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# Global Shipping and International Maritime Trade

**Dr. B.Swaminathan**
Associate Professor, IMU, Chennai Campus

**Abstract**

In 2024, this article reflects on over fifty years of insights from the United Nations Conference on Trade and Development (UNCTAD) Review of Maritime Transport, examining pivotal trends that have defined the maritime transport landscape of today. There has been a marked shift in trade geography throughout this period, with developing nations increasingly contributing to global economic growth and seaborne trade, establishing themselves as key participants in global value chains. A notable trend is the increasing specialisation of these countries, especially in developing regions, in maritime goods and services where they have a comparative advantage. This marks a shift from past patterns, where developing economies primarily consumed maritime transport services, to becoming significant producers. Building on this trend, the latest data highlights a continued shift towards market liberalisation, which has resulted in significant reductions in global freight costs. The article also points out that bilateral freight-sharing agreements, which were standard in the 1970s, have largely faded in importance. This decline in restrictive practices has enabled freer market competition and greater efficiency in freight services, allowing developing regions to specialise in maritime goods and services and benefit from more affordable access to global shipping networks.

**Keywords:** Developing Economies, Global Value Chains, Maritime Transport Trends, Market Liberalisation

## 1. Overview

The latest UNCTAD issue of Review of Maritime Transport (RMT)2024 reflects on the significance of maritime transport as a driver of global growth and development. The first UNCTAD Review of Maritime Transport (RMT), launched in 1967(UNCTAD, RMT 1967) following a recommendation by UNCTAD's Committee on Shipping in 1966, established a framework for the annual analysis of maritime transport statistics and trends. The RMT, originally titled Review of Developments in World Shipping, was renamed in 1968. It has since evolved into one of UNCTAD's longest-running and most authoritative reports, widely cited for its comprehensive global maritime data and insights. All the Maritime Research journals have consistently referenced the RMT, reflecting its reliance on UNCTAD's findings and data. In issues from 2012–2022 alone, 47 papers cited UNCTAD, the exact count as those referencing the International Maritime Organization (IMO). Today, the RMT supports independent research by providing readily accessible data and analysis, reaffirming its role as a cornerstone in maritime studies (http://stats.unctad.org).

Since the 1970s, the international maritime transport landscape has undergone transformative changes driven by various factors (UNCTAD, Review of Maritime Transport 1970-2020). Major developments include (i) political and geopolitical shifts, (ii) trade liberalisation, (iii) deregulation and increased Private Sector Participation(PSP) in transport infrastructure and services, (iv) energy market fluctuations, (v) containerisation, (vi) the rise of information and communication technologies (ICTs), (vii) intensified global trade and labour division, (viii) the globalisation of manufacturing and distribution, (ix) greater economic integration, (x) the emergence of advanced logistics services, and (xi) declining transport costs. Today, the lingering effects of the 2008 economic crisis continue to impact maritime transport, while a shift in global economic influence towards developing regions and the rise of environmental and sustainability priorities present potential game-changing trends. Climate change, in particular, along with the critical energy nexus, has become a central consideration for the future of maritime transport. Over the years, the Review of Maritime Transport (RMT) has consistently covered these developments, adapting to market realities to address demand, supply, freight markets, and evolving legal and regulatory frameworks. It has also expanded to include topics such as ports, multimodal transport, and trade facilitation, with special chapters on topical issues like sustainable freight transport and region-specific developments. This contribution, which appears in this 2024 Maritime Policy & Management issue, reflects on over five decades of RMT insights. It overviews the main factors that have shaped maritime transport demand and supply and influenced freight costs.

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## 2. Demand

In 2023, maritime trade volumes grew slower than global GDP, departing from the pattern seen since 2006 **(Figure 1).** This shift is influenced by both structural and cyclical factors, raising questions about a possible decoupling of maritime trade from GDP growth. A divergence in the merchandise trade-to-GDP ratio, where trade grows more slowly than GDP, first emerged in 2010, and since 2018, this trend has become more pronounced. Contributing factors include inflationary pressures that dampened demand for trade-intensive goods, the impacts of the COVID-19 pandemic, recent disruptions in global supply chains, and a slowing pace of globalisation in goods trade compared to services. The climate agenda has also led to a decline in seaborne-intensive industries, particularly fossil fuels. Rising trade protectionism and shifting toward localised supply chains may further limit maritime trade growth. However, some supply chain risk-reduction strategies could result in longer transport distances, while increased trade in goods related to cleaner energy transition may help offset some of these effects.

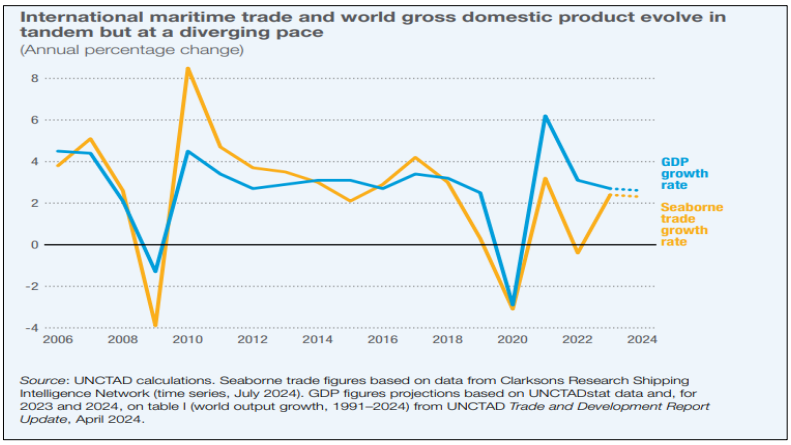


**Figure 1**

### 2.1. Key trends in global seaborne trade

Global maritime trade experienced a strong recovery in 2023, bouncing back from a slight contraction the previous year. Trade volumes rose to 12,292 million tons, marking an annual growth of 2.4%. Ton-mile trade—a measure that accounts for both volume and distance—grew even more quickly, with an estimated total of 62,037 billion ton-miles, up 4.2% from 2022 **(Figure 2**). This growth was fuelled by a global economic recovery and higher demand as vessels were rerouted. Factors such as the war in Ukraine, Red Sea disruptions, and the Panama Canal's low water levels contributed to longer shipping routes. Average cargo distances per ton continued to rise in 2023, continuing a trend from the early 2000s, with distances increasing from an average of 4,675 miles in 2000 to 5,186 miles in 2024.

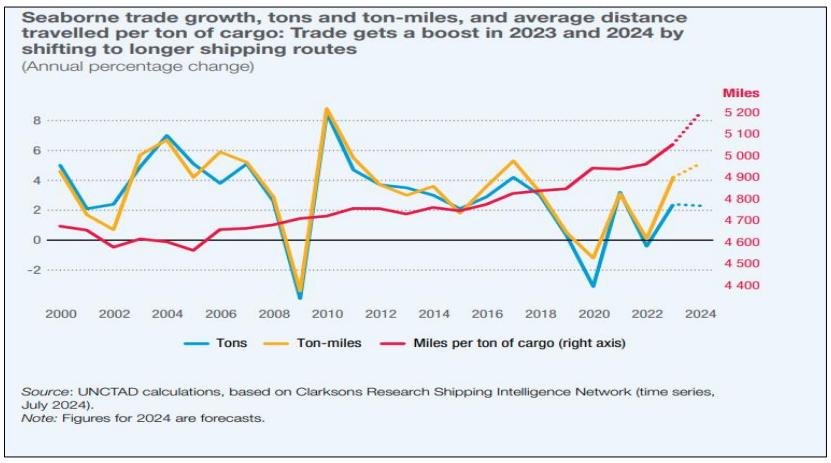


**Figure 2**

UNCTAD forecasts a 2% expansion in total maritime trade for 2024, driven by strong demand for major bulk commodities such as iron ore, coal, grain and oil. Containerised trade is expected to rebound with 3.5% growth, up from just 0.3% in 2023. Global economic trends support this projected increase, some easing of inflationary pressures, and a moderate rise in Liquefied Natural Gas (LNG) exports from key suppliers, including the Russian Federation and the United States. Looking further ahead, UNCTAD anticipates an average annual growth rate of 2.4% in maritime trade between 2025 and 2029, with containerised trade projected to grow at 2.7%. Technological advances will bolster this medium-term growth outlook, the shift to cleaner energy sources, and infrastructure improvements. However, the pace of growth may be influenced by ongoing downside risks, including the war in Ukraine, intensified geopolitical tensions, and persistent economic uncertainties.

Global merchandise trade recovery is expected to persist, fuelled by solid exports from major Asian economies. Growth in green energy and AI-related products also supports this trend. Potential U.S. interest rate cuts and a weaker dollar could boost U.S. export competitiveness while easing inflation, and optimistic economic forecasts add stability. Since late November 2023, vessel attacks in the Red Sea have disrupted shipping in the Mandeb Strait and the Suez Canal, causing shipping lines to reroute around the Cape of Good Hope. Concurrently, climate change-induced drought has forced the Panama Canal to reduce daily ship transits. The Suez Canal handles around 10% of global maritime trade by volume and 22% of containerised trade annually, while the Panama Canal facilitates roughly 3% of global trade. By June 2024, transits through both canals had dropped by over half compared to peak levels in December 2021 and May 2023 **(Figure 3)**. The decline in Suez Canal transits began notably in December 2023 with the Red Sea disruptions, while Panama Canal transits have steadily decreased over the past two years.

Rerouting vessels around Africa has increased distances, extended transit times, and increased global demand for vessels—up 3% for all vessels and 12% for container ships. This increase in ton-mile demand for both vessel types reflects the impact of rerouting away from the Red Sea and Suez Canal in June 2024. The rerouting has also caused operational shifts and market inefficiencies, including port congestion and elevated costs. Longer routes increase crew wages, chartering, insurance, and fuel expenses. They also pose safety risks for seafarers, increase piracy exposure, contribute to greater greenhouse gas emissions, complicate compliance with environmental regulations, and create capacity management challenges.

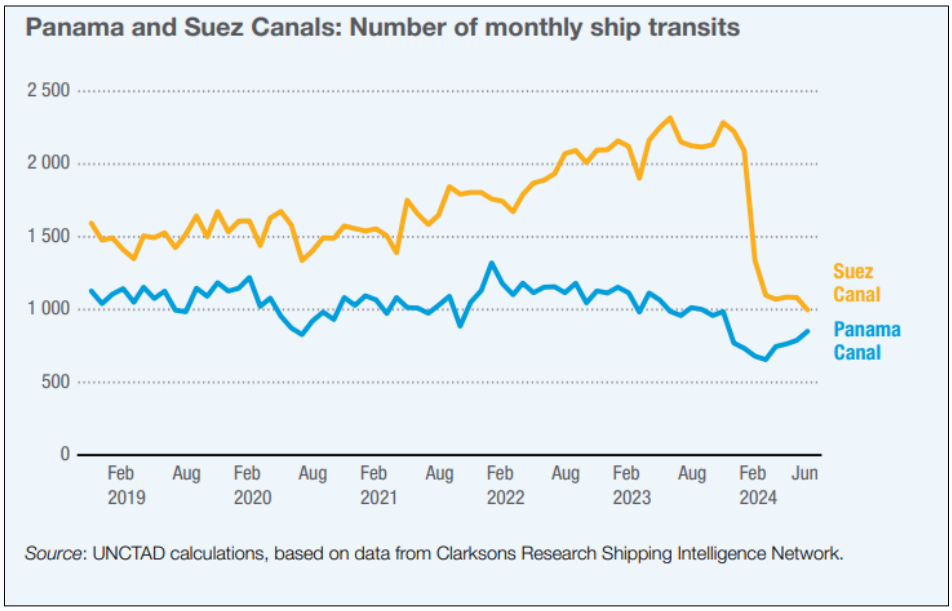


**Figure 3**

Building resilient chokepoints and reliable supply chains is essential in a disrupted maritime environment. This requires collaboration from Governments, industry, and infrastructure managers, with actions such as:

- Leveraging technology and forecasting to improve chokepoint readiness.
- Strengthening partnerships among chokepoint managers to mitigate risks.
- Expanding multimodal transport options to reduce chokepoint reliance.
- Upgrading infrastructure to prevent congestion and buffer disruptions.
- Recognising and compensating supply chain workers to avoid shortages.
- Diversifying sources for goods and fuel to reduce dependency.
- Increasing inventory to cushion supply shocks.
- Developing alternative routes and contingency plans.
- Fostering cooperation to streamline supply chains and reduce costs.
- Promoting international cooperation.

**2.2. Primary commodity markets**

In 2023 and early 2024, geopolitical tensions and the shift towards energy transition impacted maritime trade volumes across various cargo types and routes.

2.2.1 Dry Bulk: Dry bulk trade in tons and ton-miles grew by 3.4% and 4.5% in 2023, primarily due to increased iron ore and coal imports into China. Growth is expected to slow in 2024 and 2025, with tonnage increasing by 2.3% and 1.1% and ton-miles by 3.9% and 0.9% (Clarkson's Research, 2024a[1]). While dry bulk trade is less vulnerable to disruptions in the Red Sea and Suez Canal, as only about 6% passes through the latter, these disruptions have notably impacted grain exports from the U.S. and other bulk exports from the North Atlantic to Asia **(**Clarkson's Research, 2024h**[2]).** Iron ore and steel shipments also faced delays due to rerouting and longer transit times. Panama Canal issues in 2023 led to delays and higher shipping costs, affecting grain and minor bulk exports from the Americas to Asia. These routes saw a 31% increase in sailing distances, a 25% reduction in cargo volume, and only a 1% rise in ton-mile demand[3] (Hellenic Shipping News, 2024).

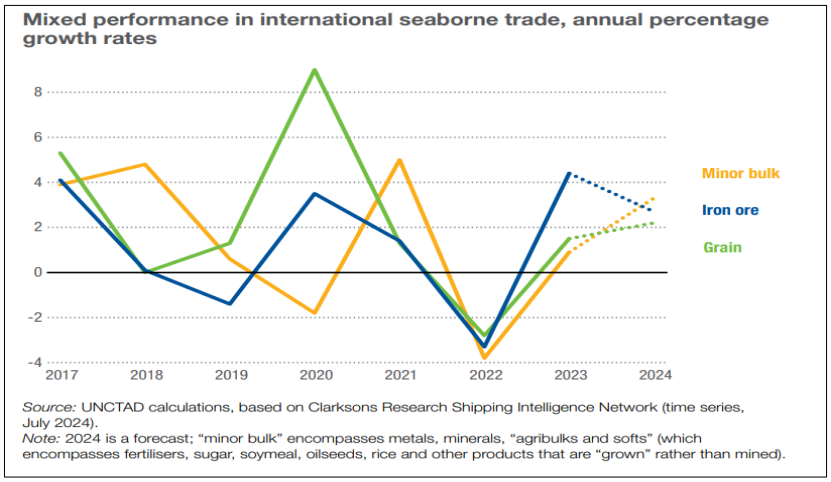


**Figure 4**

[1] Annual
[2] First half of 2024
[3] (Hellenic Shipping News, 2024).

In 2024 and 2025, bulk segments such as iron ore, grain, and minor commodities are expected to perform differently **(Figure 4).** Infrastructure development in developing countries and industrial growth in emerging economies will likely drive demand for bulk materials. Due to steady steel demand, iron ore trade is expected to grow, especially in Asia. Minor bulks, including steel and forest products, are projected to expand, supported by construction and manufacturing in developing countries. Grain trade is expected to grow moderately, driven by rising global food demand and population growth.

2.2.2 Tanker Trade: In 2023, crude oil tanker freight rates declined but remained high and volatile due to factors reshaping the market. Key influences included increased oil supply from the Atlantic Basin, refinery expansions in Asia, and more long-haul voyages driven by restrictions on Russia. Other contributors were OPEC and OPEC countries' supply cuts, transit route disruptions (Red Sea, Suez, Panama), slow fleet growth, and new environmental regulations. The Baltic Dirty and Clean Tanker indices dropped from 2022 peaks but stayed elevated, with significant fluctuations. Crude tanker spot earnings, boosted by redirected Russian exports to Asia and record exports from the U.S. and South America, rose 21% to $53,541/day, while product tanker earnings fell 14% to $32,181/day.

Very Large Crude Carrier (VLCC) rates hit record highs due to China’s demand and U.S. exports, leading to increased long-term charter rates. This reflected expectations for higher spot rates, increased asset values, and eco-friendly vessel shortages. Early 2024 saw continued high and volatile spot rates from Red Sea, Suez, and Panama disruptions, leading to longer routes and sustained high rates. Strong tanker freight rates are projected to persist, supported by demand, limited fleet growth, and environmental regulations, though risks of oversupply and shifts towards renewable energy remain.

2.2.3 Containerised Trade: Improved economic conditions and the rerouting of ships away from the Red Sea have strengthened containerised trade performance in 2024, following volume declines in 2022 and minimal growth in 2023 **(Figure 5).** Vessel rerouting has better-balanced container shipping supply and demand, boosting carrier profits and shipping costs for shippers. In 2023, the main East-West routes, particularly the Trans-Pacific Eastbound (East Asia to North America) and Asia–Europe Westbound (East Asia to Northern Europe and the Mediterranean), accounted for over 36% of global containerised trade volumes.

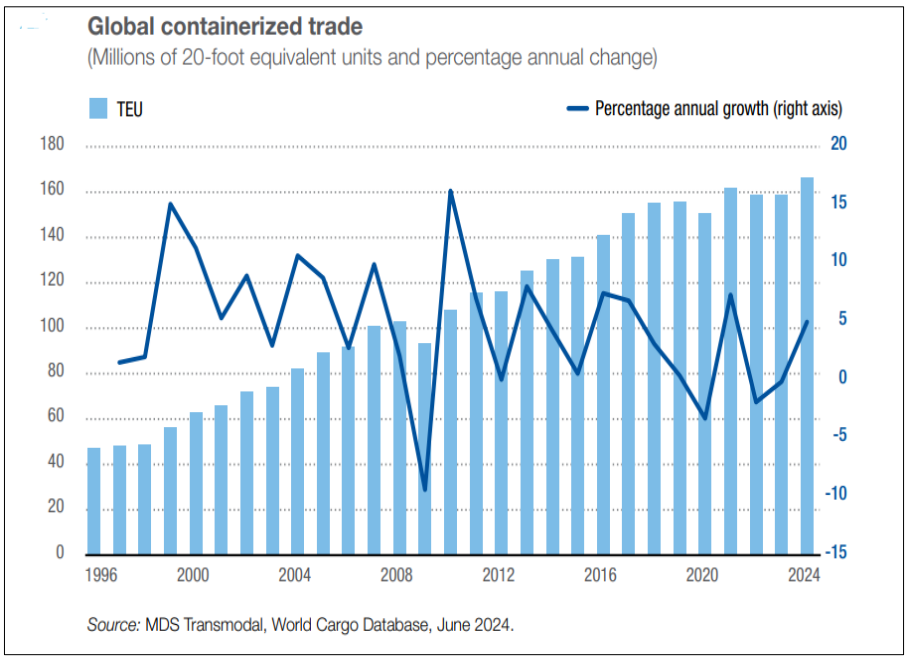


**Figure 5**

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**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 1**

**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.

**Table 2**

The Asia-Europe westbound route was the only mainland route to a contract between 2023 and 2024 **(Table I & 2**). In contrast, the Trans-Pacific Westbound (North America to East Asia) and Transatlantic Westbound (Northern Europe and Mediterranean to North America) routes showed the most dynamic growth during this period. This increase was primarily driven by reduced consumer inflation and the decline of high retail inventories in the United States (Clarkson Research, 2024e).

### 3. Supply

At the beginning of 2024, the global fleet comprised approximately 109,000 vessels (cargo and non-cargo), each over 100 gross tons. The global fleet capacity grew by 3.4% **(Table 3 and Figure 6)**, up slightly from 3.2% in 2022, though below

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the 5.2% average growth seen from 2005 to 2023. Growth was uneven in 2023, with container ship capacity increasing nearly 8% and liquefied gas carriers by 6.4%, while tanker capacity grew by less than 2%. The total world fleet capacity reached around 2.4 billion Deadweight Tons(DWTs), with bulk carriers comprising 42.7% and oil tankers 28.3% of this total.

**Developments in the world fleet capacity by vessel types**

| Fleet composition by vessel type | Indicator[a] | 2023 | 2024 | Percentage change |
|---|---|---|---|---|
| **Bulk carriers** | Thousand dead weight tons | 974 452 | 1 004 281 | 3.1 |
| | Percentage share | 42.8 | 42.7 | |
| **Oil tankers** | Thousand dead weight tons | 652 850 | 665 424 | 1.9 |
| | Percentage share | 28.7 | 28.3 | |
| **Container ships** | Thousand dead weight tons | 305 844 | 329 490 | 7.7 |
| | Percentage share | 13.4 | 14.0 | |
| **Other types of ships** | Thousand dead weight tons | 261 525 | 270 657 | 3.5 |
| | Percentage share | 11.5 | 11.5 | |
| Offshore supply | Thousand dead weight tons | 87 055 | 89 093 | 2.3 |
| | Percentage share | 3.8 | 3.8 | |
| Liquefied gas carriers | Thousand dead weight tons | 88 221 | 93 882 | 6.4 |
| | Percentage share | 3.9 | 4.0 | |
| Chemical tankers | Thousand dead weight tons | 51 535 | 52 582 | 2.0 |
| | Percentage share | 2.3 | 2.2 | |
| Other/n.a. | Thousand dead weight tons | 26 177 | 26 316 | 0.5 |
| | Percentage share | 1.1 | 1.1 | |
| Ferries and passenger ships | Thousand dead weight tons | 8 537 | 8 784 | 2.9 |
| | Percentage share | 0.4 | 0.4 | |
| **General cargo** | Thousand dead weight tons | 82 708 | 84 047 | 1.6 |
| | Percentage share | 3.6 | 3.6 | |
| **World total** | Thousand dead weight tons | **2 277 379** | **2 353 899** | 3.4 |

*Source:* UNCTAD calculations, based on data provided by Clarksons Research Services.
[a] Propelled seagoing merchant vessels of 100 gross tons and above, as of 1 January 2024. Dead weight tons for some individual vessels estimated.

**Table 3**

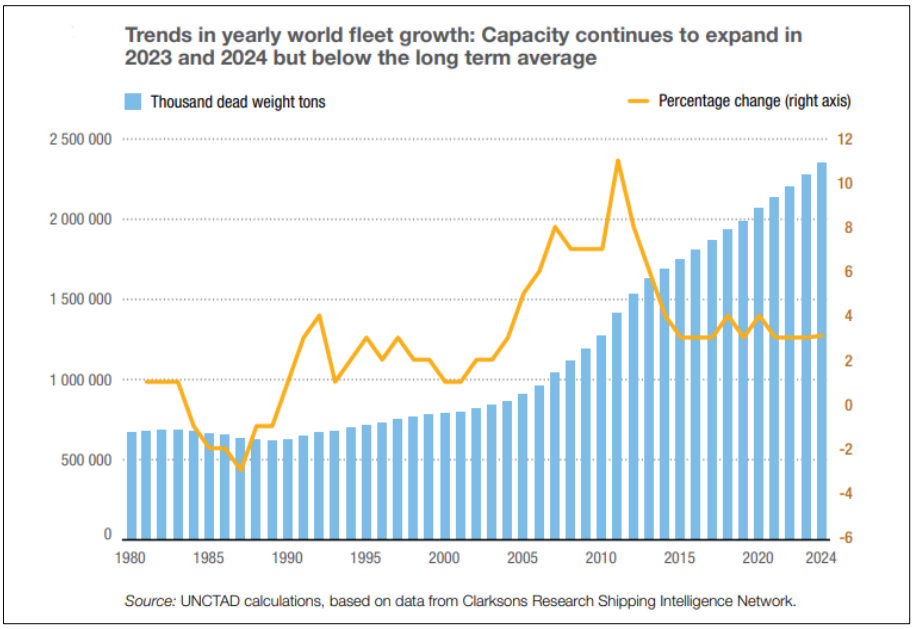


**Figure 6**

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3.1 Ship Building: The structure of the global shipping fleet has evolved in response to shifts in maritime trade, with dry cargo—particularly bulk commodities such as iron ore, coal, and grain—gaining a larger share than oil cargo. The rise of containerisation has transitioned break-bulk cargo into container transport, reducing the demand for general cargo vessels. As a result, the share of dry bulk carriers has expanded, now exceeding that of oil tankers **(Figure 7).** In 2023, ship capacity growth outpaced maritime trade but lagged behind ton-mile demand. Fleet growth is expected to remain similar in 2024 (3.4%) before slowing to 2.7% in 2025 (Clarkson's Research, 2024b[4]), reflecting low order books, long shipyard lead times, higher new-building costs, and a robust second-hand market. Despite challenges, increased operating costs (up 8% year-over-year), and reduced earnings from 2021–2022 highs, most ship segments maintained strong cash flow and rising asset prices (Clarksons Research, 2024c)[5].In 2023 and early 2024, system inefficiencies and new deployment opportunities due to ongoing supply chain disruptions and rerouting influenced ship capacity and utilisation. For instance, 'shadow' fleets, especially tankers, increased due to the war in Ukraine and recent disruptions, extending ship service life, raising second-hand prices, reducing demolitions, and spurring some new ship investments ('Shadow fleets' are vessels that operate discreetly, often evading regulatory scrutiny to transport restricted goods. They commonly employ tactics such as changing identities or disabling tracking systems to avoid detection).

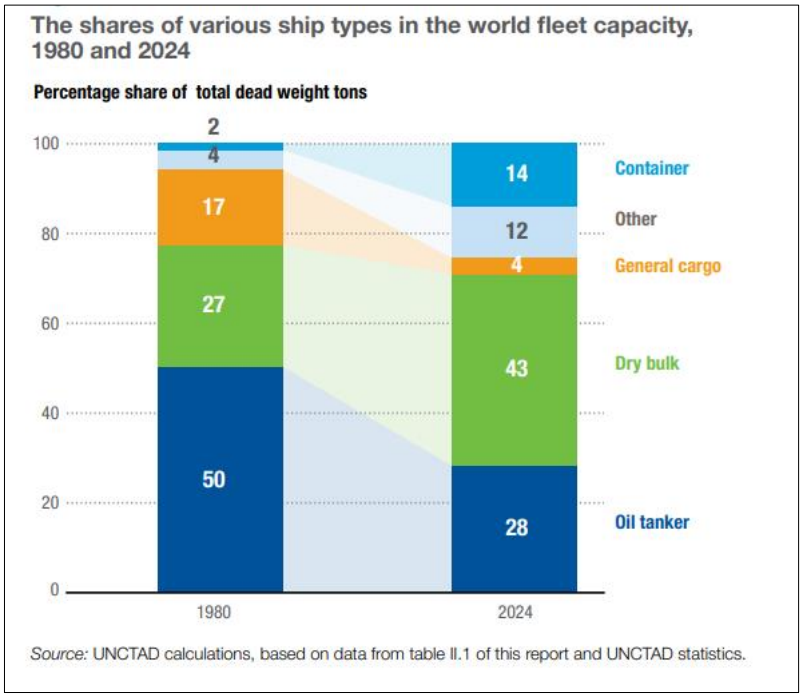


**Figure 7**

3.2 Ship Recycling: In 2023 and early 2024, ship scrapping was low as older vessels remained in use due to route disruptions and high freight rates. The regulatory uncertainty surrounding low-carbon technologies makes ship-owners hesitant to scrap older ships. However, Ships are scrapped when their economic lifespan ends, or they are no longer profitable[6]. A total of 431 vessels were scrapped in 2023, slightly down from the previous year, with demolition tonnage increasing by 4.3% to 7.5 million Gross Tons, the lowest in over a decade. Most scrapped tonnage came from bulk carriers (40.7%), container ships (24.8%), and offshore supply vessels (10.6%). While trade and fleet capacity are the primary drivers of the shipping cycle, extended voyage distances due to rerouting, have raised ton-mile demand, affecting the fleet's adequate capacity[7].

[4] subsequent publication of Clarkson
[5] Refers to a specific publication by Clarkson's Research released in the year 2024.
[6] UNCTAD, Review of Maritime Transport 2023.
[7] UNCTAD Review of Maritime Transport 2024.

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Shipbuilding cycles typically expand and contract based on market signals like freight and charter rates, which inform decisions about ordering, laying up, or scrapping vessels. However, supply is inelastic in the short term, as building new ships takes years, creating inherent delays between supply and demand. For instance, ships ordered during boom times may enter the market during weaker periods, as seen in trends since late 2023[8]. The first half of 2024 showed deviations from traditional patterns, with low demolition levels and firm charter rates despite high deliveries. This may reflect factors beyond simple supply-demand dynamics, including the strategic retention of older ships, delayed fleet renewal, and market adjustments in response to environmental regulations and ageing fleets.

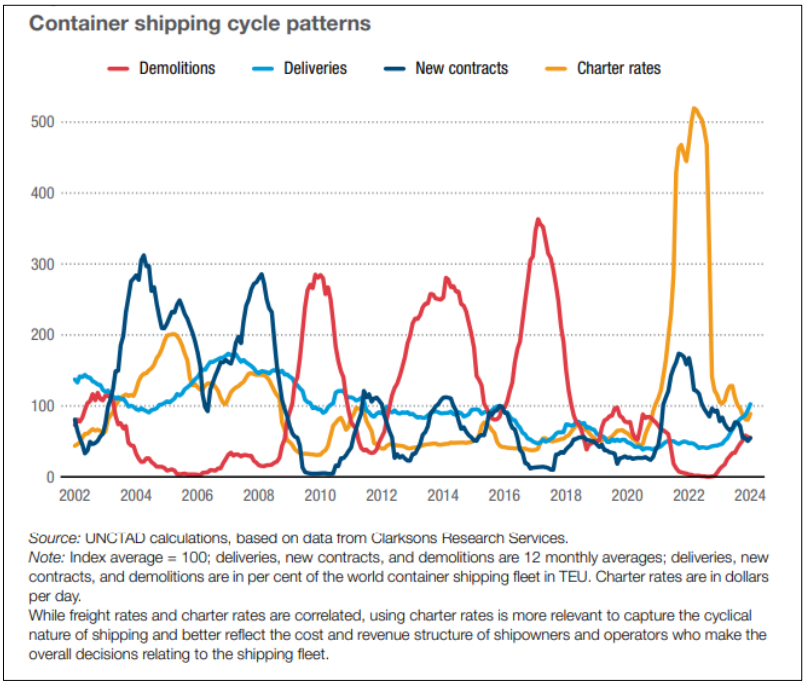


**Figure 8**

**Figure 8** illustrates these patterns, showing how demolitions, deliveries, new contracts, and charter rates move within established cycles, albeit with greater fluctuations in charter rates since the pandemic. These shifts suggest that broader market and regulatory conditions influence ship owners' decisions, possibly signalling a fundamental change in the shipping cycle that warrants further research.

3.3 Ship Registration: In 2023, the top 35 flag registries represented 94% of the world fleet, with 18 from developing economies contributing 76% of global fleet capacity. The top 10 flags, including open and national registries, accounted for over 78% of capacity, led by Liberia, Panama, and the Marshall Islands, followed by Hong Kong (China), Singapore, China, Malta, the Bahamas, Greece, and Japan. Liberia maintained the largest Deadweight capacity (17.3%), with significant growth of nearly 8%, outpacing Panama (16.1%) and the Marshall Islands (13.1%). Panama had the most vessels (8,300), while China and Indonesia had the highest vessel counts, with 9,530 and 12,226, respectively. All top 33 registries except ten saw capacity increases, notably Palau, France, and Nigeria. Ownership largely rests with developed economies, though some developing nations are significant players, led by China, Singapore, and Hong Kong, China. National registration was more common in the Islamic Republic of Iran, Bangladesh, Indonesia, and Saudi Arabia. Ship owners in these countries commonly register vessels under national flags for domestic regulation and policy benefits, unlike Greece and Japan, where foreign flags are chosen for favourable international regulations and incentives[9].

3.4 Ship Ownership: In 2023, the top 35 ship-owning nations included 17 developed and 18 developing economies, owning 52.3% and 42.1% of the global tonnage, respectively. Ownership is concentrated in Asia, Europe, and North America, with developing economies, especially China, contributing significantly to growth. By 2024, the global fleet was valued at $1.37

[8] UNCTAD Review of Maritime Transport 2023
[9] Ibid.,

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trillion, with the top 10 owners—led by Greece, China, and Japan—holding nearly two-thirds of this value. Table II.6 provides detailed data on fleet ownership by Deadweight Tonnage (DWT) as of January 1, 2024, showing ownership distribution by country and the share of vessels registered under national versus foreign flags. Countries like Greece, China, and Japan demonstrate high foreign flag registration, highlighting the trend of ship-owners using foreign registries. **Table 4** underscores the concentration of fleet ownership in developed economies and notable contributions from leading developing countries such as China, Singapore, and Hong Kong.

**World fleet ownership by capacity in dead weight tons and flag of registration, as of 1 January 2024**

| | | Number of vessels | | | Dead weight tons | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Country or territory of ownership | National flag | Foreign flag | Total | National flag | Foreign flag | Total | Foreign flag as a percentage of total | Total as a percentage of world dead weight |
| 1 | Greece | 580 | 4 406 | 4 992 | 49 985 667 | 344 971 148 | 394 977 181 | 87.3 | 16.9 |
| 2 | China | 6 600 | 2 772 | 9 418 | 130 737 555 | 178 336 427 | 309 870 897 | 57.6 | 13.3 |
| 3 | Japan | 959 | 3 142 | 4 104 | 38 689 931 | 203 666 970 | 242 366 672 | 84.0 | 10.4 |
| 4 | Singapore | 1 350 | 1 445 | 2 824 | 67 827 285 | 78 156 951 | 146 047 319 | 53.5 | 6.3 |
| 5 | Hong Kong, China | 869 | 1 104 | 2 000 | 76 961 461 | 57 939 090 | 135 586 887 | 42.7 | 5.8 |
| 6 | Republic of Korea | 826 | 852 | 1 688 | 19 896 324 | 77 045 438 | 97 020 891 | 79.4 | 4.2 |
| 7 | Germany | 172 | 1 918 | 2 091 | 7 492 926 | 66 931 088 | 74 427 230 | 89.9 | 3.2 |
| 8 | Taiwan Province of China | 144 | 890 | 1 043 | 5 826 691 | 54 846 644 | 60 735 889 | 90.3 | 2.6 |
| 9 | United Kingdom including Isle of Man | 334 | 928 | 1 267 | 9 070 489 | 47 538 877 | 56 980 416 | 83.4 | 2.4 |
| 10 | Norway | 936 | 898 | 1 836 | 17 331 399 | 36 441 844 | 53 903 936 | 67.6 | 2.3 |
| 11 | Bermuda | 0 | 420 | 420 | - | 52 293 715 | 52 293 715 | 100.0 | 2.2 |
| 12 | United Arab Emirates | 130 | 1 291 | 1 427 | 596 404 | 50 624 996 | 51 247 355 | 98.8 | 2.2 |
| 13 | United States including Puerto Rico | 770 | 1'010 | 1 788 | 10 477 424 | 39 245 905 | 50 416 065 | 77.8 | 2.2 |
| 14 | Türkiye | 401 | 1 619 | 2 030 | 6 623 393 | 40 174 680 | 46 849 025 | 85.8 | 2.0 |
| 15 | Switzerland | 14 | 647 | 661 | 835 748 | 40 293 135 | 41 128 883 | 98.0 | 1.8 |
| 16 | India | 926 | 345 | 1 275 | 17 670 993 | 23 006 477 | 40 697 051 | 56.5 | 1.7 |
| 17 | Denmark | 399 | 373 | 772 | 20 313 094 | 18 447 451 | 38 760 545 | 47.6 | 1.7 |
| 18 | Indonesia | 2 398 | 132 | 2 540 | 28 277 194 | 3 430 913 | 31 980 209 | 10.7 | 1.4 |
| 19 | Monaco | 0 | 337 | 337 | - | 31 699 502 | 31 699 502 | 100.0 | 1.4 |
| 20 | Cyprus | 113 | 311 | 424 | 3 939 325 | 25 272 183 | 29 211 508 | 86.5 | 1.3 |
| 21 | Belgium | 81 | 211 | 292 | 7 038 164 | 17 182 252 | 24 220 416 | 70.9 | 1.0 |
| 22 | Russian Federation | 1 551 | 269 | 1 828 | 10 708 028 | 10 997 997 | 21 726 655 | 50.6 | 0.9 |
| 23 | Islamic Republic of Iran | 240 | 13 | 254 | 18 340 397 | 679 712 | 19 021 661 | 3.6 | 0.8 |
| 24 | France | 144 | 309 | 453 | 4 145 965 | 14 162 666 | 18 308 631 | 77.4 | 0.8 |
| 25 | Kingdom of the Netherlands | 650 | 536 | 1 186 | 5 437 806 | 12 600 744 | 18 038 550 | 69.9 | 0.8 |
| 26 | Viet Nam | 938 | 212 | 1 158 | 12 097 561 | 5 446 178 | 17 561 034 | 31.0 | 0.8 |
| 27 | Saudi Arabia | 176 | 122 | 300 | 14 023 679 | 2 555 698 | 16 583 171 | 15.4 | 0.7 |
| 28 | Brazil | 297 | 86 | 384 | 4 687 509 | 9 423 957 | 14 116 966 | 66.8 | 0.6 |
| 29 | Italy | 420 | 163 | 583 | 6 789 366 | 6 762 515 | 13 551 881 | 49.9 | 0.6 |
| 30 | Malaysia | 442 | 164 | 618 | 6 435 077 | 3 539 337 | 10 016 263 | 35.3 | 0.4 |
| 31 | Canada | 216 | 158 | 375 | 2 645 448 | 7 351 057 | 9 996 989 | 73.5 | 0.4 |
| 32 | Nigeria | 218 | 72 | 298 | 5 341 412 | 3 371 996 | 9 344 789 | 36.1 | 0.4 |
| 33 | Oman | 3 | 69 | 72 | 518 | 7 727 130 | 7 727 648 | 100.0 | 0.3 |
| 34 | Qatar | 47 | 88 | 135 | 608 178 | 7 006 679 | 7 614 857 | 92.0 | 0.3 |
| 35 | Bangladesh | 276 | 6 | 282 | 5 107 202 | 190 469 | 5 297 671 | 3.6 | 0.2 |
| | Top 35 | 23 620 | 27 318 | 51 155 | 615 959 613 | 1 579 361 821 | 2 199 328 358 | 71.8 | 94.2 |
| | World | 26 692 | 30 135 | 58 173 | 650 553 871 | 1 650 129 315 | 2 334 036 650 | 70.7 | 100.0 |

*Source:* UNCTAD calculations, based on data provided by Clarksons Research Services.
*Note:* Propelled seagoing vessels of 1,000 gross tons and above, as of 1 January 2024. The totals include vessels for which the flag is unknown. Thus, the sum of national and foreign flags equals the total. Foreign flag as a percentage of total is calculated as share of vessels with known flag.

**Table 4**

3.5. Liner shipping companies: Recent changes are reshaping competition and market shares in the liner shipping market. A significant development is the decision by the Mediterranean Shipping Company (MSC) and Maersk, the two largest global liner operators by capacity (**Figure 9**), to end their 2M alliance in 2025. This move influences the market as companies independently adjust their operational and competitive strategies. Emerging trends reveal new approaches to organising liner services and managing capacity. Nearly all services were operated separately by 2023. However, MSC and Maersk have recently increased joint services due to disruptions in the Red Sea region. This collaboration will likely respond to operational challenges requiring additional capacity and resources[10].

[10] Sea trade Maritime News, July 2023.

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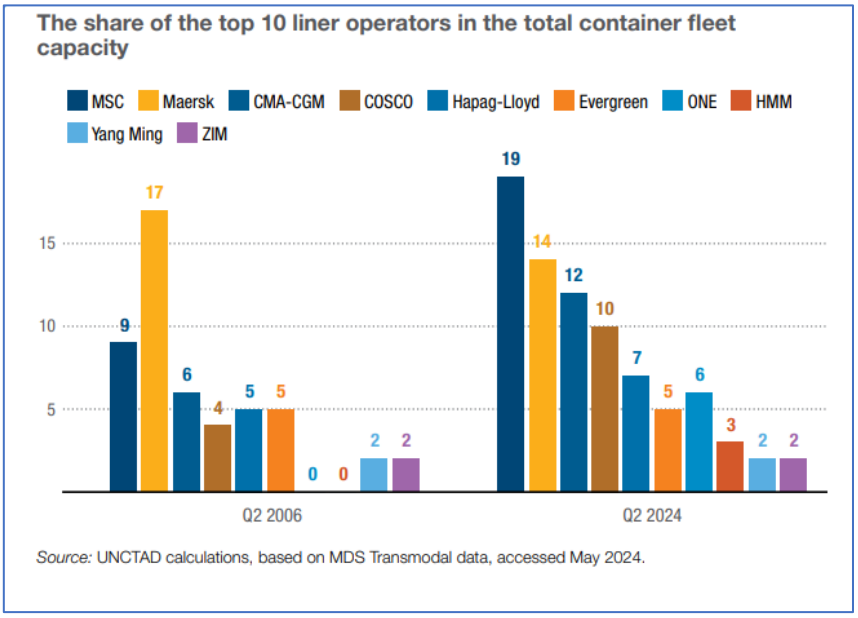


**Figure 9**

Figure II.11 in the Review of Maritime Transport 2024 highlights the significant concentration of container fleet capacity among the top 10 liner operators, underscoring the high level of consolidation within the industry. This trend suggests that these leading operators are placing most new ship orders. Consequently, concerns about overcapacity are growing significantly as the need for rerouting diminishes. This situation may lead carriers to address capacity by returning or scrapping chartered vessels. Additionally, the IMO's new Carbon Intensity Indicator (CII) and Energy Efficiency Existing Ship Index (EEXI) regulations are affecting speed management, potentially resulting in slower steaming and the deployment of additional ships to maintain service schedules, further complicating the overcapacity issue.

3.6 Seafarers Supply: Just as ship scrapping and shipbuilding have become distinct, and ship ownership has separated from flag registration, the manning of vessels has also become independent of the country of operation. Today, the nationality of seafarers often differs from the nation where the ship is commercially managed. Notably, seven of the world's ten largest suppliers of ratings (seafarers) are developing countries, according to the Baltic and International Maritime Council (BIMCO), based on 2020 data. Furthermore, less than 20% of ratings are sourced from countries within the Organization for Economic Cooperation and Development[11]

The Review of Maritime Transport 2024 highlights 'seafarer supply' as a vital component of maritime labour trends and global shipping sustainability. Data on seafarer supply, available through UNCTAD's online portal, provides insight into seafarers' availability and geographic distribution, helping to address labour shortages and regional workforce patterns. Key Asian countries, including the Philippines, China, and India, remain leading sources of seafarers, supporting essential maritime operations worldwide. This data is crucial for effectively managing labour resources, especially in the face of challenges related to crew welfare and geopolitical factors.

3.7 Other maritime-related sectors and services: Financial, classification, insurance, and other maritime services are primarily dominated by companies from traditional maritime nations[12]. However, global port operations stand out as a sector led predominantly by Asian firms. The ship classification market remains highly concentrated, controlled by members of the International Association of Classification Societies (IACS), with 13 members responsible for classifying over 90% of global tonnage. Within IACS, three classification societies from emerging economies—China, India, and the Republic of Korea—contribute less than 15% of the classified tonnage. The largest classification society, Nippon Kaiji Kyokai (Japan), leads the sector, while Klasifikasi Indonesia, though not an IACS member, represents approximately 0.6% of the global classification market. Containerised port traffic is predominantly managed by major global operators, with

[11] BIMCO/ICS Seafarer Workforce Report 2021
[12] UNCTAD Review of Maritime Transport 2019

the top four being Hutchison Port Holdings (Hong Kong), APM Terminals (Netherlands, under the Danish Maersk Group), PSA International (Singapore), and DP World (United Arab Emirates). Together, these operators handle more than 40% of the world's container traffic through extensive portfolios of container terminal concessions[13].

3.8. Specialization and concentration: Today's maritime industry is characterised by global specialisation and increasing participation from developing countries. Companies now source vessels, crews, and services worldwide, enhancing efficiency through international partnerships. At the same time, emerging economies are establishing key positions within the maritime supply chain, bringing new diversity and competitiveness to a field once dominated by wealthier nations. Rather than national shipping companies relying solely on domestic-built, crewed, and flagged vessels, companies today typically operate ships assembled from a global network. For example, a ship may be built in the Republic of Korea, insured in the United Kingdom, crewed by personnel from the Philippines, and flagged in Panama[14]. This shift reflects a trend toward specialisation, where companies leverage international resources to reduce costs and improve efficiency.

The maritime industry has expanded to include developing countries holding key positions throughout the maritime supply chain. Market liberalisation has allowed these countries to establish themselves in shipbuilding, crew supply, and port management[15]. Once dominated by wealthier nations, the industry now benefits from emerging economies' diverse contributions and competitive edge. While Greece (in ship ownership), Japan (in shipbuilding), and open registries in Liberia and Panama have traditionally held strong positions, global shifts have dramatically diversified countries' participation across the maritime sector over the past fifty years.

3.8.1 Industrial and Maritime clusters: They bring interconnected businesses and services within a specific location, fostering collaboration, efficiency, and innovation. These clusters allow companies to benefit from synergies by sharing resources, expertise, and infrastructure, leading to cost reductions and productivity gains. For instance, a maritime service cluster might include insurance, banking, and legal services tailored to the needs of maritime operations, providing comprehensive support within a close network. Industrial clusters, such as those involving shipbuilding or automotive production, can leverage engineering expertise and energy-intensive resources to streamline manufacturing processes and drive technological advancements. By enabling closer interactions and partnerships, geographical clusters contribute to economic growth, strengthen competitive advantages, and encourage sustainable development in the maritime and industrial sectors.

3.8.2 Economies of labour: Economic factors, such as labour costs and GDP per capita, play a significant role in shaping the global distribution of maritime activities. High-value sectors that require specialised skills, like maritime insurance, banking, and classification, are typically located in wealthier regions with a higher GDP per capita, where the necessary expertise is readily available despite elevated labour costs. In contrast, labour-intensive industries with lower skill requirements, such as ship recycling, are commonly found in South Asian countries, where lower labour costs make these operations more financially feasible. This contrast illustrates how economic conditions, including income levels and labour expenses, drive the geographical placement of maritime industries, with high-value services clustering in affluent areas and cost-sensitive activities gravitating toward lower-cost regions.

3.8.3 First Mover Advantage: The competitive edge gained by companies that are the first to adopt new technologies or enter new markets. This advantage includes early adoption of green technologies, which can set industry standards and attract environmentally conscious clients. Maersk, for instance, leads in maritime decarbonisation by adopting green methanol fuel. Establishing green corridors and designated routes with lower environmental impact further enhances sustainability efforts. First movers can also influence regulatory frameworks, shaping policies that favour early adopters. However, this advantage involves risks like high initial costs and uncertain outcomes, highlighting the need for careful planning.

[13] Statista Research Department, Dec 8, 2023
[14] Op.Cit.,
[15] UNCTAD Review of Maritime Transport 2024

3.8.4 Capital Market: The regions or countries heavily reliant on maritime transport for trade due to limited alternatives. This dependence makes them vulnerable to disruptions like rising freight rates, port inefficiencies, or geopolitical tensions. Small island developing states (SIDS) and landlocked developing countries are typical examples, often relying almost exclusively on maritime transport for imports and exports. Any challenges in this sector can significantly impact their economies, from goods availability to stability.

**4. Freight costs**

Efficient, affordable, and reliable transport systems enhance trade competitiveness in developing countries. These countries' participation in global trade depends significantly on production and transport costs, often exceeding customs duties and shaping trade volume, structure, and patterns. High transport costs limit export growth by restricting the range of competitive products and markets. In many developing regions, inadequate transport infrastructure and services hinder effective connectivity to global transport networks and market access.

4.1 Determinants of freight costs: The cost of transport, or freight paid by the shipper, is influenced by multiple factors, including the distance between trading partners, land transport as a share of total transit, type and value of goods, trade balances, economies of scale, competition among providers, private sector involvement, intermodal cargo handling, infrastructure quality, and administrative efficiency throughout the supply chain. Calculating the cost of providing transport services can be complex, as the price often doesn't reflect the underlying cost. Additionally, published freight rates generally exclude various surcharges that may apply; for instance, Maersk Line listed 107 potential fees that could be added to cargo costs. Such surcharges vary widely and may not correlate with actual service costs, as seen with currency adjustment factors differing by up to 6 percentage points among carriers. UNCTAD addresses these limitations by estimating transport costs based on CIF/FOB import value differences. Global freight costs as a percentage of goods' value have declined by about 15% over two decades for many developing countries. Developed economies, on average, pay 6.4% of import values for transport.

Maritime freight rates are sensitive to disruptions from pandemics, geopolitical tensions, and climate-related issues. However, strong and resilient transport infrastructure can help mitigate these impacts on transport costs. To examine transport costs and their determining factors, UNCTAD and the World Bank developed the Trade-and-Transport Dataset, which provides insights into maritime costs across four key economic groups: developed economies, developing economies (excluding SIDS and LDCs), Small Island Developing States (SIDS), and Least Developed Countries (LDCs). Notably, SIDS and LDCs face the highest maritime costs.

- **2016 to 2021 Trends**: Developed economies had the lowest maritime transport costs, averaging 8.1% of the FOB value (costs of goods plus shipping to the departure port) or $86 per ton.
- **Developing Economies** (excluding SIDS and LDCs) incurred slightly higher costs at 10.6% of FOB value and $89 per ton.
- **SIDS** saw per-ton costs 15–20% higher than other regions ($103 per ton) but had a lower percentage of FOB value at 9.8%. This reflects their higher import of containerised goods, which are more valuable per ton, reducing the transport cost percentage relative to total value.
- **LDCs** faced 30–70% higher transport costs than other groups, averaging 13.7% of FOB value. Eight of the ten countries with the highest transport costs globally are LDCs, including Mozambique, Sierra Leone, and Togo.

**Figure 10** highlights the economic strain that transport costs place on these vulnerable economies. Efficient transport infrastructure plays a critical role in reducing maritime costs. Factors like geographic distance, the number of transit points, economies of scale, trade imbalances, and infrastructure quality all influence transport costs, with effective infrastructure proving essential for cost reduction and smoother trade facilitation.

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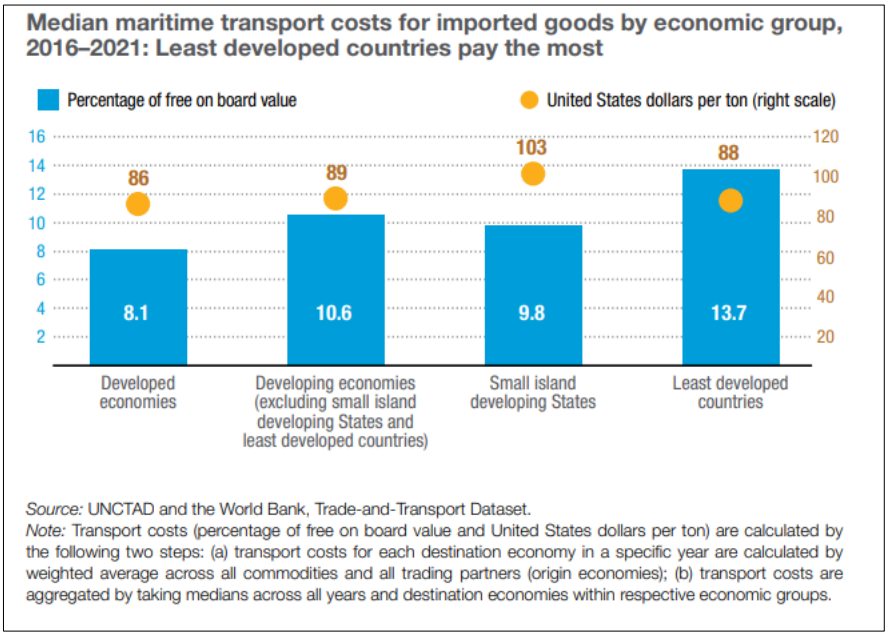


**Figure 10**

UNCTAD analysed how investments in maritime transport infrastructure affect maritime transport costs using the new Trade-and-Transport Dataset panel structure, controlling for additional factors.

4.2 Freight Markets: Freight markets have experienced notable fluctuations over recent years, impacted by shifting global economic conditions, geopolitical tensions, and environmental regulations. After the extreme rate peaks of 2021 and the volatility of 2022, container freight rates stabilised in 2023, gradually returning to pre-pandemic levels. Rate variations emerged across trade lanes, with East-West routes declining due to lower trade volumes and excess capacity. In contrast, North-South routes saw increases driven by heightened activity in regions like Africa, South America, and inter-Asia.[16]In early 2024, disruptions in key maritime chokepoints, including the Red Sea, Suez Canal, and Panama Canal, drove a surge in container freight rates. These blockages increased transit times, rerouting, and supply chain strain, significantly raising freight costs for both spot and contracted rates. The Shanghai Containerized Freight Index (SCFI), an important indicator of container freight spot rates, reflected these fluctuations, affecting major routes like Asia-Europe and trans-Pacific lanes[17] .

The dry bulk and tanker freight segments also faced volatility. The dry bulk market, primarily carrying commodities like coal and iron ore, saw rates dip in 2023 due to fleet expansion and easing port congestion. Nonetheless, trade disruptions contributed to occasional rate spikes. The Baltic Dry Index, a critical measure of dry bulk rates, reflected shifting balances in demand and capacity, influenced by geopolitical tensions and growing commodity demand in regions such as China[18].

Environmental regulations add complexity to freight markets. The EU's Emissions Trading Scheme (ETS) and the International Maritime Organization's (IMO) Carbon Intensity Indicator (CII) are expected to elevate shipping costs as operators face compliance expenses, which they may pass to shippers. These policies drive the transition to energy-efficient vessels, potentially reducing fleet availability and raising rates due to constrained capacity. The transition underscores the importance of balancing supply and demand through efficient fleet management and vessel recycling[19]. Looking forward, the freight market is set to navigate a challenging environment shaped by economic uncertainty, potential overcapacity, and regulatory pressures. Although container shipping demand is expected to grow moderately in 2024, the influx of new vessels may exacerbate market imbalances if disruptions persist. Continued volatility across container, dry bulk, and tanker

[16] UNCTAD ,Review of Maritime Transport 2024
[17] ibid
[18] Ibid.,
[19] Ibid.,

sectors underscores the need for resilient supply chain strategies to mitigate the effects of geopolitical and environmental challenges on global freight markets[20].

**5. Conclusion:**

In summary, this article underscores the profound changes in global shipping and international maritime trade, highlighting the pivotal role of developing countries in transforming the trade landscape. Over the past five decades, these economies have shifted from primarily consuming to actively contributing to the maritime sector, leveraging their comparative advantages in maritime goods and services. Trade liberalisation has bolstered this evolution, which has lowered freight costs and promoted market competition. Furthermore, technological advancements, globalisation, and strategic partnerships have fostered a more cohesive global shipping network.

The discussion also addresses challenges such as geopolitical tensions, environmental issues, and shifting regulatory demands, all of which shape the dynamics of maritime trade and fleet composition. Trends like rerouting, extended transit times, and port congestion, partly due to canal disruptions, highlight the critical need for resilient maritime infrastructure and supply chains to manage emerging risks effectively. As trade patterns evolve, the maritime industry has opportunities and limitations, especially in light of the shift toward sustainable energy and digital innovation. Collaboration among governments, industry stakeholders, and technology leaders will be essential to navigate these challenges and support sustainable growth. This article's insights lay the groundwork for understanding the maritime sector's ongoing evolution, stressing the importance of strategic adaptation for a sustainable and competitive future.

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[20] Ibid.,