maritime-insight

Market outlook 2035/2050

Final Report

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0. Executive Summary

The Port of Helsingborg is restructuring the port planning with immediate impact on its container handling and oil product terminals. For this process a view is needed of the potential long-term development of vessel traffic and vessel sizes to enable the port to properly adapt its capacity. This is an update of a report delivered in June 2021.

The trend wise development of port container volumes tends to be aligned to the GDP in the importing countries. Various credible sources put Sweden's long-term GDP growth at 2.2% in 2030 before fading to 1.9% in 2035-2040 and then stabilise around 1.7%.

- A port can influence the growth numbers through investment in capabilities and capacities since they affect the port's attractiveness. The absence of investment often leads to low or even negative growth.
- The port of Helsingborg is forecast to see container volumes grow from 248,200 teu in 2024 to 430,000 teu in 2050, an annual average of 2.1%.
- There is an alternative 3% growth scenario which has a good likelihood to be reached, in which port volumes in 2050 will surpass 535,000 teu. Supporting this scenario:
    - Much cargo destined for Scandinavia is unloaded in German ports and then trucked to its destinations. The ports and roads are increasingly getting congested which favours more transports at sea. Helsingborg could be an attractive destination.
    - Continued containerisation of intra-European cargo.
- There is also an alternative, less likely, low growth scenario which is based on an average 1% growth per annum which lands at 320,000 teu in 2050.
    - The fixed link across Fehmarn Belt that is under construction might have a hampering impact on port volume growth.
- The container ships <5,000teu are not getting longer or requiring more draft, but they are getting wider. The outreach of the container cranes needs to be able to handle up to 15 container widths, ie up to 40m.
- The liquid energy commodity trade will be more diversified in terms of types and qualities of products. Total volumes will be lower, but there will be opportunities to remain relevant in the energy product supply chain. It is crucial to work in close cooperation with the few customers and be flexible to their shifting demands.

1. Macroeconomics and trade

The development of seaborne trade and the overall demand for port capacity is dependent on the long-term development of the world population, economic growth and energy supply.

Port capacity planning requires a long-term perspective. The year 2050 may seem far out into the future, but it is less than 25 years away. Many of the ships that leave the newbuilding yards today will still be sailing in 2050.

Population growth is a key factor that has a multitude of impacts on development. In the past 25 years, the world population grew by 2 billion people, from about 6bn to 8bn. Most of the growth took place in Asia, Africa and Latin America.

Further down in the report, it will be evident that the growth in the demand for energy was significant and global GDP more than doubled during these years.

This gives an idea of what to expect from the next 25 years as the UN Population Division expects we will add another 1.5 billion people to this planet (Figure 1).

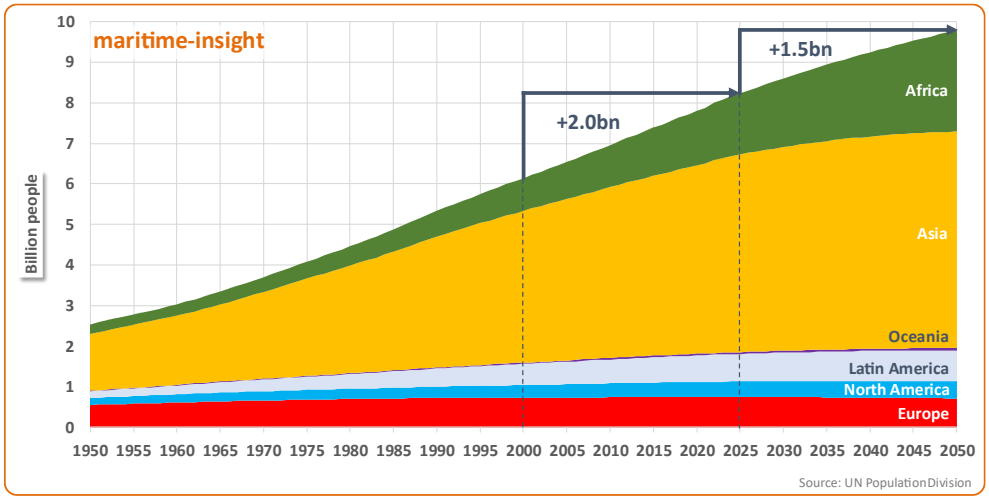

Figure 1: World population 1950-2050, billion people

Again, most people will be added in Asia, Africa and Latin America. The countries in these regions range from highly developed like Singapore, to the less developed, such as the Central African Republic or Afghanistan. This is important to keep in mind since it means that the countries are on different stages of development which impacts on the type of goods that are in most demand.

Adding 1.5bn people to this planet is like saying that we add another India. To cater for these people, there will be increased demand for just about everything, such as:

- Foodstuff, grain, fertilizers
- Housing
- New transport infrastructure; urban transport, rail roads, ports, airports
- Transport vehicles
- Workplaces
- Power plants, wind, solar, grids
- Fuels, batteries, charging places
- Communication systems
- Chemicals

Parallel to the above, there is a huge need in almost the entire world for upgrading and updating old infrastructure, power systems, housing, and transport vehicles.

There is a need for large investments in wind, solar, grids, decarbonisation equipment and systems. There is currently a strong trend to electrify as much as possible. This raises the question of how we are going to meet the future quest for energy. This question is of upmost importance to shipping since more than 40% of everything transported at sea today relate to energy of some kind.

The global energy consumption increased 60% during the first 25 years of this millennium. This is measured on the primary energy supply which basically is equal to what we put into the energy production systems to produce the types of energy we need.

During the same period, the average annual energy consumption per capita increased from 68 gigajoule to 82 gigajoule. This means that population growth added some to energy consumption, and each person on average consume more energy today than 25 years ago.

For reference, countries in East Africa recently had an average of 5 gigajoule. India had 25 gigajoule, China 97, Germany 165, the USA 295 and Norway 371.

Figure 2 provides 35 years of historic global primary energy supply and a scenario of a possible development up to 2050. The world is currently dependent on fossil fuels for around 80% of its energy production.

Most of the coal is used in power plants to produce electricity, in mills to produce steel or for heating. Some of the coal is replaced by natural gas in power plants where this makes sense from a financial and logistical perspective. New coal fired power plants are still opened since this is one of the cheapest forms of producing a steady flow of electricity. Phasing out the coal use in electricity production is not easily done, but wind and solar power can reduce the dependence on coal, particularly if used in parallel with a base load (coal, gas, hydro and to some extent nuclear).

Natural gas is largely used for heating and electricity generation, but it is also used as transportation fuel and as feedstock in industrial processes.

The use of crude oil is almost entirely to feed into refinery processes to produce various kinds of oil products, mostly fuels. Parts of the oil products feed into the plastics industry, and some goes to heating or electricity production.

The oil products used for transportation will gradually be substituted by biofuels, synthetic fuels, and of course electricity.

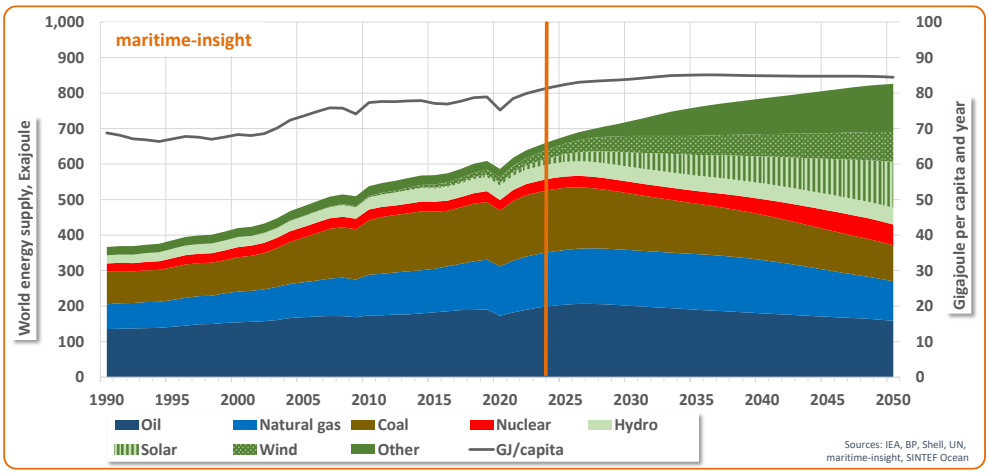

Figure 2: Global primary energy supply scenario by source, exajoule

The energy commodity prices (Figure 3) are of course important in the transition away from fossil fuels. Coal is abundantly available and very cheap most of the time. Natural gas prices in the US have also been very low ever since the so-called shale gas revolution.

When the prices are low for these two main energy sources for electricity production, then there will always be several cases where it will be difficult to financially justify investments in a less carbon intensive and more expensive option. This is a reality that slows the transition down.

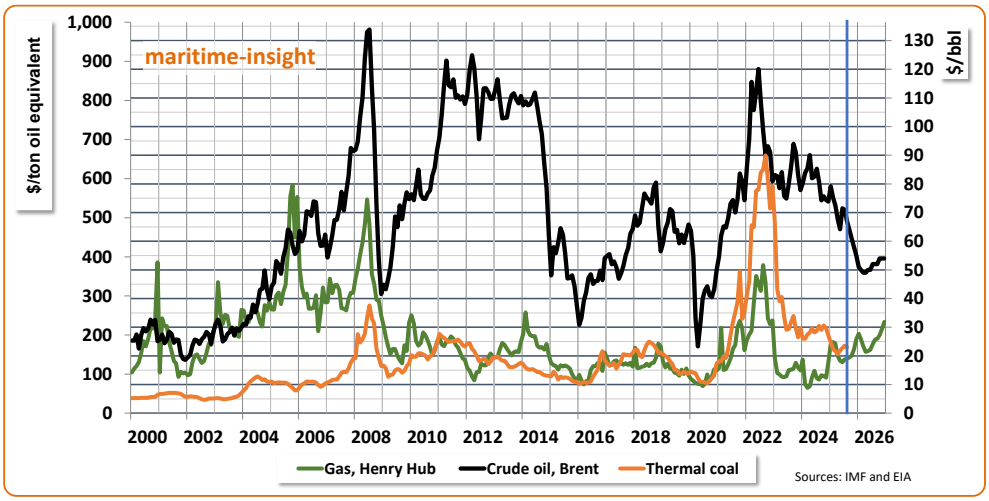

Figure 3: International energy prices, USD per ton oil equivalent

Global GDP growth has averaged 3.1% per year since year 2000. Growth has been faster in the emerging market economies (EME), and it is expected to continue to be the case. Several of the EMEs are of significant size and located in Asia which makes the centre of economic gravity in the world move east.

In March 2025, the OECD presented the Economic Outlook report "Steering through Uncertainty" where they concluded that global output growth was resilient in 2024, especially in the US, India and China, despite the many geopolitical tensions and other disturbances in the world.

However, recent activity indicators point at slowing growth prospects globally. According to the OECD the global outlook is increasingly challenged. Raised barriers to trade, tighter financial conditions, weaker business and consumer confidence and heightened policy uncertainty are all cited as negative conditions should they remain. Thus, the global GDP growth according to the OECD is forecast to slow down. They expect the slowdown to be led by the US, Canada and Mexico, with smaller changes, if any, in China.

In the foreword of the IMF's April World Economic Outlook report there were plenty caveats with references to the "new tariff measures by the United States and countermeasures by its trading partners have been announced and implemented… bringing effective tariff rates to levels not seen in a century". Obviously, this is bad for the global GDP outlook. Maybe even worse is the added uncertainty as the tariffs are changed on a nearly daily basis for various goods.

Figure 4 presents the IMF April 2025 global GDP growth outlook, with the July update incorporated for the US, EU, India and China. The global economy is forecast to grow from $109Tn in 2024 to $127Tn in 2029, which corresponds to an average yearly growth of 3.1%. In the April update, growth for 2025 and 2026 were revised downwards following the tariffs introduced by the US. Global growth was reduced by a total of $1Tn for these two years.

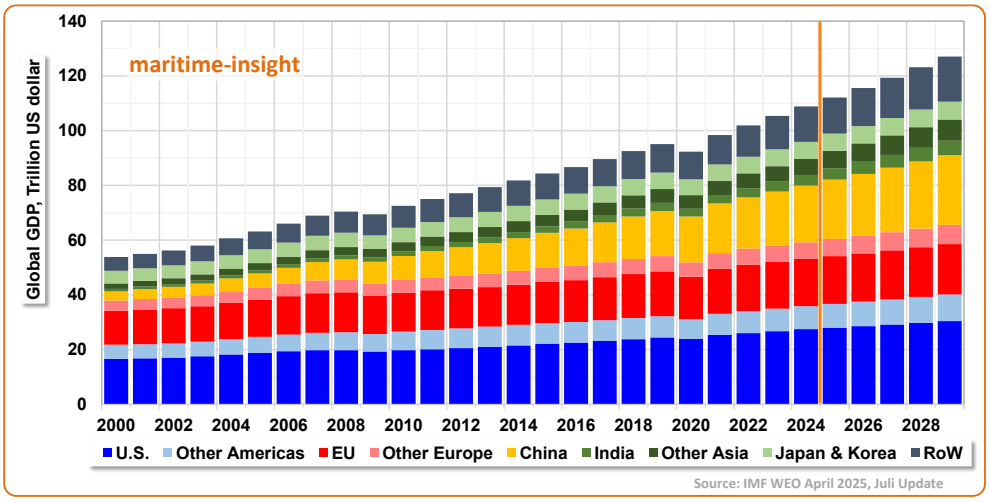

Figure 4: Global GDP development, US dollar

In the IMF's July update, they conclude that the world GDP has fared better in the first half of the year than they previously anticipated, much due to the trade boost when the US tariffs were halted for 90 days. The IMF projections are based on current standings and use an average of 17.3% in US tariffs and 3.5% as an average for trade that does not involve the US. Prices for energy are expected to fall by 7% in 2025.

This gives a forecast for global GDP growth in 2025 at 3.0% and 3.1% in 2026, which is an increase from the previous global forecast by 0.2 and 0.1 percent units respectively. However, these figures are lower than the 3.5% global growth in 2023 and the 3.3% in 2024. They are also lower than the 10-year 3.7% average.

The US economy is forecast to grow by 1.9% in 2025 and 2.0% in 2026. This is down from 2.8% in 2024, hampered by lower trade due to the self-imposed tariffs. In the Euro area growth is forecast to increase from 0.9% in 2024 to 1.0% in 2025 and 1.2% in 2026. Growth is held down by the expected meagre 0.1% growth in Germany in 2025. The EU is forecast to be 0.2 percent units higher than the Euro area in both forecast years.

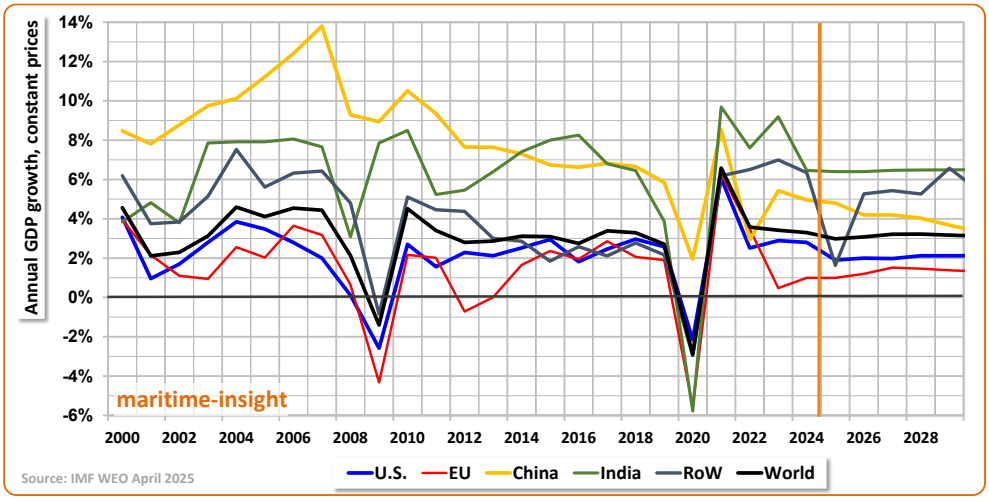

Figure 5: GDP-development, percent, select countries/regions

The large and fast-growing economies of India and China are forecast to continue to thrive in comparison. China is revised markedly upwards to a forecasted 4.8% growth in 2025 and 4.2% in 2026. The latter figure is lower than the state has set as a goal, and they have previously been successful in stimulating the economy, so pause the verdict for 2026 for a while. India is forecast to see a growth of their already large economy at 6.4% in both 2025 and 2026.

The IMF emphasises that the risks of the outlook remain tilted to the downside, mentioning specifically sectoral tariffs in areas such as electronics and pharmaceuticals and nontariff measures targeting critical inputs like rare earth metals, but also geopolitics in general, given the ongoing two large wars.

According to the World Bank's *Global Economic Prospects Report* the world economy that appeared to be in for a "soft landing" only six months ago now has moved in a negative direction, mostly regarding trade. Thus, their global growth forecast has been revised downwards. They conclude that the GDP per capita in high-income countries will be better off by the change. China will remain as before the Pandemic, while the outlook for the poor countries is worse. *According to the forecast it may well take two decades for the poorer nations to recover the losses from the 2020s.*

A significant share of international trade is carried at sea. This year, the total seaborne trade is expected to reach 11.5 billion tonnes. Half of the volumes are dry bulk commodities, as shown in Figure 6. The majority thereof consists of iron ore, other ores and minerals, coal and various forms of grain.

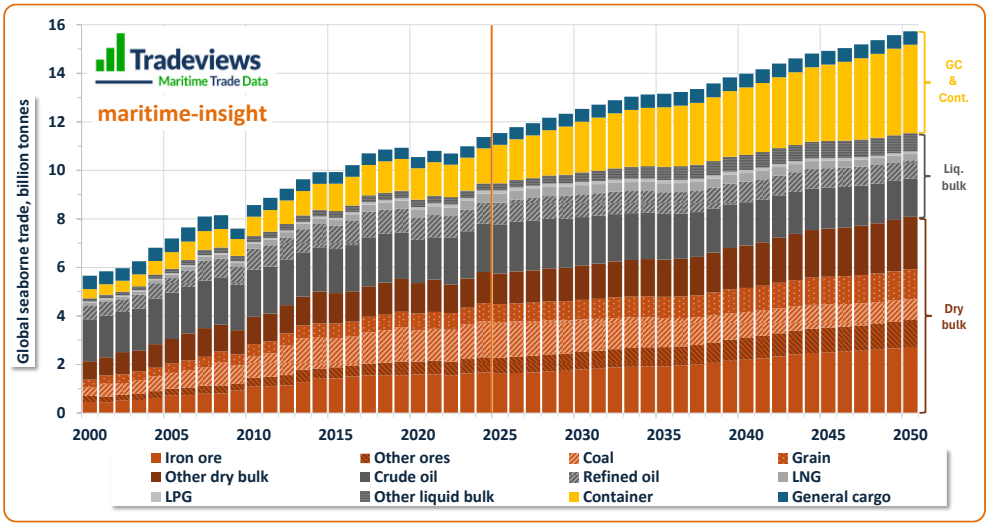

Figure 6: Total international seaborne trade, billion tonnes

Dry bulk commodity trade often gets growth boosts when emerging market economies start to climb up the development ladder. There are expectations, as explained above, that many EMEs in Asia and Africa will develop in that direction in the next 25 years. This will translate into strong demand for most dry bulk commodities.

Coal is a major dry bulk commodity that is forecasted to decline in volume because of decarbonisation. The rapid growth of EMEs will however keep some trade volumes up since coal will be used for the generation of electricity in many of these countries for quite some time. The impact on coal consumption will however be much stronger than on coal trade. Most of today's coal consumption is sourced from domestic coal mines. Coal mines are often closed before the coal use is phased out, to the benefit of shipping.

Liquid bulk commodities currently account for one third of total seaborne trade and are expected to reach 3.7 billion tonnes by the end of 2025. Crude oil is by far the largest commodity. It is transported in large quantities from the drilling site export facilities to refineries worldwide, where it is refined to various types of oil products.

A fair share of the refined oil products is then transported from the refineries via trucks or pipelines, but much of it (900M tonnes) is transported at sea to

local/regional import terminals. From that follows that the opening and closure of refineries has a strong impact on regional oil tanker shipping logistics.

Seaborne trade with liquefied natural gas (LNG) and liquefied petroleum gas (LPG) have shown strong growth in recent years and they are expected to continue to grow. The established volumes are largely transported in pipelines, but most of the new trade volumes will be shipped at sea. This means that the demand for shipping capacity will trend wise be stronger than the total trade growth.

A country's demand for chemicals and chemical products grow as the country climbs up the development ladder. Many countries are expected to do so in the coming years with a positive impact on seaborne chemical trade volumes.

The commodity group here called other liquid bulk has historically mainly consisted of small-scale volumes of juice, wine and water. In recent years, trade with various forms of biofuels have taken place. Looking forward, there is an anticipated strong development for shipments of biofuels, biogases, synthetic fuels and synthetic gases.

These new alternative fuels will make up for some of the decline in the trade with fossil fuels. Initially, it is expected that the alternative fuel trade will be regional rather than intercontinental.

The growth of the containerized trade will be propelled by the expected strong growth of the EMEs. A general rule of thumb is that containerized trade grows in line with the GDP growth in the importing country. This will not be the case each year, but trend wise the development tend to be aligned.

The containerisation of general cargo continues, and almost all the growth of the general cargo trade will be in the containerized part of the trade. This means that the non-containerized general cargo will follow a slower growth path.

2. Container Carriers

a. Containerized seaborne trade

The global containerized seaborne trade is approaching 1.6 billion tonnes this year. Ten years ago, it was 1.12 billion tonnes, and 25 years ago it was a mere 377 million tonnes. The growth has been exceptional, and China has been the growth engine behind this development.

Looking 25 years ahead, the other EMEs will account for much of the incremental trade. The current scenario-based forecast lands at 3.6 billion tonnes of containerized cargo in 2050. The percentage growth is much lower than in the past 25 years, but it adds many more tonnes.

The global container port throughput is estimated to have increased to 946M teu in 2024, a growth by 7.2%, shown by the black line in the figure. China stands for 34% of the throughput and grew by 6.7% in 2024.

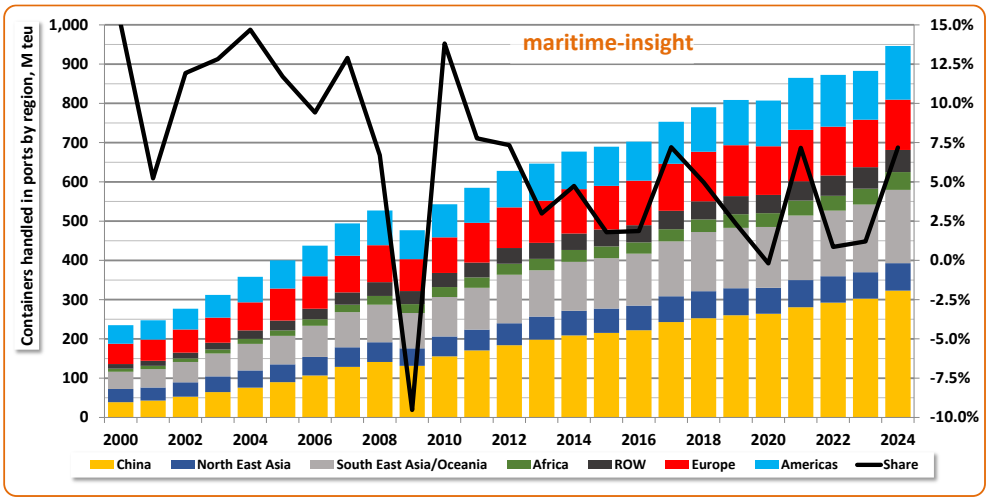

Figure 7: Container port throughput, million teu

Americas have 14.5% of the global teu throughput and grew by 10.1% in 2024, ahead of Europe that has 13.5% of the total and grew by 5.7% in 2024.

Figure 8 illustrates the monthly container trade for select trade lanes according to CTS. The total transported containers increased by 5.1% in 2024. However, it differed in between trade lanes.

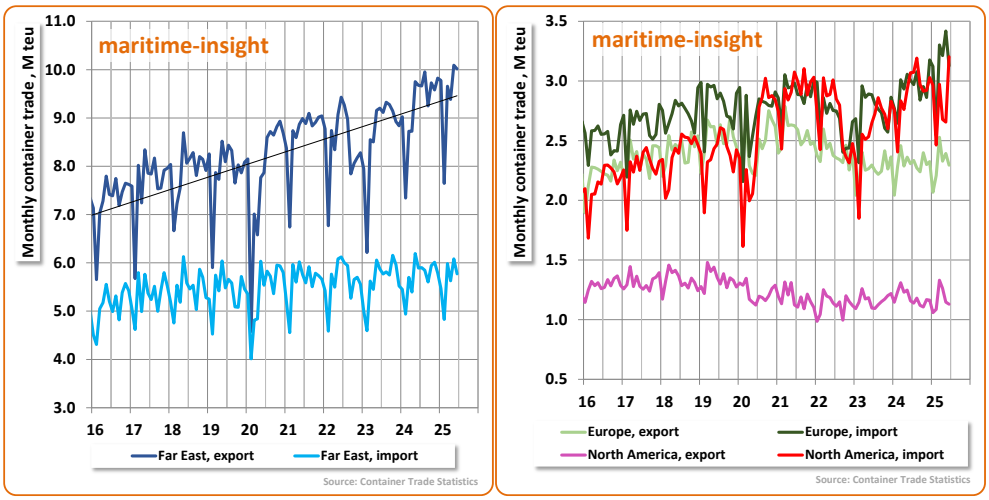

Figure 8: Container trade from and to the main regions, according to the large carriers

Far East exports increased by 7.05M teu to 111M teu or 6.8%. The second largest trade lane is Far East imports that increased by 1.1M teu to 68.7M teu or 1.6%. North American import grew by 12.6% to 34.8M teu, whereas their export increased 2.0% to 14.2M teu.

As the right-hand graph illustrates, imports to Europe and to the US are about equal in volume. European imports grew by 7.1% to 35.3M teu, whereas their exports grew at a modest 1.6% to 27.6M teu. North American export volumes are about half that of Europe. Trade volumes to and from India (not shown in the graphs) have grown with high single digits in the recent two years.

Growth was slower in the first half of 2025 compared to the same period in 2024. The biggest contributors were Far Eastern exporters and European importers. US exports declined 4.2%.

The charter rates and the freight rates (Ningbo index, blue line in Figure 9) turned sharply upwards when the Pandemic created a range of different supply chain issues, such as port congestion, and built-up need for more tonnage. Towards the end of 2022, the rates fell to lower but still strong levels. Then the Houthis' attacks made the Red Sea and the Suez Canal unsafe for passage for most ships. The longer voyages around Africa elevated tonnage demand and rates increased again.

By around mid-2024 hefty new ship deliveries sent the freight rates south and charter rates are likely to shortly follow suit. When the Suez Canal reopens, there will be surplus tonnage on the market and rates could fall dramatically. High earnings propelled new orders in 2020-2024.

2025 has been characterized by the tariff circus orchestrated by the US' Administration. US importers have front-ordered to get hold of products and commodities before the tariffs kick-in. This behaviour has continued over the summer as the realization of the new tariffs has been postponed.

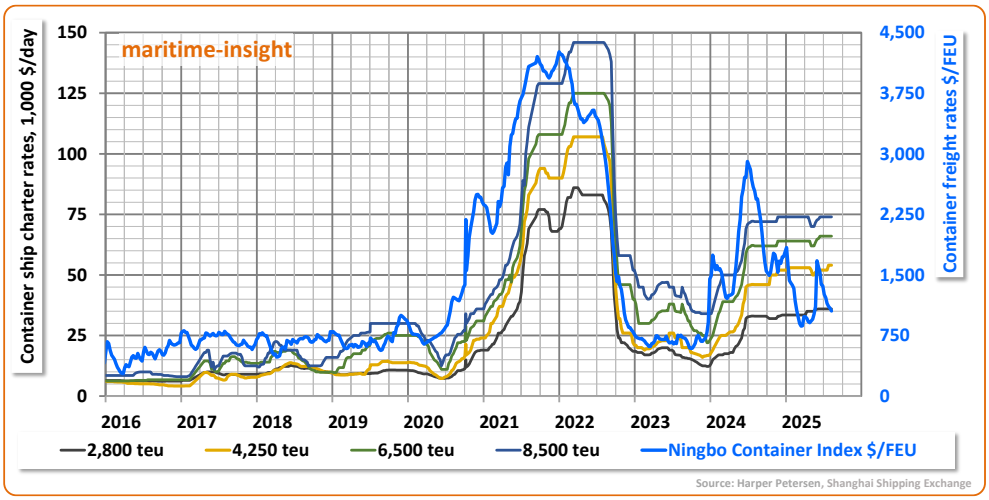

Figure 9: Container freight rates, USD per teu

b. Containerization

The container has successfully attracted deep-sea cargo from general cargo carriers and roro ships the past three to four decades. The container's attraction builds on the ability to transport small to large batches of cargo via a comprehensive network with a global reach at competitive prices.

This has been made possible primarily through the exploitation of economies of scale. The costs for propulsion, manning etc per transported unit of cargo is lower when larger ships are used. Container ships in general do also have a

higher utilization rate than general cargo carriers. Figure 10 provides a good view of how the container carrier share of the total general cargo fleet has gone from 6% in 1970 to 75% in 2020. The trend is set to continue, even if the pace of containerisation slows down.

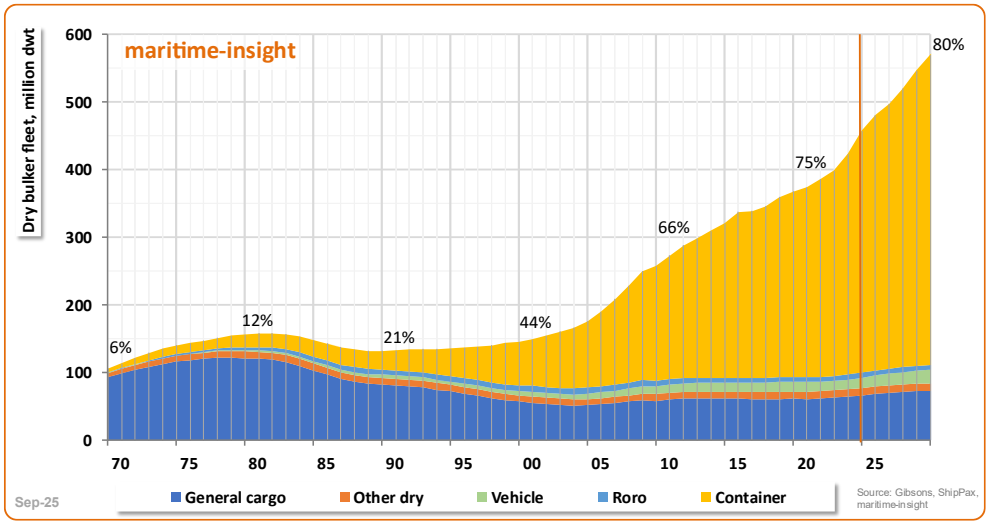

Figure 10: 60-year perspective on the capacity development within the general cargo fleet

The following illustration shows the average dwt-size of new general cargo and container ship deliveries since 1970, with a forecast up to 2040.

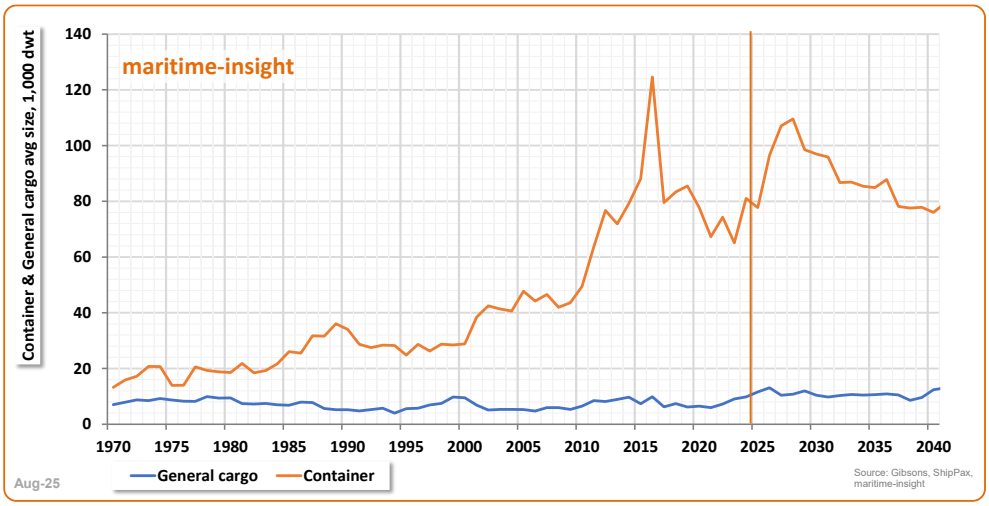

Figure 11: Average dwt of new ship deliveries

The strong container trade development has been propelled by globalisation and the rapid growth of China, India and other emerging market economies. The population growth in the world also adds to the demand for containerized trade.

Looking forward, the above-mentioned drivers continue to push trade growth. Here we see the development of more North-South and Transatlantic trades.

The most common commodities/products that are transported in containers are various kinds of chemicals, metals, ores, crude materials and forest products if you rank them by weight.

If you instead look at the highest value, then you will find different types of machinery, electronics, vehicle parts and consumer products on the top of the list. The teu-volume builds on the most voluminous cargoes and topping that list are chemicals, chemical products, consumer products and various food items.

There is still cargo that has the potential to shift to the container. In the deep-sea trades, we primarily find the potential in parts of the vehicle trade, forest

products, chemicals and chemical products. In the short-sea and intra-regional trades, the highest containerization potentials are in:

- Road, roro & ropax; non-time-sensitive goods primarily over longer distances from origin to destination.
- General cargo/small bulk; smaller batches and where higher frequency is of interest.
- Niche liquid bulk cargoes.
- Forest products.
- Chemicals & products.

c. Container fleet and ship dimensions

Figure 12 shows the age profile of the world total fleet of container ships with a capacity up to 3,000teu, plus container ships with a capacity between 3,000teu and 5,000teu, and general cargo carriers with container carrying capacity (ie semi-cellular). These are ships that are relevant in the context of this report. The ships are spread across the years they were built to provide a picture of whether the fleet is old, young or somewhat evenly distributed over the years.

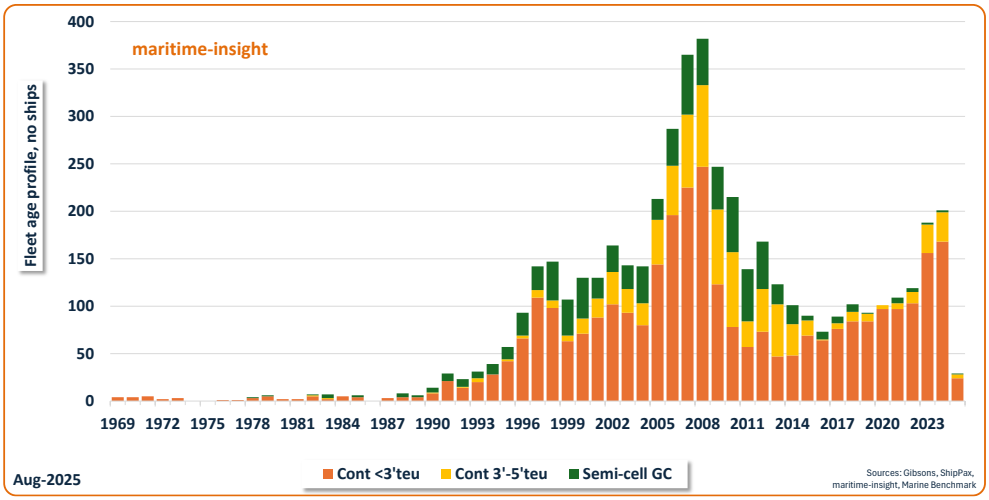

Figure 12: Fleet age profile, container ships <5,000teu & semi-cellular general cargo ships

It is evident that a significant share of the fleet was built during the years leading up to the recession in 2008-2009. After that followed 13 years with lower ship newbuilding activity up until 2023-2024 when the activity increased on the back of the ship owners' extreme earnings.

There are 3,222 ships <3,000teu in the world fleet and as many as 59% of them are built before 2010. The average age is 16.0 years. There are a mere 148 ships on order to be built, so the forward cover is short.

The fleet of slightly larger ships, 3,000teu-4,999teu, counts 861 ships. Here the share of ships built before 2010 is almost as high; 57%, and there are 63 ships on order which also is quite low. The 818 ships in the semi-cellular general cargo fleet are even older. The average age is almost 20 years, and the share of vessels built before 2010 is as high as 70%. Ships on order only count 20, but it is common that details about these vessels come in late, so the number could be a bit higher. Still very few though.

Figure 13 is based on the same fleet of ships as Figure 12, but here the ships in the fleet that have visited the port of Helsingborg once or several times during the past twelve months have been marked red.

Ships that have not entered the port of Helsingborg but another or several ports located in Northwest Europe have been marked blue. Northwest Europe here

include ports in and around the Baltic Sea, the North Sea, the Irish Sea and the English Channel.

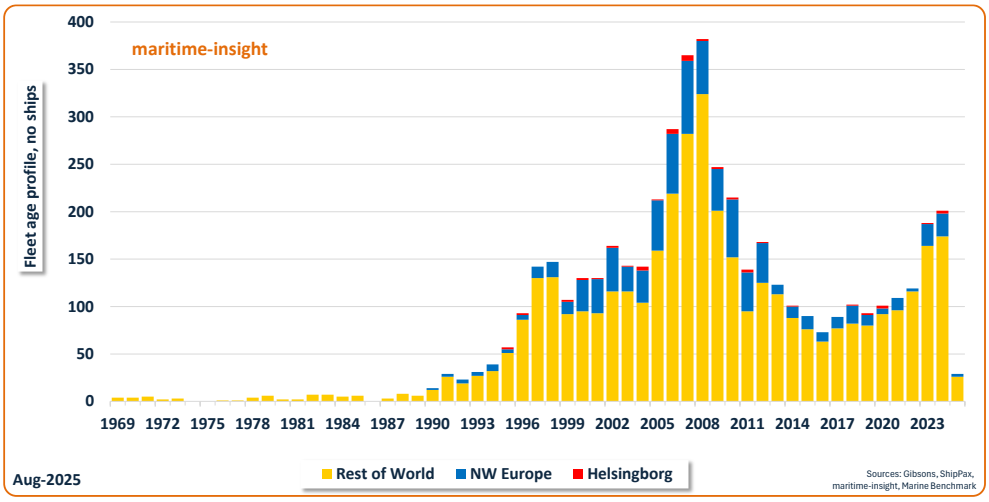

Figure 13: Fleet age profile, by sailing area the past 12 months

The yellow parts of the figure illustrate the number of ships per building year that have not entered any port in Northwest Europe during the past year.

These two illustrations show that there are ample ships available in the world fleet that are like the ones servicing the port of Helsingborg. They also show that the fleet is a bit old and the number of younger ships is somewhat limited. The scope of the activity in the port Helsingborg, however important, is not large enough to dictate the general fleet development.

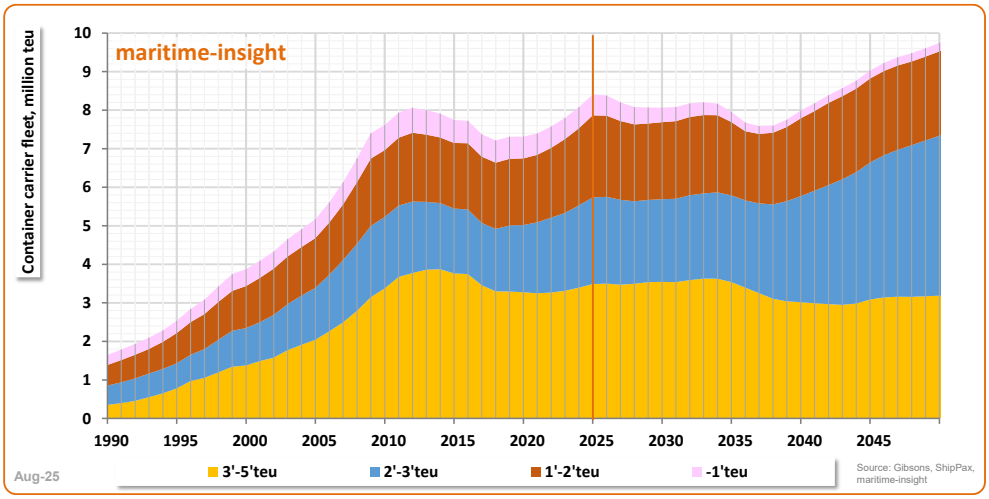

Figure 14: Container carrier fleet development 1990-2050, ships <5,000teu, million teu

The average delivered new container ship within the size range smaller than 5,000teu was a mere 960teu in the 1970s. The average size increased markedly in the 1980s and 1990s up to 1,720teu and 1,795teu respectively.

Another size step was taken after the millennium shift when the average increased to above 2,200teu. In the first 15 years, the average was lifted due to strong investments in ships in the size range 3,000-4,999teu. The prime deployment of these ships was on trades to the US' East Coast. Then followed a period with more focus on 1,000teu-2,999teu, and very few -999teu.

The impact on the fleet development is visible in Figure 14. Looking ahead towards 2050, ships in the size range 2,000teu-2,999teu are forecasted to dominate short sea shipping and feedering services.

Historically, almost all scrapped old ships have been smaller than 5,000teu, and a significant share thereof have been below 2,000teu.

Table 1 gives a summary of the number and average dimensions of the ships split by building period and teu-range. The purpose is to provide an overview of average length over all (loa), beam, and draft for the size groups so the port can adapt the capacity of container cranes, berths, and max port draft.

The building periods then give an indication of any trend wise direction of change. The table consists of slightly fewer ships then were mentioned above. This is because the dimensional data is incomplete for a few ships.

Table 1: Container ship dimensions by ship building period

no ships	-2009	2010-2019	2020-	Total
2,000-2,499teu	184	58	101	343
2,500-2,999teu	300	116	135	551
3,000-3,499teu	79	23	48	150
3,500-3,999teu	58	78	15	151
4,000-4,499teu	273	103		376
4,500-4,999teu	84	75	22	181
Total	**2,391**	**960**	**732**	**4,083**

Avg loa, m	-2009	2010-2019	2020-	Average	Trend
2,000-2,499teu	202.6	185.9	185.8	194.8	Shorter
2,500-2,999teu	215.2	200.2	195.9	207.3	Shorter
3,000-3,499teu	232.8	226.2	206.1	223.2	Shorter
3,500-3,999teu	241.3	228.3	210.7	231.6	Shorter
4,000-4,499teu	267.4	258.4		264.9	
4,500-4,999teu	286.0	259.6	253.4	271.1	Shorter
Average	**183.1**	**187.4**	**177.4**	**183.1**	**Shorter**

Avg beam, m	-2009	2010-2019	2020-	Average	Trend
2,000-2,499teu	30.2	30.5	31.1	30.5	Wider
2,500-2,999teu	30.7	32.4	33.4	31.7	Wider
3,000-3,499teu	32.0	32.3	34.9	33.0	Wider
3,500-3,999teu	32.1	35.4	35.8	34.2	Wider
4,000-4,499teu	32.3	33.5		32.7	
4,500-4,999teu	32.4	35.2	38.2	34.3	Wider
Average	**26.3**	**28.7**	**29.3**	**27.4**	**Wider**

Avg draft, m	-2009	2010-2019	2020-	Average	Trend
2,000-2,499teu	11.2	10.6	10.5	10.9	Shallower
2,500-2,999teu	11.8	11.4	11.0	11.5	Shallower
3,000-3,499teu	11.6	12.1	11.9	11.8	Shallower
3,500-3,999teu	12.2	12.2	12.9	12.3	Deeper
4,000-4,499teu	13.0	12.6		12.9	
4,500-4,999teu	13.7	13.2	13.5	13.5	Deeper
Average	**10.0**	**10.1**	**10.0**	**10.0**	**Shallower**

Container ships in the size range 4,000teu-4,499teu were quite common up until some 12 years ago. Since then, only a handful have been built. Changes in the liner services to the US East Coast and some North-South trades are the main reasons for the changes.

It only takes a quick look at the tables to see that ships built in the past five years are on average a bit shorter (loa) and a bit wider (beam) than ships built 2010-2019.

Ships in the size ranges 2,000teu-3,499teu are also slightly shallower, ie require less draft. The difference is quite small though.

The old locks in the Panama Canal used to set the limits for the ships' beam. With the new locks in place, there is a tendency for new ships to get shorter and wider. The gradually tighter environmental regulations lead to container ships becoming more bulky or boxy in their design as the operational speed slows down.

The biggest container carriers, 20,000teu and above, currently tend to increase first draft and then beam as more cargo are loaded onto the same loa as previously. Speed is lowered to reduce the need for extra propulsion power to push through water as more displacement (ie ship surface) is below the water level.

For the smaller carriers that are within the scope of this report, the ships' beam seems to be the first dimension to grow.

Ship designs change over time, but container ship dimensions are in part always governed by the size of the standard twenty- and forty-foot containers. It makes no sense to increase or decrease the beam or loa less than the width or length of a container.

Among the ships built in the past five years, the most common combinations of loa, beam and draft for the five teu-ranges are:

Table 2: Common ship dimensions per teu-range, 2020-2025

2,000-2,499teu
L 175 / B 29 / D 11
L 204 / B 29 / D 10
L 172 / B 32 / D 10
2,500-2,999teu
L 186 / B 35 / D 11
L 210 / B 32 / D 11
L 186 / B 36 / D 11
3,000-3,499teu
L 204 / B 35 / D 12
3,500-3,999teu
L 200 / B 36 / D 13
4,500-4,999teu
L 259 / B 38 / D 13

Beams exceeding the old 32.3m Panamax are getting common in the world fleet. There are currently 341 ships <5,000teu. Thirty-nine of them called a port in Northwest Europe the past 12 months.

The old 32.3m Panamax beam equals to 13 container widths. The standard container is 2.438m wide, plus a little bit of distance between each container stack onboard the ship to allow for a safe handling.

If the beam increases to around 36m, the crane outreach needs to cover 14 container widths, and to 15 widths for 38m – 40m beam.

d. Port calls and networks

In the following two illustrations the container turnaround in relevant ports in the region is shown for the past ten years. Ports with a turnaround exceeding 300,000teu are presented in Figure 15. All ports but St Petersburg have grown the last decade, even if there have been some years with setbacks. St Petersburg

(and Russia) has been under different kind of sanctions ever since Russia occupied Crimea in 2014. The sanctions increased after the full-scale war on Ukraine started in early 2022. The EU introduced the first trade sanctions on Russia on July 31, 2014, through Council Regulation (EU) No 833/2014.

Gdansk and Gdynia in Poland stand out with average growth rates of 6.6% and 3.3% per year. Meanwhile the Polish GDP grew by 3.6% yearly so Gdynia has merely grown in line with economic growth. Gdansk invested heavily in new terminals which made it possible for them to attract cargo that previously was unloaded in Hamburg for further transport by trailer and train. Gdansk has also become a transit hub in the ten years – with feeder links to other ports in the Baltic Sea – this by attracting lines with 10,000+ teu ships.

Even better has the port of Klaipeda performed, with a growth of in average 12% per year, way over the Lithuania GDP growth of 3.2% yearly. The strong growth has been made possible by investments in the terminals and transfer of cargo to the neighbouring countries. Belarus is landlocked. The Russian port St Petersburg is far from the south and has ice problems in the winter. Port of Riga in Latvia has had a modest average growth of 1.0% per year. The latter should be compared to Latvia's 2.2% yearly GDP growth. Klaipeda has a strategic location within the Baltic Sea and is ice free all year.

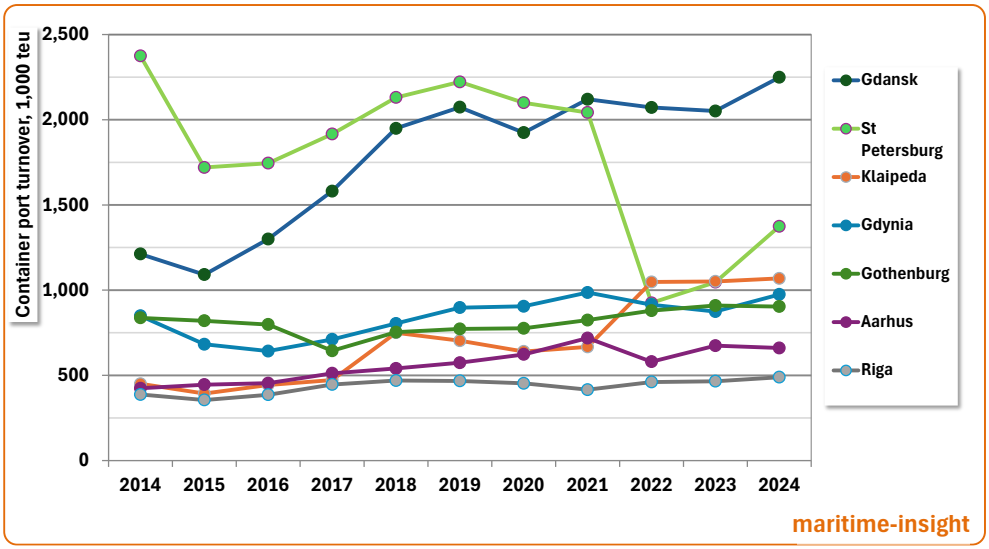

Figure 15: Container throughput in selected larger ports in the Baltic Sea

Aarhus is the largest port in Denmark and it has grown by a pace of 4.0% yearly following investments in the terminals. This is more than the Danish economy that has grown by 2.5% yearly in the period. The throughput in the port of Copenhagen is shown in Figure 16. The volumes have decreased by on average 3.1% yearly in the same period. Some cargo has shifted to the ports of Kalundborg and Aarhus. Cargo volumes could also have been trucked from Hamburg.

The port of Gothenburg has grown by a yearly pace of 1.6%, which is lower than Sweden's average annual 1.9% GDP growth. The port of Norrköping has shown a strong average annual growth of 6.3%. Meanwhile, the ports in Stockholm and Halmstad have seen volumes fall; -1.5% and -2.0% per year respectively. Some of the Stockholm volumes may have ended up in Norrköping.

The port of Helsingborg has had a growth in the last decade of 2.0% yearly, slightly higher than the average growth of Swedish GDP in the same period, drawing cargo from Gothenburg and Halmstad.

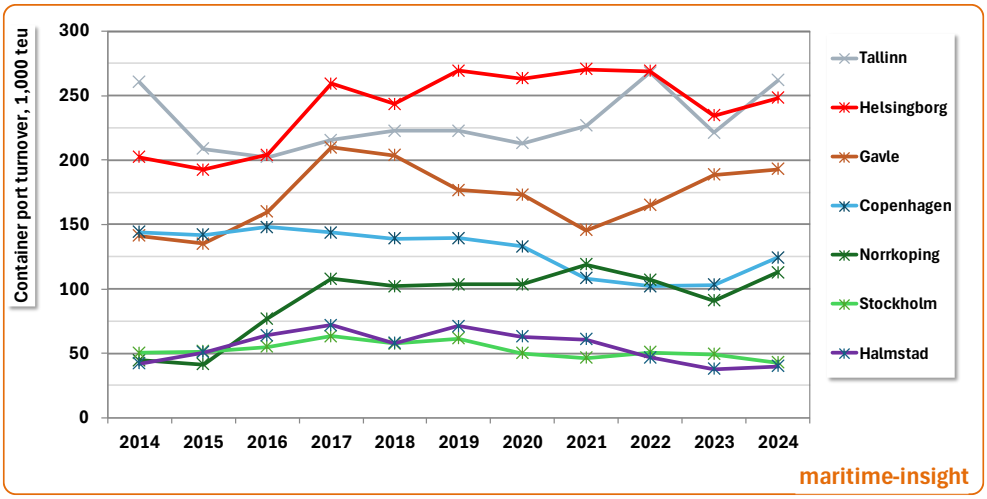

Figure 16: Container throughput in selected smaller ports in the Baltic Sea

As the examples from the different ports in the Baltic Sea above show, the container volume development trend tends to align with the GDP growth trend. Ports that have invested in their capacities tend to attract cargo from other ports within their business areas in the region.

Traffic in the port of Helsingborg in the past 12 months has been assessed from AIS data. According to that data, 49 unique ships with container carrying capacity (ie container carriers or semi-cellular general cargo ships) have entered the port of Helsingborg. Together, these ships made 432 port calls (ie visits).

Fifteen of the ships accounted for 75% of the 432 port calls. Among the top-15, there are three 2,150teu ships that sail on a service between Sweden-Denmark-Germany to Iceland and Greenland.

Two of the larger global operators, MSC and ONE, run 1,800teu ships that frequently connect with ports in north-west and south-west Europe.

It should however be noted that ships are often either on short-term charter or/and moved between service networks so as to adapt to rapidly changing shifts in demand.

e. Impact on the Port of Helsingborg

There are many things that have direct or indirect influence on development. Some of the factors with the large impact on the port volume forecast are:

- The GDP growth rate in the importing country since it reflects the overall intensity of business and trade.
- Shifting cargo from land to sea has been a political ambition for decades that benefit small-to-medium sized container & roro/ropax ports.
- Unloading containers in ports in north continental Europe (Hamburg, Bremerhaven…), which contain goods destined for Sweden, for further transport via trucks is an established logistical solution that now is being challenged. Shipping closer to destination is preferred, to the benefit of small-to-medium sized container ports.
- The fixed link across Fehmarn Belt that is under construction might have a negative impact on port volumes.
- The containerisation of intra-European cargo benefits the port.

In the first decade of this millennium, trade roughly grew twice the pace of global GDP, and container trade even faster. In recent years the import country's GDP has been a good indicator of the container trade development, especially when other transport options are absent.

In the south of Sweden there are several options. One is to empty the container in Hamburg, Bremerhaven or any other North Sea port and load the cargo on a trailer for further transport on land sometimes also via roro or ropax vessel services. The prevalence of other options holds the port container volume development back in southern Sweden. However, the capacity constraints in the north continental ports, roads and railways put the Swedish ports in a better position in the future.

The long-term GDP growth for Sweden is forecasted by both the OECD and the EU and these two sources are cited in the Swedish Finance Department's report "Långtidsutredningen" presented in late in 2023. According to the EU Commission, Sweden will have a growth of 2.2% in 2030, fading to 1.9% in 2035-2040, before shrinking gradually to 1.7% in 2050. The OECD is basically 0.1 percentage unit lower over the same period. The authors of "Långtidsutredningen" forecast that the Swedish growth will stabilise around 1.7% in 2040 and thus follow the EU's prognosis.

In Figure 17 the red line shows the past and forecasted volumes in the Port of Helsingborg. The forecast follows reasonably well the long-term forecasts presented above with the exception that the growth is slightly higher in the beginning due to crowded quays in the German ports.

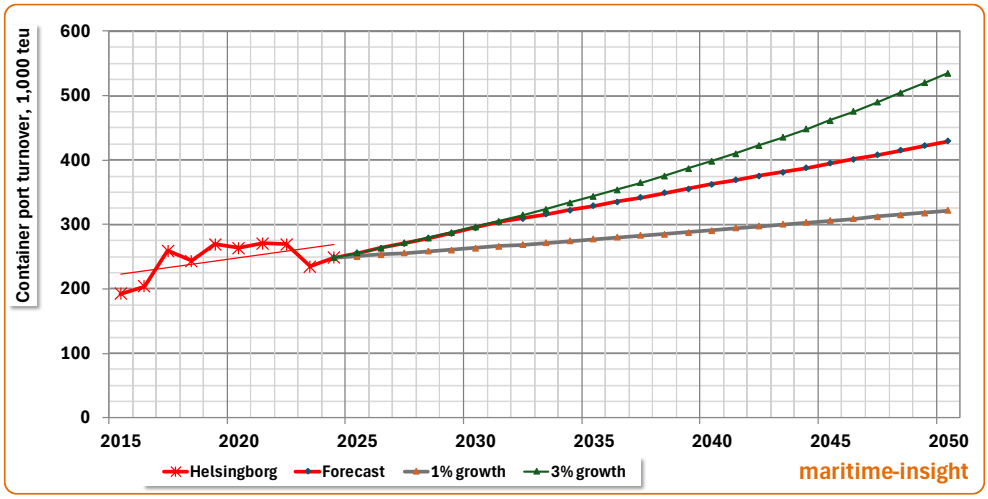

Figure 17: Container volume development in the Port of Helsingborg

The green line illustrates how a continuous 3% annual growth would look like, and the grey line is a continues 1% growth. By comparison, as mentioned above, Helsingborg averaged 2% yearly the past ten years.

These two trajectories over a 25-year period aggregate up to 321,000teu in 2050 for the 1% annual average growth and to 535,000teu for the 3%. The difference is striking, plus 73,000teu or plus 287,000teu. However, it is worth noting that in the past ten years the ports of Gävle, Gdansk, Norrköping, Klaipeda and Aarhus all have average growth rates above 3% per year.

Helsingborg has a competitive edge in the services for the fruit, vegetables and flower businesses. Logistic areas have been built to cater for these businesses' needs to handle goods originating from local, regional, European or extra-European sources. A reefer container is a common sight in Helsingborg's container terminal.

Over the years, companies such as Everfresh, Mäster Grön, Greenfood, ICA, Zoega and Plantagen have invested in a presence in or around Helsingborg. Expansion projects come and go and as in all trades, change is constant. Nowaste Logistics, a subsidiary of Everfresh, is in partnership with Swisslog to build a new

automated logistic centre in Helsingborg. The new warehouse is expected to be completed during the fourth quarter of 2025. Greenfood has, in partnership with Skanska, invested in a new food and logistics centre.

ICA has one of their hubs in Helsingborg, where they cater for the distribution from Ystad to Gothenburg. In the previous report it was mentioned that ICA invested in an e-distribution warehouse in Gothenburg back in 2021 but then they decided to close it down in the second quarter of 2024, claiming low profitability and a new approach on their e-distribution.

In 2022, Mäster Grön sold their fully leased logistics property in Helsingborg to SLP (Swedish Logistic Property), which is a Swedish real estate company that acquires, develops, and manages logistics properties.

Plantagen carried out a major restructuring and downsizing in 2024. Five stores were closed and up to 150 employees were affected. Some cutbacks affected certain functions in the Helsingborg office. However, the company's purchasing or logistics operations remain intact and remain located in Helsingborg.

3. Product & Chemical Tankers

a. Liquid bulk seaborne trade

In the first chapter of this report, Figure 2 showed a scenario for the global primary energy supply by source of energy. In this scenario, the global need for energy is expected increase 24% from 666 exajoule last year to 826 exajoule in 2050.

Meanwhile, the share of fossil fuels is predicted to decline from 79% last year to 45% in 2050. This is a dramatic change with far-reaching implications for the seaborne trade with energy commodities.

Almost all of the exceptional growth of the non-fossil fuel share will be covered by solar, wind, and other sources than nuclear and hydro. Nuclear, hydro, solar, and wind all feed into the generation of electricity. Much of the other sources consist of liquid bio- and synthetic fuels.

Parts, but not all, of the bio- and synthetic fuels will be transported at sea. Biofuels, such as biodiesel and biogas, are expected to dominate volume-wise over synthetic fuels like methanol and ammonia.

Less than half of the loss of transport volumes of fossil fuels are expected to be substituted by liquid non-fossil fuels. This is due to the electrification of cars and trucks which reduces the need for liquid fuels.

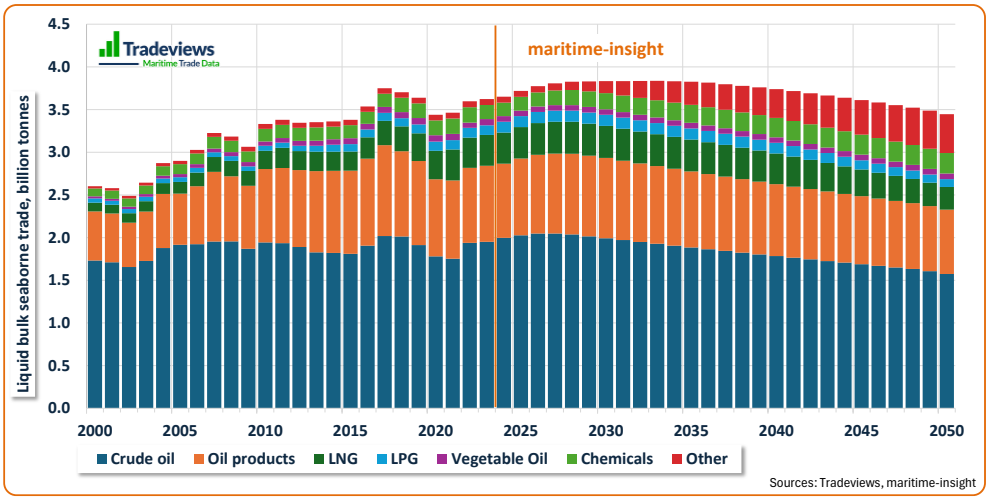

Figure 18: Liquid bulk seaborne trade 2000-2050, billion tonnes

b. Tanker fleet and ship dimensions

The product carriers and the chemical tankers act as carriers from refineries to storages, for delivery to the end client, which sometimes also is performed by ships. Most of the smaller product tankers and many of the chemical carriers trade regionally. Many of the product, chemical carriers in North Europe operate on long-term agreements with their clients and are thus less affected by the fast-moving ups and downs in freight rates – but it affect the pricing for the services long term. The chemical tanker market used to be a pure contract shipping market with few suppliers and close customer relations, but the overlap with product carriers for some type of cargoes has changed this.

The global product and chemical tankers below 60,000dwt are illustrated in Figure 19 according to when the ships were built or forecast to be delivered from the current orderbook (right hand side of the orange line). The fleet stands at 8,487 ships and 169.5M dwt, with 2,970 being larger than 20,000dwt. The latter

stands for 128.6M dwt or 76% of the total capacity. Ships in the size of 10'-20,000dwt amount to 1,419 with a capacity of 21.7M dwt or 13% of the capacity. The remaining 4,089 ships are smaller than 10,000dwt and sum to 19.2M dwt or 11% of the capacity.

The ships larger than 20,000dwt are on average 14 years old and the ones in between 10'-20,000dwt average 16 years. As in most ship segments the smallest ships are the oldest and ships below 10,000dwt are on average 23 years.

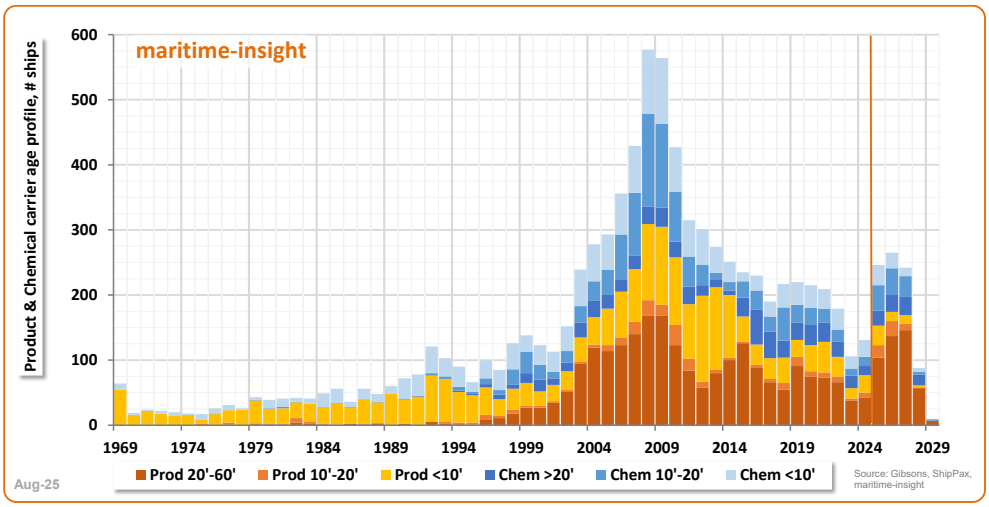

Figure 19: Product & Chemical tanker fleet age profile, no ships <60kdwt

As per August 2025, the orderbook contains 755 ships with a total capacity of 25.1M dwt. Of them, 496 are larger than 20,000dwt and have 22M dwt or 88% of the capacity.

In Figure 20 the same fleet is illustrated according to the ships whereabout in the recent year. Blue represents ships that have made one or more port calls in North-West Europe and red the ones thereof that have visited the port of Helsingborg. North-West Europe is serviced by a younger fleet than the rest of the world. Only a few of the ships visited Helsingborg.

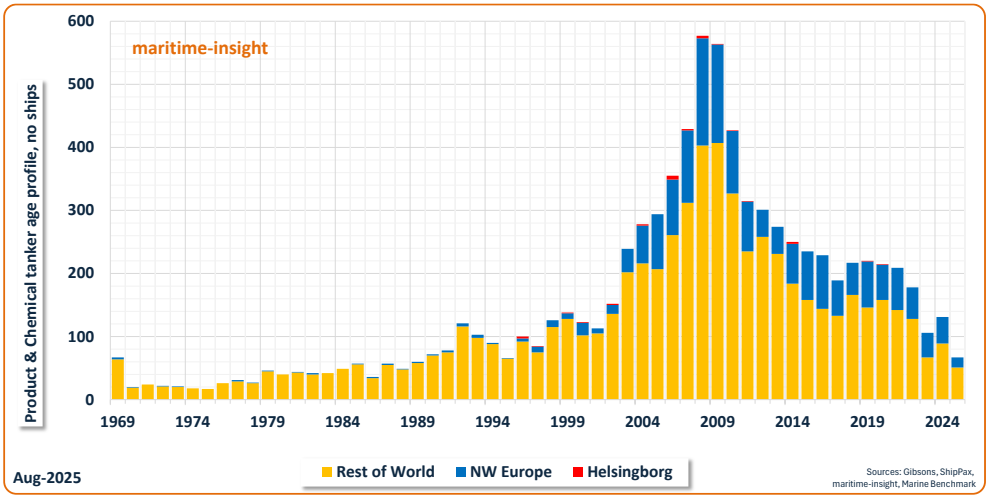

Figure 20: Product & Chemical tanker fleet age profile, area past year, no ships <60kdwt

Figure 21 illustrates the fleet of product carriers' dominance of the total product and chemical tanker fleet capacity. In 2020-2024 the fleet grew by 14.0M dwt with the 20'-60,000dwt fleet accounting for 9.6M dwt of this. In total the fleet grew by an average of 1.8% yearly.

The forecast for fleet growth in 2025-2029 stands at 31.4M dwt due to the current large orderbook. The 20'-60,000dwt part of the fleet will grow by 22.9M

dwt. The total fleet will grow by an average of 3.5% yearly. If seen in 25-year perspective up to 2050, the fleet will grow from 164M dwt at year end 2024 to 217M dwt at year end 2050 – or by 52.9M dwt. The peak fleet size will be reached in 2042 at 221M dwt, before slowly decreasing.

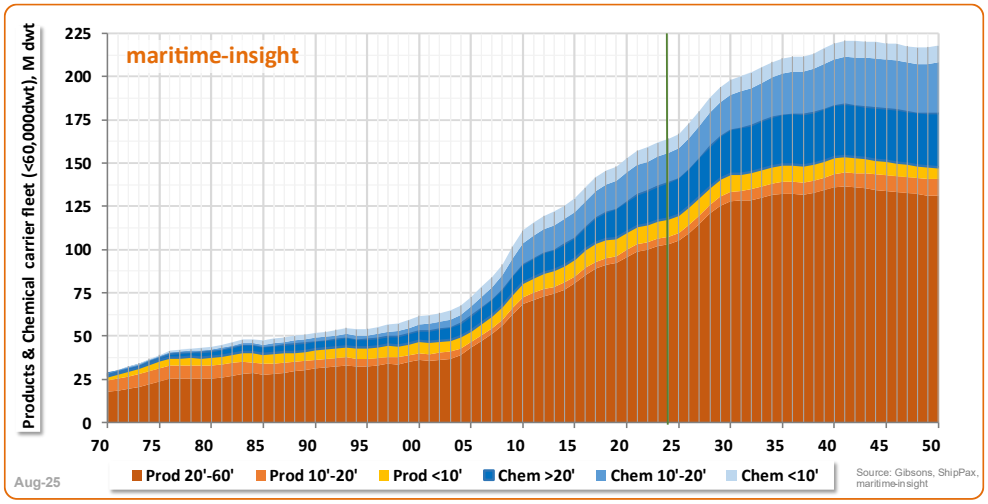

Figure 21: Product and chemical tanker (<60,000dwt) fleet development to 2050

c. Port calls and networks

In the past 12 months, AIS records show that 30 chemical tankers (often chemical/product tankers) made 112 port calls (ie visits) in the port of Helsingborg.

Four of the ships made 77 of the 112 calls, equal to 69%. Seatrans' ship Trans Fjell alone accounted for 55 port calls.

This is an 18-year-old ship with a deadweight of 3,453. Second on the list is Essberger's Caroline Essberg – a 16-year-old ship of 8,506dwt.

Third is Sirius' 19-year-old Olympus of 9,189dwt. Given the relatively high age of all three, it is fair to expect that the ships will be replaced at some point soon.

The 30 ships that called the port of Helsingborg made more than 3,000 port calls in the past 12 months. Almost all the port calls were in Europe, and the great majority were in north-west Europe. These ships mainly service ports in north, north-west, west Europe.

The location of the refineries defines where most of the loading takes place for further distribution to recipient ports in the region.

d. Impact on the Port of Helsingborg

The handling of liquid bulk volumes in the port of Helsingborg amounted to about 1% of the total handled liquid bulk volumes in Sweden. Still, the business in the port is in demand. The number of types and qualities of liquid energy products increases, propelled by the quest for fuels with low or no carbon footprint. Storage capacity is in short supply.

Preem's depot in Helsingborg stores and handles renewable raw materials and flammable liquids such as diesel, heating oil and HVO. Products and raw materials are delivered to the depot by ship, truck, or tanker. Nordic Storage's activity in Helsingborg is focused on the handling of middle distillates.

The port of Helsingborg's liquid bulk volumes may be small in comparison to many other ports, but the port is conveniently located in the region with easy ice-free access all year round. These are strengths that should be used to safeguard the future of the business.