



November 2025

Shipping Market Review



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Executive Summary

Macroeconomic outlook tilted to the downside

The global economy remains resilient in the short term, but is built on temporary factors such as front-loading of trade and investment. Growth is expected to ease from 3.3% in 2024 to 3.1% in 2026. Fiscal fragility, demographic ageing and geopolitical fragmentation are weighing on potential growth. While higher defence spending provides some support, it is unlikely to offset these broader headwinds. The balance of risks remains tilted to the downside.

Structural erosion of tonne-mile demand

The largest shipping segments – Dry Bulk, Crude, Product, Container, LPG and LNG – are facing structural downside risks from shorter travel distances. The energy transition from fuel to power is accelerating, reducing the long-term demand for coal, oil and LNG. As fossil fuels lose their central role in the energy system, seaborne volumes are expected to contract stepwise. This is likely to depress long-term freight rates and secondhand values, particularly for older tonnage.

Regulatory tightening offers limited upside

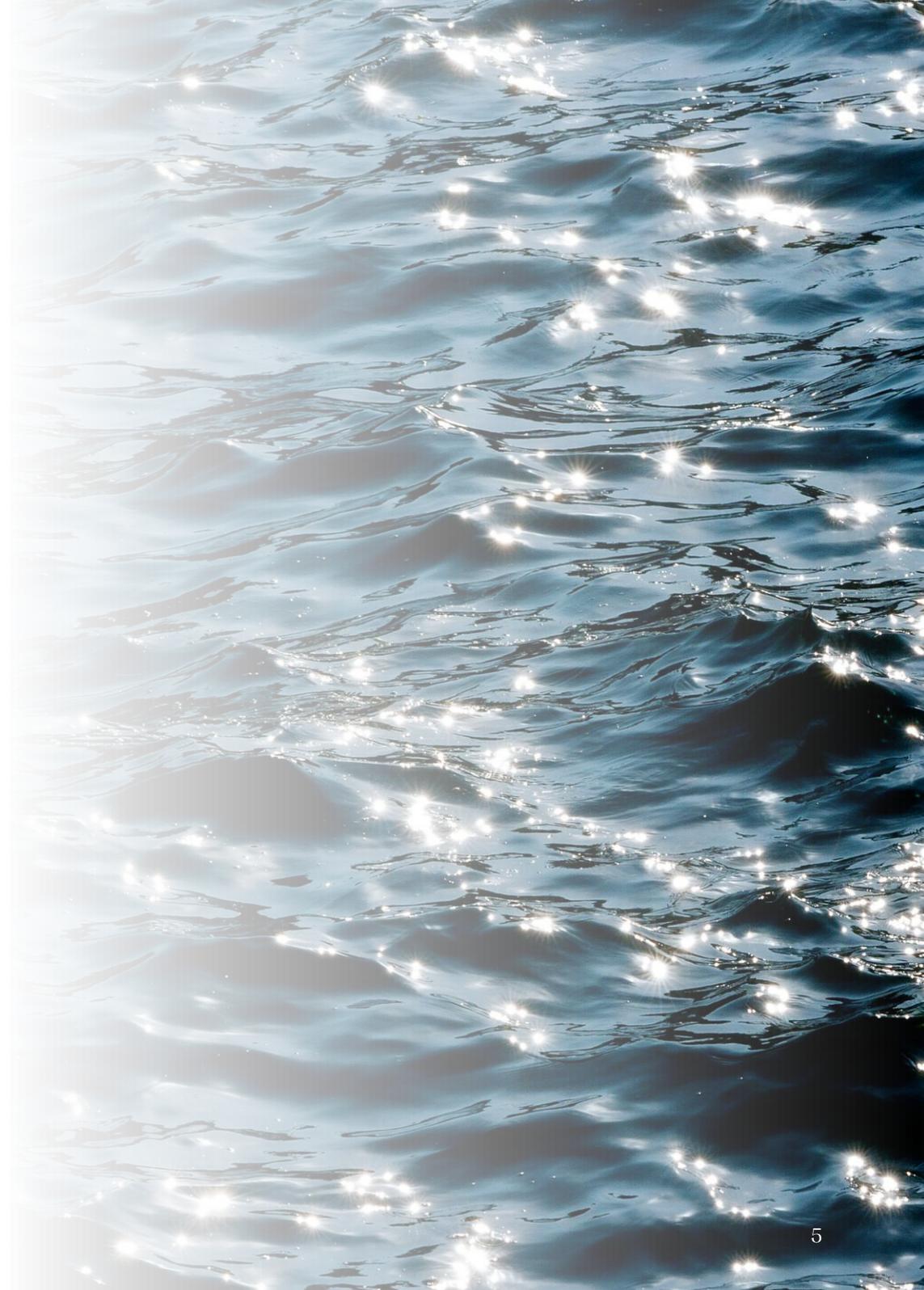
IMO's existing regulations – particularly EEDI and CII – are expected to gradually restrict sailing speeds, especially for older and less efficient vessels. This will effectively tighten supply and could provide one of the few structural sources of rate support in the coming years. However, the upside is likely to be moderate and uneven across segments.

Standardised finance at scale

Regulatory timing for the IMO Net Zero Framework has slipped (earliest entry into force is 2029), but the direction is unchanged. This report proposes a commercial solution that does not require a global carbon tax. It proposes putting capex and fuel savings on the same side of the table. Verify, baseline, and settle performance so that fuel-not-used and carbon-not-emitted convert into booked cash flows. Use standard measurement and settlement to create comparability across vessels and routes, enabling portfolio aggregation, securitisation and amortisation linked to measured savings rather than spot markets.

From compliance cost to cash flow

The mechanism works today under EU ETS and FuelEU Maritime, and can reference a global price if and when the IMO framework begins. The result is that avoided fuel becomes a financeable asset; upgrades scale; investors and lenders gain predictable repayment; programme costs fall; fleet efficiency improves.



Special report

Macroeconomic Outlook

Shipping Market Review – November 2025



Executive Summary

Macroeconomic outlook

Near-term outlook: Resilient but moderating

Global growth will remain resilient in the near term, but this resilience is built on temporary factors such as front-loading of trade, investment and inventories. Growth is projected to ease from 3.3% in 2024 to 3.1% in 2026 as underlying momentum weakens. Advanced economies are slowing under the weight of higher tariffs, restrictive monetary policy and reduced investment appetite, while emerging markets continue to provide most of the global growth impulse, led by India. Inflation has moderated from its peak but remains above target in most major economies. Persistent price pressures are delaying the monetary easing cycle, keeping borrowing costs elevated and weighing on global trade and investment.

Structural transitions: Productivity, demographics and fragmentation

Over the medium to long term, the global economy will transition from rapid industrial expansion to a phase driven by productivity, human capital and technological change. Fiscal fragility, shaped by rising debt levels and shifting budget priorities, is constraining governments' ability to support growth. Geopolitical fragmentation and the use of trade policy as a strategic tool are reshaping trade corridors, creating more volatile and regionalised patterns of exchange. Demographic ageing is further dampening potential growth and reducing labour supply. In parallel, China's shift away from property-led investment towards technology, consumption and green energy is reducing import demand for bulk commodities and fossil fuels, even as regional ties deepen.

Implications for shipping: Softer growth, higher volatility

For shipping, these dynamics signal a structural change in demand. Fossil fuels account for around 40% of global seaborne trade volumes, but the energy transition and China's reorientation will narrow this base over time. Demographic ageing and fiscal constraints are lowering investment in capital-intensive industries, weakening traditional trade flows. Geopolitical fragmentation is adding volatility through tariffs, sanctions and rerouting, which may temporarily support activity but cannot offset the underlying decline in tonne-miles. The market is shifting from scale-driven, globally integrated growth to a more volatile, fragmented and slower-growing seaborne landscape.

Short-Term Global Economic Outlook: 2025-2026

Despite major disruptions, the global economy has shown remarkable resilience

Global economic growth has remained resilient but driven by temporary factors such as front-loading of trade and investments. Trade wars, uncertainty and inflation are expected to weigh on global economic growth in the short term.

Resilient growth in the short term is being driven by temporary factors

Despite major disruptions in trade policy and a surge in uncertainty, the global economy has shown remarkable resilience. However, this strength appears to reflect temporary factors such as front-loading of trade, investment and inventories rather than strong underlying fundamentals. Global growth is projected to ease from 3.3% in 2024 to 3.2% in 2025 and 3.1% in 2026. While activity remains resilient, growth continues to trend below the long-term average of 3.7% recorded between 2000 and 2019. The world economy continues to be constrained by geopolitical uncertainty, rising protectionism and lingering supply chain reconfiguration.

Tariffs and uncertainty weigh on advanced economies

Growth in advanced economies is slowing as higher tariffs and tight monetary conditions continue to dampen demand. Economic activity is forecast to expand by around 1.6% in 2025 and 1.7% in 2026. The US remains the main driver of growth, driven by solid household spending and public investment, although momentum is expected to ease gradually. The Euro area continues to recover slowly, with high interest rates and subdued investments offsetting the benefits of fiscal stimuli.

Emerging markets continue to drive global economic growth

Emerging markets continue to account for most of the global growth. Output is projected to increase by about 4.2% in 2025 and 4.1% in 2026. India remains the key driver, expanding by more than 6.0% annually, driven by infrastructure investment and rising domestic demand. In contrast, China's growth is set to slow towards 4.2% in 2026 as structural challenges in the property market and weak domestic consumption weigh on activity.

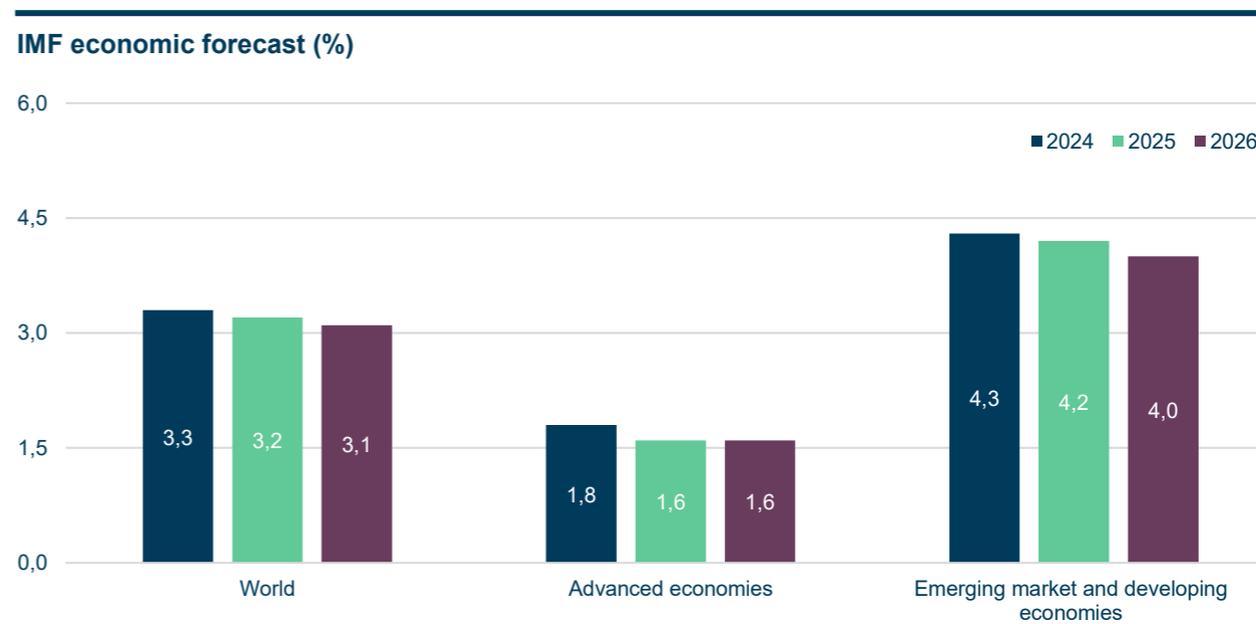
Inflation remains stubbornly high

Inflation continues to moderate but remains above central bank targets in most major economies. World consumer prices are expected to fall from 5.8% in 2024 to 4.2% in 2025. Headline inflation has abated as energy prices have stabilised, yet core inflation remains stubborn, sustained by resilient wage growth,

sticky service prices and the inflationary effects of higher tariffs. Central banks are thus maintaining restrictive policies for longer, delaying the expected easing cycle. The elevated borrowing costs are weighing on global investments and trade. While price pressures are easing gradually, the path back to target is uneven and uncertain. This will most likely leave monetary policies tight well into 2026.

Implications for shipping markets

Shipping markets continue to be supported by the volatile nature of global trade. Frequent policy shifts, sanctions and rerouting linked to geopolitical tensions have sustained activity through front-loading and temporary disruptions. However, these effects will be short-lived. The industry is navigating increasingly uncertain waters, where instability has become the norm. As global growth slows, shipping demand is likely to soften in the near term.



Sources: IMF, KKR and Danish Ship Finance

Long-Term Global Economic Outlook: 2030 Onwards

A transitioning global economy

The global economy is transitioning to a new phase driven by innovation, productivity and human capital. While growth is set to moderate in the coming decades, downside risks persist.

A new growth paradigm is emerging

The long-term outlook for the global economy indicates slower but more sustainable growth. The years ahead are likely to be defined by a transition from the industrial expansion and globalisation of the early 21st century to a new phase driven by innovation, productivity and human capital. While the world economy will continue to grow, the forces behind that growth will shift.

Growth driven by productivity and human capital

In the decades to come, output growth will rely increasingly on the quality rather than quantity of inputs. The expansion of the global labour force is nearing its limits, and capital accumulation is being constrained by high debt levels and tighter monetary conditions. Future growth will therefore depend on raising productivity through digitalisation, automation, artificial intelligence and the efficient use of resources. Education, research and innovation will play a central role in sustaining economic momentum. Economies capable of developing adaptable workforces and leveraging new technologies will likely outperform their peers.

Global growth is projected to settle at a lower pace

Over the next decade, global GDP growth is projected to settle at 2-3% annually, which is a step down from the higher rates seen in the early 2000s. This reflects a world that is maturing economically, with slower population growth but higher per capita incomes, and a gradual convergence between advanced and emerging markets.

Emerging economies will remain key contributors to this expansion, supported by urbanisation, digital transformation and a growing middle class. However, their industrialisation will likely be more service- and technology-oriented, rather than the resource-heavy models of previous decades. Meanwhile, advanced economies will focus on maintaining competitiveness through innovation, the energy transition and supply chain resilience.

Green and digital transitions reshaping the global economy

The green and digital transitions are expected to reshape global investment and trade patterns. The decarbonisation of energy systems and the push for sustainability will create new sources of demand in renewable energy, critical minerals and low-emission infrastructure. At the same time, technology adoption will drive productivity and change the composition of trade, increasing flows of high-value and specialised goods. These transitions are unlikely to deliver the same growth intensity as earlier industrial booms, but they may help stabilise long-term potential growth at moderate levels.

A more fragmented but adaptable global economy

Globalisation is entering a more selective phase. Rather than broad integration, the world economy will likely continue to see the rise of regional blocs and diversified trade corridors. This trend may reduce efficiency but also increase resilience by shortening supply chains and reducing exposure to geopolitical risk. For global trade, this means slower overall growth but a more complex network of routes and relationships. Fiscal constraints, geopolitical realignment and demographic shifts will continue to weigh on long-term potential growth. However, they are also prompting structural adaptation.

Supply chains are being redesigned, new technologies are accelerating productivity, and emerging economies are developing alternative engines for growth. The global economy may therefore become more decentralised, and potentially more stable, even if it grows more slowly.

Seaborne demand will undergo a structural transition

As the composition of growth changes, so too will the nature of global trade. The relationship between GDP growth and trade intensity is expected to weaken as economies shift towards services, technology and regional production networks. Fossil fuels account for around 40% of global seaborne trade volumes. As such, seaborne demand will also undergo a structural change in a world that is gradually decarbonising its economy. The shipping industry will thus operate amid less dynamic trade growth. Long-term opportunities will increasingly stem from efficiency, adaptability and alignment with new patterns of economic activity.

The balance of risks remains tilted downwards

The long-term outlook suggests a rebalancing of the global economy towards innovation- and productivity-led growth. Expansion will be steadier but slower, shaped by digital transformation, decarbonisation and evolving trade structures. The balance of risks, however, remains tilted downwards, reflecting demographic headwinds, fiscal constraints, geopolitical fragmentation and China's structural transition. The following pages explore these downside risk dynamics in greater depth. Each examines a major structural force that will impact the contours of long-term global growth and, in turn, the future trajectory of seaborne trade.

Sources: IMF, KKR and Danish Ship Finance

The Demographic Transition Will Lower Long-Term Potential Output

An ageing world population will lead to a structural change in consumption and investment patterns

The world population is ageing, with some economies already facing negative population growth rates. This shift will likely dampen demand for bulk commodities, manufactured goods and energy products. Consequently, the link between population growth and seaborne demand is weakening.

An ageing global population...

Population growth has long been a key driver of global seaborne trade, supporting economic expansion through rising consumption and a growing income base. However, the composition of the world's population is changing rapidly. Global demographics are shifting toward ageing societies, and the pace of population growth is slowing. By the mid-2030s, most of the world's population will live in countries where the working-age population is either stagnant or declining. The global median age is projected to rise from 30 years in 2025 to around 42 years by 2100. This trend will constrain labour supply and lower long-term potential output, particularly in advanced economies and parts of East Asia.

...will likely impact the structural fundamentals of global goods trade

As populations age, consumption patterns evolve. Older households spend more on services such as healthcare and less on durable goods and housing. This shift is likely to dampen seaborne demand. Over time, the result will be a slower expansion of global trade volumes and a gradual rebalancing towards service-oriented economies.

Ageing may also weigh on productivity and trade intensity

An ageing workforce tends to reduce productivity growth, as labour mobility and innovation capacity decline. While artificial intelligence, automation and digitalisation may offset some of these effects, the net result is likely to be lower overall economic dynamism. Historically, periods of slower productivity growth have coincided with weaker trade intensity. As a result, long-term economic growth may be constrained by both a smaller working-age population and declining productivity, unless digitalisation fully compensates. This structural shift suggests a lasting moderation in the pace of seaborne demand expansion.

Emerging economies will partly offset the decline

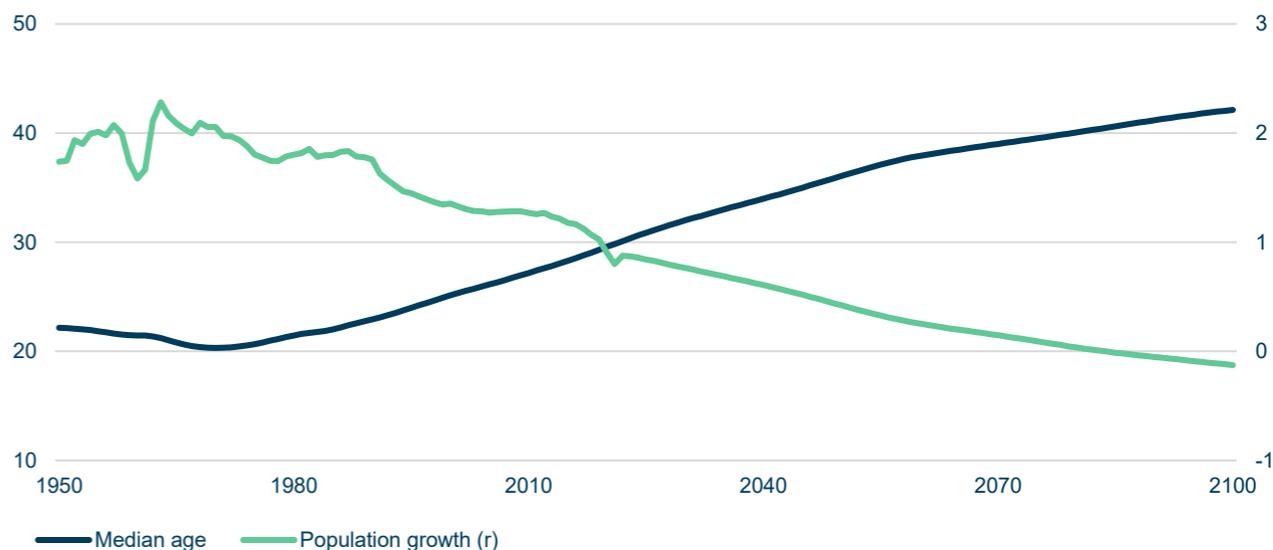
Emerging markets, particularly India and Africa, will remain key engines of growth, both economically and demographically. Their young populations and rapid urbanisation will support long-term demand for

infrastructure materials and energy. However, these regions will have started from a smaller industrial base, meaning their contribution will not fully offset slower growth in advanced economies. Moreover, the composition of demand will differ: future industrialisation in these economies is expected to be less raw material-intensive than the heavy-industry expansion that previously drove trade in Asia.

The link between population growth and shipping demand is weakening

The demographic transition marks a structural turning point for shipping. Slower population growth and ageing societies imply weaker demand for bulk commodities and manufactured goods. Over time, global seaborne trade will depend less on the sheer scale of goods transported and more on high-value and diversified cargo flows. The link between population growth and shipping demand is weakening, signalling a shift towards a more mature and differentiated market.

World population median age (years) and population growth (%)



Sources: IMF, Bloomberg Economics, KKR, UN World Population Prospects and Danish Ship Finance

Geopolitical Tensions Are Changing the Global Order

Rising geopolitical tensions and uncertainty has become a structural feature of the economy

Rising geopolitical tensions are reshaping the global order that we have known for the past many decades. The world is becoming more fragmented, which reflects a broader movement towards strategic and economic blocs. Consequently, shipping companies are navigating increasingly uncertain waters.

The global order is changing

The global order is becoming increasingly fragmented. Rising geopolitical tensions and trade disputes are reshaping the flow of goods, capital and technology. Strategic rivalries between major economies have led to new trade barriers, tariffs and export controls. Trade policy is now frequently being used as an instrument for advancing broader strategic and security objectives. Traditional alliances are being re-evaluated, with growing questions over their durability and relevance. This climate of uncertainty has eroded business confidence and dampened investment appetite across many economies.

More regionalised and fragmented trade

For decades, the US was regarded as the world's dominant superpower. Today, however, more countries are strategically positioning themselves to gain global influence and economic leverage. This shift is driving a trend towards greater regionalisation, as companies and governments seek to reduce exposure to geopolitical and logistical risks. The rise of regional trade corridors across Asia, the Middle East and the Americas reflects a broader movement towards economic blocs. At the same time, concerns over dependence on a limited number of suppliers or markets are prompting more diversified and fragmented trade patterns.

The increasingly volatile nature of trade policy

Trade policy is increasingly being deployed as a tool of geopolitical pressure. The recent US-China trade war, reciprocal tariff measures, and port fees targeting each other's vessels illustrate this volatility. Similarly, the US's decision to impose higher tariffs on imports from India and China in an effort to curb their purchases of Russian oil demonstrates how trade policy is being leveraged to achieve political objectives. This more unpredictable trade environment is likely to persist, heightening uncertainty for global markets and complicating long-term planning.

Trade wars and uncertainty will weigh on long-term growth

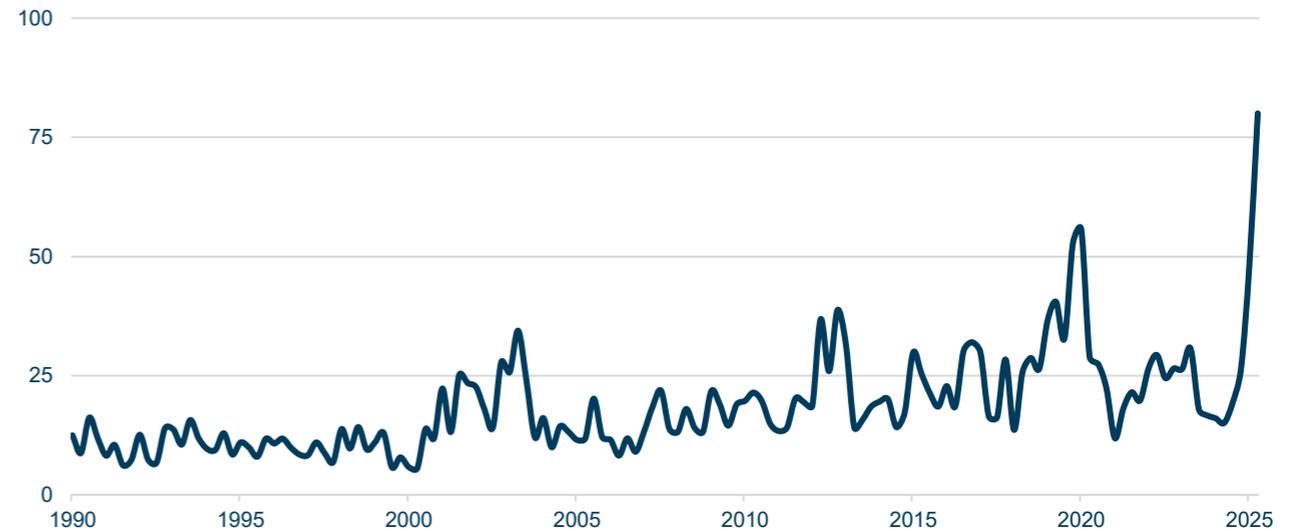
For shipping, fragmentation brings both risks and opportunities. Shorter voyage distances and rerouting

may reduce efficiency and increase costs but can also create demand for new trade routes and vessel segments. For example, recent port fee measures by the US and China have prompted Container shipping companies to replan and redirect vessels towards alternative markets, driving up demand for feeder services. However, while some sectors may benefit in the short term, persistent trade conflicts and uncertainty will ultimately weigh on global growth and trade intensity over the long term.

Uncertainty may become the new constant

With geopolitical tensions rising, uncertainty has become a structural feature of the global economy. For shipping markets, this points to a future with more frequent disruptions, volatile freight rates and heightened operational complexity. Companies capable of anticipating and adapting to these shifts will be better positioned to not only manage risk but also capture emerging opportunities in an increasingly fragmented world.

World uncertainty index (GDP weighted)



Sources: IMF, McKinsey Global Institute, Federal Reserve Bank of St. Louis and Danish Ship Finance

The Debt Dilemma: Shifting Priorities and Slowing Growth

Rising debt levels have heightened risks to the global economy

The growing public debt in major economies is increasing the financial risks. Fiscal priorities are shifting, while the burden of higher interest expenses is eroding investment in productive industries. This may have major implications for the health of the global economy.

Debt levels have reached historical highs...

Fiscal sustainability has become a growing concern. Public debt in advanced economies has reached its highest level in decades, while rising interest costs are consuming an increasing share of government budgets. The US remains a key source of risk, as large fiscal deficits continue to push debt higher despite robust growth. In the second quarter of 2025, total public debt stood at around 118% of GDP, placing the US among the ten most indebted economies in the world.

...shifting fiscal priorities

Rising geopolitical tensions and higher borrowing costs have reshaped fiscal priorities, particularly in Western economies. Increased defence spending and social commitments are absorbing a larger share of public resources, leaving less room for investment in infrastructure, education and innovation. This reallocation is expected to dampen long-term growth prospects and slow productivity gains. At the same time, persistent borrowing needs are likely to keep interest rates elevated for longer, raising financing costs across industries and reducing private investment appetite.

Fiscal fragility constrains future policy flexibility

With public finances already stretched, governments have limited room to respond to future shocks. Elevated debt levels have reduced countries' fiscal space and increased their vulnerability to shifts in market sentiment. This constraint may result in more procyclical policy responses during downturns, likely amplifying volatility in growth, investment and trade. For capital-intensive sectors such as shipping, prolonged fiscal tightening could weaken long-term demand and delay investments.

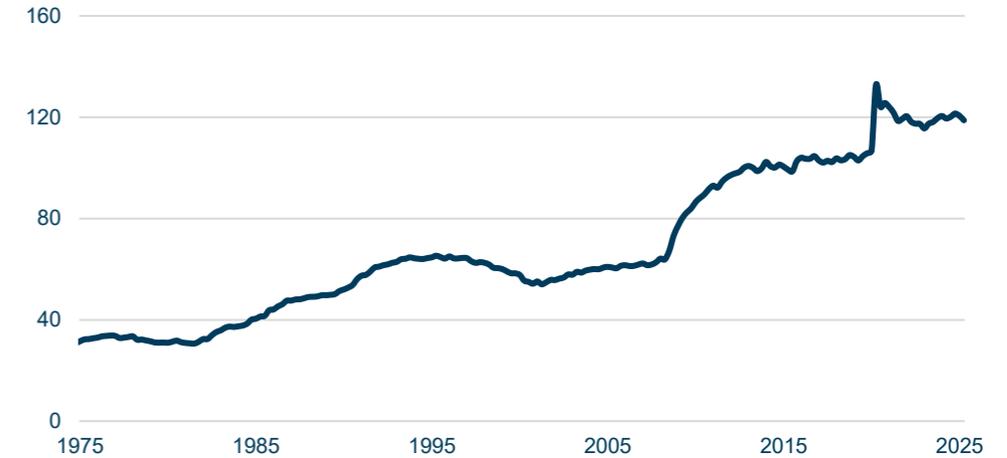
High dependence on the US increases risks

US equity markets have recorded exceptional gains in recent years, driven by strong corporate earnings and enthusiasm for artificial intelligence. This performance has deepened the global financial dependence on US assets, concentrating financial risk to a narrow segment of the global economy. A correction in US asset prices could have broad spillover effects for the global economy, particularly for emerging markets reliant on foreign capital inflows.

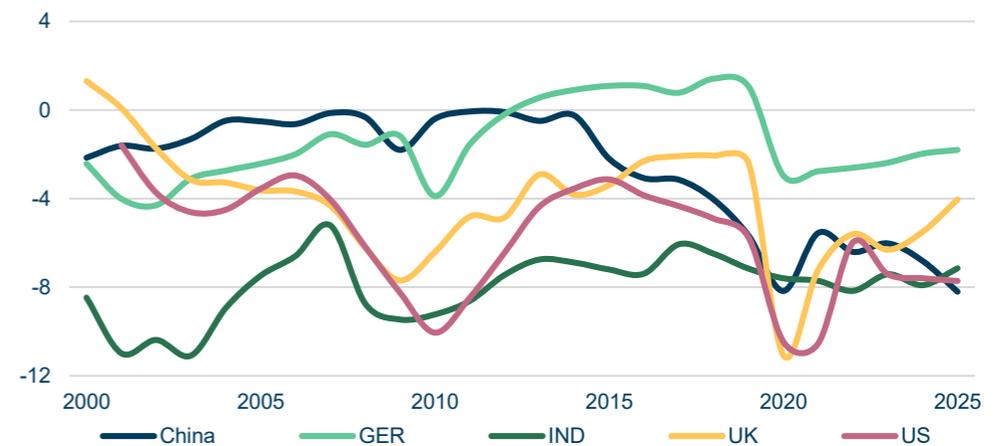
Negative implications for seaborne demand

For shipping, persistent fiscal imbalances represent a key downside risk. Slower global growth, tighter capital markets and reduced investment spending all point towards softer demand for seaborne trade.

US public debt to GDP ratio (%)



Fiscal balance in major economies (% of GDP)



Sources: IMF, Federal Reserve Bank of St. Louis, KKR and Danish Ship Finance

Navigating Change Amid China's Economic Transition

China's shift will likely reshape global shipping

China has been central to the growth in the global seaborne trade volumes in the past decades. However, since the bust in the property sector, the Chinese government has tried to shift its focus towards a consumption- and technology-driven economy. This may have major implications for shipping markets in the long run.

China's economy is shifting its focus

China remains central to global trade, accounting for over 30% of global seaborne trade volumes. However, its growth model is shifting. The economy is moving away from property-led investment towards consumption, technology and green energy. This transition is reducing demand for bulk commodities and energy products while increasing exports of high-tech and renewable products.

Slower but more balanced growth

China's growth is expected to average a little under 4% over the coming decade. This is far below the double-digit rates that once powered global trade, largely owing to a declining population. The focus on productivity and self-sufficiency will support long-term stability but limit demand for raw materials and traditional energy imports.

Geopolitical tensions are driving technological self-reliance

Beijing's industrial strategy is increasingly centred around self-sufficiency in critical technologies, including semiconductors, artificial intelligence and clean energy manufacturing. This policy aims to reduce dependence on foreign suppliers and strengthen China's position in global value chains. The result is a gradual reorientation of trade towards higher-value goods and technology-intensive sectors. However, it also implies a decoupling from some traditional trading partners, adding complexity to global trade networks.

The energy transition will likely reshape China's import mix

As China accelerates its shift towards renewable energy and electrification, its energy import structure is evolving. Demand for coal and crude oil is expected to plateau, while imports of natural gas, critical minerals and renewable components are growing. This change will gradually alter seaborne commodity flows, reducing tonnage in fossil fuels and supporting demand for critical raw materials that are important for green energy technologies.

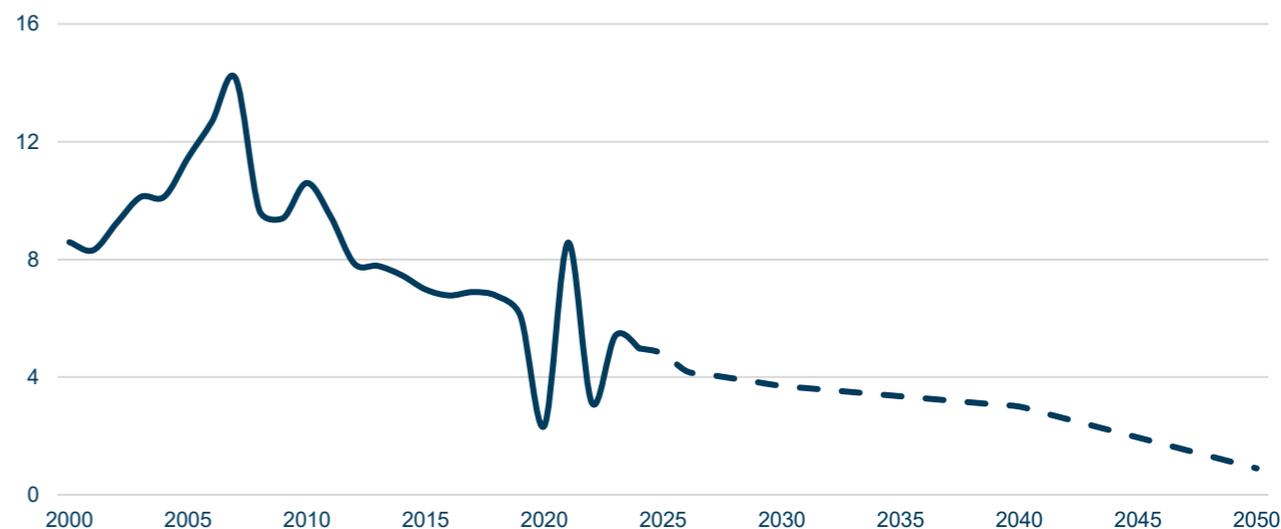
Regional trade is becoming more important for China

Despite the slowdown, China remains a key trade hub. Initiatives such as the Belt and Road are strengthening ties with Asia, Africa and the Middle East. These initiatives will sustain regional shipping volumes even as total import and export growth slows. The expansion of regional logistics networks and port investments underlines China's role as an anchor in intra-regional trade in Asia.

Implications for global shipping

For the maritime industry, China's structural transition implies slowing (or maybe even negative) growth in seaborne demand. Bulk trade growth will likely moderate, while imports of fossil fuels will be gradually phased out. Nevertheless, China's evolving role in global trade will remain a defining factor for shipping demand, but its impact will be more complex and regionally focused than what has been experienced over the past two decades.

China long-term GDP forecast (%)



Sources: IMF, Bloomberg Economics, KKR, UN World Population Prospects and Danish Ship Finance

Special report

Energy Markets Are Shifting From Fuel to Power

Shipping Market Review – November 2025



Executive Summary

Energy markets are shifting from fuel to power

Seaborne fossil fuel volumes are set to contract as cheaper, domestic renewables displace imports. Volumes are expected to contract throughout the late 2020s and early 2030s, with early declines where renewable build-out, grids and storage are strongest. Electrification and better design are compressing energy flows, so fewer imports are needed to deliver the same services, locking in lasting reductions in seaborne demand. Shipping – at the centre of global energy trade – will feel this via changing routes, shorter planning horizons and a reset of asset economics. The adjustment will be structural and stepwise, varying by fuel and region. Coal, LNG and oil will follow different paths, but the mechanism will be the same. As steady flows narrow and seasonality becomes more pronounced, cash flow security will shift to younger, efficient vessels that meet tighter operational and regulatory thresholds. Older, less efficient units will face shorter employment cycles and earlier retirement as demolition becomes the main balancing tool. This should not be seen as a sudden dislocation, but a steady repricing of risk and visibility.

1. Trigger: The system build-out reaches critical scale

After years of investment, renewables, transmission and digital infrastructure are now converging. Wind and solar are the lowest-cost sources of new power in most major markets. Battery costs have fallen, enabling short-term balancing. Smart grids, dynamic pricing and demand-response platforms now coordinate supply and demand in real time. Electrification of heat, transport and parts of industry is expanding the controllable load, while improved forecasting and market design allow for reliable operation at high shares of variable supply. This scale-up is not incremental; it is the foundation that will enable structural substitution away from fossil fuels.

2. Economics: Manufactured power undercuts imported fuels

With infrastructure in place, the economics tilt sharply. Domestic renewables combine cost advantages with greater energy security. Once installed, they require no recurring fuel imports. Each new renewable asset locks in a permanent reduction in future fossil import demand. The economic centre of gravity shifts from fuels to power.

3. Service substitution: People buy outcomes, not fuels

Fossil fuel demand will not decline simply because renewables are cheaper. It will fall because the way energy is consumed is changing. Households and firms buy warmth, light, mobility and process heat – not fuels. When these services can be delivered more cheaply and more reliably through electrified technologies, fossil fuels will become the marginal option. Once device stock changes – cars, boilers, industrial systems – the shift will be structural. Commodity price swings will no longer be able to reverse the service pathway.

4. Efficiency and flexibility amplify the shift

Electrification brings large efficiency gains. Electric vehicles use far less energy per kilometre than petrol cars. Heat pumps multiply the energy output per unit of input. Solar and wind avoid thermal losses altogether. Less energy is needed to deliver the same service. System flexibility further compresses demand. Batteries, interconnectors and demand-side response flatten peaks, reduce reserve needs and enable leaner operation. Each upgrade narrows the space in which imported fuels remain competitive.

5. Demand trajectory: Stepwise decline, not a smooth curve

Fossil fuel demand is declining in steps rather than in smooth curves. Each commissioning wave of renewables and each new cohort of efficient devices remove a layer of routine fuel use. Demand stabilises for a time, then steps down again as the next wave connects. The pace varies by region, but the direction is uniform: fewer imported molecules are needed to produce the same economic output.

6. Shipping impact: Fossil flows become residual

Fossil fuels are losing their structural relevance. Long-haul trades are giving way to smaller, more volatile and seasonal flows driven by weather, outages and short arbitrage windows. Coal volumes are already contracting, natural gas demand is flattening, and oil demand is starting to erode. As system control moves inside the power system, fossil fuels will no longer be the anchor for energy security. Their share of the energy mix will become residual, with limited rebound potential, and shipping volumes will become structurally weaker.

From Fuel Logistics to Manufactured Power

Global energy systems are undergoing a fundamental transition. For more than a century, energy systems have been built around the extraction, transport and combustion of fuels. Energy security has been ensured through supply chains stretching from mines and wells to power plants, boilers, furnaces and engines. The shipping industry has been at the core of the system: coal, oil and natural gas are shipped in enormous volumes across long distances, underpinning both energy supply and freight markets.

Structural change reduces seaborne fossil trade

This model is changing. Renewables – especially wind and solar – are now the lowest-cost sources of new power in many markets, accelerating build-out. Battery costs have fallen, making short-term balancing viable. Digital infrastructure – from smart meters and dynamic tariffs to demand-response platforms and virtual power plants – coordinates consumption and distributed resources in real time. Electrification of heat, transport and parts of industry is expanding the controllable load, while better forecasting and market design support reliable operation at higher shares of variable supply.

More than megawatts: Why each renewable tranche over-displaces fossil imports

Once a wind turbine or solar plant is built, it does not need further shipments of fuel. As these technologies scale, each new project permanently removes the need for fossil fuel shipments that would otherwise have supplied the same energy. At the system level, new renewables paired with flexibility typically reduce seaborne fossil fuel demand by more than the incremental clean energy produced. By shaving peaks, tightening reserve needs and time-shifting consumption, they remove disproportionately more fossil-fired hours. This is a structural shift, not a temporary dip. The impact on shipping segments is expected to be profound.

“*Renewables are now the lowest-cost sources of new power in many markets.*”

Energy Security Now Means Using Less Fossil Fuel

Energy markets are in a new phase. The policy lens has shifted from climate to security and competitiveness. Still, the energy strategy is unchanged: it continues to be about efficiency, electrification, renewables, flexibility and grids. Regional progress on policy, projects and grid connections is uneven; financing costs are higher; and some capital-intensive projects have been delayed, including parts of the hydrogen pipeline. The triggers are clear: the war in Ukraine, Red Sea attacks, and tensions in the Strait of Hormuz. Added to this are tighter trade conditions with the US, Europe's exposure to concentrated LNG supply, and China's export push in clean-energy hardware. This is a pivot from climate to security, not from renewables to fossils. The direction holds, but pacing and sequencing are being adjusted.

Same playbook lowers total cost

The lowest-cost route to a more resilient and reliable energy system will be achieved via the same portfolio of measures for lowering emissions: use less; electrify end uses; add low-cost renewables; pay for flexibility; reinforce grids. Seen from the perspective of risk and cost control, decarbonisation will be a co-benefit, not the driver. Security is now anchoring the policy, operator and investor narrative, but the end goal is the same: harden the energy system and drive down baseline fossil demand at a lower total cost.

“*Energy security leads. Decarbonisation follows.*”

Renewables and Flexibility Are Displacing Fossil Imports

Each new renewable installation reduces future fossil-fuel import demand. As device stocks turn over, efficiency gains accumulate and permanently lower routine fossil demand. Flexibility from batteries, thermal storage, smart EV charging and automated building controls flattens peaks and shortens the fossil back-up tail. Interconnectors and grid-enhancing technologies reinforce the effect.

Why demand keeps ratcheting down

When homes and factories switch devices – gas boilers to heat pumps, diesel cars to EVs, resistive heaters to electric – they deliver the same service with far less energy. A heat pump typically provides three units of heat for one unit of electricity, while an EV turns most of its electricity into motion. These efficiency gains will persist over long investment cycles, and routine fossil demand will steadily decline.

How peaks get smaller and rarer

Batteries, hot-water tanks, timed EV charging, smart building controls and virtual power plants all help move demand away from the most expensive hours. They flatten the spikes that used to require fossil fuel back-up. Cross-border interconnectors and grid-enhancing tech spread surplus power across regions, so fewer plants need to be fired up at the same time.

Timing varies, but the direction holds

Markets will move at different speeds. Grid access, permitting and finance will set the pace. The direction will be set by economics and coordination: cheaper renewables, smarter tariffs and tighter control of when and where demand runs. As these scale, fossil demand will decline structurally and import needs will fall by design.

What this looks like on the ground

- A windy Tuesday evening: Local turbines cover the dinner peak; a community battery tops up the gap. No gas peaker is needed.
- A cold morning: Heat pumps pre-warm buildings before the peak; thermal stores carry them through. Fewer boilers are on standby.
- A neighbourhood of EVs: Chargers pause for an hour when the grid is tight, then resume overnight. The “backup tail” shortens.
- A coastal region: A new interconnector ships excess offshore wind to a neighbour instead of curtailing it. Both burn less gas.

Design Optimisation: The Quiet Engine of Falling Energy Demand

Electrification and efficiency are visible forces in the energy transition. A third force – design optimisation – is quieter but just as powerful. It reduces the energy required to deliver a given service before the technology mix even matters. Every improvement in insulation, airflow, layout or controls removes a slice of energy demand that never returns. The effect compounds: each optimised site locks in lower consumption for decades.

Efficiency by design

The cheapest and most reliable energy is the one not consumed. Design and retrofit choices cut both peak power and annual energy without reducing comfort or output; better insulation and airtightness prevent heat loss; right-sized motors and pumps use less power; simplified pipework and ducts reduce friction losses; heat recovery captures what used to be waste; and modern controls coordinate the system so that each component runs only as hard as it needs to. When executed well, these programmes commonly reduce site demand by a quarter to a half.

Integrative design changes the economics

Once loads are smaller, everything upstream can be smaller too. A building that leaks less heat can use a smaller heat pump. A factory with efficient motors can install lighter wiring and smaller transformers. Each step trims both capital cost and operating energy. Clean electricity then serves a reduced load, timed for cheaper hours through smart control. Because the entire system is optimised, deep savings often cost less than shallow ones – and the need for backup or oversizing largely disappears.

Locked-in demand reduction

This is not incremental fine-tuning; it is a structural shift in how energy systems are sized and operated. Retrofits and newbuilds embed lower demand structurally, removing future energy sales from the market. As portfolios of efficient buildings, factories and data centres expand, the combined effect is a permanent drop in energy intensity across economies.

Why it matters for shipping

For maritime trade, this design revolution translates into fewer fuel molecules moving through the system. Every unit of heat saved by insulation, every kilowatt avoided by efficient motors, and every recovered joule of waste energy reduce the upstream need for coal, oil or LNG. These avoided loads never appear in import statistics. As design optimisation spreads through buildings and industry, it compresses the physical flow of energy, reinforcing the downward pressure on seaborne fossil volumes already set in motion by electrification and renewables.

Electrification Is Redefining the Energy Balance

Global electrification is more than a fuel switch; it is a structural redesign of how energy is converted, delivered and used. For a century, energy services – heat, mobility, power and industrial processes – have relied on burning fuel. Each step has leaked energy: flue losses in boilers, friction in engines, and conversion losses in power plants. As electrification spreads, most combustion steps will disappear. Electricity will become the direct carrier, and renewables will become the source. The result will be a sharp, durable fall in energy use at the point of consumption (final energy) and at the source (primary energy).

From combustion to conversion

Replacing combustion with conversion entails swapping burning fuel for electricity. Boilers, engines and furnaces waste much of their input as heat. Heat pumps, electric motors and induction deliver the same warmth, motion and process heat with a fraction of the input. Final energy falls because less is needed at the meter to do the job. Primary energy falls further because fewer molecules are burned upstream to supply that meter.

Final energy

Final energy is what the device consumes at the point of use – electricity into a heat pump, diesel into an engine. Electrified technologies convert electricity directly into the service required rather than burning fuel, so much less input is needed. Heat pumps move heat; electric motors turn electricity into motion with limited losses. The practical outcome is clear: for the same warmth, light and mobility, energy at the meter falls by roughly one-half to two-thirds in common applications.

Primary energy

Primary energy is the energy at the source before conversion losses – fuel in a power plant, oil in a refinery, gas in a pipeline. Combustion-heavy chains waste large shares as heat long before energy reaches the user: thermal power plants typically lose 40-60% of fuel input; engines and boilers shed significant heat via exhaust and cooling. As the electricity supply shifts to wind and solar, these combustion steps disappear. A turbine or panel produces electricity without burning fuel, so upstream losses contract. The net effect is that primary energy drops more than final energy, because the system needs fewer molecules at the source to deliver each unit of service at the end use.

Why Final Energy Demand Will Fall

Electrified devices are intrinsically more efficient. A heat pump moves heat instead of producing it, often delivering three to four units of heat for every unit of electricity consumed. An electric motor converts more than 80% of its electricity into motion, compared with about 20% for a combustion engine. Device lifetimes of 10-20 years mean these gains persist over long cycles.

Structural demand erosion through electrification

As millions of these devices replace fossil-based equipment, the total final energy needed to deliver the same comfort, mobility or industrial output will fall sharply. The world will continue to provide the same or better energy services, but with much less energy input at the consumer level.

“*The benefits compound as the system matures. Smart grids, digital controls and storage allow electricity demand to shift away from peaks, avoiding the need for fossil back-up. The result is a system that delivers the same or better outcomes with materially less energy throughput.*”



Why Primary Energy Will Fall Even Faster

The change is even larger upstream. In fossil-based systems, large volumes of primary energy are lost before reaching the end user – in power plant cooling towers, refinery furnaces and engine heat. Electrification powered by renewables removes most of these losses. A wind turbine or solar panel delivers electricity directly, without burning fuel or releasing heat waste.

Electrification removes upstream losses

As the share of renewable power grows, the ratio between primary and final energy narrows dramatically. Less energy must be extracted, transported and converted to deliver the same services. This is why projections from organisations such as the IEA and IRENA show total primary energy demand peaking well before final energy demand.

“*In the fossil era, roughly two-thirds of the energy extracted never reached the end user as useful work. In the emerging electric era, most of that waste is disappearing. Every new electric device and renewable connection permanently lowers both final and primary energy demand.*”

Implications for Seaborne Trade

For shipping, this arithmetic is decisive. Lower final energy demand means fewer shipments of coal, oil and LNG to meet the same global economic output. Lower primary energy demand means that the upstream need for these fuels will contract even faster. Electrification and renewables are steadily narrowing fossil trade flows, eroding the baseload that has anchored shipping demand.

Structural drivers of tonne-miles are weakening

Over time, seaborne fossil energy trade will become narrower, more seasonal and more price-sensitive. The structural drivers of tonne-miles are weakening, replaced by shorter, more variable trades linked to residual or transitional fuels.

“The global energy system is thus shrinking in physical volume even as it grows in delivered services. Less fuel is moving through ports, pipelines and storage.”



Sectoral Outlook: **Coal**, Liquefied Natural Gas and Oil

Coal outlook – first and deepest contraction

Coal is most exposed, because the forces reshaping power systems are biting hardest here: higher end-use efficiency cuts total throughput; rapid wind and solar build-out supplies cheaper power; stronger grids and interconnectors move it to where it is needed; and storage plus flexible demand remove many of the peak hours for coal once served. The result is fewer hours when coal is economical.

2025-2030 – step-downs driven by grid and storage

Periodic reductions in coal burn can be expected as high-voltage transmission lines connect high-wind and high-solar regions to demand centres. Utilities will deploy battery energy storage systems to cover the early-evening peak that coal units used to serve. Grid-enhancing technologies such as dynamic line rating, power-flow controllers and topology optimisation will raise transfer capacity without new towers. The result will be fewer “must-run” hours for coal, flatter evening peaks and lower import needs, especially in shoulder seasons.

Early 2030s – structural declines from electrification and efficiency

Declines will steepen as building insulation and heat pumps cut winter heat demand. Time-of-use tariffs and automated demand response will shift consumption out of peak hours. In industry, electric boilers, electric kilns and electric arc furnaces will replace fossil-fired equipment, widening the base of controllable load. With more variable renewable energy and smarter load control, coal units will run for fewer hours each year, seasonal spikes will shrink, and baseline imports will contract further.

What this looks like in practice

A new high-voltage line brings offshore wind power inland. Big-city batteries cover the 17:00-21:00 evening peak. Better insulation and air-source heat pumps cut the winter morning spike. A steel mill switches to an electric arc furnace. Each step means fewer coal-fired hours – and fewer coal cargoes.

Shipping implications

Long-haul routes such as Australia to Europe and South Africa to Asia see lower utilisation and shorter, more weather-driven pulls. Indonesia to China remains substantial but faces gradual erosion as China’s grid, storage and domestic renewables scale. Handysize and Panamax exposure becomes more seasonal, and tonne-mile demand trends down, even if absolute tonnes stay elevated for a time.

Sectoral Outlook: Coal, **Liquefied Natural Gas** and Oil (cont.)

Liquefied natural gas (LNG) – plateau risk, higher volatility

LNG has thrived as the flexible fuel in power systems. That role will tighten as electrified heating grows, buildings cut heat loss, industry lowers pumping and fan loads with better design and right-sized motors, and two- to six-hour batteries plus demand response cover the evening ramp. Market rules mean that batteries and flexible loads are now paid for work that gas peakers used to do. The result is likely to be fewer steady baseload LNG flows, more short, weather-driven pulls, and a softer case for additional carrier tonnage after the current orderbook is delivered.

2025-2030 – step-downs driven by power substitution

Periodic reductions in LNG imports can be expected. Utility-scale wind and solar will push gas-fired plants off the system in sunny and windy hours. Big-battery fleets will now cover the early-evening ramp that open-cycle gas turbines used to serve. New high-voltage lines and cross-border links will move surplus renewable power into gas-reliant regions. In buildings, heat pumps will start to replace gas boilers, which will trim winter peaks. Time-of-use tariffs and automated controls will shift electric heating and hot water away from tight hours. The result will be fewer LNG-for-power hours, shorter peaks and lower utilisation of FSRUs and regassification terminals in the off-peak months with softer energy demand.

Early 2030s – structural declines from electrification and efficiency

Deep building retrofits and widespread heat pump adoption will cut space- and water-heating gas demand. District energy will bring in large heat pumps and thermal storage. In industry, electric boilers, electric furnaces, induction heating and electric arc furnaces will replace gas equipment across low- and mid-temperature processes. Longer-duration storage and flexible tariffs will expand controllable load, reducing the role of mid-merit combined-cycle gas plants. LNG import profiles will shift from baseload to episodic, weather-driven pulls – with a lower baseline and more pronounced seasonality.

What this looks like in practice

A coastal FSRU operates at high load during a cold spell, then is largely idle for a windy quarter, as offshore wind and four-hour battery systems meet the evening peak. The city retires gas peaking plants after deploying demand response across commercial heating and cooling and introducing managed charging for electric vehicles. An industrial park replaces steam boilers with electric boilers following a 150 kV grid upgrade. Each change removes LNG cargoes from the schedule.

Shipping implications

LNG shifts from baseload to peaks. Imports arrive in shorter, sharper bursts around cold snaps, calm weeks and storage refills, with long quiet stretches in between. Fleet utilisation softens as the number of shoulder-season idle days rises and FSRUs cycle harder. Voyages trend shorter as portfolio players balance within regions and backfill from nearer sources; tonne-miles ease while spot-rate volatility increases. Contracting tilts to flexible volumes and seasonal options rather than year-round flow. Once the current orderbook is delivered, the case for additional LNG carriers will weaken. Future trade will be concentrated to shorter, seasonal peak pulls rather than the continuous baseload that has justified past fleet growth.

Sectoral Outlook: Coal, Liquefied Natural Gas and **Oil** (cont.)

Oil – transport electrification eats the base

Oil shipping is dominated by road fuels. Electric vehicles are reducing energy per kilometre and, with smart tariffs, shifting charging to low-cost hours. Better vehicle design and smarter logistics are cutting the energy required to move goods and people. Each electric vehicle contributes to a permanent removal of incremental oil demand. Electrified heat and process redesign in industry is lowering product demand at the margin. The combined effect is a slow but durable erosion of gasoline and diesel pulls in early-adopting regions, with refinery utilisation and product trade adjusting before crude trade does.

2025-2030 – visible erosion in road-fuel demand

Battery-electric cars, buses and delivery vans will scale quickly. Depot charging and public fast-charging will support the rollout, and megawatt charging will begin on heavy-truck corridors. Fuel-economy rules will tighten, hybrid numbers will grow, and bio-blends will increase in some markets. Urban logistics will electrify first- and last-mile transportation. Refiners will see weaker gasoline growth, and diesel demand will soften outside construction and mining. The net effect will be fewer seaborne cargoes of gasoline and diesel into importing regions, and higher utilisation risk at refineries that cannot pivot yields towards petrochemical feedstock.

Early 2030s – broader electrification, structural declines

Battery-electric heavy trucks will expand on trunk routes with depot and en-route high-power charging. Two- and three-wheelers will be largely electric across Asia. Heat pumps will replace fuel oil in buildings. Industrial process electrification will reduce refinery offtake of middle distillates. Fleet turnover and modal shifts will embed lower oil per kilometre. Petrochemicals will provide a partial offset, but additional naphtha and LPG feedstock will often be able to be met by refinery reconfiguration and PDH/steam-cracker optimisation rather than higher crude runs. Seaborne crude and clean-product volumes are expected to trend down: trade will become more regional and opportunistic, with refinery closures and conversions reshaping routes.

What this looks like in practice

A port that once handled regular diesel imports now hosts EV-bus depots and e-van fleets charging overnight on time-of-use tariffs. A national road network adds megawatt chargers at logistics hubs, enabling battery trucks to operate on 300-600km lanes. A refinery converts a crude unit to a chemicals-led configuration and cuts gasoline exports. Each change removes oil cargoes from long-haul lanes.

Shipping implications

Road-fuel electrification erodes gasoline and diesel flows, so clean-product trades thin and become more local. Crude movements suffer a knock-on effect as some refineries close or convert, shrinking long-haul, high-volume lanes and raising the share of regional balancing moves. The product mix shifts towards petrochemical feedstocks, often on shorter routes, with arbitrage windows more episodic and weather- or price-driven. The result is lower average utilisation for crude and product tonnage and weaker tonne-mile support, punctuated by brief spikes when outages, weather or policy create temporary dislocations.

Special report

Commercial Gap

Shipping Market Review – November 2025



Foreword

Strategic positioning ahead of global adoption

Regulatory signal deferred

The IMO Net-Zero Framework was approved in draft form in April 2025. Final adoption has been deferred to October 2026. The earliest entry into force now looks like early 2029. The trajectory is intact; the timing has slipped.

The market need not wait for a levy

A global carbon price would sharpen incentives, but it is not a precondition. The deferral widens the gap between ambition and execution, yet it also clarifies the opportunity: scale efficiency investment under today's rules and convert avoided fuel into hard cash flows.

Align the economics to unlock capex

The proposed structure places the capital outlay and the fuel-saving benefit on the same side of the table. That removes the owner–charterer split-incentive that has slowed upgrades for a decade. Savings are verified, baselined and settled, turning fuel-not-used and carbon-not-emitted into booked returns rather than good intentions.

Standardised finance at scale

Bespoke deals fragment the market and raise costs. Standard measurement, baseline definitions and

settlement mechanics deliver comparability across vessels and routes. This, in turn, enables portfolio aggregation, securitisation options and amortisation tied to measured savings rather than to spot-market luck. The result is a repeatable product, not a one-off negotiation.

Works under regional regimes and scales globally

The mechanism slots into EU ETS and FuelEU Maritime today, translating compliance exposures into forward cash flows at voyage, pool or corporate level. If the IMO framework enters into force, the same contracts can reference a global price without redesign. One architecture. Multiple policy environments.

Practical outcome

Avoided fuel becomes a financeable asset. Upgrades proceed because the party funding them captures the benefit, while lenders gain predictable repayment from measured performance. Transaction costs fall, programme pace rises and the fleet improves in step. The IMO delay does not weaken this case; it strengthens it by highlighting solutions that work now and expand naturally when a global price arrives.



Executive Summary

Commercial gap

Regulation is moving faster than commercial structures

Shipping is entering a decisive phase in its green transition. Regulation is tightening, and lenders are tying pricing, covenants, and access to capital to emissions performance and transition plans. The IMO has signalled a global net-zero framework. Yet the commercial architecture for delivering this transition is still lacking.

Efficiency is available, but fuel risk remains unresolved

Proven upgrades can already deliver efficiency gains, and sustainable fuels are emerging. But industrywide, standardised risk-sharing between owners and charterers remains unresolved. Without predictable cash flows, investors and lenders cannot establish the financial mechanisms needed to scale solutions, and demand signals for new fuels are too weak to trigger large-scale production. The result is a widening gap between regulatory ambition and commercial reality.

Turning compliance costs into value drivers

In this chapter, we set out how efficiency and fuel use can be reframed as value drivers that strengthen competitiveness and asset quality. We also explore how avoided fuel and carbon can be standardised as investable assets. Compliance charges can be recycled into market instruments that pre-fund supply and stabilise demand for sustainable fuels. If applied only in part of the market, the mechanics are the same but the overall impact is smaller.



The Commercial Gap in Shipping's Green Transition

Shipping is entering a decisive phase in its green transition. Regulatory requirements are strengthening worldwide, banks are linking funding terms to emissions, and the IMO has signalled a global net zero framework. But a lack of clarity over how owners and charterers will share risk, and the absence of aggregated demand signals for sustainable fuels, are holding the industry back from transforming at the scale and pace required.

From a technical problem to a commercial challenge

What was once a technical challenge has now become a commercial challenge. The central issue is how to structure risk and reward in such a way that efficiency gains become attractive to investors. Technologies and fuel pathways exist, but the absence of clear commercial frameworks is preventing the industry from moving fast enough.

Fragmented architecture blocking scale

The commercial architecture to support this transition is still incomplete. Fuel supply is uncertain, the split incentive between owners and charterers leaves efficiency gains disputed, and financing frameworks are still geared towards conventional tonnage.

Smaller owners are facing the sharpest constraints

The problem is particularly acute for smaller owners. Many lack the balance sheets to absorb risk and are heavily dependent on bank financing. Efficiency upgrades or alternative-fuel newbuildings require

upfront capital, while the savings they generate often accrue to charterers. There is no widely used contractual framework that enables those savings to be passed back to the investor in a predictable way. Without a clear delineation between who pays and who gains, lenders and investors cannot model reliable cash flows. This is making it impossible to securitise and trade exposures, which is essential for attracting long-term institutional capital and scaling investment. In the absence of such mechanisms, efficiency gains are restricted to one-off deals instead of being scaled through standardised finance.

Regulation outpacing financial readiness

Today, premiums for efficient tonnage are negotiated individually. This reduces predictability, weakens investor appetite, and limits bankability. At the same time, tightening regulation is increasing capital needs faster than commercial frameworks can absorb them. The result is a widening gap between regulatory ambition and commercial readiness.

Turning efficiency into a value driver

The breakthrough will come once avoided fuel consumption and carbon emissions are standardised as investable assets. With this in place, decarbonisation will go from being a compliance cost to a value driver that strengthens asset quality and supports growth.

Efficiency as a Value Driver

The IMO is moving beyond incremental efficiency rules. Its Net Zero Framework is now scheduled for 2029, which, if ratified, will introduce global fuel-intensity standards, carbon pricing and mandatory emission limits. This will shift the competitive baseline: efficiency will no longer be optional; it will be a requirement.

Applying discipline at the voyage level

One response to the impending framework is to translate the discipline of regulation into commercial practice. A benchmark-based model would take the IMO's principle of annual efficiency tightening and apply it at the level of individual voyages. Vessels' emissions could be measured against a transparent baseline for their segment, cargo and trade lane (from loading port to discharging port), with surpluses or deficits allocated to the shipowner. This would bring responsibility in alignment with control: owners who invested and operated efficiently would capture the upside, while underperformance would incur a cost. Over time, such a system could evolve into a recognised performance standard for the industry, providing a transparent reference that directs capital and strengthens competitiveness.

Accountability and value creation through benchmarking

A benchmark system would anchor vessel performance in a shared reference point rather than performance being dependent on ad hoc negotiation. Owners would retain the value of avoided fuel consumption and carbon emissions, meaning efficiency would translate directly into investable assets, while they would bear the cost of underperformance. Charterers could set predictable transport budgets, with the added upside of being able to reduce their reported Scope 3 emissions by selecting high-performing shipowners and operators. For financiers, efficiency would finally convert into reliable and comparable cash flows that can be priced, pooled and scaled.

Efficiency across the broader maritime value chain

Opportunity and cost would be two sides of the same coin: owners that outperformed benchmarks would retain the benefits of efficiency, while those that lagged would face higher exposure to fuel and carbon costs. Weather adjustments would be needed to ensure accountability remained fair, but other externalities — such as terminal delays — may be deliberately kept in scope. Including waiting time would likely trigger the emergence of an “inefficiency premium,” whereby owners demanded compensation for calling at congested or poorly performing terminals. Cargo owners would then face higher costs for inefficient choices, creating systemic pressure for terminals to digitalise and improve turnaround times. In this way, benchmarking could not only reward individual performance but also drive efficiency improvements across the broader maritime value chain.

Enabling long-term contracts and new business models

By defining risks transparently, benchmarking would lay the foundations for long-term freight contracts and transform how efficiency is financed and delivered. With long revenue horizons, owners could justify investments that extended far beyond short-term payback periods. Critically, benchmarking would also introduce new value streams: fuel not used and emissions not emitted would become measurable and transferable, turning avoided costs into an equity-like return. The same logic would apply to human capital: if efficiency outcomes were measured and rewarded over time, elements of crew compensation and retention packages could be tied directly to benchmark performance. In this way, long-term contracts would provide the foundations for efficiency improvements across the entire value chain, from vessel acquisition to daily operations to the people who run the ships, while converting efficiency gains into monetisable outcomes that attract capital at scale.

Explainer 1: Turning Fuel Use into a Financial Mechanism

A benchmark-based fuel budget model

Turning efficiency into equity

Fuel use can be treated as an asset, not just an operating cost. Voyage-level energy benchmarks roll into an annual energy budget that sets clear performance expectations. A declining carbon budget sits on top, phased on a pathway consistent with net zero in 2050. The gap between actuals and these budgets defines measurable value — fuel not used and carbon costs avoided — which accrues to the shipowner as an equity kicker. Outcomes can be positive or negative, depending on annual performance.

From voyage benchmarks to annual budgets

Each voyage receives a transparent energy benchmark based on the median performance of comparable vessels on the same lane and cargo. These aggregate into the vessel's annual energy budget. In parallel, the carbon budget follows a plain baseline-and-glidepath approach: treat all voyages as if they burn VLSFO *today*, then tighten the allowable carbon intensity annually on a pathway to net zero in 2050. Any surplus or deficit against either budget is recorded at year-end.

From benchmark to equity kicker

Yearly performance versus the energy and carbon budgets converts directly into a financial result. The equity kicker equals the monetised value of efficiency gains: avoided fuel purchases plus avoided carbon charges versus the combined benchmark. Under-performance creates a negative adjustment, preserving discipline and comparability across vessels, fuels, and routes.

The value of fuel not used

Outperformance delivers financial value. Lower energy use reduces fuel costs. Lower emissions reduce exposure to compliance costs and market carbon pricing. Together, these effects turn operational efficiency into an investable, standardised cash flow and sharpen incentives to deploy energy-saving technologies at scale.

Why the hybrid framing

The energy budget keeps the mechanism operational, fuel-agnostic, and simple to manage. The declining carbon budget anchors the transition signal and remains valid as policy evolves, ensuring durability as the sector phases towards net zero in 2050. Combined, they reward high efficiency in any fuel system while maintaining methodological stability when lane physics are unchanged.

Example: LR2 Tanker cash-flow and return dynamics

To illustrate how benchmarking can turn fuel efficiency into an equity-like return, an LR2 product tanker is modelled over a 15-year operating life from the owner's perspective. The vessel is purchased at newbuilding prices and financed at 60% loan-to-value. It is employed on a benchmark-linked charter equivalent throughout the period, with the owner covering operating costs, fuel and regulatory compliance (EU ETS and FuelEU Maritime).

Under the benchmark-linked charter, freight is priced on a transparent reference for energy use and carbon costs. The owner is paid as if the vessel performed at the benchmark. If actual consumption is lower, the owner receives a cash settlement equal to the monetised value of fuel not used plus the avoided fuel costs as well as the associated EU ETS and FuelEU compliance costs. This single settlement replaces separate notions of cost savings and compliance benefits and operates as an equity-like return on top of freight earnings, with symmetric downside if the vessel underperforms the benchmark.

In the base case, with no monetised efficiency upside, the project delivers a levered IRR of 18%. When the vessel achieves and monetises a 10% reduction in fuel use relative to the benchmark, the levered IRR rises to 25% - an uplift of 7%-points.

This example shows how benchmarking can standardise efficiency gains and transform operational performance into a bankable, comparable cash flow that strengthens project profitability. The table below illustrates how the IRR uplift grows with higher levels of efficiency.

Fuel savings sensitivity	Levered IRR premium (%-points)
5%	3.5%
10%	7%
20%	14%

The Fuel Challenge in Shipping

Energy efficiency and benchmarking can only take shipping part of the way. To reach net zero, the industry must solve the commercial challenge of ensuring that new sustainable fuels become both available and affordable at scale. Yet despite clear regulatory signals, fuel production has stalled, because the industry has not yet created an investable demand signal to trigger scaling.

Why production has stalled

The barriers are structural. As international shipping is excluded from countries' nationally determined contributions (NDCs), governments cannot claim emission reductions from subsidising green shipping fuels. The energy penalty adds to the challenge: converting renewable electricity into propulsion fuel is inefficient, with only a fraction of the original energy ending up at the propeller. This makes subsidising shipping fuels harder to justify politically when the same electrons – and money – could be used to decarbonise domestic power or industry more directly.

A fragmented industry without an investable demand signal

Shipping has not yet created an investable demand signal strong enough to trigger scaled production of sustainable fuels. Few single shipowners have the balance sheet to underwrite long-term offtake agreements, and no industry platform has been financially supported to aggregate demand into investable volumes. The result is a stalemate situation: producers and investors see excessive counterparty risk, while shipowners see little upside in paying a premium for fuels offering only modest returns that are far outweighed by the sizeable upfront capital required.

From cost driver to yielding asset

This is where the budgeting logic matters. Under efficiency benchmarking, fuel not used and carbon not

emitted could be standardised and monetised as an equity kicker, transforming efficiency from a compliance exercise into a financial return. The IMO's Net Zero Framework embeds the same principle for fuels: using lower-carbon energy reduces exposure to carbon costs and creates a relative advantage. But on its own, the framework functions as a compliance mechanism; what is missing is the commercial architecture that turns compliance into an investable cash flow. Burning green methanol or ammonia should not remain a cost-only choice. If fuel use were measured against a transparent emissions baseline and the value of avoided carbon captured through financial instruments that investors could price and scale, then fuel consumption could be reframed as a yielding asset. Structured in this way, fuel choice could generate equity-like upside for investors, just as efficiency gains already do. Without such mechanisms, investment will continue to flow disproportionately towards efficiency rather than fuel transformation.

A role for governments and policy frameworks

This is not a challenge that shipowners can solve alone. Market forces are not sufficient to transform the fuel base of an entire global industry. Every major shift in the energy mix – from LNG to solar and wind – has been unlocked by public subsidy, long-term policy frameworks and supranational intervention. The same will be required in shipping. Governments and bodies such as the EU will need to step in to de-risk early investment, aggregate demand, and ensure that the cost of transition does not fall solely to a fragmented industry with limited balance-sheet capacity. Without such combined support, the IMO's Net Zero Framework risks functioning more as a tax than as a catalyst. Only if regulatory support is combined with commercial innovation can sustainable fuels shift from being a compliance burden to a source of competitive advantage.

Explainer 2: Capital Allocation Trade-Off

Long-term fuel commitments vs fleet investment

The shipping industry's path to decarbonisation depends on scalable access to alternative fuels. Securing that supply will require long-term offtake and pre-commitments to give producers the demand certainty they need to invest. Few shipowners have taken this step, and many see it as beyond the natural role of individual owners. Yet without committed offtake, the fuel transition will not reach the scale or pace required.

Market reality today

In today's shipping markets, fuel – including new fuels – is a cost line, not a profit driver. Long-term fuel commitments may secure compliance under EU ETS and FuelEU Maritime. They do not create incremental returns; any benefit accrues gradually as avoided penalties or cost protection over time.

Capital is locked in early

Fuel offtake agreements typically require pre-payments, guarantees, or take-or-pay structures. Capital is committed years before the fuel is consumed, parking liquidity on the balance sheet. Once deployed, it cannot be easily reallocated if market conditions change.

Returns are indirect and delayed

Fuel commitments yield no freight earnings. The primary financial effect is compliance protection. The return profile is indirect and back-loaded, driven by avoided carbon costs rather than incremental revenue.

Optionality is reduced

Long-term contracts often fix volumes, prices, or both. This limits the owner's ability to adapt to shifts in technology, regulation, or market structure. Tied capital reduces strategic flexibility.

Price certainty can become a liability

Fixed prices hedge against future spikes but can lock owners into above-market costs if prices fall or alternative fuels become cheaper as production scales.

Balance sheet impact is significant

Fuel commitments increase fixed obligations and weigh on leverage metrics. Unlike vessels, which can be financed, traded, or refinanced, offtake contracts are illiquid and offer limited optionality.

Compliance certainty vs capital productivity

Fuel commitments provide compliance visibility and operational continuity. The trade-off is lower capital productivity, as committed funds cannot be deployed into higher-return investments. This tension – transition certainty versus capital efficiency – sits at the core of the fuel investment challenge for individual shipowners.

Recycling IMO Revenues into a Transition Engine

From penalty to progress

While the IMO's Net Zero Framework is still awaiting formal adoption, its proposed structure points towards a future in which ships that fail to meet the agreed fuel-intensity trajectory will face penalties. This will create a significant stream of revenue flowing into an IMO-administered fund. Left untouched, these funds would represent a burden with no benefit to the sector. The challenge is to recycle them such that compliance costs are turned into a transition engine, accelerating the availability, affordability and fairness of sustainable fuels.

Principles for recycling

A recycling system would have to be both fair and efficient. Fairness would ensure that owners who contribute also gain access to the solutions of the future. Efficiency would ensure that revenues are channelled into measures that expand fuel supply and reduce cost risk, rather than being absorbed as static penalties.

Building balance-sheet strength

Penalties would begin generating revenues several years before large-scale volumes of sustainable fuels were ready for use. In this period, the fund would accumulate reserves, creating balance-sheet strength. This early build-up is critical: it would allow the fund to act as a guarantor for first-mover fuel projects. Strong reserves would improve the fund's credit quality and create the leverage needed to de-risk investment at scale.

Guarantees for fuel supply

With this balance-sheet foundation, the fund could unlock large-scale investment in new fuels. Contributions could be mirrored by future fuel credits, structured much like quotas in other markets. These credits could also be traded, ensuring contributors shared fairly in future availability, even if they were not ready to adopt fuels immediately. Early revenues would thus be transformed into guarantee capital that accelerated supply.

Managed outflows through Contracts for Difference

As production projects matured and sustainable fuels began to scale, the fund's role would shift. Contracts for Difference (fuel price guarantees) would channel money back out of the system. When

green fuels were more expensive, the fund would bridge the gap; when they were cheaper, the fund would be replenished. Outflows would therefore align with the moment of market uptake, providing stability for both producers and shipowners at the critical point of transition.

Why this matters

By sequencing inflows and outflows, the IMO fund would transform penalties into systemic enablers. Early revenues would build the financial strength to guarantee supply. Later disbursements through CfDs would stabilise demand. Every penalty would thus accelerate the transition, rather than being lost as an isolated cost.

Aligning benchmarks to one trajectory

A critical coordination task lies in ensuring that voyage-level benchmarking and the IMO's Net-Zero Framework reinforce rather than compete with one another. Without alignment, the industry could face parallel reference points: one that rewards relative outperformance against peers, and another that imposes penalties for failing to meet an absolute global trajectory. This risks creating situations where owners are rewarded in one system but penalised in the other, undermining transparency and investor confidence. Properly aligned, however, the two systems become complementary. The commercial benchmark translates the IMO's global pathway into vessel-level discipline, while the IMO fund recycles penalties into fuel supply and price stability. Together they form a coherent architecture that converts compliance into value and directs capital towards the sector's decarbonisation goals.

The road ahead

Questions remain over allocation, regional design and the share of revenues earmarked for just-transition priorities. Yet the direction is clear: recycling revenues back into the transition is essential. The IMO now has the opportunity to ensure that compliance penalties are not an end in themselves, but the very tools that will enable global shipping to reach net zero.

Special report

Biodiversity Protection as Strategic Advantage

Shipping Market Review – November 2025



Executive Summary

Biodiversity protection as strategic advantage

1. Biodiversity rises to a strategic imperative

Biodiversity protection is emerging as shipping's next strategic imperative. Global policy momentum is shifting: the Kunming–Montreal Global Biodiversity Framework has placed nature on a par with climate as a global priority. Investors, banks and regulators are beginning to integrate nature-related risks into financing terms, procurement decisions and licence-to-operate assessments. This means biodiversity will no longer remain peripheral in shipping's sustainability agenda.

2. Local impacts are material; industry leverage is unique

Shipping's global footprint gives it both exposure and leverage. Although it is not a primary global driver of biodiversity loss, its local impacts in sensitive marine ecosystems are material. Underwater noise, invasive species transfer and operational discharges can disrupt habitats and species. Because ships operate across remote and under-monitored areas, the industry also holds unique potential to enable large-scale ocean data collection.

3. Low-cost operational measures deliver high impact

Protecting biodiversity does not require major capital expenditure. Unlike decarbonisation, most measures are behavioural and operational: discharge management, routing and speed adjustments, noise and light reduction, and enhanced crew awareness. These are low-cost, accessible steps that can materially reduce ecological risks today and demonstrate environmental leadership.

4. Early movers gain resilience and commercial advantage

Early movers will gain a strategic advantage. Integrating biodiversity measures at the design or operational stage is inexpensive compared with retrofitting after regulation tightens. Cargo owners and charterers face mounting pressure to show nature-positive supply chains. Shipowners able to document biodiversity-conscious practices can strengthen their position in contract awards, financing discussions and regulatory processes.

5. Regulatory tightening is already in motion

Tightening requirements are visible. Ballast water management is mandatory, and voluntary IMO guidelines on underwater noise and hull biofouling are under review. EU and port-state actions on discharges and sensitive habitats, together with investor disclosure frameworks such as TNFD, will accelerate expectations. Voluntary action today is likely to become mandatory tomorrow.

6. Act now: low cost, high impact, strategic upside

Biodiversity protection offers a rare combination of low cost and high impact. By acting now, shipowners can reduce operational risk, protect asset values and improve competitiveness – while contributing to global ocean stewardship.

Biodiversity Protection is Emerging as Shipping's Next Strategic Imperative

The shipping industry's environmental agenda has so far been defined by climate, with the decarbonisation challenge – centred on new fuels, efficiency gains and regulatory pathways – dominating the headlines. However, climate is not the only pillar of sustainability: protecting ocean biodiversity has emerged as an equally urgent global priority, with the Kunming-Montreal Global Biodiversity Framework (2022) often described as the Paris Agreement for nature.

Global role modest local impact material

Globally, shipping is not among the primary drivers of biodiversity loss. Agriculture, land-use change and resource exploitation account for the majority of ecosystem degradation and species decline, as documented by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment and the WWF's Living Planet Report. However, shipping remains an important contributor at sea, particularly through underwater noise, invasive species transfer and discharges, and can become a dominant local driver in sensitive ecosystems such as whale migration routes or coral reef areas. Commercial vessels are the most visible sign of human activity on the high seas, interacting constantly with marine ecosystems. This creates both risks and opportunities.

Meaningful impact at low cost through operations

The good news is that protecting biodiversity is not a capital-intensive challenge. In contrast to decarbonisation, which requires multi-billion-dollar investment in new fuels and infrastructure, biodiversity protection often depends on behavioural adjustments and operational practices. These are low-cost, highly accessible steps that can have a meaningful impact. Adjusting discharges, modifying routes in sensitive waters, and managing underwater noise and light are examples of measures that are not resource-intensive.

Active stewardship secures regulatory and capital readiness

Addressing biodiversity alongside climate change allows shipowners to demonstrate progress beyond meeting regulatory minimums and targeting only the lowest-hanging fruit of the climate agenda. By actively protecting ocean ecosystems, they go from passive compliance to active stewardship. This also has the advantage of making them strategically prepared for a future where nature-related risks are assessed alongside climate impact, not only in regulatory frameworks, but also in capital allocation through initiatives such as the Taskforce on Nature-related Financial Disclosures (TNFD), and in talent expectations.



Explainer: Ocean Biodiversity – What Is at Stake?

What is biodiversity loss?

- Decline in the variety of life in the ocean – species, habitats and ecosystems.
- Reduction in the ocean's ability to provide food and regulate climate.

What drives it?

- Land- and sea-use change (e.g. agriculture, coastal development).
- Overexploitation (e.g. overfishing).
- Climate change (warming, acidification, deoxygenation).
- Pollution (nutrients, plastics, operational discharges, microplastics from paints and coatings).
- Invasive species (often spread via shipping, including via hull biofouling).

How is it measured?

- Species abundance and distribution (e.g. IUCN Red List).
- Habitat integrity (reefs, seagrass).
- Ecosystem function (fisheries, oxygen, carbon storage).
- Genetic diversity (increasingly through eDNA).

Why does it matter?

- Failure to protect biodiversity undermines food security, accelerates climate change, and weakens ecosystem resilience. The ocean is one of the world's largest carbon sinks, and declining biodiversity reduces its capacity to absorb CO₂ and regulate the climate.
- For shipping, declining ocean health increases regulatory, reputational and operational risks.



Biodiversity Protection Remains a Blind Spot in Shipping's Sustainability Strategy

Despite its growing importance, biodiversity protection remains underrepresented on strategic shipping agendas. Industry narratives often cite uncertainty, particularly around measurement and direct impacts, as hindering action. Others note that while MARPOL compliance demonstrates baseline environmental performance, it does not eliminate harm. Studies confirm that residual impacts from compliant discharges, antifouling systems, underwater noise and even lighting continue to affect marine ecosystems.

Minimum standards offer limited protection and rising risk

Reliance on minimum standards is risky. Climate regulation has shown how voluntary efficiency measures can evolve into binding reduction targets, and biodiversity-related rules are beginning to follow a similar path. The IMO has already made ballast water management mandatory in combatting invasive species, while other impacts, such as underwater radiated noise, hull biofouling, microplastic releases from coatings, and ship recycling practices, are currently subject to voluntary guidelines or industry codes but are being actively considered for future regulation.

Low awareness and weak data delay meaningful action

Low awareness among crews and shore-based staff further reinforces these narratives. Without better understanding of how everyday operational practices affect marine ecosystems, even well-intentioned owners may inadvertently contribute to biodiversity loss. The lack of reliable baseline data compounds the problem: unlike emissions, which can be measured and benchmarked across fleets, biodiversity impacts are less visible and harder to quantify. The result is an industry that, for now, treats biodiversity as peripheral, rather than integral, to its sustainability journey.



Simple Operational Steps Can Reduce Biodiversity Risk and Shape Future Standards

Practical entry points for biodiversity protection already exist. Unlike decarbonisation, which demands large-scale fuel and infrastructure investments, most biodiversity measures are behavioural and operational. They are low-cost, straightforward to implement, and demonstrate a visible commitment to environmental stewardship. While there are no comprehensive industry standards currently, even sporadic improvements by individual owners can materially reduce risks for marine ecosystems. The following examples illustrate how shipowners can move beyond compliance and deliver tangible benefits while strengthening their strategic position. Practical measures include:

Discharge management

MARPOL sets the international baseline for pollution prevention, covering oil, chemicals, sewage, garbage, and air emissions across six annexes, with ballast water regulated separately. Yet even within the bounds of compliance, residual discharges — such as bilge water, scrubber washwater or antifouling residues — can harm sensitive ecosystems. Proactive operational measures, including selective discharge timing, enhanced treatment or alternative system use, offer low-cost ways to reduce the impact.

Routing and speed adjustments

IMO voyage planning guidelines already encourage safe navigation and the avoidance of sensitive areas. Building on this baseline, voluntary measures such as speed reductions in whale habitats or routing adjustments in marine protected areas can materially lower collision risks and underwater noise. These measures are low-cost, straightforward to implement, and deliver visible biodiversity benefits.

Noise and light management

IMO guidelines on underwater radiated noise (URN) remain voluntary, and uptake has been limited. Yet practical steps such as adopting optimised propeller designs to reduce cavitation and voluntary speed reductions in sensitive waters can substantially cut noise disturbance for marine mammals — often while improving fuel efficiency. Light management is less developed, but adjusting deck lighting near coasts and migration routes can reduce the disorientation of seabirds and other species.

Crew awareness and operational culture

While regulations focus mainly on technical standards, effective biodiversity protection also depends on human behaviour. Enhancing crew awareness through targeted training and digital tools — for example, geofencing alerts in sensitive zones or clear guidance on discharge timing — ensures that day-to-day operational decisions actively support ecosystem protection.

Early movers shape standards and gain a strategic advantage

There is no comprehensive industry standard yet that defines how shipping should address biodiversity. But this should not be seen as an insurmountable barrier: incremental, uneven action by individual owners still reduces ecological risks and builds valuable experience for the industry as a whole. History shows that voluntary practices often pave the way for future regulation. Shipowners who move early not only help protect sensitive ecosystems, but also demonstrate leadership to regulators, financiers and employees — signalling that they are prepared to go beyond compliance and set the tone for the next phase of sustainable shipping.

Low-Cost Actions Can Shift Shipping's Environmental Role

Protecting biodiversity begins with simple, low-cost measures. Adjusting discharges, rerouting in sensitive waters, slowing down in whale habitats, and reducing noise and light are inexpensive steps that demonstrate responsible practice.

Global fleet offers unmatched reach for ocean observation

But shipping has the potential to go further. With thousands of vessels crossing the oceans every day – including remote and under-monitored areas – the merchant fleet could serve as a global ocean observatory. No other industry has the same reach or frequency of presence at sea.

Funding partnerships unlock scientific contribution at scale

The main challenge is funding. Installing sensors and processing data are costly, and placing this burden on owners would limit uptake. A more practical model would be for research bodies, governments or NGOs to finance the equipment, with owners providing access to their vessels. In practice, owners would simply declare their ships open to host sensors, turning existing voyages into a cost-efficient platform for harvesting global ocean data.

Operational choices and data access create a dual impact

This would create a dual opportunity. Shipowners could reduce harm through operational choices and, at the same time, deliver a positive impact by enabling large-scale data collection. By bridging commercial operations with public science, the industry could help close knowledge gaps, strengthen biodiversity protection, and reposition shipping as an active steward of the ocean.

Strategic positioning beyond carbon

This shift would reframe shipping's environmental role. By protecting biodiversity, shipowners could show regulators, financiers, employees and the wider public that they are ready to address the full spectrum of sustainability challenges – not just those measured in tonnes of CO₂. In practice, this would mean building biodiversity awareness into corporate strategy, embedding ecological considerations into voyage planning, and embracing the role of data provider to global science.

Biodiversity Protection Is Set to Become a Strategic Advantage

Nature moves from peripheral to strategic

The protection of ocean biodiversity is often perceived as lower priority than climate action, yet the outlook suggests that it may become a defining factor in the industry's long-term competitiveness. Investors, regulators and customers are increasingly aligning with the Kunming–Montreal Global Biodiversity Framework, which places biodiversity on a par with climate change as a global priority. For shipowners, this signals a shift: nature-related risks will no longer remain peripheral but will begin to influence financing terms, procurement decisions and their licence to operate.

Early movers secure resilience and lower retrofit costs

From a commercial perspective, early movers are positioned to secure a clear strategic advantage. By integrating biodiversity into operational practices and vessel design today, owners reduce the likelihood of costly retrofits tomorrow. Noise-reducing propellers, light-sensitive deck configurations, and smarter discharge systems are relatively inexpensive at the construction stage but can be disruptive and capital-intensive to retrofit once regulations become more stringent. Proactive investment now therefore protects long-term asset values and minimises future downtime.

Biodiversity performance will shape commercial partnerships

The market narrative is also changing: cargo owners and charterers are under growing pressure to demonstrate nature-positive supply chains, and shipowners who can show credible evidence of biodiversity protection will be favoured in partnership decisions, particularly as large consumer-facing companies extend their ESG commitments beyond carbon footprints. The ability to document biodiversity-conscious practices may thus become a differentiator in contract negotiations.

Regulatory tightening is already underway

The regulatory horizon also points to tightening requirements. The EU's Nature Restoration Law introduces binding biodiversity targets for member states, with likely spillover effects for industries active at sea. The IMO's voluntary guidelines on underwater noise are already under review for potential strengthening, while more coastal and port states – including Canada and the EU – are imposing restrictions on scrubber wash water, noise and discharges in sensitive habitats. Financial disclosure frameworks such as the TNFD will further integrate biodiversity into investor expectations, placing nature-related risks alongside climate risk in capital-allocation decisions. Together, these developments suggest that voluntary action today may well become mandatory tomorrow.

Low-cost measures offer a rare strategic upside

Crucially, this opportunity does not hinge on large-scale fuel transitions or speculative technologies. Biodiversity protection is a low-cost, behaviour-driven addition to the climate agenda, making it one of the few areas where owners can demonstrate tangible environmental leadership without altering their core business models. Over time, these actions may help shipping discard its reputation for being a passive, hard-to-abate emitter; instead, it may be perceived as an active contributor to global ocean stewardship.

Strategic advantage lies with early adopters

The strategic question for shipowners is not whether biodiversity will move up the agenda but who will position themselves early enough to reap the reputational, financial, and operational benefits. Those who act now may find that protecting biodiversity does not represent a compliance burden but offers a competitive edge.

Shipping Markets at a Glance

Shipping Market Review – November 2025



Earnings and Vessel Prices

ClarkSea Index and secondhand price index over the last six months

The ClarkSea Index has reached its highest level in three years at around USD 30,000 per day, with Containers and Tankers out front and Dry Bulk trailing. Secondhand values are nearing record highs, but the deal flow has cooled as bid-ask spreads have widened at the young and old ends of the fleet.

Average earnings and secondhand prices among the top 15% since 2000

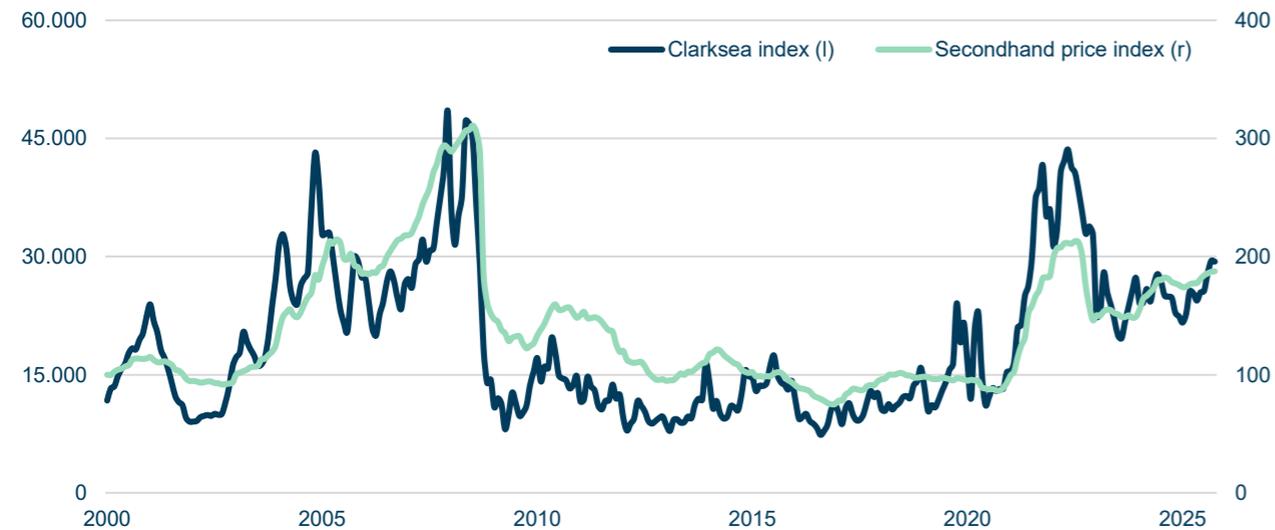
Over the past six months, the ClarkSea Index has risen 16% to a level last seen during the Container- and Tanker-led spike three years ago. The move reflects a market where disruptions – particularly policy and security frictions – have added sailing days and tightened effective capacity at the margin. US-China trade tensions have reinforced this dynamic by encouraging route reshuffles and longer average hauls in selected commodity flows. While underlying growth remains uneven across segments, the balance between demand and available tonnage has tilted just enough for earnings to lift across the composite. Strong freight rates in both the Container (with charter rates at the highest levels outside the Covid era) and Tanker segments (spurred on by increased OPEC+ production and a heightened sanction regime)

have placed the Clarksea Index within the top 15% observed since 2000. Meanwhile, average earnings in the Dry Bulk segment continue to underperform the ClarkSea Index. Asset markets have followed average earnings into the top 15% territory, albeit rising more moderately over the last six months. Secondhand prices are up about 6% over the period, edging closer to the highs recorded in 2022.

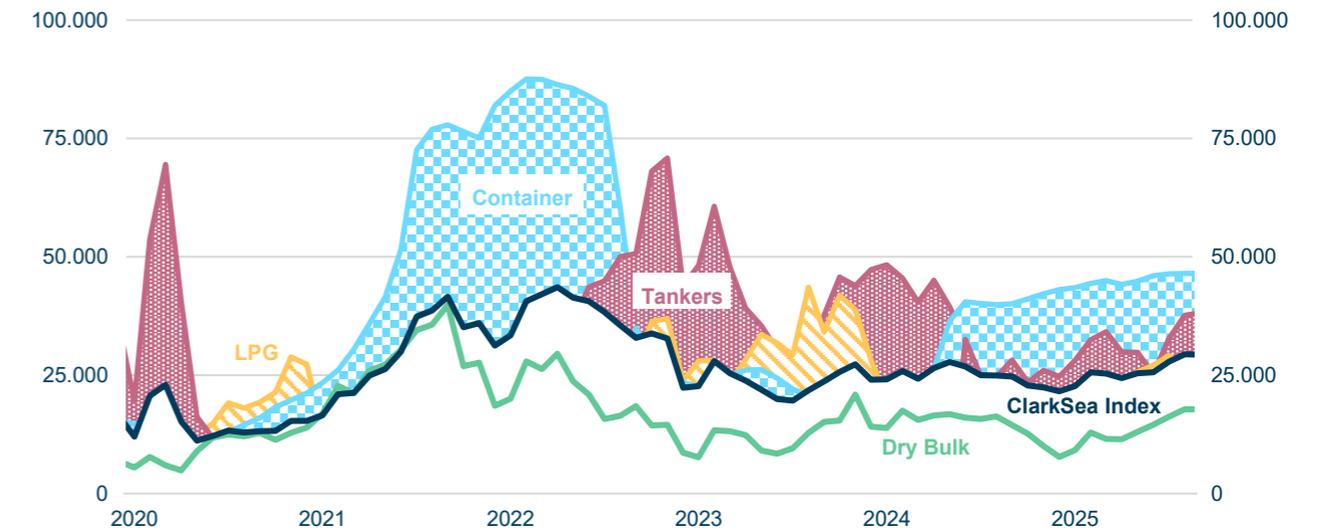
S&P turnover down 23% as bid-ask spreads widen at the tails

Sale and purchase activity has cooled from the recent years' highs. Total transactions (measured in number of vessels) were down by 23% during the first ten months of 2025 compared to the same period last year. Notably, high asset prices kept buyers cautious on younger units, while sellers of older ships remained hesitant as they weighed firm cash flows and hope notes for solid future earnings against low scrap values. In effect, bid-ask spreads widened at the tails and liquidity thinned. S&P activity for tonnage below five years old more than halved relative to the first ten months of 2024, while transactions for vintage vessels older than 25 years declined by almost 40%.

Rates and values (USD per day and index)



ClarkSea Index (USD per day)



Sources: Clarksons, Danish Ship Finance

Market Outlook

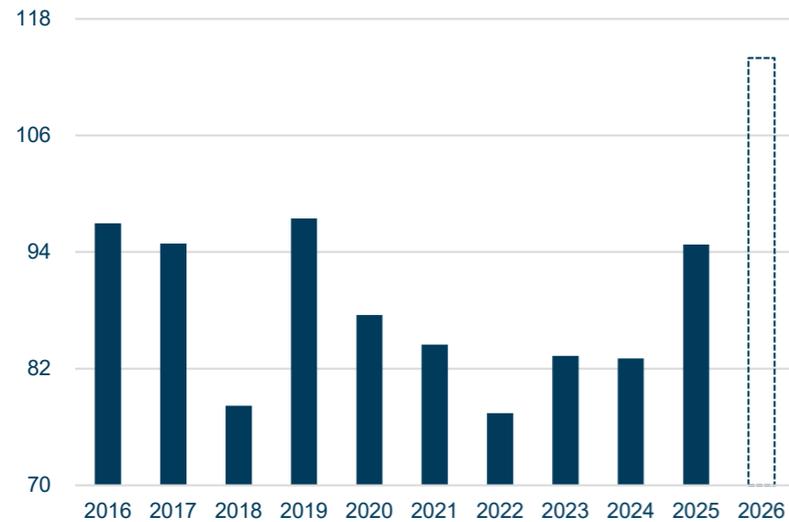
Bleak outlook for 2026

Longer distances have powered shipping markets since 2020, but fuel looks thin for 2026. Meanwhile, a delivery bulge is nearing, and utilisation is set to slip as the fleet grows 5% against a 1.5% uptick in tonne-mile demand. The backdrop for rates is turning tougher.

Largest inflow of additional tonnage in more than a decade

With newbuild contracting steady and deliveries catching up, the global orderbook held at around 16% of the fleet during the first ten months of 2025. After five years of uninterrupted build-up of the orderbook (from 8% to 16% of the fleet), the focus is now shifting from orders to arrivals. In 2026, echoing the surge in contracting activity from recent years, the shipping markets are bracing for the first large wave of tonnage. Annual deliveries are expected to reach

Total deliveries (million dwt)

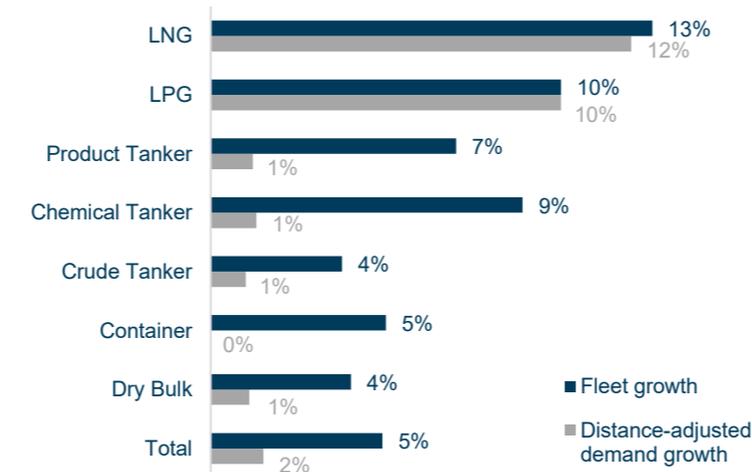


114 million dwt (~1,700 vessels), marking the highest level recorded since 2012 (measured in dwt, number of vessels, and as a share of the fleet).

Deteriorating fleet utilisation across the board

Across most segments, fleet growth is set to outpace distance-adjusted demand in 2026. The utilisation gains of recent years (inflated by longer average hauls) are expected to unwind as routing normalises and fresh tonnage arrives. The result is a broad-based decline in utilisation, which will weigh on freight rates and weaken asset earnings power. Segment nuances matter at the margin, but the fundamental thread holds: Tankers, Dry Bulk and Container Carriers all face scheduled deliveries that exceed projected

Expected fleet utilisation, 2026

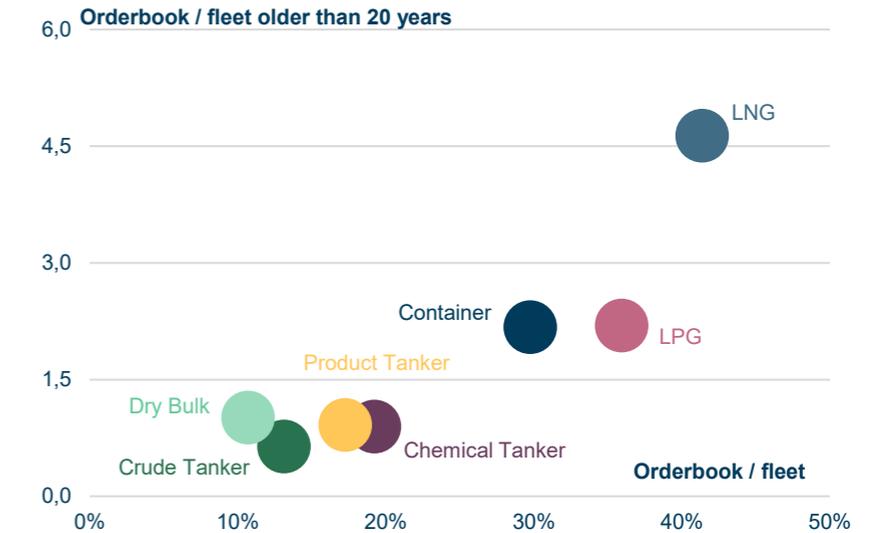


tonne-mile growth. Projections for Gas Carriers look more balanced on the surface, but with double-digit fleet growth in LNG and LPG segments, even a small demand shortfall could tip the scale into lower utilisation and softer rates.

More scrapping will not be enough to offset the delivery wave

Demolition of vintage tonnage could help absorb next year's delivery wave. Still, while ageing profiles may be used to indicate potential removals from the fleet, they can give a misleading sense of balance between the pace at which new vessels enter the fleet and older vessels exit. As an example, the Container Carrier fleet will expand by 5% next year. Meanwhile, annual scrapping activity has averaged less than 1% of the Container Carrier fleet in the last ten years.

Orderbook-to-fleet ratio



Sources: Clarksons, Danish Ship Finance

Technology Shifts Are Reshaping the Foundations of Long-Haul Shipping Demand

Two structural forces are converging to reshape the foundations of global shipping: the energy system is shifting from fuel to power, and manufacturing economics are being rewritten by automation, digitalisation and cheap local energy. These forces are not cyclical; they are changing the underlying geography of energy supply and industrial production, and, with it, the structure of global trade.

Two pillars of long-haul trade – fossil fuels and factory hubs – are weakening

For more than a century, long-haul shipping has been anchored in two major flows: fossil fuels and manufactured goods. Large volumes of coal, oil and gas have been shipped across oceans to fuel power generation, heating and transport. Manufactured goods have moved in the opposite direction, concentrated to a few low-cost, energy-abundant export hubs. These steady, large-scale trades have underpinned the economics of both fossil carriers and Ultra Large Container vessels. Both pillars are now being eroded.

Power is displacing fuel

The build-out of renewables, grids, storage and electrified end-use systems is structurally reducing demand for imported fossil fuels. Once installed, wind, solar and battery systems do not rely on continuous fuel shipments, and each new tranche of capacity permanently removes part of the fossil flows that have shaped the Bulk, Tanker and Gas Carrier markets for decades. Trade in fossil fuels will not disappear overnight, but it will become narrower, more seasonal and more volatile, with lower tonne-mile intensity over time. For segments exposed to fossil trades, this caps the upside for long-haul volumes over the life of the asset.

Technology is eroding hub advantages

Global manufacturing has long relied on cheap labour, cheap energy and scale. Technology is changing all three. Automation, robotics, additive manufacturing and digital production systems are shrinking the role of labour in unit costs and making smaller plants efficient. Local, reliable electricity – often from on-site renewables paired with batteries – is reducing exposure to high grid prices, enabling some tariffs to be bypassed through behind-the-meter supply, and stabilising operating costs. As these location advantages fade, the rationale for concentrating production to a few large export hubs weakens. Trade follows production, so the implications for deep-sea shipping are structural, not cyclical.

Energy-abundant export hubs: China's WTO decade and its legacy

After China entered the WTO in 2001, it rapidly built an export platform powered by abundant, low-cost, reliable electricity and cheap labour at industrial scale.

From 2001 to roughly 2012, coastal provinces expanded coal-fired generation, reinforced transmission, and developed captive power for heavy industry, while industrial parks near deep-sea ports offered preferential tariffs, fast permitting and dense supplier networks.

The combination of cheap, reliable power, low labour costs, integrated logistics and deep supplier clusters created energy-abundant export hubs, enabling high-throughput factories and fuelling the 2000s surge in long-haul finished-goods shipments that underpinned Ultra Large Containership economics.

After 2013, higher wages, stricter environmental regulation and power-pricing reforms tempered that “abundance”, even as automation and renewables advanced. Yet China's manufacturing cluster remains powerful enough to sustain long-haul exports.

Technology Shifts Are Reshaping the Foundations of Long-Haul Shipping Demand (cont.)

Centralisation under pressure

Centralised manufacturing, most visibly in China, has supported the main Container corridors for decades. The model has depended on wage differentials, low energy costs, dense supplier ecosystems and efficient logistics. Technology is loosening those bonds. Automation is reducing labour intensity. Additive methods and flexible lines are supporting smaller, more adaptable production closer to demand. Cheaper, behind-the-meter energy is improving the economics of distributed plants. Digital twins and advanced execution systems are allowing dispersed production to operate efficiently, with shorter set-up times and faster changeovers.

Centralised manufacturing underpins the economics of large Containerships

Ordering a large new Containership is a 25-year commitment predicated on centralised manufacturing. If production decentralises, secondhand values face structural pressure. Plants that once defaulted to a single export hub are increasingly being sited in North America, Europe and parts of Asia to serve local demand. Manufacturers are choosing proximity for speed, resilience and regulatory certainty as well as labour and energy economics. Shorter supply chains are cutting lead times and working capital and reducing exposure to chokepoints. As the next wave of capacity moves closer to end markets, fewer finished goods will need to cross oceans.

Trade is changing shape, but scale will not disappear overnight

Trade will not disappear, but it is changing shape. In the early years of regionalisation, more components, equipment and specialised materials will move to new plants, while finished-goods flows will grow more slowly or level off. As local supplier bases mature, some component flows will even decline. Average haul lengths will shorten, the balance will shift from long-distance to regional routes, and the case for the largest, most route-dependent ships will become less certain. This is not a cliff; it is a gradual rewiring of trade patterns that accumulate over the lifetime of an asset.

Why it has not happened yet

The geography of production has remained remarkably stable because China's manufacturing ecosystem is still unmatched: dense supplier networks, deep process know-how, fast cycle times, reliable logistics, competitive energy prices and large domestic demand. These advantages create powerful network

effects that new locations cannot replicate quickly. Higher wages have not broken the model because factories in China are automating at speed and keeping unit costs low.

High barriers are delaying manufacturing shifts

Relocation is slow because the barriers are real. New plants require large upfront capital, long permitting timelines and grid connections. Energy-intensive industries also need reliable, competitively priced power, which not all alternative locations can provide. Products must be requalified with customers and regulators, which adds both time and risk. Workforces need training. Dual sourcing ties up working capital in duplicate tooling and inventories. Quality yields often fall during ramp-up, which weakens the business case. Even when the technology exists to produce closer to market, these frictions delay decisions and stretch execution.

Cluster deepening is sustaining long-haul flows

In several sectors – consumer electronics, white goods, batteries and energy technologies, semiconductors, electronic components and machinery – near-autonomous lines and highly integrated industrial parks are being built and scaled inside China. These developments are consolidating existing clusters rather than displacing them, and are prolonging today's long-haul trade patterns.

What could accelerate change

Acceleration is more likely to come from converging forces than from a single shock. As automation costs fall and unattended production improves uptime and quality, smaller regional plants will become easier to justify. Falling renewable power costs and local storage will reduce exposure to volatile energy markets. Industrial policies and local-content rules will tilt location choices at the margin. Corporate resilience strategies after years of geopolitical and logistics disruption will favour supply chains closer to end markets, even at an equal or slightly higher nominal cost. This is not a cliff, but the trend is clear. The marginal factory of the late 2020s or early 2030s is more likely to be built near demand than the marginal factory of the 2000s.

Technology Shifts Are Reshaping the Foundations of Long-Haul Shipping Demand (cont.)

Path dependence and risk asymmetry

The existing ecosystem will not disappear. Some sectors will remain centralised because of scale economies, certification regimes or energy-intensive processes that still benefit from low-cost hubs. The more likely outcome is uneven change across sectors and regions. This unevenness creates asymmetric risk for long-lived assets. Upside from further concentration is limited, while downside from progressive decentralisation will compound over time. For owners and lenders, structural drift may matter more than short swings in freight rates.

Structural pressures to weigh on rates and secondhand values

The implications for shipping segments are clear. For energy carriers, the ceiling for sustained fossil demand is being lowered as power replaces fuel. For Container shipping, decentralised production is unlikely to bite in the next one to two years, but it signals a longer-term drift that caps further upside in average haul length while leaving downside risk in play. This risk is amplified by the large fleet-renewal wave of Ultra Large Container vessels due during 2026-2028, pointing to a prolonged period of lower freight rates and declining secondhand prices, with some units likely to face premature scrapping or intermittent lay-up. As hauls gradually shorten and route dependence persists, secondhand values are set to reflect structural rather than cyclical pressure.

The long-haul growth model is seeing its foundations eroded

Technology is changing both what moves and where it moves from. Cheap labour and energy are no longer guaranteed advantages, and neither fossil energy flows nor centralised manufacturing can be assumed to grow indefinitely. The pace of change is gradual, not abrupt, but the direction is clear. The long-haul baseload that has underpinned shipping for decades is entering a period of structural erosion.

Structural shifts are challenging fleet and financing strategies

For vessel owners, lenders and investors, the upside is capped not only in terms of volumes but also distances. Even if liftings hold up, a gradual shortening of average haul lengths will compress tonne-miles and earnings power. Fleet and financing strategies predicated on ever-expanding long-haul flows therefore face growing structural headwinds. Recognising this now – before it is fully priced – will allow a shift towards more flexible tonnage, conservative economic lifetimes and capital plans that are resilient to lower tonne-miles as well as lower rates.



Shipbuilding

Shipping Market Review – November 2025



Shipbuilding at a Glance

Asia's top-tier yards dominate – the rest are lagging

Global shipbuilding is concentrated to Asia and a tight cohort of first-tier yards that hold most capacity, most of the orderbook, and the longest cover.

Asian concentration defines global shipbuilding capacity

The global shipbuilding base comprises around 320 active yards with a combined capacity of 56 million cgt. The big three hold 88% of capacity: China, with 26 million cgt (46%) across about 150 yards; South Korea, with 14 million cgt (25%) across ten yards; and Japan, with ten million cgt (17%) across 40 yards. European yards total 3.5 million cgt (7%) across 51 sites. The remaining 69 yards elsewhere provide 2.8 million cgt (5%).

Capacity concentrated to a few very large Asian yards

The scale is uneven. The average yard size is 1.4 million cgt in South Korea, 0.24 million cgt in Japan, 0.17 million in China, 0.11 million in the rest of the world and 0.07 million in Europe. South Korean yards are roughly seven times larger than the average Chinese yard and about five to six times larger than the average Japanese yard. The market is therefore concentrated and scale-skewed, with delivery slots, complex build capability and pricing power anchored in a small group of very large Asian builders.

China dominates the orderbook and is running the longest cover

Chinese yards have secured 60% of the orderbook and are running an average order cover of 3.7 years. South Korean yards are building 25% of the orderbook with a slightly shorter cover of 2.5 years. Japan is building 8% of the vessels on order but has an order cover of only 1.4 years. Europe and the rest of the world are building a negligible share of the current orderbook.

First-tier yards dominate orders and cover

The shipbuilding industry is fragmented both across regions and within them. On ordering strength, there is a clear split between first- and second-tier yards. The 140 first-tier yards control 80% of global yard capacity but 93% of the orderbook, and are running an average order cover of 3.3 years. The remaining 180 second-tier yards control 20% of capacity but only 7% of the orderbook, with an average order cover of just one year. If no new orders arrive, some of these yards' current backlogs will be completed in roughly five months.

Global shipbuilding capacity and orderbook

China

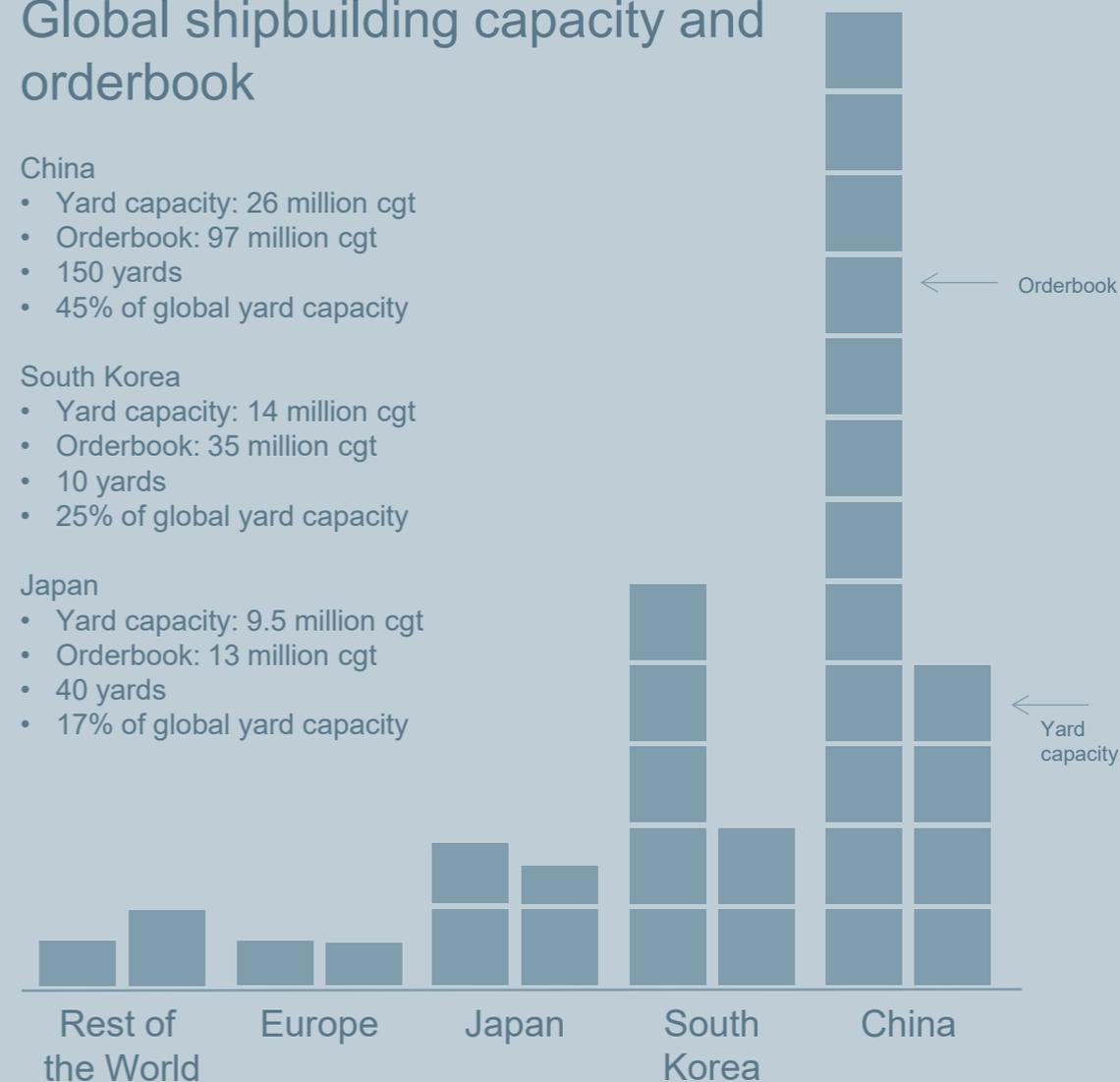
- Yard capacity: 26 million cgt
- Orderbook: 97 million cgt
- 150 yards
- 45% of global yard capacity

South Korea

- Yard capacity: 14 million cgt
- Orderbook: 35 million cgt
- 10 yards
- 25% of global yard capacity

Japan

- Yard capacity: 9.5 million cgt
- Orderbook: 13 million cgt
- 40 yards
- 17% of global yard capacity



Shipbuilding in the Last Six Months

Newbuilds pricey, orders thin – first-tier yards are still restocking

Newbuilding prices remain near cycle highs despite softer contracting

Newbuilding prices are in the highest 10% since 2000 and are only 3% below the 2008 peak. Even so, prices softened by 2% on average in the first ten months of 2025. The decline reflects contracting activity halving over the period compared with a year earlier (measured in cgt). Shipowners' waning appetite for Chinese newbuildings drove the change with a 58% reduction, followed by a 50% decline in Japan and a 17% decline in South Korea.

Broad-based contracting slump, as Container newbuilds buck the trend

Contracting fell across most of the main vessel segments in the first ten months of 2025. In contrast, Container Carrier owners increased ordering from an already exceptionally high 2024 base, with contracting up 8% versus the same period in 2024.

First-tier yards are restocking, while second-tier orderbooks are eroding

Despite the slump in contracting, first-tier yards replaced marginally more capacity than they delivered

during the period, so their orderbooks declined far less than for their second-tier peers. Second-tier yards replaced only half of delivered capacity.

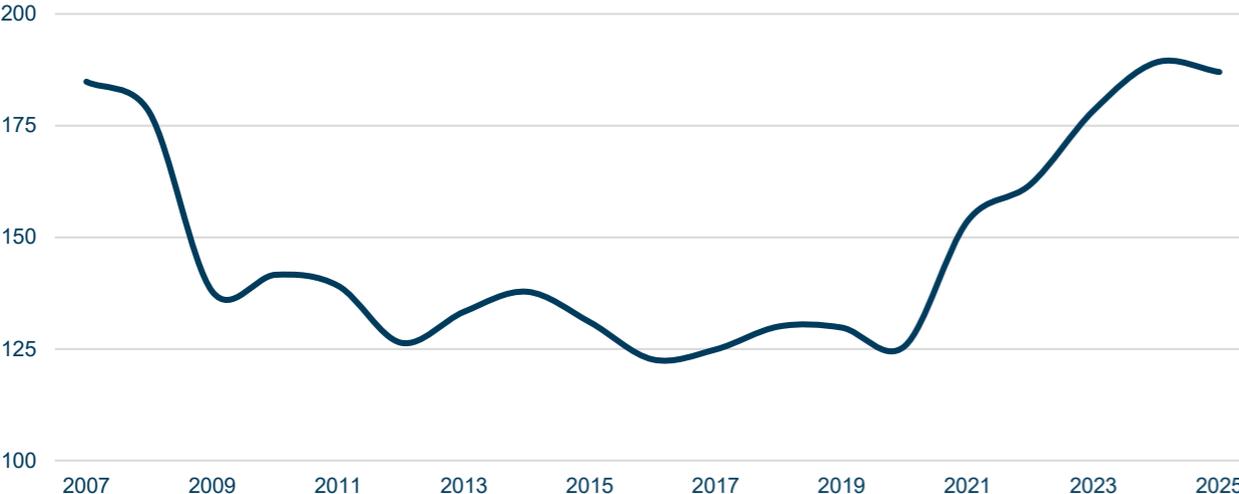
Container orders lift global orderbook value despite fewer hulls

During the first ten months, the strong contracting activity in the Container segment increased the value of the current global orderbook by 3%, although the number of vessels on order declined slightly. The orderbook remains fairly unchanged at around 160 million cgt. The global orderbook-to-fleet ratio grew uninterrupted from March 2023 to January 2025 but has since stabilised at around 16% of the fleet.

Alternative fuels anchor half of new capacity

The shift to alternative fuels is visible in the orderbook, though conventional designs still dominate by count. About 50% of vessels on order are alternative fuel capable, compared with 9% of the fleet. LNG is the leading option, with methanol a close second.

Newbuilding price index



Global orderbook (million cgt and % of fleet)



Sources: Clarksons, Danish Ship Finance

Shipbuilding Outlook

Full steam ahead for first-tier yards, while slack is building at the periphery

Global yard utilisation is set to remain elevated – near 80% or higher – throughout 2027, reflecting the delivery pulse now rolling off the high contracting activity of recent years. China and South Korea are projected to run at almost full tilt on deep backlogs and selective slot management. A weaker patch is Japan, where intake has lagged and utilisation remains structurally lower.

A two-tier industry

Polarisation is clear: 140 first-tier yards hold 80% of the capacity but 93% of the orderbook, and are scheduled for utilisation above 90% throughout 2026; this will continue into 2027. About 180 second-tier yards are operating with thin backlogs (20% utilisation this year) and many will run out of orders without fresh intake.

Chinese first-tier builders at full steam

Chinese yards are expected to maintain near 90% utilisation throughout 2026. The group of around 80 first-tier yards, which represent 85% of Chinese yard capacity but 95% of the orderbook, are effectively maxed out into 2027 (and many even into 2028). Meanwhile, average utilisation rates at Chinese second-tier yards are soft at around 10-15% for 2026-2027.

South Korea is still tight, but easing at the margin

South Korean builders are expected to fully utilise their 14 million cgt capacity, remaining firm into 2027 on Gas, Tanker and Container programmes. Still, in contrast to Chinese first-tier yards, Korean newbuilding slots have yet to fill up for 2028.

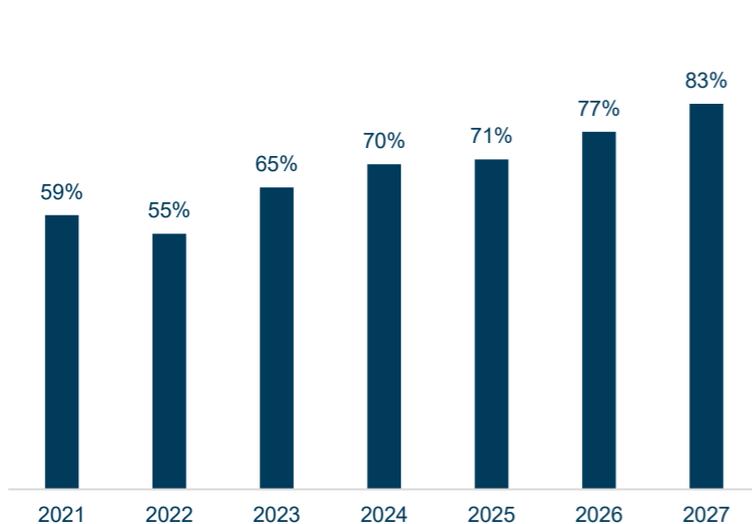
Japan remains the outlier among the big three

Japan's 10 million cgt capacity is struggling to reach beyond 50% utilisation for 2025-2027. Japanese first-tier yards, representing 65% of yard capacity but 85% of the orderbook, are projected to do better, but overall utilisation is set to dip in 2027, as backlogs are thinning and new intake of orders is lagging.

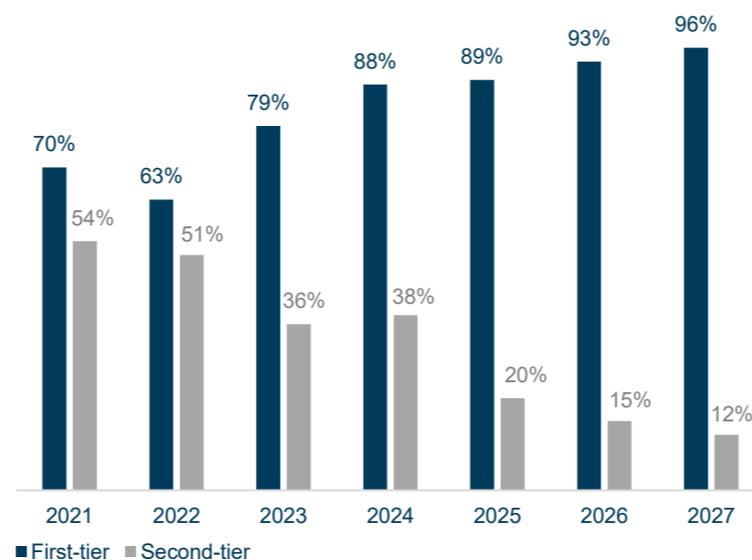
Vacant capacity concentration

The group of 180 second-tier yards, which represent 20% of global capacity but only 7% of the global orderbook, are running low on orders; 46 yards will deliver their last order this year and another 89 in 2026, concentrating idle capacity at the industry's fringes, while the first-tier yards will remain selective and almost full.

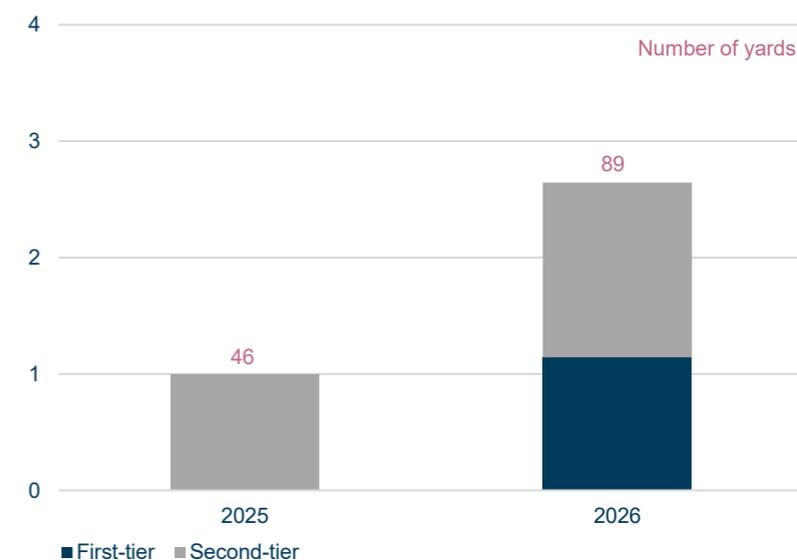
Global yard utilisation



Yard utilisation by tier



Vacant yard capacity (million CGT) – projections



Sources: Clarksons, Danish Ship Finance

Container

Shipping Market Review – November 2025



Container

Significant downward pressure on secondhand prices and timecharter rates

High asset prices and firm charter rates contrast with falling spot freight rates and a record orderbook that will flood the market in the coming years. The fleet has expanded ahead of demand, and a further 30% capacity increase is already scheduled. It is unrealistic to expect demand growth combined with scrapping to absorb this tonnage during the next few years. As the supply imbalance builds, timecharter rates and secondhand values are likely to face a sharp correction, with the market moving from tightness to oversupply. The sector is heading into a period of significant downward pressure on earnings and secondhand prices.

Spot rates are falling while charters remain firm

The Container market has experienced diverging market signals in 2025. Box rates have weakened markedly since the spring tariff truce between the US and China faded, while charter rates have remained firm at post-Covid highs. The Shanghai Containerised Freight Index is down 45% since January, falling to 1,200 points by October, reaching its lowest level since late 2023.

Charter tightness persists despite softer spot rates; easing risk ahead

Timecharter rates remain tight. The average timecharter index hit 198 at the end of September, the highest since 2022. Fixture periods have lengthened to 22 months from 15 in January, due to scarce prompt tonnage and still-solid volumes. When the SCFI falls while timecharter rates rise, it signals tight vessel supply despite weaker spot pricing. Charter rates are lagging freight because so much tonnage is fixed forward, and rerouting/congestion is keeping ships at sea longer. Operators are absorbing margin pressure, as hiring is still high while earnings per box are falling. Unless rerouting keeps utilisation elevated, charter rates are set to ease in the months to come.

Asset values elevated; ordering brisk; record orderbook with alt-fuel tilt

Secondhand prices have risen throughout 2025 on tight availability and firm hiring: Clarksons' Secondhand Price Index reached 82 in September (up 12% YTD), with smaller units seeing particularly strong gains. Newbuilding prices have stayed elevated within the top 85% seen since 2000. Contracting remains exceptionally active after 2024's record year: by late-September, about 400 ships/3.3 million TEU had been ordered (in line with the same period last year). The orderbook reached a historical high of 10.2 million TEU at the end of October, equating to an orderbook-to-fleet ratio of 31%, and alt-fuel capability is now standard in large orders (73-78% of capacity on order), reinforcing long-term capex and emissions-compliance themes.

MARKET CYCLE POSITION – November 2025

Period: 2000-2025



Utilisation down as supply outpaces demand; S&P halves while contracting stays high

Fleet utilisation has declined in 2025, as supply has outpaced demand. The fleet has expanded by 6.7%, while seaborne volumes have risen by 2.8%; shorter average hauls have shaved off 0.5 percentage points, leaving distance-adjusted demand up 2.3%. Despite slow steaming already being in use, average speeds have been cut further in 2025 to support fleet utilisation. Sale-and-purchase activity has roughly halved, signalling buyer caution at current prices. In contrast, contracting has remained strong, with ordering in the first three quarters of the year equivalent to 10% of the fleet.

Delivery: In 2025, the market has been dominated by a massive inflow of new vessels, with more than 2 million TEU scheduled to enter the fleet.

Scrapping: The strong charter market has kept older ships trading. Recycling has been minimal during 2025. Only 11 vessels with a combined capacity of 6,000 TEU were scrapped. These vessels were all older than 30 years.

Contracting: Exceptionally strong activity has been seen, though it has moderated slightly from the 2024 peak. By late September, around 400 units totalling 3.4 million TEU had been ordered, just 1% below

last year's record pace and 68% above the ten-year average. Ordering continues to be led by the largest vessel classes, but there is also renewed interest in feeders (<5,000 TEU), with around 200 ordered year-to-date.

Orderbook: A record 10 million TEU is now on order, corresponding to more than 31% of the fleet. This is the largest orderbook on record.

Demand: Container demand is expected to lag global GDP slightly in 2025, expanding by 2.8%.

Travel distances: The average haul length has contracted by 0.5% in 2025.

Sources: Clarksons, Danish Ship Finance

The massive orderbook overshadows the market outlook

The orderbook is now about 50% larger than at its 2008 peak. Back then, China’s manufacturing boom underpinned a strong expansion in global Container trade. Today, the landscape is different. Trade tensions, tariffs, ageing consumers, rising public debt in major economies, and rapid automation through robotics and artificial intelligence are creating a weaker demand outlook. The orderbook equals around 30% of the existing fleet, with most deliveries scheduled before the end of 2028. Fleet growth is set to accelerate sharply in 2027 and 2028, overshadowing any near-term upside in demand.

More ships, shorter hauls, weaker utilisation

From 2023 to 2025, the Container fleet expanded 17%, while distance-adjusted demand increased by 20%. Only about half of that demand growth came from higher volumes; the rest was longer average hauls. Those extended routes are now expected to normalise, removing a key support for tonne-miles. With more tonnage on the water and shorter trading distances, downward pressure on fleet utilisation will intensify.

Weak outlook for 2026

Fleet utilisation will deteriorate in 2026. Supply is set to expand by 5%, while box volumes are expected to rise 3%, but shorter average hauls will compress tonne-miles, leaving effective demand roughly flat. Before scrapping, this implies a 5% drop in fleet utilisation.

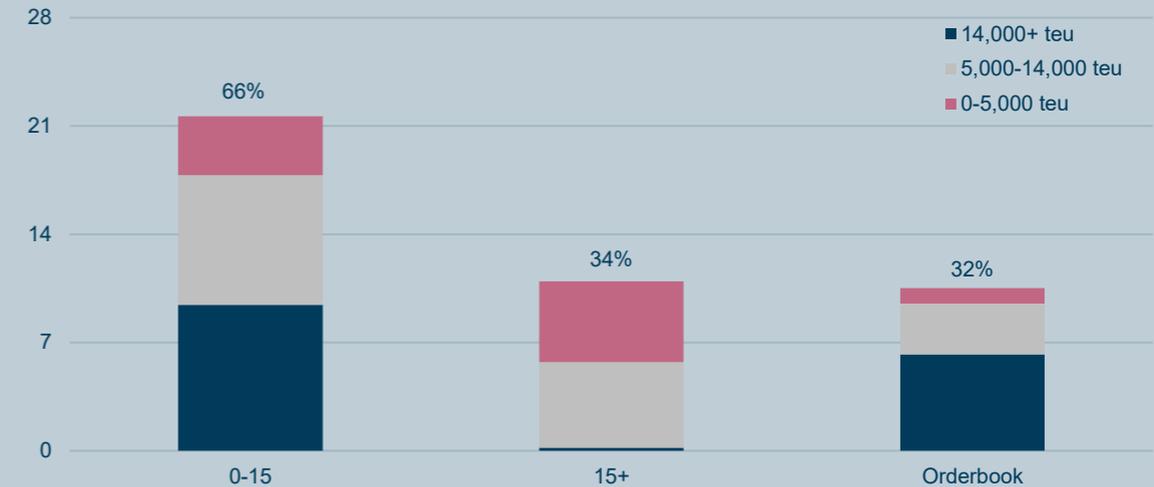
Capacity management will provide a cushion but not a cure

Further slow steaming, blank sailings, cascading, lay-ups and demolition of older vessels will be critical for absorbing excess supply. Charter rates may hold firm in the near term but should ease as supply pressure builds. A new expansion wave is locked in beyond 2026, with more than 6 million TEU due for delivery in 2027-28, signalling renewed pressure unless demand surprises on the upside. Mitigation would require faster demolition, more extensive slow steaming, or materially higher congestion – the base case is that none of these will occur.

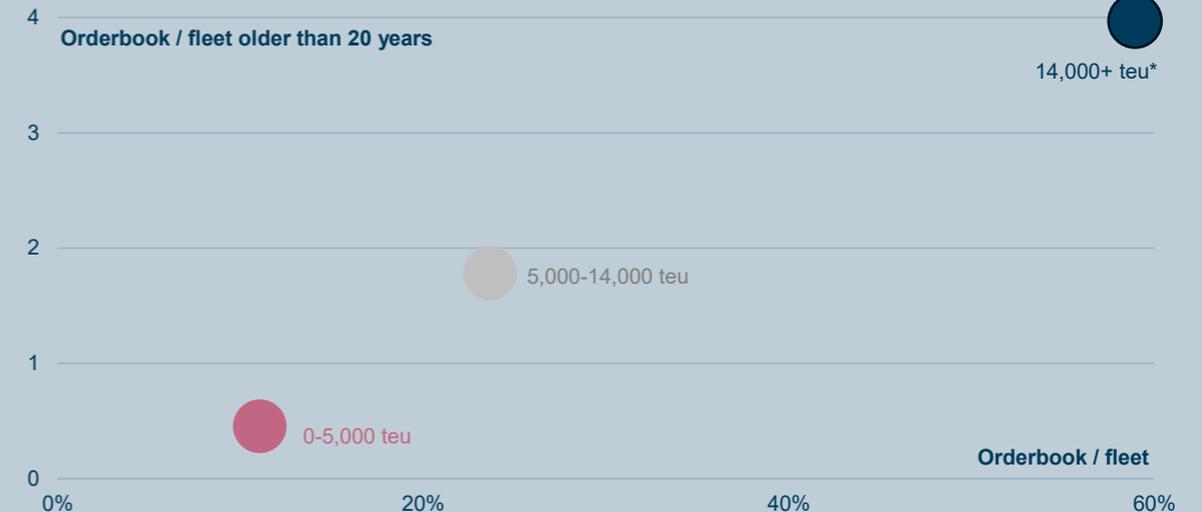
Rates and values are under significant pressure

Box rates have almost halved since early 2025. Timecharter rates are likely to follow suit as new capacity is delivered. Deliveries will dip in 2026 but will accelerate again in 2027-28, when 2.8-3.5 million TEU per year is projected to hit the water. The next plateau for secondhand prices is hard to call, but the risk is on the downside; the industry has never absorbed 10 million TEU within just a few years. The timing of demolition is uncertain: owners with strong balance sheets and debt-free vessels may defer scrapping in the hope of seeing another unexpected spike in rates and values.

Age distribution by capacity (million teu)



Orderbook-to-fleet ratio



*There are no 14,000+ teu vessels older than 20 years.

Sources: Clarksons, Danish Ship Finance

Dry Bulk

Shipping Market Review – November 2025



Dry Bulk

The Dry Bulk market remains resilient but may face increased pressure next year

In 2026, fleet utilisation in the Dry Bulk market is expected to decline from already modest levels. Fleet capacity is projected to grow by about 4% (before scrapping), outpacing an estimated 1% rise in distance-adjusted demand. Capesizes and Panamaxes – given their iron-ore and coal exposure – face a particularly uncertain outlook. Smaller segments appear more resilient, although Handymaxes are set for the largest gross fleet expansion, which could cap the upside.

Market dynamics

The Dry Bulk market upswing peaked in 2021 (second only to the 2004-2008 super-cycle) and have since softened, yet secondhand prices have kept rising. This divergence has pushed valuation multiples higher, and secondhand prices have traded at price-to-earnings ratios in the top 20% of their historical range since early 2024. Even so, market liquidity appears firm, with 4.4% of the fleet changing hands from January to October 2025. In effect, asset prices are staying continuously ahead of earnings power, and unless freight rates reaccelerate, support for today's prices rests more on expectations than on realised cash flows.

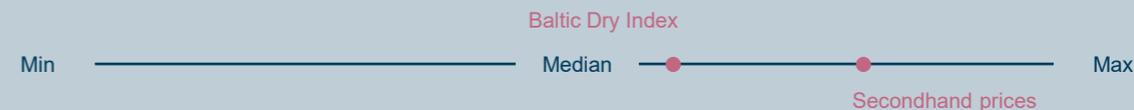
Market dynamics in the first ten months of 2025 did little to shift this narrative. Freight rates have firmed since the start of the year, but the structural balance between vessel demand and effective cargo-carrying capacity continues to cap spikes. Compared with the same period last year, seaborne Dry Bulk volumes edged higher on resilient Chinese imports, while longer average hauls lifted distance-adjusted demand growth to about 1.5%. The fleet expanded by roughly 2% during the period, but ongoing speed discipline narrowed the gap, leaving average utilisation and earnings broadly stable year-on-year at modest levels. The Baltic Dry Index is essentially unchanged from a year ago at around 2,000.

Altered US-China trade flows have provided a cushion for the Panamax segment

So far, tariffs have had no discernible effect on the Dry Bulk market. The Panamax (Kamsarmax) segment is the exception. Chinese soybean buyers, the largest driver of Chinese Panamax tonne-mile demand, have increasingly substituted US cargoes with longer-haul Brazilian liftings, adding four days per round trip. This shift reflects renewed US-China trade tensions and associated tariffs that have raised the cost of US agricultural imports. Panamax earnings remain near seasonal norms but are 15-20% higher than a year ago.

MARKET CYCLE POSITION – November 2025

Period: 2000-2025



Freight rates have increased by 8% in the past six months but remain around median levels. Secondhand prices have fallen from their 15-year highs observed around mid-2024 but have been broadly flat since the beginning of the year and remain within the top third of outcomes recorded since 2000. The softening (compared to mid-2024) has been driven by lower prices for small and mid-sized secondhand tonnage, while Capesize secondhand prices have remained resilient – still only surpassed by the levels of the boom period in 2007.

Delivery: 27.2 million dwt (2.6% of the fleet) was added to the fleet in the first ten months of 2025. Another 11.5 million dwt is scheduled to be delivered this year, bringing gross fleet growth in 2025 to 3.8% – in line with growth in the last six years.

Scrapping activity remains low, averaging just 0.5% of the fleet in the last four years. So far in 2025, 63 vessels (0.4% of the fleet) have been scrapped.

Contracting corresponded to 5% of the fleet in both 2023 and 2024. Activity has since slumped and 2025 is heading for the lowest annual level on record (aside from 2016), equivalent to 1-1.5% of the fleet.

Orderbook: The orderbook has remained stable around 11% of the fleet throughout 2025.

Demand: Seaborne trade volumes have increased by 1% in 2025 compared to the first ten months of 2024, as China continues to sustain (or build up) inventories.

Travel distances: Resilient Chinese imports have not only lifted total seaborne Dry Bulk demand, but also driven an uptick in average sailing distances, as some of the short-haul iron ore from Australia has been replaced with long-haul shipments from Brazil. Travel distances added a further 0.5% to demand growth in the first ten months of 2025.

Sources: Clarksons, AXSMarine, Danish Ship Finance

Market outlook

Fleet utilisation looks set to deteriorate in 2026, with speed-adjusted supply outpacing distance-adjusted demand. The fleet is likely to expand by about 4% (before scrapping), while demand will grow by roughly 1%. Seaborne volumes should remain broadly flat, with longer average hauls carrying the weight of total demand growth. Increased demolitions would help balance the scales, but probably not enough to change the overall picture. Freight rates are likely to soften in 2026, and it remains to be seen whether secondhand prices will realign with the fleet's modest earnings potential.

Long-haul iron ore and bauxite could be supportive – but China controls the narrative

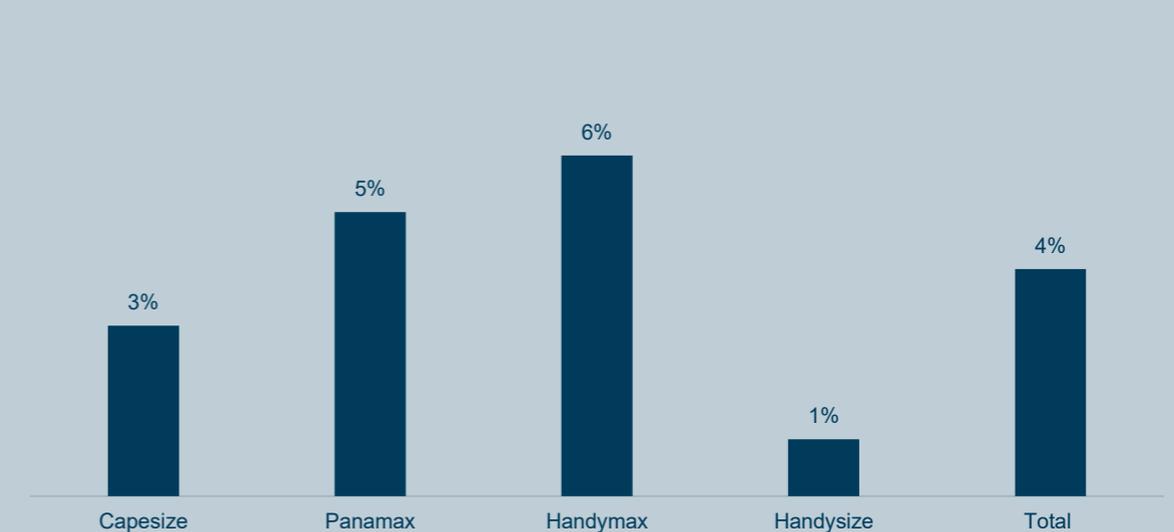
Upside to the demand outlook is most credibly tied to distance effects and new export origins. A phased ramp-up of West African iron ore and bauxite (Simandou-linked rail/port commissioning and Guinea-led debottlenecking) would lengthen average hauls; sticky reroutings and canal constraints would preserve tonne-miles; and price-spread restocking windows could pull cargoes forward even without stronger end uses. A few large projects in emerging markets may add small, localised lifts, but these cannot match the impact of China. The scale of China's footprint on seaborne Dry Bulk trade is such that offsetting even a modest 5% drop in Chinese seaborne Dry Bulk imports (roughly the size of half of its combined coal and iron ore inventories) would require a 30% surge in India's imports – India being the second-largest seaborne bulk importer.

Without China, the Dry Bulk market will likely be driven by the effective supply of vessels

In 2026, Chinese GDP is expected to grow by around 4-5%, but growth drivers continue to shift away from the traditional materials-intensive sectors that have historically underpinned seaborne Dry Bulk demand. Policy signals indicate that stimulus will remain focused on household consumption and balance-sheet repair rather than infrastructure and property. Together with elevated inventories carried over from 2024-2025 (due to high imports and weak end-user demand) and weak property indicators, this is likely to restrain import momentum. Accordingly, the Dry Bulk market in 2026 will be determined by the supply of vessels, not demand. Freight rate outcomes will likely be driven by operating speeds and the persistence of geopolitical disruptions, in the absence of a materials-heavy policy turn in China.

Extensive demolition of older tonnage could change the outlook. Five years of limited scrapping has built up a larger share of older vessels across segments, and the number of older vessels is currently well balanced with the capacity on order. The Handymax segment, however, may be the only exception. For every three Handymax vessels on order, only one is older than 25 years (see next page). In effect, if demolition were to rebalance Handymax supply, it would come at the expense of shorter economic lifetimes and a stronger structural headwind for secondhand prices.

The Handymax segment is set for the largest fleet expansion in 2026

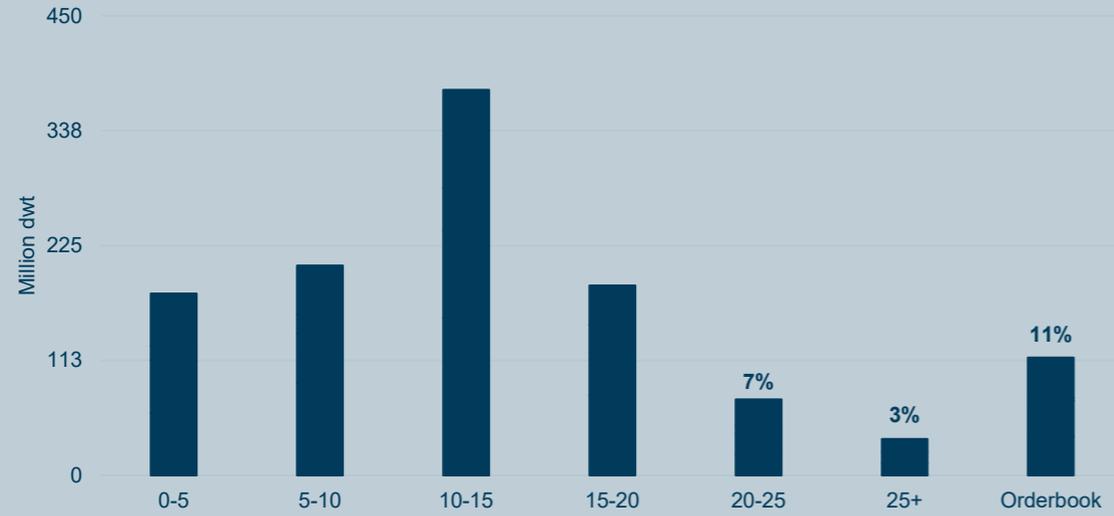


Iron ore and coal inventories in China have reached very high levels (million metric tonnes)

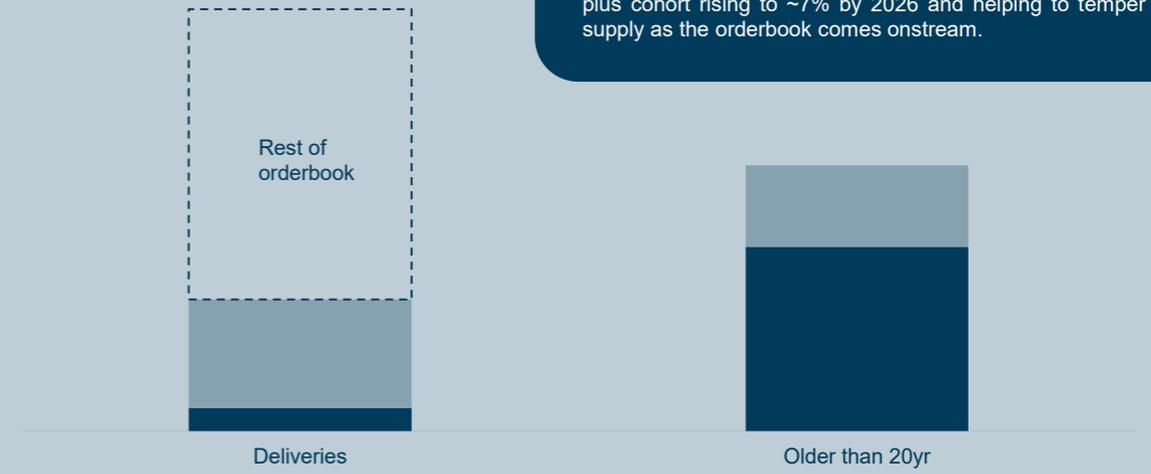


Sources: Clarksons, IMF, IEA, SSI, KKR, AXSMarine, Danske Bank, Bloomberg, Danish Ship Finance

Overall, the number of older vessels (20+ years) appears balanced with the size of the orderbook...



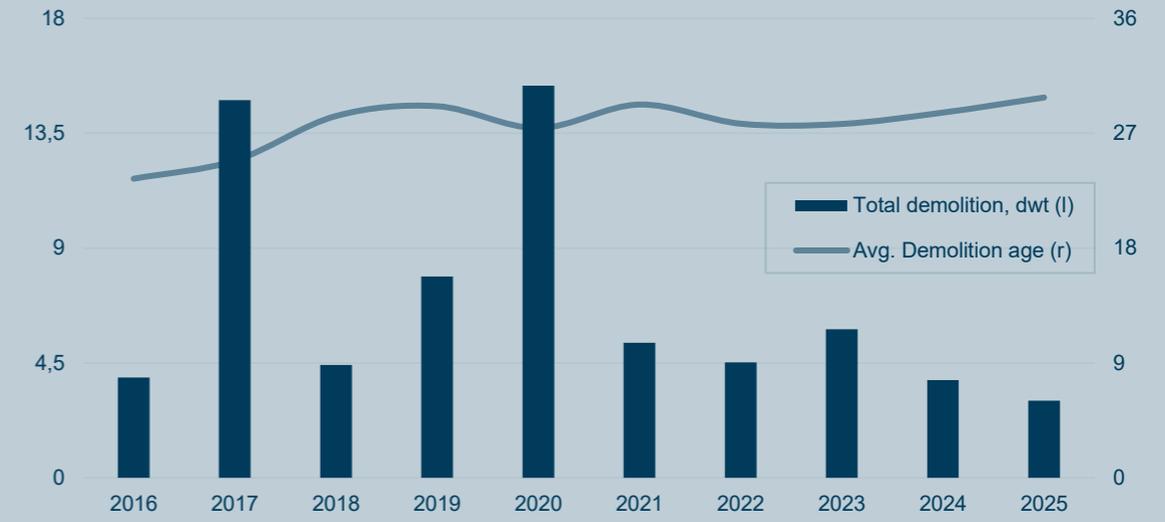
The Capesize orderbook corresponds to ~9% of the fleet, while vessels older than 20 years account for ~5%. A late-weighted delivery profile means near-term fleet growth is set to be modest – about 3-3.5% in 2026 – allowing more vessels to age into scrapping territory, with the 20-years-plus cohort rising to ~7% by 2026 and helping to temper supply as the orderbook comes onstream.



...The Handymax segment is expected to take delivery of roughly three vessels for every one older than 20 years, leaving an unfavourable outlook for the economic lifetime of older ships.



*Demolition candidate thresholds are assumed to be 20yr for Capesizes and Panamaxes, and 25yr in the Handymax and Handysize segments.



Sources: Clarksons, Danish Ship Finance

Crude Tanker

Shipping Market Review – November 2025



Crude Tanker

A positive Crude Tanker outlook, but a lot of dynamics to look out for

The Crude Tanker market has stabilised in 2025, led by VLCCs. Demand is still set to grow but will shift from being distance-led to volume-led, as more Middle East barrels will trim average voyage lengths, while effective capacity will stay tighter than headline levels due to sanctions, surveys and slower steaming. If fleet additions outpace tonne-mile growth, we can expect a softer, choppy rate environment and a clearer premium for modern, efficient tonnage; otherwise, VLCCs remain best placed, while mid-sizes face more elastic supply.

Market dynamics

Fleet utilisation has increased slightly this year. Seaborne crude oil volumes are expected to rise by about 0.9%, and the persistent trend of longer distances has pushed distance-adjusted demand higher. The fleet is set to expand by 1.4% in 2025, but this has already been partly offset by a reduction in average speeds of roughly 0.7%.

After last winter's reset, rate sentiment has stabilised. The average one-year timecharter rate has strengthened by 13% and is hovering steadily above the top 30th percentile observed since 2000. However, the downtrend from 2024 remains visible, mostly attributable to mid-sized tankers. The recent firming of rates stems from strong VLCC market momentum owing to stronger OPEC+ volumes, firmer Chinese demand and limited fleet growth. Meanwhile, P/E ratios have compressed as earnings have outpaced relatively steady asset prices, and softer turnover ratios point to thinner liquidity, with owners holding cash-generative vessels.

On the demand side, export visibility has improved. OPEC+ has added barrels earlier than expected, and Atlantic suppliers have kept volumes flowing. That has increased triangulation and restored faith in steady lifting into the winter, especially for long-haul VLCC. At the same time, trade frictions that may have looked temporary earlier this year have proved sticky. Red Sea risk continues to push some flows around the Cape of Good Hope, and sanctions have hardened a two-tier market: compliant vessels in mainstream trades versus the grey fleet serving sanctioned barrels. The result is longer voyages and more off-hire days, quietly tightening effective supply.

On the supply side, composition matters more than size. Deliveries have swelled the mid-size pool, making Suezmax and Aframax supply more elastic and capping their rate recovery. In contrast, VLCCs have seen low near-term deliveries and strong long-haul exposure, helped by slower steaming and compliance costs that reward younger, efficient units.

MARKET CYCLE POSITION – November 2025

Period: 2000-2025



Crude Tanker earnings have risen about 20% over the past six months. One-year timecharter rates are now in roughly the top 30% for VLCCs and Suezmaxes, and in the top quarter for Aframax since 2000. The stronger earnings have boosted VLCC secondhand values by some 5%, while Aframax and Suezmax prices have been largely unchanged. Newbuilding prices have stayed near cycle highs in the past six months: VLCCs have been broadly steady and are in the top 20% of the historical range, Suezmax prices have edged down by about 2% but remain in the top 15%, and Aframax prices have slipped roughly 1.4%, yet still rank within the top decile.

Deliveries: 4.9 million dwt has been added to the fleet so far in 2025 (1% of the fleet). A further 2.4 million dwt is scheduled for this year, taking 2025 deliveries to 7.3 million dwt. While this is a pickup from 2024, it is still the second-lowest annual tally since 2000.

Scrapping: Nine vessels (1.4 million dwt, constituting 0.3% of the fleet) have been scrapped so far in 2025. The demolished vessels were all older than 20 years, with an average age of 25.

Contracting activity has cooled slightly compared to the 32.4 million dwt in 2024. In the first ten months of 2025, around 14.2 million dwt (3% of the fleet) was contracted.

The orderbook has experienced significant growth since the start of 2023. Currently, 59 million dwt is on order (13% of the fleet), the highest post-Covid orderbook/fleet ratio.

Demand: Seaborne trade volumes decreased by 1.2% in the first ten months of 2025 compared to the same period in 2024, as softer Chinese and US intake outweighed gains in India and South Korea. Seaborne trade volumes are currently 1% below 2019 levels.

Travel distances: Distances remain at high levels, the highest since 2017. Distances increased by 1% in the first ten months of 2025 compared to the same period in 2024.

Supply outlook

In 2026, fleet growth is expected to increase by 3.8%, driven by VLCCs and Suezmax vessels, with the Aframax fleet broadly flat to slightly lower. However, effective capacity is tighter than this suggests. According to Clarksons, around 13% of the Crude Tanker fleet remains tied up in sanction-affected trades. VLCC deliveries are set to be relatively low in the near term, and yard time, surveys and slower steaming to meet carbon rules will increase the number of sailing days. The fleet has been ageing faster than it has been renewed, leading to more vessels facing costly surveys and efficiency rules, which could push owners to recycle earlier or keep older vessels trading more slowly and on niche routes, limiting effective supply. As 2026 progresses, the balance will tilt, with supply becoming the main swing factor. Our base case is that persistent sanctions, slow steaming and ageing will keep effective capacity tight, supporting rates.

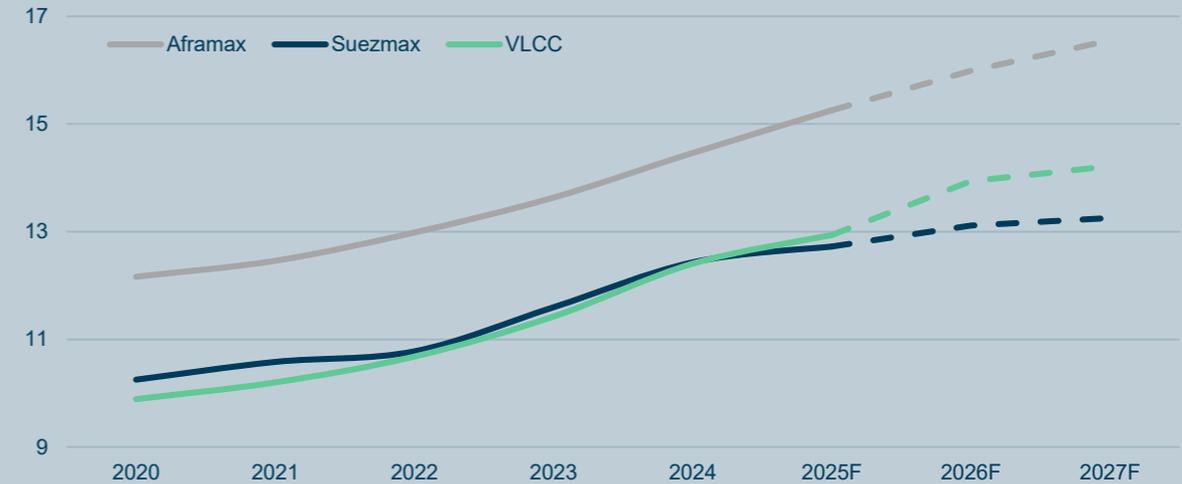
Demand outlook

Crude Tanker demand is set to rise, but the mix will change. In 2025, growth of about 1.4% is still being helped by longer routes, but in 2026 growth will become more volume-led. World seaborne crude oil trade is expected to increase by about 1%, while tonne-miles will grow by 0.3%, implying a small decline in average distances. The reason is sourcing. If China and India reduce Russian intake at the margin, most of the backfill is likely to come from the Middle East, which holds a far more exportable surplus than the Atlantic and West Africa suppliers, and can reach Asia via the Indian Ocean without the Red Sea being involved. These voyages are shorter than Atlantic or West African routes, so distances will ease even as barrels rise. VLCCs will still benefit: both Middle East to Asia and Atlantic to Asia are VLCC-heavy (VLCCs carry 88% and 84% of these volumes), and some cargo that might have sailed on Suezmaxes or Aframaxes can be consolidated onto larger ships. Still, the main boost to demand in 2026 is likely to come from more barrels moved, not longer trips, which means rates will remain sensitive to routing headlines but should be driven increasingly by load programmes rather than longer voyages.

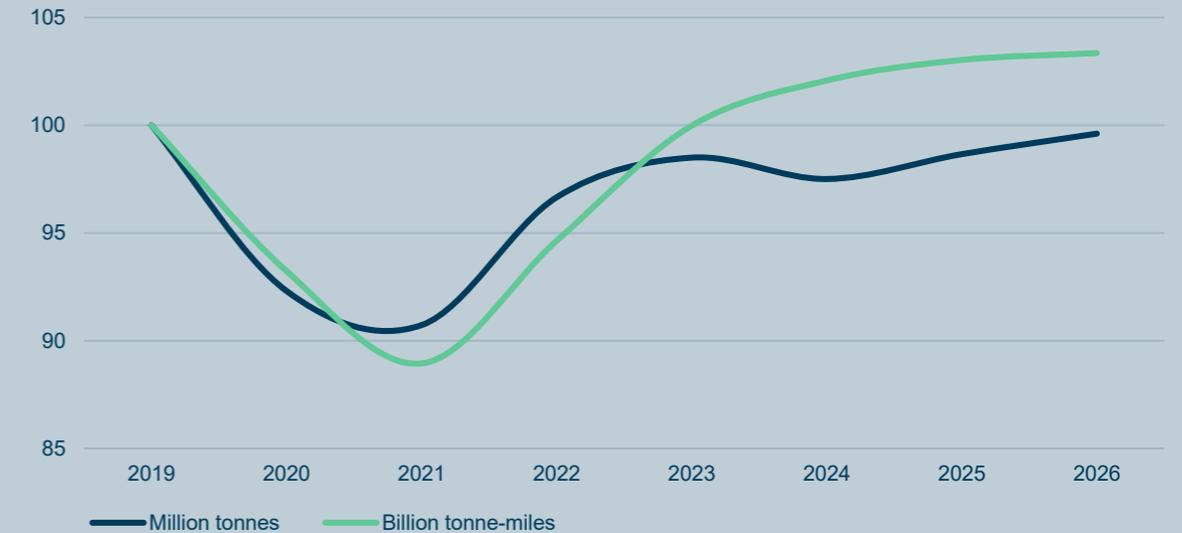
Market outlook: What to keep an eye on

In our base case, Red Sea disruption will persist, OPEC+ will unwind gradually, and sanction enforcement will remain tight. That combination will keep routes relatively long, support tonne-miles and be most favourable for VLCCs. In an optimistic case, detours will prove stickier and Atlantic exports will grow faster, lengthening distances and lifting utilisation across the larger classes. Meanwhile, in a pessimistic case, Red Sea traffic will normalise sooner, deliveries will arrive on time, and refinery runs will soften, which will shorten voyages and leave effective tonnage elevated, especially in the Suezmax and Aframax segments. The two signals to watch for most closely now are the share of crude moving via the Cape rather than Suez, and the pace and scope of new sanctions or port bans – both will directly reshape voyage lengths and the pool of compliant ships, and therefore rates

Average age (assuming no further scrapping): Fleet ageing pace set to increase, driven by a growing shadow fleet



Seaborne crude oil trade (Index 2019=100): From distance-led surge to volume-led growth by 2026



Sources: Clarksons, AXSMarine, IEA, Danish Ship Finance

Product Tanker

Shipping Market Review – November 2025



Product Tanker

Softer momentum amid continued strength

The Product Tanker market has stayed resilient but entered a softer phase in 2025, as easing tonne-mile demand and steady fleet expansion have weighed on utilisation. Looking ahead, a modest demand recovery and stable trade pattern should keep market conditions balanced but short of recent highs. Further ahead, slower structural demand growth and a larger fleet point to continued volatility and a gradual return towards mid-cycle rate levels.

Market dynamics

The Product Tanker market has remained broadly healthy throughout 2025, though earnings have softened year-on-year as tonne-mile demand has eased and new deliveries have entered the fleet. Five-year-old secondhand prices, which peaked in mid-2024, have since declined but remain elevated, still within the top 25% historically. MR values have proved more resilient, while LR1 and LR2 prices have weakened modestly in line with freight rates. Earnings have adjusted down across all segments in the last 12 months but remain at relatively high levels. In 2025, price-to-earnings ratios have only increased in the MR segment, where valuations are now near historical highs. With fleet growth outpacing tonne-mile demand, utilisation has trended lower, suggesting that current secondhand prices are being supported more by expectations of future tightening than by realised earnings.

The fleet has expanded significantly, by 18% since 2018, absorbing much of the rise in distance-adjusted demand. This has created a tight but volatile balance in utilisation, with earnings swinging sharply, doubling in mid-2023 before dropping 60% by early 2024. Contracting activity spiked in both 2023 and 2024 but has been at multi-year lows in 2025.

In recent years, distance-adjusted demand has been driven by distances as geopolitical disruptions and refinery outages have reshaped flows. In 2025, it is down 3.1% from the 2024 peak. However, this soft patch has been driven by a 3.2% decline in volumes (which are down 6% from the peak levels in 2018). The decrease in volumes has been caused by a combined 4.4% decrease in Asian and European imports (which account for more than 60% of world imports). In Europe, imports fell as Russian refinery outages tightened diesel supply and buyers de-risked back-door flows ahead of stricter EU rules. In Asia, expanded domestic refining in China and India, weak petrochemical margins and inventory draws have reduced product imports, especially naphtha.

MARKET CYCLE POSITION – November 2025

Period: 2000-2025



Product Tanker earnings have risen by 11% in the past six months and remain in the top 25%. After a prolonged decline from the 2022-2024 peaks, one-year timecharter rates have stabilised this year as LR1 and LR2 earnings have strengthened by 10% and 19% in the past six months. Secondhand prices have also stabilised after declines early in the year and continue to hover in the top 20% of their historical cycle.

Deliveries will hit a 16-year high in 2025. 8.4 million dwt (4% of the fleet) was added to the fleet in the first ten months of 2025, compared to 3.4 million dwt delivered throughout the whole of 2024. Furthermore, an additional 3 million dwt is scheduled for delivery this year.

Scrapping activity remains historically low, even though removals in 2025 have already reached more than double the combined total for 2023 and 2024. In the first ten months of 2025, 1 million dwt (0.5% of the fleet) was scrapped. The average age of these vessels was 27.4.

Contracting activity is at its lowest level since 2016. It amounted to 2.9 million dwt

(1.6% of the fleet) in the first ten months of 2025, which is seven times less than contracting in the same period last year.

Orderbook: The orderbook remains at a high level, with 36 million dwt currently on order, although it has shown a decreasing trend in 2025. The orderbook-to-fleet ratio is at 19%.

Demand: In 2025, world seaborne oil product trade is expected to decrease by 3.2% but will still rank among the highest 35% (down 6% from the all-time high in 2018). Travel distances are up 0.1% from the all-time highs of 2024, still structurally driven by geopolitical tensions in the Red Sea and the war in Ukraine.

Supply outlook

Fleet growth is expected to remain strong in the near term. The orderbook is nearly at an all-time high, at 18% of the fleet. Deliveries are expected to boost supply by 6.8% in 2025 and 7.2% in 2026 before scrapping. Growth is concentrated to MRs and LR2s, which will further tilt the fleet composition. Scrapping potential is highly uncertain. About 16% of the fleet is older than 20 years, yet demolition has been limited as many older vessels remain active in sanctioned trades, especially Russian oil. Unless Russian exports decline meaningfully, large-scale scrapping is unlikely, meaning nominal capacity could grow significantly faster than demand. However, effective capacity may expand more modestly, because LR2s in the orderbook can switch to dirty trades, reducing clean-product availability.

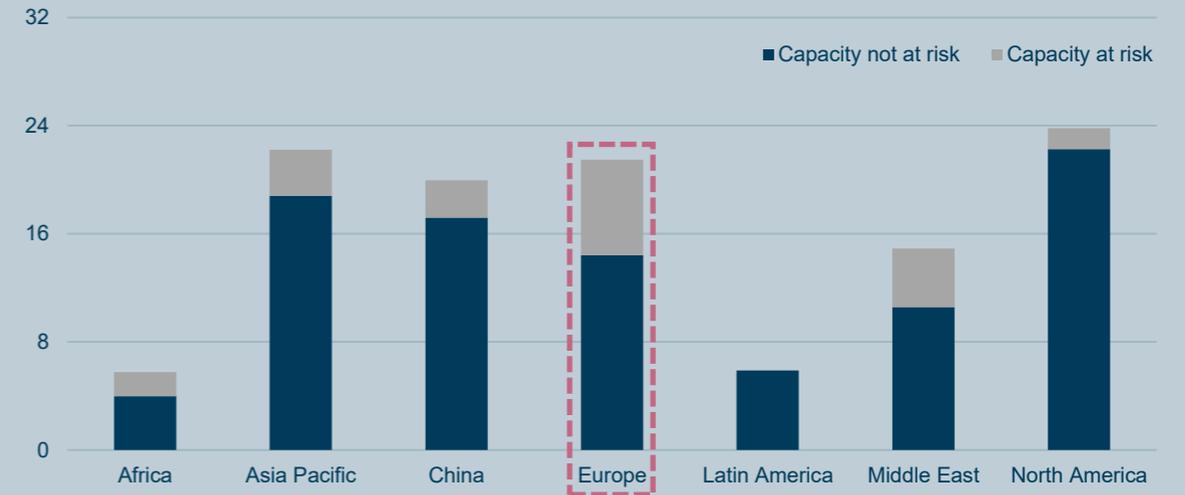
Demand outlook

From 2026, distance-adjusted demand is expected to edge higher as Asian and European imports recover modestly, but it will remain volume-led. The centre of gravity in refining continues to shift towards the Middle East and Asia, where capacity additions and competitive economics increase regional self-sufficiency and reduce the need for some long-haul imports. Europe is moving the other way: an ageing, higher-cost refining base and periodic maintenance are keeping runs contained, maintaining the reliance on seaborne supplies from the US Gulf, the Middle East and India. These opposing forces largely offset each other on a global basis. With distances broadly stable, helped by a gradual normalisation of Suez transits, and with Russia-related restrictions still shaping, but no longer transforming, trade lanes, the baseline points to modest tonne-mile growth in 2026 followed by a flatter trend. Upside risks include renewed Red Sea disruptions, unplanned refinery outages or policy shifts that tighten balances and extend routes. Downside risks include a cleaner return to pre-disruption routing, softer end-use demand from efficiency and EV uptake or a faster expansion of available tonnage. On balance, the narrative is one of resilience rather than exuberance: a small step up from 2025, a market that remains healthy, and a level of distance-adjusted demand that stays a touch below the 2024 high, assuming no fresh shocks.

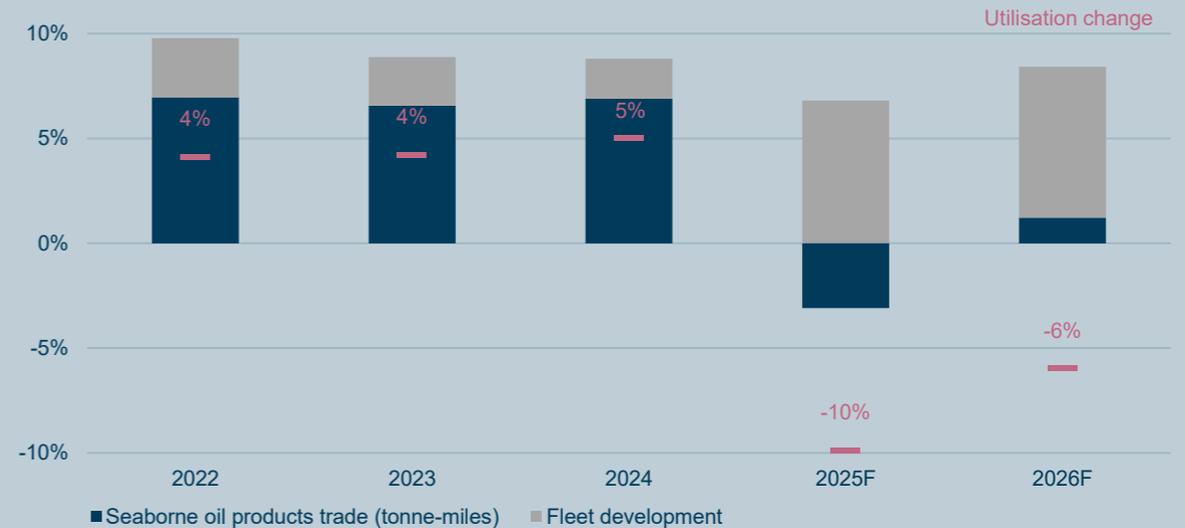
Market outlook

Current sentiment suggests that fleet utilisation is expected to decline from current levels, reflecting both easing tonne-mile demand and the delivery of new capacity ordered during the past two years. The near-term imbalance between vessel supply and trade volumes is likely to exert downward pressure on rates and values. Over the longer term, the combination of slower trade growth, shorter average voyage distances and a structurally larger fleet suggests that rates will remain volatile but generally lower than those achieved during the dislocation-driven highs of 2022-2024.

Refinery capacity (mbpd): A large share of European refinery capacity is at risk of closure



High influx of Product Tanker vessels will outpace demand growth in the near term



Sources: Clarksons, AXSMarine, IEA, Danish Ship Finance

LPG Carrier

Shipping Market Review – November 2025



LPG Carrier

Continuously volatile?

Trade and fleet have grown in lockstep in 2025, leaving LPG freight rates driven by short-term but high-impact events. The outlook for 2026 echoes this trend. Utilisation looks set to be stable, but a significant 10% gross fleet expansion leaves little margin for demand to miss without leaving a drag on freight rates. Asia (especially China) leads expected import growth for next year, but US-China policy is the swing factor that could shorten hauls or trim volumes.

Market dynamics: Freight rate volatility remains

Recent years' developments in the expansion of cargo-carrying capacity and seaborne trade have left a tight underlying balance within the LPG Carrier market. From 2019 to 2024, distance-adjusted seaborne LPG trade grew by around 40% – equal to the net expansion of the LPG Carrier fleet. The fragile fundamental equilibrium of the market puts freight rate outcomes broadly into the hands of more dynamic market determinators. The inherently volatile nature of the market was especially evident from April 2023 to early 2024, when average LPG freight rates surged to record highs before sliding to multi-year lows. Average VLGC spot rates (as indicated by TCE earnings from Ras Tanura to Chiba) almost tripled to USD 140,000 per day in September 2023 and then dropped to around median levels near USD 30,000 per day by February 2024.

A similar (yet less extreme) dynamic took place in the first ten months of 2025, as seaborne LPG demand and vessel supply grew in tandem. Relative to the same period last year, seaborne LPG volumes grew by 1%, while longer travel distances brought distance-adjusted demand growth to 3%. This should be seen in the context of a 3% speed-adjusted expansion of the fleet. With fundamentals continuously balanced, the market – driven by the VLGC segment – was dictated by short-term but high-impact events, triggering sharp spikes in average fleet utilisation. Hull surveys and increases in Panama Canal congestion (reaching levels last seen during the 2023 drought) periodically reduced the active supply of vessels by up to 2-4%. In addition, a reshuffling of seaborne cargoes resulted in episodic extensions of tonne-mile demand. Middle Eastern suppliers, capitalising on US-China trade tensions, redirected eight-day India-bound exports to China on voyages lasting 17 days on average. Meanwhile, as the Middle East gained Chinese share at India's expense, US exporters pivoted the other way, swapping Chinese LPG buyers for Indian and adding about a week to the average seaborne haul. In effect, average VLGC spot rates almost doubled from USD 37,000 per day at the beginning of this year to USD 72,000 per day in August, before adjusting to USD 50,000 per day in October.

MARKET CYCLE POSITION – November 2025

Period: 2000-2025



Average LPG earnings have increased by 27% in the past six months and are only slightly below the top 10% observed since 2007. Average secondhand prices have been broadly flat since the beginning of the year, with prices (across all ages) in the VLGC and MGC segments remaining among the top 10% of observations. Firm cash flows and high asset values have made sellers reluctant and buyers cautious. In effect, bid-ask spreads have widened, and liquidity has thinned. 2% of the VLGC fleet changed hands during the first ten months of 2025, down from 7% in the same period last year.

Delivery: 1.8 million cbm (3.5% of the fleet) was added to the fleet in the first ten months of 2025. Another 0.7 million cbm is scheduled to be delivered this year, bringing gross fleet growth in 2025 to 5% – the lowest level in six years.

Scrapping activity was entirely absent last year. So far in 2025, only one (SGC) vessel has been demolished.

Contracting activity has normalised amid an already high orderbook (established during the 2023-2024 contracting boom) and record-high newbuilding prices. During the first ten months of 2025, newbuild contracting totalled 4% of the fleet.

Orderbook: Although deliveries are starting to materialise and contracting has normalised, the orderbook will not see significant drainage until next year. The orderbook has remained stable at a record 38-40% of the fleet throughout 2025.

Demand: Seaborne trade volumes have increased by 1% in 2025 compared to the first ten months of 2024, as higher Indian imports have counteracted slightly lower Chinese demand.

Travel distances: Higher Indian imports have not only lifted total seaborne LPG volumes but also driven an uptick in average sailing distances – bringing tonne-mile growth for the first ten months of 2025 to 3%.

Market outlook...

Average LPG Carrier utilisation looks set to remain stable in 2026, mirroring the trend of previous years. The gross expansion of the fleet and growth in distance-adjusted demand are expected to balance, both increasing by roughly 10% year-on-year. The step-up in tonne-mile growth (split almost equally between a volume and voyage distance uptick) marks an acceleration from an already firm 8% CAGR between 2020 and 2025, revealing an arguably ambitious projection for next year. In this context, the expected surge in cargo-carrying capacity will leave little room for demand to underperform without applying significant downward pressure (at least periodically) on average fleet utilisation and freight rates. Panama Canal access and arbitrage windows will still move the tape week to week. However, the key swing factor will likely be developments in US-China policy, introducing additional uncertainty into an already volatile market – particularly for the VLGC segment.

...supported by more Asian seaborne LPG imports – supplied by the Middle East and US

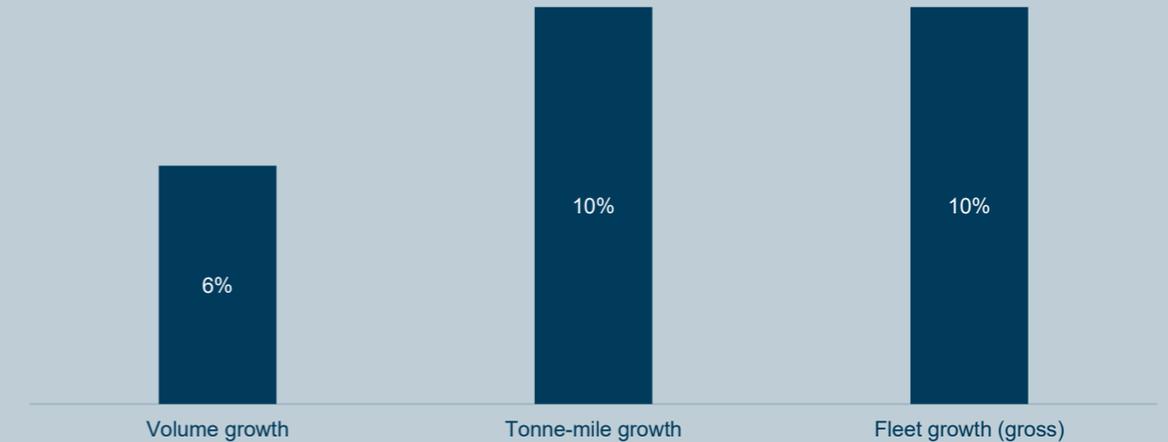
Seaborne LPG trade in 2026 is set to be driven by Asian imports. The region’s seaborne LPG imports (accounting for around 60% of total demand) are expected to grow by 7.5 million tonnes (8%) versus 2025. Meanwhile, European imports (accounting for 20% of total demand) may only provide little support, at 0.6 million tonnes (3%). Most of the additional demand in Asia – driven by rising feedstock demand from the petrochemical sector – will likely be met by both Middle Eastern and US supplies. Increased US export volumes will be supported by the expansion of domestic LPG terminal capacity, while Middle Eastern output should lift as new gas fields ramp up and OPEC+ production cuts unwind (as per the latest announcements).

Still, positive demand projections may fail to materialise

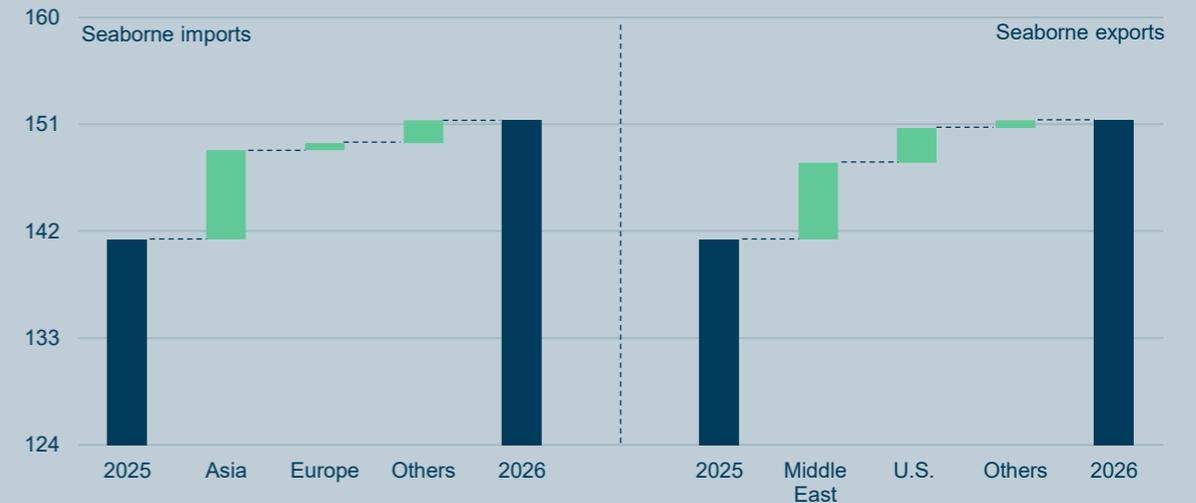
In Asia, Chinese import projections for 2026 dominate the demand narrative, with volumes rising by 2 million tonnes (5%) and absorbing one in four seaborne LPG cargoes. As is typical for the region, most Chinese seaborne demand is expected to be met by long-haul US and short-haul Middle Eastern supply. In the first ten months of 2025, these covered 33% and 42%, respectively, of imports.

With next year’s demand largely dictated by these trades, prolonged US-China tensions (recently heightened by penalties imposed on US-affiliated tonnage calling at a Chinese port) have done little to establish a sense of certainty around the distance-adjusted demand outcome for 2026. Chinese buyers could extend this year’s shift and replace US volumes with more Middle Eastern short-haul. The net effect of this has, so far, been spikes in distance-adjusted demand (see previous page). However, if US LPG suppliers fail to find alternative buyers available at scale and with sufficient long-haul pull, tonne-mile projections for 2026 will likely undershoot current estimates and weigh on freight rates.

Demand and fleet growth, 2026 (year-on-year, %)



Seaborne LPG imports and exports (million tonnes)



Sources: Clarksons, AXSMarine, Drewry, Bloomberg, SSY, Reuters, Danish Ship Finance

LNG Carrier

Shipping Market Review – November 2025



LNG Carrier

New tonnage meets volatile demand

The LNG Carrier market is weak, with oversupply pushing earnings down, while prices remain sticky and deal flow thin. Looking ahead, a large orderbook is set to keep utilisation under pressure, even if volumes grow and some long-haul trade returns. China's pipeline options, the shift to peaking demand, and project slippage will temper any improvement, so near-term conditions are likely to be characterised by soft utilisation and higher volatility.

Oversupplied LNG market, yet secondhand prices remain high

The LNG market is oversupplied and earnings are weak. Secondhand values have not adjusted for this: prices for older tonnage have edged down slightly, while for younger vessels they remain sticky. S&P activity is well below 2022-2024 levels.

Supply growth is outpacing demand; rates near cycle lows

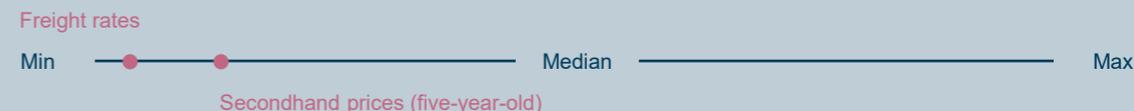
In the first ten months of 2025, the fleet expanded by 7.7% and is on track to grow 12.7% this year, well ahead of tonne-mile demand. Utilisation has slipped and rates are near cycle lows. Contracting has cooled after the 2022-2024 binge, but the sizeable orderbook continues to cloud the outlook. Scrapping has accelerated to a record pace – with mainly steam-turbine tonnage demolished, lowering the average retirement age – yet it has not offset surplus capacity. The tilt towards newer, more efficient ships is also being driven by fuel economics and tighter emissions rules, leaving older technology uncompetitive even with weak earnings.

Route reshuffling shortens hauls

Tonne-mile trade is set to grow 1.4% in 2025, as a result of route reshuffling. Unlike 2024's long-haul US-to-Asia boost, short-haul US-to-Europe tonne-miles rose 52% in the first ten months, consistent with Europe's shift away from Russian gas. Long-haul US-to-Asia fell 46% – US-China flows have been almost erased – reflecting trade frictions and Europe outbidding Asia, supported by price signals and storage needs. Chinese seaborne LNG demand is down 16%, amid higher pipeline imports and greater reliance on coal, as well as rapidly expanding renewable energy sources. Demand is lagging fleet growth, but this year's liquefaction FIDs and build-outs point to a larger cargo pipeline ahead.

MARKET CYCLE POSITION – November 2025

Period: 2000-2025



The one-year timecharter rate for a 174,00 cbm LNG Carrier peaked at USD 260,000 per day in October 2022, before sliding to an all-time low of USD 19,500 per day in February 2025 as the market moved into structural oversupply. Rates have since rebounded by 44%, but at USD 28,000 per day they remain 51% lower than a year ago. While the price of a five-year-secondhand vessel has been flat over the last six months, prices for older tonnage have softened. Furthermore, newbuilding prices have eased by 2% in six months, but they are still near the top 10% historically.

Deliveries in 2025 will be more than triple the 2000-2024 annual average. January-October added 9.3 million cbm (7.7% of the fleet), and a further 6.4 million cbm is scheduled for the remainder of the year. Elevated delivery volumes are expected throughout 2026-2027.

Scrapping in 2025 has already exceeded the 2024 all-time high by 42%. Year-to-date, 1.6 million cbm (1.3% of the fleet) has been scrapped across 12 vessels – all steam-turbine units – at an average age of 25.6 years.

Contracting activity is at its lowest level since 2017, and is below the historical median. In the first ten months of 2025, 3.3

million cbm (2.7% of the fleet) was contracted, which is down 78% compared to the same period last year.

Orderbook: The orderbook is in the top 10% of levels seen historically with 53 million cbm currently on order, although it has decreased by 10% since the start of the year. The orderbook-to-fleet ratio is at 41%, which is slightly above the historical median.

Demand and travel distances: In 2025, world seaborne LNG trade will increase by 4.6% and reach all-time-high levels. After a significant surge in 2024, travel distances are down 3.2% following increased short-haul US-Europe trade.

Supply outlook

After a period of intensive deliveries and limited contracting, the orderbook-to-fleet ratio has eased to 41%. About 90% of the orders will enter the fleet in 2026-2028, lifting capacity by 14% per year and pressuring utilisation and shoulder-season idle time. Employment will be concentrated to a younger, more efficient core, with FSRUs and regas terminals cycling harder and term business shifting towards flexible, seasonal cover. Market balance hinges on faster removal of older, less efficient units. Sustained scrapping could shorten effective lifetimes from ~32 years towards the mid-20s (further, if first- and second-generation vessels exit). If retirements lag, owners may need to resort to cancellations, conversions or lay-ups; secondhand values – especially for steam-turbine and TFDE vessels – face meaningful downside.

Demand outlook

Near-term demand should improve, though uncertainty remains high. In 2026, distance-adjusted demand is expected to rise by 12%, led by longer hauls. As export capacity ramps up and gas prices ease, a rebound in long-haul US-Asia trade is likely to lead the gains. Further out, faster LNG infrastructure build-out could switch the driver from distance to volume, with rising Asian imports adding to global trade and supporting sustained tonne-mile growth.

Renewables plus storage and pipelines weigh on LNG demand

The path from here is far from linear. China is the key swing factor. Planned Russian pipeline expansions – including a proposed 50 bcm per year link (~60% of China’s 2025 seaborne LNG imports) – could let cheaper pipeline gas displace seaborne LNG, especially spot cargoes, structurally cutting long-haul demand into Asia. Coal’s persistence and faster-than-expected deployment of renewables plus storage add further headwinds. If gas-fired power fails to gain share, demand growth may struggle to absorb the third wave of LNG supply – leaving lower prices, rather than longer distances, as the primary balancing mechanism. Europe’s continued shift away from Russian pipeline gas provides some offset, but China’s growing pipeline options are pulling in the opposite direction.

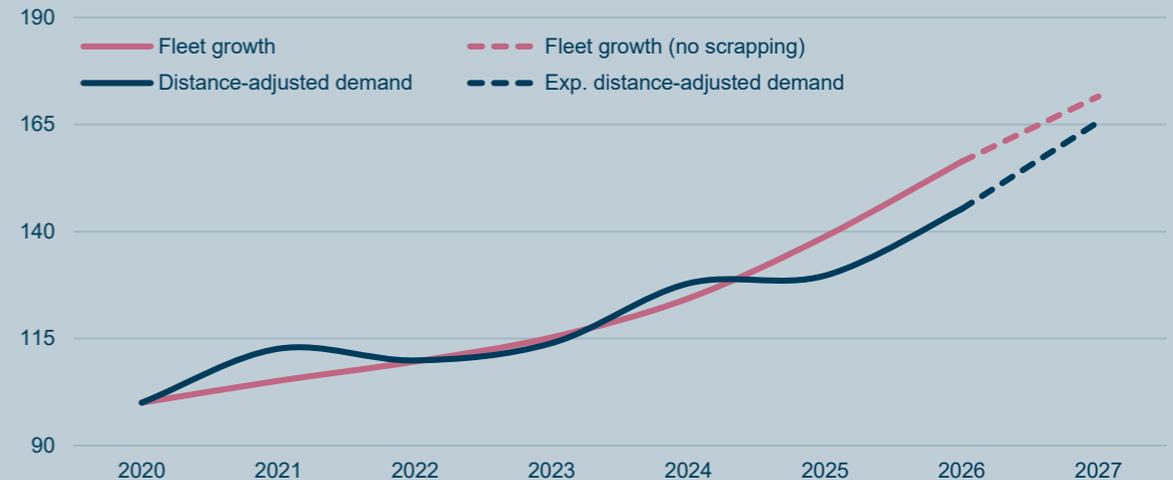
Volatile earnings

Execution risks remain material. If liquefaction start-ups slip, expected cargoes will arrive later, tightening prompt availability and briefly supporting rates. If newbuild deliveries are delayed, fleet growth will slow, lifting near-term utilisation. Conversely, sanctions and wider geopolitical frictions could reroute cargoes onto shorter paths (e.g. Asia to Europe), cutting tonne-miles even if physical trade rises. Export outages, port congestion or canal constraints could also push liftings into shoulder periods, amplifying volatility. Overall, these risks point to soft utilisation and earnings volatility; any rate support around project completions is likely to be short-lived as the orderbook continues to materialise.

174,000 cbm LNG Carrier spot rate (USD per day)



Supply/demand balance (Index 2020=100): Oversupply in the near term?



Sources: Clarksons, IEA., AXSMarine, Bloomberg, Danish Ship Finance



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Financing the transition