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MACRO MORNING BRIEFING

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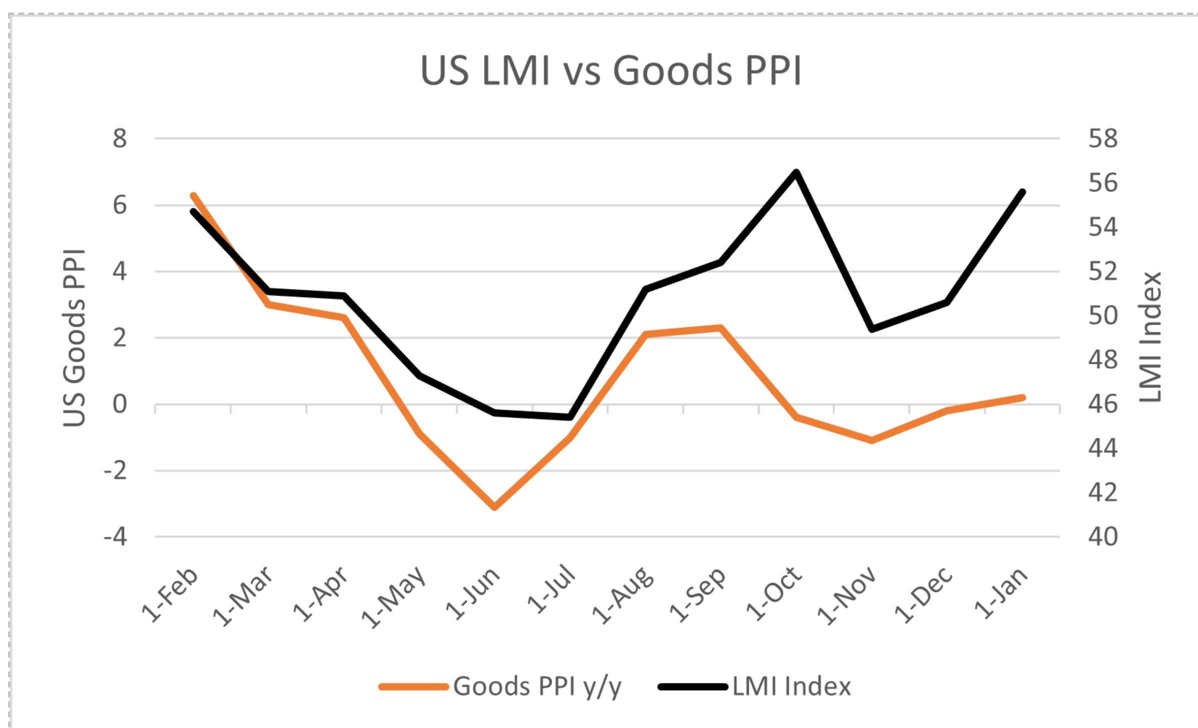
# Shipping, Net Zero And Inflation

Geopolitics is the new key for the industry that has suffered from the Global Financial Crisis in 2008 through to the US-China trade war and into the global pandemic. The logistics recession has bottomed in 2024 in part because of the ongoing wars. Problems related to Russia's so-called “dark” fleet for crude oil exports and the shift in Red Sea shipping routes from Suez to the Cape of Good Hope have accelerated strategic rethinking around global transport and logistics. Rising shipping costs in Q1, along with environmental impacts, have put focus on the industry and its capacity to transform to Green. For all markets, the cost of shipping remains central to the cost of goods – it offers unique insight into cost pressures across the world, and thus to the outlooks for inflation and monetary policy.

- The cost of the Red Sea disruptions from the Houthis is hard to pin down, but is estimated to have raised the cost of shipping a container from Asia to Northern Europe by $4000/container to $5,500 in one month, with C02 emissions rising 250-350% depending on EU destinations.
- Outside of Europe and Asia, demand for more fuel, ships and crews pushes up global shipping costs – estimated to increase goods costs by 1.5% in 2024 if sustained.
- The effects of the global conflicts have been uneven around the world – US costs from the Gaza and Ukraine conflicts are less than for Europe or Asia, but increased costs are apparent in the Logistics Managers' Index. .
- The cost of transforming the global marine fleet to zero-emission by 2050 will be significant – over $4.5trn – and need government support and new fuel supply chains.

### Shipping An Early Warning Indicator For Inflation



Source: Bloomberg, LMI, BNY Mellon

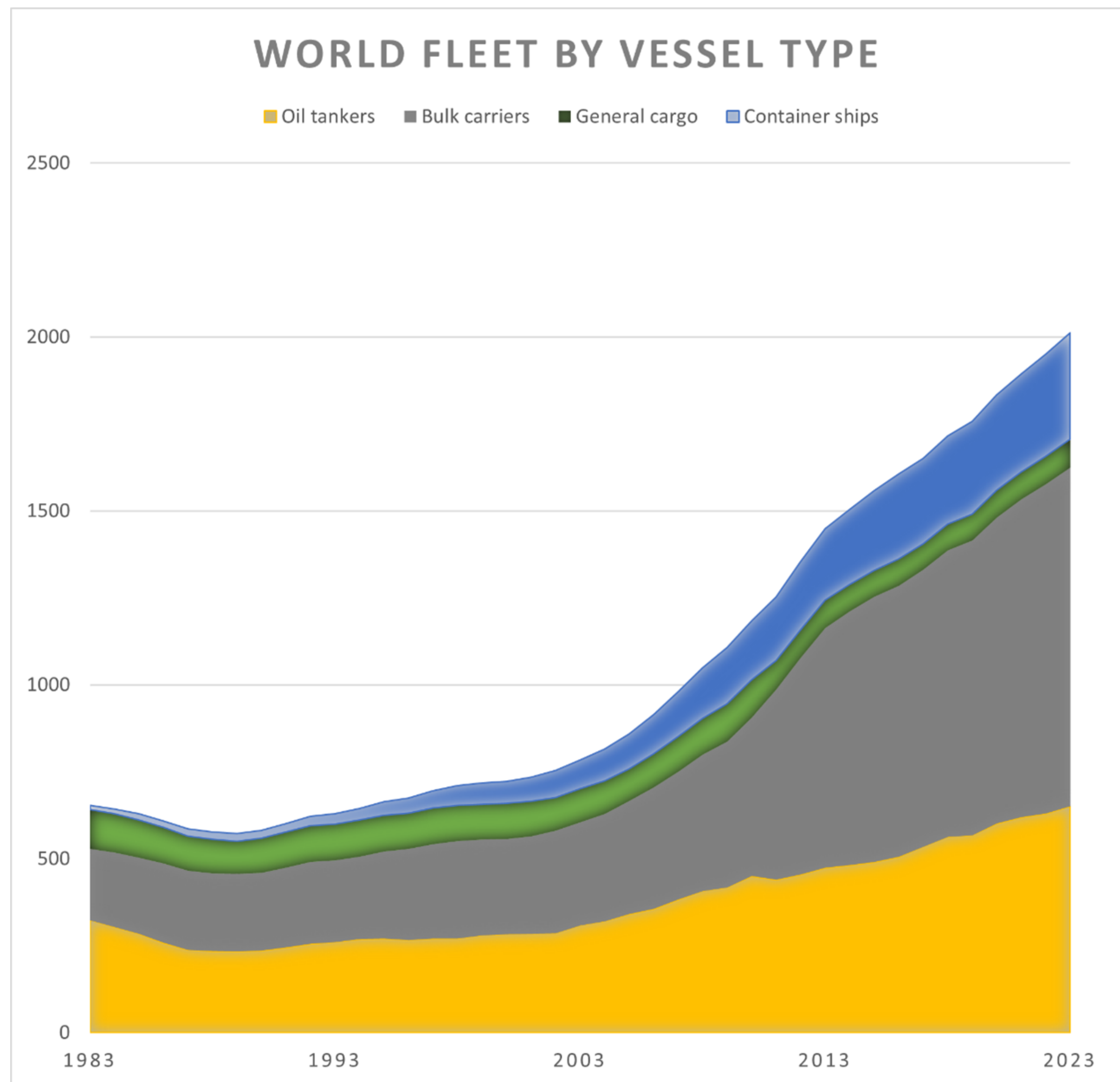
The world merchant fleet is divided into three main types of vessels – each a part of the production cycle, from dry bulk carriers to oil tankers to container ships. The outlook for 2024 varies across those types, divergence that matters to longer-term Green emission goals, present costs and future global trade routes. In 2024, tankers are in demand on increased oil consumption; containers are suffering amid slack demand, linked to weaker US-China trade; and dry bulk looks ready for a recovery with inventories expected to rebuild. For macro investors, the implications of bulk costs rising translates into early inflation warnings – and casts doubt on hopes that goods inflation this year will drop as fast as in 2023.

- **Tankers:** Over the next two years, the size of crude tanker fleet globally is seen rising 0.7% (2024) and 1.1% (2025). The product tanker fleet is seen up 1.9% and 4.4%. New oil is mostly coming from the Americas (US and Brazil), while refining capacity is in Asia – causing longer sailing distances.
- **Containers**: Between 2020 and 2028, the global container shipping market is forecast to grow at a compound annual growth rate (CAGR) of some 12%. Market size in 2020 was some $6.41bn but is expected to reach ~$15.87bn in 2028.
- **Bulk**: The 2023 slowdown in bulk shipping, growth estimated at 0.5% y/y, is widely expected to rebound to 3.5% in 2024 and 3.75% in 2025.

The world fleet reached a carrying capacity of 2.3 billion dead weight tons (dwt) in January 2023, 70 million dwt more than a year prior (+3%). Oil tankers, bulk carriers, and container ships accounted for 85% of total capacity. World fleet capacity has expanded at varying rates over time. Growth in dwt averaged a firm annual 7.1% between 2005 and 2010. Reflecting consolidation in shipbuilding capacity and a downsizing of the ship financing market,

average annual growth has decelerated to 4.1% y/y since 2010. Peak growth was in 2010 at 11.1%. The worst years were 1987, at -3.4%, and 1992, at 1.4%.

**China WTO Entry Shifted The World Fleet**



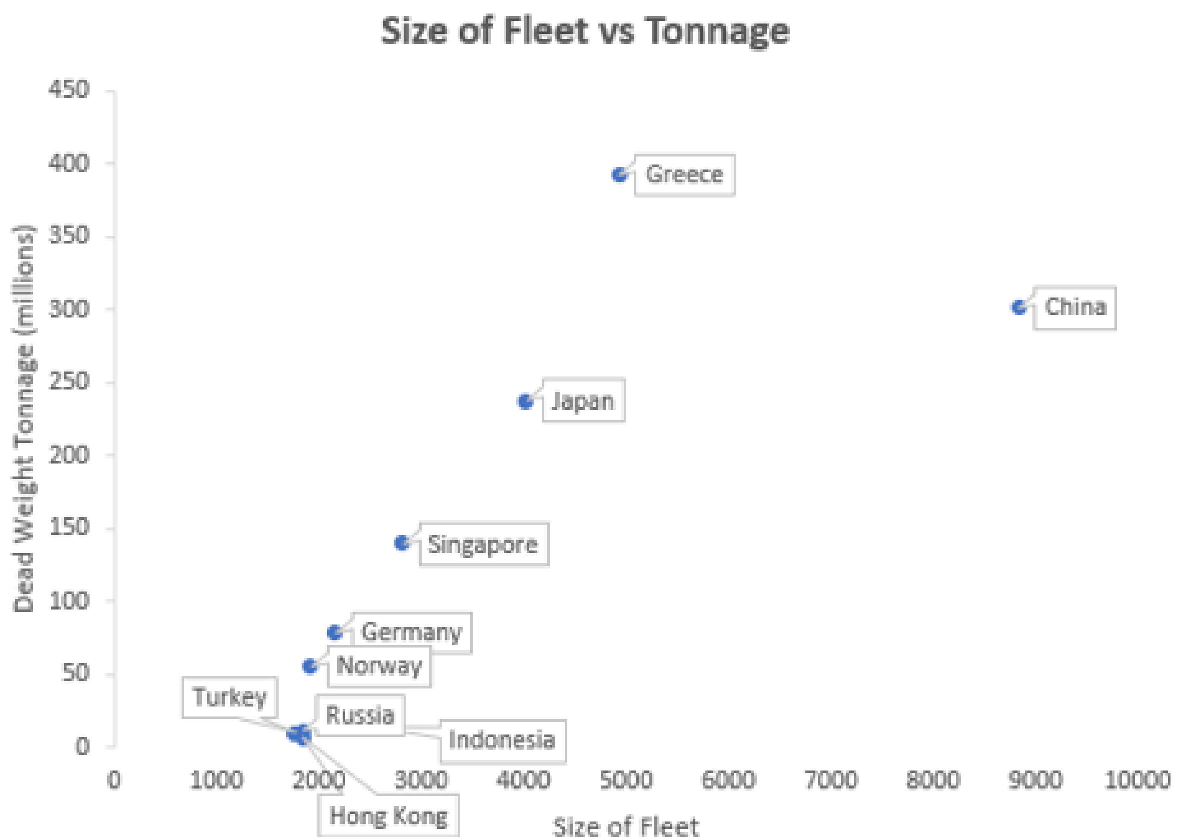

Source: UNCTAD, BNY Mellon

**As of 2022, the average age of all ships in the world merchant fleet was 21.9 years**. General cargo ships were the oldest type of vessels, an average age of around 27 years. Obviously, some of this data is distorted. For example, the US Jones Act of 1920, 1936 and 1940 mandates all barge and other cargo vessels move between US ports in American-made ships with US crews and US registry – that lifts the average age of the world fleet as the US repairs existing ships, rather than constructs new ones. India is expected to be the largest destination for global shipping in the next decade, and it also repairs, rather than builds new ships. Some 68% of the world's cargo ships were older than 15 years, in contrast with about 21% of bulk carriers. The bulk average age is 11.1 years, and for oil tankers 19.7 years. The average costs for replacing oil tankers with new builds is $120mn, with prices up over 35% for VLCC post-pandemic. The mega container ships vary in cost but are like oil tankers at $150mn, depending on technology. In contrast, dry bulk ships cost $50-$100mn.

Clearly, the key for transforming the world fleet to new Green technology will require many things, such as hydrogen cells or new methane engines, wind-assisted propulsion, foul-hull cleaning robots, and more efficient routes by using AI (with speed, carbon intensity and weather factors against timing requirements). Fuel efficiency from better propeller technology, new frictionless hull paints and more frequent cleaning to better speed/carbon analysis may help the industry limp to 2030 targets, but will not solve for zero emissions.

If the world merchant fleet numbers 57,000 – apart from the US's 40,000 barges and other ships – then replacing the entirety with new "Greener" ships would cost near $4.5 trillion. The burden of shifting the global fleet is also a geopolitical issue. China has the largest fleet but Greece is the largest tonnage owner, while energy exporters like Russia, Norway and Indonesia also factor into the equation. The cost of changing fuels and making the engines efficient for such a switch from diesel to e.g., natural gas, hydrogen, biofuels, wind-assisted or nuclear, all are part of the solution – but with significant costs in a business that remains cyclical and prone to trade and climate shocks around the world.

**Just Three Nations Account For 50% Of All Shipping**

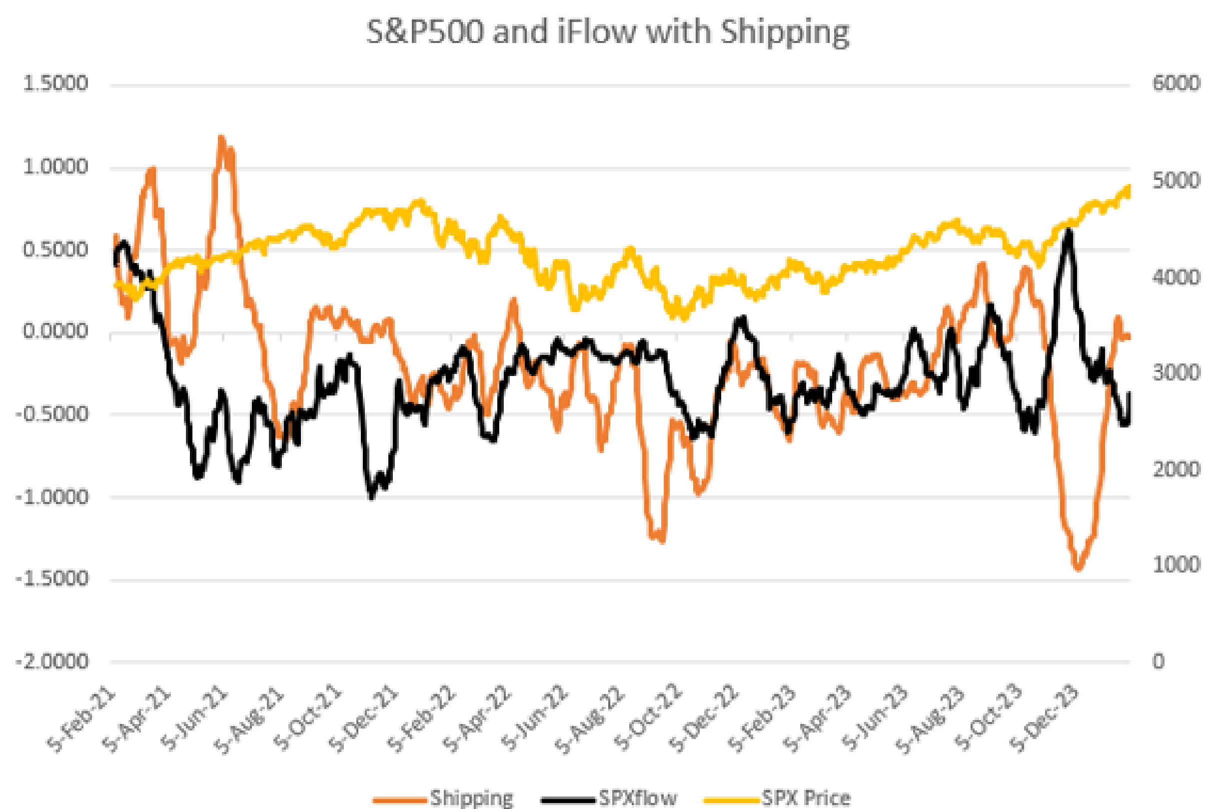



Source: iFlow, BNY Mellon

**World Bank analysis sees maritime shipping accounting for 3% of greenhouse gas emissions** (mostly C02). This is the sixth-largest cause of pollution – to put into perspective,

it's somewhere between what Japan and German emit. The industry suffers by being needed for global trade but not protected by any one supranational entity.

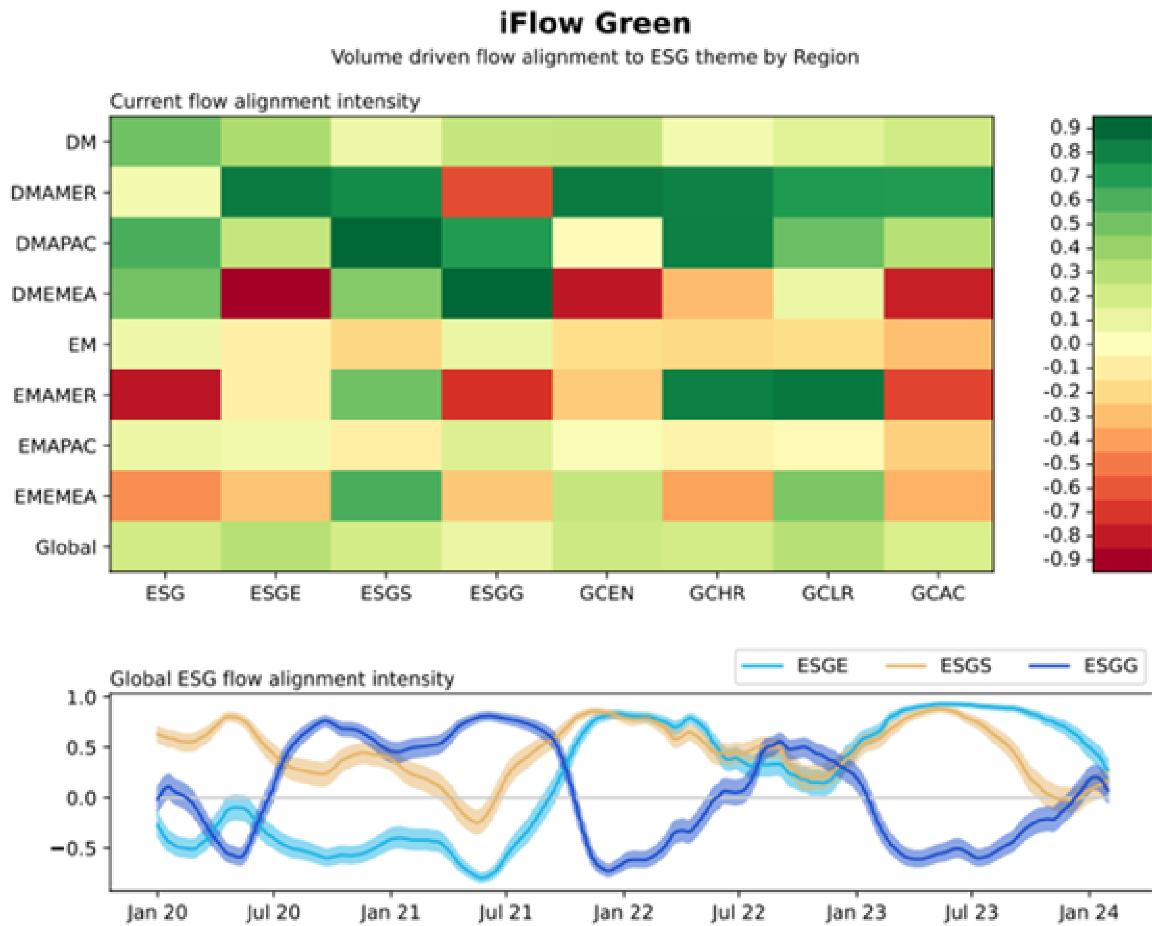
The International Maritime Organization (IMO) notes that getting to zero emissions by 2050 won't be easy for the marine-shipping industry, especially since not all countries are on board with the target. This more aggressive goal would be in line with the Paris Agreement. **Argentina, Brazil, China, Saudi Arabia, and Russia have voiced opposition to tougher regulations** aimed at reducing carbon emissions. IMO updated its goal in July to **cut greenhouse-gas emissions at least 20% by 2030 and at least 70% by 2040 compared with 2008**. The IMO's long-term target is to reach net-zero emissions by 2050. Shipping will also have to navigate a patchwork of regional emission standards that will complicate the owning and operating of vessels. This uncertainty could limit the ordering of ships, which would be a net positive for owners' rates, revenues, and earnings in the coming years.




Source: Bloomberg, BNY Mellon

The effect of the disruption in the Red Sea on the industry has been notable. Our iFlow data shows a significant outperformance of flows into the marine shipping industry compared to a wariness to own the broader S&P 500. The shipping industry raises most of its capital through equity; the credit and insurance costs of the business leave market appetite for bonds low. The rising costs of Red Sea shipping has jolted margins and demand for all fleets in 2024 higher, and that begs a capacity issue. The ability of the industry to transform from its current large polluter status to Green will require some opportunistic capital-raising to buy and

develop innovative technologies. Impeding some of the enthusiasm in 2024 has been the recent pressure on global interest rates and the ongoing US exceptionalism theme, which remains a constraint for all non-US companies. The other factor in the transformation is the cyclical nature of demand for ESG products. The shipping industry is not viewed as "Green" and global demand for environmental bonds and stocks has been slipping.




Source: iFlow BNY Mellon

**Bottom Line**: The math does not work for fixing global maritime trade and getting to net zero by 2050. The market capitalization of the shipping industry is near $3trn with global trade flows of 11bn tons a year. The efficiency of shipping has no parallel in air or ground freight, and over the last 40 years the size of the market has quadrupled. Each year the shipping industry transports two billion tons of crude oil, one billion tons of iron ore (the raw material needed to create steel), and 350 million tons of grain. The cost of cleaning up the industry looks significant compared to its revenue stream, and becomes even more difficult when it points back to national GDP and fleet ownership. The implication: the cost of net zero will have to be born by the end-consumer and solved by more efficient Green technology.

The threats to the industry at present are in its ability to switch fleets or slow deliveries to use less energy, overlaid against a world that has significant geopolitical constraints from two

wars – Russia/Ukraine and Israel/Hamas. The disruption from both adds to inflation risks for goods in the year ahead. The question is whether market investment back into shipping enticed by higher freight fees will help solve the investment problems for years to come.

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