Global shipping continues to confront multiple challenges, including heightened trade policy and geopolitical tensions and is dealing with changes in globalization patterns. Additionally, shipping must transition to a more sustainable future, decarbonize and embrace digitalization. Being at the intersection of these forces will influence how the sector adapts to the evolving operational and regulatory landscape while continuing to effectively service global trade.

Maritime trade volume contracted marginally by 0.4 per cent in 2022, but UNCTAD projects it will grow by 2.4 per cent in 2023. Indeed, the industry remains resilient and UNCTAD expects continued but moderated growth in maritime trade volume for the medium term (2024–2028).

During 2022, containerized trade, measured in metric tons, declined by 3.7 per cent. UNCTAD projects it will increase by 1.2 per cent in 2023 and expand by over 3 per cent during the 2024–2028 period, although this rate is below the long-term growth of about 7 per cent over the previous three decades.

Starting in early 2022, seaborne trade, in particular dry bulk and tanker shipments, has been impacted by the war in Ukraine. The war led to changes in shipping patterns and increased the distances travelled for commodities, especially oil and grain. Growth in ton-miles exceeds growth in tons in 2022, 2023 and for 2024 projections.

In 2022, oil and gas trade volumes witnessed robust annual growth rates, of 6 per cent and 4.6 per cent, respectively. The increase can be attributed to heightened demand for fuel as the pandemic eased and related restrictions were lifted. As spending on energy-intensive services like transport and travel gradually recovered, a return to normalcy contributed to the surge in oil demand. In contrast, containerized and dry bulk shipments declined in 2022. Weakened containerized trade reflects the slowdown in global economic growth, high inflation and normalizing of demand after the unusual surge during the COVID-19 pandemic.

In 2023, oil cargo distances reached long-term highs, driven by disruptions from the war in Ukraine. Crude oil and refined products travelled longer distances, as the Russian Federation sought new export markets for its cargo and Europe looked for alternative energy suppliers.

Shipments of grains travelled longer distances in 2023 than any other year on record. Although grain shipments from Ukraine resumed in 2022 thanks to the Black Sea Initiative, several grain-importing countries had to rely on alternative grain exporters. They are instead buying from the United States of America, or Brazil, which requires longer hauls.

Containerized trade distances have tumbled since 2020 but increased marginally in 2023. Intra- Asian containerized trade, which accounts for the majority of intraregional trade, saw its share increase over the years. As intra-Asian trade is carried over shorter distances, the average distances travelled per ton of container cargo of global containerized trade are relatively low. The predominance of intra- Asian containerized trade flows reflects global manufacturing patterns with China continuing to serve as the leader in global manufacturing, supported by neighbouring East Asian countries. It also reflects the growing participation of several East Asian countries in regional and global value chains.





### A. INTERNATIONAL MARITIME TRADE FLOWS

## Maritime trade volume contracted in 2022 and is expected to grow at a slow pace

International seaborne trade volume contracted by 0.4 per cent in 2022, reaching 12,027 million tons, down from 12,072 million tons in 2021. This drop in performance comes after a strong rebound in 2021 but is dwarfed by the sharp decline observed in 2020 at the onset of the COVID-19 pandemic. The 2022 performance reflects the normalization that followed the extraordinary market surge in 2021.

Several factors influenced the weak growth in maritime trade flows in 2022 (see box 1.1). Weaker global economic growth, high inflation impacting consumer spending, the disruption caused by the war in Ukraine, and strict COVID-19 containment measures affecting the economic and trade performance of China had a particular impact (Clarksons Research, 2023a and ICC, 2023). Maritime trade volume contracted marginally by 0.4 per cent in 2022, but UNCTAD projects it will grow by 2.4 per cent in 2023. Indeed, the industry remains resilient and UNCTAD expects continued but moderated growth in maritime trade volume (table 1) for the medium term (2024–2028).

Global shipping is also facing concurrent forces that make balancing supply and demand a challenging task for carriers. During 2022, containerized trade, measured in metric tons, declined by 3.7 per cent. UNCTAD projects it will increase by 1.2 per cent in 2023 and expand by over 3 per cent during the 2024–2028 period, although this rate is below the long-term growth of about 7 per cent over the previous three decades. On the supply side, container shipping may have entered an overcapacity phase, meaning that carriers will aim at managing capacity using tools such as slippage, idling of vessels or demolition.

## Box 1.1 Persistent challenges impeding global economic growth and trade in 2022 and 2023

In 2022, global domestic product increased by 3.2 per cent, half the rate of the 6.1 per cent recorded in 2021(a). The war in Ukraine and other interconnected shocks impacted global economic performance, leading to a cost-of-living crisis. Growing poverty, hunger and debt distress reversed progress on several Sustainable Development Goals, midway to their 2030 deadline.

Global inflation reached a multi-decade high of about 8 per cent in 2022 and early 2023. Inflation rates vary by country groupings, with developing countries expected to reach 7.3 per cent and advanced economies 3.3 per cent in 2023 (IMF). The Middle East and Africa recorded the highest consumer price increases, particularly during the first quarter of 2023 (UNCTAD, 2023b).

Energy prices, particularly gas and coal prices, reached unprecedented highs in 2022, boosting import bills in 2022 and impacting the most vulnerable households. Prices also affected food security; between January 2020 and May 2023, the FAO food price index rose by 21 per cent, although global food prices have displayed a downward trend since mid-2022. This was due to several reasons, including trade-enabling conditions provided by the Black Sea Initiative (see section B.3).

To combat inflation, central banks around the world raised interest rates from the end of 2021. The tightening of monetary policy has increased existing debt costs and made new financing more expensive for many developing countries. It has also constrained industrial production and demand growth.

There is significant uncertainty about growth prospects, with downside factors such as geopolitical risks associated with the war in Ukraine and trade tensions, inflation and financial vulnerability negatively impacting the outlook. Global growth projections remain modest for 2023 (3.2 per cent) and 2024 (2.9 per cent) (a), supported by the reopening of the Chinese economy. Asia, particularly India, South Asia and Central Asia are projected to record the highest growth, whereas other regions will mostly see very low growth.

Global inflation is projected to remain persistently elevated in 2023, with high food and energy prices potentially deepening the cost-of-living crisis. It is expected to remain above central bank targets in 2023 and above the 2000–2019 average and to gradually decline, reaching prepandemic levels, towards the end of 2024 (a).

## Box 1.1 Persistent challenges impeding global economic growth and trade in 2022 and 2023 *(cont.)*

Merchandise trade growth has also been slowing down. In 2022, volumes increased modestly by 2.7 per cent, representing a sharp decline from the 9.4 per cent rebound witnessed in 2021 (c). During the first quarter of 2023, trade grew by 1.9 per cent, driven by the revival of economic activity in China, and by an increase in the trade of road vehicles and pharmaceuticals (UNCTAD, 2023c). During the last two years, trade grew more in value terms than in volume terms, driven mainly by rising commodity prices and inflation. The outlook for global trade for 2023 is pessimistic, with an expected annual growth rate of 1.7 per cent (c) and -0.6 per cent for the second quarter of 2023 (b). Trade growth is projected to improve to 3.2 per cent in 2024 (c).

Sources: IMF (2023) World Economic Outlook 2023 Update. Gloomy and More Uncertain, July 2023; OECD (2023) Economic Outlook, Volume 2023 Issue 1, June 2023; UNCTAD (2023a) Nowcast; UNCTAD (2023b) Pulse of the Global Crisis; UNCTAD (2023c) Global Trade Update, June 2023: Global trade growth returns but outlook is poor); United Nations (2023) World Economic Situation and Prospects, Mid-year update, May 2023 and WTO (2023) Global Trade Outlook and Statistics, 5 April 2023.

Notes: (a) reflects projections by IMF – July 2023; (b) by UNCTAD – Nowcast, last accessed on 28 July 2023 and (c) by WTO - April 2023.

Bearing in mind the ongoing uncertainty and downside risks surrounding the economic prospects, UNCTAD projects total seaborne trade to grow by 2.4 per cent in 2023, an improvement over the contraction of 2022. UNCTAD forecasts¹ maritime trade to expand at an average annual growth rate of 2.1 per cent during the period 2024–2028 (table 1.1). This is below the 3 per cent historical average growth rate of the past three decades.

Table 1.1 International maritime trade development forecast, 2024–2028 (Annual percentage change)

Year	Total seaborne trade	Containerized trade
2024	2.1	3.2
2025	2.2	3.2
2026	2.2	3.2
2027	2.1	3.0
2028	2.1	2.9

Source: UNCTAD secretariat calculations and forecasts published by Clarksons Research (July 2023).

Note: UNCTAD projections are based on the estimated elasticities of maritime trade concerning GDP, export volumes, investment share in GDP as well as monthly seaborne trade data published by Clarksons Research. They also build on the GDP forecast published in the International Monetary Fund, July 2023 World Economic Output.

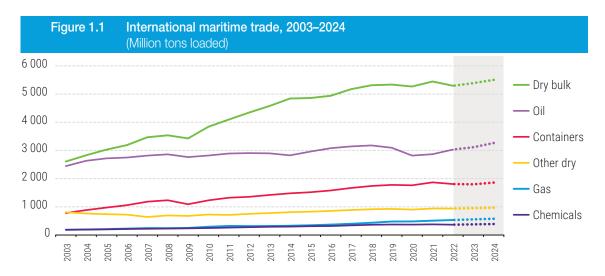
# 2. Above-average growth in energy trade carried in tankers and moderate growth for dry bulk trade projected for 2023

In 2022, seaborne trade volumes continued to be dominated mainly by dry bulk and oil shipments, followed by containerized trade (figure 1.1).

Oil<sup>2</sup> and gas<sup>3</sup> trade volumes witnessed the highest annual growth rates among cargo types in 2022, at 6 per cent and 4.6 per cent respectively. In the case of oil, this growth rate, as well as the rates projected for 2023 and 2024, significantly exceeds the 10-year average compound rates of the periods 1992–2002, 2002–2012 and 2012–2022 (Clarksons, 2023e).

This reflects greater demand for fuels with the easing of the pandemic and the return to normality leading to spending on energy-intensive services such as transport and travel, marking a recovery from the lows of 2020–2021. In addition, factors such as energy security and geopolitics have also contributed to this growth. These factors are expected to persist in 2023, leading to further growth in the energy trade and the gas trade in particular (Clarksons, 2023g). This is primarily driven by the need for enhanced energy security and a growing environmental agenda.

In contrast, containerized and dry bulk shipments declined by -3.7 and -2.9 per cent respectively in 2022. The performance of containerized trade in the second half of 2022 and the first half of 2023 largely reflects



Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time series (July 2023).

Notes: 2023 and 2024 are forecast. "Dry bulk" includes major bulks (iron ore, coal and grain) and minor bulks (metals, minerals, agribulks and softs); "Oil" encompasses crude oil and refined oil products; "Other dry" is an estimation of all other dry trade that is not included in major/minor bulks, for instance, cars and other vehicles, roro and project cargoes, as well as reefer cargoes that don't go in containers and breakbulk cargoes that are not in the minor bulk category; "gas" includes LPG, LNG and ammonia.

the less favourable macroeconomic trends and a return to normal after the unusual post-COVID-19 surge in container trade demand, which expanded at a solid 6.2 per cent over 2020.

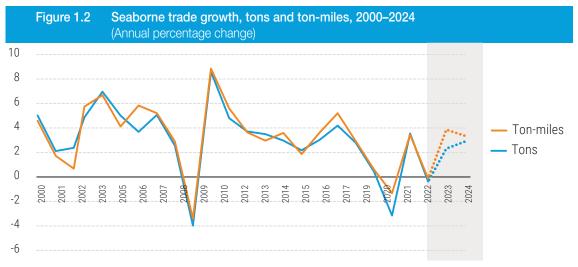
For 2023, UNCTAD forecasts containerized trade volumes to increase by 1.2 per cent. The outlook for containerized trade remains weak in 2023 given the overall macroeconomic and operating landscape. A potential improvement in global economic conditions and the recovery of China from the disruption caused by the COVID-19 pandemic and consequent economic slowdown could support sector performance during the second semester of 2023 (Clarksons, 2023f). However, UNCTAD forecasts a growth rebound starting in 2024 of around 3 per cent p.a. (table 1.1). These growth rates remain well below the average rates witnessed during the periods 1992–2002 (8.7 per cent) and 2002–2012 (7.2 per cent) (Clarksons, 2023e).

In 2022, dry bulk shipments declined due to the disrupted Ukrainian exports, high energy prices (which affected various energy-intensive industries that use dry bulk commodities as an input) and trends in the Chinese economy, including the sharp decline in investment in the Chinese real estate sector (Clarksons, 2023b and Danish Ship Finance, 2022). Demand for major dry bulks improved in 2023 driven by subsequent economic recovery in China. Grain and minor bulk shipments totalled 535 and 2,117 million tons respectively, representing a 3.8 and a 1.9 per cent growth rate compared to 2022 (Clarksons, 2023e). Bulk demand is projected to grow modestly within the 1.5–2.5 per cent range in 2023 (BIMCO, 2023). Improvements in bulk trade could materialize in 2024, depending on the easing of the global macroeconomic situation, increased coal consumption and production in China and India, the pace of the energy transition, and the war in Ukraine.

# 3. Distance travelled by sea of refined oil products, crude oil and grain reaches record highs

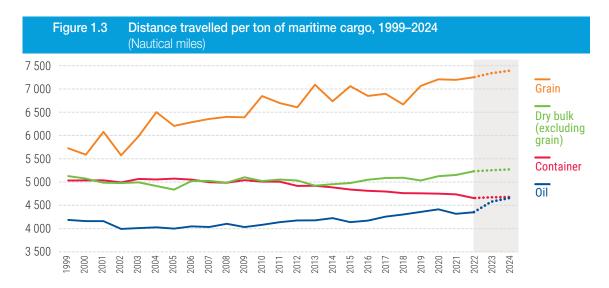
Seaborne trade, both in tons and in ton-miles declined in 2022. In 2023 and 2024 ton-miles are projected to grow more than tons, reflecting growth in distances travelled, with the gap between the two reducing in 2024 (figure 1.2). Closely monitoring trends in ton-miles, as discussed in sections B.1 and B.2, is essential to understand if a long-term shift in the geography of shipping and trade is at play. This assessment also involves examining key factors such as the impact of the war in Ukraine on trading and shipping patterns, the pursuit of energy security, and the adoption of low-carbon energy sources. These elements are significantly influencing trade flows and the demand for shipping services.

Over the past decade, the average distance travelled by seaborne trade increased for oil and dry bulk commodities but fell in the case of containerized trade (UNCTAD, 2022a). The average distance travelled by one ton of grain was 5,574 nautical miles in 2002 and increased to 7,251 in 2022. For oil commodities (including crude oil and refined oil products) this measure was 3,993 nautical miles in 2002, increasing to 4,350 in 2022. The average distance travelled by one ton of dry bulk commodities (excluding grains) was



Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time series (July 2023). Note: 2023 and 2024 are forecast.

4,978 nautical miles in 2002 and increased to 5,231 in 2022. These cargo types are expected to reach long-time records in 2023, namely 7,338 nautical miles for grain, 5,253 nautical miles for other dry bulk commodities, and 4,578 nautical miles for oil cargo (figure 1.3).

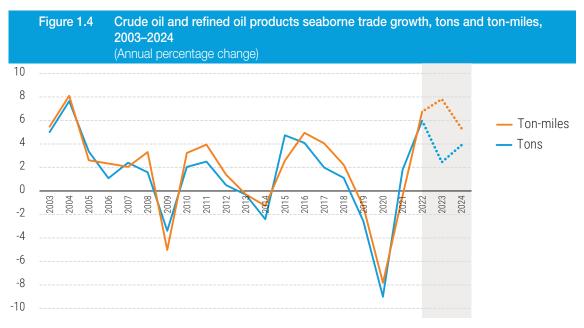


Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time-series (July 2023). Notes: 2023 and 2024 are forecast. "Oil" includes crude oil and refined oil products.

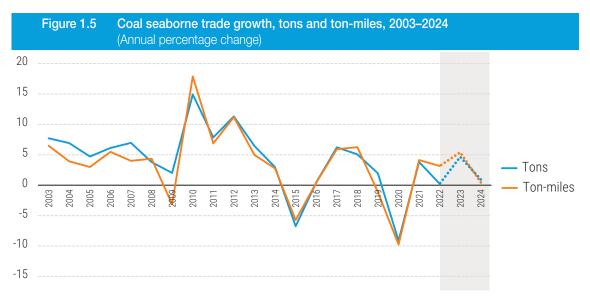
Growth in distances travelled of oil cargo reflects structural shifts in the energy production and distribution sectors and imbalances in supply and demand. The shale revolution in the United States, coupled with the lifting of the crude oil export ban in 2015, led to an increase in oil cargo shipments from the United States to Asia.

At the same time, the growing refining capacity in Asia has increased demand for crude oil shipments from the Atlantic basin. Meanwhile, demand for refined oil products in Asia, especially China, and exports of refined oil products from Asia have also changed the direction of flows and distances travelled. As for dry bulk shipments, large consumption in China of iron ore, coal and grains and minor bulks used in steel production have been a major driver in dry bulk trade shipments and distances travelled with many of these commodities being sourced from the Argentina, Brazil and United States.

Since 2022, a gap is observed between ton and ton-mile growth in the case of oil and oil products, and coal (figure 1.4 and figure 1.5). Growth in ton-miles seems to have been heightened by the war in Ukraine in the case of these three products. In 2023, refined oil products, liquefied petroleum gas (LPG) and crude oil trade are expected to witness the largest increases in ton-miles that exceed growth in trade volumes (Clarksons, 2023e).



Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time series (July 2023). Notes: 2023 and 2024 are forecast.



Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time series (July 2023). Note: 2023 and 2024 are forecast.

If sustained and inclusive, this development could lead to trade diversification opportunities and shifts in the geography of trade that may enable new players to emerge as importers and exporters. However, for the end user or the consumer, alternative cargo sourced from further away may entail greater shipping costs and result in higher import prices. For shipping companies, increasing ton-miles implies a larger demand for shipping capacity that may require investment in more ships and support better fleet utilization and earnings.

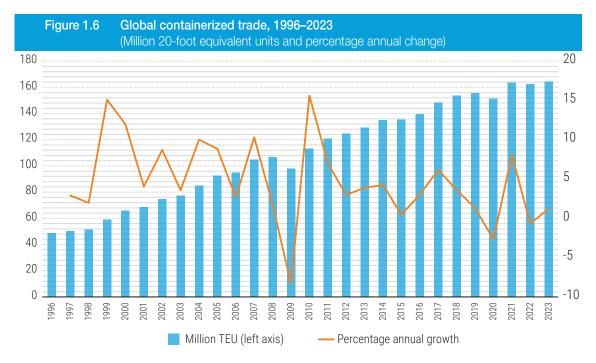
However, this gap is expected to reduce in 2023 and 2024. In the case of oil and oil products specifically, starting in 2024, growth in tons is expected to increase while growth in ton-miles is expected to slow down. This reflects lower growth in distances travelled (5.3 per cent in 2024) compared with 2023 (about 7.8 per cent) (Clarksons, 2023e). This suggests that growth in ton-miles exceeding volumes induced by the war in Ukraine was a cyclical change in the usual patterns, as opposed to a structural shift.

### Modest recovery in containerized trade in 2023

In 2022, global containerized trade volumes declined marginally by -0.7 per cent, reaching 163 million 20-foot equivalent units (TEUs), down from 164 million TEUs in 2021 and in sharp contrast to the surge in volumes recorded in 2021 (8.1 per cent), as illustrated in figure 1.6. UNCTAD forecasts that containerized

seaborne trade will grow by 1.2 per cent in 2023 and will grow modestly, as macroeconomic challenges ease, with around 3 per cent per year for containerized trade starting in 2024 (see table 1.1 and annex).

Global containerized trade has been on a roller coaster ride since the COVID-19 pandemic. While the market boomed in 2021 and during much of the first half of 2022, the situation changed dramatically by the second half of the year and returned to normal pre-COVID-19 levels. Significant differences were observed across regions in terms of annual changes in containerized trade (box 1.2).



Source: UNCTAD secretariat, based on data from MDS Transmodal (MDST), World Cargo Database, 1 June 2023.

#### Box 1.2 Seaborne containerized trade performs differently across sub-regions

Since 2020, containerized trade has faced an unprecedented rise in shipping rates, difficulties of trade logistic systems to adapt effectively to supply and demand abrupt changes, less frequent port calls, port congestion and labour-related issues. As a result, disruptions in maritime supply chains have been widespread at a global level, prompting a substantial drop in seaborne containerized cargo volumes.

However, impacts differed across regions, as shown in the table below. Effects were more marked in Latin America than in other regions, with a reduction of almost six percentage points in container volumes in 2020 compared to the previous year. By the end of 2022, although the gap had narrowed, the total ended below the levels of 2019.

# Annual changes in containerized international seaborne trade (Sum of exports and imports) by sub-region, 2019 = 100

	2019	2020	2021	2022
Sub-Saharan Africa	100	96.4	98.2	98.1
North America	100	100.5	109.4	101.6
Latin America	100	94.3	101.9	96.5
Australasia and Oceania	100	100.6	101.9	97.4
Europe	100	97.0	101.9	94.5
Asia	100	99.9	106.3	104.0
Indian Subcontinent and Middle East	100	96.9	98.0	101.6
Global	100	98.7	104.5	100.9

Source: Barleta and Saade (2023), based on Container Trade Statistics (CTS), 2019–2022.

#### Box 1.2 Seaborne containerized trade performs differently across sub-regions (cont.)

Performances diverged among and within regions and across the type of trades. Some of the main ports in the region such as Panama, show that the Caribbean coast of Panama recovered more quickly and showed better results in exports (+15 per cent exports vs. -15 per cent imports) in 2022 compared with 2019 whereas the Panamanian Pacific coast experienced a 14 per cent increase in imports against a -11 per cent decline in exports.

As the world appears to be returning to previous levels and normalizing after the volatility of recent years, many questions remain about the future of seaborne trade in the Latin American and Caribbean region. A more resilient future will require mechanisms that consider global variations, route changes, industry concentration and regional inequalities. It will also require addressing the historic and substantial infrastructure gap related to connectivity between ports and the region's economic hinterland. This infrastructure gap poses a significant obstacle to development in countries from this region, making it a crucial aspect to address in building resilience. The considerable investment needed at a time when countries and Governments are under severe economic pressure and lack resources constitutes a major hurdle.

Tighter and more efficient resource planning is needed, together with more creative financing mechanisms. Extensive planning, financing and regulatory efforts are required to ensure an integrated Latin American and Caribbean region that can navigate future disruptions and leverage seaborne trade opportunities more effectively.

Source: UN-ECLAC, based on Eliana Barleta y Miryam Saade Hazin: "Challenges for the maritime sector: after the storm, comes the calm?" Economic Commission for Latin America and the Caribbean, Santiago, 2023; and Economic Commission for Latin America and the Caribbean: "International Trade Outlook for Latin America and the Caribbean 2022", LC/PUB.2022/23-P, Santiago, 2023.

By the third quarter of 2022, normalization in market conditions started to show, reflecting the fading away of the boost generated by various COVID-19-related drivers. Demand moderated and volumes weakened, reflecting the end of the stimulus spending effect, especially in the United States; the impact of inflation, including on global consumer demand; more destocking and inventory draws, as well as a recovery of services trade.

By late 2022, containerized trade had tempered the bullish market conditions seen in 2021 and early 2022, when freight rates had soared, the orderbook surged, and port congestion reached record highs. The average container capacity held up in ports increased from about 31 per cent in 2019 to 35 per cent in 2021 and 2022 (Clarksons, 2023h). A softening in container shipping demand has helped to ease the global logiam in the maritime supply chain, with the average number of vessels waiting in ports now back to their pre-pandemic levels (see also chapter 4, and Danish Ship Finance, 2023).

# 5. Containerized trade flows on the main East-West routes contract, while intraregional trade grows

Table 1.2 shows the bidirectional flows of containerized trade over the main East-West trade routes. The transpacific route, involving trade between East Asia and more specifically China and the United States, continued to dominate global containerized trade flows in 2022. However overall volumes transported on this route contracted by -6.5 per cent, reducing volumes from 30 million TEUs in 2021 to 28 million TEUs in 2022. Volumes on the Asia-Europe route also declined by -4.9 per cent in 2022, whereas flows from Europe heading to the North American East Coast increased by nearly 2 per cent. These developments reflect a weakening in the container shipping market in the second half of 2022.

In 2023, after a sluggish start to the year, ocean carriers shifted capacity from transatlantic routes (more resilient in 2022, encompassing non-consumer goods, whose imports were less affected by the slowdown in demand) back to transpacific routes where spot rates were projected to increase, albeit remaining lower than pre-pandemic levels (Knowler, 2023; and Tirschwell, 2023).

Despite the drop in volumes observed in 2022, table 1.3 underscores the continued predominance of the main East—West routes (37.5 per cent). However, the importance of intraregional routes, whose share amounted to 27.6 per cent in 2022, remains significant. It reflects dynamic intra-Asian container shipping activity and the manufacturing supply chain specific to East Asian countries. Other routes involving the participation of developing countries include the non-mainline routes (e.g., Indian Sub-Continent to Europe) with a 13.2 per cent share, followed by South—South trades (e.g. Africa—Latin America and the Caribbean) which contributed 12.5 per cent to global containerized trade in 2022.

Table 1.2 Containerized trade on major East—West trade routes, 2014–2022 (Million 20-foot equivalent units and percentage annual change)

		Trans-Pacif	ic		Asia-Europe			Transatlantic			
	Eastbound	Eastbound Westbound		Eastbound	Westbound		Eastbound	Westbound			
	East Asia-North America	North America- East Asia	Total Trans- Pacific	Northern Europe and Mediterra- nean to East Asia	East Asia to Northern Europe and Mediterranean	Total Asia-Europe	North America to Northern Europe and Mediterranean	Mediterranean to North	Total Transatlantic		
2014	16.2	8.2	24.4	7.3	14.7	22.0	2.9	4.1	6.9		
2015	17.4	8.1	25.5	7.4	14.3	21.7	2.8	4.3	7.1		
2016	17.3	7.9	25.2	7.8	14.8	22.6	2.8	4.4	7.1		
2017	18.5	7.8	26.3	8.1	15.7	23.9	3.0	4.7	7.7		
2018	19.8	7.9	27.7	8.3	16.7	25.0	3.1	4.9	8.1		
2019	19.1	7.4	26.4	8.6	16.9	25.5	3.0	5.1	8.1		
2020	20.0	7.3	27.3	8.5	15.8	24.3	2.6	5.0	7.6		
2021	23.8	6.4	30.2	8.2	17.3	25.5	2.7	5.6	8.3		
2022	22.4	5.8	28.2	7.0	17.2	24.2	2.6	5.8	8.5		
				Percenta	ge annual char	nge					
2014–2015	7.5	-2.2	4.2	0.5	-2.8	-1.7	-3.0	5.3	1.9		
2015–2016	-0.8	-2.1	-1.2	6.0	3.2	4.2	0.4	1.4	1.0		
2016–2017	7.0	-0.7	4.6	4.3	6.6	5.8	7.1	7.6	7.4		
2017–2018	7.1	1.0	5.3	2.2	5.8	4.6	4.4	5.5	5.1		
2018–2019	-3.7	-7.0	-4.7	2.9	1.4	1.9	-2.4	3.4	1.2		
2019–2020	4.8	-0.7	3.3	-1.2	-6.5	-4.7	-12.8	-2.5	-6.3		
2020-2021	19.2	-12.8	10.6	-3.4	9.6	5.0	1.5	12.6	8.8		
2021-2022	-5.9	-8.5	-6.5	-14.4	-0.4	-4.9	-1.4	3.5	1.9		

Source: UNCTAD secretariat, based on MDS Transmodal (MDST), World Cargo Database, 1 June 2023.

Table 1.3 Global containerize (Market shares in pe		, 2020–2022	
	2020	2021	2022
Main East West	39.1	39.1	37.5
Intraregional	26.9	26.5	27.6
Non-mainlane East West	12.7	12.8	13.2
South-South	12.2	12.3	12.5
North-South	9.1	9.3	9.1
	100.0	100.0	100.0

Source: UNCTAD secretariat, based on data from MDS Transmodal (MDST), World Cargo Database, 1 June 2022.

Notes: Non-mainlane East—West: Trade involving Western Asia and the Indian Sub-continent, Europe, North America, and East Asia. North—South: Trade involving Oceania, Sub-Saharan Africa, Latin America, Europe, and North America. South—South: Trade involving Oceania, Western Asia, East Asia, Sub-Saharan Africa, and Latin America.

As noted above, weaker global demand, elevated inflation, large inventories and destocking, and the continued COVID-19 logistical legacies, especially in China, all contributed to the negative performance on the main East—West Asian trades. Accordingly, table 1.4 shows that trade flows on the main East—West trade lanes involving East Asia, Europe and North America declined by nearly 5 per cent. In contrast, trade on the non-mainlane routes (i.e. routes other than the main transpacific, Asia—Europe and transatlantic lanes) recorded a volume increase of nearly 2 per cent in 2022, and intraregional trade, reflecting to a large extent the intra-Asian shipments, increased by over 3 per cent in 2022 compared with 2021.

#### 1. INTERNATIONAL MARITIME TRADE

	Table 1.4	Containerized trade on main East—West and other containerized trade routes, 2015–2022							
	(20-foot equivalent units and percentage annual change)								
		2015	2016	2017	2018	2019	2020	2021	2022
					TE	U			
Main Ea	ast—West routes	54 196 409	54 867 319	57 869 249	60 743 741	60 011 073	59 172 534	63 966 110	60 925 992
Other ro	outes	81 280 939	84 710 760	90 339 411	92 821 282	95 588 032	92 209 405	99 653 295	101 589 452
Of wh	ich								
Non-m	nainlane East West	18 149 559	18 853 201	20 051 005	19 961 618	20 694 108	19 275 390	21 004 670	21 518 388
North	−South	13 197 138	13 458 901	14 156 828	14 475 542	14 537 104	13 808 441	15 137 204	14 842 761
South	–South	15 270 831	16 123 617	17 644 339	18 220 186	19 074 587	18 451 584	20 118 813	20 387 978
Intrare	egional	34 663 410	36 275 041	38 487 239	40 163 936	41 282 233	40 673 989	43 392 607	44 840 326
World total		135 477 348	139 578 080	148 208 660	153 565 023	155 599 105	151 381 939	163 619 405	162 515 444
		Percentage change							
			2016	2017	2018	2019	2020	2021	2022
Main Ea	ast—West routes		1.2	5.5	5.0	-1.2	-1.4	8.1	-4.8
Other ro (Non-m	outes ain lanes)		4.2	6.6	2.7	3.0	-3.5	8.1	1.9
Of which									
Non-m	nainlane East West		3.9	6.4	-0.4	3.7	-6.9	9.0	2.4
North	–South		2.0	5.2	2.3	0.4	-5.0	9.6	-1.9
South	-South		5.6	9.4	3.3	4.7	-3.3	9.0	1.3
Intrare	egional		4.6	6.1	4.4	2.8	-1.5	6.7	3.3

Source: UNCTAD secretariat, based on data from MDS Transmodal (MDST), World Cargo Database, 1 June 2023.

Notes: Non-mainlane East West: Trade involving Western Asia and the Indian Sub-continent, Europe, North America, and

East Asia.

North—South: Trade involving Oceania, Sub-Saharan Africa, Latin America, Europe, and North America. South—South: Trade involving Oceania, Western Asia, East Asia, Sub-Saharan Africa, and Latin America.

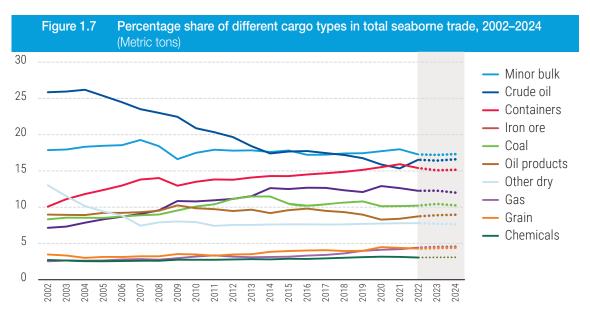
# B. CONTINUED DISRUPTIONS TO SHIPPING AND PORTS THREATEN ENERGY AND FOOD SECURITY

# Changing energy trade patterns amid rising energy security requirements

Since the COVID-19 pandemic, disruption to global logistics, in particular shipping and ports has been reshaping trade flows and supply chains. The ongoing war in Ukraine continues to affect maritime transport and trade. It has disrupted fossil fuel markets, as the Russian Federation is the leading exporter of natural gas and the second-largest exporter of oil. This disruption exacerbated the challenges experienced during the pandemic, when demand was reduced and supply contracted in the first phase, to be followed by surging demand that outpaced supply, resulting in extremely high and volatile prices. After the war erupted, natural gas prices reached record highs, causing electricity prices to surge in some markets, and oil prices to soar to their highest levels since 2008 (IEA, 2023a). For example, immediately after the war in Ukraine started, energy prices reached a 20 per cent increase for five months straight, with WTI crude oil price jumping 15.3 per cent, from \$92.77 per barrel (24 February 2022) and averaging \$106.96 from 28 February to 3 August (Open Access Government, 2023).

Although energy prices have eased compared with the 2022 high peaks, prices could spike again in the event of new disruptions, such as insufficient supplies of natural gas in case of a colder 2023 winter season in Europe, potentially affecting companies and households. Total energy costs (direct and indirect) for households are estimated to have increased by at least 63 per cent and possibly as much as 113 per cent during the year following the beginning of the war in Ukraine (*The Conversation*, 2023). In this context, energy security has become a key policy concern.

As global economic activity rebounded from the COVID-19 pandemic and global energy demand revived, the flow of oil trade, including crude and refined petroleum also recovered (as mentioned in section A.2). As a result, energy commodities, particularly crude oil and oil products increased their share in total seaborne trade in 2022, notwithstanding a general persistent long-term trend of declining shares of oil and refined products in total seaborne trade volumes and a long-term trend away from coal (figure 1.7). This long-term trend is consistent with the peak in demand for coal and oil due to the energy transition, which is projected to reduce the growth of the seaborne trade of these products by more than two-thirds and one-third respectively by 2030 (DNV, 2022), suggesting that volumes and distances traded for those commodities will decrease in the future.



Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time series (as of 28 July 2023). Notes: 2023 and 2024 are forecast.

In the context of the war in Ukraine, the United Kingdom, the United States and the European Union, have applied restrictive economic measures to the trade of Russian crude oil, refined petroleum products and gas, such as import bans, pipeline transport restrictions and a cap on the price of the oil barrel,

impacting underwriting for insurance-related processes. These measures have induced changes in the trading patterns of these products.

For instance, the share of the Russian Federation in EU imports of petroleum products and coal declined by 9.2 and 13 percentage points respectively between the average of the second and third quarters of the period 2017–2021 and the second and third quarters of 2022. In contrast, oil imports from the Iraq, Kazakhstan, Libya, Nigeria, Norway, Saudi Arabia, the United Kingdom and the United States increased (Yanatma, 2023). On the other hand, exports of oil and oil products from the Russian Federation to alternative destinations further away (including China, the Middle East, India, Türkiye, Africa and Latin America) increased (Clarksons, 2023d).

The war in Ukraine also led European countries to import more gas from other suppliers, including the Algeria, Norway, Qatar and the United States to compensate for the loss of shipments from the Russian Federation. The latter represented 40 per cent of the European supply in 2021. Seaborne liquefied natural gas (LNG) flows have replaced pipeline natural gas, as illustrated in table 1.5 through the significant increase in import shares of European countries in 2022.

Table 1.5 Major seaborne exporters and importers of oil, oil products, coal and liquefied natural gas, top ranking in terms of share of global trade volumes and of annual percentage changes

	Importing countries/regions					Exporting countries/regions			
	Т	op importers 2022	Percentage share(1)	Top percentage changes 2021-20		Top exporters 2022	Percentage share(1)	Top percentag changes 2021-2	
Crude oil	1	Total Asia	58.1	Latin America and the Caribbean	22.2	Middle East/Gulf	47.4	North America	21.5
	2	Total Europe	25.9	India	10.4	Latin America and the Caribbean	10.0	Black Sea	14.9
	3	China	22.8	Baltic	10.2	North America	9.7	Middle East/Gulf	14.6
	4	India	11.7	United Kingdom / Continental Europe	10.1	West Africa	8.2	Baltic	5.5
	5	United Kingdom / Continental Europe	11.5	Other Asia	10.0	Mediterranean	6.1	Latin America and the Caribbean	3.7
Oil products	1	Total Asia	31.4	Middle East/Gulf	21.7	Total Europe	34.1	Latin America	24.1
	2	Total Americas	20.1	Latin America	14.0	Middle East/Gulf	18.4	Total Americas	12.8
	3	South East Asia	16.9	Indian Subcontinent	11.9	Total Americas	16.0	United States	11.3
	4	United Kingdom/ Continental Europe	16.9	Africa (inc. Mediterranean)	8.3	United Kingdom/ Continental Europe	14.4	East Asia (inc. Russian Federation)	9.8
	5	Latin America	11.6	United Kingdom / Continental Europe	2.3	East Asia (inc. Russian Federation)	13.9	Middle East/Gulf	9.0
Coal	1	Total Asia	82.2	European Union + United Kingdom	34.4	Indonesia	38.2	Canada	12.9
	2	India	19.8	India	19.1	Australia	27.6	South Africa	9.2
	3	China	19.0	Japan	1.1	Russian Federation	12.9	Indonesia	7.8
	4	European Union + United Kingdom	9.8	Republic of Korea	0.8	Total North America	8.7	North America	2.9
	5	Republic of Korea	9.8			United States	5.9		
LNG	1	Total Asia	64.1	United Kingdom	71.8	Total Atlantic	39.2	United States	11.7
	2	Total Europe	31.0	France	71.6	Total Asia Pacific	36.9	Russian Federation (Arctic)	9.7
	3	Japan	18.5	Total Europe	54.5	Total Middle East	24.0	Total Atlantic	9.0
	4	China	16.2	Spain	48.0	Australia	20.1	Malaysia	7.1
	5	Republic of Korea	11.7	Republic of Korea	14.5	Qatar	19.7	Total Asia Pacific	2.4

Sources: UNCTAD Secretariat, based on data from Clarksons Research, Seaborne Trade Monitor, July 2023.

Note: (1) Percentage shares of the total seaborne trade of specific commodities, totals can encompass countries mentioned subsequently.

Contrary to trading patterns of other energy products, gas grew more in volumes than in ton-miles in 2022 (figure 1.8). This was due to shifting trade patterns such as increased United States exports heading to Europe rather than on longer voyages to Asia (Clarksons, 2022). Volumes increased in 2022 for both LNG and LPG although the opposite trend is projected for 2023 (Clarksons, 2023e).

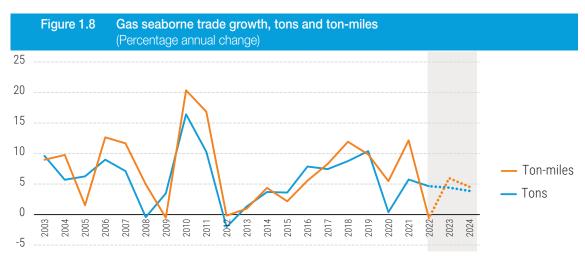
Coal trade volumes marginally increased in 2022, because of tight energy markets resulting from the war in Ukraine. Coal trade benefitted from firm European imports, which drove ton-mile growth (figure 1.5 and Clarksons, 2023c). In 2023, following policy reforms aimed at securing coal supply to cope with El Nino impacts, coal imports to China increased significantly, particularly from the Russian Federation (Drewry, 2023a and Chen, 2023). Continued strong growth of coal imports in Asian economies is expected to lead to record demand in 2023.

# 2. Energy security needs intersect with global environmental sustainability goals

With energy security staying high on the agenda, maritime trade of energy commodities is expected to grow more than non-energy commodities in 2023. Supply and demand factors suggest a positive outlook for the next two years. Seaborne crude oil trade volumes are expected to grow (limited to some extent by OPEC cuts) by 1.6 per cent in 2023 and by a strong 7 per cent in ton-miles (Clarksons, 2023e), with exports growing from the United States, Brazil, Norway and the Russian Federation, and increased Chinese and Indian demand. Figure 1.8 shows that global seaborne LNG demand is expected to remain strong, with United States exports continuing to drive LNG export growth and China and India driving import growth.

Increased maritime shipments of fossil fuels such as oil, gas and coal and an increase in distances travelled could lead to more carbon dioxide ( $\rm CO_2$ ) emissions. This raises the question of the impact of shifts in energy trade patterns vis a vis the need to reduce greenhouse gas (GHG) emissions. Similarly, increases in oil and gas prices could shift investment back into extractive industries and fossil fuel-based energy generation, running the risk of reversing the trend towards renewable energy documented over the past five years (IRENA, 2023). Latest disruptions have prompted interest in building energy supply capacity to benefit from emerging trading opportunities. For instance, India increased its crude oil imports, due to increased production of refined oil products, and its refined oil products exports to the European Union. The United States has increased investment in new liquefaction infrastructure for significant additional LNG capacity.

Despite this, clean-energy investment witnessed a rapid acceleration in 2022, with a record \$2.8 trillion invested globally into the energy sector, of which more than \$1.7 trillion went to clean energy sources (IEA, 2022b). Current geopolitical tensions and challenging economic conditions have provided momentum to build long-term energy security while simultaneously tackling the threat of climate change. In other words, many countries have engaged in policies aimed at reducing dependence on volatile energy markets and developing capacity in homegrown renewable energy to ensure domestic price stability.



Source: UNCTAD secretariat, based on Clarksons Research, Shipping Intelligence Network time series (July 2023).

Notes: "Gas" includes LNG and LPG. 2023 and 2024 are forecast.

Examples of policies aimed at boosting clean energy supply include the Clean Energy Plan and Inflation Reduction Act (United States); the REPowerEU plan (European Union) and the GX Green Transformation Programme (Japan). In developing countries, China, India, and Indonesia have launched initiatives encompassing solar and biofuels. As a result of these initiatives, renewable power capacity is expected to expand as much in the next five years as it did in the past 20 years (IEA, 2023a and IEA, 2022b).

### 3. Changing grain trade patterns and implications for food security

The Russian Federation and Ukraine are global players in the grain and agrifood markets and, before the war, were important sources of wheat, corn, barley, rapeseed, sunflower oil and seeds for many net food-importing developing countries, including many lower-income countries. For example, in 2018–2020, 32 per cent of the total of African wheat imports came from the Russian Federation and 12 per cent of total African wheat imports came from Ukraine. For least developed countries, imports of wheat from the Russian Federation and Ukraine were 29 per cent and 10 per cent, respectively. As many as 25 African countries imported more than one-third of their wheat from the two countries, and 15 of them imported more than half (UNCTAD, 2022b).

In this context, the disruption to Black Sea shipping and ports caused by the war in Ukraine has generated a gap in volumes of grain shipped from Ukrainian ports, contributing to a 2.6 per cent contraction in global grain trade volumes in 2022.

To help stabilize rising global food prices and deteriorating food security amid already high price levels due to the pandemic, the United Nations brokered two initiatives. One of these, the Black Sea Initiative (BSI), aimed at allowing the safe export of grain and other foodstuffs from Ukrainian ports on the Black Sea (box 1.3). It was signed on 22 July 2022 and discontinued on 17 July 2023.

## Box 1.3 The Black Sea Initiative contribution to grain trade amid the war in Ukraine and its discontinuation

The Black Sea Initiative involved the Russian Federation, Türkiye and Ukraine and concerned the export of grain and fertilizer from three Ukrainian ports on the Black Sea. It consisted of Ukrainian vessels guiding cargo ships to international waters on the Black Sea, avoiding mined areas and vessels, then safely proceeding along an agreed corridor through the Black Sea. Ships were inspected by a team including representatives from the Russian Federation, Türkiye, Ukraine and the United Nations. The Initiative was discontinued on 17 July 2023, with the withdrawal of the Russian Federation from the deal.

Since its signature and up until 20 July 2023, the Black Sea Initiative facilitated exports of 32.9 million metric tons of various food commodities encompassing corn, wheat, sunflower products, barley, soya and rapeseed and 725,000 metric tons of humanitarian food assistance exports to regions facing acute food insecurity. Around 57 percent of shipments went to developing countries. Considering World Bank income categories, 20 per cent of exports went to low-income and lower-middle income groups.

The initiative enabled a gradual rise in ship departures and shipped volumes of grain from Ukrainian ports, contributing to bringing down the cost of food, stabilizing global markets and keeping them open. The food price index decreased from its peak in March 2022 by over 23 per cent in June 2023.

The discontinuation of grain trade flows through this passage is likely to reduce shipping demand in the region and impact bulk shipping performance. Alternative routes could include transiting the Black Sea via territorial waters in Romania and through the Constanta Port in Romania, shipments by the river Danube and railway connections via the Republic of Moldova. These alternative options could lead to rising logistics costs via the Black Sea and the Bosporus, making trade in the region less competitive and supporting continued shifts in grain trading patterns.

Sources: United Nations Black Sea Grain Initiative Joint Coordination Centre Dashboard, accessed 20 July 2023; UNCTAD: A double burden: the effects of food price increases and currency depreciations on food import bills, Geneva, 16 December 2022; UNCTAD: A trade hope: the role of the Black Sea Grain Initiative in bringing Ukrainian grain to the world, Geneva, October 2022; UNCTAD: Maritime trade disrupted: the war in Ukraine and its effects on maritime trade logistics, Geneva, 28 June 2022 and Sharma, T. (2023) End of the Black Sea Initiative: For Bad or Worse? 19 July 2023.

In response to potential food shortages caused by reduced grain exports resulting from the war in Ukraine, several countries implemented trade policy measures such as export bans, export restrictions and export taxes to limit the export of food to ensure sufficient domestic food supplies. Between June 2022 and April 2023, the share of traded food products restricted due to these measures has been estimated to range between 7 and 10 per cent (IFPRI, 2023).

While global food prices had decreased by March 2023, they remain high compared to pre-war and prepandemic levels (UNCTAD, 2023e). The use of trade policy measures restricting food exports could send prices soaring again (World Bank, 2023). This underscores the importance of restraining such measures and of continued support for the Black Sea Initiative. Additionally, ongoing geopolitical and climate change factors pose additional risks that could undermine the stability of global food prices.

A further impact of the war in Ukraine has been the substitution of import origins and, in some cases, commodity substitution (WTO, 2023b). This underscores the importance of alternative sources of supply and an open trading system that allows for shifting the source of imports. During 2022, reduced grain exports from Ukraine were partly offset by increased shipments from other existing suppliers such as Australia, Brazil and Canada, as reflected in table 1.6.

	Table 1.6 Major grain seaborne exporters and importers 2022 and 2023, top ranking in terms of share of global trade volumes and of annual percentage changes								
	Top importers 2022	Percentage share(1)	Top percentage changes 2021-2022		Top importers 2023(2)	Percentage share(1)	Top percentage changes 2022-		
1	Total Asia	48.4	Morocco	25.0	Total Asia	48.3	Argentina	78.8	
2	China	26.5	Iran (Islamic Republic of)	10.4	China	26.6	Thailand	11.3	
3	Total Africa	12.1	Philippines	7.0	Total Africa	11.9	Morocco	11.1	
4	Total Europe	11.6	Colombia	6.8	Total Europe	11.4	Saudi Arabia	8.6	
5	Total America	10.8	Mexico	6.2	Total America	10.5	Viet Nam	5.3	
6	Total Middle East	10.2	Taiwan Province of China	6.0	Total Middle East	9.9	China	2.8	
7	European Union + United Kingdom	7.7	Türkiye	5.6	European Union + United Kingdom	7.6	Total Asia	2.1	
8	Japan	5.0	Japan 2.0		Japan	4.9	Mexico	1.5	
9	Egypt	5.0	Republic of Korea	0.6	Egypt	4.7	Japan	1.2	
	Top exporters 2022	Percentage share(1)	Top percentage characteristics 2021—2022	anges	Top exporters 2023(2)	Percentage share(1)	Top percentage changes 2022-		
1	Total South America	38.4	Canada	114.4	Total South America	38.6	Russian Federation	26.9	
2	Total North America	28.1	Brazil	16.1	Total North America	28.6	Canada	18.4	
3	Brazil	24.2	Total Asia/Pacific	11.4	Brazil	27.1	Brazil	14.6	
4	United States	23.2	Total South America	8.8	United States	22.6	Total Europe	6.3	
5	Total Europe	21.7	Australia	7.0	Total Europe	22.5	European Union + United Kingdom	5.4	
6	Argentina	11.7	Russian Federation	1.4	Canada	10.4	Total North America	4.1	

Sources: UNCTAD Secretariat, based on data from Clarksons Research, Dry Bulk Trade Outlook, July 2023.

Notes: (1) Percentage shares of total seaborne trade of specific commodities, totals can encompass countries mentioned subsequently. (2) forecast figures (June 2023).

Shifting grain trade patterns are well illustrated in the case of Africa. Grain imports from Ukraine, crucial to the food security of many African economies, declined by 14.9 per cent in 2022, forcing these economies to adapt their trading patterns (WTO, 2023b). Egypt for instance, coped with an 81 per cent fall in wheat imports from Ukraine during the first eight months of the war by replacing the source of imports with the Russian Federation, the United States and the European Union (WTO, 2023b). Ethiopia replaced the loss of wheat supply from the Russian Federation and Ukraine with shipments from the United States and Argentina.

#### 1. INTERNATIONAL MARITIME TRADE

Overall grain trade volumes have remained relatively stable, despite higher prices due to commodities being brought in from further away and from the ripple effects of the cost-of-living crisis (Clarksons, 2023c; UNCTAD, 2022f). This is because demand for food is often very inelastic to price changes, unlike demand for many consumer products and some energy sources. Reducing food intake is more difficult than reducing the consumption of non-essential consumer goods or services.

## C. SHIFTS IN THE GEOGRAPHY OF MARITIME TRADE

In recent years, there has been an increasing emphasis on de-risking supply chains and expanding goals to diversify suppliers and markets. Heightened trade policy tensions, the COVID-19 disruption, the war in Ukraine and the consequent drive for greater resilience building and self-sufficiency have moved supply chain configuration to the forefront of the agenda for policymakers and industry.

Over the past decade, supply chain reconfiguration trends have been unfolding. These are most visible in Asia and China, as the world's largest market and key player in global value chains and containerized trade flows. China as the global manufacturing powerhouse, is historically associated with the rise of globalized production processes and supply chains structured around intra-industry trading patterns.

Since 2010, distances per ton of containerized trade travelled started to decline (table 1.4), largely due to an increase in intraregional maritime trade which supports manufacturing activity in China and its neighbouring countries. UNCTAD data reveals that intra-Asian routes serving intraregional supply chains record the highest growth rates. This reflects global manufacturing patterns, where China serves as the global manufacturing centre, supported by neighbouring East Asian countries supplying parts and components. At the same time, China is increasingly reliant on domestic production of parts and components, thereby reducing imports of many containerized goods from distant locations. China has also been moving up the value chain with some lower-skilled manufacturing moving to its neighbouring countries.

More recently, a growing geopolitical divide is causing shifts in supply chains. The introduction of tariffs in the United States and China since 2018 has imposed additional costs on their bilateral trade and caused a trade diversion, with some winners and losers emerging (Fajgelbaum et al., 2023). Tariffs imposed by the United States affected around 18 per cent of its imports, equivalent to 2.6 per cent of its GDP, while retaliation by China impacted 11 per cent of its imports, equivalent to 3.6 per cent of its GDP. These tariffs impacted industries in both countries and increased costs for about two-thirds of dutiable products in the United States (Fajgelbaum et al., 2023). Countries that have benefited from the trade diversion include Canada, Mexico, India, Viet Nam and the European Union, among others (UNCTAD, 2019). While some shifts in trade patterns were triggered by the United States and China tariffs, changes were also accelerated by the COVID-19 pandemic, the 2021–2022 global logjam in logistics and the war in Ukraine.

In an increasingly complex operating environment, traders and supply chain managers are embracing various strategies to increase their agility to respond to new challenges. These include pursuing new efficiencies (such as reducing transport costs to increase profitability), finding new markets, and reconfiguring supply chains to reduce the risk of disruptions in the event of shortages of key inputs in their supply networks (Economist Impact, 2023). Supply chain reconfiguration involves various strategies and approaches including offshoring production across a wider range of locations and a variety of trading partners; bringing manufacturing back home (reshoring); relocating manufacturing to neighbouring countries closer to the home market (nearshoring) or prioritizing trade with highly trusted countries that share common values and strategies.

An important strategy adopted by companies for diversifying supply sources and reducing overdependence on China without entirely decoupling from the country is the "China Plus One" strategy which encourages companies to diversify their operations by expanding outside of China while still maintaining a presence in the country. These strategies have implications for containerized shipping demand and supply patterns as well as shipping costs and rates. Apart from the need to de-risk supply chains, a relative increase in production costs in China has also encouraged moving some manufacturing to other countries. As an example, several multinational companies, such as Apple, Samsung, Sony and Adidas, shifted some manufacturing activities from China to South-East Asia, due to labour costs and risk management considerations (Ho-him, 2023).

The share in United States imports from Taiwan Province of China, Mexico, Viet Nam and the European Union in various sectors including vehicles, computers, electronic devices, transport equipment and machinery, and electrical equipment and machinery (Bekkers et al, 2020 and Nicita, 2019) has been growing. In 2022 the share of United States container imports from Viet Nam increased to 8 per cent, up from 4 per cent in 2017. The share in India, about 3 per cent in 2017, amounted to about 5 per cent in 2022. In contrast and while still dominating the global manufacturing space, the share in China of United States container imports fell from 40 per cent in 2017 to about 31 per cent in 2022 (Danish Ship Finance, 2023).

China continues to be a key player and a leading world exporter of containerized cargo, and importer of energy and commodities. Chinese companies are seeking to improve their resilience by diversifying their

#### 1. INTERNATIONAL MARITIME TRADE

input and commodity sources. They are increasingly sourcing inputs from within China and investing in manufacturing and commodities in third countries.

UNCTAD analysis of containerized maritime trade during 2022 and the first quarter of 2023 suggests that the geographical proximity of manufactured trade remained relatively stable, suggesting a lack of significant nearshoring trends, at least on average. However, there has been a notable increase in the political proximity of trade since the latter part of 2022. This indicates a reorientation of bilateral trade flows prioritizing partners with similar values (UNCTAD, 2023f). This phenomenon is likely to intensify in the coming years, given efforts by Western economies to limit their dependency on China in strategic and promising trading sectors related to technology and the energy transition.

Examples of such efforts include the United States Inflation Reduction Act, aimed at promoting investments in domestic manufacturing capacity and encouraging procurement of key raw materials and components for the green-energy transition domestically or from specific trade partners (Mc Kinsey and Company, 2022 and Sueur, 2023). Similarly, the CHIPS and Science Act aims to reshore production of high-tech equipment, such as semiconductors (United States, White House, 2023). The European Union is considering similar initiatives, with some countries already providing support to encourage local production of similar components (O'Carroll, 2023 and Vidalon, 2023). These initiatives could potentially lead to shifts in future seaborne trade flows. However, this may also result in additional costs for companies and consumers, shifting production away from the most cost-effective producers, impacting welfare and trade, and potentially hindering the diffusion of ideas, innovation and technology spill overs (Goes and Bekkers, 2022).

Given the uncertainties associated with global political frictions, energy transition and shipping decarbonization, as well as higher transport cost volatility in the foreseeable future, intraregional trade appears as an area where reinvigorated policy action could yield positive resilience-building outcomes (Nicita and Saygili, 2021).

While Western economies are taking steps to reduce their dependence on China and prioritize sourcing from countries with similar values, it is important to consider the implications for other regions. Strong regional value chains have been pointed out as a possible strategy for economic resilience in Africa (UNCTAD, 2022e). Their effectiveness can be strengthened through trade logistics policy reforms. Many transport and trade facilitation measures involve close cooperation among neighbouring countries and regional partners, including through corridors. Competitive regional markets for transport services can also help reduce inefficiencies. Box 1.4 illustrates some of the trade logistics policy measures that will be key to facilitating intra-African trade by leveraging the opportunities from the AfCFTA.

## Box 1.4 The impact of the AfCFTA on the demand for transport infrastructure and services

The African Continental Free Trade Area (AfCFTA) Agreement consolidates a growing \$2.5 trillion GDP market of 1.2 billion people, making Africa an attractive investment destination. The negotiation of protocols on investment, competition policy, intellectual property rights, digital trade, and women and youth in trade, as well as a dispute settlement mechanism, create predictability for African and foreign investors and businesses interacting with African businesses, including accessing markets more easily using digital trade solutions.

Transport infrastructure and services are critical to facilitating intra-African trade. Research by the Economic Commission for Africa (ECA) finds that intra-African trade in transport services – one of the priority sectors for AfCFTA regarding liberalization of services – could increase by nearly 50 per cent by 2045 with the implementation of the AfCFTA. In absolute terms, over 25 per cent of intra-African trade gains in services would go to transport alone, and nearly 40 per cent of the increase in services production in Africa would be in transport.

A complementary study on the impact of the AfCFTA on the demand for transport infrastructure and services indicates that the AfCFTA would lead to a general increase in intra-African freight demand of around 28 per cent compared to a scenario without the presence of AfCFTA. The implementation of the AfCFTA will lead to an increase in demand for road, rail, maritime and air freight increase by 22, 8, 62 and 28 per cent, respectively.

A significant increase in traffic flows is expected across all transport modes. Subsequently, transport equipment needs for all modes of transport are expected to increase significantly. Africa would require close to two million additional trucks, over 100,000 rail wagons, 250 aircraft and more than 100 vessels by 2030, if the AfCFTA is fully implemented. Aircraft demand to support trade flows within West Africa will increase by 13.2 per cent by 2030. Trade between North and West Africa

## Box 1.4 The impact of the AfCFTA on the demand for transport infrastructure and services (cont.)

would increase demand for aircraft by 12.9 per cent, while demand within Southern Africa will increase by 12.2 per cent. In East Africa, critical rail links are identified across Kenya, Uganda and the United Republic of Tanzania.

The analysis also considers the additional effects of implementing planned investments such as those under the Programme for Infrastructure Development in Africa. For instance, the modal share of rail transport for intra-African trade is expected to increase from 0.3 to about 7 per cent when considering the implementation of these planned investments.

Looking at cross-cutting issues, this increased demand points to a potential for investment in green transport. Complementary research also suggests that the transport and logistics sectors could greatly benefit from the increased participation of women. A complementary study undertaken by the United Nations Economic Commission for Africa (ECA) in collaboration with other UN Regional Commissions on transport and trade facilitation during COVID-19 identified that optimizing automation and digitalization can reduce the need for human interaction, making cross-border transport safer and more resilient to disruptions. It also highlighted the role of corridor management institutions and the need for integrated corridor management when applying these solutions.

Overall, the results highlight the significant investment opportunities created by the AfCFTA in transport infrastructure and services to benefit from the liberalisation of trade in transport services and to support increased intra-African trade.

The report by the ECA on AfCFTA and demand for transport infrastructure and services provides a treasure trove of investment opportunities in the sector. Harnessing these opportunities would lead to job creation, particularly for youth, and to gender empowerment on the continent. The investments also provide an avenue for a green economic recovery in Africa, with the view to reducing greenhouse gas emissions from the transport sector.

Trade and transport are mutually reinforcing. Current infrastructure and services, across all modes of transport in Africa require upgrading to cope with increased freight from AfCFTA. This underscores the importance of prioritizing the implementation of the Programme for Infrastructure Development in Africa (PIDA), the Trans-African Highway (TAH) network and the Single African Air Transport Market (SAATM).

Source: Inputs provided by UN-ECA Secretariat.

## D. OUTLOOK AND POLICY RECOMMENDATIONS

Shipping continues to grapple with complexities generated by the global events that upended the world economy over recent years. This includes the legacies of the COVID-19 pandemic, lower levels of global economic growth, inflation, heightened energy and food security concerns, increased geopolitical risks and trade policy tensions arising from more restrictive trade policy measures introduced to achieve wide-ranging objectives including security, resilience, self-sufficiency and the competitiveness of domestic firms. While the global economy remains vulnerable to disruptive shocks, certain trends are currently supporting the shipping industry. In the short term, this includes redistribution of energy flows and economic recovery in China after the disruption caused by the COVID-19 pandemic, and its associated response measures.

Against this background, UNCTAD forecasts moderate growth in seaborne trade volumes hovering at an average of 2.1 per cent per year during the period 2024–2028. The divergence between growth patterns between energy-related trade and non-energy is expected to continue.

Optimism around increasing Chinese economic activity, which drives dry bulk trade, the redistribution of oil flows in response to the war in Ukraine and the re-opening of the world economy after nearly three years of the COVID-19 pandemic and its fallout bodes well for tanker and dry bulk shipping and trade. Prospects for gas trade are also positive, supported by a greater focus on energy transition, energy security, and a low-carbon development path.

In sharp contrast to a year ago, container markets have corrected in 2022 and are expected to have little growth in 2023. UNCTAD expects container trade to improve and increase at an annual rate of around 3 per cent over the 2024–2028 period.

While distances travelled by tanker trade increased following the war in Ukraine and its fallout on the energy supply landscape, going forward, trends in distances travelled and trade ton-miles will depend on a range of factors including trends in the energy transition, commodity prices, supply-side capacity constraints, climatic factors, and regulatory requirements that may affect shipping fleet speed, routing and operational decisions.

Projected growth in maritime trade volumes assumes that downside risks will dominate international trade and economic growth in the coming years. These risks relate to the timing and path of global economic recovery, the ongoing war in Ukraine and the evolving context of maritime transport and trade. Increased policy-driven geo-economic fragmentation could potentially reshape trade patterns, supply chains and shipping routes.

On the upside, however, drivers expected to provide momentum for an uptick in maritime trade flows include an easing in logistical bottlenecks observed since 2020, easing of COVID-19 restrictions in China and the decision taken by its central bank to cut interest rates, which may stimulate the economy. Other factors include the entry into force of the Regional Comprehensive Economic Partnership (RCEP) in several Asian countries and expected increase in demand for transport and services arising from the AfCFTA.

### Policy recommendations

### Facilitate trade associated with easing impacts of the cost-of-living crisis

- Disruptions to food and energy distribution channels and shipping networks could exacerbate the situation of people living in poverty and pose significant threats to food security.
- Trade tensions, protectionism and export restrictions entail economic and social costs. These should be limited to the extent possible especially for grains and energy prices to avoid their culmination in global overlapping crises.
- Grain fertilizer exports need to be ensured, including through the Black Sea Initiative and the Memorandum of Understanding on trade facilitation of food and fertilizers from the Russian Federation.
- Monitor trends in maritime trade patterns and shifts in distances travelled to ascertain implications for the availability of ship carrying capacity (supply of shipping services), shipping costs and carbon emissions.

### Support regional value chains and trade for resilience building

Recognizing the role of strong regional value chains and trade in building economic resilience and complementing global value chains, it is imperative to support their development. This is particularly important in the current context where uncertainty and volatility are arising from heightened geopolitics risks, climate factors and commodity prices, as well as freight markets and transport costs.

- Monitor changes in seaborne trade and shipping patterns as well as assess related implications for the geography of shipping and trade, fleet and costs as well as for port networks.
- Policymakers involved in designing and implementing trade logistics reforms at the national and regional levels, should cooperate closely and promote public-private partnerships to support effective transport and trade facilitation including through corridors.
- Continued reassessment of supply chain aspects such as sourcing, inventory and transport for maritime transport to strengthen resilience and optimize robustness in the event of future disruptions.

### REFERENCES

- Allianz (2023). The silver lining for global trade. Allianz Research. 17 February 2023. Available at https://www.allianz.com/content/dam/onemarketing/azcom/Allianz\_com/economic-research/publications/specials/en/2023/febuary/globaltrade/2023\_02\_17\_global-trade.pdf.
- Altman S A, Bastia C (2023). DHL Global Connectedness Index 2022. An in-depth report on the state of globalization. February. Available at https://www.dhl.com/content/dam/dhl/global/delivered/documents/pdf/dhl-global-connectedness-index-2022-complete-report.pdf.
- Barleta E, Saade Hazin M (2023). "Challenges for the maritime sector: after the storm, comes the calm?". Economic Commission for Latin America and the Caribbean.
- BIMCO (2023). Dry Bulk Shipping Market Overview & Outlook Stronger dry bulk market outlook but recovery is fragile Q2 2023. Available at https://www.bimco.org/news/market\_analysis/2023/20230530-smoobulk.
- Chen A (2023). China's coal imports headed for record year in 2023. S&P Global Market Intelligence. 20 June. Available at https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/china-s-coal-imports-headed-for-record-year-in-2023-76185032.

Clarksons Research (2022). LNG Trade & Transport.

Clarksons Research (2023a). Shipping Market Overview. March 2023.

Clarksons Research (2023b). China Intelligence Monthly. April 2023.

Clarksons Research (2023c). Dry Bulk Trade Outlook. June 2023.

Clarksons Research (2023d). Oil & Tanker Trades Outlook. May 2023.

Clarksons Research (2023e). Shipping Intelligence Network timeseries, Seaborne Trade Tables. July 2023.

Clarksons Research (2023f). Container Intelligence Quarterly. Q2/2023.

Clarksons Research (2023g). Seaborne Trade Monitor. July 2023.

Clarksons Research (2023h). Port congestion index data series, accessed 28 July 2023.

Crowe T (2023). Seaborne trade: lots of energy, going the distance? Clarksons Research News articles. 31 March 2023.

- Danish Ship Finance (2022). Shipping Market Review. November 2022. Available at https://www.shipfinance.dk/media/2256/shipping-market-review-november-2022.pdf.
- Danish Ship Finance (2023). Shipping Market Review. May 2023. Available at https://www.shipfinance.dk/media/2327/shipping-market-review-may-2023.pdf.
- DNV (2022). Maritime Forecast 2050: Energy transition outlook 2022. Available at https://www.dnv.com/Publications/maritime-forecast-to-2050-2022-edition-235251.

Drewry (2023a). Shipping Insights. May 2023.

Drewry (2023b). Container forecaster, Quarter 1. March 2023.

- Economic Commission for Latin America and the Caribbean (2022) International Trade Outlook for Latin America and the Caribbean. 2022 (LC/PUB.2022/23-P). Santiago. 2023.
- Economist Impact (2023). Trade in Transition 2023 Global Report. Available at https://impact.economist.com/projects/trade-in-transition/pdfs/Trade\_in\_Transition\_Global\_Report\_2023.pdf.
- Fajgelbaum P, Goldberg P, Kennedy P, Khandelwal A and Taglioni D (2023). The 'bystander effect' of the US-China trade war. Centre for Economic Policy Research, VoxEU Column. 10 Jun 2023. Available at https://cepr.org/voxeu/columns/bystander-effect-us-china-trade-war.
- FAO (2023). FAO Cereal Supply and Demand Brief. 5 May 2023. Available at https://www.fao.org/worldfoodsituation/csdb/en/.
- Ho-him C (2023). Shifting production from China is impossible, says shipping boss. Financial Times. 23 April 2023. Available at https://www.ft.com/content/ed7357fa-1da5-485c-ae59-ed21ab1e6e9d.

- ICC (2023). 2023 Trade Report: A Fragmenting World. April 2023. Available at https://iccwbo.org/wp-content/uploads/sites/3/2023/04/2023-ICC-Trade-report.pdf.
- IEA (2022a). World Energy Outlook 2022. Available at https://www.iea.org/topics/world-energy-outlook.
- IEA (2022b). Renewable power's growth is being turbocharged as countries seek to strengthen energy security. IEA Press Release. December 2022. Available at https://www.iea.org/news/renewable-power-s-growth-is-being-turbocharged-as-countries-seek-to-strengthen-energy-security.
- IEA (2023a). Russia's War on Ukraine: Analysing the impacts of Russia's invasion of Ukraine on global energy markets and international energy security. Available at https://www.iea.org/topics/russias-war-on-ukraine.
- IEA (2023b). Clean energy investment is extending its lead over fossil fuels, boosted by energy security strengths Press release. 25 May 2023. Available at https://www.iea.org/news/clean-energy-investment-is-extending-its-lead-over-fossil-fuels-boosted-by-energy-security-strengths.
- IFPRI (2023). Food and Fertilizer Export Restrictions Tracker. Available at https://www.foodsecurityportal.org/tools/COVID19-food-trade-policy-tracker.
- IMF (2023). World Economic Outlook 2023 Update. Gloomy and More Uncertain. July 2023. Available at https://www.imf.org/en/Publications/WEO/Issues/2023/07/10/world-economic-outlook-update-july-2023.
- ING (2022). Trade outlook 2023: slow steaming in rough waters. Economic and financial analysis. 14 October 2022. Available at https://think.ing.com/articles/trade-outlook-slow-steaming-in-rough-waters-what-to-expect-in-2023/.
- IRENA (2023). Investment trends dashboard, Annual financial commitments in Renewable Energy. Available at https://www.irena.org/Data/View-data-by-topic/Finance-and-Investment/Investment-trends.
- Knowler G (2023). Ocean carriers shift capacity as trans-Atlantic slumps: Alphaliner. Journal of Commerce. 2 August 2023.
- Manners-Bell J (2023). The Death of Globalization: How Politics, Ethics and the Environment Are Shaping Global Supply Chains. Sea Pen Books Ltd. ISBN: 9781739350802.
- McKinsey and Company (2022). The Inflation Reduction Act: Here's what's in it. October 24, 2022. Available at https://www.mckinsey.com/industries/public-sector/our-insights/the-inflation-reduction-act-heres-whats-in-it.
- Nicita A and Mesut S (2021). Trade Agreements and Trade Resilience During COVID-19 Pandemic. Research Paper No. 70. UNCTAD. Available at https://unctad.org/system/files/official-document/ser-rp-2021d13\_en.pdf.
- Nicita A (2023). International supply networks: A portrait of global trade patterns in four sectors. UNCTAD Working Paper No.3. March 2023. Available at https://unctad.org/publication/international-supply-networks-portrait-global-trade-patterns-four-sectors.
- O'Carroll L (2023). EU softens China strategy by adopting a 'de-risking' approach. The Guardian. 30 June 2023. Available at https://www.theguardian.com/world/2023/jun/30/eu-china-strategy-de-risking-ursula-von-der-leyen-brussels#:~:text=EU%20leaders%20have%20launched%20a,biggest%20 economy%20or%20trade%20wars.
- OECD (2023). OECD Economic Outlook, Volume 2023 Issue 1. June 2023. Available at: https://read.oecd-ilibrary.org/economics/oecd-economic-outlook/volume-2023/issue-1\_ce188438-en#page1.
- Open Access Government (2023). One year on: Impact of the Ukraine war on global energy prices. Open Access News. 20 February. Available at https://www.openaccessgovernment.org/one-year-impact-of-ukraine-war-global-energy-prices-input-output-analysis/152599/#:~:text=Immediately%20 following%20the%20invasion%2C%20energy,28th%20February%20to%203rd%20August.
- S&P Global Market Intelligence (2022). The Big Picture: Global 2023 Trade Outlook. October 2022. Available at https://www.spglobal.com/marketintelligence/en/mi/Info/1122/big-picture-reports-2022-mtsc-request.html.
- Sharma T (2023). End of the Black Sea Initiative: For Bad or Worse? Drewry Opinion articles. 19 July 2023.

- Sueur O (2023). 'With the IRA, free trade is over: Now, the key challenge is supply chain security' Le Monde. 2023.
- Tirschwell P (2023). Ocean market shows signs of life despite forecast for muted peak season. Journal of Commerce. 3 August 2023.
- UNCTAD (2019). Key Statistics and Trends in Trade Policy 2018. February. Geneva. Available at https://unctad.org/system/files/official-document/ditctab2019d1\_en.pdf.
- UNCTAD (2022a). The geography of trade and supply chain reconfiguration: implications for trade, global value chains and maritime transport. Note by the UNCTAD secretariat for the Trade and Development Commission. Geneva. 21–25 November 2022. Available at https://unctad.org/system/files/official-document/cid54\_en.pdf.
- UNCTAD (2022b). The impact on trade and development of the war in Ukraine. UNCTAD rapid assessment, March 2022. Available at https://unctad.org/system/files/official-document/osginf2022d1\_en.pdf.
- UNCTAD (2022c). A double burden: the effects of food price increases and currency depreciations on food import bills. 16 December 2022. Available at https://unctad.org/publication/double-burden-effects-food-price-increases-and-currency-depreciations-food-import-bills.
- UNCTAD (2022d). A trade hope: the role of the Black Sea Grain Initiative in bringing Ukrainian grain to the world. October 2022. Available at: https://unctad.org/system/files/official-document/osginf2022d6\_en.pdf.
- UNCTAD (2022e). Maritime trade disrupted: the war in Ukraine and its effects on maritime trade logistics, 28 June 2022. Available at https://unctad.org/system/files/official-document/osginf2022d2\_en.pdf.
- UNCTAD (2022f). Global impact of the war in Ukraine: Billions of people face the greatest cost-of-living crisis in a generation. 8 June 2022. Available at https://unctad.org/system/files/official-document/ungcrg-ukraine-brief-no-2\_en.pdf.
- UNCTAD (2022e). Resilient maritime logistics: Understand risks, respond and adapt. Online platform. Available at https://resilientmaritimelogistics.unctad.org/.
- UNCTAD (2023a). Trade and Development Report: Global Trends and Prospects update. April 2023. Available at https://unctad.org/publication/trade-and-development-report-update-april-2023.
- UNCTAD (2023b). Pulse of the Global Crisis, based on data from Refinitiv, accessed on 28 Jul 2023. Available at https://unctad.org/global-crisis.
- UNCTAD (2023c). Key statistics and trends in international trade 2022 the remarkable trade rebound of 2021 and 2022. Available at https://unctad.org/system/files/official-document/ditctab2023d1\_en.pdf.
- UNCTAD (2023d). Global Trade Update, June 2023: Global trade growth returns but outlook is poor. Available at https://unctad.org/system/files/official-document/ditcinf2023d2\_en.pdf.
- UNCTAD (2023e). A trade hope: the impact of the Black Sea Grain Initiative, March 2023. Available at: https://unctad.org/system/files/official-document/osginf2023d3\_en.pdf.
- UNCTAD (2023f). Global trade growth returns but outlook is poor. Global Trade Update. June 2023. Available at https://unctad.org/system/files/official-document/ditcinf2023d2\_en.pdf.
- UNECE (2023). UN warns that near-term outlook for Commonwealth of Independent States and South-Eastern Europe remains fragile amid war in Ukraine and high geopolitical uncertainty. UNECE Press Release. 23 January. Available at https://unece.org/media/SPECA/press/375415#:~:text=The%20 aggregate%20GDP%20of%20the,3.3%20per%20cent%20in%202022.
- United Nations (2023). World Economic Situation and Prospects, Mid-year update, May 2023. Available at https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-as-of-mid-2023/.
- Vidalon D and Kar-Gupta S (2023). France to provide 2.9 billion euros in aid for new STMicro/GlobalFoundries factory. Reuters, 5 June 2023. Available at https://www.reuters.com/markets/europe/france-provide-29-bln-euros-aid-new-stmicroglobalfoundries-factory-2023-06-05/.
- World Bank (2023). Food Security Update. 9 March 2023. Available at https://thedocs.worldbank.org/en/doc/40ebbf38f5a6b68bfc11e5273e1405d4-0090012022/related/Food-Security-Update-LXXX-March-09-2023.pdf.

#### **REVIEW OF MARITIME TRANSPORT 2023**

- United States, White House (2023). CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China. Fact Sheet. 9 August 2023. Available at https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/.
- WTO (2023a). Global Trade Outlook and Statistics. 5 April 2023. Available at https://www.wto.org/english/res\_e/booksp\_e/trade\_outlook23\_e.pdf.
- WTO (2023b). One year of war in Ukraine: Assessing the impact on global trade and development. Available at https://www.wto.org/english/res\_e/booksp\_e/oneyukr\_e.pdf.
- Yanatma S (2023). Europe's 'energy war' in data: How have EU imports changed since Russia's invasion of Ukraine? Euronews Green 24/02/2023. Available at https://www.euronews.com/green/2023/02/24/europes-energy-war-in-data-how-have-eu-imports-changed-since-russias-invasion-of-ukraine.

### **END NOTES**

- <sup>1</sup> See methodologies and data sources in the Annex.
- <sup>2</sup> "Oil" encompasses crude oil and refined oil products.
- <sup>3</sup> "Gas" includes liquefied petroleum gas (LPG), liquified natural gas (LNG) and ammonia.

### **ANNEX**

The UNCTAD seaborne trade forecasts build on IMF projections from July 2023 regarding GDP and elasticities of maritime trade (concerning GDP, export volumes and investment share in GDP as well as monthly seaborne trade data published by Clarksons Research).

The IMF July 2023 forecasts that world output will grow by 2.9 per cent in 2023. The IMF scenario assumes higher-than-expected inflation worldwide leading to tighter financial conditions, a worse-than-anticipated slowdown in China, further negative spill overs from the continued war in Ukraine, and continued supply-demand imbalances weighing on growth prospects. It also assumes a higher-than-expected trade growth in 2022 and 2023, reflecting declining global demand and supply chain problems.