



**jbr**  
strategy  
corporate finance  
restructuring  
interim executives

**GLOBAL  
M&A  
PARTNERS**

NEWSLETTER

**Maritime &  
Offshore**

**Towage**

December 2020





## Introduction to the Newsletter

---

Dear all,

This summer, after months of (semi-)lockdown, we were enjoying the freedom of meeting with our friends and family again, visiting the zoo or other outings, starting up our sporting events, going out for dinner, having a drink, making small journeys – all so nice because we were prevented from doing this since March. And while economists were discussing the V- or W-shape of the crisis and the moment of resurrection of the economy the COVID-19 pandemic hit hard again with a second wave.

Now we find ourselves in a lockdown for the second time and economists are gloomier than before. All eyes are on the pharmaceutical industry, expectantly for the vaccines which will make our lives normal again.

Meanwhile, a new normal has set in. COVID-19 has changed the way we work and the way we live. Working from home is what we do every day now, and it has both its advantages as well as disadvantages. Social distancing is harder to act upon, since it is an unnatural behaviour for humans, though at the moment inflicted by governments. And as other routines are becoming normal in this strange world.

Here in the Netherlands we are lucky we have a very well developed level of digitalisation, working from home is no technical issue. However, not all countries can rely on a well-developed digital infrastructure, which makes working from home not as easy as it is here. And there are more differences between countries which makes the economic consequences much more drastic in some countries than in others.

However, all over the world governments are taking aid measures of unprecedented scale, e.g. with fiscal stimulus, direct income support for small businesses and tax deferrals. Still many suffer from unemployment, corporate failures and supply chain disruptions.

The shipping sector suffers, like many other sectors. However, the shipping sector is different, with a poignant human element in it: the human disaster of crews stuck on vessels, unable of being changed.

As usual, besides a theme, this newsletter will focus on the several shipping sectors, most of them negatively impacted by the COVID-19 pandemic. The facts are here, but we also have sought for the glimmers in these sectors to encourage our readers and ourselves.

But most of all we wish you and your family a good health. We hope that you and your company will endure these uncertain times.

The JBR Maritime and Offshore Team

# Contents

- 1 **Key Takeaways from the Newsletter**
- 2 **Global Maritime & Offshore**
  - Overview
  - Dry-Bulk Sector
  - Tanker Shipping
  - Container Shipping
  - Offshore Supply Vessel
  - Cruise Line
  - Port/Terminals
- 3 **Towage**
  - Overview
  - New Trade Routes
  - New Tug Designs
  - Supply and Demand
  - Market
  - New Towage Concepts
  - Overview of Selected Towage Operators
- 4 **M&A Activity in the Maritime & Offshore Industry**
- 5 **Share Price Performance**
- 6 **Peer Analysis**
- 7 **Global M&A Partners**
- 8 **Global M&A Partners–Maritime and Offshore Team**

Harbor towage sector is facing stiff challenges due to outbreak of COVID-19 pandemic. The sector is witnessing downward pressure from the maritime industry in line with declining demand and in-turn downfall in the manufacturing activities. The market participants are inclining towards technology-driven service delivery. The pandemic has accelerated an understanding of the potential of digitally delivered services among the major players. The ongoing pandemic condition has made the operators cautious about the mental health and safety of crews who are under threat.

# Key Takeaways from the Newsletter

The global maritime industry is undergoing through stiff challenges on the back of ongoing COVID-19 pandemic. The downward shift in the manufacturing and production activities have adverse ripple effects on the supply chain that is being translated in the global shipping industry.

While the growth had started declining in 2019 and had touched loss-making levels, the beginning of 2020 has been severely hard on the dry bulk shipping market. Virtually all the sectors are witnessing record dip in volumes and rock-bottom freight rates due to COVID-19 induced lockdown. In the tanker shipping, the industry is facing hard times due to the escalating freight rates against poor market fundamentals. Mismatch between oil production and demand, shrinking tonnage availability, and growing freight rates have collectively led to increase in floating storage. Additionally, the global offshore supply vessel (OSV) is expected to grow at a healthy CAGR of 8.3% from 2019 to 2024 and reach \$25 bn in 2024 from \$15.5 bn in 2019. North America has been the dominant OSV market with increasing offshore exploration activities in the region including the Gulf of Mexico driving up demand for OSVs. Further, the blow from the COVID-19 pandemic on the cruise industry is expected to be the most devastating during the coming years. The US State Department suggested the American travellers with underlying health conditions to avoid cruise ships with a fear of increasing the risk of infection in a cruise-ship environment.

COVID-19 pandemic has exposed the vulnerability of long supply chains. The crisis started with a supply disruption, as the Chinese manufacturers were unable to produce and transport because of the local lockdown. As the lockdown shifted to Europe and the USA, customer demand was also substantially impacted. It is inevitable that new trade routes will occur. The already started regionalisation of trade will be accelerated by the pandemic, the Chinese One Belt One Road Initiative with arising trade routes is in full steam; the Arctic Passages are initiatives have less impact, though they are being developed. These new trade routes allow the emergence of new ports or contribute to the growing or diminishing importance of ports.

These changing trade flows will undoubtedly reflect the developments in towage operation and tug design: different requirements on versatility and power of tug boats increases the need for custom made vessels. But not only the trade flows influence tug development, decarbonisation and digitization are having major influences on designs. Furthermore, new service concepts will appear.

These items will be discussed in the underlying Newsletter. And as every year we have made our overview of selected towage operators worldwide: where are they towing, how many vessels do they operate and has the fleet grown – you will find the answers in our Overview of Selected Harbour Towage Operators.



# Global Maritime Industry



## Overview

The global maritime industry is undergoing stiff challenges on the back of ongoing COVID-19 pandemic which has severely impacted the global demand and in-turn stalled the manufacturing activities (Exhibit 1). The impact of COVID-19 is being witnessed largely on the Chinese manufacturing output that has exerted negative pressure on demand for coal and iron ore during the H1 2020 in line with decline in manufacturing activities. Such downward shift in the manufacturing and production activities have adverse ripple effects on the supply chain that is being translated in the global shipping industry. A global credit rating agency, Moody's has downgraded the outlook for the global shipping industry from 'stable' to 'negative' due to the Coronavirus outbreak. Further, decline in demand for container and dry bulk shipping services is anticipated to exert downward pressure on the EBITDA of market participants in 2020.

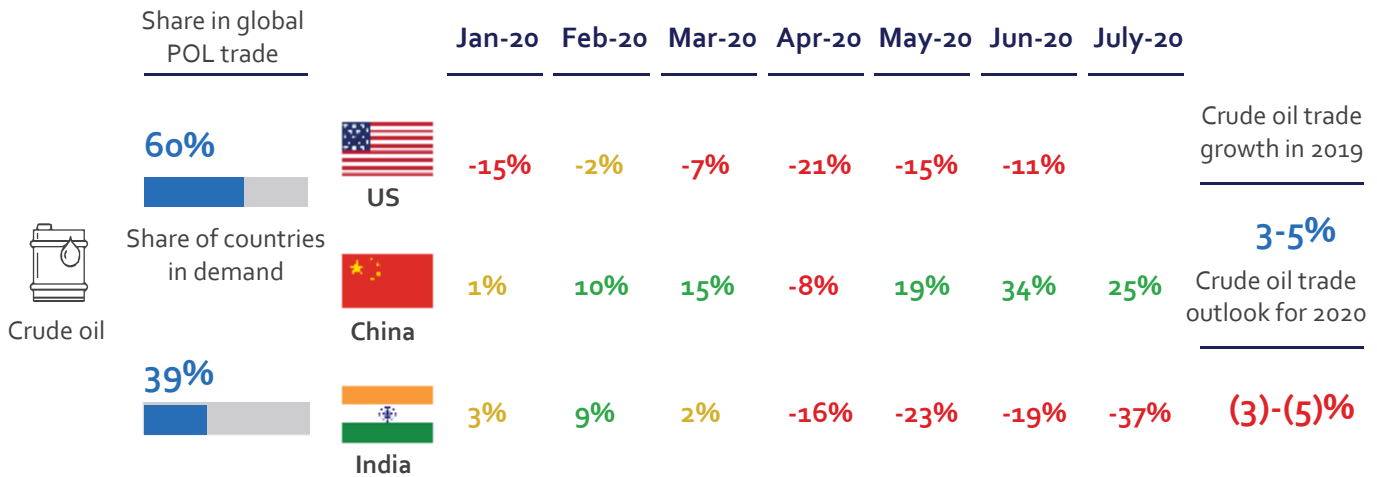
### Exhibit 1: Revised Forecast for Main Shipping Markets (2020)

	Oil tanker shipping	Container shipping	Dry bulk shipping
Impact	<ul style="list-style-type: none"> <li>Breakdown of OPEC+ alliance has lifted Saudi Arabian crude oil exports significantly</li> <li>The Corona pandemic is destroying global oil demand growth for 2020</li> </ul>	<ul style="list-style-type: none"> <li>Blanked sailings have kept the spot freight rates 'artificially' high</li> <li>Volumes have remained low but Chinese exports of backlogged orders will lift volumes out of Asia</li> </ul>	<ul style="list-style-type: none"> <li>Freight rates have been hit hard by the Coronavirus, seasonality and IMP2020, but smaller sectors are starting to recover</li> <li>Capesize sector is feeling the most pain, due to low iron ore demand</li> </ul>
Demand	<ul style="list-style-type: none"> <li><b>Short-term:</b> Saudi Arabian exports will positively impact demand</li> </ul>	<ul style="list-style-type: none"> <li><b>Medium-term:</b> Demand will start to pick up as Chinese manufacturing resumes normal operations</li> <li><b>Long-term:</b> Lockdown in Europe and NA will dampen container demand during this period</li> </ul>	<ul style="list-style-type: none"> <li><b>Short term:</b> China remains weak, but demand elsewhere can lift rates in the market</li> <li><b>Medium-term:</b> Demand will remain sluggish, but resume to normality in the long-term</li> </ul>
Supply	<ul style="list-style-type: none"> <li>Due to closures at Chinese yards, deliveries are expected to be a bit lower than previously anticipated</li> <li>Annual expected fleet growth: Crude oil tanker: 1.8% Product tanker: 2%</li> </ul>	<ul style="list-style-type: none"> <li>Due to closures at Chinese yards, deliveries are expected to be slightly lower than previously anticipated</li> <li>Annual expected fleet growth: 2.5%</li> </ul>	<ul style="list-style-type: none"> <li>Due to closure of Chinese Yards, deliveries are expected to be slightly lower than what anticipated previously</li> <li>Annual expected fleet growth: 3.1%</li> </ul>
Outlook	<ul style="list-style-type: none"> <li>Oil product freight rates will be negatively affected by poor demand, but stay above break-even levels</li> <li>Crude oil tanker freight rates remain strong, but will decline once geopolitical support eases</li> </ul>	<ul style="list-style-type: none"> <li>BIMCO now expect loss-making average freight rates for the full year</li> <li>IMO2020 and deteriorating demand-supply fundamentals weakens the outlook</li> </ul>	<ul style="list-style-type: none"> <li>The fundamentally lower demand will put a damper on earnings</li> <li>Freight rates are expected to be lower than last year</li> </ul>

Source: BIMCO

The outbreak of COVID-19 has disrupted the global trade creating sudden downward shift in the shipping industry. Charter rates of containers carriers have seen a sharp decline, but recovering fast, due to vessels taken out of service. At the end of the year the rates are sky high. Dry bulk have declined sharply due to the economic slowdown as demand dried up. The outlook of these segments remains bearish for the remaining time during 2020 and the dry bulk trade is expected to fall by 4-6% during 2020. The decline is anticipated to be driven by muted steel production and weak industrial demand that will impact coal and iron ore procurement.

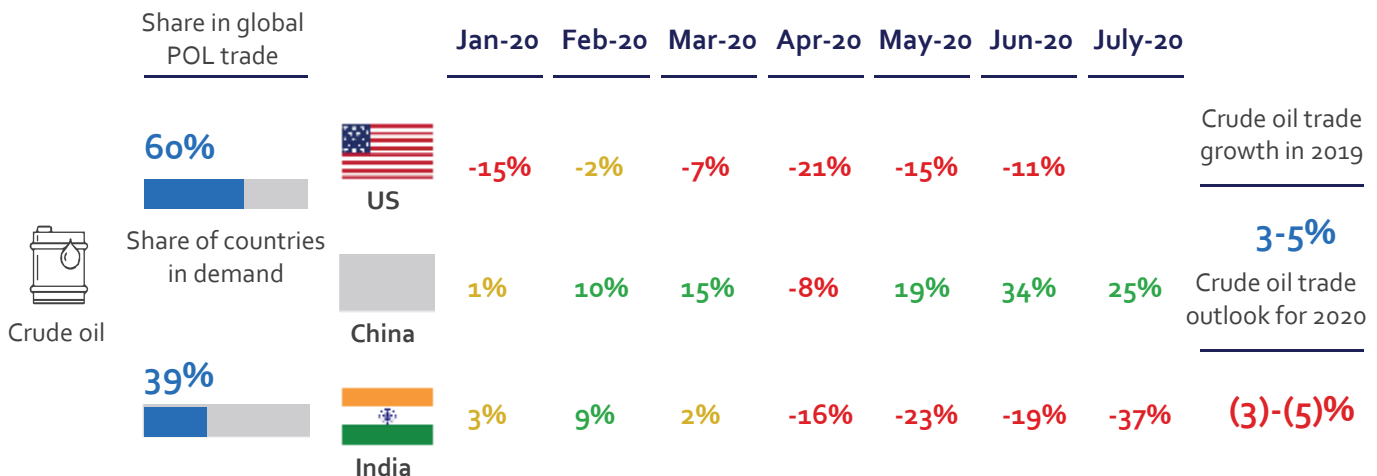
## Lower consumption by major crude-consuming countries to impact trade flow



Note: All percentages, except share, reflects on-year change in charter rates on calendar year basis  
Source: CRISIL Research

Sudden decline in crude oil prices during the year led to oil contango, a situation where the price of an oil futures contract exceeds the spot price. This sparked a rush for booking vessels to be used as floating storage that helped tanker owners in capitalizing on the growing demand. Therefore, even after having wallowed rates of dry bulk and container, tanker charter rates were about 44% higher during the first half of 2020. However, the oil contango that enabled countries and traders to strongly look out for floating storage is now narrowed down and rates are anticipated to be streamlined with the prevailing demand-supply dynamics of global trade. Further, widespread lockdowns in major crude oil-consuming economies including the US and India have reduced consumption of petroleum products in these regions, impacting crude oil demand.

## Lower consumption by major crude-consuming countries to impact trade flow



Note: All percentages, except share, are on-year change in imports  
Source: Energy Information Administration-US, National Bureau of Statistics-China, Petroleum Planning and Analysis Cell-India, CRISIL Research  
Source: BIMCO, Clarksons



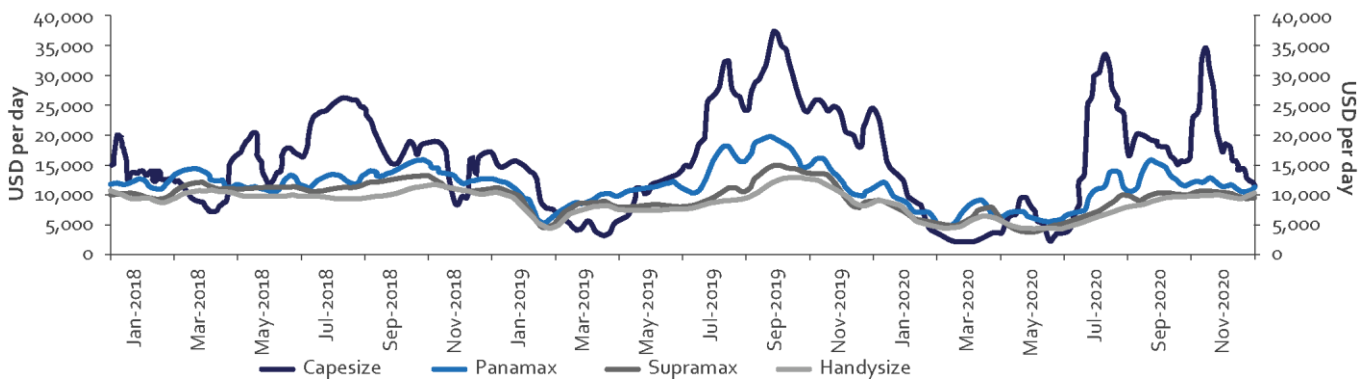
## Dry-Bulk Sector

The dry bulk market outlook is expected to witness improvements by end of 2020; however, the prospects from 2021 onwards. The Pandemic-hit 2020 has been a challenging year for the dry bulk sector. While the growth had started declining in 2019 and had touched loss-making levels, the beginning of 2020 has been severely hard on the dry bulk shipping market (Figure 2). Virtually all the sectors are witnessing record dip in volumes and rock-bottom freight rates due to COVID-19 induced lockdown. Smaller dry-bulk segments have fared better and have managed to keep earnings at around break-even level.

The biggest story in the dry bulk industry in recent months has been the strength of the recovery in major Chinese imports. These are up across the board, breaking previous records for monthly imports as well as imports accumulated year-till-date in 2020. Chinese recovery has been strong enough to make up for lower activity, with all ship sizes above their break-even levels.

The second half of 2020 is proving to be much stronger than the first with China pushing to make up for the lower demand in the rest of the world. Despite the strength of the past few months, average spot-market earnings in the year to date across all ship sizes are at loss-making levels, with time running out to turn this year around.

Figure 1: Dry Bulk Earnings and Break-Even Levels, 2018-2020

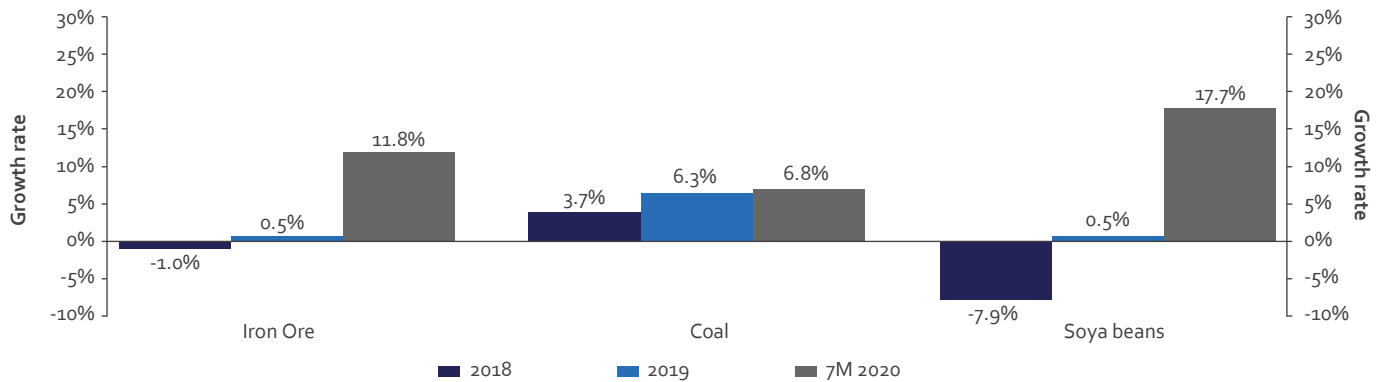


Source: BIMCO, Clarksons

The biggest story in the dry bulk industry in recent months has been the strength of the recovery in major Chinese imports. These are up across the board, breaking previous records, not just for monthly imports, but also accumulated over the first seven months of the year. The Chinese recovery has been strong enough to make up for lower activity in the rest of the world, with all ship sizes above their break-even levels. Capesize earnings rose quickly in late June, to reach USD 33,760 per day on 7 July. The high Chinese imports led to congestion at many of its ports, temporarily lowering the number of available ships. Since then, rates have fallen to a more sustainable level, averaging around USD 19,400 per day in August.

Key drivers for dry-bulk market include imports to China, exports out of Brazil, and US Soy-bean exports to China. As China has started to open up, the import volumes have picked up. Chinese iron ore imports have been strong and are up 11.8% in the first seven months of this year compared with last – an additional 348 Capesize loads (200,000 tonnes). At 112.6m tonnes, imports in July were at a record high, bringing total imports in the first seven months of the year to 659.6m tonnes. Higher iron ore imports are backed by higher steel production levels. Stimulus measures from the Chinese government are prompting local governments to encourage steel production, and invest in infrastructure projects. Chinese crude steel production has recovered and increased by 2.8% after seven months since Jan'20 after monthly declines during March and April. The rise in steel production in China comes at the same time as production is falling in the rest of the world (-16.5% year-on-year), as the recovery elsewhere lags behind. Consequently, China accounted for a record high 62% of global steel output in Q2, up from 54% in 2019. EU steel production was down 24.4% in July from last year, drops largely driven by the collapse of many manufacturing sectors, in particular Germany's car production. The steel production in China has grown at faster than its iron ore imports between 2018 and 2019 (+8.3% in 2019 and +6.6% in 2018) leading to high iron ore imports in 2019 as it has moved towards using more electric arc furnaces and scrap steel, rather than blast furnaces.

Figure 2: Major Chinese Import Growth Rates (Accumulated year-on-year, 2018-2020)



Source: BIMCO, General Administration of Customs PR China

Additionally, US soya-bean exports to China have decreased nearly 42% compared to 1Q19. When compared to pre-trade war level of 2017, the exports have declined steeply and have dropped by as much as 65.6% (equivalent to a loss of 5.4 mn tonnes, or 72 Panamax loads).

However, iron ore exports out of Brazil have declined by 8.7% in the first four months of 2020, contributing significantly to the low volumes in the capsizes segment and offsetting the slight rise in volumes from China.

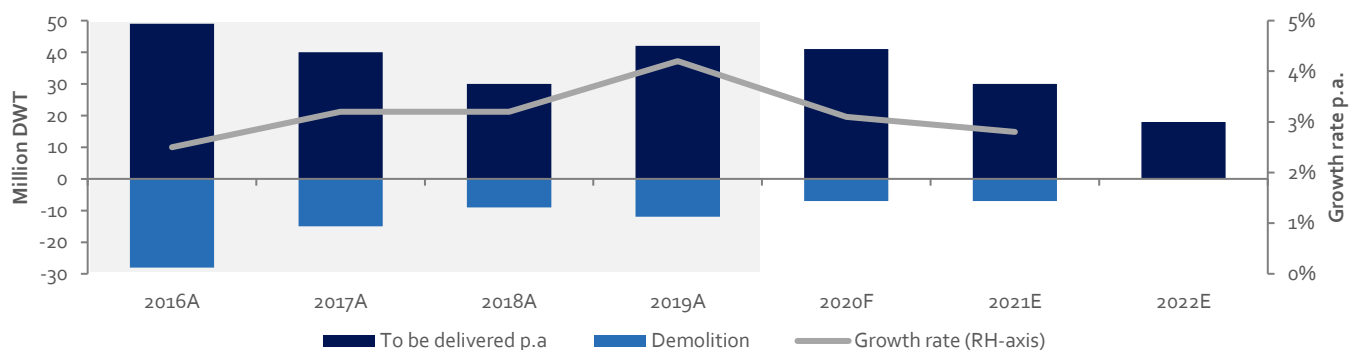
However, it is worth noting that volumes on the main trades of smaller vessels have remained strong. While the rates have been just around the break-even levels due to the pandemic crises, the positive demand developments could potentially push the rates higher as the economy gradually opens up.

### Fleet and Demolitions

While volumes have stayed low, dry-bulk shipping fleet has reached 891.5 mn DWT registering a growth of 1.6% as of May 19, 2020. According to BIMCO, the fleet is expected to grow by around 3% in 2020 adding 39.3 mn DWT to the market (Figure 3). The addition could further exacerbate the excess supply vs. demand situation currently prevalent as evident from the rise in slippage rate for planned deliveries to 35% from 25% before the pandemic.

Lockdown measures taken by most countries have also impacted the demolitions as major shipbreaking nations have closed their respective beaches. Till May 2020, total dry-bulk demolition was 5.4 mn DWT. As per BIMCO estimates, the demolitions could rise to 14 mn DWT from the expected 12 mn DWT due the tepid demand in the dry-bulk market.

Figure 3: Dry Bulk Ship Fleet Growth, 2016A-2022E



Source: BIMCO, Clarksons \*Growth rate for 2022E not available in source.



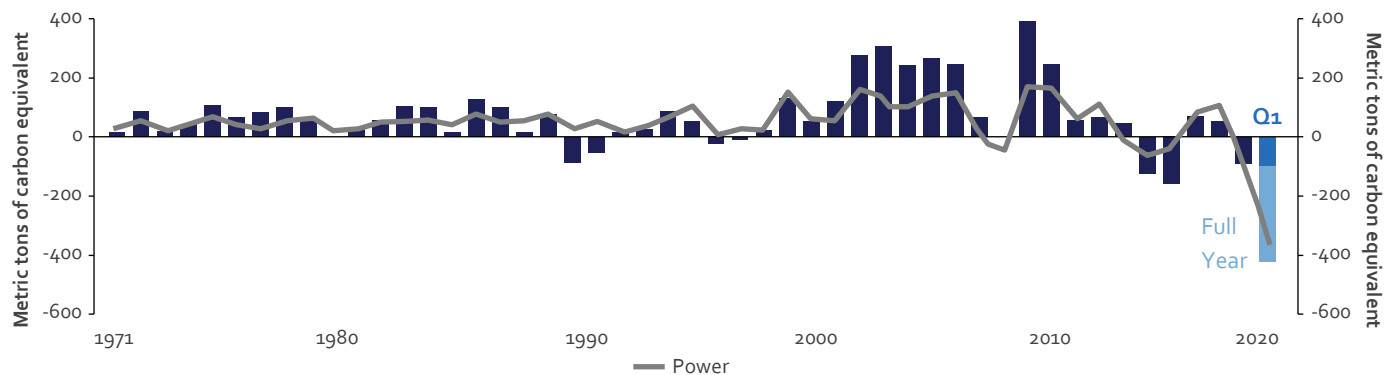
# Towage

## Outlook

On the positive side, China, one of the biggest drivers for the dry bulk industry, is gradually recovering and the stimulus measures around housing and construction sectors are expected to boost the demand for raw materials. However, demand for steel and aluminium for the automotive industry have been significantly impacted due to the COVID-19 crises (Figure 4). For instance, car sales in 1Q20 fell by 41% in China and in April 2020 fell by 41% in the UK that is the lowest level since 1946. Iron ore is another raw material whose low level of demand is expected to weigh heavily on the dry bulk sector.

Moreover, as per BIMCO estimates, trading in all commodities is expected to fall. For instance, demand for coal is expected to fall by up to 8% due to reduced manufacturing activity because of “the Great lockdown” leading to low electricity consumption.

Figure 4: Annual Change in Coal Demand



Source: BIMCO

## Recent Developments

While the outlook for the year has been mostly negative, the surge in dry bulk rates in the mid of June and October 2020 has been very heartening for the struggling industry. Panamax and Handymax were hugely supported by US soybeans trade which is expected to decline post reaching its peak in the last few months of 2020. A second round of lockdowns in Europe is also expected to impact trade in the Atlantic basin. Despite the strong demand for iron ore entering a seasonal slowdown and a fall in Chinese coal demand slow down dry bulk recovery, surge in rates have been witnessed in most segments:

**Panamax:** Healthy demand for both minerals and grains from the North has positively impacted rates in most regions of the Atlantic. Rates gained traction with support led by both the North in the Atlantic and the North Pacific in Asia.

**Supramax/Ultramax:** Rates have gone up with strong demand from the US Gulf, Arabian Gulf, Asia, and the Indian Ocean.

**Handysize:** East coast South America captured the spotlight with a surge in demand between September end and early October. Tonnage with November dates were tight, particularly in north Brazil. US Gulf also showed signs of improvement.

## Crew-Change

Maritime transport is also trying to resolve the crew-change issue caused by the travel restrictions due to COVID-19 with up to 400,000 sailors being stranded either at sea or at home.

Close to 80% of world trade by volume is carried on vessels including container ships, fuel tankers, and dry bulk carriers (United Nations Conference on Trade and Development). However, as over a fifth of the 1.8 mn seafarers who crew the world’s 96,000 commercial vessels are due for changeover, the industry experts have warned that a trade logjam is imminent unless governments create “safe corridors” that would allow free movement to sailors. As per maritime rules, sailors are only allowed to spend 11 months at sea.

” There is an urgent need to establish safe corridors between key countries such as Philippines and India and key crew change hubs around the world. We need solutions and global collaboration now. “

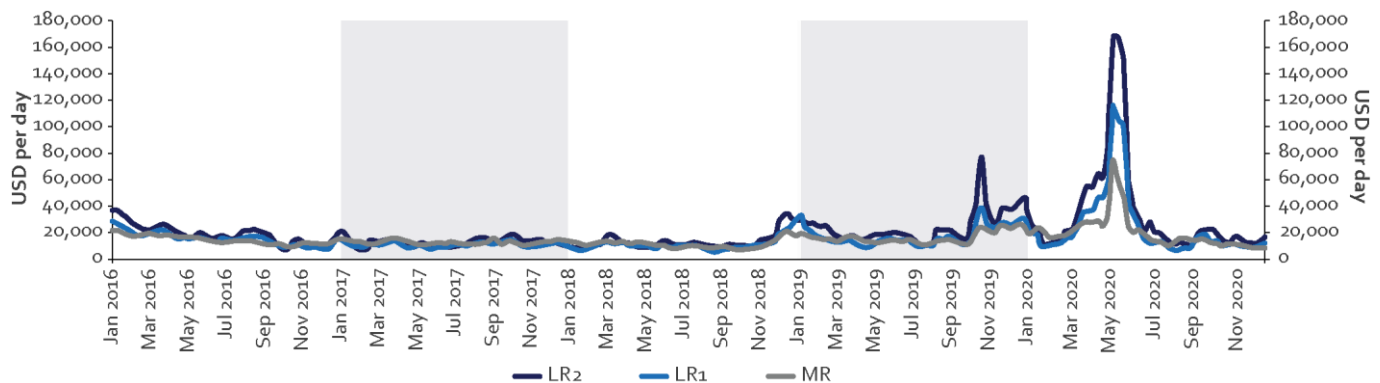
- Henriette Hallberg Thygesen, Maersk’s Fleet and Strategic Brands Chief.



## Tanker Shipping

The tanker shipping industry is facing hard times due to the escalating freight rates against poor market fundamentals. Mismatch between oil production and demand, shrinking tonnage availability, and growing freight rates have collectively led to increase in floating storage.

Figure 5: Oil Product Tanker Earnings (Jan 2016 – Nov 2020)



Source: BIMCO, Clarksons

Note: Data updated through to 14 February 2020

Geopolitical tensions have broken down the OPEC+ alliance and erupted the crude oil tanker spot freight market (Figure 5). Saudi Arabia is capitalizing on the ongoing political turmoil, which has significantly lifted the country’s exports. The country is preparing to flood the global oil market in the short run that will bring down the fuel costs and benefit the crude oil tanker industry during downfall in the global oil demand during 2020. Further, BIMCO expects the global oil demand is expected to fall for 2020 y-o-y during the longer term. Such trends will translate into significantly declining the transportation demand for fuel.

The tanker industry experienced a boost immediately after the start of the COVID-19 crisis because of the lower oil price and higher exports from major producers. However, the lower aviation and transport demand and fundamentally lower oil consumption due to global lockdown has affected the industry.

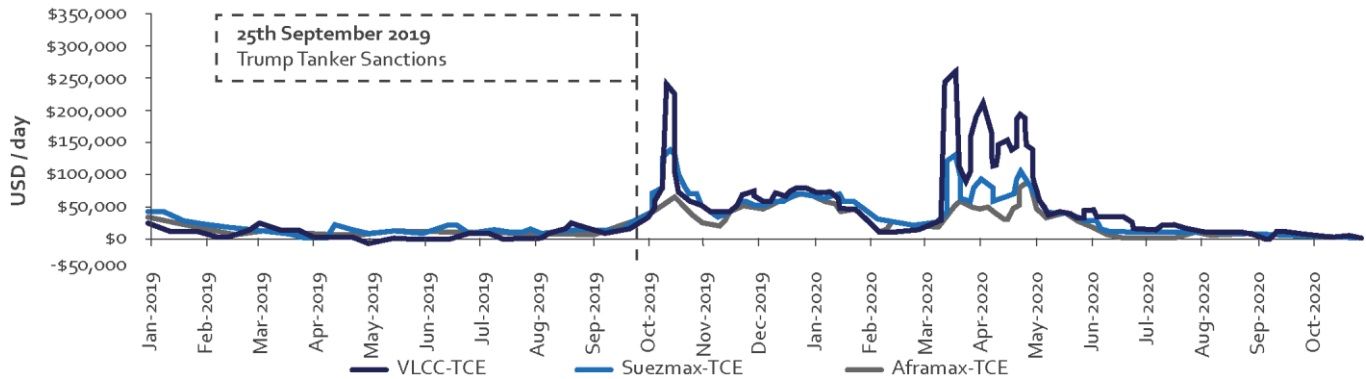


On 28 August, Very Large Crude Carrier (VLCC) earnings averaged US\$16,949 per day, indicating a loss of around US\$7,000 every day.



At US\$11,949 per day, Suezmax earnings were ~US\$8,000 below breakeven, and Aframaxes expected to lose US\$7,700 per day, with earning averaging US\$9,322 per day.

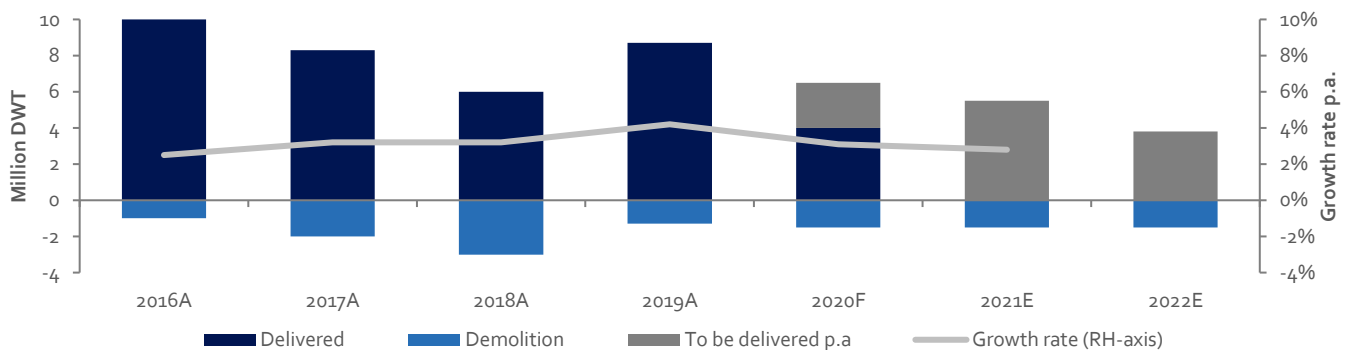
Figure 6: Crude Oil Tanker Earnings (Jan 2019 – Oct 2020)



Source: BIMCO, Clarksons

The economic activity worldwide has been slowing down since 2019 and will slow down further during 2020. The trade-to-GDP multiplier is anticipated to fail to deliver expected guidance under such conditions. Additionally, the tankers have seen little demolition in the first six months of 2020. Only seven crude oil tankers were demolished in the first eight months of 2020, totalling 681,832 dead weight tonnes (DWT). BIMCO expects demolition activity to rise as freight rates and actual demand for tanker shipping falls, with total crude oil demolition reaching to 7.5m DWT in the full year and 1.0m DWT of product tankers being demolished. YTD 2020, 547,334 DWT of oil-product tankers have been removed.

Figure 7: Oil Product Tanker Fleet Growth (2016A – 2022E)\*



Source: BIMCO estimates on Clarkson's raw data  
\*Growth rate for 2022E not available in source.



According to BIMCO, the demand for oil products supplied in the US have collapsed: For instance, gasoline fell by 37.7% at 3.1 mn barrels per day (bpd) during Jan 3 – Apr 3. However, the production has recovered marginally to remain at 6.8 mn bpd as of May 15 declining by 16.5% since Jan 3. The supply of jet fuel has fallen by 62.5% since the beginning of 2020, declined to 0.6 mn bpd on May 15 from 1.6m bpd on January 3.





## Container Shipping

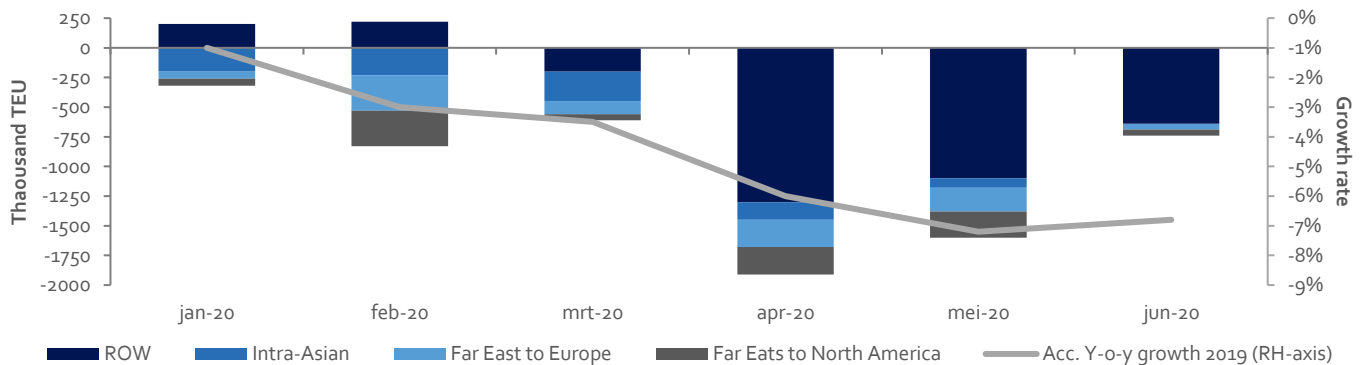
At this moment the rates for container shipping are sky high.

Though the year started on the negative side. The container market is heavily dependent on consumer spending, which was severely impacted during lockdowns across the globe. The months of April and May suffered the worst impact compared to the previous year with container shipping volumes declining by 1.9m TEU (-13.6%) and 1.7m TEU (-11.0%) respectively (Figure 9). The lost volumes in June were less than half of this, down 0.7m TEU (-5.1%) and signalled the beginning of a muted recovery.



**Figure 8: Change in Container Volumes from 2019**

On main trade lanes and the rest of the world



Source: BIMCO, CTS

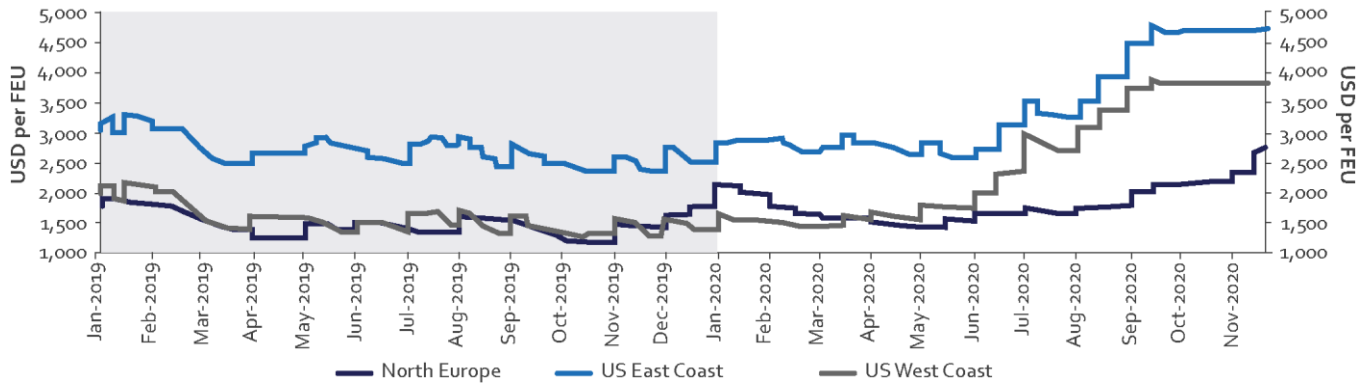
Despite lower demand due to the pandemic, carriers achieved high freight rates and profitability in the first half of the year through large-scale capacity reductions and low bunker prices. Shipping containers on long-term contracts compared to short-term ones, has also been key to carriers' profitability. Tonnage providers suffered the most due to idle ships but demand started showing signs of improvement in the second half of the year.

Long-term rates experienced a boost after short-term container freight rates reached record highs on many of the major container shipping trades. Long-term freight rates between the Far East and the US rose, mirroring the development in short-term contracts that saw an increase in freight rates to the US, outpacing the rise in spot rates to Europe. Rates increased from \$2,412 per FEU on 30 September to \$3,133 per FEU on 1 October. These declined once again but at \$3,207 per FEU, still 25.7% higher than on the corresponding day in 2019. In mid-September, spot rates into the US were at record high and continued increasing until 15 September, when they jumped for the last time and have since remained steady near the record-breaking levels. (Figure 9).

# Towage

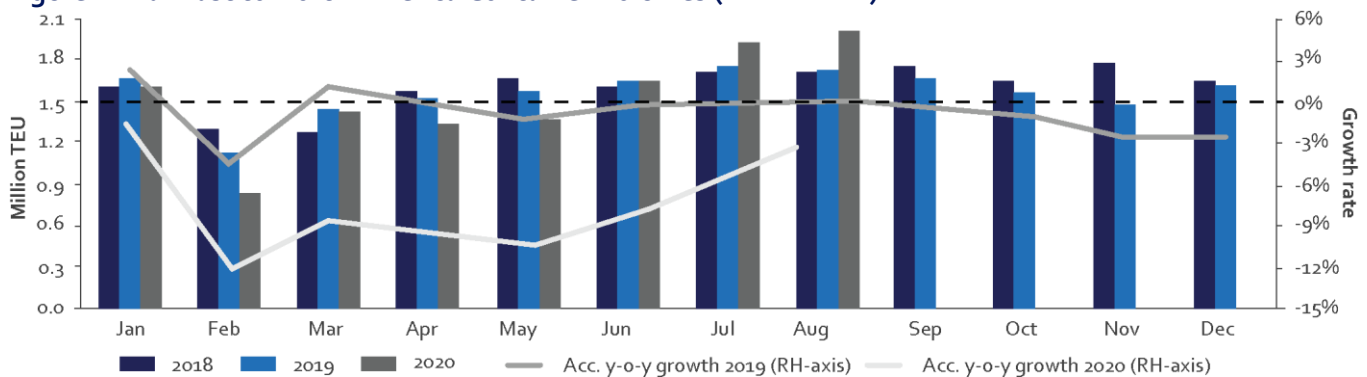
**Figure 9: Container Shipping Spot Freight Rates – Far East (2019 – 2020)**

On main trade lanes and the rest of the world



Container volumes between the Far East and North America also got stronger in the second half of 2020 with volumes up by 180,000 TEU and 280,000 TEU in July and August respectively (Figure 10), benefitting from large-scale restocking in the US. With these strong volumes, the Far East to North America trade is outperforming the development in the rest of the world.

**Figure 10: Far East to North America Container Volumes (2018 – 2020)**

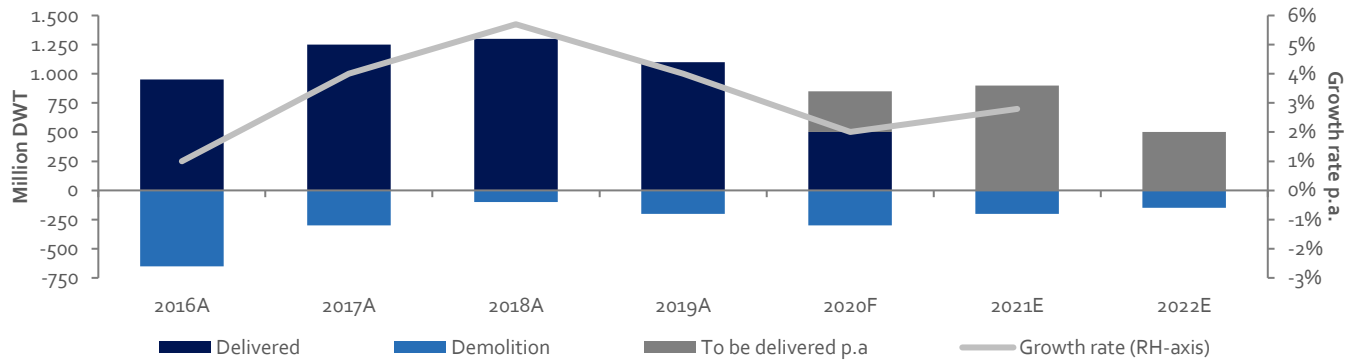


Source: BIMCO, CTS



BIMCO anticipates that the fleet will expand by 2.1% in 2020, marking a four-year low. A total of 300,000 TEU container ship fleet to be demolished in 2020 and so far, this year 169,647 TEU have been demolished. Container ship fleet owners had to rid of some of their older and substandard ships since the industry is witnessing poor conditions in the container shipping charter market

Figure 11: Container Ship Fleet Growth (2016A – 2022E)



Source: Baltic and International Maritime Council \*Growth rate for 2021E not available in source.

## Offshore Supply Vessel

The COVID-19 pandemic has a major negative influence on the global offshore oil and gas industry. Next year COVID-19 will have its impact on the offshore oil and gas industry, but after that the future looks brighter. It is forecasted that the global offshore supply vessel (OSV) will grow at a CAGR of 7.9% from 2019 to 2027 and reach \$20.7 bn in 2027 from \$16.1 bn in 2019. In North America it is expected that the OSV market will benefit from increasing offshore exploration activities in the region including the Gulf of Mexico (Exhibit 2). Additionally, increasing offshore activity in Asian countries, especially India could potentially lead to long-term contracts for the OSV providers (Figure 12).



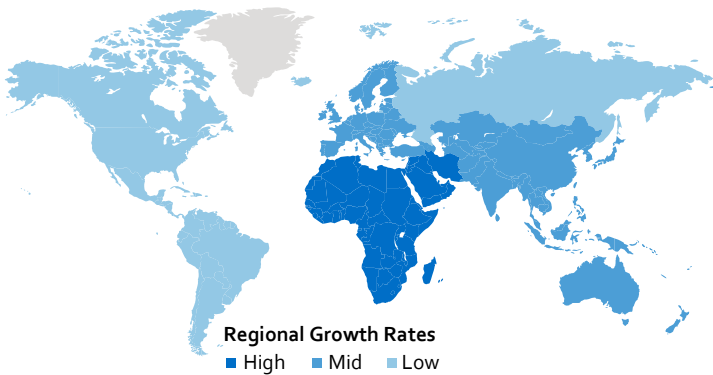
Exhibit 2: Major Segments in Offshore Supply Vessel



Source: Market Research Future



**Figure 12: Vessels Market – Growth Rate by Region (2019 – 2024)**



in more efficient and environment friendly battery-hybrid propulsion. Major companies including Tidewater, Atlantic Offshore, and Harvey Gulf International Marine are upgrading their vessels with battery-hybrid propulsion and US-based SEACOR Marine aims to have the largest battery-hybrid-powered OSVs fleet.

### Recent Developments

Offshore marine services companies are looking to reduce capacity by selling vessels in view of the lack of demand vis-a-vis global oversupply of offshore supply vessels. The key factor has been downturn in the oil and gas industry that has forced the incumbents to re-evaluate their fleet composition and future fleet deployment. A case in point was the divesture of two anchor handler tug and supply vessels by Maersk Supply Service.

Growth drivers include growing exploration activities, increasing number of offshore wind farm projects, and increasing offshore decommissioning activities.

Buoyed by decline in capex and opex for both offshore oil and gas projects, the demand for OSVs is expected to surge. Additionally, decline in costs has also led to increasing exploration activities in ultra-deep waters and Arctic regions. It could, in turn, further fuel demand for OSVs.

OSV operators are increasingly investing

” As a response to the recent downturn in the oil and gas industry, we have re-evaluated our fleet composition and future fleet deployment. “

—Maersk Supply Service Chief Commercial Officer, Carsten Gram Haagensen

Oil and gas companies are expected to defer as much as \$131 bn worth of oil and gas projects that were to be approved in April 2020 (Rystad Energy) due to the crash in oil prices resulting from the supply and demand imbalance in the wake of COVID-19. This could result in up to 10% contraction in volumes and \$3 bn in revenue loss for the offshore drillers.

Moreover, decreasing rate of utilisation has resulted in many OSV owners approaching their creditors for yet another round of restructurings. This, in conjunction with the fact that advances in technology have led to higher rate of obsolescence of floating units, is expected to lead to more pressure on OSV companies to right-size their inventories.



# Towage

## Impact of COVID-19

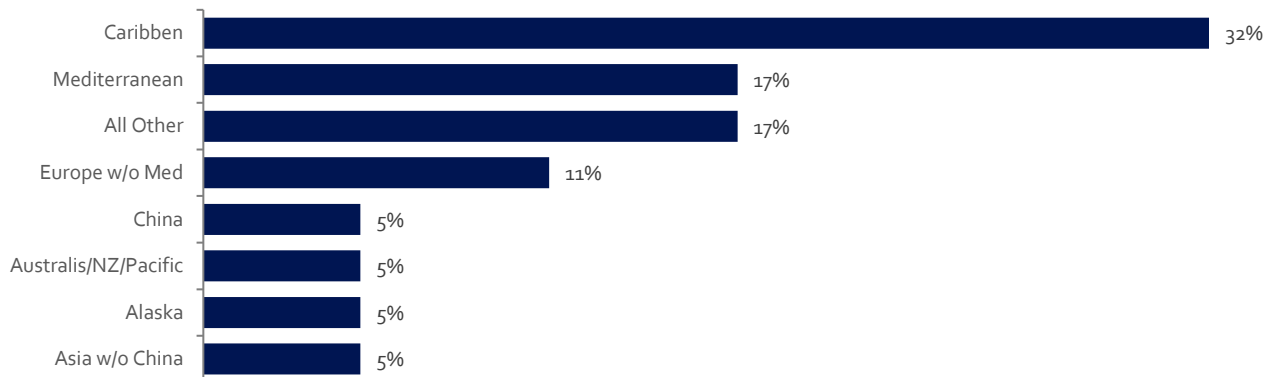
The offshore industry has adopted digital technologies to lessen the impact of COVID-19 mitigation measures. Since the pandemic, compulsory quarantine measures and social isolation practices have affected the way offshore vessels and drilling rigs operate, affecting the daily lives of offshore workers. Companies such as IEC Telecom are providing remote access facilities to give crew enhanced online connectivity while at the same time increasing the bandwidth speeds to cope with the escalating digital traffic.



## Cruise Line

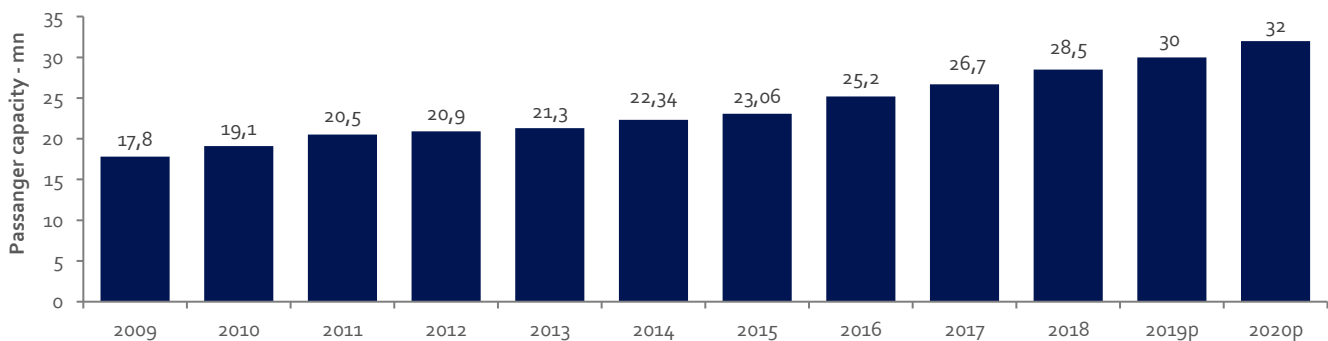
The cruise industry growth will be driven by a record orderbook of over 117 new cruise ships with deliveries scheduled through 2027. The average cost of a new ship is \$578 mn, while the average tonnage is ~82,000, and the average capacity is 2,113 passengers. New ship deployment will be largely driven by the Caribbean region (32%), followed by the Mediterranean region (17%), and the European region (11%) (Figure 13). Key market participants have initiated their growth plans. For instance, MSC Cruises is planning for the biggest growth with 14 ships on order including 10 mega-ships, four smaller, and 1,000-guest luxury vessels since the company is focusing on dominating the high-end market. Additionally, Carnival Corporation has 20 ships on order from 2019, extending its orderbook through 2024. Further, Royal Caribbean Cruises has an orderbook of 15 ships with a delivery line through 2026.

Figure 13: Global Scenario of New Ship Deployment by % (2020)



Source: Cruise Line International Association

Figure 14: Passenger Capacity (2009 – 2020P)



Source: Cruise Lines International Association

## Towage

The global passenger capacity was at 29 mn in 2018 and is expected to reach 32mn in 2020 (Figure 14). Demand for cruise comes from North America that accounts for almost 59% of the total number of cruise passengers. The Coronavirus situation has severely impacted cruise demand during the first quarter of 2020. Other markets that largely contribute towards the cruise shipping industry include Europe (Germany, the UK, and Ireland being the three largest European source markets for cruises) and the rest of the world (especially Australia/New Zealand and Asia).

According to the world tourism organization (UNWTO), international tourism has declined by 65% in the first quarter of 2020 and is forecasted to decline by 58% to 78% in 2020. In 2020, the cruise traffic is estimated to reach 6 to 12 mn passengers.

While cruising has tentatively restarted in Europe and new regulations are being formed for a potential return in the US, the industry still faces uncertainty. Hundreds of cruise ships have now been laid up at sea, forcing cruise companies to sell off the cruise ships. In September 2020, Carnival Corporation announced its plans to sell 18 cruise ships, resulting 12% decrease in the overall fleet.

Before the COVID-19 outbreak, the last decade showcased record growth for the cruise industry that was intended to continue during 2020 and later years. According to the CLIA, 32 mn passengers were expected to travel on cruise ships in 2020, growing from 30 mn in 2019. Since 2009, cruise ship passengers grew from 17.8 mn to 30 mn in 2019, growing at CAGR of 5.4% during 2009-2019. Additionally, cruise industry revenues were estimated to showcase faster growth from ~15.7 bn in 2010 to an estimated 31.5 bn in 2020, highlighting a CAGR of 7.2%. In 2019, there were 278 ocean cruise line ships operating across 55 cruise companies and over 500 river cruise ships. The ship operators were planning to add another 19 ships in 2020.

### Impact of COVID-19 on the Cruise Line Industry

The blow from the COVID-19 pandemic on the cruise industry is the most devastating during the coming years. Travellers with underlying health conditions are avoiding cruise ships with a fear of increasing the risk of infection in a cruise-ship environment. In case of an outbreak, the cruise lines will have to force passengers to undergo extra health screening. Additionally, the ships will be required to mandatorily follow the new enhanced cleaning procedures, including more frequent cleaning of hard surfaces. Some companies are dismantling cruise ships and are selling as scrap metal. Several vessels are arriving in Britain, Italy, and the US for dismantling.

Moody's Investors Service has lowered its outlook for the lodging and cruise industry from 'stable' to 'negative' since both the industries are facing revenue losses in 2020 due to the pandemic outbreak. The cruise lines have planned to start sailing as the pandemic restrictions are easing out. The cruise lines are chalking out plans to tackle the pandemic while sailing by taking safety precautions such as redirecting ships to new destinations. For instance, Singapore has planned to start sailing cruise ships amid the Coronavirus pandemic, but the cruise ships will not make any stops and return to the port they departed to keep crew and passengers safe. The cruise passengers are loyal and are likely to return to cruising after the shock of the outbreak wears off. The cruise lines will initiate offering discounts to entice travellers to return to the water.



## Ports / terminals

The ports and terminals market are witnessing growing usage of Internet of Things (IoT) solutions to improve safety and enhance the operational efficiency at port terminals. IoT operations reduce human effort and increase the efficiency of the operations in the areas including real-time tracking of containers and ships, controlling and enabling access to Closed Circuit TV (CCTV) cameras for the entire port, and tracking and identifying assets and vehicles for complete traceability within the proximity of the port. Additionally, ports and terminals sector is giving a greater emphasis on investing into new technology such as AI and blockchain and transforming into 'Smart Ports', as there are growing threat of cyber-attacks due to having sensitive maritime data points on supply chain such as vessel navigation, cargo handling and container tracking.



Reduction in the workforce and fall in demands has pushed freight rates lower, and additional restrictions by countries at the ports like the ban on crew changes are disrupting global supply chains



# Towage

## Impact of COVID-19 on Ports/Terminals

Due to the recent outbreak of CoVID-19, the container port volumes declined over the first few months of 2020 but are reflecting uneven signs of recovery in the third quarter of 2020. The average number of container vessels arriving weekly at ports have started to recover, rising to 9,265 by early August from 8,722 in mid-June. The number of ships pulling into ports to unload and load containers rebounded in many parts of the world, reflecting recovery for world merchandise trade, which suffered a historic year-on-year fall of 27% in the Q2 2020.

The weekly container ship port calls in China and Hong Kong had climbed to 4.1% higher than the 2019 numbers by early August 2020, and calls in North America and Europe were still 16.3% and 13.2% below the levels registered one year earlier.

Eventually, the global ports are improving as the lockdown is easing. For instance, the US ports handled 1.9 mn TEU in July 2020, 2.3% down compared with the same period during the previous year but recovered from 19.3% down in June 2020. Cargo ships were also being used for medical and emergency supplies during the COVID-19 pandemic. Additionally, the Mediterranean Shipping Company (MSC) has developed a Suspension of Transit (SOT) container shipping program to prepare for a recovery in demand for freight services once the lockdown eases. The program is built to ensure business continuity and maintenance of vital container carriage services such as the movement of food, fresh produce, medical equipment, and other essential goods. The initiative has focused on catering to the demand for a variety of goods from Asia.

**Exhibit 3: Global Top 10 Ports (2019)**

Ports	By Container Throughput		Year-on-Year Growth
	2019	2018	
Shanghai	43,300	42,010	3.07%
Singapore	37,200	36,600	1.64%
Ningbo-Zhoushan	27,530	26,350	4.48%
Shenzhen	25,770	25,740	0.12%
Guangzhou	22,830	21,920	4.15%
Busan	21,900	21,660	1.11%
Qingdao	21,000	19,320	8.70%
Hong Kong	18,360	19,600	-6.33%
Tianjin	17,300	16,000	8.13%
Dubai	14,100	14,950	-5.69%

Source: Official websites of various ports, prepared by the SISI

**Exhibit 4: Global/International Terminal Operators: By Annual Total Throughput (2019)**

Ranking	1	2	3	4	5
					
Throughput (mteu)	123.8	111.7	86.0	85.2	71.2
Growth/Decline (%)	5.5	2.4	1.6	5.2	-0.3

Source: Official websites of various ports

Cosco Shipping handles an annual throughput of 123.8mn teu (Exhibit 4), followed by China Merchants (111.7mn teu), Hutchison (86.0mn teu), PSA (85.2mn teu), and DP World (71.2mn teu).



Global container port capacity expansion is forecasted to contract by ~ 40% over the next five years in the wake of the COVID-19 induced slowdown in port throughput: global container terminal capacity is projected to grow at an average annual rate of 2.1% over the next five years, equating to an additional 25m TEU a year. This is well below the capacity growth seen over the past decade, when the average annual increase was more than 40m TEU a year.

- Drewry Global Container Terminal Operators Annual Review and Forecast Report

The port and terminals' operations market is highly fragmented that includes domestic and international market players. The market is witnessing stiff competition at the regional level in line with a larger concentration of vendors in the developed economies such as the US and Europe and the technologically advanced countries such as China, Korea, and Singapore. Companies with technical and financial resources have developed expertise in services, which provides them a competitive advantage over the other players. The competitive environment in the market expected to intensify during the coming years with an increase in services, extensions, and technological innovations.



DP World, Hutchison Port Holdings Trust, PSA International, and Cosco are the key vendors in the global port and terminals operations market.

# Towage



## Overview

The COVID-19 pandemic hits the shipping industry hard. Though the full scope of the disruptive effects of COVID-19 pandemic is unknown, it already has many had tangible impacts: closed ports, blanked sailings, diminishing trade and crews being tied upon the vessels for too long a time, are just a selection of the many effects.

The towage industry as service provider within the shipping industry equally suffers from the pandemic. Towage industry Captains are adapting to the “new normal”. As mentioned in the general shipping overview in the previous chapter, the various subsectors undergo the COVID-19 consequences on their own way.

Though container freight rates are doing well, the number of routes have diminished, as have the number of port calls. This reflects in the number of required tug jobs. Shipping group Maersk is confident about the outlook for shipping beyond 2020 as a second wave of Coronavirus infections only had a limited impact on global freight volumes. Maersk, the world’s biggest container shipping line, has recovered faster than expected after the pandemic halted trade around the world, benefiting from higher retail sales in the United States.



“The second wave of Coronavirus infections has had relatively limited impact on trade volumes”

- Soren Skou, Chief Executive Maersk

Tanker business saw a higher trading and storage activity. Though the tankers were being used as storage, instead of transport equity, the number of tug jobs at terminals were also lower. But terminal towage was less influenced by the COVID-19 disruptions, since in this sector long-term contracts towage services are common, providing stable business.

Bulk transport, unlike tankers, are struggling with lower demand for shipping space. Since the bulk transport sector is far more fragmented than container shipping, it is unable to cut capacity. So here no artificial shortage of space was introduced, like container freight and, a drop in freight rates occurred. And concerning towage - less transport also means less tug jobs.

Industrial towage, such as assisting shipyards, suffered badly from the pandemic. COVID-19 has influenced the shipbuilding industry in two ways. First, there are reported delays in newbuilding completion caused by problems related to lockdown measures in major shipbuilding countries. Also disruptions in supply chain and sourcing parts for ships are causing delays. Second, the lockdown measures and inevitable recession that we are heading towards, caused by the slump of economic activity, is expected to hurt shipbuilding orders. These months towage has seen a minus of approximately 75%.

## Towage



A strange course of events took place after the acquisition of Peruvian towage company Tramarsa by Singapore towage company PSA. The deal was signed in February 2020 – all was set to start this new adventure. However, after all these months the teams haven't met yet, only being able to communicate through the virtual world of Zoom or Teams. The company however, has been renamed from Tramarsa Flota into PSA Marine Peru.



## New trade routes

Economic development and population growth will continue to drive future demand for maritime trade. However, the regionalisation of trade patterns will likely have a substantial impact, as will digitization and sustainable shipping.

Increased ship size and industry consolidation, as well as other developments in liner shipping, have changed maritime trade patterns by reducing the number of calls to secondary ports. However, the trend towards marginalisation of secondary ports may have come to an end, as both industry consolidation and the movement of ever-larger ships seem to have run their course. Already a demand for smaller container vessels is increasing. Furthermore, the gaining importance of intra-continental trade is a fact. Already 60% of Asia's trade is intra-regional.

The cost of maritime transport will increase as a result of expected regulations to decarbonise shipping. However, these cost increases will be small in relation to the value of traded goods and the impact on global trade may be marginal. The connections and trade routes to and from less-developed countries or countries at the end of poorly serviced transport chains may feel significant repercussions, but affected countries could be compensated for some of the adverse effects on trade.

There is a range of other possible drivers of future trade flows. Climate change could be a disruptor for shipping: if extreme weather events make shipping riskier – thus more expensive – demand for maritime trade may suffer. Changes in production technologies in different industries may also impact maritime trade flows. Global trade is also dependent on politics. Protectionism, political instability, civil unrest, war or domestic or international conflicts can all have negative implications for maritime trade.

## One Belt One Road (OBOR) Initiative

The most famous new trade route is the Chinese One Belt One Road (OBOR) initiative. This new Silk Road covers 65% of the world's population, three-quarters of global energy resources and 40% of GDP and at least 157 nations and international organizations are making use of it. The "Belt" refers to overland routes for road and rail transportation from China to Europe, where as the "Road" refers to the maritime connections through Southeast Asia to South Asia, Middle East, Africa and Europe. Ports on these sea routes are prospering from the increasing trade, e.g. in Europe the Greek port of Piraeus, owned by Cosco, is transforming into a major hub, just like in Africa the Nairobi port in Kenya and in Asia the Sri Lankan port Colombo. Also major investments have been made in other East African countries, injecting \$10 billion to develop a free trade zone in Djibouti, and to fund projects at the Port of Djibouti's Doraleh Container Terminal.



## Towage

Furthermore, new ports are being developed, like the planned development of a container port in Turkey, in the Eastern Mediterranean that will operate as a gateway to the Middle East and Central Asia. This port is meant to be part of the OBOR. Already, the Chinese companies China Merchants, Cosco Pacific and infrastructure investment specialist CIC Capital hold a majority stake in Kumport Terminal. Located on the northwest coast of the Marmara Sea, Kumport is Turkey's third-largest container terminal and is a strategic link to Europe.

China's OBOR will likely have a significant impact on maritime trade flows if fully implemented. The maritime part of the initiative has a stronger potential to impact overall trade than the onshore investments. Investment in the ports connecting China with other parts of the world could cut maritime trade costs, thereby reducing trade costs and increasing imports and exports.

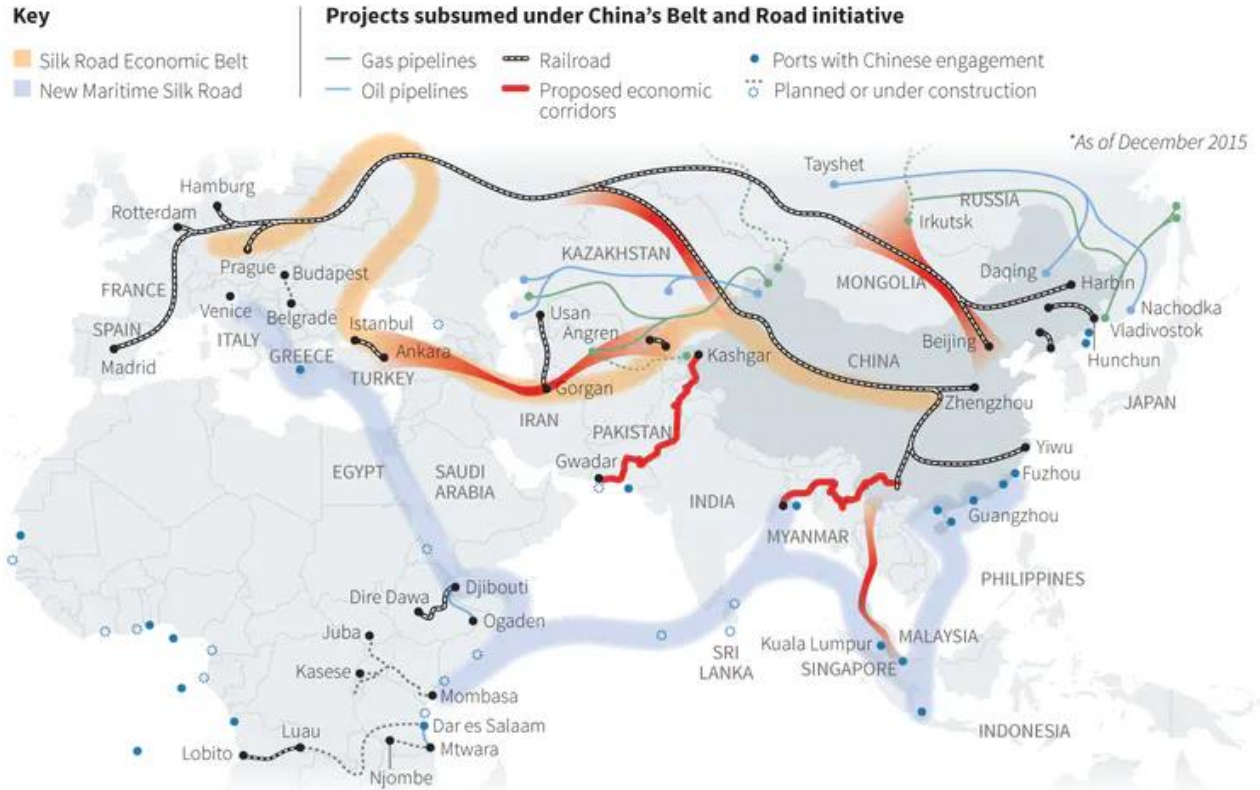
OBOR does not cover only infrastructural investments, but also extends to trade agreements. Since China is extremely dependent on imports of oil and gas, respectively almost 85 percent of China's oil consumption and over 40 percent of gas consumption was derived from imports in 2019 it has been securing its supply. So China is developing and implementing renewables and under the OBOR China has signed MoU's with many countries in Asia, Africa, Europe and Latin America. With these international relations it has diversified its international relations in the energy sector.

As ports will emerge as hubs in the Maritime Silk Road, the infrastructure and port services also have to be adapted. Increasing traffic in ports represents also more tug jobs. Most likely, the deployed tug fleet will expand, with tugs being deployed in a safe, profitable and efficient way.

**Exhibit 5: The One Belt One Road Initiative**

**Reviving the Silk Road**

Announced by Chinese President Xi Jinping in 2013, the Silk Road initiative, also known as China's Belt and Road initiative, aims to invest in infrastructure projects including railways and power grids in central, west and southern Asia, as well as Africa and Europe.



Source: Mercator Institute for China Studies.

C. Inton, 24/03/2017



**NSR**

Also the arctic routes are gaining importance. In 2020 transit cargo on the Northern Sea Route (NSR) totalled 1.28 million tonnes, according to the Federal Marine and River Transport Agency (Rosmorrechflot). The NSR is a shipping lane between the Atlantic Ocean and the Pacific Ocean along the Russian coast of Siberia and the Far East. The distance from Northern Europe to China is approximately 40% shorter than via the Suez Canal or 60% shorter via the Cape of Good Hope, which creates substantial reductions in transportation time, fuel consumption, environmental emission and it eliminates piracy risks.

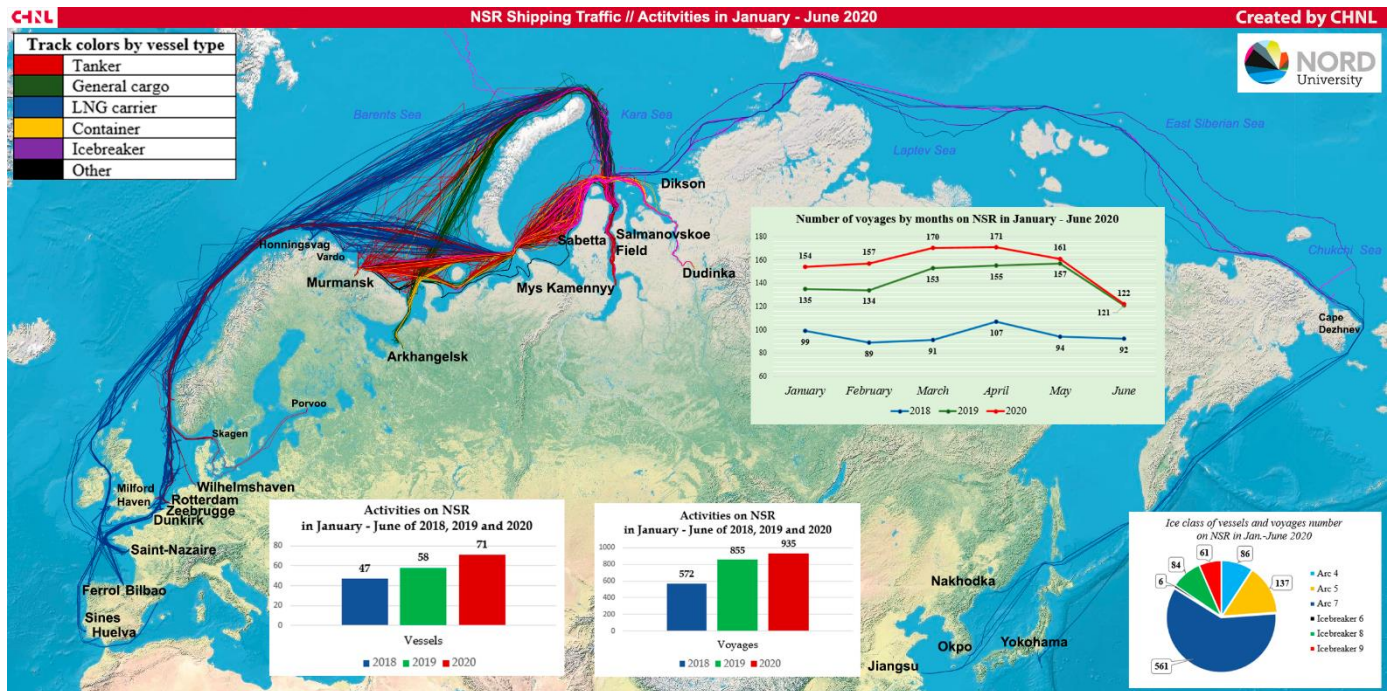
According to the International Transport Forum (ITF) the share of global trade using the NSR by the next century will be fairly small, at less than 5%, even in extreme climate change scenarios. If a Central Arctic passage became feasible, it could trigger a considerable change in the configuration of maritime trade flows. In Russia the opinion is different from that of the ITF: the State Atomic Energy Corporation Rosatom (Rosatom) NSR Directorate expects the summer-autumn navigation to achieve an annual level of three to five million tonnes of NSR transit cargo to be achieved in the coming three to five years.

The northern coast of the Russian Federation has a number of deepwater ports that have been supported by the arctic authority and the Russian fleet of icebreakers for several years. Murmansk is the largest deepwater port north of the Arctic Circle.

# Towage

Murmansk is also ice-free throughout the year. Murmansk also provides access to northern European and Asian industrial centres. Russian Arctic ports in the Barents Sea, including Murmansk, have expanded significantly as offshore oil and ore production have increased in the region. Other Russian Arctic ports along the Northern Sea Route include Pevek, Tiksi, Igarka, Dudinka, Dikson, Vitino, Arkhangelsk and Novy. These ports are well situated and very well supported by the Russian icebreaker fleet.

Exhibit 6: The Northern Sea Route



On September 18, 2020 new rules for navigation on the Northern Sea Route were approved. According to these rules, the water area of the NSR is now divided into 28 regions. Depending on the types of ice conditions in a particular area, a vessel will receive an appropriate permit. See color fields and marks "NSR regions" on the map.

Source: <https://arctic-lia.com/>

Accelerated development of the NSR will thrive the development of the Murmansk region, since it seems to be a favourable location for transshipment facilities. By order of the Government of Russia dated March 31, 2020, amendments were made to the borders of the seaport of Murmansk. The amendments are related to changing the boundaries of the water area of the seaport of Murmansk in order to include 3 water sections in the area of the Ura Bay, where it is planned to organize a marine transshipment complex for liquefied natural gas, intended for transshipment of LNG using floating gas storages. A section of floating berth will be installed on the third offshore mooring, designed to accommodate auxiliary fleet ships and tugboats.

Furthermore, serious plans and engineering surveys are being made for the Liinakhamari settlement on the shores of Devkina Zavod bay. This bay has a more favourable shipping location than Kola Bay / Murmansk. It is the only port with a direct exit to the ocean, with a natural depth of up to 20 meters, non-freezing water area, a short deviation (35 nautical miles) from the route, absence of naval base, shorter pilotage distance (six kilometers), no dense residential areas in Liinakhamari and no environment protection zones and there is some infrastructure such as roads, networks, communications and Korzunovo airport 30 kilometers from the future facilities.

## Towage

As for now, the plans are to complete the construction of the new port in the second quarter of 2024, the time when Russia expects NSR traffic to reach 80 million tonnes per year including three to five million tonnes of transit cargo. In these arctic ports ice-class tugs are a necessity.

### NWP

The Northwest Passage (NWP) is a sea route that connects the Atlantic and Pacific Oceans through the Canadian Arctic Archipelago. The benefits of a clear NWP are significant. Ship routes from Europe to eastern Asia are 4,000 kilometres shorter.

In these Arctic regions, with difficult access for vessels deepwater ports, adequate port reception facilities for ship-generated waste, marine salvage and towing services are almost not available. There are a few deepwater ports in American waters near the Bering Strait. The lack of major ports and port facilities is also one considerable limiting factor in terms of increased shipping on the NWP. The nearest U.S. port with deep water is Dutch Harbour in the southern Bering Sea. The situation is different in the region between the Atlantic and Arctic oceans, where there are many Icelandic, Norwegian and Russian deepwater ports. There are a few of deepwater ports along the west coast of Greenland. In the Arctic, there are hardly any deepwater ports along the North Slope of Alaska or the entire Canadian eland groups, Canada has one relatively deepwater port in Tuktoyaktuk, but it suffers from a shallow approach channel and a high degree of in-fill silting. The port is situated in the delta of the Mackenzie River. But what also should be said is that Resolute Bay is limited in port facilities, in the middle of the eland group, which acts as a central point of transportation. Resolute Bay can only handle vessels with a draft of 5 meters and the port uses a sunken vessel as a dock. Vessels of deeper draft must anchor in an open roadstead.



Port of Churchill

In Hudson Bay, the Port of Churchill is Canada's only northern deepwater seaport which is well sheltered, vessels can berth along their side. The port provides access via rail, to the interior of Canada and North America in general. The Port is growing and can efficiently load Panamax size vessels. The use of the Port of Churchill eliminates time-consuming navigation, additional handling and high-cost transportation through the Great Lakes and St. Lawrence Seaway. The current shipping season runs from half-July to the beginning of November. But with the use of icebreakers the shipping season can be longer.

Long-term warmer weather across the Canadian Arctic could open a seasonal navigation passage for much larger container ships, with potential to influence the international movement of containers. A trans-Arctic navigation season via a southern passage, lasting for six months could encourage development of a container port in the southern region of James Bay with potential for future transshipment terminals in the region of Hudson Strait. The opening of a Canadian northern trans-Arctic navigation passage would offer potential to transit super-mega-size container ships, with further potential to develop a transshipment terminal at Nuuk, Greenland with links to European ports, north-eastern American ports and Seaway/Great Lakes ports. Future seasonal trans-Arctic container ship navigation via a southern passage has the potential to intensify competition amongst eastern Canadian container ports at Quebec City, Halifax and Cape Breton region.



NEWSLETTER

# Towage

Already the port of Quebec City has initiated plans to develop a container terminal intended to berth container ships that carry in excess of 8,000 TEU, probably with increasing Arctic shipping in mind. Also Cape Breton in Nova Scotia has plans to develop two container transshipment ports that would also gain a competitive edge courtesy of future trans-Arctic shipping.

In the arctic ports ice-class tugs are required.

## Exhibit 7: Northwest Passage



## Nearshoring

The relocation of manufacturing sites and regionalisation of trade also change trade flows. From the start of the 1980's production activities have been moving. The first move consisted of companies moving their production to another company in its relative neighbourhood. It was given the term "outsourcing". The next shift consisted of moving production activities to countries with low labour costs, mostly developing countries. The concept of "offshoring" was born. China was a major production location at the time, mainly for low-quality production. But during the time this has been changing from low-value into high-value production - export value of China increased from \$250 bn in 2000 to about \$2,500 bn in 2019.

Exhibit 8: Outsourcing – Offshoring - Nearshoring

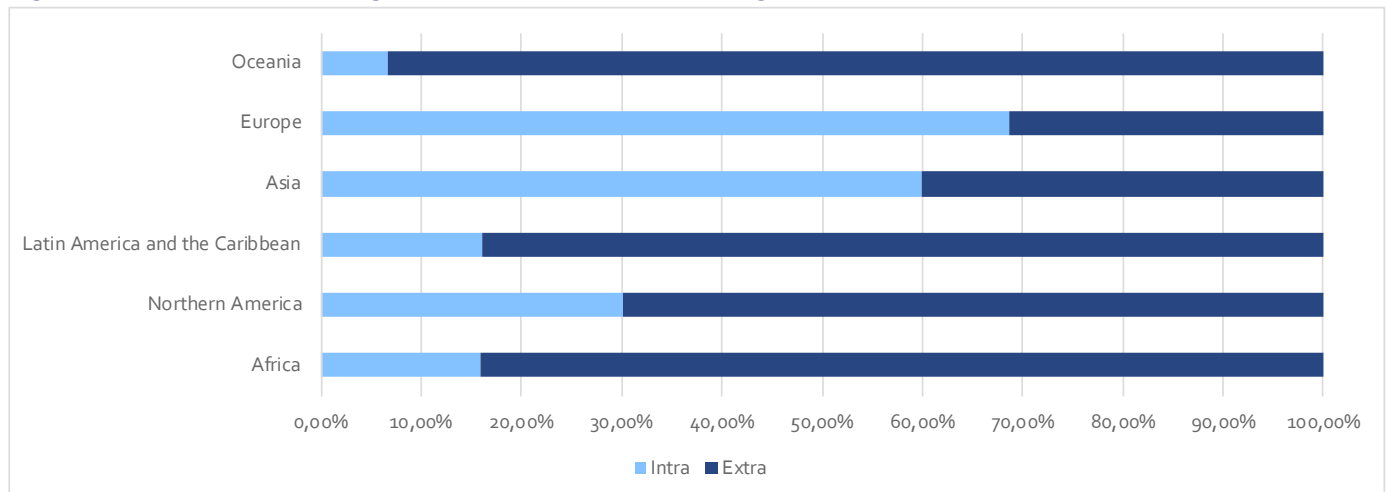


Meanwhile, thanks among others to the production activities that have been relocated towards China and other (once) developing countries, these countries have seen their welfare increase. And with this arising phenomena in these countries production activity is getting expensive as well, because of increasing wage levels and land rents.

This has led to the next shift – companies are considering to move back their production activities towards developed countries – so called “nearshoring”. So the last decade there already was a gradual shift from cross-continental trade towards intraregional trade. So the last move can be explained by the changing nature of global value chains – less trade-intensive and less based on labour cost arbitrage – in combination with a stronger focus on time-to-market that might require more intraregional trades.

According to the Unctad statistics intra-regional trade was most pronounced in Europe. In 2018, 69 per cent of all European exports were to trading partners on the same continent. In Asia, this rate was 60 per cent. By contrast, in Oceania, Latin America and the Caribbean, Africa and Northern America, most trade was extra-regional.

Figure 15: Intra- and extra-regional exports, 2018 (Percentage of total exports)



Source: Unctad

## Towage

Regionalisation of trade has consequences for maritime transport. First of all, it means that regional trade growth translates into less growth of maritime transport activity than before. Secondly, smaller distances require smaller ships: the largest ships are generally used for trade between large centres that are far removed from each other. The use of large ships does not make sense for smaller distances, as they take more time to handle. Were they used for shorter distances, they would spend too much time in ports and not enough at sea. Trade regionalisation calls into question the race towards ever-bigger ships. Finding the optimal ship size for each individual trade is more relevant than ever.

Regionalisation of trade will be accelerated by the negative consequences the COVID-19 pandemic has on the global supply chains. The COVID-19 crisis started with a supply disruption, as the Chinese manufacturers were unable to produce and transport because of the local lockdown. As the lockdown shifted to Europe and the USA, customer demand was also substantially impacted. So this pandemic has exposed the vulnerability of long supply chains; border closures, increased imbalance of transportation flows, a lack of reliable supply, difficulties with quality control, labour shortage, all led to serious disruptions in the supply chain.

The security of supply is very important and companies are now working to generate shorter supply chains, with products not coming from the other end of the world. Security is a main factor for relocating production activities, but there are more factors, like: rising labour costs abroad, increasing transportation costs, transit times, flexibility, available educated workforce, the use of automation and robotisation, which diminish labour costs, and the increasing consumer demand for tailor-made products on a very short notice. The rising influence of geopolitical factors on world trade are also an increasing stimulant for manufacturers not to expose the flow of products too.

These developments will lead to a higher fragmentation of trade flows. Additional port facilities would be needed in new emerging markets and port facilities near current production clusters may face lower utilisation rates.

The USA already had started to degrade imports from China, since China and the USA are in a dispute on trade, started in 2018 when the USA set trade barriers on China. President Trump was promoting domestic manufacturing ever since his inauguration in 2016. So U.S. manufacturers are bringing production back – not necessarily all the way back to the United States, but to the Americas. Trade flows that were long distance, East-West oriented for nearly two decades are shifting. They are being replaced, at least in part, by shorter, region-based trade flows – between the United States and for example Latin America.

It is uncertain what will happen with a new American president in the White House, but the nearshoring activities have irrevocably started.

In November the signing of Regional Comprehensive Economic Partnership (RCEP) took place: China and 14 other countries have agreed to form the world's largest free trade bloc, encompassing nearly a third of all economic activity, in a trade deal covering 30 percent of the world population and almost 30 percent of global GDP. In addition to the 10 ASEAN nations, the accord includes China, Japan, South Korea, Australia and New Zealand, but not the United States. India dropped out a year ago due to fears that the accord will allow cheap Chinese goods to enter the Indian market. Many of the member countries see RCEP as an economic recovery tool, and the implementation of the agreement would encourage the re-opening of markets and ensure an uninterrupted supply chain. The RCEP agreement is loose enough to stretch to fit the disparate needs of member countries as diverse as Myanmar, Singapore, Vietnam and Australia.



“Malaysia, together with ASEAN and our FTA Partners, would want to demonstrate to the world, that even with varying levels of economic development, 15 countries can come together to create a trade pact that will be mutually beneficial, not only for the business community, but also to improve the livelihood of its people”

- Tan Sri Muhyiddin Yassin, Prime Minister of Malaysia

NEWSLETTER

## Towage

China has become a developed country, with a middle class of around 400 million inhabitants who can afford to spend, and who drive the economy with rising consumption, products as well as services. China is implementing a Dual Circulation Strategy. This strategy is based on one hand boosting domestic demand and becoming more independent from the world and depend more on internal production, distribution and consumption; simultaneously the country develops conditions to facilitate foreign investment and boost production export on the other hand. China is reducing risks tied to import dependency.

Since China is extremely dependent on imports of oil and gas, respectively almost 85 percent of China's oil consumption and over 40 percent of gas consumption was derived from imports in 2019 it has been securing its supply. Geopolitical tensions are potentially dangerous for disruptions. So China is avoiding these dangers by developing and implementing renewables and by avoiding being dependent on a small amount of energy suppliers. Under the OBOR initiative China has signed MoU's with many countries in Asia, Africa, Europe and Latin America. With these international relations it has diversified its international relations in the energy sector.

In Europe countries used for nearshoring were primarily the emerging countries in East European countries. The countries of Eastern Europe, such as Ukraine, Russia, Poland, Lithuania, Latvia, Estonia demonstrate a lot of advantages: existing industrial bases, qualified resources, skilled engineers, and so on. Some also have free trade agreements with the EU, meaning there is a simplified supply chain compared to outsourcing to Asia. But more and more alternatives are also being considered: Spain, Portugal and Ireland are nowadays also successful nearshoring countries.

The relocation of global trade will change the port landscape. Additional port facilities would be needed in new emerging markets and port facilities near current production clusters may face lower utilisation rates. As the shipping lines have invested heavily in very large container vessels for the current main trade route between the Far East and Europe (with port facilities upgraded to facilitate them), the cascading of vessels to secondary trades may pick up even more pace. These smaller ports will need a new modus. Tugs used in these "smaller ports" do not have to tow ultra large vessels, so the specifications can be of a moderate scale than those used in the ports used by vessels on transatlantic voyages.

## Brexit

In the UK towage operators are preparing for the Brexit. On 31 January 2020 the UK ceased to be part of the European Union ("EU") and on 31 December 2020 also the 'transition period' will end. Talks between both parties as to their future (trading) relationship are ongoing:

- although currently not very likely, in case of a soft Brexit the UK stays either within the EU's Single Market by becoming a member of the European Economic Area (like Norway), the European Customs Union, or both
- a hard Brexit means that the parties cannot find an agreement as to their future relationship ('no-deal')
- there are a number of possibilities to achieve something in-between



The 50 major sea ports of the UK represent a private sector industry. On the face of it the UK's departure from the EU poses a significant threat if fears of a sharp drop in trade after Brexit are realised. In any case, the UK is scheduled to leave both the single - or internal - market and the customs union. There will undoubtedly be implications for the UK's sea ports. A hard Brexit introduces full border controls (and tariffs) on all goods traded between the UK and EU, likely causing congestion at the borders.



NEWSLETTER

# Towage

Long waiting times are predicted for truck drivers. The UK is an important destination for short sea shipping; 30% of goods shipped via short sea find their way to and from the UK. Plans have been developed to bypass the French ferry port Calais and Dover in the UK by investing in ports on the east coast of the UK to strengthen and diversify the country's supply routes. Dover does not possess enough space for new customs buildings and cannot handle a vast amount of trucks waiting for clearance (other than through exterior waiting lots contemplated to be set-up). Calais is notorious for disruption due to bureaucratic customs officers and strikes. Regardless of the outcome of the negotiations, (some form of) border friction is expected to arise as the Brexit transition period end draws closer. The UK government has launched a £200M port infrastructure fund to help build new facilities.

Targe Towing already anticipated on the Brexit by ordering new tugs for its terminal services in Scotland. SMS Towage invested over 19m BP in a series of new vessels enhance its services in Belfast, the Humber, Portsmouth and the Bristol Channel.

## Global tensions and relaxations - new routes and closed routes

In August a normalisation deal between Israel and the UAE was announced. As a result trade between the two countries was initiated: a liner between Dubai's Jebel Ali port to the northern Israeli port of Haifa. Israeli officials have estimated bilateral trade could reach as much as \$4 billion a year - and nearly all goods will have to travel by sea.

Exhibit 9: MSC Indus Express Route



Source: [www.MSC.com](http://www.MSC.com)

Meanwhile the old port of Haifa is being privatized. DP World is one of the bidders on the port, together with Dover Tower, a company owned by Shlomi Fogel, the co-owner of Israel Shipyards and the Port of Eilat. The two firms also will explore creating a direct shipping route from Dubai's massive Jebel Ali port to Eilat, the statement said. "DP World's mission is to enable global trade," DP World chairman and CEO Sultan Ahmed bin Sulayem said. "Our work to build trade routes between the UAE, Israel and beyond will help our customers to do business in the region more easily and efficiently". Next to the old port a modern container terminal is being constructed, the Haifa Bay Port. The Chinese company SIPG has the concession for construction of the port and its operation for 25 years.

## Towage

In Australia the government barred Huawei Technologies from building its 5G network for national security reasons. As a retaliation China has put a halt to importing major trades from Australia: meat timber, wine, coal, cotton. For now China's trade sanctions against Australia had focused mainly on agriculture products, but also other bulk commodities are in risk, particularly coal. Vessels with iron ore, Australia's biggest export to China, are waiting for China's ports not being able to offload their cargo. According to China the quality of the coal failed to meet environmental standards. China has strengthened examination and testing over imported coal for safety, quality and environment standards so as to better protect the legitimate interests of Chinese companies as well as environmental safety, according to the Chinese Foreign Ministry. China is Australia's most important trading partner, with agricultural shipments alone totalling about A\$16 billion in 2018-19. Australia is the world's most China-dependent developed economy.

Brazil benefits from tensions with China, mainly the USA-China trade war: food exports, containerized sugar and swine meat from China have driven up the exports. Total exports, year to date, are up 40%, though imports have declined.

Other countries in Latin America have a bleak economic outlook. Several countries in the region have become the epicentre of the pandemic. Prior to the pandemic, growth was at 0.4%. and according to the UNCTAD, recovery will be slow: GDP in 2020 is expected be that of 2010 and poverty levels could reach that last seen in 2006. 2020 has seen the largest fall in output for Latin America since the second world war. Unemployment could reach 44m people – the largest increase since the previous global financial crisis. Poverty could reach 2005 levels: 231m people - a reversal of 15 years. Extreme poverty could reach levels last seen in 1990, affecting 96m people. This is a setback of 30 years.



### New tug designs

Ships and ports will certainly develop in the coming years and tugs will have to keep pace with these developments. Main drivers for the changing world fleet are the global transition towards more use of renewable energy and less use of fossil fuels and, the increasing influence of automation and digitalization. Besides these drivers, the world fleet composition is changing: the number of general cargo ships decreases as is the case with tankers; the latter mainly due to more local energy production, ashore and/or at sea, and the phasing out of liquid fossil fuels. The number of container ships may further increase as are bulk vessels. Thirdly, other ship developments occur, like the manoeuvring capabilities of ships, particularly of large container vessels, ferries and cruise vessels, which will reduce the need for tug assistance. The size of certain type of ships will also further increase, which will affect the number of ships in service. It is not expected to the same degree as has been the case in recent years with container ships, gas carriers and bulk carriers. In addition, new methods of sea transport may be developed and certainly all the activities at sea will introduce new design features for new ship types.

Ports also undergo continuous change, as well as in port lay-out as in port equipment. The growth of maritime transport, the change in cargo transport, the change in vessel designs, geopolitical influences, climate change all will affect port infrastructure.

And so tug technology is developing fast, as well on alternative fuel-systems, as on digitalization and versatility. The demand is for more powerful tugs to adequately service the big container ships, very large gas carriers and crude oil tankers. The tugs are required to be versatile and to have a relatively short length. Another fact is that ship handling tugs will have to operate more and more in exposed conditions, outside the breakwaters and at offshore terminals. Such aspects can be optimized to a great extent by good design and appropriate deck equipment. Also the need for unique, purpose built tugs for the deployment in specific port or terminal infrastructure is increasing. Furthermore, there is an increasing demand for high overall safety standards.

## Sustainable towage

---

From January 2021, IMO Tier III regulations for commercial vessels with diesel engines will come into force. This imposes rules on the emissions from diesel engines on vessels with a total power of more than 130 kW, and with their keel laying date after 1 January 2021. Vessels built after this date will need cleaner diesel engines and after treatment systems to minimise nitrogen, sulphur oxide and particulate matter emissions.

Tugs will need to be built to comply with IMO Tier III, or US Environmental Protection Agency (EPA) Tier 4, requirements with emissions abatement technology or alternative fuels.

Also ports will put pressure on towage operators to reduce emissions in harbours and terminals, especially when these are close to cities. With increasing awareness of the health issues associated with emissions from diesel engines, tug owners will be required to remove harmful compounds, such as nitrogen oxides and particulate matter. And as more ports introduce shore-based ship charging, there will be a greater push for hybrid-electric propulsion.

Ports like Hamburg, Valencia, Zeebrugge, Lulea, San Diego, Los Angeles and Long Beach already have invested in shore power. Already in 2009, Crowley tugboats used for ship assist and escort operations in the Port of Los Angeles and Port of Long Beach shore-side electrical power when not on the job.

These changes in towage and in environmental requirements will shape the future design of tugs for towage. Main builders and naval architects and designers are developing complete new tug designs, versatile, with hybrid-electric propulsion and NOx abatement technology to meet stricter environmental rules.

However, in order to avoid these new regulations there could be a rush of order for new tugs before the date set. In these cases main builders anticipate on the future by developing designs in which there is room enough to install environmental cleaning equipment, so the tugs can be converted to comply to IMO III requirements when necessary. So are the Svitzer Ice-Breaking Tugs built by Med Marine compliant to IMO Tier II standard, however the tugs are designed in such way that there is room enough for equipment to be installed for raising the vessels compliance to IMO Tier III emissions standard.

In the orderbooks at July 2020 27 vessels are indicated as meeting the requirements of IMO III.

US tug owners already comply to these new IMO III regulations. Vessels built in the US shipyards already meet US Environmental Protection Agency's Tier 4 emissions requirements, which are similar to IMO Tier III.

In the **USA** Great Lakes Towing is converting its fleet to hybrid propulsion. At its own shipyard Great Lakes began construction on the sixth of a series of 10 diesel-electric hybrid tugboats. The vessels feature hybrid system components, but unlike other hybrid tugs, these tugs do not operate on batteries. According to Great Lakes Towing the reasoning for this is that the CAPEX costs remain high compared with fuel and emissions savings which reduces the overall benefit.

Furthermore, breakdown incidents and practical challenges associated with the installation of batteries are also reasons not to switch to batteries. The tugs are custom designed, specifically for its horsepower and its propulsion and bollard pull requirements.

The Port of San Diego will soon replace one of its old diesel-powered tugs with a new electric one. Crowley Marine will order an electric tug for operation in this port. Over its lifespan, the new tug will reduce nitrogen oxides by 204 tons, carbon dioxide by more than five tons, and particulate matters by three tons. The project will also save more than 44,200 gallons (16,731 litres) of diesel fuel. The port of San Diego also will soon begin infrastructure improvements to support future installation of a renewable, solar-powered microgrid at the Tenth Avenue Marine Terminal, one of the Port's two marine cargo terminals. The microgrid is expected to help the port improve its air quality.

NEWSLETTER

# Towage

Also other companies, such as Brusco Tug & Barge, Bisso Offshore, McAllister Towing & Transportation and Moran Towing have ordered new tugs compliant with EPA Tier 4 emissions reduction requirements. Foss Maritime ordered a series of EPA Tier 4-compliant escort tugs for assisting ships into US west coast ports. The first two – Jamie Ann and Sarah Averick – have been completed.



In Europe Boluda anticipated on the new regulations by retrofitting the Union Koala to to the IMO Tier III standards in 2019. In the port of Zeebrugge it will deploy two new tugs, both complying with the most recent IMO Tier III emission standards. The Union Panda will be retrofitted this year and the other tugs in the Zeebrugge-fleet will also be retrofitted in the first two years of the contract.

Port of Luleå’s hybrid propulsion ice-breaking harbour tug Vilja was delivered in 2019.

In Turkey Sanmar developed an alternative hybrid propulsion. The Boğaçay XXXVII is the world’s first Advanced Variable Drive (AVDTM) tugboat. It has an application of hydro-mechanical hybrid propulsion which reduces emissions and saves fuel. The Boğaçay XXXVII will be used in the Izmit Bay, alongside the diesel mechanical tugs. Sanmar will use the data on OPEX savings related to anticipated reductions in fuel consumption and planned maintenance costs compared to her diesel mechanical equivalents for further development.

Navtek Naval Technologies has developed a range of zero-emissions electric tugs, the Zeetug (Zero Emissions Electric Tug) series. As a totally electric vessel, the Zeetug is estimated to save 210 tonnes of CO<sub>2</sub> and 9 tonnes of NO<sub>x</sub> per year compared to the equivalent traditional tug boat. According to Navtek the all-electric vessel should be custom designed to optimise the operational benefit. In Istanbul the Zeetug is deployed by Gisas Shipbuilding Industry. For this particular project, Navtek studied five tugboats and their operations from five years of data to create an operational profile. The four key operational aspects were: How often does the tug operate? How long is each operational period? What is the typical distance sailed? What are the power requirements for each operational period? With this data the 75-tonne BP Zeetug was built by Tuzla and is deployed in the Istanbul waters.

In the Middle East Saudi Aramco is working with ABS. It has the intention to achieve ABS’ environmental protection Enviro notation for all 23 vessels in its fleet. The fleet consist of offshore support vessels, tugs, self-elevating units and special purpose vessels. The ENVIRO notation identifies the level of compliance with international environmental protection requirements and integrates associated ABS protection requirements.



NEWSLETTER

## Towage

Mid 2019 PSA introduced PSA Aspen, an LNG driven tug in the port of **Singapore**. The 50-tonne BP tug operates on two Wärtsilä 20DF dual-fuel engines running primarily on LNG fuel and was built by PaxOcean Shipyard. Also in China, Ningbo Zhoushan Port has experience with dual-fuel tugs. The Yong Ang Xiao Tuo 60 was delivered at the end of 2019 and has China Classification Society (CCS) notation. The tug has a bollard pull of 80 tonnes.



Zeetug – Gisas Power (Source: www.zeetug.com)



PSA Aspen

Meanwhile in Japan Tokyo Kisen engaged in the national strategy to test alternative marine fuels and developed the first hydrogen-fuelled tug in east Asia. The aim is to launch the tug for commercial operations in Yokohama Port and Kawasaki Port in 2022.

In 2019 the Port of Auckland in New Zealand in 2019 ordered a fully electric tug at Damen. The port had set itself the goal of being zero emission by 2040. To meet this goal the port needed a zero emission option for the tugs, which they found at the Damen RSD Tug. Already in 2016 the port was looking for an electric tug, however without any success. Two years later Damen unveiled its RSD-E Tug 2513, a fully-electric ship-handling tug in the world with 70 tonnes bollard pull. In July 2020 the keel was laid of Sparky, as the new electric tug was named.

## Digitization

Though most visible design features concern adjusting to new environmental regulations and versatility, as mentioned before digitalization is a key driver for new design as well. Ship intelligence is one of the main technology trends in the marine business. It will enable fundamental changes in towage, such as the development of remote controlled and autonomous tugs.

Since 2017 various initiatives were carried out the cause of remote control and autonomous tugs. For instance the remote control test with the 28m long free-sailing tug Svitzer Hermod in the Port of Copenhagen and with the free-sailing Highland Chieftain, an 80 m long platform supply vessel, in the North Sea. The remote control test of this vessel was carried out by the Wärtsilä office in San Diego, California over a distance of 5,000 miles. Another remote controlled tow was carried out with the tug Giano, the 85m long ferry Folgefonn visited three ports autonomously, including docking and undocking, with no human intervention.

In 2018 Kotug demonstrated the autonomous tug RT Borkum at the ITS show in Marseille. A Kotug captain took control of the miniature Rotortug RT Borkum, which was located in Rotterdam. Using a secure internet connection, video camera feeds and a duplicate bridge console, he piloted the tug from a distance of 600 miles away. In 2020 the tug was used for a pilot in the port of Rotterdam. The project was a cooperation of Kotug International, Rotortug®, and Captain AI, which develops software for autonomous sailing. It showed the possibilities of autonomous towing in a busy port.

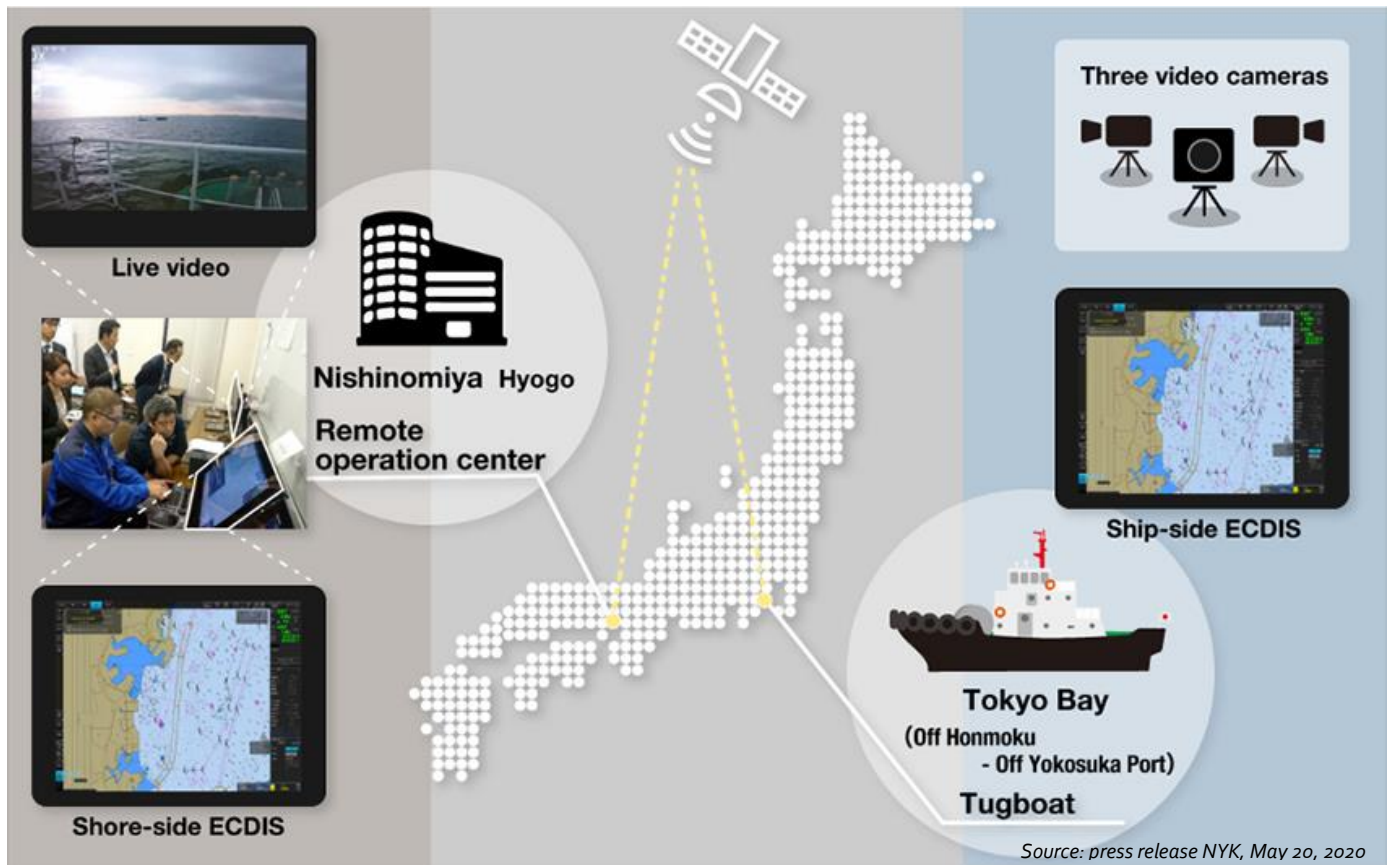
As part of the Marine Autonomous Surface Ship (MASS) test bedding programme the Maritime and Port Authority of Singapore (MPA) supports five autonomous vessel projects. To name two, this year PSA and Wärtsilä deployed an autonomous vessel, the

NEWSLETTER

# Towage

PSA Polaris in the Port of Singapore. The initiative is to test technical systems that can assist masters in collision detection and avoidance and virtual anchoring with enhanced situational awareness at night and in complex situations. Lloyd’s Register has granted its class approval for the IntelliTug technology used onboard the vessel. The other one concerns the development of Keppel Singmarine. The company embarked on the development of an autonomous tug, to be operated by Keppel Smit Towage. To develop the autonomous tug, Keppel O&M has secured a grant of up to S\$2 million from MPA under its Maritime Innovation and Technology Fund (MINT FUND). Expectations are that the tug will be deployed in 2020.

In Japan amongst others the NYK Group companies NYK, MTI and Keihin Dock along with Japan Marine Science were selected by Japan’s Ministry of Land, Infrastructure, Transportation and Tourism to participate in a remotely controlled ship demonstration project. Japan wants practical implementation of autonomous ships by 2025. The philosophy in Japan is that harbour tugs are viewed as likely to be one of the first vessel classes to become autonomous. Other companies in the project are Mitsui E&S Shipbuilding, Mitsui OSK Lines and the Tokyo University of Marine Science and Technology. In 2019 the latter companies completed 54 autonomous berthing operations using a virtual pier set on the open water off the coast of Japan. The demonstration project was conducted using the university’s training ship Shioji Maru. In 2020 NYK and its affiliates operated a tugboat within Tokyo Bay from an operation centre in the city of Nishinomiya, approximately 400 kilometres away. This tugboat was maneuvered approximately 12 kilometres in Tokyo Bay between an area off Honmoku and an area off the port of Yokosuka.



Rolls Royce, already before being part of Kongsberg, has been studying automatic mooring technology as part of its autonomous tugboat concept. Interests are in the developing robotic cranes that could be used for hooking up ships to tugs during towage operations.

## Towage



### Supply and demand

---

According to Clarksons World Fleet Registers in July 2020 the global orderbook amounted to over 550 tugs, of which the majority was ordered before 2020. This first half year about 100 tugs were delivered and brought into service. A substantial part of the tugs, over 25%, was delivered for Indonesian owners. In the USA about all major towage operators deployed new tugs, Crowley Maritime, Foss Maritime, G & H Towing, McAllister Towing and Vane Brothers are among the owners putting new tugs in service.

A substantial part of the tugs on order are being built for the shipyards itself, being part of their stock: mostly popular tug designs, ready to be sold to owners. Speculative building was opportune with so many new tankers and bulkers on order at the large shipyards; builders were "certain" that the stock was to be purchased or taken on charter by port authorities or owners to serve their clients.

Of the 163 tugs, ordered in 2019, three are going to be powered by batteries or by a hybrid battery propulsion. One of the most striking orders was the electric tug by the Ports of Auckland. Damen Shipyards is building this full-electric propulsion harbour tug. Meanwhile in Japan Tokyo Kisen engaged in the national strategy to test alternative marine fuels and developed the first hydrogen-fuelled tug in east Asia. The aim is to launch the tug for commercial operations in Yokohama Port and Kawasaki Port in 2022.

A substantial part of the tugs on order are being built for the shipyards itself, being part of their stock: mostly popular tug designs, ready to be sold to owners. Speculative building was opportune with so many new tankers and bulkers on order at the large shipyards; builders were "certain" that the stock was to be purchased or taken on charter by port authorities or owners to serve their clients.



### Market

---

In the EU about 1,500 tugs are deployed, according to a 2019 study of Ecorys. Tug owners demonstrate their importance to Europe's economy and domestic growth by helping transport more than 1.3 bn tonnes of cargo on over 56,000 ship visits each year. All this generates €1.2 bn (\$1.35 bn) of turnover for tug owners in the region, averaging €13.7 mn per tug owning company. The European towage sector employs more than 11,000 workers, 83% of them crew members. The industry is essentially European as the greater part of operators are local and 99% of employees are EU national.

In March 2019 the EU Regulation 2017/352: Establishing a framework for the provision of port services and common rules on the financial transparency of ports, the Port Services Regulation (PSR), came into force. The PSR is expected to make it easier for new providers of certain port services, amongst others Port towage to enter the market, creating a more level playing field and reducing legal uncertainties for ports, port service providers and investors. Furthermore, the new rules are expected to ensure transparency of port charges and public funding of ports. In the European Union Treaties providers of port services should be free to operate in all European maritime ports, but managing bodies have the power to impose certain conditions on the exercise of this freedom. So in Italy, until 2019 port towage was executed exclusively by Italian companies. The coming years new tenders are to be issued. The tenders are open for foreign companies as well as Italian ones and national towage operators are worried for losing (part of the) €300 mn annual turnover to foreign competitors.

## Towage

The US market for towage is estimated at \$3.5 bn. About 1,100 companies are operating in this sector employing a total of over 13,000 persons. The US towage industry still is protected by the Jones Act. Underpinned by the Jones Act, which provides the level playing field and the certainty that enables companies to make investments.

Two factors will drive the need for more powerful tugs, namely the expansion of the Panama Canal and the 'cascading' of larger box ships across the Pacific from Asia to the U.S. West Coast. It is expected that in the near future 18,000 TEU container vessels will call at the US West Coast.

In February 2020 the US Department of Transportation's Maritime Administration (MARAD) awarded more than \$280 million funding to improve the infrastructure of the US ports, all under the umbrella of the Port Infrastructure Development Program. The goal of this program is to support efforts by ports and port stakeholders to improve port and freight infrastructure to ensure that future freight transportation needs will be met. This program provides planning, stakeholder engagement, operational and capital financing, and project management assistance to ports and port stakeholders to improve their capacity and efficiency. In total, 15 projects were granted funding by MARAD, six of which are located in 'Opportunity Zones', areas specifically meant to revitalise deprived communities using private investment.

COVID-19 will certainly have its implications on the towage industry. Reduced demand for manufacturing and declined oil and gas transport, due to low prices, will have its price on trade and accessory shipcalls in ports. The Coronavirus pandemic has shutdown much of the US economy for months. The most direct impact of slowing economic growth on the shipping industry is felt by the container shipping industry, with demand for containerised goods one of the first things to be affected. Loading containerised imports to the US West Coast are down 12.5% in the first four months of the year, representing a loss of 434.000 TEU compared to the first four months in 2019.

It was expected that South America was to be one of the major growth regions for towage. However, the major impact of the COVID-19 pandemic on the economy in this continent will have its repercussions on the expected growth.

A major growth of tug services is expected to take place in the APAC-region. With the increase in seaborne trading and the expansion of ports, several companies are investing in APAC. This will subsequently increase the number of orders for tugboats, fuelling tugboats market growth in this region. Australia, Thailand, and Japan are the key markets for tugboats in APAC.

### Terminal towage

The towage industry also is suffering from the pandemic. Disrupted port calls, blanked container routes, less throughput and transit in ports are influencing the towage substantially in ports. On the other hand terminal towage was less influenced by the COVID-19 disruptions, since in this sector long-term contracts towage services are common, providing stable business. It is for tug owners enticing to expand into other countries. However, there are strict domestic rules to comply with, crewing challenges to overcome and challenging environments to operate within; demonstrated by new or renewed contracts.

With the increasing size of vessels, LNG carriers as well as container ships, towage companies are obliged to respond with tugs with adapted specifications in order to safely escort the large vessels. Among the contracts recently signed was a 10-year extension, until 2032, for Svitzer to provide marine services for Sakhalin Energy Investment Co's LNG production and export terminal in Far East Russia. Svitzer also extended its tug services for NuStar in eastern Canada. Extension will last until 2025. And in Oman Svitzer secured a 15-year extension to its contract to provide marine services to Sohar Industrial Port Co. The marine service contract with GTI Statia, located on the island of St. Eustatius was also extended, this with three years. At the same time, Svitzer also secured a five-year extension of its current contract with Egyptian LNG assisting the land-based dku LNG plant with four tugs, two mooring boats and one pilot boat.



## Towage

Kotug signed a new contract agreement covering marine services and ship handling at the terminal for Brunei-based group SPHI Marine. Kotug ordered four new LNG terminal support tugs. In the Caribbean the joint venture between Kotug International and Seabulk Towing, Kotug SeaBulk Maritime Services (KSM), added two new tugboats to its fleet to comply to the increasing number of tankers calling at the Buckeye Bahamas Hub Terminal on Grand Bahama island. And in October Kotug has been awarded a long-term contract by Esso Exploration and Production Guyana Limited (EEPL) to provide offshore terminal towage support for operations in Guyana. This contract marks Kotug's first operation in the South American subcontinent and upcoming oil-producing nation of Guyana. To support the operations in Guyana, Kotug (through the local entity Kotug Guyana Inc.) will employ its newly acquired vessel "SD Power", a high-spec 130 tonnes bollard pull, DP-2 azimuth anchor-handling tug.

Boluda also responded to the increasing size of vessels and added two new multipurpose tugs to its fleet to assist larger LNG carriers and container ships visiting the expanded import facilities in the port of Nantes-St. Nazaire, France. These two tugs were part of a six –tug newbuilding program of Boluda France. Two other tugs were deployed in Marseille-Fos and the last two tugs were delivered in April 2020 in Le Havre. The port of Zeebrugge renewed its towage concession with Boluda Towage Europe for five years and extendable for a single period of three years. The agreement includes eight tugs and puts forward initiatives regarding sustainability. Also in Mexico Boluda is gearing up to provide towage services in growing ports and oil terminals on Mexico's west coast and added several tugboats to its fleet.

Italian tug owner Rimorchiatori Riuniti Group has taken delivery of a new escort and emergency response tug, being deployed in the port of Genoa. Investment in this new escort tug comes as new tanker and LNG carrier terminal capacity is built for rising energy imports into Europe.

In India Total formed a partnership with Adani Group to increase LNG imports. The intention is to help the Indian Government with its aim to increase natural gas use in India: the government has set the target of increasing the share of gas in its energy mix to 15% in 2030, from 7% nowadays. Adani will manage the gas distribution network and logistics of importing more LNG, and for escorting the LNG ships Adani ordered seven tugs in Japan.

The Japanese tugboat fleet is aging and several towage operators respond to meet the stringent requirements the increasing vessel sizes by investing in new tugs. Naikai Tug Boat Service provide towage services for LNG carriers and tankers at Japanese import terminals; the company deployed a new state-of-the-art tug. Other Japanese companies investing in new tugs are Kawasaki Kisen and Fukushima Kisen.

Plans for LNG terminals in Latin America will be driving towage demand. In El Salvador a new LNG floating storage and regasification project create the necessity for SAAM to order three new tugs to support the LNG carriers berthing and undocking at the terminal.



### New towage concepts

Digitizations and sustainability are main trends for tug design, and tugs are being more and more custom-built, according to requirements of the ports in which they will be deployed. But besides the design of the boat, also the towage concept can be subject to change.

Ownership of vessels might become different. An example can be the introduction of a "Tug-as-a Service" concept. In the offshore sector the French company SerEnMar already offers the "Ship-as-a-Service" –concept, in which the company supports its clients through a service contract. The company combines chartering with supervision and technical assistance services. Similar concepts are conceivable in the tug industry.























## Towage

Another example is the concept which shipbuilder Damen is developing. It concerns the concept of retaining the complete product-life-cycle: from design and building, through service until recycling. In this case Dames remains owner of the vessel, and customers pay for the use of the vessel.





























Procurement of tug services is changing. Concepts of platforms for tug services already have entered the market, but inevitably this segment will see growth. A somewhat derived form of the platform-concept is the modelling of an “Uber”-service of tugs.



## Overview of Selected Harbour Towage Operators



























	Company name	Fleet 2020	Fleet 2019	Fleet 2018	HQ	Geographic scope	Remarks
	<b>Svitzer*</b>	440	440	430		Worldwide	Sold Portugese activities and acquired PTA, Netherlands
	<b>Boluda*</b>	346	303	225		Europe, Africa, Caribbean, Central America and South America	
	<b>SAAM*</b>	173	153	~150		Brazil, Canada, Colombia, Costa Rica, Chile, Ecuador, Guatemala, Mexico, Panama, and Uruguay	Acquired majority of Intertug of Colombia
	<b>Boskalis</b>	~150	~150	260		Southeast Asia	Sold the towage business in Latin America, Canada and Europe
	<b>NYK*</b>	130	130	n.a.		Japan, Vietnam	NYK Group owns and operates more than 130 tugs in Japan and Vietnam
	<b>Moran</b>	112	116	~120		USA	
	<b>Fairplay Towage Group</b>	~105	~105	~37**		Netherlands, Germany, Belgium, Poland, Spain (has licence for operating in Las Palmas de Gran Canaria, but after some months left the port)	Group companies: Fairplay Towage, Fairplay Towage Polska, Bugsier, Theodor Buschmann, Arge Küstenschutz; Odriel Participating in: Multraship and Antwerp Towage
	<b>Rimorchiatori Riuniti</b>	100+	100+	~100		Mediterranean	
	<b>Mitrabahtera Segara Sejati (MBSS)</b>	86	86	n.a.		Indonesia	
	<b>Ocean Sparkle Limited*</b>	84	83	~80		India and Oman	
	<b>Wilson Sons*</b>	75	75	76		Brazil	

NEWSLETTER  
**Towage**



























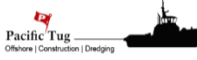





	<b>Ultratug*</b>	70	70	~70		Argentina, Chile, Colombia, Ecuador, Mexico, Peru, and Uruguay	
	<b>PSA Marine*</b>	85	65	~60		Malaysia, China, Hong Kong, Taiwan, Oman, India, Bangladesh and Peru	Acquired the Peruvian company Tramarsa
	<b>Crowley</b>	84	65	n.a.		USA	
	<b>SC Gorup</b>	70+	70+	70+		Thailand	Part of the conglomerate SC Group
	<b>P&amp;O Maritime*</b>	60	60	70		Dubai, Mozambique, Cyprus, Spain, Equatorial Guinea, Trinidad and Tobago, Canada, Paraguay and Ukraine	In the 2019 count the smaller tugs and mooring boats are not included
	<b>Harbor Star*</b>	57	57	n.a.		Philippines and Malaysia	54 tugboats are deployed in the Philippines, 3 in Malaysia
	<b>McAllister</b>	55	57	~60.		USA	
	<b>CPT Empresas Maritimas*</b>	51	51	48		Chile, Peru, Ecuador, Panama, and Argentina	
	<b>Vane Brothers</b>	50	50	~40		USA	
	<b>Kotug*</b>	50+	49	100		Africa, Caribbean and Asia-Pacific, Canada, and Russia	Includes Kotug, Kotug Canada, Kotug Petro Maritime, Marsol, Kotug Seabulk, Kotug Australia, Kotug Guyana
	<b>Harley Marine</b>	50	48	n.a.			
	<b>Panama Canal Authority</b>	46	46	n.a.		Panama	
	<b>Foss</b>	45	45	58		USA	
	<b>Malayan Towage and Salvage Corporation</b>	45	45	n.a.		Philippines	



NEWSLETTER  
**Towage**

	<b>Pelabuhan Indonesia III (Pelindo III)</b>	40+	43	n.a.		Indonesia	Pelindo III deploys the fleet in the 43 ports it manages
	<b>SCAFI*</b>	40+	40+	n.a.		Italy, Croatia, Morocco, and Greece	In Greece, Vernicos Scafi is participating in the Med Tugs Consortium
	<b>Hakans</b>	43	40	n.a.		Finland, Estonia and Latvia	
  	<b>Med Tugs Consortium</b>	40	40	n.a.		Mediterranean	Formed by Vernicos Tugs (17 tugs), Spanopoulos Group (14 tugs), Lybousakis Towage & Salvage and Karapiperis Towage & Salvage
	<b>Bhagwan Marine</b>	32	36	n.a.		Australia and United Kingdom	
	<b>Tokyo Kisen</b>	30	30	~30		Japan and Hong Kong	
	<b>Buksér og Berging*</b>	30	30	n.a.		Norway, Sweden and UK	
	<b>Seabulk Towing</b>	29	30	n.a.		USA	Part of the Seacor Group; mentioned fleet consists of harbour, offshore and terminal tugs
	<b>Kuwait Oil Company</b>	25	29	n.a.		Kuwait	
	<b>Suez Canal Authority (SCA)</b>	31	28	n.a.		Egypt	
	<b>Crescent Towing</b>	27	26	n.a.		USA	
	<b>Neri Group</b>	29	25	n.a.		Italy	
	<b>POSH SEMCO</b>	18	25	n.a.		Singapore, Senegal, Sri Lanka, Brunei and Myanmar	
	<b>Intertug*</b>	0	24	28		Colombia, Honduras, and Mexico	Harbour towage activities acquired by SAAM

# Towage

	<b>Camorim</b>	30	23***	n.a.		Brazil	
	<b>Med Marine</b>	21	21	24		Turkey	
	<b>Sanmar*</b>	21	21	20		Turkey	
	<b>Empresa de Navegación Caribe</b>	21	21	n.a.		Cuba	
	<b>Sulnorte Serviços Marítimos*</b>	21	20	n.a.		Brazil	
	<b>Ostensjø</b>	20	20	n.a.		Norway and UK	
	<b>E.N. Bisso &amp; Son</b>	19	19	n.a.		USA	
	<b>MOBY</b>	16	18	n.a.		Italy	
	<b>SMS Towage*</b>	18	18	n.a.		England and Northern Ireland	
	<b>Iskes</b>	11	18	n.a.		The Netherlands, Germany, Finland, Denmark, Sweden, Portugal, French Guyana	
	<b>Signet Maritime Corporation</b>	17	17	n.a.		USA	
	<b>Hongkong Salvage &amp; Towage*</b>	13	15	n.a.		Hong Kong	Used as harbour tugs as well as ocean-going tugs
	<b>Tramarsa*</b>	0	14	n.a.		Peru	Acquired by PSA
	<b>Pacific Tug</b>	13	13	n.a.		Australia	
	<b>TSM Group</b>	19	13	n.a.		France	
	<b>Milaha</b>	11	12	n.a.		Qatar	

# Towage

	Detroit*	11	11	n.a.		Brazil	6 tugboats are under construction
	Echo Cargo & Shipping	8	11	n.a.		United Arab Emirates	
	Zouros Group	?	10	n.a.		Greece	GMC is to acquire 80% of the assets and operational interests in Zouros Group
	GAC Marine	8	9	n.a.		United Arab Emirates	
	Nakilat	9	9	n.a.		Qatar	
	Ian Taylor	6	6	n.a.		Chile and Peru	
	Trans Ona S.A.M.C.I.F.	6	6	n.a.		Argentina	

Sources: websites, news articles, Clarksons World Fleet Register;

\*: confirmation of companies concerning their **2019** fleet size and geographic scope

\*\*: in 2018 tug vessel count was limited to only the tugs of the Fairplay Towage fleet, excluding the fleets of the subsidiaries; the 2019 fleet overview includes the tugs of all companies within the Fairplay Towage Group

\*\*\*: Camorim, Camorim's fleet includes 8 tugs chartered from Starnav; excluding small vessels.

## Harbour Towage M&A Transactions

### Shenzhen Capital Operation Acquired 29.8% of China International Marine Containers and became largest shareholder of company

In Oct'20, Shenzhen Capital Operation has acquired 29.8% of shares of China International Marine Containers from COSCO Container and two other shareholders to become the largest shareholder. The company is engaged in manufacturing of logistics and energy equipment, including containers, offshore support vessels, ocean tugs, mid-to-high-end yachts and other vessels.

### Svitzer Acquired Madero Amarres from Marítima Meridian

In Sep'20, Svitzer acquired Maritima Meridian, provider of port towage services in Argentina. Maritima Meridian was first focused on dry-bulk, liquid bulk and general cargo Tramps ships and then started to specialize in tankers within all the country's ports.

### Econocom Group Acquired Les Abeilles International from Bourbon Corporation

In Sep'20, Econocom has acquired Les Abeilles International from Bourbon Corporation to position itself more as a player in maritime. Les Abeilles is based in France and is a shipowner specialized in towing and rescue on the high seas.

### Kotug Acquired Marsol International

In May'20, Kotug International acquired Marsol International, provider of integrity management-based commercial and technical marine service solutions for SPM and offshore terminals. The acquisition will enable Kotug to enter the Middle East market and bolster its offshore marine terminals operations.

### PSA Marine Acquired Tramarsa Flota

In Feb'20, PSA Marine, Singapore-based marine services provider, acquired Tramarsa Flota, Peru-based maritime services company. Tramarsa owns 45 vessels, including 14 tugs, 23 launches, and five support vessels.

### Kirby Acquired Inland Tank Barge Fleet

In Jan'20, Kirby Corp acquired the inland tank barge fleet and bunkering services of Savage Inland Marine for \$278 mn in cash. The fleet includes 46 inland towboats having an overall capacity of ~2.5 mn barrels.

### Snekke Expands Fleet with Acquisition

In Jan'20, Mexico-based Snekke acquired azimuth stern drive multipurpose tug from a Turkey-based Med Marine. The acquisition will raise Snekke's fleet to three tugboats in Manzanillo, Colima.

### SAAM Acquired Majority Stake in Intertug

In Jan'20, Chile-based Sociedad Matriz SAAM acquired 70% of Intertug Investment Holding, a towage services provider operating in Colombia, Mexico, and Central America. The deal will help SAAM to consolidate its position as a leading tug operator in the Americas with a fleet of over 170 tugs in 11 countries.



## Towage

### **Svitzer Acquired 100% stake in Port Towage Amsterdam**

---

In Dec'19, Svitzer, a Maersk subsidiary, purchased stake owned by Iskes Towage and Salvage to take full control of Port Towage Amsterdam. Svitzer has also taken over more than 30 employees, including crew, from Iskes Towage and Salvage.

### **SAAM Partners with Energía del Pacífico**

---

In Dec'19, Chile-based SAAM entered a new market, El Salvador, in partnership with Energía del Pacífico (EDP). SAAM entered into a long term agreement with EDP to provide its services at the Port of Acajutla.

### **Kotug and Horizon Maritime Form a JV**

---

In Oct'19, Netherlands-based KOTUG International and Canada-based Horizon Maritime Services formed a JV to strengthen their presence in the Canadian terminal and harbour towing market.

### **Boskalis completes sale of Saam Smit Towage**

---

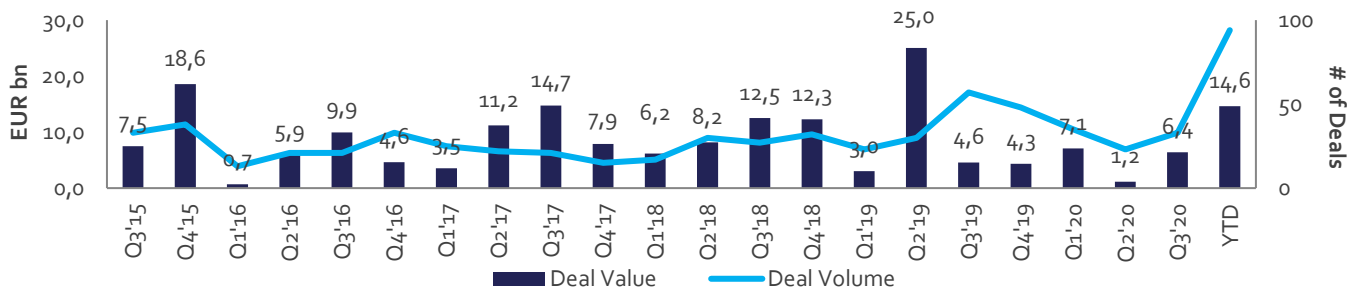
In Oct'19, Royal Boskalis Westminster has sold its equity stake in Saam Smit Towage to SAAM for \$200.0 mn. The company received \$200.0 mn in cash from SAAM, for its equity stake in the joint venture resulting in a pre-tax book gain of \$44.6 mn.

### **Kirby Corp Acquired Cenac Marine's Transportation Fleet**

---

In Jan'19, Kirby Corp acquired the marine transportation fleet of Cenac Marine Services for a consideration of \$244 mn in cash. Fleet included 34 inland towboats, 2 offshore tugboats, and 63 inland tank barges, each with capacity of nearly 30,000 barrels.

# M&A Activity in the Maritime & Offshore Industry



Source: Merger Market

## Recent M&A Transactions

Ann. Date	Target	Country Code	Target Description	Buyer	Deal Value (€ mn)	EV (€ mn)	EV/Rev (x)	EBITDA (x)
29-Sep-20	Safe Harbor Marinas	US	Operates more than 100 marinas in US and also provides other marine services	Sun Communities	1,719	1,719	7.2x	31.4x
28-Sep-20	Nordic Bulk Carriers (33.7%)	DK	Operates as a dru bulk shipping company specialising in provision of ice class bulk carrier services	Pangaea Logistics Solutions	19			
24-Sep-20	Zhejiang Shipping Group	CN	Engaged in coastal and inland river freight transportation and international ocean shipping transportation	Zheshang Development Group	214	214	1.2x	1.7x
14-Sep-20	The Plaquemine Terminal, The Freeport Terminal, The St. Charles Terminal	US	Comprises of industrial terminal for marine operations and chemical storage.	Vopak Industrial Infrastructure Americas	523	523		
11-Sep-20	Bestway Marine and Energy Technology (44.4%)	CN	Provider of marine and offshore engineering technological services	Xiamen Longhai Investment Management, Shanghai Dingguo Enterprise Development	150	361		
28-Aug-20	PT Kiat Ananda Cold Storage, PT Ananda Solusindo, PT Manggala Kiat Ananda, PT Trans Kontainer Solusindo	ID	Comprises of freight forwarder and ship freight business	K.R.S. Corporation	52	52		
27-Aug-20	Rizhao Lanshan Wansheng Harbour Company	CN	Engaged in port handling, loading and unloading of iron ore, and logistics services	Rizhao Port	36			
19-Aug-20	Avana Logistek	IN	Operates as a multi-modal logistics services company, providing strategic and operational logistics support services	Unifeeder ISC FZCO	25	25		
10-Aug-20	Total Terminal International Algeciras	ES	Operates container terminal and manages ships, shore cranes, automatic stacking cranes, and shuttle carriers	CMA CGM, DIF Capital Partners	43			
06-Aug-20	China Shipping Port (Laizhou)	CN	Engaged in port business at Laizhou port	Yantai Port Group	144			
15-Jul-20	Deutsche Binnenreederei (81.1%)	DE	Provider of inland shipping transport and logistics services, focusing on container transports and dry bulk and heavy lift freight	Rhenus PartnerShip	18			
10-Jul-20	GOI Travel (50.0%)	ES	Operates as a logistics operator focused on the transport, assembly and installation of bulky goods	Moira Capital Partners	17			
09-Jul-20	Silversea Cruises (33.3%)	MC	Operates a fleet of luxury cruises and smaller cruise ships	Royal Caribbean Cruises	230			

NEWSLETTER

# Towage

07-Jul-20	Yingkou Port Liability	CN	Engaged in providing of cargo loading, unloading, storage and transportation services.	Dalian Port (PDA) Company	1,883	1,883		
12-Jun-20	Trust Energy Resources (3 dry bulk vessels)	SG	Comprises of dry bulk carrier vessels of Trust Energy Resources	Oldendorff Carriers	189	189		
05-Jun-20	Zhoushan Tianqi Shipping	CN	Engaged in providing shipping services	Undisclosed bidder	11			
11-May-20	Teekay LNG Partners	US	Engaged in ship transport of gas, oil and other utilities	Teekay	111	3,456	6.2x	8.6x
11-May-20	Odfjell Terminals (Dalian) (50.0%)	CN	Comprises of tank terminal for hazardous and non-hazardous liquid products	VTTI	55			
04-May-20	Imperial Shipping Services	DE	Provider of shipping services for European inland waterway	Haefen und Gueterverkehr Koeln	225	225	0.6x	
15-Apr-20	Porto Karras	GR	Operates resort, golf club, yachts, dining lounge and vineyard	Belterra Investments	205	205		
31-Mar-20	Weihai Haida Passenger Transport (66.7%)	CN	Provider of sea passenger transportation services	Bohai Ferry	43			
10-Mar-20	CSSC Chengxi Yangzhou Ship (49.0%)	CN	Engaged in railway, ship, aerospace and other transportation equipment manufacturing	China CSSC Holdings, Zhongchuan Chengxi Ship Repair	122	247		
03-Mar-20	Interporto di Venezia	IT	Operates a seaport terminal	Orlean Invest Holding	19	19		
28-Feb-20	Ezion Holdings (86.1%)	SG	Engaged in marine logistics and support services to the offshore oil and gas industries	Yinson Holdings Berhad	476			
17-Feb-20	DP World (19.6%)	AE	Engaged in the business of international marine terminal operations and development, logistics, and related services	Port & Free Zone World FZE	2,508	23,004	3.2x	7.9x
12-Feb-20	CJ Century Logistics Holdings Berhad (45.7%)	MY	Engaged in providing supply chain and logistics solutions	CJ Logistics Asia	54	90	0.8x	29.4x
12-Feb-20	CJ Korea Express Malaysia Sdn Bhd	MY	Engaged in providing logistics solutions and trading in resin products	CJ Century Logistics Holdings Berhad	22	22		
10-Feb-20	Island View Shipping International (33.3%)	SG	Operates more than 32 bulk carriers including 13 ships	Grindrod Shipping Holdings	40			
10-Feb-20	American Steamship Company	US	Operates as a transportation company operating a fleet of self-unloading vessels	Rand Logistics	238	238		
07-Feb-20	Hapag-Lloyd Kreuzfahrten	DE	Provider of luxury and expedition cruises	TUI Cruises	1,200	1,200	3.9x	27.9x
06-Feb-20	NBulkGas	TR	Provider of ship management services, mainly to dry bulk vessels carrying LPG	Pasco Investment Holding	68	68		
30-Jan-20	Savage Inland Marine (inland tank barge fleet)	US	Comprises of inland tank barge fleet of Savage Inland Marine	Kirby	252	252		
28-Jan-20	Teekay Tankers (Oil and gas ship-to-ship transfer services business)	CA	Operates oil and gas ship-to-ship transfer support services business	Hili Ventures	24	24		
28-Jan-20	Teekay Tankers (Three 2003-built Suezmax tankers)	CA	Comprises of 2003-built Suezmax tankers	Hili Ventures	52	52		
28-Jan-20	ARISE Ports & Logistics (48.0%)	GA	Operates ports and logistics in Gabon	Africa Finance, A.P. Moller Capital	28			
21-Jan-20	Magellan Midstream Partners (3 marine terminals in Connecticut, Delaware and Louisiana)	US	Operates marine terminals in Connecticut, Delaware and Louisiana	Buckeye Partners	225	225		
17-Jan-20	Dongzhan Shipping (30.0%)	CN	Provider of shipping services	Hengyi Petrochemical	17			
16-Jan-20	Terminal de Containeres de Paranagua (22.5%)	BR	Operator of container port terminal	China-Portugal Cooperation Development Fund	135	987		
16-Jan-20	Intertug (70.0%)	CO	Provider of port and harbor assistance and specialized terminal operations	Sociedad Matriz SAAM	67	88	2.2x	
09-Jan-20	Verbrugge Terminals Zeebrugge	BE	Operates as a transshipment company	COSCO SHIPPING Ports	13	13		
03-Jan-20	Krishnapatnam Port Company (75.0%)	IN	Engaged in the business of handling containers, coal, break bulk and other bulk cargo including liquid cargo	Adani Ports and Special Economic Zone	1,468	1,698	5.7x	10.2x
<b>Mean</b>							<b>3.3x</b>	<b>16.8x</b>
<b>Median</b>							<b>3.2x</b>	<b>10.2x</b>

Source: Merger Market

## Towage

The M&A deals in the global maritime and offshore industry witnessed signs of recovery in third quarter of 2020 as the deal value and number of deals increased by staggering 451.6% and 43.6% respectively compared to the previous quarter where the deal value and deal count fell by 83.7% and 34.3% respectively amid pandemic. In third quarter of 2020, the deal value rose by 39.1% and deal count fell by 42.1% respectively during the same quarter in the previous year.

### Key M&A Transactions

#### **Sogestran Group invests in Poli Tankers to jointly acquire Team Tankers' chemical tanker business**

---

In Nov'20, the Sogestran Group provided fresh equity and acquired a majority stake in De Poli Tankers. The next day De Poli Tankers acquired the European chemical tanker business from Team Tankers.

#### **TFI International acquires Dry Bulk business of Grammer Logistics**

---

In Oct'20, TFI International announced plans to acquire the Dry Bulk business of Grammer Logistics for an undisclosed value. Addition of Grammer Logistics will expand TFI's US specialty truckload operations and will be a good strategic fit with TFI's BTC East.

#### **Government of the Republic of Trinidad and Tobago acquires CL Marine**

---

In Sep'20, The Government of the Republic of Trinidad and Tobago acquired CL Marine Limited, a Trinidad & Tobago-based port facility, for an undisclosed consideration in an insolvency transaction. The government was the highest creditor of CL Financial, owed more than \$28 bn.

#### **Mullen Group acquires the remaining 60% stake in Pacific Coast Express**

---

In Sep'20, Mullen Group acquired the remaining 60% stake in Pacific Coast Express for undisclosed consideration. This acquisition is in line with Mullen's strategy of making long-term investments into businesses that support the consumer part of the economy, specifically less-than-truckload shipment.

#### **Unifeeder, a subsidiary of DP World PLC, acquires Transworld Feeders, Avana Logistek and Transworld Feeders**

---

In Aug'20, Unifeeder, a subsidiary of DP World PLC, acquired Transworld Feeders, Avana Logistek and Transworld Feeders to enhance its presence within trade routes west of the Indian Subcontinent. This transaction will enhance Unifeeder's supply chain solutions between East Africa, Gulf, the wider Indian Subcontinent and this acquisition complements the DP's recent acquisition of Feedertech and Perma shipping.

#### **PSA and GIP restructure their terminal businesses**

---

In Aug'20, PSA Investments, a subsidiary of PSA International and Gruppo Investimenti Portuali have received approval from the Genoa Port Authority for restructuring their Genoa based operations. This will lead to PSA becoming the majority shareholder in and obtaining management control of both PSA Genova Pra' and SECH.

#### **Macquarie Infrastructure and Real Assets acquires 70% stake in International Transportation Service from Kawasaki Kisen Kaisha**

---

In Aug'20, Macquarie Infrastructure and Real Assets acquires 70% stake in International Transportation Service from Kawasaki Kisen Kaisha for an undisclosed consideration. This transaction is in line with Kawasaki Kisen Kaisha's portfolio strategy to review the group companies related to the containership business.



## Towage

### Carnival Corp Selling Ships to Cut Costs

---

In Jun'20, Carnival Corp, a cruise company, entered into preliminary agreements for the disposal of six vessels. The company is working toward additional agreements. The company reported a loss of \$4.4 bn in 2Q20.

### Maersk Tankers spins off ZeroNorth

---

In Jun'20, Maersk Tankers spun off ZeroNorth to accelerate digitalization of shipping with its Optimise software to address CO<sub>2</sub> emissions and boost earnings. ZeroNorth has 6 customers and over 300 vessels use Optimise software. Increased adoption of the software could lead to decline in CO<sub>2</sub> emissions by 50 mn metric tonnes and increase in industry's revenue by up to \$12 bn over the next five years.

### Maersk Supply Service Divests Vessels

---

In Jun'20, Maersk Supply Service divested Maersk Advancer and Maersk Asserter vessels to an international buyer due to insufficient commercial opportunities in the wake of COVID-19 pandemic. The divestment will help in right-sizing the supply side of the OSV market.

### Norden Forms Strategic Partnership with Diamond S Shipping

---

In Jun'20, tanker shipping companies Norden and Diamond S Shipping have formed a strategic partnership, DiaNor, which will be marketed and operated through Norient Product Pool. As part of the partnership, the two companies will consolidate their tanker fleets. Diamond S will contribute 28 ships and subsequently Norient Product Pool will manage a combined fleet of 150 medium range tankers.

### Mitsubishi Heavy Industries Seeks to Merge with Mitsui E&S' Shipbuilding Unit

---

In Jun'20, Mitsubishi Heavy Industries announced that it is in talks to acquire the shipbuilding unit of Mitsui E&S. The merger will help the companies compete better in a business that is rapidly consolidating. The Mitsui E&S' shipbuilding unit's sales fell by around 40 % year-over-year in FY2020.

### Sembcorp Marine Demerging from Sembcorp Industries

---

In Jun'20, Sembcorp Marine, a builder and operator of a repair facilities in Singapore for the offshore, marine and energy industries, announced a \$1.5 bn recapitalization plan backed by its current parent company Sembcorp Industries and investment firm Temasek. After the demerger both the companies will focus on their individual operations. The current parent company will hold 70% stake in Sembcorp marine after the completion of the demerger.

### Teekay Corporation acquires an undisclosed stake in Teekay LNG Partners LP

---

In May'20, Teekay Corporation has agreed to acquire an undisclosed stake in Teekay LNG Partners LP. Teekay LNG will issue 10.75 mn newly-issued Teekay LNG common units to Teekay. The transaction is to eliminate all of the Partnership's incentive distribution rights (IDRs) between both the parties. The implied equity of the transaction is \$974 mn.

### Haefen und Gueterverkehr Koeln AG acquires Imperial Shipping Services GmbH (ISS)

---

In May'20, Haefen und Gueterverkehr Koeln AG agreed to acquire Imperial Shipping Services GmbH (ISS), a Germany-based shipping services provider for European inland waterways, for \$247mn. The deal complements Haefen's investment portfolio for logistics and freight transport companies and will also expand Haefen's services in chemical and gas shipping.

### Lürssen and German Naval Yards Kiel

---

In May'20, Lürssen and German Naval Yards Kiel (GNYK) decided to consolidate their military and naval surface shipbuilding activity through a joint venture.

## Towage

### Royal IHC Reaches Agreement for Acquisition and Refinancing

---

In Apr'20, Royal IHC entered in a Heads of Agreement with an industry consortium of major players, including HAL Investments, Ackermans & van Haaren, MerweOord, and Huisman, in the maritime sector and its existing syndicate of banks to acquire and refinance IHC Merwede Holding B.V.

### Active Capital Company Acquired Delta Coastal Services

---

In Mar'20, Amsterdam-based private equity firm Active Capital Company acquired a majority stake in dredging and coastal reinforcement company Delta Coastal Services.

### MPC Container Ships raised \$13m

---

In Feb'20, Norway-based MPC container ships raised \$13 mn (NKR125m) in a private placement with investments from Star Spike Ltd, CSI Beteiligungsgesellschaft mbH, and Pilgrim Global ICAV. MPC Container owns and operates a portfolio of container ships with strong focus on the feeder segment between 1,000 and 3,000 TEU.

### Port & Free Zone World FZE (PFZW) acquires DP World in \$2.7bn deal

---

In Feb'20, PFZW, a subsidiary of Dubai World Corporation (DWC), agreed to acquire 19.6% stake in DP World, a UAE-based business of international marine terminal operations and development. This deal will enable DWC to focus on its strategy of transforming from a global port operator to infrastructure-led end-to-end logistics provider. The deal values DP World at an enterprise value of \$25.8bn.

### GATX Corporation sells American Steamship Company (ASC) business segment to Rand Logistics

---

In Feb'20, Rand Logistics has signed an agreement to acquire ASC, a US-based transportation company operating a fleet of self-unloading vessels, for a consideration of \$260mn. The combination will create growth opportunities for both Rand Logistics and ASC and result in improving customer service and shipping capacity.

### TUI and Royal Caribbean joint venture – TUI Cruises acquires luxury brand Hapag-Lloyd Cruises

---

In Feb'20, TUI Cruises signed a contract to acquire Hapag-Lloyd Kreuzfahrten, a Germany-based provider of luxury and expedition cruises. Hapag-Lloyd Cruises which is valued at \$1.3bn will be the second pillar of the successful joint venture, providing an ideal starting point for accelerated growth in TUI's Cruise division.

### CSAV Increased Stake in Hapag-Lloyd

---

In Jan'20, Chilean Compañía Sud Americana de Vapores acquired majority stake in Hapag-Lloyd, German shipping major, for approximately \$300 mn.

### Magellan Midstream Partners sells select marine terminals to Buckeye for \$250mn

---

In Jan'20, US-based owner and operator of refined petroleum pipelines have acquired three marine terminals from Magellan Midstream Partners. The terminals are located in Connecticut, Delaware and Louisiana. The sale aligns with Magellan's strategy of optimizing its asset portfolio by divesting non-core assets.

### China Merchants Port (CMPort) transfers 22.6% equity of (TCP) to (CPD) Fund

---

In Jan'20, CPD Fund, a China-based fund managed by China-Portugal Development (CPD) Fund has acquired 22.6% stake in Terminal De Containeres de Paranaguá (TCP), a Brazil-based container port terminal operator, for a consideration of \$150mn. This equity transfer is the first time for CMPort to bring in strategic investors for its overseas existing terminal assets.

## Towage

### **Sociedad Matriz SAAM enters the Columbian towage market, consolidates its presence in Central America and expands operations in Mexico**

---

In Jan'20, SAAM has agreed to acquire 70% stake in Intertug, a Columbia-based provider of port and harbour assistance and specialized terminal operations, via a capital increase and share purchase, for a consideration of \$75mn. The deal values Intertug at an enterprise value of \$98mn.

### **Adani Ports and SEZ (APSEZ) acquires controlling stake of 75% in Krishnapatnam Port Company (KPCL)**

---

In Jan'20, 3i Group via 3i India Infrastructure Fund and CVR Group have agreed to sell 75% stake in KPCL, India-based business of handling containers, coal, break bulk and other bulk cargo, for a consideration of \$1.6bn. The transaction will accelerate APSEZ's stride towards 400 MMT by 2025 and will increase its market share from 22% to 27% in hinterland catered by KPCL.

### **PON Holdings Acquired RH Marine Group**

---

In Dec'19, Amsterdam-based PON Holdings announced plans to acquire Parcom Capital's majority stake in RH Marine Group, which operates three subsidiaries including Radio Holland Group (Rotterdam), VBH (Amsterdam) and Aerius Marine (Hamburg). The subsidiaries cater to a range of maritime segments and customers across the world.

### **Global Ship Lease Acquired Two Post-Panamax Containerships**

---

In Nov' 19, Global Ship Lease acquired two 2004-built, 6,080 TEU post-Panamax containerships on long-term charters (52 – 60 months charters) for an aggregate purchase price of \$24.5 mn. The vessels are expected to generate aggregate adjusted EBITDA of around \$21 mn over the term of the contracted charters.

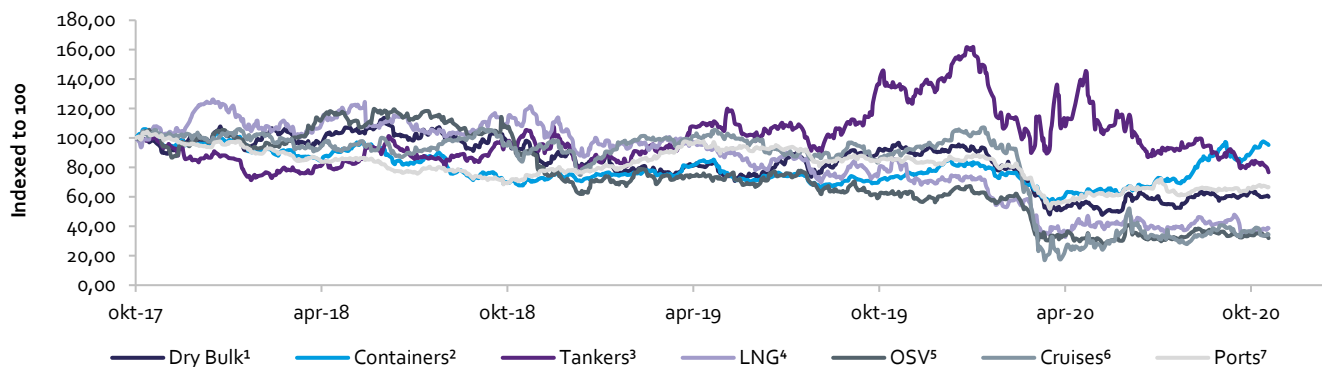
### **China Merges Its Two Shipbuilding Firms**

---

In Nov' 19, the two state-owned Chinese shipbuilding firms, China State Shipbuilding Corporation (CSSC) and China Shipbuilding Industry Company, merged to form a bigger shipbuilding firm. The merger will allow the new company to compete with leading companies in the global maritime industry. The new entity will retain the brand name of China State Shipbuilding Corporation Ltd.

# Share Price Performance

(% Change)	Dry Bulk	Containers	Tankers	LNG	OSV	Cruises	Ports
3Y	(40.0%)	(4.7%)	(23.3%)	(61.3%)	(68.1%)	(65.6%)	(33.4%)
1Y	(34.6%)	29.8%	(43.2%)	(50.3%)	(49.0%)	(61.5%)	(22.5%)
6m	14.1%	55.8%	(44.1%)	(8.2%)	7.3%	41.9%	14.4%



Source: FactSet as of 21 Oct'2020

Notes:

1. Includes Pacific Basin Shipping, Star Bulk Carriers and Great Eastern Shipping
2. Includes A.P. Moller – Maersk, Evergreen Marine, Cosco Shipping and Orient Overseas
3. Includes Frontline, Euronav and Tsakos Energy Navigation
4. Includes GasLog, Teekay LNG Partners and Golar LNG
5. Includes Solstad Offshore, Tidewater and SEACOR Holdings
6. Includes Royal Caribbean Cruises, Carnival Corp and Norwegian Cruise Line Holdings
7. Includes Shanghai International Port, China Merchants Port Holdings, Adani Ports & SEZ, Dalian Port and International Container Terminal Services

The overall maritime segment witnessed a steep decline early in 2020 amid the COVID-19 pandemic, as free movement of goods was hampered due to lockdown restrictions globally. However, the market has shown some sign of recovery post Apr'20 as the situations have started easing out a bit.

Over the past three years, Tanker industry has shown a continuous growth in its performance and has outperformed the other sectors in the maritime industry. The tanker market had a positive 2019, but the first half of 2020 has been volatile due to the impact on demand from the CoVID-19 pandemic, coupled with the excess of crude oil that flooded the market in H1 2020. While the tanker market declined in Feb'20, it was strong again in Mar'20, mainly due to a low oil price and a lack of agreement within OPEC+ regarding further production cuts. The price, already at a low level, fell by another 30% overnight. This resulted in significantly increased oil trading – and sharply rising rates in the tanker market. In a short space of time, rates in the VLCC segment rose from around \$25,000/day to \$150,000 – \$200,000/day. In the Suezmax segment, rates rose to \$70,000 – \$100,000/day, depending to some extent on geographical area.

Container stocks have had the most direct impact of slowing economic growth in the shipping industry, with demand for containerised goods being one of the first things to be affected. Many players are cutting down the number of voyages and providing short-term storage for clients as the industry faces its biggest downturn since the 2008 financial crisis. The share prices of Cruise line stocks have underperformed over the last three years. In 2020, the industry has been shut down due to government regulations regarding the CoVID-19 pandemic.

# Peer Analysis

Company Names	Country	Country	Share Price (€)	% of 52-Week High	Market Cap (€m)	EV (€m)	LTM		Net Debt/ EBITDA (x)
							Enterprise Value/ Rev(x)	EBITDA (x)	
<b>Dry bulk</b>									
Star Bulk Carriers	Greece	GR	5.78	53.7	555	1,849	2.5x	10.7x	7.5x
Great Eastern Shipping	India	IN	2.51	56.5	368	591	1.2x	2.5x	0.9x
Pacific Basin Shipping	Hong Kong	HK	0.14	64.8	640	1,338	1.0x	6.9x	3.6x
<b>Mean</b>							<b>1.6x</b>	<b>6.7x</b>	<b>4.0x</b>
<b>Median</b>							<b>1.2x</b>	<b>6.9x</b>	<b>3.6x</b>
<b>Containers</b>									
A.P. Moller - Maersk A/S	Denmark	DK	1,285.32	94.8	25,089	38,649	1.1x	6.7x	1.9x
Orient Overseas	Hong Kong	HK	3.69	56.1	2,309	1,149	0.2x	1.9x	1.6x
Evergreen Marine	Taiwan	TW	0.52	95.5	2,525	4,337	0.8x	5.0x	4.9x
COSCO SHIPPING Holdings	China	CN	0.47	94.9	8,558	17,552	0.9x	8.0x	5.5x
<b>Mean</b>							<b>0.7x</b>	<b>5.4x</b>	<b>3.5x</b>
<b>Median</b>							<b>0.8x</b>	<b>5.9x</b>	<b>3.4x</b>
<b>Tankers</b>									
Euronav	Belgium	BE	6.84	58.4	1,466	2,485	2.0x	2.8x	1.2x
Frontline	Bermuda	BM	5.31	44.9	1,051	2,846	2.4x	4.9x	3.1x
Tsakos Energy Navigation	Greece	GR	6.70	32.9	126	1,481	2.4x	5.1x	3.6x
<b>Mean</b>							<b>2.3x</b>	<b>4.3x</b>	<b>2.6x</b>
<b>Median</b>							<b>2.4x</b>	<b>4.9x</b>	<b>3.1x</b>
<b>LNG</b>									
Golar LNG	Bermuda	BM	7.37	52.2	721	3,056	7.4x	12.1x	8.2x
Teekay LNG Partners	Bermuda	BM	8.93	60.0	776	1,315	2.5x	3.5x	6.5x
GasLog	Monaco	MC	2.52	19.1	239	4,071	6.7x	9.6x	7.1x
<b>Mean</b>							<b>5.5x</b>	<b>8.4x</b>	<b>7.3x</b>
<b>Median</b>							<b>6.7x</b>	<b>9.6x</b>	<b>7.1x</b>
<b>OSV</b>									
SEACOR Holdings	United States	US	26.74	62.1	544	538	0.8x	6.7x	3.1x
Solstad Offshore	Norway	NO	0.46	3.4	1,101	2,908	6.0x	22.7x	22.7x
Tidewater	United States	US	5.09	28.2	206	260	0.6x	5.2x	1.1x
<b>Mean</b>							<b>2.5x</b>	<b>11.6x</b>	<b>9.0x</b>
<b>Median</b>							<b>0.8x</b>	<b>6.7x</b>	<b>3.1x</b>
<b>Cruises</b>									
Royal Caribbean Cruises	United States	US	51.11	41.9	11,402	24,892	3.5x	22.4x	12.3x
Carnival Corporation	United States	US	12.19	26.0	10,701	24,640	2.7x	nm	nm
Norwegian Cruise Line Holdings	United States	US	14.31	26.6	3,944	10,826	2.6x	19.2x	13.1x
<b>Mean</b>							<b>2.9x</b>	<b>20.8x</b>	<b>12.7x</b>
<b>Median</b>							<b>2.7x</b>	<b>20.8x</b>	<b>12.7x</b>
<b>Ports</b>									
Shanghai International Port (Group)	China	CN	0.54	70.7	12,574	13,701	3.5x	10.5x	2.2x
Adani Ports & SEZ	India	IN	4.07	76.3	8,261	11,048	8.6x	14.1x	3.5x
China Merchants Port Holdings	Hong Kong	HK	0.90	55.6	3,246	9,164	9.3x	19.6x	9.3x
International Container Terminal Services	Philippines	PH	2.01	83.9	4,034	5,968	4.2x	8.1x	5.1x
Dalian Port	China	CN	0.07	63.9	2,314	2,560	3.0x	8.2x	2.7x
<b>Mean</b>							<b>5.7x</b>	<b>12.1x</b>	<b>4.6x</b>
<b>Median</b>							<b>4.2x</b>	<b>10.5x</b>	<b>3.5x</b>
<b>Overall Mean</b>							<b>3.2x</b>	<b>9.4x</b>	<b>5.7x</b>
<b>Overall Median</b>							<b>2.5x</b>	<b>8.0x</b>	<b>3.6x</b>

Source: FactSet as of 14 Oct'2020



## Recent Development of Key Players

### **10 platform supply vessels of Hermitage Offshore Services were sold for EUR 68M during the process of bankruptcy**

In Oct'20, Hermitage Offshore Services which was part of Emanuele Lauro-led Scorpio Group filed for bankruptcy in late August leading to sale of its 10 platform supply vessels to creditors for EUR 68M. Additionally, 11 crew vessels owned by Hermitage Offshore Services will be sold to an unaffiliated third party for EUR 4.5M. This sale event will lead to exit of Lauro from offshore business.

### **ADNOC adds third ultramax to bolster its Bulk management portfolio**

In Oct'20, UAE-based Abu Dhabi National Oil and its ship owning arm ADNOC Logistics & Service added 1-year old Tsuneishi-built 63,000 dwt ultramax from MX Bulk Management for around EUR 22M. This is the third ultramax in bulk management portfolio of seven ships.

### **Keppel has grabbed a contract worth EUR 375M in the offshore renewable energy industry**

In Oct'20, Keppel Offshore & Marine secured an engineering, procurement and construction (EPC) contract for a vessel which will be operating in the offshore renewable energy industry. This is in line with Keppel's 2030 vision for seeking opportunities to provide solutions in renewable energy space.

### **Hapag-Lloyd becomes the first company in world to convert large container ship to use LNG as fuel**

In Oct'20, Hapag-Lloyd's SAJIR got upgraded by China's Huarun Dadong yard so that it can use LNG as fuel after 1,300-tonne LNG tank was added in containership by September. The company incurred additional cost of EUR 25.4M for the conversion.

### **DFDS started a new freight ferry service between Patras and Trieste**

In Oct'20, DFDS through BU Med initiated a new shipping line between Patras in Greece and Trieste in Italy to accommodate rising demand.

### **Carnival to close down operations of 18 ships amid the pandemic**

In Sep'20, Carnival announced plans to scrap in total 18 ships to cut down the costs and narrow down the losses occurred due to the cruise ban globally amid pandemic. The discontinued ships constitute around 12% of the company's total fleet strength.

### **ProMare and the Finnish Wartsila to launch world's first fully autonomous ship with IBM**

In Sep'20, Promare and Finnish Wartsila joined hands with IBM to build world's first fully autonomous ship. The trials phase for the ship have already began from 26th September.

### **FTI Group has announced closure of various divisions, brands, and subsidiaries**

In Aug'20, Due to major restructuring amid pandemic FTI Group planned to shut down operations of various subsidiaries. This has also affected its one-ship shipping company FTI Cruises operating a small classic cruise ship named as MS Berlin.

### **Global Maritime entered into a partnership with Cathie to provide jack-up consultancy solution**

In Jul'20, Global Maritime entered into partnership with Cathie to provide Site Specific Assessment (SSA) and Leg Penetration Assessment (LPA) and other services for jack-up operations. Both the firms analysed more than 1,500 individual jack-up locations for operability.

## Towage

### Carnival to sell six cruise ships as bookings dry up and reported a loss of \$4.4 bn

---

In Jun'20, Carnival Cruise reported a loss of \$4.4 bn in the last three months and planned to sell six cruise ships as bookings were cancelled due to CoVID-19 pandemic. Revenue dropped to \$700.0 mn in March-May period of 2020 from \$4.8 bn for the same period in 2019, as the booking dried up and the corporation's cruise line stopped sailing.

### SE Asian ports need to invest billions as shippers seek alternatives to China

---

In Jun'20, Ports in South-east Asia planned to invest up to \$13 bn to upgrade the terminal capacity to handle the expected shift in sourcing away from China that has been triggered by COVID-19 supply chain disruptions. An estimated amount of \$13 bn investment is required to increase the port capacity in Vietnam, Thailand, the Philippines, Myanmar, Indonesia, Cambodia, Singapore and Malaysia

### Tampa port lands \$20 mn grant to expand container berth

---

In Jun'20, The US Department of Transportation has awarded a \$19.8 mn grant to Tampa Bay port to help expand its shipping container operations by 60%. The grant allows the port to move up a \$55 mn project to build a new 1,300-foot-long berth and a 30-acre container yard.

### Svitzer wins two contracts to bolster African towage business

---

In Jun'20, Svitzer secured a five-year contract to provide harbour towage and pilot transfer services for Nacala Logistics in Mozambique. Additionally, the company secured a five-year extension of its current contract with Egyptian LNG assisting the onshore Idu LNG plant to operate four tugs, two mooring boats and one pilot vessel.

### Kongsberg thrusters for fully electric tug

---

In May'20, New Zealand's Ports of Auckland Limited and Damen Shipyards Group partnered to develop a fully electric ship handling tug to conduct emissions-free operations by 2040. Kongsberg Maritime's azimuth thrusters have been selected to power a fully electric ship handling tug.

### DP World joins with TradeLens to digitize global supply chains

---

In May'20, DP World integrated with TradeLens, a blockchain based digital container logistics platform developed by A.P. Moller – Maersk and IBM. The collaboration is expected to connect DP World's 82 marine and inland container terminals, as well as feeder companies and logistics divisions.

### HMM unveils world's biggest container ship

---

In Apr'20, Hyundai Merchant Marine (HMM) announced plans to launch the biggest container ship in the world with a vessel capacity of 24,000 teu. The ship is expected to be delivered by September 2020 with optimised hull design to improve energy efficiency and reduce carbon emissions.

### Solstad Offshore to dispose of 37 vessels on restructuring plan

---

In Apr'20, Solstad offshore announced its plan to dispose-off 37 older vessels as a part of restructuring plan, bringing down the group's fleet of vessels to 90. The fleet consists of a mix of PSVs, AHTS vessels and OCVs/CSVs. Additionally, the company planned to covert \$959 mn debt into equity in a bid to strengthen the group's balance sheet and liquidity.

### Fairplay expands into new towage market

---

In Mar'20, Fairplay Towage has opened operations in the Canary Islands, Spain to provide towage, ship manoeuvring and berthing support services in the port of Las Palmas.

## Towage

### Swire Shipping strengthens Asia operations with new build vessel

---

In Mar'20, Swire Shipping has strengthened its operations in Asia with the deployment of a newly-build 2,400-teu vessel onto the Southeast Asia to Papua New Guinea and Solomon Islands route. The 2,400 teu feeder vessel is built at CSSC Huangpu Wenchong Shipbuilding that features three 45 metres uprated cranes, non-containerised cargo capability, pontoon weather tight hatch covers, and a hull form design for fuel efficiency.

### India to invest US\$9 bn in new deepwater container port

---

In Feb'20, the Indian government announced plans to develop a large deep-water port on its western coast with an investment of more than \$9 bn. The port will be built at Vadhavan near Dahanu in the state of Maharashtra by a joint venture led by Jawaharlal Nehru Port Trust.

### Evergreen Line launches new digital platform

---

In Feb'20, Evergreen Line launched GreenX, a new digital platform for customers to get instant quotes and book secured space with prioritised equipment supplied by the carrier. The platform is powered by BlueX Trade, a neutral freight tech supplier that builds ocean cargo networks to link the shipper community with Evergreen Line services.

### Maersk to pilot 600 kWh containerized battery system on container ship

---

In Nov'19, Maersk Cape Town has installed a 600 kWh marine battery system in a trial on board to improve vessel performance and reliability while reducing CO<sub>2</sub> emissions. Additionally, the battery system will support the generators with up to 1,800 kVA of power during rapid changes in electrical load such as thruster operation.

# Global M&A Partners - Transactions

## Highlighted Transactions

Dan Public Transportation Ltd. | Value LBH Infrastructure Investments Ltd.

Acquisition of control in Dan, Israel's leading transportation and infrastructure company for 125 M USD



Value Base M&A  
Advisor to the buyer 

A consortium of investors led by the Value Base investment house and the LBH Infrastructure fund has acquired 40% of the Dan transport group for NIS 450 million.

Lifco acquires the majority of Norwegian Rustibus Worldwide AS. The company is a leading provider of surface preparation tools and safety equipment for customers in the marine industry.

 | 

Rustibus is a leading provider of surface preparation tools and safety equipment for customers in the marine industry

Sweden Norway | 

Saga Corporate Finance  
Advisor to the seller 

Salaverry Port | 

Concession award to modernize the Salaverry Port with an estimated investment of US\$ 229 m



Macroinvest  
Advisor to the buyer 

Grupo Romero was awarded the US\$229mn contract to upgrade Salaverry port.

Sogestran Group has agreed to acquire a majority participation in De Poli Tankers Holding B.V., an integrated chemical tanker company based in, the Netherlands. De Poli Tankers acquired the European chemical tanker business from Team Tankers

 | 



Sogestran Group provided fresh equity and acquired a majority stake in De Poli Tankers and De Poli Tankers acquired the European chemical tanker business from Team Tankers

 |   
Advisor to De Poli

# Global M&A Partners – Maritime and Offshore Team

## Kees van Biert

President Maritime and  
Offshore

Phone: +31 6 5314 4313  
Email: k.vanbiert@jbr.nl

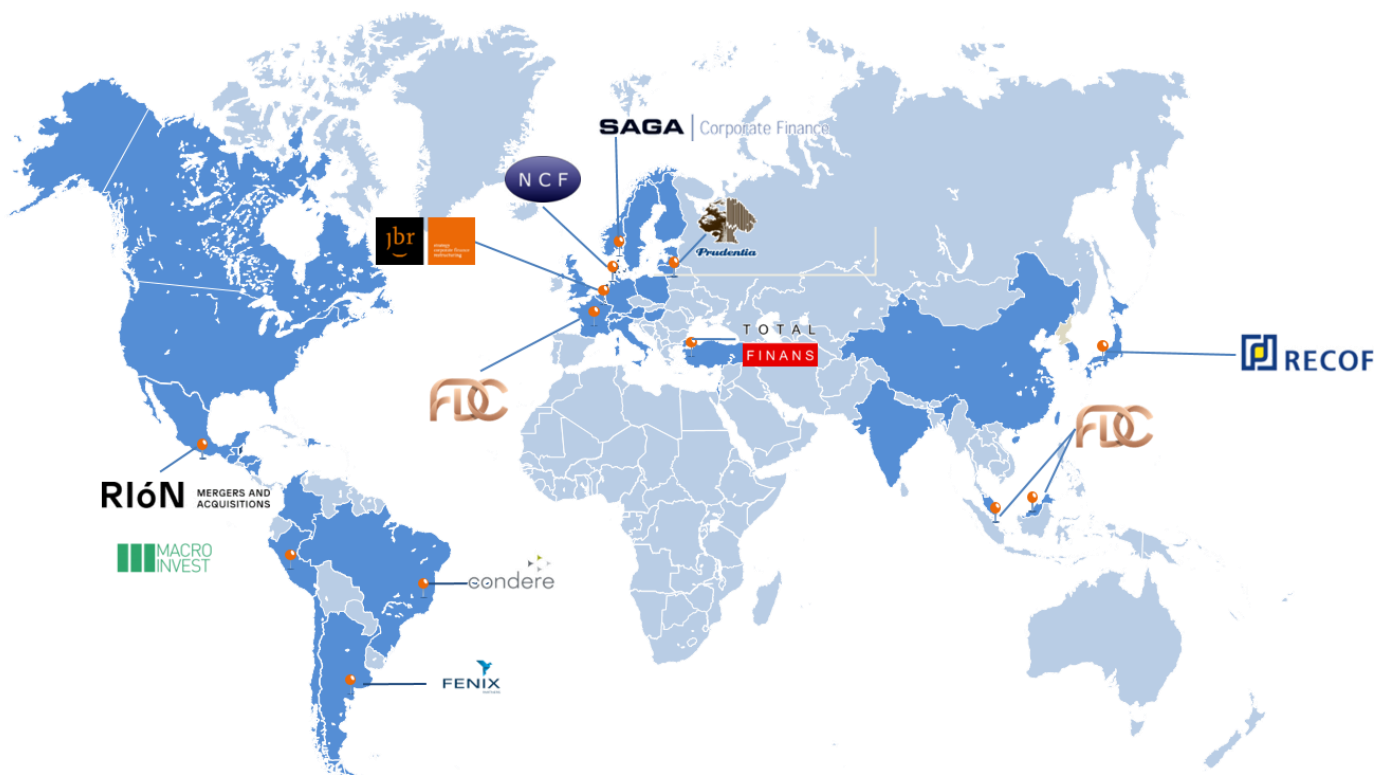


## Ben Vree

Ambassador Maritime and  
Offshore



Within the GMAP M&O Sector members work together to achieve premium results. Each transaction requires specific cooperation between members to combine in-depth knowledge with the specialist's network within the maritime and offshore sector





**SAGA** | Corporate Finance



**Saga Corporate Finance**

Key contact:  
Ivan Alver  
Senior Partner  
Phone +47 21 04 23 00  
Cell +47 90 84 04 56  
Email: [ivan@globalma.com](mailto:ivan@globalma.com)

**Nordic Corporate Finance**

Key contact:  
Lars Nydahl  
Phone +45 45 16 82 40  
Cell +45 40 96 96 18  
Email: [nydahl.lars@gmail.com](mailto:nydahl.lars@gmail.com)

**Total Finans**

Key contact:  
Metin Bonfil  
Managing Partner  
Phone +90 212 275 0175  
Cell +90 532 236 3536  
Email: [mbonfil@globalma.com](mailto:mbonfil@globalma.com)

**Financieres de Courcelles**

Key contact:  
Emmanuel Antmann  
Managing Director  
Phone +33 1 78 42 88 70  
Cell +33 6 75 24 24 78  
Email: [eantmann@globalma.com](mailto:eantmann@globalma.com)



**Prudentia**

Key contact:  
Kārlis Znotiņš  
Cell +371 26317727  
Email: [kznotins@globalma.com](mailto:kznotins@globalma.com)

**JBR**

Key contact:  
Ronald Van Rijn  
Phone +31 30 699 90 00  
Cell +31 6 5334 0975  
Email: [rvanrijn@globalma.com](mailto:rvanrijn@globalma.com)

**Rion Mergers and acquisitions**

Key contact:  
Martin Plettner  
Phone ++52 55 5520 3144  
Cell +52 1-55 5506 2009  
Email: [mplettner@rionma.com](mailto:mplettner@rionma.com)

**Condere**

Key contact:  
Paulo Cury  
Phone +55 11 2619 0060  
Cell +55 11 98303 2772  
Email: [pcury@globalma.com](mailto:pcury@globalma.com)



**Fenix Partners**

Key contact:  
Esteban Oliveira  
Phone +54 11 2150 7185  
Email: [eoliveira@globalma.com](mailto:eoliveira@globalma.com)

**RECOF**

Key contact:  
Masataka Yoshida  
Phone +81 3 3221 4948  
Cell +81 80 1190 2587  
Email: [m.yoshida@recof.co.jp](mailto:m.yoshida@recof.co.jp)

**Macro Invest**

Key contact:  
Mateo Moreyra  
Phone +511 203 9800  
Cell +511 99531 4793  
Email: [mmoreyra@grupomacro.pe](mailto:mmoreyra@grupomacro.pe)



## ***ABOUT Global M&A Partners***

Established in 1999, Global M&A Partners is a partnership of independent investment banking firms gathered together to offer to their respective client's premium services for their goals completion. Operating through over 200 M&A advisors, the company serves sectors including Consumer Products, Business Services, Energy & Mining, Healthcare & Pharmaceuticals, Industrials, Packaging, Leisure & Retail and IT. The company operates in over 50 countries and has completed over 1,500 transactions with a combined value in excess of €4.2bn over the last 5 years.