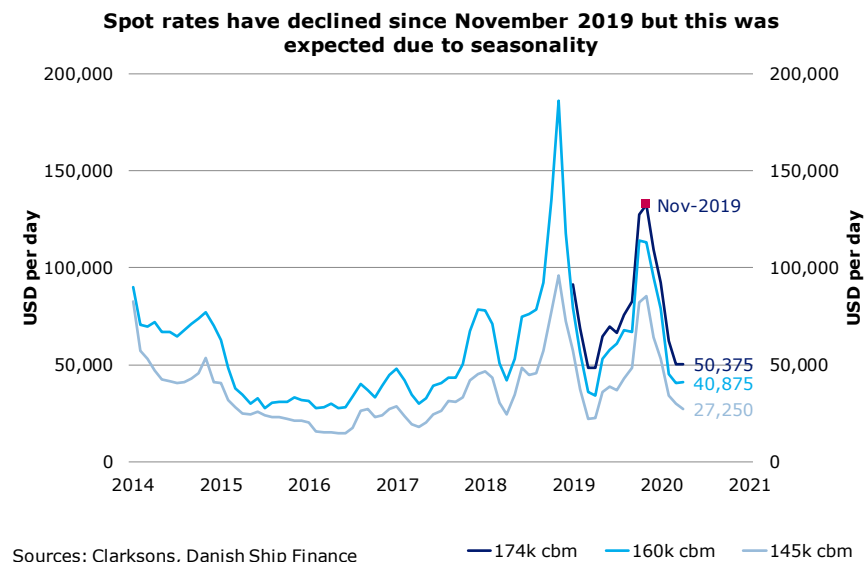
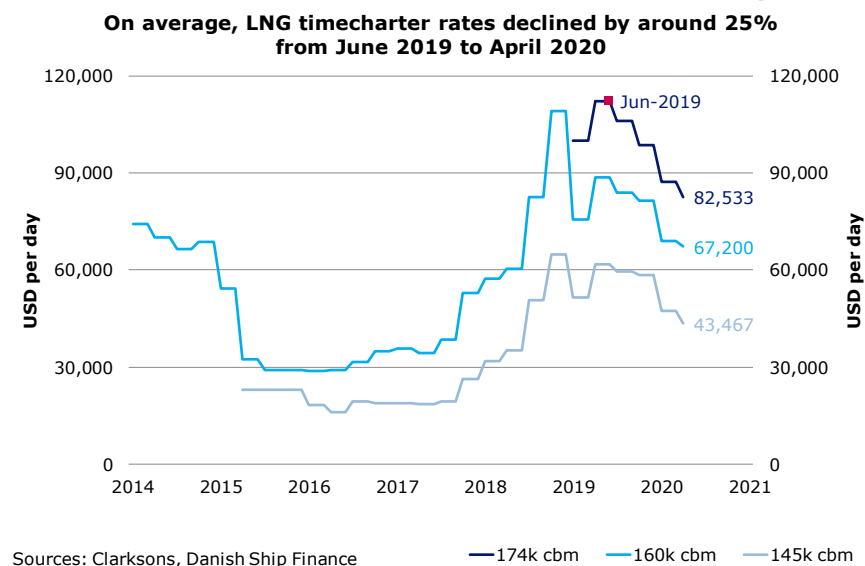


Figure LNG.2



SUPPLY & DEMAND

DELIVERIES WERE SUBDUED IN THE FIRST THREE MONTHS OF 2020, WHILE DEMAND INCREASED BY 12% YEAR-ON-YEAR. DESPITE THIS, FREIGHT RATES DECLINED SUBSTANTIALLY OVER THE PERIOD.

DELIVERIES HAD A SLOW START TO 2020

Despite relatively strong demand, only half of all scheduled deliveries entered the market in the first three months of 2020 (fig. 3). It is too early to say if this will set the trend for the year; for now, we expect deliveries to pick up during the year. Scrapping remains subdued, as we believe some owners are keeping older vessels with the intention of converting them to floating storage regasification units (FSRU). Currently, 16 vessels older than 30 years are laid up. Most of these could potentially be converted and supply capacity to the growing FSRU market.

DEMAND HAS BEEN STRONG DESPITE THE CORONAVIRUS OUTBREAK

LNG cargo volumes grew by 12% in the first quarter of 2020, but shorter travel distances reduced distance-adjusted demand by 1 percentage point (fig.4). Asian demand has been subdued by the coronavirus pandemic, but cargo volumes have instead been absorbed by the European market. LNG availability continues to increase ahead of demand and gas prices in both Europe and Asia, the main import markets, are currently at their lowest levels since 2007. The combination of low gas prices and high carbon emission prices is stimulating coal-to-gas switching in the European power sector.

LIQUEFACTION CAPACITY CONTINUES TO EXPAND

Expanding liquefaction capacity continues to boost LNG availability. In 2019, liquefaction capacity increased to 433 million tonnes, while LNG trade grew 11%, reaching 350 million tonnes. In the first quarter of 2020, increased output from North America boosted cargo volumes but reduced travel distances, as most of it was exported to the European market.

Figure LNG.3

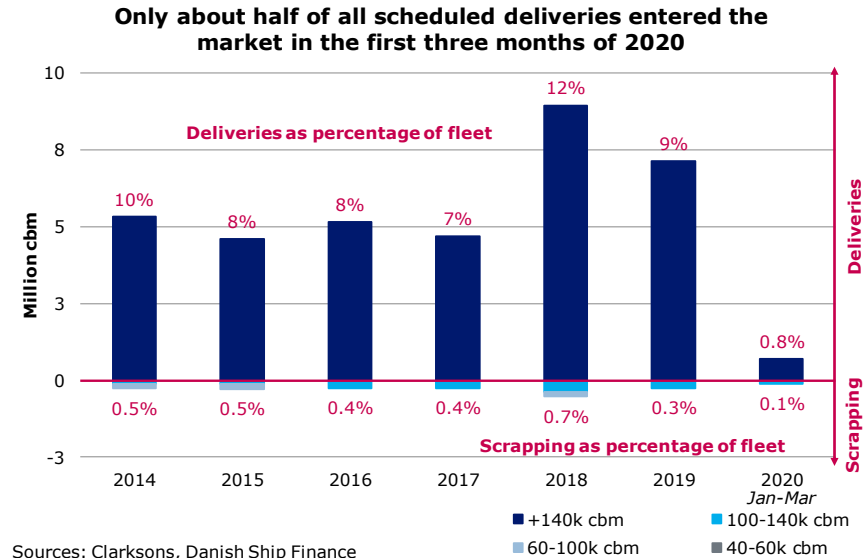
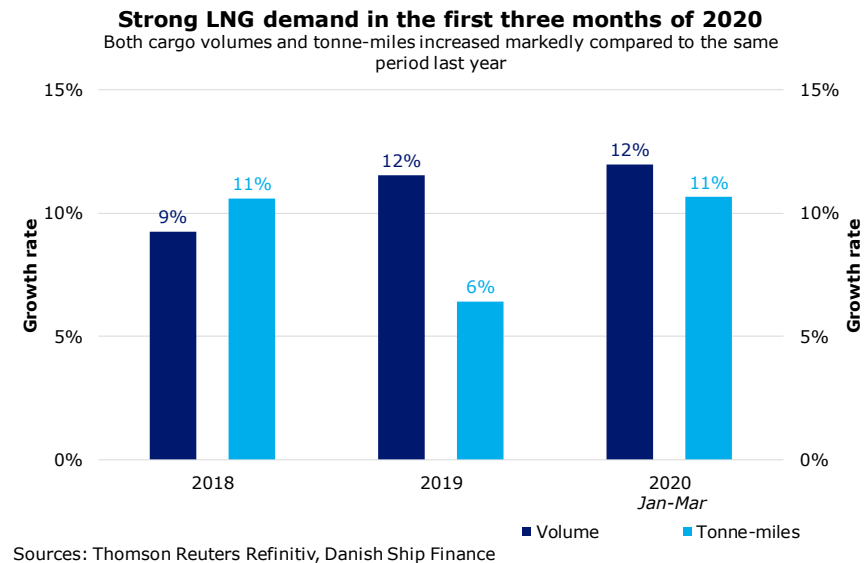


Figure LNG.4



CONTRACTING AND SHIP VALUES

THE IMPENDING VESSEL OVERSUPPLY, AMPLIFIED BY UNCERTAINTY CAUSED BY COVID-19, HAS BROUGHT CONTRACTING ACTIVITY TO A HALT. NO NEW ORDERS FOR LARGE LNG CARRIERS WERE PLACED IN THE FIRST QUARTER OF 2020. SECONDHAND PRICES REMAIN RELATIVELY FLAT, BUT PRESSURE COULD START TO BUILD AS SUPPLY STARTS TO INCREASE AHEAD OF DEMAND.

WITH THE ORDERBOOK AT 25% OF THE FLEET, CONTRACTING IS DOWN

Extraordinary contracting activity in 2018 and 2019 pushed the orderbook to 25% of the fleet and supply is now set to increase ahead of demand until 2024. Consequently, no large LNG carriers have been ordered so far in 2020. Still, ordering activity is likely to increase in 2021 or 2022. The reason is that Qatar is expected to call for shipowners to invest in around 40 newbuild vessels, all backed by long-term charter contracts, as the country is planning a massive expansion in LNG exports around 2025. Moreover, proposed liquefaction projects, mainly in the US, could encourage more speculative newbuild investments with delivery around 2025. However, given the current low LNG prices, many of these US-related projects are likely to be postponed or even cancelled.

POTENTIAL DOWNSIDE RISK TO ASSET PRICES

The massive increase in newbuild deliveries due in the coming years is likely to elevate the downside risk in asset values for relatively young vessels. As the proportion of young ships with higher fuel efficiency and lower boil-off rates increases, we expect secondhand values for ships as young as five years old to deteriorate. Even though five-year-old ships are relatively modern, they are at a disadvantage when competing with newly built vessels due to the rapid advances in LNG ship design. This could result in a widening price gap between a newbuild and a five-year-old vessel. The pressure on secondhand prices could intensify as the fleet becomes increasingly oversupplied.

Figure LNG.5

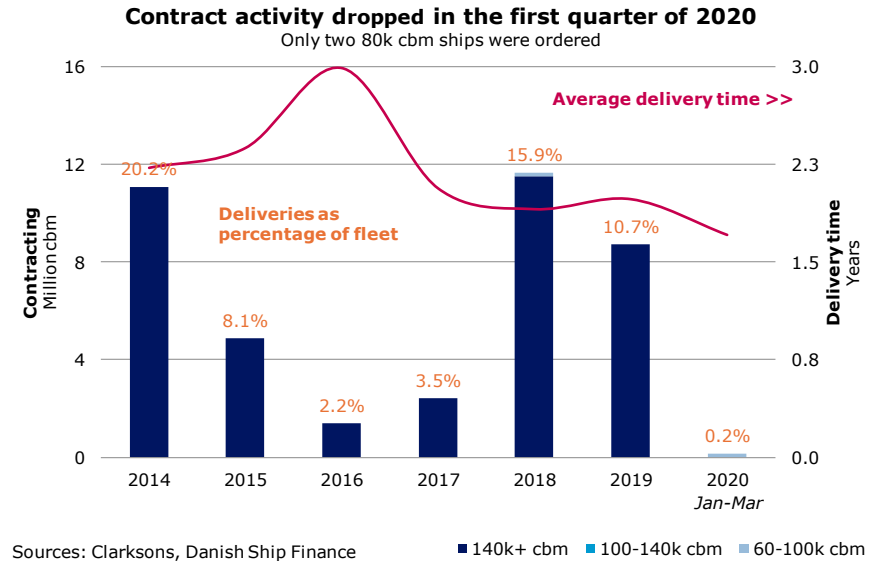
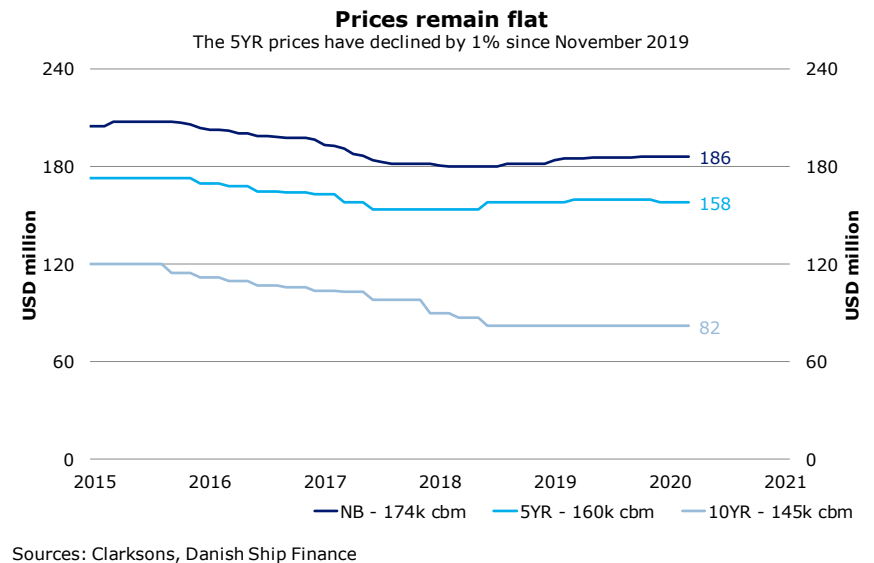


Figure LNG.6



OUTLOOK

VESSEL AVAILABILITY IS SET TO INCREASE TWICE AS FAST AS DEMAND OVER THE NEXT THREE YEARS. CONSEQUENTLY, WE EXPECT FREIGHT RATES TO DECLINE DURING 2020 AND TO REMAIN AT LOW LEVELS UNTIL 2024, WHEN NEW LIQUEFACTION CAPACITY COULD PROPEL A MARKET RECOVERY.

The downturn in the LNG market seems inevitable. The fleet is set to grow by 25% over the next three years, but LNG demand is weakening. Only half of the incoming vessels are projected to be absorbed by expanding liquefaction capacity. Still, global LNG demand could fall short of the expanding liquefaction capacity, since the escalating global economic crisis is reducing global demand across most commodity classes, including LNG.

SURPLUS VESSEL CAPACITY UNTIL 2024

The LNG orderbook contains 123 vessels, equalling 25% of the fleet, which are scheduled for delivery by end-2023 (fig. 7 and 8). In the same period, new liquefaction facilities coming online are estimated to generate demand for around 66 vessels (fig. 9). Supply is expected to run ahead of demand until at least 2024.

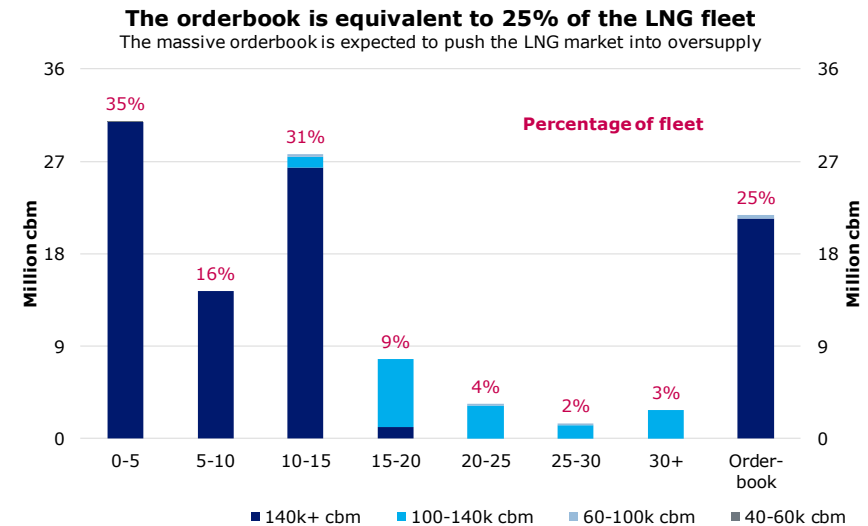
DEMAND MAY NOT UTILISE THE CAPACITY EXPANSION IN 2020

In 2020, demand for LNG Carriers is expected to grow by 2-4%, while liquefaction capacity is due to expand by around 6%. This implies that only half of the expansion in liquefaction capacity is likely to be utilised in 2020. Vessel supply is scheduled to expand by 8%, which makes it imperative to manage vessel supply more closely in 2020 and the years to come.

DEMOLITION IS LIKELY TO INCREASE

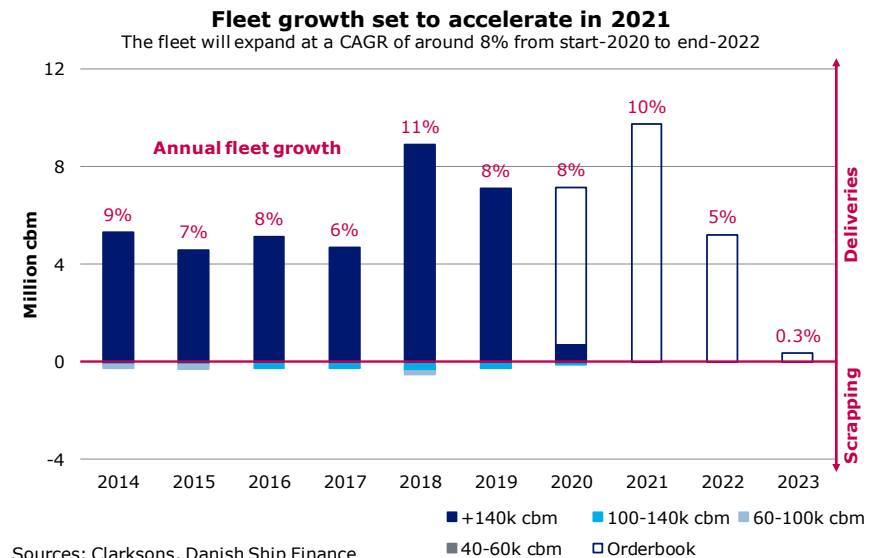
Demolition of older vessels, order cancellations, postponements of orders and lay-ups are likely to increase in 2020 and beyond. Extensive scrapping activity will reduce the economic lifetimes of older vessels, potentially below 20 years since only 9% of the fleet is older than 20. Such a reduction in economic lifetimes is

Figure LNG.7



Sources: Clarksons, Danish Ship Finance

Figure LNG.8



Sources: Clarksons, Danish Ship Finance

likely to cause the values of secondhand vessels older than ten years to depreciate significantly.

DEMAND MAY NOT MIRROR THE CAPACITY EXPANSION

Surplus capacity is likely to build until 2023 unless older vessels are scrapped to balance the market. New liquefaction capacity is scheduled to come online in 2024 (fig. 9). The capacity expansion, if fully utilised, could employ 60 large LNG vessels, but it remains to be seen how strongly LNG demand has recovered by then.

LOW GAS PRICES COULD LIMIT MEDIUM-TERM GROWTH

Liquefaction projects currently in the front-end engineering and design (FEED) phases are likely to be subject to delays and cancellations amid the low gas price environment (fig. 10). If few projects proceed to the construction phase, this could curtail growth beyond 2024. Assuming a construction period of around four years, projects must begin construction by 2021 to come online by 2025. If prices stay low, the appetite for committing new projects for construction will weaken. This could push the next big wave of expansion of liquefaction facilities towards the end of the 2020s and increase the risk of a new round of surplus LNG vessel capacity.

EUROPEAN GAS CONSUMPTION MAY DECLINE FROM 2030

The long-term position of gas in the European energy mix is weakened by the lack of a strong decarbonisation narrative. The European power sector is planning to decarbonise by 2030, which it expects to achieve via a massive expansion of renewable energy combined with smart distribution grids incentivising consumer participation. In this setup, natural gas could be used to back up intermittent renewable power generation, but only if it is decarbonised through carbon capture and storage (CCS). Without a commercial breakthrough in CCS technology, European gas demand is set to decline after 2030.

Figure LNG.9

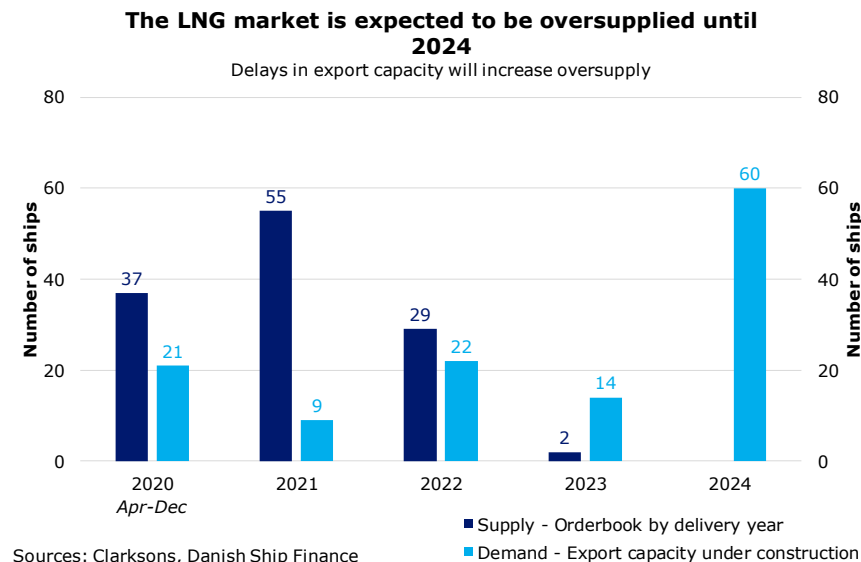
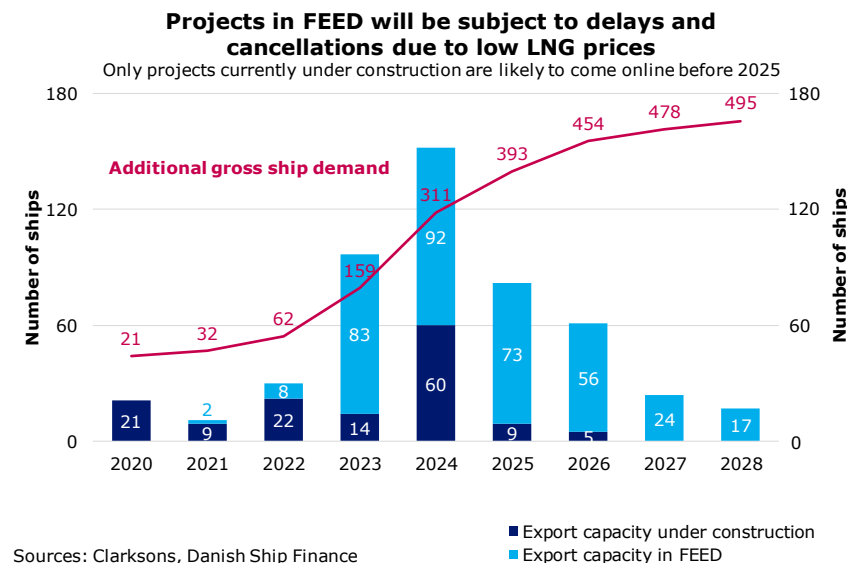


Figure LNG.10



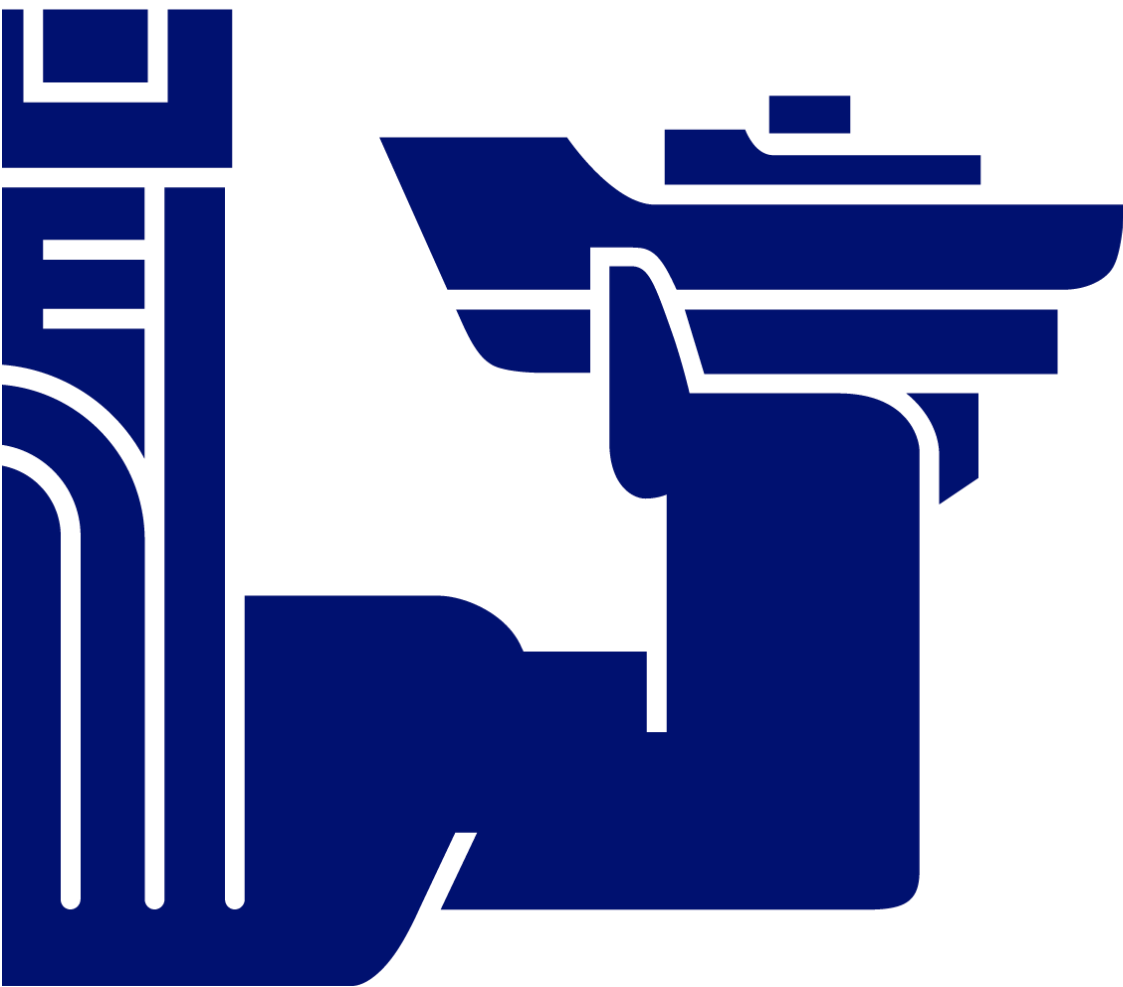
LONG-TERM ASIAN LNG DEMAND GROWTH COULD SLOW

The combination of inadequate domestic production and limited opportunities for pipeline imports is set to drive Asian LNG demand. However, massive investments in infrastructure, for example import facilities and distribution networks, are needed to propel a long-term increase in gas consumption in the region. Reduced economic growth in some Asian countries could postpone the investments. Furthermore, the absence of a carbon tax or strong public pressure to lower emissions is delaying a coal-to-gas switch in power generation.

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