

# Shipping: Global overview

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## **Covid-19**

The pandemic has reached almost every country and drastically affected economies and markets worldwide, and the shipping industry has been no exception. Trade, tourism and travel have all been hugely impacted. Cruise ships, passenger ships, refrigerated cargo ships, car carriers and offshore facilities have particularly suffered. As a whole, however, the shipping industry is expected to benefit from post-pandemic recovery. At the time of writing, container rates are booming and the dry bulk market has recovered, although tanker rates have fallen to record lows, with global fuel demand not expected to fully return. Cruise and passenger ships, many of which have been laid up for several months, are starting to return to business.

Restrictions imposed in relation to the covid-19 pandemic have led to disruption to crew changes, with many seafarers being unable to leave their vessels as planned. Their plight has made headlines across the globe, bringing the issue of human rights at sea to the attention of the general public.

There has been increased use of infectious diseases clauses in contracts entered into since the start of the covid-19 pandemic and force majeure clauses have been re-examined. A BIMCO covid-19 crew change clause for time charter parties has been released, allowing deviation for crew changes and an option for charterers to contribute to the cost.

Shipbuilding and refits have been delayed, and the ship sale and purchase markets have been very quiet. Ship recycling, which almost reached a standstill, is beginning to pick up in several sectors.

The reaction of courts and arbitral tribunals globally has been mixed, although London, as the largest centre for dispute resolution in the sector, has effectively adapted to hearings by videoconference.

## **The Ever Given**

The grounding of the Ever Given, one of the largest container ships in the world, in the Suez Canal on 23 March 2021 made mainstream news headlines worldwide. The Canal, the shortest sea route between Europe and Asia, was blocked for almost a week, causing delays to hundreds of ships waiting to transit. Many others chose to divert around the southern tip of Africa. Releasing the Ever Given took numerous tugs, diggers and dredgers. At the time of writing, the vessel remains detained by the Egyptian authorities, who are reportedly demanding multiple hundreds of millions of US dollars in compensation from the vessel's Japanese owners. The incident demonstrated that even a single event can have a significant impact on the global supply chain, causing congestion in numerous ports around the world, disrupting container ship schedules, causing a shortage of containers and driving up container shipping rates due to a lack of available capacity on container ships.

## **Environmental measures**

The global cap on sulphur emissions imposed by the International Maritime Organization (IMO), entered into force on 1 January 2020.

The driving factor behind the global cap is to improve vessels' environmental footprints. Vessels are responsible for about 2.5 per cent of global greenhouse gas emissions, although more than 90 per cent of global trade is by sea. One of the most harmful pollutants that vessels emit is sulphur dioxide (SO<sub>2</sub>), produced from the combustion of fuels containing sulphur. SO<sub>2</sub> is considered to have significant adverse effects on both the environment and human health.

Under the global cap, the IMO set strict limitations on vessels to use fuels with a sulphur content of no more than 0.5 per cent, rather than the previous limit of 3.5 per cent. Potential implications for shipping are substantial, namely the availability of compliant low-sulphur fuels and their effect on ship's engines.

The options for compliance include the following:

- using very-low-sulphur fuel oil or compliant fuel blends (0.5 per cent sulphur);
- retrofitting vessels to use alternative fuels, such as liquid natural gas (LNG) or other sulphur-free fuels;
- installing exhaust gas cleaning systems (scrubbers), which allow operation using non-compliant fuels; or
- switching from high-sulphur fuel oil to marine gas oil or distillates, which have lower (and compliant) sulphur content.

As for scrubbers, many port authorities have banned or restricted the use of open-loop scrubbers owing to concerns that, while they remove the air pollution problem, they create a new one by discharging pollutive wastewater into the sea. Unlike closed-loop scrubbers, where the exhaust gases are washed and the harmful substances are collected in a tank that is emptied in port for appropriate further treatment, open-loop scrubbers wash the exhaust gases and discharge the washing water, and the harmful substances it contains, into the sea.

As to using very low sulphur fuel, bunker suppliers have formulated new blend proportions and feedstocks in order to create fuel mixtures that comply with the IMO's 0.5 per cent sulphur limit. In a recent survey by BIMCO, the majority of shipowners reported some experience of off-spec or poorly-performing fuel. Nearly two-thirds of respondents reported experience with sludge formation, a challenging problem that can clog fuel lines and filters, and one-third reported problems with wax formation. About 20 per cent reported that they had encountered fuel so problematical that it had to be de-bunkered. Nearly one-third reported increased wear in engine components, 18 per cent reported fuel pump seizures, and 10 per cent reported blackouts or propulsion failures related to fuel oil properties. Specific issues include sludge formation (the most commonly reported issue) and plugged-up purifiers, purifier sludge discharge lines, fuel racks and fuel filters, often requiring frequent disassembly and cleaning to maintain operations. Wide variations in pour point, density and viscosity have also led to concerns, especially since these factors also impact on purifier performance.

Focus now seems to be moving to 'zero-carbon bunker fuels', namely shipping fuels that emit zero or at most very low greenhouse gas (GHG) emissions across their life cycles. Two alternative fuels – ammonia and hydrogen – have been identified as the most promising zero-carbon bunker fuels for shipping, being more scalable and cost-competitive than other biofuel or synthetic carbon-based options.

Meanwhile, LNG is expected to play a limited role in the decarbonisation of the shipping sector, for specific niche applications on pre-existing routes or in specific vessel types.

## **Ship recycling**

Ship recycling continues to raise environmental concerns. According to the European Maritime Safety Agency, most ship recycling takes place in South Asia, often on tidal beaches and in dangerous conditions that lead to health risks and extensive pollution of coastal areas. Old ships often contain many hazardous materials, including asbestos, polychlorinated biphenyl and large quantities of oil and oil sludge. As a result, there have been a number of international regulatory initiatives designed to ensure that ship recycling is performed in an environmentally sound manner.

## **Global sanctions**

The impact of international sanctions on the global maritime industry remains very significant. Although international sanctions are designed to aid international law and foreign policy objectives in matters such as terrorism and human rights abuses, they continue to be politicised and unpredictable. Shipping businesses and insurers face challenges in managing their exposures to risks in markets affected by sanctions.

## **Brexit**

Prior to Brexit, the United Kingdom pursued its sanctions policy through the United Nations and the European Union. Since Brexit, EU sanctions have continued uninterrupted under the Sanctions and Anti-Money Laundering Act 2018, which also provides for the UK to implement its own sanctions.

Although (at the time of writing) UK sanctions mirror those of the EU, there is scope for divergence in the future, not only in their application, effect and enforcement but also in relation to the individuals and companies designated. Both the UK and EU have stated that they intend to coordinate their sanctions policies as much as possible. With the UK historically having been active in shaping EU sanctions policy, it is expected to continue to take a proactive approach under its own regime. The EU, meanwhile, will likely keep a close eye on UK actions while also striving for more robust, uniform enforcement of sanctions across its member states.

Brexit is likely to have serious practical implications on the EU as some say that it has lost a determined sanctions advocate, a well-versed diplomatic corps able to create the consensus needed among member states for issuing new sanctions regimes, and the intelligence on which the European Council has relied to adopt sanctions.

## **Iran**

The 2016 Joint Comprehensive Plan of Action (JCPOA) resulted in the EU lifting restrictions against Iran in the following sectors:

- financial, banking and insurance;
- oil, gas and petrochemicals;
- shipping, shipbuilding and transport; and
- precious metals and currency.

Some restrictive EU measures remain in place (but these relate largely to military goods: weapons and items that might be used for internal repression) and some entities and individuals remain listed. All trades related to Iran, therefore, need to be checked to ensure that they comply with the remaining sanctions.

On 8 May 2018, the Trump administration announced the United States' withdrawal from the JCPOA with effect from 27 June 2018. However, the Biden administration has promised to re-join the JCPOA. The positions of both sides have shifted considerably in the past three years, however, and the ongoing negotiations to reach a deal are finely balanced. While some argue that the imposition of overly strict sanctions pushes Iran to develop its nuclear programme, others say that the lifting of sanctions will itself allow Iran to develop nuclear weapons.

## **Other countries**

The United States has also imposed sanctions on Venezuela. In particular, it has targeted any vessels considered to be involved in the petroleum trades between Venezuela and Cuba. Vessels that contravene such sanctions risk being added to the list of 'Specially Designated Nationals and Blocked Persons' (the SDN list), maintained by the US Treasury Department's Office of Foreign Asset Control (OFAC), which has grave implications for the trading and insurance cover of any designated vessel. Additionally, the United States deems any vessel undertaking activity involving PDVSA, a Venezuelan state-owned oil and natural gas company, as being engaged in the Venezuelan oil sector, and thus at risk of being added to the SDN list.

Syria also faces comprehensive sanctions by the United States, the UK, the UN and the EU in response to the Syrian government's alleged support of international terrorism and human rights violations in the country. Since implementation, the sanctions have been strengthened several times as a result of escalating violence in the region. Current imposed sanctions include trade restrictions on the import, purchase and transport of crude oil and petroleum products from Syria. Other restrictions include travel bans and asset freezes on certain Syrian officials, as well as a ban on Syrian investment by US persons.

Russia is also subject to economic sanctions by the UK, EU and United States, following Russia's failure to comply with demands regarding the annexation of Crimea and Sevastopol. The sanctions were initially in the form of asset freezing and restrictions on travel. Since July 2014, UK, EU and US sanctions prohibit:

- the import into the EU of goods from Crimea or Sevastopol; and
- the provision, directly or indirectly, of financing or financial assistance, as well as insurance and reinsurance related to such imports.

Since August 2014, the supply of dual-use goods to Russian persons or for use in Russia if they are intended for military use, as well as the supply without prior EU authorisation of goods related to oil exploration and production activities in Russia, are also prohibited. Russia has issued its own embargo on the importation into the Russian Federation of goods from the United States, EU, Canada, Australia and Norway.

The UK, the EU, the UN and the United States have all imposed sanctions against North Korea.

## **Piracy**

Maritime piracy, which has posed a significant threat to the shipping market for many years, including taking a significant financial toll, is generally in decline, although a slight increase was recorded in 2020 compared with 2019. Modern maritime piracy reached its peak around 2011, with over 700 hostages held in 32 ships by Somali pirates off the East coast of Africa. Since then, counter-piracy operations, including military intervention, have successfully suppressed such incidents. According to Oceans Beyond Piracy, the total economic cost of Somali piracy in 2017 was US\$1.4 billion, compared with US\$7 billion in 2010.

Recent years have seen an increase of piracy-related incidents in the Gulf of Guinea, which accounted for 95 per cent of crew kidnappings in 2020, with 130 crew members kidnapped in 22 separate incidents. One crew kidnapping in 2020 occurred almost 200 nautical miles from land, with the average kidnapping incident taking place over 60 nautical miles from land.

### **Autonomous vessels**

Interest in autonomous and remote-controlled ships continues to gather pace. From completely unmanned vessels to vessels remote-controlled from land, to vessels with automated processes and decision support systems, the field is a wide one.

The potential benefits of autonomous vessels are attractive to the marine industry. Crewless vessels not only reduce crew wages and expenses but can also eliminate systems once needed to make the vessel habitable for crew, simplifying vessel design and creating more space for cargo. Autonomy also offers the potential for reducing human error, which is currently estimated to account for 75 to 96 per cent of shipping-related incidents. This has the obvious appeal of reducing costs relating to accidents and insurance. Also, by enabling operations that do not put human lives at risk, the number of human tragedies will be reduced. Without crews to hold hostage, the issue of piracy may also be reduced.

Although this has obvious appeal, there are nonetheless many challenges that will need to be addressed before this technology can be put fully into operation. For example, although the risk of human error is reduced, new risk factors will emerge, such as possible technological failures and inadequacies. Cyber-threats could also present new forms of piracy. While the changing risk picture affects existing market players such as shipowners, charterers, banks and insurers, new parties will enter the picture, including suppliers of autonomous systems and onshore operators controlling or supervising vessels.

Insurers face the challenge of understanding and pricing the risk correctly, as autonomous vessels present new, as well as existing, risks. They will also need to consider how the current legal framework will fit with the new technology, not only with respect to technical requirements but also as to liability. For example, if an autonomous vessel is involved in an accident and causes damage to a third party, the question arises as to who is liable.

Due to the pandemic, the IMO suspended its Maritime Safety Committee (MSC) meetings, which are central to the process to regulate Maritime Autonomous Surface Ships (MASS). The aim had been to complete a scoping exercise, to determine how the safe, secure and environmentally sound operation of MASS may be introduced in IMO instruments by the end of 2020. It is not yet clear when this scoping exercise will now be completed. In June 2019, the IMO approved Interim guidelines for trials of MASS, addressing the identification and reduction of risks, appropriate training of personnel and cyber risk management of the systems and infrastructure.

With autonomous vessels due to enter operation in the near future, consideration is being given to the commercial framework for their use. It is anticipated that charter parties may not be appropriate in the future, as vessels will initially be designed and built for dedicated routes. Instead, early users of autonomous ships are expected to be non-maritime companies, who will contract with experienced ship managers for the vessels' operation. BIMCO is currently adapting an existing standard contract, SHIPMAN 2009, for such use. The 'service-based structure of SHIPMAN will be adapted to add autonomous ship-related services and to build in provisions for the operation and manning of a remote control centre. At the time of writing, the contract, currently called AUTOSHIPMAN, is due to be published later this year.

## **Cybersecurity measures**

Since 2017, all of the four biggest container shipping companies (APM-Maersk, COSCO, MSC and CMA CGM) and the IMO have been hit by cyberattacks. The shipping industry is considered to be a vulnerable and highly lucrative target, with maritime companies' shore-based networks particularly exposed to ransomware. The 'NotPetya' malware cyberattack on Maersk in 2017, which reportedly cost the company around US\$300 million, highlighted the opportunity for cybercriminals to bring a critical industry down, meaning payment of a ransom was perhaps more likely than other industries. Shipowners and operators should be aware that traditional marine insurance products might not cover all the risks of cyber incidents.

We also note that cyberattacks can produce benefits for the shipping industry: on 7 May 2021, Colonial Pipeline, which carries fuel from Texas to the eastern United States, suffered a ransomware cyberattack, resulting in the pipeline's operations being halted to contain the attack. The ransom (of around US\$5 million) was promptly paid, but the impact on operations was significant, leading to tankers being booked to carry fuel that would otherwise have been carried in the pipeline.

Ransom payments to cybercriminals could put companies at risk of breaching sanctions, as well as other national and international laws and regulations, which could lead to severe penalties and enforcement action.

There is increasing concern that as the maritime industry becomes more reliant on technology, the exposure to cyberattacks will increase. In recent years, the industry has taken measures to tackle cyberthreats and adopt the appropriate crisis management tools. In 2017, the IMO Maritime Safety Committee approved various measures intended to enhance maritime security, including adopting a resolution (MSC.428(98)) that required shipowners and operators to incorporate cyber risk management into their ships' safety management systems by no later than the first annual verification of the company's Document of Compliance after 1 January 2021. The third edition of BIMCO Guidelines on Cyber Security Onboard Ships in 2018 provides additional guidance for shipping companies in carrying out appropriate risk assessments and include measures in their safety management systems to protect ships from cyber-incidents.

Some critics say, however, that the shipping industry disproportionately prioritises the less likely ship hacking scenarios and should instead focus on the more common attacks on shore-based systems, including the rise of 'cyber-piracy', where container booking applications are hacked by criminals looking for ship manifests, container identity numbers, and ship sea routes to organise the theft of containers transporting high-value goods such as electronics and jewellery.

Shipowners face an increasing obligation to avoid and mitigate the risk of cyberattacks, to develop a cyber response plan and to train and educate crew and other relevant personnel. Failure to keep up to date in this respect could expose shipowners to allegations of 'unseaworthiness' in the event of a cyber incident affecting a ship, shore-based

control systems, electronic cargo documents or handling systems and the like. The development of autonomous vessels also presents the possibility of remote access to vessel controls, which could put it at risk of hijacking or sabotage.

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