

EXECUTIVE SUMMARY

Growing seaborne trade

Global seaborne trade is doing well, supported by the 2017 upswing in the world economy. Expanding at 4 per cent, the fastest growth in five years, global maritime trade gathered momentum and raised sentiment in the shipping industry. Total volumes reached 10.7 billion tons, reflecting an additional 411 million tons, nearly half of which were made of dry bulk commodities.

Global containerized trade increased by 6.4 per cent, following the historical lows of the two previous years. Dry bulk cargo increased by 4.0 per cent, up from 1.7 per cent in 2016, while growth in crude oil shipments decelerated to 2.4 per cent. Reduced shipments from exporters of the Organization of Petroleum Exporting Countries were offset by increased trade flows originating from the Atlantic basin and moving eastward towards Asia. This new trend has reshaped crude oil trade patterns, which became less concentrated on usual suppliers from Western Asia. Supported by the growing global refining capacity – especially in Asia – and the appeal of gas as a cleaner energy source, refined petroleum products and gas increased by a combined 3.9 per cent in 2017.

Prospects for seaborne trade are positive; UNCTAD projects volume increases of 4 per cent in 2018, a rate equivalent to that of 2017. Contingent on continued favourable trends in the global economy, UNCTAD is forecasting a 3.8 per cent compound annual growth rate between 2018 and 2023. Volumes across all segments are set to grow, with containerized and dry bulk commodities expected to record the fastest growth at the expense of tanker volumes. UNCTAD projections for overall seaborne trade are consistent with historical trends, whereby seaborne trade increased at an annual average rate of 3.5 per cent between 2005 and 2017. Projections of rapid growth in dry cargo are in line with a five-decade-long pattern that saw the share of tanker volumes being displaced by dry cargoes, dropping from over 50 per cent in 1970 to less than 33 per cent in 2017.

Uncertain outlook

While the prospects for seaborne trade are bright, downside risks such as increased inward-looking policies and the rise of trade protectionism are, nevertheless, weighing on the outlook. An immediate concern is the trade tensions between China and the United States of America, the world's two largest economies, as well as those between Canada, Mexico, the United States and the European Union. Escalating trade frictions may lead to a trade war that could derail recovery, reshape global maritime trade patterns and dampen the outlook. Further, there are other factors driving uncertainty. Among others, these include the ongoing global energy

transition, structural shifts in economies such as China, and shifts in global value chain development patterns.

If leveraged effectively, game-changing trends, such as digitalization, electronic commerce (e-commerce) and the Belt and Road Initiative, the exact impact of which is yet to be fully understood, have the potential to add wind to the sails of global seaborne trade.

Growth in world fleet capacity

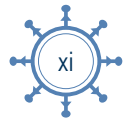
After five years of decelerating growth, 2017 saw a small improvement in world fleet expansion. During the year, a total of 42 million gross tons were added to global tonnage, equivalent to a 3.3 per cent growth rate. This performance reflects both a slight upturn in new deliveries and a decline in demolition activity, except in the tanker market, where demolition activity picked up. The expansion in ship supply capacity was surpassed by faster growth in seaborne trade volumes, altering the market balance and supporting improved freight rates and earnings.

With regard to the shipping value chain, Germany remained the largest container shipowning country, although it lost some ground in 2017. In contrast, owners from Canada, China and Greece expanded their containership-owning market shares. The Marshall Islands emerged as the second-largest registry, after Panama and ahead of Liberia. Over 90 per cent of shipbuilding activity occurred in China, Japan and the Republic of Korea, while 79 per cent of ship demolitions took place in South Asia, notably in Bangladesh, India and Pakistan.

Improved balance between demand and supply

Supported by stronger global demand, more manageable fleet-capacity growth and overall better market conditions, freight rate levels improved significantly in 2017, except for those of the tanker market. Container freight rate levels increased, with averages surpassing performance in 2016 and with profits in the container shipping industry reaching roughly \$7 billion by the end of 2017. CMA CGM recorded the best operating results in the container shipping industry, with core earnings before interest and taxes reaching close to \$1.58 billion, followed by Maersk Line, with gains of \$700 million. Hapag-Lloyd ranked third, with gains amounting to some \$480 million. The 2017 surge in bulk freight market resulted in gains for carriers that helped offset the depressed earnings of 2016. The tanker market remained under pressure, owing mainly to increased vessel supply capacity that outpaced demand growth and undermined freight rates.

While these trends are positive for shipping, recovery remains nevertheless fragile in view of the highly volatile rates yet relatively low levels.



Consolidation activity in liner shipping

The liner shipping industry witnessed further consolidation through mergers and acquisitions and global alliance restructuring. Yet despite the global market concentration trend, UNCTAD observed growth in the average number of companies providing services per country between 2017 and 2018. This is the first increase since UNCTAD started monitoring capacity deployment in 2004. Put differently, several individual carriers – both inside and outside alliances – expanded their networks to a larger number of countries. This more than offset the reduction in the global number of companies after the takeovers and mergers. However, this was not a broad-based trend. The number of operators servicing several small island developing States and vulnerable economies decreased between 2017 and 2018.

Three global liner shipping alliances dominate capacity deployed on the three major East–West container routes, collectively accounting for 93 per cent of deployed capacity. Alliance members continue to compete on price while operational efficiency and capacity utilization gains are helping to maintain low freight rate levels. By joining forces and forming alliances, carriers have strengthened their bargaining power vis-à-vis seaports when negotiating port calls and terminal operations.

In an oversupplied market, consolidation is expected to continue. Two thirds of the container ship order book capacity is accounted for by ships of over 14,000 TEUs, and only large carriers and alliances are in a position to fill these mega ships.

Port traffic volumes

Global port activity and cargo handling expanded rapidly in 2017, following two years of weak performance. According to 2017 estimates, the top 20 global ports handled 9.3 billion tons, up from 8.9 billion tons in 2016, an amount nearly equivalent to global seaborne trade volumes. UNCTAD estimates that 752.2 million TEUs were moved at container ports worldwide in 2017. This total reflects the addition of some 42.3 million TEUs in 2017, an amount comparable to total container volumes handled that year by the world busiest container port, Shanghai, China.

The outlook for global port-handling activity remains positive overall, supported by projected economic growth and port infrastructure development plans. However, downside risks weighing on global demand and related uncertainty continue to diminish global port activity.

Port operations, performance and bargaining power

Liner shipping alliances and vessel upsizing have made the relationship between container shipping lines and ports more complex and have triggered new dynamics

where shipping lines have greater bargaining power and influence. Vessel size increases and the rise of mega alliances have heightened the requirements for ports to adapt. While liner shipping networks seem to have benefited from efficiency gains arising from consolidation and alliance restructuring, the benefits for ports have not evolved at the same pace.

Together, these trends have heightened competition among container ports to win port calls with decisions by shipping alliances regarding capacity deployed, ports of call and network structures being potentially able to determine the fate of a container port terminal. This dynamic is further complicated by the shipping lines often being involved in port operations, which in turn could redefine approaches to terminal concessions.

Tracking and measuring port performance for strategic planning and decision-making

Global ports and terminals need to track and measure performance, as port performance metrics enable sound strategic planning and decision-making, as well as informed investment and financing decisions. As global trade, supply chains, production processes and countries' effective integration into the world economy are heavily dependent on well-functioning port systems, it is becoming increasingly important to monitor and measure the operational, financial, economic, environmental and social performance of ports.

In this respect, improved data availability enabled by various technological advances can be tapped. In addition, work carried out under the UNCTAD Port Management Programme and the port performance scorecard could be further strengthened.

Challenges and opportunities of digitalization

Technological advances in the shipping industry, such as autonomous ships, drones and various blockchain applications, hold considerable promise for the supply side of shipping. However, there is still uncertainty within the maritime industry regarding possible safety, security and cybersecurity incidents, as well as concern about negative effects on the jobs of seafarers, most of which come from developing countries.

While the development and use of autonomous ships offer numerous benefits, it is still unclear whether this new technology will be fully accepted by Governments, and particularly by the traditionally conservative maritime industry. There are legitimate concerns about the safety and security of operation of autonomous ships and their reliability. The diminishing role of seafarers and ensuing job loss are a particular concern.

At present, many blockchain technology initiatives and partnerships have the potential to be used for tracking cargo and providing end-to-end supply chain visibility;

recording information on vessels, including on global risks and exposures; integrating smart contracts and marine insurance policies; and digitalizing and automating paper filings and documents, thus saving time and cost for clearance and movement of cargo. Combining on-board systems and digital platforms allow for vessels and their cargo to become part of the Internet of things. A key challenge will be to establish interoperability so that data can be exchanged seamlessly, while ensuring at the same time cybersecurity and the protection of commercially sensitive or private data, including in view of the recent General Data Protection Regulation of the European Union.¹

Many technological advances are applicable in ports and terminals and offer an opportunity for port stakeholders to innovate and generate additional value in the form of greater efficiency, enhanced productivity, greater safety and heightened environmental protection. In light of these developments, ports and terminals worldwide need to re-evaluate their role in global maritime logistics and prepare to effectively embrace and leverage digitalization-driven innovations and technologies.

International shipping commitment to reduced greenhouse gas emissions

Complementing international efforts to address greenhouse gas emissions, which include the Paris Agreement under the United Nations Framework Convention on Climate Change and the 2030 Agenda for Sustainable Development, in particular Sustainable Development Goal 13 to take urgent action to combat climate change and its impacts, an important achievement was made at the International Maritime Organization (IMO) related to the determination of international shipping's fair share of greenhouse gas emissions reduction. An initial strategy on the reduction of such emissions from ships was adopted in April 2018, according to which total annual greenhouse gas emissions would be reduced by at least 50 per cent by 2050, compared with 2008. The strategy identifies short-, medium- and long-term further measures with possible timelines, and their impacts on States, paying particular attention to the needs of developing countries, especially small island developing States and the least developed countries. It also identifies supportive measures, including capacity-building, technical cooperation, and research and development. Innovative emissions reduction mechanisms, possibly including market-based measures, are proposed as medium-term solutions to be decided upon between 2023 and 2030, along with possible long-term measures to be undertaken beyond 2030.

1. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

Related regulatory developments of note include the entry into force of amendments to the International Convention for the Prevention of Pollution from Ships, 1973/1978, to make mandatory the data collection system for fuel oil consumption of ships of 5,000 gross tons and above; data collection is required to start as of 1 January 2019. As regards ship-source air pollution, associated with a large number of respiratory illnesses and deaths, the global limit of 0.5 per cent on sulphur in fuel oil used on board ships will come into effect on 1 January 2020, with potentially important benefits for human health and the environment. To facilitate and support effective implementation of the global limit, relevant guidelines are under preparation at IMO.

Key trends shaping the outlook

The Review has identified seven key trends that are currently redefining the maritime transport landscape and shaping the sector's outlook. They entail the following challenges and opportunities, which require continued monitoring and assessment for sound and effective policymaking:

- First, on the demand side, the uncertainty arising from wide-ranging geopolitical, economic, and trade policy risks, as well as some structural shifts, have a negative impact on maritime trade. Of immediate concern are inward-looking policies and rising protectionist sentiment that could undermine global economic growth, restrict trade flows and shift their patterns.
- Second, the continued unfolding of digitalization and e-commerce and the implementation of the Belt and Road Initiative. These bear major implications for shipping and maritime trade.
- Third, from the supply-side perspective, overly optimistic carriers competing for market share may order excessive new capacity, thereby leading to worsened shipping market conditions. This, in turn, will upset the supply and demand balance and have repercussions on freight-rate levels and volatility, transport costs and earnings.
- Fourth, liner shipping consolidation through mergers and alliances has been on the rise in recent years in response to lower demand levels and oversupplied shipping capacity dominated by mega container ships. The implication for competition levels, the potential for market power abuse by large shipping lines and the related impact on smaller players remain a concern. Competition authorities and regulators, as well as other relevant entities such as UNCTAD, need to remain vigilant. In this respect, the seventeenth session of the Intergovernmental Group of Experts on Competition Law and Policy of UNCTAD, held in



Geneva, Switzerland, in July 2018, included a round-table discussion on challenges in competition and regulation faced by developing countries in the maritime transport sector. This provided a timely opportunity to bring together competition authority representatives and other stakeholders from the sector to reflect upon some of these concerns and assess their extent and the potential implications for competition, shipping, ports and seaborne trade, as well as the role of competition law and policy in addressing these concerns. The Intergovernmental Group of Experts called upon UNCTAD to continue its analytical work in the area of international maritime transport, including the monitoring and analysis of the effects of cooperative arrangements and mergers, not only on freight rates but also on the frequency, efficiency, reliability and quality of services.

- Fifth, alliance restructuring and larger vessel deployment are also redefining the relationship between ports and container shipping lines. Competition authorities and maritime transport regulators should also analyse the impact of market concentration and alliance deployment on the relationship between ports and carriers.

Areas of interest include the selection of ports of call, the configuration of liner shipping networks, the distribution of costs and benefits between container shipping and ports, and approaches to container terminal concessions.

- Sixth, the value of shipping can no longer be determined by scale alone. The ability of the sector to leverage relevant technological advances is becoming increasingly important.
- Finally, efforts to curb the carbon footprint and improve the environmental performance of international shipping remain high on the international agenda. In April 2018, IMO adopted an initial strategy to reduce annual greenhouse gas emissions from ships by at least 50 per cent by 2050 compared with 2008 – a particularly important development. With regard to air pollution, the global limit of 0.5 per cent on sulphur in fuel oil used on board ships will come into effect on 1 January 2020. To ensure consistent implementation of the global cap on sulphur, it will be important for shipowners and operators to continue to consider and adopt various strategies, including installing scrubbers and switching to liquefied natural gas and other low sulphur fuels.