2024 Review of maritime transport

Chapter I

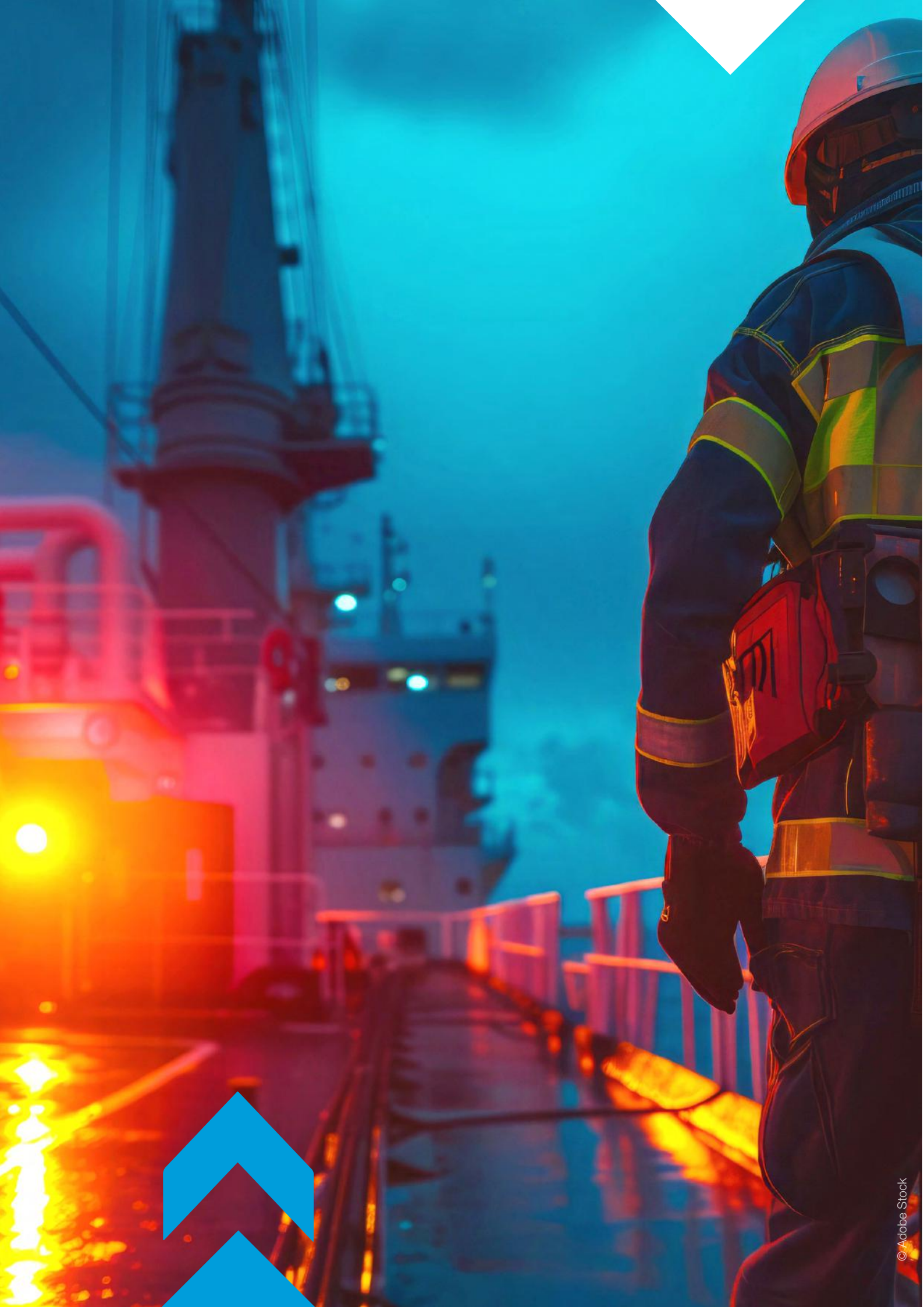
International maritime trade

UNCTAD forecasts maritime trade volume to expand by 2 per cent in 2024 and containerized trade volume by 3.5 per cent. In the period 2025–2029, UNCTAD projects that total seaborne trade will grow on average by 2.4 per cent and containerized trade by 2.7 per cent. This growth is driven by increased demand for major bulks such as bauxite, coal, containerized goods, grain, iron ore and oil. Infrastructure developments, technological advancements and the transition to cleaner energy are also expected to support continued trade growth. However, significant risks could still hinder a sustainable recovery in maritime trade. Geopolitical tensions and the growing severity and frequency of extreme weather events add to the underlying threats and vulnerabilities that could persist into 2025 and beyond.

Maritime trade volumes reached 12,292 million tons in 2023, an increase of 2.4 per cent, after contracting in 2022. Global maritime trade outperformed expectations in 2023 due to easing pressures on the global economy and better-than-expected economic performance in large economies.

Global maritime trade in terms of ton-miles is estimated to have grown by 4.2 per cent in 2023—faster than trade in tons—due to shifts in trade patterns from the ongoing impacts of the war in Ukraine, the disruptions in the Red Sea and reduced water levels in the Panama Canal, all of which extended ship journeys and distances. These shifting trade patterns remain in focus.

This chapter outlines trends in the demand for maritime transport services, providing an analysis of seaborne trade developments in the context of the world economy and global trade. A forecast and outlook for future trends are included. Specific developments impacting dry bulk trade, energy, and containerized trade are also examined. The chapter concludes with an analysis of the interruptions affecting major chokepoints and strategies for enhancing resilience in response to bottlenecks and supply chain disruptions.



A. Maritime trade flows: The big picture

Moderate volume growth and longer distances in 2023

Maritime trade volumes reached 12,292 million tons in 2023, marking a 2.4 per cent increase after contracting in 2022. This growth was driven by growth in the global economy, which averted a predicted recession and grew by 2.7 per cent despite the most significant monetary tightening in decades. Additionally, inflation eased significantly in 2023 (DESA, 2024).

In 2023, economic growth generally exceeded expectations in several developed and developing economies.

In China, economic recovery was slightly slower than predicted, yet the economy significantly bolstered overall global economic growth. The economy of the United States of America was resilient, avoiding an anticipated downturn (DESA, 2024).

Persistent economic uncertainties prevailed during the year, disrupting supply chains and amplifying market volatility. These included geopolitical tensions and extreme weather events such as unprecedented heatwaves, droughts, wildfires and floods.

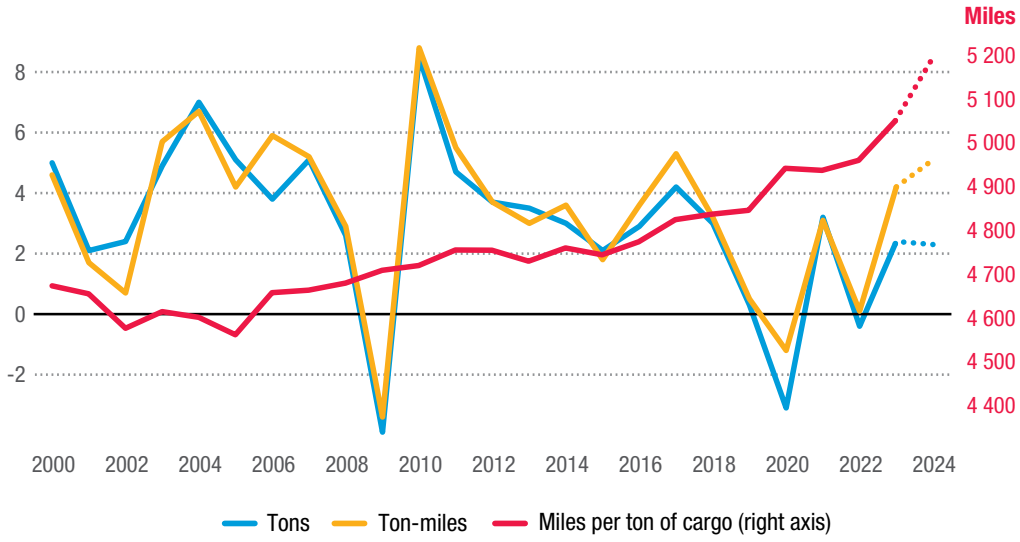
Seaborne trade growth in ton-miles, measuring distance-adjusted trade volumes, outpaced growth in tons in 2023, similar to in 2022 (figure I.1).

Maritime trade volumes reached **12,292 million tons** in 2023, marking a **+2.4%** increase after contracting in 2022

Figure I. 1

Seaborne trade growth, tons and ton-miles, and average distance travelled per ton of cargo: Trade gets a boost in 2023 and 2024 by shifting to longer shipping routes

(Annual percentage change)



Source: UNCTAD calculations, based on Clarksons Research Shipping Intelligence Network (time series, July 2024).
Note: Figures for 2024 are forecasts.

Total ton-miles reached 62,037 billion in 2023, representing a 4.2 per cent increase over 2022. Growth was driven by longer-haul voyages across all segments, prompted by disruptions due to the war in Ukraine, the disruptions in the Red Sea and reduced water levels in the Panama Canal, which led to longer ship journeys and distances. Average distances travelled per ton of cargo have been increasing since 2005, with the average voyage estimated at 4,675 miles in 2000 and 5,186 miles in 2024. This trend began even before recent disruptions (figure I.1).

Maritime trade in ton-miles measures "maritime transport work", that is, how far one unit of maritime cargo in tons travels from origin to destination. "Transport work intensity" (TWI) is a measure that considers the value of the trade carried and, at the same time, the distance travelled by a unit of maritime cargo. Box I.1 describes how the TWI for maritime trade varies between developed and developing countries.

Box I. 1

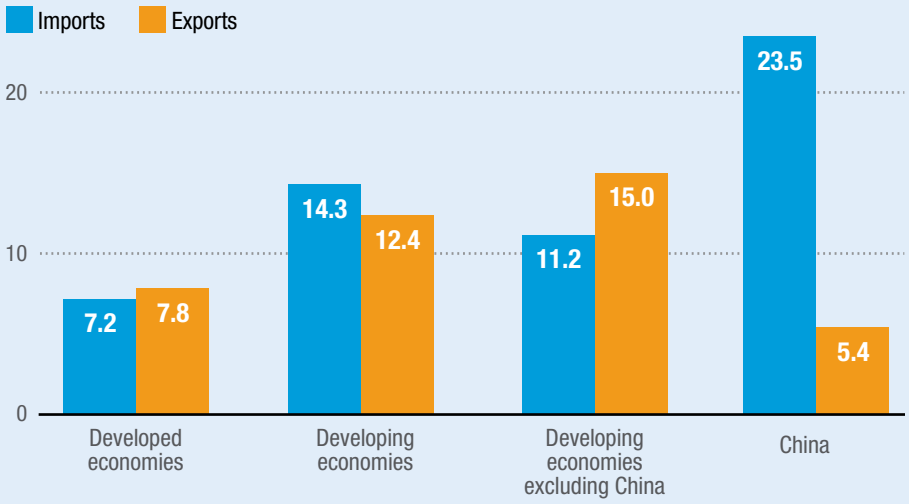
The transport work intensity per dollar of maritime trade in developing economies is double that of developed economies

As shown in figure I.2, TWI in developing economies is, on average, twice as high as TWI in developed economies. TWI for imports to developing economies as a group is 14.3, meaning that transporting goods worth one dollar requires an effort equivalent to moving 14.3 tons over 1 km—or 14.3 kg over 1,000 km; 7.2 ton-km per dollar of imports is required in developed countries. A similar trend is seen with regard to exports.

Figure I. 2

Transport work intensity of maritime trade, 2021

(Ton-km per dollar)



Source: UNCTAD and the World Bank Trade-and-Transport Dataset.
Note: Transport work intensity is calculated by multiplying the weight of the goods by the distance they need to be shipped and dividing by their value.

Among other factors, this reflects differences in the trade structure of developed and developing economies and their geographical position and proximity to the global marketplace. As a group, developing countries contribute larger shares of international maritime trade. They handle the majority of maritime trade by volume, accounting for over half of global goods loaded (exports) and nearly two thirds of goods discharged (imports).

Historically, as a group, developing countries have primarily exported raw materials to developed regions. Over the years, this pattern has changed as developing countries have increased manufacturing and consumption. Maritime trade in developing countries continues to be dominated by heavy and bulky raw commodities, such as dry bulks (iron ore, grains) or wet bulks (crude or refined oil). These commodities generally have lower unit values than high-value, low-volume containerized goods. In addition to being involved in global maritime trade, many developing countries are located far from supplier and export markets. The transport of iron ore to China from Brazil is an example of these patterns. China has TWI of 23.5 for imports and TWI of exports of 5.4. This implies that the transport intensity per dollar of imports is almost five times higher than the equivalent for exports. The average distance is nearly the same—13,330 km in imports versus 13,326 km in exports—indicating that imports to China generally involve heavier goods than exports (table I.1).

Average distances travelled per ton of cargo have been increasing since 2005, with the average voyage estimated at 4,675 miles in 2000 and **5,186 miles in 2024**

Table I. 1
Average transport work intensity

	Transport work intensity (ton-km/$)	Transport work (Trillion ton-km)	Free on Board (FOB) value (Trillion $)	Unit value ($/kg)	Average distance (km)
Imports					
Developing economies	14.31	34.31	2.40	0.74	10 517
Developing economies excluding China	11.17	19.97	1.79	0.82	9 137
China	23.51	14.34	0.61	0.57	13 330
Developed economies	7.20	30.48	4.23	1.22	8 791
Exports					
Developing economies	12.38	34.90	2.82	0.81	10 029
Developing economies excluding China	15.02	30.70	2.04	0.65	9 705
China	5.42	4.20	0.78	2.45	13 256
Developed economies	7.84	29.88	3.81	1.17	9 196

Source: UNCTAD and the World Bank Trade-and Transport Dataset.
Note: Transport work is calculated by multiplying the weight of the goods by the distance they need to be shipped. Transport work intensity is equivalent to the ratio between distance and unit value.
FOB or Free on Board is used to specify the point when the seller's responsibility for the goods ends and the buyer takes on ownership and any associated costs.

FORECAST

2024

Seaborne trade
+2%
containerized trade
+3.5%

2025–2029
annual averages

Seaborne trade
+2.4%
containerized trade
+2.7%

A positive outlook for seaborne trade amid increased risks for 2024 and beyond

UNCTAD forecasts that maritime trade volume will expand at an annual growth rate of 2 per cent in 2024, with containerized trade volume growing by 3.5 per cent. In the period 2025–2029, UNCTAD expects total seaborne trade to grow at an annual average of 2.4 per cent and containerized trade by 2.7 per cent (table I.2). This forecast is based on projected gross domestic product (GDP) and merchandise trade growth of 2.7 and 3 per cent, respectively (DESA, 2024).

Table I. 2
Forecasts for international maritime trade
(Annual percentage change)

Year	Total seaborne trade in tons	Containerized trade in TEU
2024	2.0	3.5
2025	2.5	2.9
2026	2.5	2.9
2027	2.4	2.6
2028	2.3	2.5
2029	2.3	2.5

Source: UNCTAD calculations and forecasts published by Clarksons Research Services (July 2024).
Note: UNCTAD projections are based on the estimated elasticities of maritime trade concerning GDP, export volumes and investment share in GDP, as well as monthly seaborne trade data published by Clarksons Research Services. They also build on the GDP forecast published in the IMF (2024).

Maritime trade volumes are expected to continue increasing into 2025 and beyond (table I.2), supported by demand in major bulks (iron ore, coal, grain and bauxite), gas, oil and containerized trade (Clarksons Research, 2024a). Although prospects for maritime trade remain positive, they are dependent on how several downside risks continue to unfold, including the war in Ukraine, heightened geopolitical tensions and economic uncertainties.

Increased geopolitical tensions may trigger new supply shocks in global commodity markets. Notably, oil and grain shipping routes in the Suez Canal, the Red Sea and the Black Sea may be affected, leading to potential spikes in energy and food prices. Food prices have decreased since the March 2022 peak, when the Food and Agriculture Organization of the United Nations Food Price Index reached 172 points, they have risen since February 2024, with the index increasing from 126 to 129 in June 2024 (UNCTAD, 2024a). In addition, technological supply chains involving chips and semiconductors in East Asia are vulnerable to escalating tensions (WEF, 2024).

The medium-term outlook for seaborne trade is influenced by downside and upside factors. Downside factors include developments in major global markets that could lead to a sluggish recovery (IMF, 2024). For instance, reduced consumer spending and negative net trade impacts in the United States have led to downgraded growth projections for 2025 due to tight fiscal policies and a slowing labour market. Persistent manufacturing weaknesses in Germany and economic policy uncertainties stemming from the 2024 elections in various countries, escalating trade tensions and inward-looking policies further contribute to these risks. High inflation in services and emerging markets could prompt central banks to maintain tight monetary policies, raising further concerns about the cost of living (IMF, 2024).

Upside factors include a projected recovery in global trade, with annual growth rates of 3.1 to 3.4 per cent, driven by a strong export performance in major Asian economies, particularly in the technology sector. Trade involving developing countries, including South–South trade, is experiencing robust growth, outpacing trade involving developed countries. Sectors such as green energy and artificial intelligence-related products are expanding, supporting trade growth (UNCTAD, 2024g).

Potential interest rate cuts in the United States and a depreciating dollar could enhance the competitiveness of United States exports, while a gradual moderation of global inflation and improving economic forecasts may provide a more stable environment for seaborne trade (IMF, 2024).

Maritime trade shaped by trends in the world economy, with notable shifts

Maritime trade is largely dictated by developments in the world economy, including with regard to GDP and merchandise trade. However, careful consideration is required of the established relationships between merchandise trade, maritime trade and global output. A confluence of cyclical and structural factors, explained below, has often influenced these relationships, raising the question of whether the correlation between maritime trade and economic output has changed. If these factors continue to diverge, it could potentially lead to a decoupling of maritime trade and GDP.

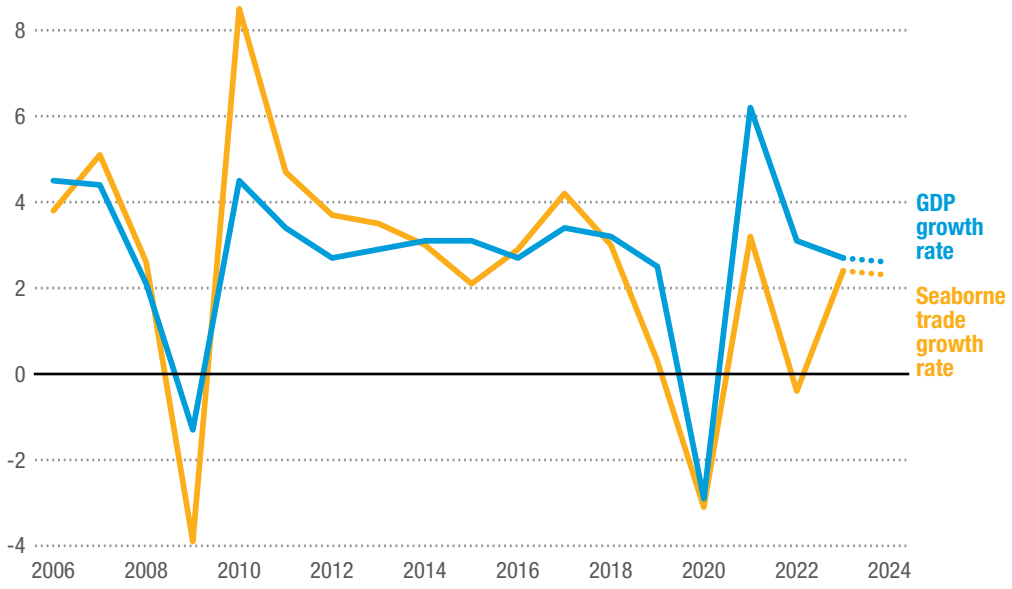
In 2023, maritime trade volumes grew by 2.4 per cent, and GDP output grew by 2.7 per cent. In contrast, the GDP growth rate significantly exceeded that of seaborne trade in 2021 and 2022, a different pattern than the one observed since 2006, when maritime trade generally expanded and declined at a faster rate than global GDP (figure I.3).

The trade-to-GDP ratio, that is, the responsiveness of merchandise trade to changes in GDP, has been declining since 2010 (WTO, 2024). The change in the trade-to-GDP ratio, with merchandise trade growing at a relatively slower rate than GDP, is also observed across maritime trade data, particularly since 2018 (figure I.3); in this year, the United States introduced tariffs on exports from China (WTO, 2024).

Figure I. 3

International maritime trade and world gross domestic product evolve in tandem but at a diverging pace

(Annual percentage change)



Source: UNCTAD calculations. Seaborne trade figures based on data from Clarksons Research Shipping Intelligence Network (time series, July 2024). GDP figures projections based on UNCTADstat data and, for 2023 and 2024, on table I (world output growth, 1991–2024) from UNCTAD *Trade and Development Report Update*, April 2024.

Other cyclical factors have impacted this relationship in recent years, including inflationary pressures, which negatively affected the consumption of trade-intensive goods, particularly in Europe and North America, constraining trade growth (WTO, 2024), as well as the COVID-19 pandemic and recent disruptions.

Structural factors may also be at play. The changing trade-to-GDP ratio is linked to a slower pace of globalization in trade in goods, in contrast with services trade (Baldwin, 2024; UNCTAD, 2024d). As global economic growth shifts towards the services sector, which relies less on seaborne trade, the global economy may continue to grow, but seaborne trade volumes may not keep pace. An offsetting factor could be seen in the transition to cleaner energy and the path towards sustainable development, which could drive up trade in commodities, such as the minerals used to manufacture green technologies.

Maritime trade may even decline, as production becomes more localized and supply chains are restructured to minimize emissions. This could bring about a scenario of slower trade volume growth with shifting trading patterns and reduced long-haul seaborne trade in favour of shorter, regional routes. This would impact shipping demand and fleet deployment (Danish Ship Finance, 2024).

Notwithstanding, some supply chain derisking strategies could also involve longer distances.

The changing trade-to-GDP ratio could also be influenced by trends in trade protectionism, regionalization and the reshoring of production (the process of returning manufacturing to a company's original country). There has been an increase in trade-restrictive and industrial policy measures since 2019 (UNCTAD, 2023; Ilyina et al., 2024). Such policies emphasize domestic resilience and highlight the role of the State in shaping products and markets, mainly through research and development initiatives (DESA, 2024).

Governments increasingly focus on protecting strategic trade sectors and manufacturing capabilities, with the aim of building supply chain resilience, by strengthening industrial bases and enhancing domestic production. One aspect of such inward-looking policies is heightened interest in securing supply sources that are more reliable and closer to home. This approach often combines industrial policies with efforts to support the green transition, as seen in increased investments in transport and renewable energy sectors. In addition, trade restrictions and tensions continue to play a role in this inward shift (box I.2).

Box I. 2

Inward-looking policies impact trade and transport prospects for energy transition products

China is adopting policies that focus on self-reliance and domestic innovation. In the energy sector, China is expanding renewable energy capabilities, including wind, solar and hydroelectric power, to reduce dependence on foreign energy sources and enhance energy security. In this regard, China invests in green finance and developing renewable energy bases. In the transport sector, the Government of China is supporting the development and promotion of electric vehicles. The emphasis on domestic production and technology by the Government of China has led to increased export controls on critical materials such as graphite and technologies used in batteries for electric vehicles and wind turbines, and rare earth elements.

The United States and the European Union are increasingly prioritizing domestic resilience and self-sufficiency, particularly in energy transition products, to secure supply chains and enhance national security. The United States Inflation Reduction Act of 2022 offers subsidies and incentives for domestic clean energy production, to reduce reliance on imports. In the European Union, the European Union Green Deal and the "Fit for 55" package aim to boost renewable energy production and reduce fossil fuel imports.

Both the United States and the European Union have implemented various trade measures in line with these policies. The carbon border adjustment mechanisms in the European Union imposes tariffs on carbon-intensive imports, to protect local producers. The United States uses tariffs and subsidies to support domestic clean energy industries and to mitigate international competition. These measures are part of a broader strategy to strengthen local industries and reduce vulnerability to global market shifts.

Trade measures have been implemented with regard to exports from China. The United States has implemented tariffs on solar panels and wind turbines, for example. The European Union applies anti-dumping duties on solar panels from China.

Such regulations and trade policies can significantly impact the trade and maritime transport of energy transition products. They might result in more expensive shipping; divided international markets, with trade flows directed by regional coalitions; and delayed delivery of energy goods while supply networks adapt. These factors may change international commerce routes and require new logistics strategies.

Source: Widuto A (2023); Harrell P (2024); Meng Fang M (2024); Alvik S (2024); Denamiel T et al., (2024); WEF (2023); Rosen D and Lietzow L (2024); United States, 2024; and World Bank (2022).

B. Maritime trade flows: Sector-specific developments

In 2023 and the first half of 2024, geopolitical issues and the energy transition agenda affected maritime trade volumes across cargo types and routes. Table I.3 summarizes the performance of some key maritime trade sectors in 2023 and sets out the drivers underpinning the mixed performance that may be observed.

In 2023, disruptions to shipping networks caused average hauls (voyages) and distances to expand across most maritime cargo types, with trade in LPG, coal and oil products witnessing the highest ton-mile growth rates (10.7, 7.4 and 7.0 per cent, respectively). In 2023, global ton-mile trade outpaced volume growth for most cargo types, except forest products. The gap between both growth rates was particularly marked in the case of oil products (tons, 1.5; ton-miles, 7), LPG trade (tons 5.3; ton-miles, 10.7) and crude oil shipments (tons, 2.4; ton-miles, 5.8) (Clarksons Research 2024a).

A positive outlook for dry bulk trade

Dry bulk trade in tons and ton-miles increased by 3.4 per cent and 4.5 per cent respectively, reflecting a rebound in iron ore and coal imports into China in 2023. In 2024 and 2025, growth is expected to moderate to 2.3 and 1.1 per cent, respectively, and trade in ton-miles is projected to grow by 3.9 and 0.9 per cent (Clarksons Research, 2024a). The strong performance of China in 2023 is not likely to be replicated.

Table I. 3
Mixed performance in international seaborne trade, 2023

Commodity/sector	Growth (percentage)	Driving factors
Coal	(Highest volume growth rate) **7.1**	Global energy crisis and geopolitical tensions, particularly in Europe; increased reliance on coal as an alternative energy source boosting demand and trade volumes
Liquefied petroleum gas (LPG)	**5.3**	Higher demand for cleaner energy sources; increased industrial activity in Asia and other developing regions
Iron ore	**4.4**	Robust demand from steel manufacturing sector, particularly in China and other rapidly industrializing countries
Liquefied natural gas (LNG)	**2.4**	Weaker market conditions compared with recent years, due to softer gas markets and firm fleet growth
Minor bulk (excluding forest and steel products)	(Second lowest volume growth rate) **0.9**	Slowdown in construction and manufacturing activities in key markets, coupled with logistical challenges
Containerized trade	(Lowest volume growth rate) **0.4 (tons)** **-0.14 (TEU)**	Global economic uncertainties, supply chain disruptions and reduced consumer spending on goods

Source: UNCTAD calculations, based on data from Clarksons Research Services and MDS Transmodal for TEU data (see table I.7).

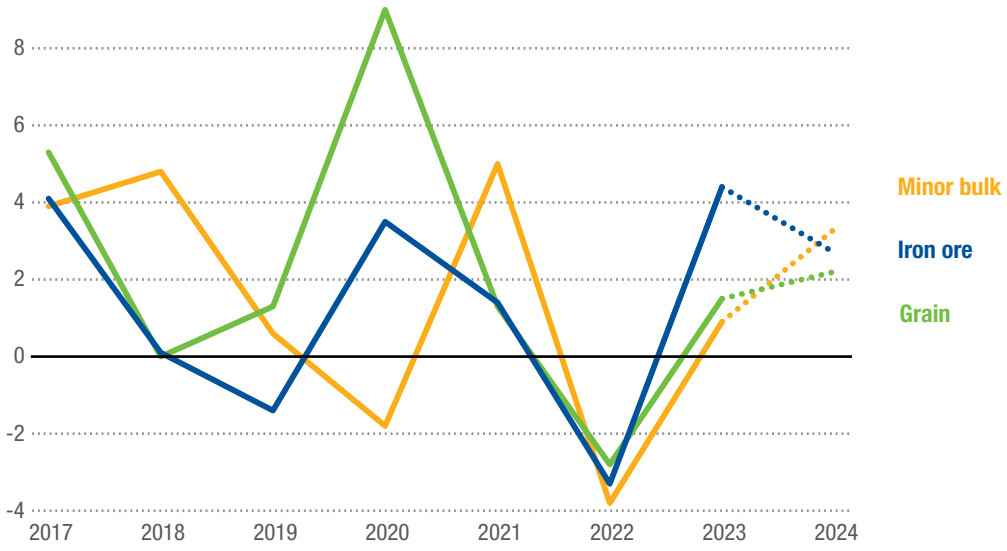
Dry bulk trade is less exposed to the disruptions in the Red Sea and the Suez Canal, with around 6 per cent of global maritime dry bulk trade passing through the Suez Canal. Nevertheless, the disruptions have particularly impacted grain exports from the United States and other dry bulk exports from the North Atlantic to Asia (Clarksons Research, 2024h). Iron ore trade and steel product shipments were also disrupted due to rerouting and increased transit times.

The situation in the Panama Canal in 2023 caused delays and increased shipment costs that affected the export of grains and minor bulk commodities from the Americas to Asia. The impacted routes saw a 31 per cent increase in sailing distances for completed journeys, a 25 per cent decrease in cargo volume and a 1 per cent increase in ton-mile demand (Hellenic Shipping News, 2024).

Some particular bulk trade segments (iron ore, grain and minor bulk commodities) are expected to show varying performances in 2024 and 2025 (figure I.4). Continued infrastructure development projects in developing countries and industrial expansion in emerging economies is expected to sustain the demand for bulk materials. Whether measured in tons or ton-miles, iron ore trade is likely to continue to grow, supported by firm demand from steel producers, particularly in Asia. Minor bulks, including steel and forest products, are expected to grow steadily, supported by construction and manufacturing activities in developing countries. Grain trade will likely see moderate growth, driven by increasing global food demand and population growth.

Iron ore trade and steel product shipments were disrupted in 2023 due to rerouting and increased transit times

Figure I. 4
Mixed performance in international seaborne trade, annual percentage growth rates



Source: UNCTAD calculations, based on Clarksons Research Shipping Intelligence Network (time series, July 2024).
Note: 2024 is a forecast; "minor bulk" encompasses metals, minerals, "agribulks and softs" (which encompasses fertilisers, sugar, soymeal, oilseeds, rice and other products that are "grown" rather than mined).

Energy trade remains robust

The global demand for coal, natural gas and oil is predicted to peak by 2030 (IEA, 2023). However, energy markets continue to be tense and unstable, with increased disruption risks. Energy security remains a top policy priority. Prospects for supply, demand and prices positively impact the outlook for oil and gas trade in 2024 and beyond (box I.3).

Box I. 3

Prospects for demand, supply, prices and trade of some fossil fuel commodities

Coal

- Coal supply is expected to decline in many regions due to regulatory pressures and reduced investment in coal mining. However, due to its cost-effectiveness, some developing countries will continue to produce and consume coal.
- Global coal demand is expected to decrease, particularly in advanced economies transitioning to cleaner energy sources. However, demand may remain stable or even grow in some Asian countries in the short term.
- Coal prices will likely be pressured downward due to decreasing demand and increased competition from cleaner energy sources. However, supply chain disruptions could cause short-term price spikes.
- Decreasing demand and regulatory pressures will reduce coal trade, particularly in Europe and North America. However, continued use in some developing countries will maintain a baseline level of trade.

Oil

- Global oil supply is expected to remain relatively stable, with modest increases driven by investments in new production capacity in the Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC countries.
- Oil demand is projected to peak around 2028 as advancements in energy efficiency and the shift to electric vehicles accelerate. However, demand will continue to grow in the short term, particularly in developing economies.
- Oil prices are anticipated to experience volatility due to geopolitical tensions and market fluctuations but are expected to trend slightly upward due to increasing production costs and demand pressures. In addition, the recent OPEC+ extension of crude oil production cuts is expected to keep oil prices stable or on the rise.
- Increased production and stable demand will likely support steady trade volumes, yet geopolitical risks and market dynamics may create uncertainty in trading conditions.

Gas

- Natural gas supply is expected to expand, particularly from the Russian Federation, the United States and the Middle East. Investments in LNG infrastructure will support supply growth.
- Demand for natural gas is projected to grow steadily, driven by its role as a transition fuel in the shift from coal to cleaner energy sources.
- Regional market dynamics, infrastructure developments and geopolitical factors influence natural gas prices. However, prices will likely remain competitive, promoting its use as a bridge fuel.
- Expanding LNG infrastructure and rising demand may enhance global gas trade, with new markets emerging in Asia and Europe. Competitive pricing is expected to drive higher trading volumes.

Source: IEA (2023) and Russell C (2024).
Note: OPEC+ countries include non-OPEC oil exporters such as the Russian Federation, Mexico, Kazakhstan, Oman, Azerbaijan, Malaysia, Bahrain, South Sudan, Brunei and Sudan.

Table I. 4
Seaborne trade of energy products: Growth projections
(Percentage)

	2024		2025	
	Tons	Ton-miles	Tons	Ton-miles
Coal	0.3	-1.2	-1.0	-1.4
Oil	1.0	3.7	2.7	2.1
Crude oil	0.7	2.8	3.2	3.1
Oil products	1.6	6.4	1.9	-1.1
Gas	3.2	8.2	5.5	5.2
LNG	3.0	8.5	6.2	6.6
LPG	3.8	7.7	3.3	1.8

Source: UNCTAD calculations, based on Clarksons Research Shipping Intelligence Network (time series, July 2024).

In line with these developments, in 2024 and 2025, maritime gas trade is expected to demonstrate the most growth, while oil trade is set to grow moderately. In both cases, ton-mile growth will surpass growth in tons in 2024 (table I.4), reflecting the continued rerouting of oil and gas trades due to ongoing disruptions, including in the Panama Canal, the Red Sea and the Suez Canal.

Trade in oil and oil products is expected to witness stable market conditions in 2024 and 2025. Factors supporting moderate growth include increasing trade involving routes connecting regions across the Atlantic and Asia, as well as increasing demand in Asia, particularly in China and India. On the supply side, expanded refining capabilities in Asia and new sources of supply emerging in Latin America, such as in Brazil and Guyana (Clarksons Research, 2024b) are contributing to this trend. Gas trade will remain strong in 2024 and 2025, supported by the continued growth of imports to China and exports to the United States, with increased volumes heading towards Asia (Clarksons Research, 2024c).

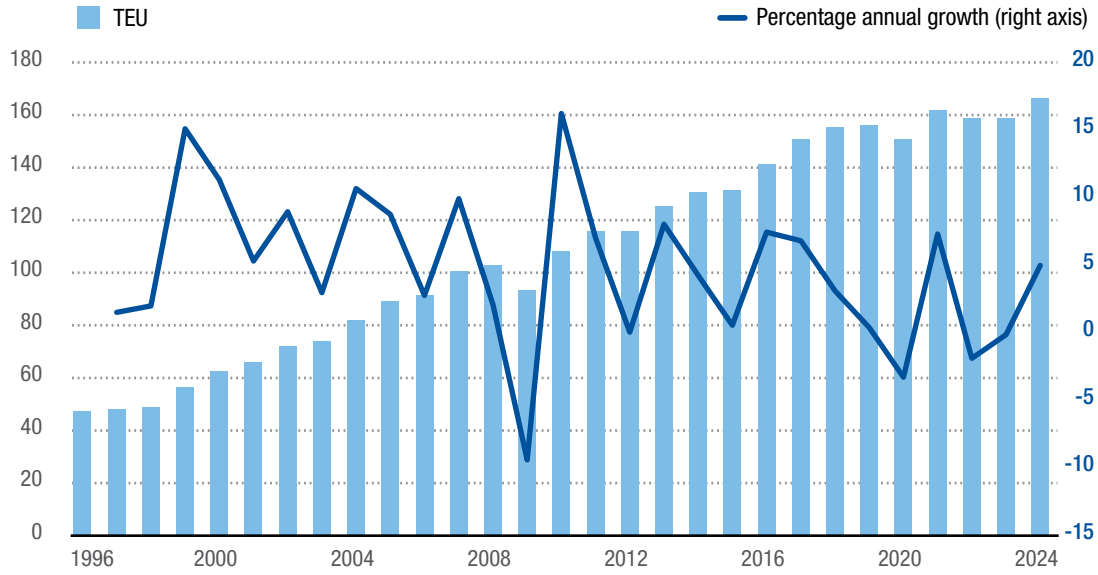
After the historic levels in 2023, coal trade is expected to decline in tons in 2025 and in ton-miles in 2024 and 2025 (table I.4). Coal trade growth prospects remain highly sensitive to developments in China, the world's largest coal producer and buyer. Domestic policies, economic growth patterns and import needs all impact global coal demand and pricing. Recent trends indicate continuing high levels of imports due to energy security concerns and limits on domestic production (Bloomberg, 2024; IEA, 2024; Chen and Duquiatan, 2024).

Containerized trade: A strong performance amid efforts to build resilient supply chains

Improved economic prospects and ship rerouting away from the Red Sea are factors supporting the strong performance of containerized trade in 2024. This comes after declining volumes in 2022 and low growth in containerized trade in 2023 (figure I.5). Rerouting vessels has improved the balance between container shipping supply and demand, leading to improved earnings and profits for carriers and increased costs for shippers (see chapters II and III).

The main East–West routes generally handle the largest trade flows and, in 2023, represented over 36 per cent of global containerized trade volumes (table I.5). Trans-Pacific Eastbound (East Asia to North America) and Asia–Europe Westbound (East Asia to Northern Europe and the Mediterranean) are the most important routes (table I.6).

Figure I. 5
Global containerized trade
(Millions of 20-foot equivalent units and percentage annual change)



Source: MDS Transmodal, World Cargo Database, June 2024.

The Asia–Europe Westbound route was the only mainlane route to contract between 2023 and 2024 (table I.6).

In contrast, mainlane routes with the most dynamic performance in 2023–2024 included Trans-Pacific Westbound (North America to East Asia) and Transatlantic Westbound (Northern Europe and Mediterranean to North America) (table I.6). Reduced consumer inflation and the drop in previously high retail inventories in the United States are the main drivers of this growth (Clarksons Research, 2024e).

Table I. 5
Market shares of global containerized trade by route
(Percentage)

	2021	2022	Annual change	2023	Annual change
Main East–West	36.3	37.3	0.93	36.1	**-1.20**
Non-mainlane routes:					
Intraregional	27.1	28.4	**1.28**	28.2	-0.16
Non-mainlane East–West	15.4	13.2	**-2.27**	13.9	0.77
South–South	11.8	11.9	0.09	13.0	**1.12**
North–South	9.3	9.3	-0.02	8.8	-0.54

Source: UNCTAD calculations, based on data from MDS Transmodal, World Cargo Database, June 2024.
Note: Non-mainlane East—West denotes trade involving East Asia, Europe, North America, Western Asia and the Indian subcontinent; North—South denotes trade involving Europe, Latin America, North America, Oceania and sub-Saharan Africa; and South—South denotes trade involving East Asia, Latin America, Oceania, sub-Saharan Africa and Western Asia.

Table I. 6
Containerized trade on major East–West trade routes

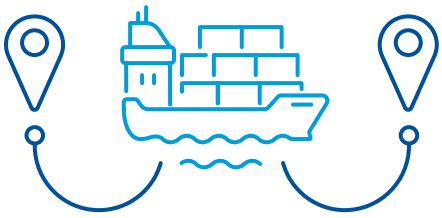
	Trans-Pacific			Asia–Europe			Transatlantic		
	Eastbound East Asia–North America	**Westbound** North America– East Asia	**Total Trans-Pacific**	**Eastbound** Northern Europe and Mediterranean to East Asia	**Westbound** East Asia to Northern Europe and Mediterranean	**Total Asia–Europe**	**Eastbound** North America to Northern Europe and Mediterranean	**Westbound** Northern Europe and Mediterranean to North America	**Total Transatlantic**
	TEU (million)								
2017	18.8	8.0	**26.8**	8.2	15.1	**23.3**	3.2	4.7	**7.9**
2018	20.1	8.1	**28.2**	8.3	15.9	**24.2**	3.3	5.0	**8.3**
2019	19.5	7.6	**27.0**	8.5	16.1	**24.6**	3.2	5.2	**8.3**
2020	20.0	7.4	**27.4**	8.2	15.5	**23.7**	2.7	5.0	**7.7**
2021	23.8	6.4	**30.2**	7.8	17.0	**24.8**	2.7	5.6	**8.4**
2022	22.6	6.0	**28.6**	6.7	15.8	**22.5**	2.6	5.5	**8.1**
2023	20.8	6.2	**27.0**	6.5	16.3	**22.8**	2.5	4.9	**7.5**
2024	21.7	6.9	**28.5**	6.9	16.1	**23.0**	2.6	5.3	**7.9**
	Percentage annual change								
2017–2018	6.7	1.8	**5.3**	1.7	4.9	**3.8**	2.7	5.8	**4.5**
2018–2019	-3.1	-6.8	**-4.1**	1.9	1.4	**1.6**	-4.6	3.0	**0.0**
2019–2020	2.8	-2.4	**1.3**	-2.9	-3.7	**-3.4**	-14.9	-2.5	**-7.2**
2020–2021	19.0	-13.1	**10.4**	-5.5	9.7	**4.4**	1.0	12.3	**8.4**
2021–2022	-5.2	-6.5	**-5.5**	-13.3	-7.2	**-9.1**	-4.2	-2.2	**-2.8**
2022–2023	-8.0	3.6	**-5.6**	-3.9	3.4	**1.2**	-2.4	-10.8	**-8.1**
2023–2024	4.3	10.3	**5.7**	6.5	-1.6	**0.7**	1.6	7.7	**5.7**

Source: UNCTAD calculations, based on MDS Transmodal, World Cargo Database, June 2024.

Among non-mainlane routes, the East–West route and intraregional had the highest shares of global containerized trade in 2023 (table I.7).

Non mainlane routes with the most dynamic performance in 2023–2024 included South–South and East–West routes.

The performance of South-South routes in 2023 is worth noting, witnessing the highest share increase, 9.3 per cent, during a year characterized by weak overall performance in global containerized trade (table I.5).



Trans-Pacific Eastbound and Asia–Europe Westbound are the most important routes in terms of containerized trade volumes

Table I. 7
Containerized trade on main East–West and other containerized trade routes

TEU	2017	2018	2019	2020	2021	2022	2023	2024 (Forecast)
Main East–West routes	**58 049 757**	**60 710 347**	**59 927 666**	**58 848 055**	**63 386 461**	**59 217 514**	**57 239 257**	**59 356 900**
Other (non-mainlane) routes:	**92 692 874**	**94 704 355**	**96 100 208**	**92 059 993**	**98 558 383**	**99 678 120**	**101 440 917**	**107 238 194**
Non-mainlane East–West	19 750 705	19 698 925	20 315 076	18 883 032	20 463 577	20 922 284	22 122 302	23 317 206
North–South	13 791 676	14 229 398	14 208 896	13 995 311	15 109 999	14 786 021	13 916 884	14 584 037
South–South	16 709 459	17 123 449	17 992 786	17 741 223	19 069 128	18 853 529	20 600 375	22 859 351
Intraregional	42 441 034	43 652 582	43 583 450	41 440 427	43 915 679	45 116 286	44 801 356	46 477 600
World total	**150 742 631**	**155 414 702**	**156 027 874**	**150 908 048**	**161 944 844**	**158 895 633**	**158 680 173**	**166 595 093**
Percentage change	**6.81**	**3.10**	**0.39**	**-3.28**	**7.31**	**-1.88**	**-0.14**	**4.99**
Main East–West routes	**6.0**	**4.6**	**-1.3**	**-1.8**	**7.7**	**-6.6**	**-3.3**	**3.7**
Other (non-mainlane) routes:	**7.3**	**2.2**	**1.5**	**-4.2**	**7.1**	**1.1**	**1.8**	**5.7**
Non-mainlane East–West	6.9	-0.3	3.1	-7.0	8.4	2.2	5.7	5.4
North–South	5.2	3.2	-0.1	-1.5	8.0	-2.1	-5.9	4.8
South–South	10.3	2.5	5.1	-1.4	7.5	-1.1	9.3	11.0
Intraregional	7.0	2.9	-0.2	-4.9	6.0	2.7	-0.7	3.7

Source: MDS Transmodal, World Cargo Database, June 2024.

The most dynamic trade routes in 2024 are expected to be those connected to emerging markets (table I.7), driven by increasing trends to secure reliable supply chains and by trade and industrial policies. Trade data already shows diversification shifts. For instance, since late 2022, the political proximity (e.g. having similar geopolitical stances) of trade has been on the rise. Increasing trade concentration is visible along four major bilateral trade relations, namely, Brazil–China; Russian Federation–China; United Kingdom–European Union; and Viet Nam–China (UNCTAD, 2024g). In this context, key containerized routes are those that link the following:

- China with emerging markets such as Brazil, India and the Russian Federation. The strong export performance of China is a primary driver of growth along these routes and to these regions.
- Other intraregional and South–South routes, reflecting a broader diversification of trade connections beyond traditional North–South links.

Trade from the Far East to developing economies has been a major contributor to containerized trade volume growth in 2024. In May 2024, the Far East–Latin America and Far East–Middle East and Indian subcontinent volumes increased by 20 and 15 per cent, respectively (14 and 20 per cent between January and May 2024), driven by positive economic trends in these regions and firm exports from Chinese (Clarksons Research, 2024f).

Current projections for growth (in tons) in 2025 are 3.0 per cent (Clarksons Research, 2024a), assuming a continued easing of economic headwinds. Containerized trade sector performance will depend on geopolitical developments, an easing of disruptions in key chokepoints and trends in supply chain reconfiguration.

In recent years, supply chain reconfiguration has moved into sharp focus, driven by the COVID-19 pandemic, the 2021–2022 crunch in global logistics, heightened geopolitical tensions, rapid technological advancements and growing sustainability demands. Geopolitical tensions have led to a strategic emphasis on national resilience, prompting countries to reconsider their dependencies on foreign suppliers and to seek regional trade relationships. Technological advancements, such as automation and digitalization, are reshaping production processes, reducing the need for labour-intensive operations and enabling manufacturing to be located closer to end markets. Sustainability demands are behind the push for greener supply chains, encouraging shifts towards renewable energy and environmentally friendly production methods (UNCTAD, 2024h).

This reconfiguration also changes trade patterns, as global value chains become less complex and more regionally focused, reducing the reliance on production facilities abroad. Trade flows are increasingly moving towards regional hubs, creating new trade routes and networks that prioritize trading closer to home and with "friends" over traditional, cost-driven offshoring models. As a result, trade patterns are becoming more fragmented, with regions such as Asia and North America seeing increased intraregional trade at the expense of long-established global trade connections (UNCTAD, 2024h). This shift could influence containerized trade routes and volumes, potentially reducing long-distance shipping needs and increasing regional trade.

C. Concurrent disruptions in the Panama Canal, the Red Sea and the Suez Canal upend trade patterns

Shipping is the backbone of globalized trade and smooth navigation through maritime chokepoints is crucial for trade

As discussed in the previous sections, the new wave of disruptions has upended shipping routes, distances and transit times across the Panama Canal, the Red Sea, and the Suez Canal. The combination of climate change and geopolitical tensions is probably one of the greatest risks to global maritime trade in decades. These factors threaten the reliability of crucial trade routes and put pressure on global supply chains.

Maritime chokepoints are defined as critical points along transport routes that facilitate the passage of substantial trade volumes (Bailey et al., 2017), which serve as vital arteries for global commerce, connecting important regions worldwide. Due to limited alternative routes, disruptions can lead to negative impacts in supply chains and to systemic consequences that affect food security, energy supply and the global economy. For example, in 2021, when the container ship *Ever Given* ran aground and blocked the Suez Canal for six days, causing around $10 billion in goods per day to be stranded and delayed due to severe congestion (Goodman, 2024b).

Disruptions to international shipping routes and maritime chokepoints create a daunting operating landscape for shipping and trade. They can lead to changes in network configurations and trade patterns.

For example, disruptions in the Black Sea have led Egypt to source grain from Brazil or the United States instead of Ukraine. Oil shipments from the Russian Federation were directed towards China and India instead of Europe (UNCTAD, 2024f). Current events are anticipated to reinforce this trend.

Of the eight primary chokepoints, the Turkish Straits passage continued to experience disruption in 2023 and 2024 due to geopolitical tensions, increased maritime traffic, environmental concerns and infrastructure challenges. Türkiye implemented regulations in September 2023 involving enhanced environmental standards, safety measures, traffic management and security protocols. Delays and congestion have been experienced in the period of adaptation to these regulations (Ciger, 2023, and United States, Energy Information Administration, 2024).

At the same time, three chokepoints (at Panama Canal, Red Sea and Suez Canal) faced new challenges in 2023 and 2024. Recent geopolitical tensions have heightened the risk of disruptions at other key chokepoints such as the Strait of Hormuz and the Strait of Malacca (table I.8).

Recent developments

The effects of climate change in the Panama Canal

As a key artery for global trade, the Panama Canal is dealing with a severe drought caused by climate change. To save on water, the Panama Canal Authority restricted the number of vessels transiting the Canal (UNCTAD, 2024f). The number of total transits recorded in May 2024 decreased by 19.2 per cent compared with in May 2023 and by 24.3 per cent compared with in May 2022 (Panama Canal Authority, 2024).

The United States is the primary user of the Panama Canal, accounting for 72.2 per cent of cargo by volume transiting through the Canal in fiscal year 2023 (Panama Canal Authority, 2024).

In 2023, the Canal facilitated about 127.5 million tons of cargo exports from East Coast ports, mostly to Asia, and around 62.1 million tons of imports, mostly from Asia. Gulf Coast ports exported around $8.9 billion worth of agricultural products to Asia through the Canal in 2023; and West Coast ports exported around 3.1 million tons of cargo, mainly to Europe, and imported approximately 6.5 million tons of cargo from Europe. The Panama Canal also facilitated trade between ports in the United States, with 3.8 million tons of cargo transiting from East Coast to West Coast ports and 0.5 million tons of cargo travelling from West Coast to East Coast ports (United States, Department of Transportation, 2024).

China is the second most important user of the Panama Canal, accounting for 22.5 per cent of cargo by volume. This equates to 3 per cent of exports from China, 1.5 per cent of imports and 1.7 per cent of all foreign trade in tons (UNCTAD, 2024e). Several developing economies that rely on this waterway have also been impacted by the disruptions (figure I.6).

Since January 2024, the Panama Canal situation has **improved due to the onset of the rainy season, combined with water-saving measures** implemented by the Panama Canal Authority

Since January 2024, the Panama Canal situation has improved due to the onset of the rainy season, combined with water-saving measures implemented by the Panama Canal Authority, and this has enabled a gradual increase in daily transits. The Authority announced plans to reinstate a number of daily transits, as water levels begin to rise in the artificial lake that supplies water to the Panama Canal). Conditions are expected to further improve with the projected La Niña weather phenomenon later in 2024. The average number of daily crossings increased from a low of 27 ships in January 2024 to 32 ships in April 2024, although this is still below the long-term average of 38 ships per day. The Authority is projected to need the rest of the year to fully recover from the 2023 drought (Nightingale, 2024; Maritime Executive, 2024).

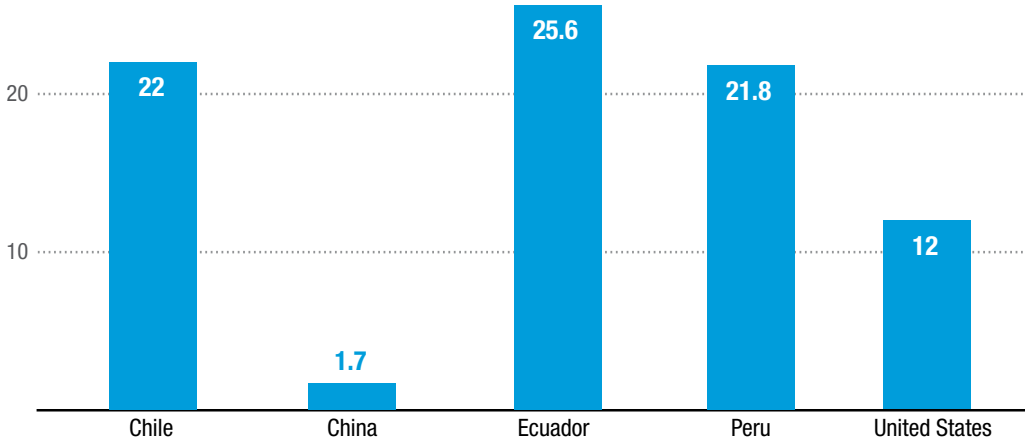
Table I. 8

Primary maritime chokepoints: Connections and importance in terms of share of seaborne trade and particular goods

1.	**Bab al-Mandeb Strait (Red Sea)**	• Connects the Red Sea to the Gulf of Aden and the Indian Ocean • Crucial for oil and natural gas from the Middle East • Share of total global seaborne trade volume (2023): 8.7 per cent • Share of global seaborne trade volume per commodity (2023): cars and containers (20 per cent each); oil products (15 per cent); and crude oil (13 per cent)
2.	**Cape of Good Hope**	• Connects the Indian Ocean with the Atlantic Ocean • Main commodities passing around this chokepoint include containerized cargo, crude oil and dry bulks (iron ore and coal) • Share of all seaborne-traded oil (2023): 8 per cent
3.	**Panama Canal**	• Connects the Atlantic Ocean with the Pacific Ocean • Key for containerized trade and trades in cars, grain and LPG • Share of global seaborne trade volume (2023): 2.16 per cent (tons)
4.	**Strait of Gibraltar**	• Links the Mediterranean Sea with the Atlantic Ocean and connects major economies worldwide • Hosts critical infrastructure, including gas pipelines and Europe–Africa electrical connections • Crucial for flow of crude oil and LNG, mainly to European markets
5.	**Strait of Hormuz**	• Connects the Persian Gulf with the Gulf of Oman and the Arabian Sea • Crucial for global energy security, with a significant portion of the world's petroleum passing through this chokepoint • Share of global seaborne trade volume (2023): 11.1 per cent (Nightingale 2024, based on Clarksons Research Services) • Share of global seaborne trade volume per commodity (2023): Crude oil (39 per cent); propane (31 per cent); oil products (20 per cent) and natural gas (19 per cent)
6.	**Strait of Malacca**	• Connects the Indian Ocean with the South China Sea • Crucial for trade between Africa, Asia, Europe and the Middle East and for Asia energy imports and exports to the rest of the world • Share of global seaborne trade volume (2023): 23.7 per cent • Share of global seaborne trade volume per commodity (2023): crude oil (45 per cent); propane (42 per cent); cars (26 per cent); and dry bulk (23 per cent)
7.	**Suez Canal**	• Connects the Mediterranean Sea with the Red Sea • Crucial for trade between Europe and Asia • Reduces travel time for ships by eliminating the need to navigate around Cape of Good Hope • Share of global trade volume: Around 10 per cent (tons) • Share of all global container traffic (TEU): 22 per cent • Top three commodities (2023 volumes): cars and containers (20 per cent each); oil products (15 per cent); and crude oil (10 per cent)
8.	**Turkish Straits (Bosporus and Dardanelles)**	• Connects the Black Sea with the Mediterranean Sea • Crucial for transport of oil and grain from the Black Sea region • Share of global seaborne trade volume (2023): 3.1 per cent

Source: S and P Global Commodity Insights (2023); Nightingale A (2024); Clarksons Research (2024g); and United States Energy Information Administration (2024).

Figure I. 6
Importance of Panama Canal for selected countries
(Share of trade volume, in tons, transiting the Panama Canal, 2021)



Source: UNCTAD calculations, based on data from the Panama Canal Authority and UNCTAD trade volume statistics.

Disruptions in the Red Sea and the Suez Canal

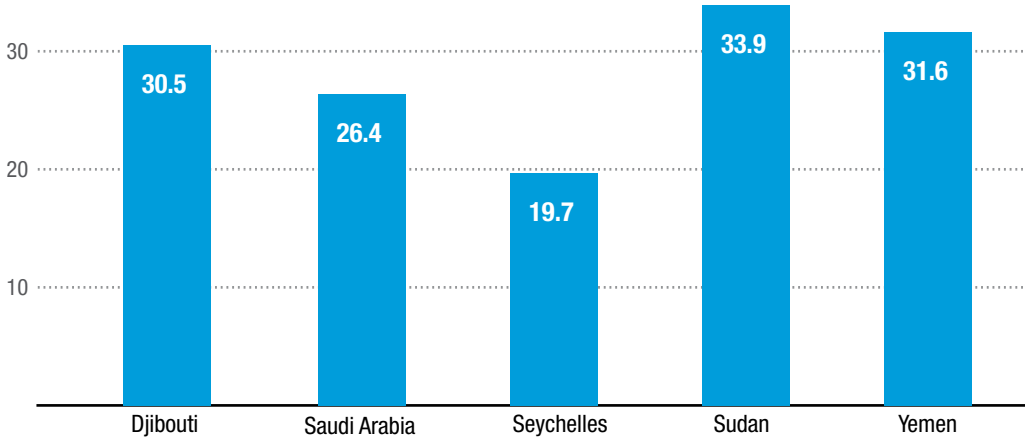
Since mid-November 2023, disruptions along the shipping route in the Red Sea have led major players in the shipping industry to suspend transits through the Suez Canal.

The number of monthly transits through the Suez Canal across all ship segments has declined since the onset of the disruptions (see chapter II). Significant shares of ships across all shipping segments on the Asia–Europe and Asia–Atlantic[1] trade lanes have diverted trajectories and begun to sail around the Cape of Good Hope (UNCTAD, 2024e).

[1] Asia-Atlantic maritime trade routes connect regions in Asia with those across the Atlantic, typically involving countries in East Asia, Southeast Asia, and South Asia on one end and regions in North and South America, as well as the Caribbean on the other.

Maritime chokepoints are defined as critical points along transport routes that facilitate the passage of substantial trade volumes, which serve as vital arteries for global commerce, connecting important regions worldwide. Due to limited alternative routes, disruptions can lead to negative impacts in supply chains and to systemic consequences that affect food security, energy supply and the global economy.

Figure I. 7
Reliance on the Suez Canal for maritime trade, share in tons, 2022
(Percentage)



Source: UNCTAD calculations, based on data from MDS Transmodal.
Note: Shares of foreign trade volumes transiting the Suez Canal based on origin and destination trade data (by volume) in source; shares are for total foreign trade, not only maritime trade, based on countries of origin or destination.

These changes mean Europe is exposed to escalating costs, given its reliance on imports from Asia. The foreign trade of many developing countries is also highly dependent on the Suez Canal (figure I.7). The effects of the disruption are also resonating in other developing regions. For instance, in East Africa, disruptions have led to a shortage of perishable goods and standard containers due to increased cargo delivery times impacting avocado, tea and coffee supply chains, among others (UNCTAD, 2024i).

Declines in transits and ship arrivals in the disrupted chokepoints have pushed some trade flows onto longer-haul routes, boosting the average distance travelled. This is the case for bulkers and oil tankers (figure I.8) and has led to additional transit times and has impacted freight rates (see chapter II and chapter III).

Maritime trade chokepoints map

Source: Ang, C. (2021). Mapping the World's Key Maritime Choke Points.
Available at https://www.visualcapitalist.com/mapping-the-worlds-key-maritime-choke-points/.

For example, redirecting oil tankers from the port of Ras Tanura, Saudi Arabia, to Rotterdam, Kingdom of the Netherlands, via the Cape of Good Hope, has resulted in a 42 per cent increase in travel time. A ship travelling from Asia to Europe takes an additional 12 days to reroute around Africa (UNCTAD, 2024f; UNCTAD, 2024i).

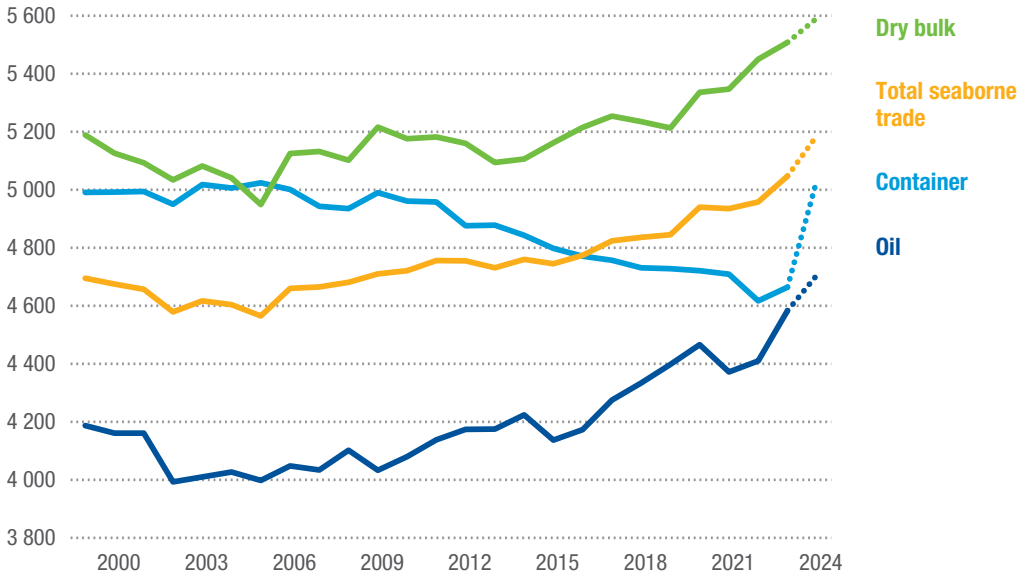
In contrast, different patterns may be observed in containerized trade due to shifting trade dynamics and the use of the United States intermodal system. While most disruptions at major chokepoints result in longer distances, the experience in the Panama Canal has been an exception; disruptions had less of an impact due to the availability of the North American landbridge, a rail and truck transport route that connects the East Coast and West Coast. The landbridge provides an effective alternative route and is a significant competitor for containerized trade. When exports from Asia to the East Coast of North America cannot use the Panama Canal (and when capacity at the Suez Canal is limited), carriers are more likely to call at ports on the West Coast, then connect to, for example, Chicago or New York using intermodal transport services. This leads to slightly lower demand for TEU miles yet increases costs and emissions, since transport by land is less energy efficient than transport by sea.

Current geopolitical events—particularly those in the Red Sea—present grave concerns. Increased security risks pose a danger to international trade and to energy supply chains in particular. Energy trade is facing significant uncertainty due to supply chain inefficiencies, causing tighter supplies and increased costs for consumers. Box I.4 illustrates national and cooperative approaches to building resilience in response to the challenges and opportunities arising from maritime trade disruptions in the Indian Ocean.

Figure I. 8

Increase in average distance travelled due to disruptions in the Black Sea, the Panama Canal and the Red Sea

(Nautical miles)



Source: UNCTAD calculations, based on data from Clarksons Research Services.
Note: Figures for 2024 are forecasts.

Box I. 4

Maritime trade impacts of disruptions in the Red Sea on the Indian Ocean and increasing resilience

The Indian Ocean is divided between three different geographical regions (Africa, South Asia and the Middle East) and has three critical energy trade chokepoints and a backup route in case of disruptions, namely, the Mozambique Channel. Security risks in the area include various geopolitical tensions, piracy and illicit trafficking. The Indian Ocean is strategically significant due to its role in maritime routes and the presence of undersea communications cables. From a trade perspective, the Indian Ocean is crucial for energy imports from Australia, China, India, Japan and the Republic of Korea. Countries in this area have important trade ties with China, France, India, Qatar, Türkiye, the United Arab Emirates and the United States.

Disruptions in the Red Sea have impacted developing countries in the Indian Ocean, raising consumer costs for goods due to higher freight costs, creating uncertainty over energy flows and hindering the delivery of food aid.

In Mauritius, for example, building resilience to such threats has entailed coupling national development policies with strengthened cooperation with partners within and outside the region, to enhance maritime security. Mauritius is taking part in various initiatives involving capacity-building, regional training and information-sharing, to combat piracy risks and guarantee the safety of maritime lanes. Mauritius is also undertaking steps to increase resilience, through connectivity and sustainability port reforms.

The rerouting of cargo around the Cape of Good Hope led to increased congestion in South African ports, which presented opportunities for other African ports, such as those strategically located on the East–West route connecting Asia with Europe (Toamasina, Madagascar; Port Louis, Mauritius; Walvis Bay, Namibia), as well as East African ports (Mombasa, Kenya; Beira, Mozambique; Dar es Salaam, United Republic of Tanzania). While deciding where else to berth for replenishment, shipping companies take into account deep water ports along the Cape Route, which offer an ecosystem of additional services. The increased congestion in African ports emphasizes the importance of increasing capacity and efficiency in the near future to improve connectivity both within and between Africa and extraregional partners.

Source: Natstrat (2024); Baruah D and Duckworth C (2022); Very F and Blaine M (2024); Reilly B and Dean P (2024); and EIU (2024).

Addressing supply chain disruptions

The pandemic served to show the risks of relying heavily on extended supply chains and distant manufacturing, particularly from Asia, to fulfil consumer demands in North America and Europe (Goodman, 2024a; Telling, 2024). This overreliance not only led to major challenges when international trade routes were disrupted but revealed the limitations of trade logistics in managing sudden surges in demand (Pratson, 2023). Given this context, the need to build more resilient and reliable supply chains has prompted a rethink of efficiency-driven models that prioritize cost-cutting over systemic stability and reliability (Goodman, 2024b).

Supply-side measures aimed at building more resilient supply chains require greater investments in infrastructure and labour, for example by:

- Expanding and combining modes of transport; using air, rail and land freight to reduce dependence on chokepoints, bypass disruptions and ensure a steady supply of cargo (Gunathilake, 2021).
- Enhancing infrastructure facilities, including port capacity, storage facilities, pipelines and bunkering facilities, to reduce congestion, increase buffers and minimize fuel shortages or delays caused by disruptions (Gunathilake, 2021; Goodman, 2024b; BCG, 2024).
- Using technology to optimize the capacity of chokepoints (Gunathilake, 2021; Lind et al., 2021).
- Recognizing the value of supply chain workers (railway workers, dockworkers, truckers, seafarers) who are essential for overcoming workforce shortages during critical times; such shortages can exacerbate supply chain disruptions (Goodman, 2024a).

In addition to supply-side measures, building resilient supply chains for maritime trade includes measures such as:

- Reducing the risk of relying on a single input source by diversifying sourcing and manufacturing locations (Telling, 2024; Goodman, 2024a) or diversifying fuel types and sources (Kennedy et al., 2024). While reshoring may offer potential benefits such as increased resilience, reduced environmental impact and local economic gains, it presents challenges in terms of costs and increased supply chain complexity due to potential disruptive changes associated with new processes, technology and workforce training.
- Increasing inventory levels to increase the capacity to absorb supply chain shocks (Goodman, 2024a; BCG, 2024).

The disruption to chokepoints seen in the past two years suggests the need for action in three areas to enhance the resilience of supply chains and ensure unhindered global maritime trade flows:

- Diversifying shipping routes to avoid overreliance on major hub ports and developing contingency plans that include alternative routes and ports (BCG, 2024; Gunathilake, 2021).
- Enhancing cooperation among shippers, logistics providers and ports, to optimize supply chain efficiency, reduce transit times and decrease transport costs (BCG, 2024).
- Improving international collaboration, strengthening trade pacts and alliances (to ensure smoother and more predictable maritime trade flows) and engaging in collaborative efforts to manage risks and disruptions in supply chains (Kennedy et al., 2024).
- Using technology, data, demand-forecasting and early warning systems, to enhance preparedness and optimize capacity at chokepoints.

D. Outlook and policy considerations

The landscape of international maritime trade has undergone significant transformations, particularly in the light of recent global disruptions and evolving geopolitical dynamics. Global maritime trade recovered and demonstrated resilience in 2023 amid increased supply chain vulnerability caused by disruptions in two leading international maritime chokepoints. Shifts in trade patterns remain pronounced, driven by geopolitical tensions and climate-related disruptions. The war in Ukraine, disruptions in the Red Sea and environmental challenges in the Panama Canal underscore the need for resilience-building strategies for maritime chokepoints and global supply chains. These trends and challenges are shaping the outlook for international maritime trade. There are variations across cargo segments influenced by underlying factors such as energy security concerns, supply chain resilience, consumer spending, inflation and economic growth prospects.

UNCTAD forecasts that in 2024, global maritime trade is expected to expand by 2 per cent, while containerized trade is anticipated to grow by 3.5 per cent. This growth will be fuelled by a robust demand for major bulks, such as iron ore, coal, grain and oil, as well as containerized goods. Despite these positive indicators, underlying challenges such as geopolitical tensions, extreme weather events and economic uncertainties continue to pose significant risks.

Looking beyond 2024, UNCTAD projects global maritime trade to grow at an average annual rate of 2.4 per cent between 2025 and 2029, with containerized trade expected to increase by 2.7 per cent during the same period. This growth will be supported by technological advancements, the transition to cleaner energy and infrastructure developments.

However, downside risks persist, including potential disruptions from geopolitical tensions, economic uncertainties, trade-related tensions and environmental challenges. The global economy faces numerous challenges that could impact medium-term growth prospects. Persistent inflation, particularly in the services sector, makes it more difficult to normalize monetary policies, with central banks cautious about easing too quickly. Inflationary pressures are expected to remain high in several regions. Furthermore, geopolitical tensions, such as those involving trade-related and regional tensions, add complexity to the economic landscape. The potential for significant swings in economic policy, driven by elections and fiscal constraints, increases the uncertainty around global growth projections. High public debt levels in many economies, combined with elevated borrowing costs, constrain fiscal space and limit the ability of Governments to respond to economic shocks.

Conversely, upside opportunities include the expansion of green energy and artificial intellingence-related product sectors, as well as potential interest rate cuts in major economies that could boost trade. Maintaining a balance between immediate priorities and long-term sustainability and resilience goals will be essential for the continued growth and stability of international maritime trade.

Policy implications and recommendations

As the world deals with these challenges, safeguarding maritime lifelines becomes critical. Doing so requires international cooperation, strategic foresight and resilience-planning, to ensure that the arteries of global trade remain open, secure and efficient. A multifaceted policy approach is essential to address these challenges and harness opportunities. Policymakers should focus on the following:

- Enhancing supply chain resilience by investing in infrastructure and technology, diversifying supply sources and reducing reliance on chokepoints. This involves evaluating country and port reliance on chokepoints and trade and consistently monitoring alternative routes, to ensure preparedness for disruptions.
- Strengthening international cooperation and trade pacts, to help mitigate geopolitical risks and ensure smoother trade flows.
- Supporting free trade through a rules-based system and encouraging regional and South–South trade, to provide a buffer against global disruptions.
- Implementing sustainable practices and investing in green technologies, to support environmental goals and create new trade opportunities.
- Continuously monitoring market trends and trade patterns, to adapt strategies, and identifying opportunities for alternative supply from other regions and emerging sectors, disruptions in routes and impacts on distances and trading costs, to ensure long-term growth and stability in global maritime trade.

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