



The 2nd Quarter of 2024 Management Discussion and Analysis



“ We've been living in crisis for the last three years. There's a lot more to be done on every level. Crises are only going to come faster and harder. ”

Chris Hegadorn,
Adjunct professor of global food politics at Sciences Po in Paris,

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Our Key Performance Indicators

2nd Quarter 2024 Financial Performance (US Dollar Terms)

The results, reviewed by EY Office Ltd., show you the latest financial position of Precious Shipping Public Company Limited and its subsidiaries ("the Company"). The net profit for the quarter was USD 14.36 million, compared to a net profit of USD 8.21 million in Q2 2023. The earnings per day per ship in Q2 2024 came in at USD 13,483, higher than the Q2 2023 figure of USD 11,424. The daily operating costs per ship in Q2 2024 came in at USD 5,226, slightly higher than the USD 5,113 figure recorded in Q2 2023 and marginally above our target of USD 5,200 for the year. The EBITDA was USD 22.84 million, compared to USD 18.38 million recorded in Q2 2023. Earnings per share came in at Baht 0.34, compared to Baht 0.18 in Q2 2023.

THE HARD FACTS	Q2 2023	Q2 2024
Highest earnings per day per ship in USD	25,064	22,812
Average earnings per day per ship in USD	11,424	13,483
Av. earnings per day per Handy size ship in USD	10,465	11,975
Av. earnings per day per Supramax ship in USD	11,564	13,888
Av. earnings per day per Ultramax ship in USD	13,782	16,866
Av. earnings per day per Supramax/Ultramax ship in USD	12,608	15,362
Operating cost per day per ship in USD	5,113	5,226
EBITDA in million USD	18.38	22.84
Net Profit (Loss) in million USD excluding exchange gain (loss) and non-recurring items	7.40	11.66
Net Profit (Loss) in million USD	8.21	14.36
Earnings (Loss) Per Share in Thai Baht excluding exchange gain (loss) and non-recurring items	0.17	0.28
Earnings (Loss) Per Share in Thai Baht	0.18	0.34

Consolidated Financial Performance (Thai Baht Terms)

For the quarter ending 30 June 2024, the Company earned a net profit of Baht 529.52 million as compared to a net profit of Baht 285.87 million in Q2 2023. The main reasons for the changes are as follows:

- The Net Vessel Operating Income (Vessel Operating Income net of voyage disbursements and bunker consumption) in Q2 2024 is 22% higher than the Net Vessel Operating Income recorded in Q2 2023. This is mainly due to an increase in the average earnings per Vessel per day which increased from USD 11,424 in Q2 2023 to USD 13,483 in Q2 2024.
- Vessel running expenses in Q2 2024 are 3% higher than the figure in Q2 2023. When measured in US Dollars, the average Vessel operating expenses (Opex) per day per Vessel (including depreciation/amortization of Drydocking/Special Survey expenses) increased from USD 5,113 for Q2 2023 to USD 5,226 for Q2 2024.

- Administrative expenses (including management remuneration) for Q2 2024 came in Baht 49.63 million higher than the figure in Q2 2023, mainly due to an increase in variable compensation expenses.
- Finance cost for Q2 2024 was Baht 36.52 million higher than the figure in Q2 2023, due to an increase in overall debt and an increase in the SOFR benchmark rate.
- In Q2'2024, the Company had a gain of Baht 95.72 million from the sale of two vessels.

For the six-month period ending 30 June 2024, the Company earned a consolidated net profit of Baht 939.00 million compared to a consolidated net profit of Baht 364.56 million during the same period last year. The main reasons for the changes to the six-month financial results are as follows:

- The Net Vessel Operating Income (Vessel Operating Income net of voyage disbursements and bunker consumption) during the first half of 2024 is about 26% higher than the figure during the same period last year. This is mainly due to an increase in the average earnings per Vessel per day which increased from USD 10,727 in the first half of 2023 to USD 12,952 in the first half of this year, due to a strong dry-bulk freight market. As of 30 June 2024, the fleet constituted 36 vessels, compared to 38 vessels in the first half of last year.
- Vessel running expenses during the first half of 2024 are 5% higher than the figure during the same period last year. When measured in US Dollars, the average Vessel operating expenses (Opex) per day per Vessel (including depreciation/amortization of Drydocking/Special Survey expenses) increased from USD 5,172 in the first half of 2023 to USD 5,303 during the first half of this year.
- Administrative expenses (including management remuneration) for the first half of 2024 came in Baht 49.96 million higher than the same period last year, mainly due to an increase in variable compensation expenses.
- Finance costs during the first half of 2024 were Baht 52.89 million higher than the same period last year, due to an increase in overall debt and an increase in the SOFR benchmark rate.
- Exchange gain for the first half of 2024 of Baht 23.88 million, was mainly on account of changes in the US Dollar equivalent figure of our Thai Baht liabilities.
- During the first half of 2024, the Company gained Baht 146.88 million from the sale of three vessels.

Update on the Chayanee Naree

The trial against the Vessel and the 10 crew members commenced in the Federal High Court of Nigeria in July 2022. The prosecution concluded their case in July 2023, after which we filed our no-case submissions. The Court hearing took place on 4 December 2023 for oral arguments on our no-case submissions. On 20 February 2024, the Court rejected our no-case submissions, ruling that there is a case to answer due to drugs being found on board the vessel. Consequently, the defendants are required to file their defense and proceed to a full trial. The next hearing is scheduled for October 2024. In March 2024, the Company's legal team in Nigeria filed an appeal against the ruling on our no-case submissions, which will be considered by a panel of three different judges. The Company continues to work

closely with its insurance company and legal counsel to ensure that the case is fully resolved as early as possible.

Market Segmentation

During Q2, The Baltic Handy Size Index (BHSI) averaged 725 points, as derived from an average Time Charter (TC) rate of USD 13,051 per day. In comparison, our Handy size fleet earned USD 11,975 and underperformed the BHSI TC rate by 8.24%. The Baltic Supramax Index (BSI) averaged 1,364 points, as derived from an average TC rate of USD 15,005 per day. In comparison, our Supra/Ultra fleet average earnings were USD 15,362 per day and outperformed the BSI TC rate by 2.38%. Our target has been to outperform both the indices.

The next SET Opportunity Day will be virtually held at 15.15 hours on the 7th of August via the SET live web casts. We hope that many of you will attend this event electronically where the Company will get a chance to thoroughly discuss Q2 results. The number of online participants attending PSL's live presentation for Q1/2024 held on 8th of May 2024 on the SET website/YouTube had 227 views and 38 on Facebook for a grand total of 265 views.

Long Term versus short term Charters

The long-term charters, about 1 year or longer, are shown in the chart below. Our forward four-year rolling book is at 21% with a visible revenue stream of USD 168.32 million.

Year	2024	2025	2026	2027
Total Available Days	13,595	13,505	13,505	13,505
Fixed T/C Days*	5,717	2,248	1,825	1,765
% age Fixed T/C Days	42%	17%	14%	13%
Av. T/C Rate/Day in USD**	14,462	14,811	14,550	14,611
Contract value in million USD	82.68	33.30	26.55	25.79

*This comprises charters on 5 ships on fixed rate charter and 16 ships on variable rate charters

**Average T/C Rate/Day for the variable rate charters is estimated based on actual earnings for FH 2024 and rates prevailing in July 2024 for the period thereafter.

***Rattana Naree, Wikanda Naree, and Charana Naree were sold in Mar 2024, Apr 2024, and Jun 2024. Hansa Naree and Hatthaya Naree have joined the fleet since Apr 2024 and Jul 2024.

It is our intention to continue to charter out our ships on long term period time charters whenever practical and economically viable.

Fleet Renewal

We are in the process of overhauling our fleet with the sale, already announced via the SET, of three ships, two older and smaller handy sizes and one non-eco engine younger supra, in the FH of this year. At the same time, we have bought two 39,000-DWT handy size ships during the FH of this year with delivery of the second handy taking place in the month of July, announced via the SET. We have also signed contracts for 4 ultras to be built and delivered during 2026-2027 by Sanfu, a shipyard that had delivered 6 ultras to us in 2015-2017 and 2 supras in 2011. The ultra purchases have already been announced via the SET. During July, we bought another 4 X 39,000-DWT handy size ships, for delivery during the SH of 2024, announced via the SET. We hope to sell a few more of our older, smaller handy sizes, as well as a few non-eco engine supras, during the SH of this year. Funding for the purchases will be via internal cash flows generated from operating our fleet of ships, the sales of older non-eco engine ships, and loans that have already been arranged, that have been announced via the SET, for this purpose.

BDI Developments and our read of the market

- BIMCO's video, [Ships Make the World Go](#), showcases the shipping industry's contribution to world trade.
- As usual, it will be supply and demand factors that will determine the strength of the freight markets. We have for the first time in two decades, 20+ year ships as a %age of the existing fleet at 7.26% being higher than the forward order book as a ratio of the existing fleet of 6.88% at the start of 2022. Nevertheless, at the start of Q3 these figures were 9.07% (20+ year old fleet) and 9.10% (forward order book.)
- Supply-demand has been in near perfect balance since the SH of 2021, while supply growth appears benign for the next few years, which is a leading indicator for future market strength.
- Dry bulk freight rates are essentially a tug-of-war between supply and demand. Supply has been very restrained over the last few years with hardly any new buildings on order compared to the earning potential of today's market rates. And since supply-demand came into balance by the SH of 2021, rates have become extremely volatile. The reason for that extreme volatility is that supply-demand is an inelastic curve, so with one extra unit of demand, rates can skyrocket by multiples of last done numbers. Same way, rates come down very sharply when that extra unit or two of demand is taken off the table. So, volatility is the name of the game from here on.
- When 4 times as much DWT is delivered annually (2012, 2016, 2020) as is ordered, then the BDI has increased in the subsequent year (+31% in 2013, +70% in 2017, +176% in 2021). In 2023, 35.92 MDWT was delivered and 51.23 MDWT was ordered, which means 2024 should have a lower BDI than 2023, however, in the FH that has not proved accurate, with the BDI for FH of 2024 at 1,836 points being 59% higher than the BDI in FH of 2023 at 1,157 points. Let us see if this rule of thumb proves inaccurate for the whole year's numbers.
- During FH 2024, the global economy has done better than anticipated. In the SH, USA and the Euro zone economies may stumble along or may perk up depending on the number of interest rate cuts that are made by the Fed Reserve and the EU Central Bank. Demand for manufactured goods has been weak, as a result, commodity prices have fallen as has their volatility.
- The extremely high economic expectations of the Chinese economy exiting Covid, built up by analysts and the mainstream media, failed to materialize. And China's real estate

sector has remained weak characterized by negative growth rates. Stimulus packages rolled out by the Chinese government have thus far failed to have the desired impact on the real estate sector. The benign supply side, however, is providing resilience in the freight markets.

- Disruptions to established trade routes have boosted ton-mile demand. The conflict in the Red Sea has the Houthis shooting drones, missiles, and Unmanned Surface Vessels (USVs), at any ship that has any form of connection with Israel, USA, or UK, and will continue till such time as Israel does not stop the war in Gaza and allows aid to flow freely to Gazans.
- Climate change is causing disruption on land as well as at sea. Delayed monsoons in Brazil allowed more iron ore to be exported in the FH of 2024 and assisted the Capes to have a spectacular FH. Shallow waters in the Amazon River have exacerbated congestion at Brazil's grain exporting ports with grain arriving via land routes to southern export points. Ships are facing stronger storms than ever before with 10-meter waves the norm in bad weather rather than the exception. Such disruptions at sea increase voyage duration and therefore help to further tighten the supply of ships. As an example of bad weather at sea, a very large Container ship lost 44 containers overboard with another 30 collapsed, but retained on board, when transiting the Cape of Good Hope (COGH). Bad weather on land, extreme heat followed by flash floods, is creating food insecurity in many countries. Climate change creates bad weather on land that builds up congestion at various ports, further tightening the supply of ships, and food insecurity creates more demand for shipping of grains.
- As we keep emphasizing, disruptions are good for the dry bulk business.
- China is adding new measures to stabilize and grow their economic recovery targeting the real estate and other sectors.
- China imported 51.6 MMT of soybean up 1.7% in FH 24 compared to FH 23.
- China imported 5.0 MMT of corn down 50.0% in FH 24 compared to FH 23 (preliminary figures from Drewry).
- China imported 9.3 MMT of wheat up 15.8% in FH 24 compared to FH 23.
- China imported 611.4 MMT of iron ore up 6.1% in FH 24 compared to FH 23.
- China imported 249.6 MMT of coal up 12.5% in FH 24 compared to FH 23.
- China exported 53.4 MMT of steel up 21.7% in FH 24 compared to FH 23.
- China's average PMI index was 49.8 during FH 24.
- China's GDP growth was 5.3% and 4.7% during Q1 and Q2 2024, respectively.
- From the USDA June report, we learn that:

For **Wheat** (Jul/Jun FY), top 3 exporters of FY 2023/24: Russia, European Union, Canada. Top 3 Importers: China, EU, Indonesia. Expected trade: 222.20 MMT (+2.6% yoy) in FY 2023/2024 and 212.99 MMT (-4.1% yoy) in FY 2024/25. FY 2024/25 exports are expected to be lower than in FY 2023/24 but still at a record level. The falling 2024/25 number is due to adverse weather reducing Russia's production and export. Ukraine's production and export are expected to be lower due to war-related disruptions and lower beginning stocks. The tightening supplies are driving global wheat export prices higher. The higher prices are making corn a more attractive feed option in regions like Southeast Asia and East Asia.

For **Rice** (Jan/Dec FY), top 3 exporters of FY 2023/24: India, Thailand, Vietnam. Top 3 importers: Philippines, Indonesia, EU. Expected trade: 54.62 MMT (+2.6% yoy) in FY 2023/24 and 53.829 MMT (-1.5% yoy) in FY 2024/25. Brazil, the largest rice producer within the Western hemisphere, is expected to increase rice imports due to severe weather and regional

flooding reducing its rice production. Its government has suspended import tariffs on most rice, from May-Dec 2024. Brazil's exports are impacted from its production decline. Its current markets in Latin America and Africa may shift to purchase from the US.

For **Coarse grain** [corn, barley, oats, sorghum, and rye] (Oct/Sep FY), top 3 exporters of FY 2023/24: US, Brazil, Argentina. Top 3 importers: China, EU, Mexico. Expected trade: 238.45 MMT (+7.6% yoy) in FY 2023/24 and 235.23 MMT (-1.3% yoy) in FY 2024/25.

- Though China's demand grew in FH 2024 in raw material imports and Steel exports, consumer spending was slower than anticipated when compared to other countries that exited Covid. As a result, the Chinese government has put stimulus plans in place to combat the slower consumer demand growth, assist the real estate sector, and to help the stock market. That has led to greater imports of iron ore, coal, and grains in FH 2024.
- Climate change has increased summer temperatures to record highs, followed by massive rainfall and floodings, adversely affecting crops and disrupting normal trade flows; adding to ton-mile demand; increased power requirements; and increased power generation.
- The next catalyst could be anything that increases ton-mile demand; or an increase in traded volumes of commodities, all other things being equal; or any disruption; or congestion. These are just some of the catalysts that are good for shipping rates.
- As a reminder, it was the excessive supply side entering the freight market during 2010-2020 that was the main reason why rates were very low, exacerbated by the Covid pandemic, and though the ton-mile demand rate has been steadily falling from 2003-2009 (+5.4% per annum) to 2023 (+4.46%), and estimated at 3.88% in 2024, excess supply has been finally absorbed, and balance is at hand since the SH of 2021.
- The section 'Differences between 2003-2009, 2010-2020, 2021-2022, 2023, 2024 and beyond' comprehensively explains the dynamics driving the dry bulk freight markets.
- The BDI averaged 1,836 points in the FH of 2024, which was +59% as compared to 1,157 points in FH 2023. If you look at the individual sectors/index ships, in FH 2024 as compared to FH 2023, then Capes averaged TC of \$23,482 compared to \$12,249 (+92%), Panamax averaged TC of \$15,910 compared to \$11,772 (+35%), Supras averaged TC of \$13,975 compared to \$10,457 (+34%), and Handy sizes averaged TC of \$12,514 compared to \$10,047 (+25%). So, all sectors of the dry bulk market outperformed the time charter rates in FH of 2023, with Capes taking the crown.
- In Q2 2024, the Capesize TC index averaged \$ 22,665/day (+46% y-o-y), started the quarter at \$19,852, reached a trough of \$17,253 on 29 Apr 2024, a peak of \$29,365 on 8 May 2024, and then closed out the quarter at \$28,557. The Panamax (82k) index in Q2 averaged \$16,380/day (+34% y-o-y), started the quarter at \$16,341, reached a trough of \$14,680 on 10 Apr 2024, a peak of \$18,230 on 10 May 2024, and then closed the quarter at \$15,007. The Supramax index in Q2 averaged \$15,005/day (+39% y-o-y), started the quarter at \$14,335, reached a trough of \$13,789 on 7 Jun 2024, a peak of \$16,441 on 26 Apr 2024, and then closed the quarter at \$15,237. The Handysize index in Q2 averaged \$13,051/day (+25% y-o-y), started the quarter at \$13,737, reached a trough of \$12,343 on 23 May 2024, a peak of \$13,741 on 27 Jun 2024, and then closed the quarter at \$ 13,727. Please keep in mind that Capes spend 73% of their time on iron ore and 18% of their time on coal, and 7% of their time on Bauxite. When you have that much of concentration risk of the type of cargoes carried, and with a single dominant customer China, accounting for over 60% of all iron ore imports, you are setting yourself up for volatility.

- All the reasons for the slowdown in SH 2022 and in FH 2023 are due to decisions made by governments, be it in China with insufficient stimulus (dry bulk is very dependent on China) or in the developed world (Fed Reserve with the fastest interest rate hike in 2022/FH2023, combined with QE taper.) These decisions have curtailed demand, but when reversed, they will allow demand to flourish once again, and dry bulk demand could get back on track to what we experienced in the Covid era.
- The IMF forecast for world GDP growth rates is still at a reasonable 3.2% for 2024 and 3.3% for 2025. Besides, dry bulk demand is more dependent on government stimulus, impact from El Nino and La Nina, climate change, geopolitics, inefficiency, lockdowns, congestion etcetera.
- Inflation in the USA and other developed economies is coming under control, headed towards target rates, with a few Central Banks already lowering interest rates. The Fed is looking at economic data and it appears that the first-rate reduction could come as early as September 2024. That would boost consumer demand in the USA.
- Seaborne coal in 2023 will increase sharply to a new record of 1.335 BMT according to a report from the IEA with China and India consuming more than twice the coal consumed in the ROW.
- If you see the forecast ton-mile demand for 2024 (Clarksons estimated it at +2.02% in Jan 23, revised it to +2.26% in Mar 23, to +2.54% in Jun 23, to +1.61% in Sep 23, to +1.56% in Jan 24, to +2.37% in Mar 24, and to +3.88% in Jun 24), China's dramatic increase in imports in the FH, and the expected benign supply side growth, we have had a stronger FH than we had anticipated. If you look at the index ships Time Charter earnings in FH 2024, they have reflected the actual demand growth for dry bulk from China. China's economy grew at a slower speed compared to other countries' exit from Covid and held back an even stronger recovery in dry bulk in FH 2024. Overall, dry bulk has done reasonably well when you consider all the factors listed in the various bullet points above. As supply-demand are almost in balance, it requires only a marginal increase in demand, an increase in congestion, or increased trade dislocation/disruption putting pressure on ton-mile demand for the freight market to move upwards quickly.
- Rates have been supported by low net new supply; lack of extreme ordering of new ships due to crowding out by early ordering from container/tankers/gas/car carriers; significantly reduced shipyard capacity; fuel-transitioning period; and the start of EEXI/CII on 1st January 2023 forcing most ships to reduce speed permanently via Engine Power limits. The disruptions from climate change with low water in the Amazon and Mississippi Rivers, low waters in the Panama Canal till end May 2024, and Red Sea drone/missile/USV attacks on ships have assisted rates in staying stronger for longer. However, the drop in inefficiencies in the world fleet due to Covid restrictions/delays fading away, though allowing rates to increase, has kept freight spikes under control.
- China spent \$586 billion in 2009 on steel intensive infrastructure and it pushed the BDI to a 4,221-point high in 2009 from a low of 665 points on 6th December 2008. China allocated \$667 billion on 21st May 2020 to assist Covid-19 hits to their economy. That pushed the BDI to 5,650 points, a 13-year high, in October 2021. Unfortunately, Chinese stimulus so far has been a pale shadow compared to the past and has not had any lasting impact on Chinese GDP growth rates, considering they exited Covid at the start of 2023.

- The Chinese are perhaps the world's biggest savers and usually invest in property or the stock market. However, with the onset of the pandemic, property prices have fared poorly, stock markets have stumbled, leaving these savers to hoard their cash which has reached unseen heights. Saving deposits increased massively in 2023. All that spending power will be unleashed once a positive wealth impact is felt by the Chinese population.
- An [article in SCMP made some relevant comments](#) that indicate 2024 could be the year when the residential property market in China passes an inflection point. The reasons are many but the main ones are – bubbles in residential real estate are characterized by a prolonged contraction in resale home transactions, but in 2023 Chinese resale home transactions surged 44% by floor space, or when property development represents more than 7% of GDP, this ratio hit 12% in 2013 but is expected to be just 5.5% in 2024; in the last 30 years, China built 14.4 billion square meters of saleable homes, with per capita urban space running at 38.6 square meters, that can house 370m, just 40% of its current urban population of 920m; China is on track to increase urbanization from 65% to 73% by 2035, which will add 100m to the urban population, all will require housing; loan-to-value ratio of home mortgages in China's major cities is about 50%; home loans have unlimited personal liabilities in China, so defaults are rare; the housing crisis continues to retard China's economic recovery, and the property sector reduced GDP growth by 4% in 2022, by 1.3% in 2023, and by an expected 0.9% in 2024; bankruptcies of property companies quintupled from 123 in 2022 to 590 in 2023, but household bank deposits increased by US\$2.5t in 2022 and a further US\$2.36t in 2023.
- As supply-demand is in balance, freight markets will be characterized by extreme volatility, and sharp rate movements, in both directions, as we have seen since SH of 2020 to date. Please expect more of the same in 2024 and beyond.
- The four major cargo types carried by dry-bulk vessels are iron ore, coal, grains, and minor bulk. Among these, the latter two are predominantly carried in smaller geared vessels, like the ones we own. Minor bulk is a catch-all term for several cargo types and is most strongly linked to global economic activity. This is because it includes minor bulk commodities with cyclical demand, such as steel and construction materials. However, there are other minor bulk cargoes, such as fertilizer, forest products, aggregates, and bauxite, which have been experiencing secular growth for many years. The trade growth in these commodities corresponds to the growth in global incomes and the growing world population.
- The trade growth of commodities with secular demand continues in line with historical trends. We expect the trade of commodities with secular growth to offset the decline in the trade of cyclical commodities.
- Shipments of specialized ores required for renewable energy and battery production will provide additional ton-mile demand for the smaller size ships.
- 24% of Chinese iron ore imports came from Brazil (143.7 MMT) up +35% and 68% from Australia (418.6 MMT) up 13% in FH 2024. As longer ton-mile from Brazil grew faster and replaced the shorter ton-mile from Australia, it positively affected the Cape sector in FH 2024.
- World steel production reached 954.6 MMT in FH 2024, marginally above 943.9 MMT in FH 2023.
- The orderbook to fleet ratio at the start of Q3 2024 for the dry-bulk sector was 9.10% (10.61% for the geared sector and 8.27% for the gearless sector), reflecting historically low levels for over two decades!
- In Q2 2024, 0.87 MDWT of ships were recycled across the dry bulk fleet compared to 0.89 MDWT (down by 2.2%) in Q2 2023. The existing age profile at the start of Q3 2024 of 92.01 MDWT or 9.07% (12.63% in the geared segment and 7.11% in the

gearless segment) of the world fleet being 20 years or older, together with low levels of the order book to fleet ratio of 9.10% (order book up to end 2027 compared to net supply at the start of Q3 2024), would make the world dry bulk fleet grow at a benign pace.

- According to Clarksons expectations, ton-mile demand will grow by 3.88% and 0.89% (Clarksons World Seaborne Trade Timeseries as on 30 Jun 2024) compared to net supply growth of 3.1% and 2.6% in 2024 and 2025 (Clarksons DBTO report of Jun 2024), respectively. If inefficiencies in the net supply of ships due to congestion or other disruptions increases, the gap between supply-demand should widen in favor of the ship owners and we should see better rates ahead.
- PSL's exposure to the smaller geared segments means that we will be exposed to growth in net supply of 4.1% in 2024, with minor bulks growing at 4.85%, according to Clarksons.
- Ships 20 years or older, comprising about 92.01 MDWT or 9.07% of the existing fleet (45.54 MDWT of the geared fleet or 12.63% and 46.47 MDWT of the gearless fleet or 7.11%) at the start of Q3 2024 would be ideal candidates for recycling in 2024 under the new IMO regulations of EEXI/CII.
- Healthier recycling is expected during 2024/2025 due to the large number of 20+ year old ships in the world fleet, pressures from BWTS/IMO2020, Special Survey costs on these older ships, and additional regulatory pressure from adoption of EEXI/CII regulations, that will force some of them to early recycling.
- For bulkers, the expectation remains that supply-side discipline will be rewarded even if demand growth is half-hearted.

Differences between 2003-2009, 2010-2020, 2021-2022, 2023, 2024 and the future:

Differences in 2003-2009, 2010-2020, 2021-2022, 2023 and the future



Daily average Time Charter rates ^{5?}	2003 – 2009	2010 – 2020	2021-2022	2023	FH 2024
Capesize	67,101*	14,924***	24,807**	16,389**	23,482**
Panamax	32,793*	10,965***	23,836**	12,854**	15,910**
Supramax	28,013 ^{^^}	10,765***	24,475**	11,240**	13,975**
Handysize	18,753 ^{^^}	8,789***	23,533**	10,420**	12,514**
Annual Average Demand Billion Ton-miles	+5.5%	+4.3%	+1.4%	+4.46%	+3.88%
Average Speed (knots)	13.5 ^{^^^}	11.5 ^{^^^}	11.3	11.0	10.9
Chinese Stimulus	China enters WTO 2001	\$ 578 bn (2009)	\$667 bn (2021) \$2.3 trillion (2022) [^]	\$1.8 trillion [^]	\$417 bn [^]
Orderbook/Fleet Ratio per Year (start of each year)	+25.88%	+32.21%	+6.48%	+7.16%	+8.33%
Annual Average % of 20-year-old (start of each year)	+16.84%	+12.67%	+6.76%	+8.07%	+8.48%
Annual Average Net Supply Growth	+6.8%	+6.4%	+3.3%	+3.1%	+3.1%

The Future

At the start of 2022, for the first time this century, the 20+ year old fleet was larger than the forward order book, but at the start of Jul 2024 the 20+ year old fleet became marginally below the forward order book at 9.07% versus 9.10%, respectively.

Note: *BCI 172K (4TC), BPI 74K (4TC), BSI 52K (6TC), BHSI 28K (6TC).

**BCI 180K (5TC), BPI 82K (5TC), BSI 58K (10TC), BHSI 38K (7TC)

***Combine of above two classification

[^]Bloomberg calculated Chinese stimulus at \$ 5.3 trillion in 2022!, Bloomberg reported \$1.8 trillion of construction stimulus in Apr 2023, CNBC reported a plan of 2 trillion Yuan stimulus package

^{^^}1 Yr. TC 32K, 1 Yr. TC 52K used for years where there was no BHSI (2003-2006) or no BSI (2003-2005).

^{^^^}Average speed in 2008-2009 and in 2012-2020

Source: Clarksons Index Timeseries, Clarksons Speed Timeseries, and Clarksons World Fleet Register as on 30 Jun 2024

Supply Growth from Clarksons Jun 2024 DBTO and Demand Growth from Clarksons World Seaborne Trade Time Series as on 30 Jun 2024

Precious Shipping PCL



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If you look at the time charter rates for the period 2003-2009 it was the highest for the Capes compared to all the other periods. For Panamax and Supras, during 2003-2009, rates were almost 3X higher than in the 2010-2020 period but marginally higher than rates in 2021-2022. For the Handy size, 2021-2022 was almost 3X higher than in 2010-2020 and almost 1.5X higher than in 2003-2009. However, demand growth rate in ton-miles had a clear declining trend with the lowest rate in 2021-2022 before increasing in 2023, and moderating in 2024. What was different, of course, was the average orderbook to fleet ratio being highest in 2010-2020 dropping by 80% in 2021-2022, by 78% in 2023, and 74% in FH 2024. The other significant difference was that the orderbook to fleet ratio was 1.5X the 20-year-old fleet in 2003-2009, 2.5X in 2010-2020, 1.0X in 2021-2022, 0.89X in 2023, and 1.0X at the start of Q3 2024. This indicates benign supply growth in the future and indicates good markets could continue for a few years.

Rates started out in 2021 at a low level and then accelerated to a peak on 7th October with the BDI hitting a 13 year high at 5,650 points, and since then, has fallen till February 2022 before rising once again. Why did rates oscillate in this fashion rising, falling, and rising once again, so quickly? The answer is simple: supply-demand, by the middle of 2021, was in balance, and as ton-mile demand calculated by Clarksons grew at 3.57% slightly below net fleet growth at 3.6%, yet rates skyrocketed! But when China decided to reign in their out-of-control real estate sector by letting Evergrande and its brethren collapse, imposed strict anti-pollution controls on coal fired power plants post COP26 in November 2021, curtailed steel

production, and insisted on blue skies during the winter Olympics during February 2022, ton-mile demand of necessity, took a hit and rates fell for the opposite reasons that they skyrocketed to a peak on 7th October 2021. This was not helped by the central bankers of the developed world tapering QE and hiking interest rates at the fastest rate this century starting in March 2022 and continuing in FH 2023, to combat inflation. With supply-demand being in balance, volatility increased as China continued with their Covid-zero policy locking down large industrial swathes of the country for months at a time in 2022. The combined result of Covid-zero in China and interest rate hikes and QE tapering in the ROW, was predictable. Demand started to ease and rates in 2022 slowed marginally compared to 2021. The start of 2023 was when China was not in lockdown from Covid-zero policies but was struggling to cope with a complete abandonment of that same policy. People did not know which way to turn, but by the end of 2023, China was one of two major economies that was growing strongly with GDP growth rate of 5.2%. The other strongly growing economy is India with a GDP growth rate predicted at 7.0% in 2024. However, we need to [temper our expectations based on the actual size of India's economy](#) (\$3.9t) compared to that of China's economy (\$18.5t).

The geared sector, Supras and Handy sizes, had much lower volatility in rates due to the reasons expressed above but also because they had the slowest net growth rate in DWT in supply of ships in FH 2024 at +2.77 MDWT (Handy 10,000-44,999 DWT), +5.34 MDWT (Supras 45,000-69,999 DWT) versus +4.84 MDWT (Capes 90,000+ DWT), and 4.74 MDWT (Panamax 70,000-89,999 DWT), according to Clarksons World Fleet Register dated 30 Jun 2024. In Q2 2024 these figures were +1.49 MDWT (Handy), +2.88 MDWT (Supras) versus +1.98 MDWT (Capes), and +1.93 MDWT (Panamax).

News Items Affecting the BDI:

- Reuters report: (1) China's exports and imports [returned to growth in April](#). The data suggests a flurry of policy support measures over the past several months may be helping to stabilize fragile investor and consumer confidence, though analysts say the jury is still out on whether the trade bounce is sustainable. (2) China's imports of major commodities for April show the impact of price trends, with [strength where prices were trending down and weakness where prices were moving higher](#). (3) US President Joe Biden unveiled a bundle of steep [tariff increases on an array of Chinese imports](#) including electric vehicles, computer chips and medical products, risking an election-year standoff with Beijing. (4) As the US has hiked China tariffs, it has greatly boosted imports from Vietnam, which relies on Chinese input for much of its exports. The [surge in the China-Vietnam-US trade](#) has vastly widened trade imbalances. (5) [China announced "historic" steps](#) to stabilize the crisis-hit property sector, allowing local governments to buy "some" apartments, relaxing mortgage rules and pledging to deliver unfinished homes. (6) US electricity consumption from electric vehicles (EVs) over the first two months of 2024 jumped by over 50% from the same months in 2023 as EVs continue to penetrate the US car market and impact electricity flows. [The sharp rise in EV electricity demand](#) indicates that the impact from rapidly expanding EV sales continues to increase electricity demand. (7) [China's economy is set to grow 5% this year](#), after a "strong" first quarter, the IMF said, upgrading its earlier forecast of 4.6% expansion though it expects slower growth in the years ahead. (8) [India is poised to begin wheat imports](#) after a six-year gap, to replenish depleted reserves and hold down prices that leaped following three years of disappointing crops, sources say, as the end of general elections removes a key hurdle. (9) Starting in the 1980s, European

automakers steadily conquered China, racking up millions in sales. Now they will have to defend their home turf from an onslaught of formidable Chinese electric vehicles. We look at [how China's EV makers aim to beat Tesla and legacy automakers in Europe](#). EU tariffs on Chinese electric vehicles [would likely cost Beijing](#) nearly \$4 billion in trade with the bloc, according to a new analysis. (10) China's latest property support measures have boosted transactions in its biggest cities, but activity in smaller localities is struggling to get off the ground, [pointing to more pain ahead for most of the country's real estate market](#). (11) [A rally in Mega cap tech companies drove stocks to all-time highs](#), with some prominent Wall Street strategists rushing to [boost](#) their targets even as many hedge funds grow increasingly cautious. The S&P 500 hit its 30th record this year, defying concerns about narrow breadth that could make the market more vulnerable to surprises. (12) China's economy [grew much slower than expected in Q2](#), as a protracted property downturn and job insecurity knocked the wind out a fragile recovery, keeping alive expectations Beijing will need to unleash even more stimulus.

- Bloomberg report: (1) Federal Reserve Chair Jerome Powell said the US central bank must be patient and wait for evidence that inflation continues to cool, doubling down on the need to keep borrowing costs [elevated for longer](#). (2) Jamie Dimon said he's still more [worried](#) about inflation than markets appear to be. The JPMorgan CEO said significant price pressures continue to influence the US economy, which may mean interest rates will stay higher for longer than many are expecting. (3) [Historic heat, dryness and frost have walloped Russia's winter wheat crop](#) over the last several weeks, slashing harvest estimates for the top exporter and spurring a healthy rally in global wheat prices. Corn prices are well off yearly lows but have not surged to nearly the extent of wheat, creating a wheat-corn premium not seen in almost two years. That could stimulate global corn demand, potentially to the benefit of US exporters, who are seen regaining the title of top corn exporter from Brazil in both 2023-24 and 2024-25. (4) The US economy grew [at a slower pace in the first quarter](#) than initially reported, reflecting softer consumer spending on goods. Gross domestic product rose at a 1.3% annualized rate in the first three months of the year. (5) Global oil demand will peak by 2029 and begin to contract the next year, [the International Energy Agency said](#) on 12 June 2024, while oil supply capacity is due to vastly outpace demand by the end of the decade. (6) AI is already wreaking havoc on global power systems. The almost overnight surge in electricity demand from data centers is now [outstripping the available power supply](#) in many parts of the world.
- The Economist reports: As birth rates plunge across the world, politicians are pouring money into policies that encourage women to have more babies. One common assumption is that falling fertility rates stem from professional women putting off having children. This is wrong: most of the decline is among younger, poorer women. What, then, can policymakers do? Many economies will have to adapt to the sweeping social changes that are driving down fertility rates. Welfare states need rethinking; older people will have to work later in life. One thing is for sure: it is a mistake for countries to try to spend their way to more births.

Supply Side Developments:

We started 2024 with 996.58 MDWT and have increased to 1,014.26 MDWT (+1.77%) at the start of Q3 2024. If we were to apply slippage of 5% (it was actually 3.26% for FH 2024) to the

scheduled deliveries in the SH of 2024 and 2025 and assume recycling reaches 10 MDWT (it was actually 2.27 MDWT during FH of 2024) we would be left with a net fleet growth of 2.72% (996.58 MDWT to 1,023.65 MDWT of which 352.36 MDWT to 365.81 MDWT for the geared sector +3.82%, 644.22 MDWT to 657.84 MDWT for the gearless sector +2.11%) by end of 2024 and 2.23% by end of 2025 (1,023.65 MDWT to 1,046.49 MDWT of which 365.81 MDWT to 377.62 MDWT for the geared sector +3.23%, 657.84 MDWT to 668.87 MDWT for the gearless sector +1.68%). Congestion, ballasting ships, slowing speeds, especially in 2024 due to EEXI/CII regulations, will further assist in supply side tightening.

Congestion:

In FH 2024, the average number of ships at worldwide ports reached 2,157,691 vessels compared to the FH of 2023 with 2,095,459 vessels or +3.0%. The figure for the whole year 2023 was 4,329,497 (+5.1% over 2022), for 2022 was 4,119,813 vessels (+9.6% over 2021), for 2021 was 3,757,567 vessels (+10.0% over 2020), and for 2020 3,417,170 (-7.2% over 2019). The annual average number of ships at worldwide ports reached 3,861,521 vessels between 2019 and 2023, compared to that the FH of 2024 was +12% above the annual average.

Container Shipping:

Rates on containers have come off their astronomical heights reached in 2020 to 2022. Spot rates were back to pre-pandemic levels at the end of 2023, since then rates have spiked upward dramatically from the start of this year due to the disruption of trade routes by the Houthis firing rockets, drones, missiles, and USVs on more than 110 occasions against unarmed, and largely defenseless merchant ships starting from the middle of November 2023 and continuing as we write this newsletter. Despite the tsunami of new container ships that have arrived since the start of 2024, rates have gone back up to the giddy heights of the pandemic years due to the rerouting of more than 90% of all container ships via the COGH instead of sailing through the infinitely shorter Red Sea route. This is forcing lines to add more ships to each loop, while demand continues to grow well above anticipated rates, along with congestion and bunching up of ships at the various discharge ports resulting in a shortage of containers. Slow steaming that was the norm for the last few years, has been replaced with faster/full speed due to the dramatically increased longer routing via the COGH, and due to the unanticipated increase in demand. During the week starting 8th July 2024, unusual storms hit COGH with a CMA CGM container ship dropping 44 boxes into the sea with another 30 boxes being damaged but retained onboard. All container ships have therefore anchored off Durban waiting for the weather to abate while another powerful storm is supposed to hit COGH at the end of the same week. As a result, lines will not be able to comply with their own GHG targets set at the start of 2024. They will also find it very difficult to comply with regulations under CII and will have to pay very large sums of money under the EU ETS scheme when their ships reach EU ports. All this will result in lines making larger profits, instead of the losses forecast at the start of 2024. But we are talking about shipping where rates change on a dime and profits could easily be reversed if the Red Sea disruption ceases and the shorter route reopens for container lines to sail through.

Disruptive Shipping Chokepoints:

According to Clarksons, 24% of world trade passes via the Malacca Straits; 11% via the Straits of Hormuz; 9% via the Suez Canal; 4% via the Danish straits/entrance to the Baltic Sea; 3% via the Bosphorus in Turkey to enter the Black Sea; and 3% via the Panama Canal. As geopolitics and climate change have an even greater impact than ever before, it will be important to keep a close watch on these disruptive chokepoints.

The 'Dali' Accident at Baltimore:

Ships trapped in Baltimore all exited the port on the one-month anniversary of the collapse of the Francis Scott Key bridge on 26th April. The National Transport Safety Board (NTSB) issued a preliminary report on 14th May 2024. The 'Dali' itself was freed and moved from the accident site to the same berth that she had occupied before this tragic accident, on the 20th of May, a week less than two months from the date that the bridge collapsed. With the removal of the wreckage of the bridge being complete, the port of Baltimore is open for business as usual from the 10th of June 2024. The final NTSB report will hopefully be issued before the end of this year, though it has stated that it could take as long as 18 months. It will then take quite a few years before legal liability can be decided and if the Dali owners will be able to limit liability to the ~\$44m limit of liability convention under US law. In the meantime, questions around the strength of the barriers protecting key supports of bridges; power and number of tugs that must be available at all US ports; if tugs should escort ships under critical structures like bridges, need to be answered.

Bulk Shipping News:

Bulk carrier earnings overall were up 47% on the same period in 2023, with Clarksons weighted average at \$15,828/day, 25% above trend, after a surprisingly strong Q1. The sector was led by the Capes (c.2010-built earnings avg. \$23,430/day in 1H 2024, up 166% y-o-y and 80% above the 10-year trend), where strong exports of iron ore and bauxite on long haul routes from the Atlantic to Asia have been particularly supportive. (Clarksons – 4 Jul 24)

During FH of 2024 coal demand slowed to 2% growth from 7% during all of 2023. Coal and soybeans are the only two large trades to show slowing growth in 2024. The soybeans trade grew by 16% in the FH of 2023, but so far this year demand has been essentially flat (-0.6%). Demand for all other trades has continued to grow and has accelerated further. Iron ore demand is up 5% in FH of this year, compared to 4% during 2023. The grains trade is up 10%, while it was flat in 2023. The bauxite trade grew by 4% in 2023, with demand up 9% in FH 2024. The steels trade is the fastest growing with Chinese exports booming. Steel trade demand has grown 18% in FH 2024 after very slow growth in 2023. The fertilizers trade grew around 5% last year, in FH 2024 is up a further 5%. Agribulks were stable in 2023, they have grown 9% in FH of 2024. Overall, dry bulk demand remained strong in FH of 2024, accelerating further to 6% growth compared to FH 2023. Iron ore accounts for 30% of the additional demand created in 2024, followed by grains (12%), coal and steels (10% each), bauxite (6%), agribulks (4%) and fertilizers (3%). With such healthy demand, the disruptions in Panama and the Red Sea, and the fleet growing by 2% in FH of the year, it is not surprising that the average rates for the FH of 2024 are significantly higher than for the same period in 2023:

BDI: 1,836 (+59%)
Capes: \$23,482/d (+92%)
Panamax: \$15,910/d (+35%)
Supras: \$13,975/d (+34%)
Handy: \$12,520/d (+25%)

(Bancosta – 8 Jul 24)

Deliveries of bulkers in 2024 are expected to increase to 27.7 MDWT, and in FH 2024, it was a total of 17.62 MDWT -3.5% y-o-y. This included 33 Capesizes, 49 Panamaxs, 85 Supras/Ultras, and 58 Handies. Demolitions in 2024 will total 5.34 MDWT. In FH 2024 demo totaled 1.7 MDWT -45.6% y-o-y, and included 3 Capes, 8 Panamaxs, 8 Supras/Ultras, and 8 Handies. Net fleet growth for bulkers over 20-KDWT is expected at +2.4% y-o-y in 2024, and at +2.3% in 2025. The fleet expanded by a net +2.9% in 2023. Contracting activity slowed in FH 2024. The orderbook-to-trading ratio for dry bulk is now 8.5% in DWT. Trade volumes were positive in FH 2024. Iron ore increased by +4.9% y-o-y to 819.2 MMT. Iron ore from Australia increased by +1.8% y-o-y, and from Brazil was up by +9.9% y-o-y. Coal increased by +2.6% y-o-y to 672.5 MMT. Coal from Indonesia increased by +9.1%, and from Australia was up by +3.0% y-o-y. (Bancosta – 22 Jul 24)

In FH 2024, the Baltic Supra TC Index averaged 14,013 USD/day, +32.9% y-o-y, whilst the Baltic Handysize TC Index averaged 12,560 USD/day, +24.0% y-o-y. Newbuilding prices in Jun 2024 for a Supra was USD 38.7m, and for a Handysize USD 33m. 5-year-old Supra was USD 28.7m, and Handysize USD 28.2m. Deliveries of Handy and Supras are expected to increase in 2024 to 13.41m DWT. In FH 2024, 7.61m DWT were delivered, +28.3% y-o-y. This included 4.61m DWT of Ultras, 0.56m DWT of Supras, 0.14m DWT of Handymaxes, 2.22m DWT of Large Handies, and 0.09m DWT of Small Handies. Demolition activity in 2024 is expected to decline to 1.72m DWT. In FH 2024, 0.6m DWT were recycled, -11.5% y-o-y. This included Handymaxes 0.36m DWT, 0.11m DWT of Large Handies, and 0.13m DWT of Small Handies. Net fleet growth for bulkers in the 20-67,999 DWT range is expected to at +4.0% y-o-y in 2024, and at about +4.3% in 2025. The fleet expanded by +3.5% y-o-y in 2023. The Ultras are expected to expand by +10.2% y-o-y in 2024, after growing +8.4% y-o-y in 2023. The Supras are expected to expand by +0.5% y-o-y in 2024, after growing by +1.7% y-o-y in 2023. The Handymax will shrink by -3.0% y-o-y in 2024, after shrinking -4.3% in 2023. The Large Handy fleet is expected to expand by +7.4% y-o-y in 2024, after growing +5.9% in 2023. The Small Handy fleet is expected to shrink by -0.1% y-o-y in 2024, after growing by +0.4% in 2023. Contracting activity has slowed down during 2023 after a strong 2022. The orderbook-to-trading ratio for this range is now 10.9% in DWT terms. (Bancosta – 29 Jul 24)

Other Shipping News:

This week's feature article discusses how global shipyard deliveries have begun to edge upwards in recent years after a decade of declining output, with our projection for full year 2024 suggesting a 15% y-o-y increase to 40.6m CGT, a more than ten year high. (Clarksons – 10 May 24)

Container freight rates surged again this week with significant disruption at major hubs in the Far East and stronger demand providing further support to an already tight market; the SCFI spot box freight rate index rose by 13% w-o-w to 3,045 points, now ~3x the mid-Dec level and almost double the next highest level seen outside of the Covid-era 'boom'. (Clarksons – 31 May 2024)

The [International Energy Agency \(IEA\)](#) states global oil demand will rise 0.96m-bpd in 2024 and reach 103.2m-bpd and 1.0m-bpd in 2025 to 104.2m-bpd. IEA anticipates global oil demand will reach 105.4m-bpd by 2030 or a loss in consumption as North America (-1.5mbpd) and EU (-1.1m-bpd) trim their requirements. This will contribute to an oil glut by

2030 as oil producers continue to invest in new developments. Output in 2030 will hit 113.8m-bpd, 8.4m-bpd above demand, with negative ramifications for oil prices.

Container volume data for May shows 7.1% increase MOM, volume growth YTD has been 7.5% YOY, while TEU-mile demand saw a 5.3% increase MOM, with YOY growth YTD at an 8.0% increase. (DNB Markets – 5 Jul 24)

The biggest change in dynamic has come in containers, where a market that was expected to be oversupplied has tightened dramatically, first as Red Sea re-routing added to demand (+12% in “TEU-miles”) and then by improving volumes (~10% higher than at the start of the year), an earlier “peak season” and increasing congestion. Freight on some routes is now close to Covid-19 records. (Clarksons – 5 Jul 24)

There are reports that during the FH of 2024 there were over 270 container vessels of all sizes delivered (including 51 new container vessels delivered in June alone) with 1.68 mill. TEUs! Depending on slippage, it is expected that another 1.49 mill. TEUs will be delivered during the 2nd half of 2024. (Compass – 8 Jul 24)

Geopolitics, Wars, Tariffs, Urbanization, and Elections:

25 June 2024 was designated as the "Day of the Seafarer". Please watch the video "[Seafarers Deserve Support](#)" from BIMCO, released on the same day in support of all seafarers.

The link between **elections**, and how they could harm or assist the global economy, depending on who is the victor, are important, and impact shipping, therefore it behooves us to follow the many elections that are taking place in the world during 2024, the most important of which is the USA Presidential elections. Many populist leaders are promoting deglobalization, near-shoring, friend-shoring, and other market distorting policies. If such leaders get elected, they could have a significant negative impact on shipping demand while increasing inflation through their deglobalization policies.

Inflation is another enemy of growth as central bankers raise interest rates to fight inflation and bring it under control. Corporates struggle with higher interest rates and are unlikely to go in for major capital expansion projects involving and/or increasing their labor work force. Without capital expenses and increase in the labor work force, economies will not expand and will shrink the demand for cargoes needed, and ergo shipping demand will perish on the poisonous vine of inflation and higher interest rates.

Wars are the worst things to be involved in by any country. Countries at war, or supporting their friends to fight in wars, devote all their free capital to arms manufacturing and/or procurement to the virtual exclusion of all other issues. As a result, their economies get neglected leading to lower demand for cargoes and, therefore, a lower demand for shipping capacity. As we have repeatedly stated, there are no winners in war, only losers. The biggest losers are those lacking a moral compass, who apply the ‘might is right’ rule of the jungle, misjudge world opinion, and end up on the wrong side of history. The biggest losses, however, will be most deeply felt by the parents, spouses, partners, brothers, sisters, and siblings, of those led to the slaughter by their uncaring leaders, whose children are never put at risk of losing their lives.

Geopolitics interferes in the world of economics, and world trade in a very big way. Look at the war in Ukraine that is going strong after more than 27 months. That has resulted in sanctions galore, making life difficult, if not impossible, for many innocent shipowners, trade flows first stopping from the Black Sea to Turkey and other nations of North Africa and the EU at the start of this war, then resuming after 5 months or so into this war, then again stopping for a short while at the start of the second half of 2023, and as Q3 moved into Q4 of 2023, going full blast as if there was no disruption from the first hot war in Europe since 1945.

Then we have the second hot war that started in October 2023 with Israel fighting the Palestinians in the Gaza strip. That has resulted in the Houthi Tribe firing drones, missiles, and Unmanned Surface Vessels (USV), on merchant ships transiting the Red Sea, the Indian Ocean, and even threatening merchant ships sailing as far away as the Mediterranean Sea, on more than 110 occasions starting in mid-November 2023 and continuing ever since. The objective of the Houthis is to bring an end to the second hot war by putting pressure on Israel to stop their war on Gaza. Caught in the crossfire of this second hot war are innocent merchant mariners trying to eke out a living with three having lost their lives in one incident, a fourth in a second incident, and another 25 being held in Hodeidah as their ship, owned and operated by two Israeli brothers, was taken captive in mid-November 2023. As a result, prudent owners who are interested in the welfare of their mariners will not allow their ships to sail through the dangerous waters of the Red Sea and are routing their ships via the COGH.

Red Sea disruptions by the Houthis involve 325 MMT or 7% of all dry bulk cargoes (equal to 12% when measured by ton-mile demand) that goes through the Red Sea/Suez Canal, with 40% carried on Supras/Ultras, and another 17% on Handy sizes, with the balance on gearless ships.

Elections in the USA will decide if Trump is the next POTUS. After the first debate between Trump and Biden, and the (non)performance of Biden, followed by the attempted assassination against Trump, and his blood lined face, pumping his fists in the air, backdropped by the US flag, and urging his followers to 'fight' 'fight', before being whisked off by the Secret Service and local police to safety and medical assistance, have all but made Trump's election as the next POTUS a certainty, if Biden stands against him. Now that Biden has decided not to contest the election and has endorsed Kamala Harris in his place, it seems that there will be an even contest between Trump and Harris for the post of POTUS. As far as US-Sino relations are concerned, it will make little difference who wins the POTUS election, with Trump having started the tariff wars, Biden despite his globalization and free trade credentials, continued and strengthened the tariff wars during his POTUS term, with Kamala Harris probably following in Biden's footsteps, if elected as the next POTUS.

Tariffs, as we have seen, make little if any difference to the importing nations that can simply purchase their products from some other nation that does not apply any such tariffs. China, a big buyer of US Soybeans, Corn, Coal, and other products can easily substitute US Soybeans with those from Brazil, similarly with corn, with coal coming from Colombia, Brazil, Indonesia, Australia, and Russia. If importing the same or similar goods from some other nation is not practical, then the importing nation will enrich their state coffers with the import tariffs in place, beggar their own population to the same extent via the higher price of goods imported, making little impact on the exporting nation, that will have raised the price by the same percentage as the tariff rate.

The third 'cold' war is in the Taiwan Straits with big power intervention pushing that flashpoint towards a hot war between USA/NATO versus China, instead of using diplomacy to iron out the outstanding issues. Obviously, no rational person would want one cold, let alone two, or God forbid, a third hot war, foisted on our fragile planet that is already suffering from heat stroke.

Urbanization is a rising global trend according to the [UN report on World Urbanization Prospects](#) with the percentage of urban population rising from 55% in 2018 to 68% by 2050. North America had an urban population of 82% in 2018 while the EU had 74%. India is expected to have less than 50% of urban population by 2050. Just three countries, India, China, and Nigeria, are expected to account for 35% of the projected urban population growth between 2018-2050. The percentage of single-person houses in Stockholm has grown to over 50% as of 2017. And what happens in Scandinavia, happens in the rest of the world, just a couple of decades later. So, urban dwellers will increasingly become single-person homes in the future, and all such homes would require their own white goods (fridges, washing machines, clothes dryers, microwave ovens, etcetera), their own modes of transport, be it cycles, mopeds, motor bikes, or cars. All urban living, and its associated goods, would need steel, cement, wood to build, furnish with beds, cupboards, white goods, soft furnishings like curtains, bed sheets, bed covers, mattresses, pillows, pillowcases etcetera. Every single item mentioned, or their starting raw materials and/or semi-finished intermediaries, have all been transported by sea multiple times and have added-to ton-mile demand for dry bulk shipping. In conclusion, as urbanization increases and most urban people tend to live in single-person homes, so does the demand increase for dry bulk goods transportation by sea.

All these trade sanctions, tariffs, hot and cold wars do, is to disrupt trade flows. Shipping makes trade flows between nations as efficient as possible, but when disrupted, inefficient trade flows increase the price of freight and thereby the cost of goods to people of the importing country. It makes little or no difference to the exporting nations, as they simply hike the price of their exported goods by the exact same percentage as the tariffs. Shipowners benefit from the inefficiency created if the trade flows are activated from further away nations due to the tariffs on the regular exporting country.

All disruptions, in general, are good for shipping, but trade flow disruptions result in the maximum benefit for ship owners.

News on Geopolitics, Wars, Tariffs, and Elections:

Reuters reports: (1) [Democrats are deeply divided](#) over Biden's handling of both [the war in Gaza](#) and the US campus protests against it, a new Reuters/Ipsos poll found, fraying the coalition that he relied on four years ago to defeat Trump. (2) The International Criminal Court's [prosecutor said he had requested arrest warrants](#) for Israeli Prime Minister Benjamin Netanyahu, his defense chief and three Hamas leaders over alleged war crimes. [Here is what happens next](#). (3) The Biden administration said that the [recent deaths in Rafah](#) didn't constitute a major ground operation there that crosses any US red lines. (4) Russian President Vladimir Putin warned the West that NATO members in Europe [were playing with fire](#) by proposing to let Ukraine use Western weapons to strike deep inside Russia, which he said could trigger a global conflict. (5) Starting in the 1980s, European automakers steadily conquered China, racking up millions in sales. Now they'll have to defend their home turf from an onslaught of formidable Chinese electric vehicles. We look at [how China's EV makers aim to beat Tesla and legacy automakers](#) in Europe. (6) Russia's invasion of Ukraine

has directly caused or paved the way to the emission of 175 MMT of CO₂ into the atmosphere, a joint report said on Thursday. The report, published by Ukraine's environment ministry and climate NGOs, said their estimate included both emissions that had been released and those that would be produced during repair work following the [destruction caused by the invasion](#). (7) The US military [launched a clandestine program](#) amid the COVID crisis to discredit China's Sinovac inoculation, as payback for Beijing's efforts to blame the pandemic on Washington.

Inequality:

One of the SDGs of the UN is to lift people out of poverty. That has happened in China to a very large extent with more than 400 million people being lifted out of poverty with the consumption of meat skyrocketing. Dry bulk ships carry the animal feed ingredients where volumes have shot up to cater to this meat-rich diet achieved in China. Poorer people eat vegetables but as they get into the middle class their diet becomes meat-rich, and when they become superrich i.e., part of the 1% elite of the world, they go back to an organic, whole plant-based, vegetarian diet. Luckily for dry bulk there are many billions of people that are in the middleclass, or those that will soon reach that status, and start to consume a more meat-rich diet, thereby increasing the demand for animal feed ingredients, compared to the much, much smaller numbers that will graduate into the 1% elite. White meat needs 2.5 kilos of grain per kilo of live weight conversion, and red meats need upwards of 6 kilos of grain to make one kilo of live weight. The connection between inequality and dry bulk demand is, therefore, quite apparent. The lower the inequality, the greater the demand for meat-rich diets ergo more demand for animal feed ingredients, and hence, demand for dry bulk ships.

News on Inequality:

Bloomberg/Reuters reports: (1) New York City's residents have more wealth, more than \$3 trillion, than those of any other metro in the world. New York has almost 350,000 millionaires, which is the most of any city and up 48% from a decade ago, [according to a global ranking](#) of the wealthiest cities. (2) Proxy advisory firm Glass Lewis & Co. has recommended Tesla shareholders reject [an "excessive" compensation plan for Elon Musk of \\$56 billion](#) at a June 13 annual meeting. (3) [Tesla investors voted for CEO Elon Musk's pay package](#), as well as moving the company's state of incorporation to Texas. The electric-car maker announced the results at its annual meeting on 13 June 2024 in Austin without disclosing the breakdown of votes. That said, the pay vote is only advisory and doesn't guarantee Musk will get his money. A judge in Delaware nullified Musk's 2018 compensation plan in January, and Tesla is expected to appeal. The 2018 package made Musk eligible for as much as \$55.8 billion in stock options if Tesla hit certain milestones. The current value of the options was closer to \$48.4 billion at the close of trading on 13 June 2024. (4) A four-day extravaganza sees Anant Ambani, the youngest son of Asia's richest person Mukesh Ambani marries his long-time girlfriend Radhika Merchant in Mumbai. The festivities take place as the [wealth concentrated in the richest 1% of India's population is](#) at its highest in six decades.

Equilar reports median CEO-to-worker pay ratio among the highest-paid 100 CEOs last year in USA was [close to 300 times](#) median worker pay.

The UN report on sustainable development goals ranks the performance of its 193 member states in implementing 17 wide-ranging goals, which include improving access to education and health care, providing clean energy and protecting biodiversity, shows that [none of the 17 goals](#) which were agreed in 2015 are on course to be met by 2030.

Climate Change:

Climate change is causing disruption on land as well as at sea. Delayed monsoons in Brazil allowed more iron ore to be exported in the FH of 2024 and assisted the Capes to have a spectacular FH. Shallow waters in the Amazon River have exacerbated congestion at Brazil's grain exporting ports with grain arriving via land routes to southern export points. Ships are facing stronger storms than ever before with 10-meter waves the norm in bad weather rather than the exception. During the week starting 8th July 2024, unusual storms hit COGH with a CMA CGM container ship shedding 44 boxes into the sea with another similar amount being damaged but retained onboard. Another general cargo Ship the 'Ultra Galaxy' built in 2008 was abandoned on the west coast of South Africa with a massive list due to these same storms and is in danger of sinking. All container ships have therefore anchored off Durban waiting for the weather to abate while another powerful storm is supposed to hit COGH at the end of the same week. Such disruptions at sea increase voyage duration and therefore help to further tighten the supply of ships. Bad weather on land, extreme heat followed by flash floods, is creating food insecurity in many countries. Climate change creates bad weather on land that builds up congestion at various ports, further tightening the supply of ships, and food insecurity creates more demand for shipping of grains.

If you need proof that Climate Change is here, then read this paragraph carefully. The world has already set a record of average temperatures in the last 12 months being higher than 1.5 Celsius above preindustrial levels; a [new report on climate change](#) and its impact on global GDP suggests that a 1 degree increase in mean world temperature above current levels would lead to a 12% drop in world GDP within 6 years and would take another 10 years or more to revert to mean GDP levels; the world needs aggressive policies to [bring climate change under control](#) otherwise global stock markets will lose 50% of their value, according to a think-tank; heat waves have hit India and Mexico, with Mexico approaching day zero when it would run out of water, India recorded its official hottest ever temperature of 51 Celsius in May 2016 in Phalodi, a city in northwestern Rajasthan; forest fires in Canada, that started last year in summer, are continuing to degrade air quality as far south as Houston, Texas; Brazil is experiencing the largest blazes on record in the Amazon rainforest in the first 4 months of this year; the worst floods in 80 years in Rio Grande do Sul, Brazil, claimed at least 170 lives, displaced some 600,000 people, on top of floods that hit it in September 2023; Indonesia is also besieged by floods that have killed over 60 people, with [Jakarta crowned as the fastest sinking mega city](#) in the world; heavy rains hit Haiti that was already struggling with political instability compounded by gang violence; May was the hottest on record, making it the 12th month in a row to share a high temperature record; Mammoth, the largest Direct Air Capture (DAC) plant in the world, can at best capture 36,000 tons of CO2 in a year, or less than one minutes worth of manmade emission, and will cost \$1,000 per ton of CO2 captured; Rain and floods hit East Africa killing some 445 people; China's Lychee harvest has been halved by extreme weather, and torrential rains are [threatening swollen rivers to overflow further](#) in South China; Singapore Airlines flight SQ 321 from London to Singapore had to make an emergency landing at Bangkok after one passenger died and 70 were injured, 20 requiring to be admitted to ICUs due to severe turbulence, [possibly linked to climate change](#); a few days later Qatar Airways Flight QR017 from Doha to Dublin hit severe turbulence over Turkey with 6 passengers and 6 crew injured; a tornado hit Greenfield, a small town in Iowa, killing multiple people and injuring others; the Ozark mountains and the southern plains have been hit by tornados killing at least 21 people; between Jan-May hail stones, at times the size of baseballs, have hit Texas, Kansas, Oklahoma, and Missouri, impacting power lines, destroying car windscreens, and solar panels; an active landslide in Papua New Guinea has buried more

than 2,000 people; Britain has had its [6th wettest spring since records began](#) in 1836 and will need to increase imports of food by 8%; from 15 June, El Salvador has faced torrential rains that has forced 900 people to live in temporary shelters with 11 deaths; hundreds of visiting pilgrims have died during the annual Hajj celebrated in Mecca, Saudi Arabia [from the extreme heat](#); record high temperatures across northwest and east [China will impact corn planting](#), in a nation that produced 289 MMT of corn in 2023; Heavy rains, [40% more intense](#) due to climate change, [flooded Dubai](#), halting air traffic, damaging streets and buildings; a [record category 5 hurricane, Beryl](#), has hit Grenada, other island nations, Mexico, and Houston, Texas, the energy capital of the US where [millions of people were without power](#) for more than a week, and is the earliest ever hurricane to start life in June; Since 1960, only 30 Atlantic hurricanes have reached Category 5, with 2005, the year [Hurricane Katrina devastated New Orleans](#), setting the record for the most recorded in a single season, at four; delayed monsoons hit New Delhi with a vengeance as more rain was recorded in a single day than the annual average rainfall in the whole of June; this June was the hottest on record, with 2024 likely to become the [world's hottest recorded year](#) ever; China suffered direct economic loss [of \\$12.83b in Jan-Jun 2024](#) due to natural disasters of extreme temperatures, drought, and flooding; The storm + power outage + heat wave Texas experienced post Beryl will become more common [as the world warms, raising risks and costs](#); if China's carbon [emissions, more than 11 BMT in 2022](#), have now peaked, emissions could decline this year; in China coal use for power generation [plunged last month](#), while oil consumption fell in Q2 as renewable energy output and EV adoption increased; torrential rain triggered [flash flooding in parts of Toronto](#), Canada's financial center, causing power outages, disrupting traffic and forcing airlines to curtail service; a small town in China's Henan was lashed by [almost a year's worth of rain in one day](#) as the extreme storms that battered the south this summer shift to the central and northern provinces; and [global temperatures hit the highest levels](#) in recorded history on Sunday, 21 July 2024, according to Europe's top climate monitor, another worrying sign of how human-caused climate change is pushing the planet into dangerous new territory.

News on Climate Change:

Bloomberg reports: (1) Between 2014 and 2023, the US experienced [twice as many weather-related power outages](#) as it had during the prior decade. Some 80% of outages affecting 50,000-plus people were driven by weather. (2) The latest [inflation report](#) may offer Federal Reserve officials some hope that inflation is resuming its downward trend, which would be key for them to cut rates. (3) Extreme weather is hitting China's lychee harvest. The country produced 3.1 million tons of the tropical fruit last year, but [this year's harvest could be barely half that](#). The region where about half of China's lychees are grown experienced a warm winter and heavy spring rains. (4) Heat waves are testing India's ability to protect its people. Inconsistent planning, lack of funding, and the failure to make timely preparations [are leaving communities vulnerable](#) as extreme temperatures become more frequent and prevalent. (5) In the decade from 1980 to 1989, the US National Oceanic and Atmospheric Administration reported only eight severe storms that each caused \$1 billion (inflation adjusted) or more in damage. There have been [67 such storms in the US](#) just since 2019. Last year, globally, violent storms caused \$64 billion in insured damages worldwide, according to reinsurer Swiss Re. (6) There is another extreme weather event that is being linked to a warming climate: windstorms. Specifically, scientists are interested in winds like the ones that [roared out of a supercell thunderstorm](#) in Houston Thursday night. Known as straight-line winds, these fierce gusts can rival their more familiar siblings, tornadoes. (7) The world's grid network will need to stretch to 111 million kilometers [to achieve net-zero by 2050](#), according to BNEF. That's double its current size and equivalent to almost three-quarters of the distance to the sun. (8) EV-only automakers' share of global new passenger vehicle [sales is increasing](#). Costs for

critical minerals and batteries [have come down significantly](#) in the past 18 months, while current trends in the EV market are ahead of what the IEA says is necessary for net-zero alignment. (9) Around the world, people are living through the havoc brought on by the accelerating climate crisis. And it's about [to get worse](#). Odds are growing that 2024 will be the hottest year in history. Prices for some of the world's most vital commodities—natural gas, electricity and staple crops like wheat and soy—are climbing. The world of shipping, already thrown into chaos from the Red Sea to the Panama Canal, is likely to be rocked again by parched waterways. And the potential for destructive wildfires is increasing. (10) The [current probability is 60%](#) that 2024 will overtake 2023 as the hottest year on record.

Reuters reports: (1) [Growth in solar and wind power](#) pushed renewable generation to a record 30% of global electricity production in 2023, putting a global target to triple renewable capacity by 2030 within sight, a report by think tank Ember said. (2) The world just experienced its [hottest April on record](#), extending an 11-month streak in which every month set a temperature record. Including April, the world's average temperature was also the highest on record for a 12-month period at 1.61 degrees Celsius above the average in the 1850-1900 pre-industrial period. (3) Billions of people across the continent were affected by [record-breaking temperatures](#) during April, with schools forced to shut down, crops damaged and hundreds of people killed by heat-related illnesses. Myanmar, Laos, and Vietnam experienced their hottest April days on record, while temperatures in India reached as high as 46 degrees Celsius. (4) Forecast [dryness in the Black Sea region's breadbasket](#) is likely to stunt sunflower and corn yields, while heavy rain in the United States after near-record temperatures threaten to take a toll on crops, hitting world supplies and pushing prices higher. (5) China's weather bureau warned that a prolonged heat wave forecast in the country's eastern, central, and southern regions in July [may hit production of rice and cotton, as extreme weather continues](#) to threaten its food production. (6) Russians were braving some of the [hottest weather](#) seen in more than a century with Moscow breaking a 1917 record and cities across the world's biggest country sizzling in temperatures well above 35 degrees Celsius. (7) Indonesian conservationist Nyoman Sugiarto has been working for 16 years to preserve coral on the reefs of Bali. [Ninety percent of the corals](#) Sugiarto had nurtured on the reefs near his village in Bondalem, on the northern shore of Bali, lost their color last December.

Regulations and the IMO:

'Fools rush in where Angels fear to tread' could easily describe owners rush to order dual fueled ships today. For dry bulk, we will be the last sector in shipping that will build brand new ships that are ready for fuels of the future. And the reason is that shipyards do not want to build dry bulk ships if they can land higher value container ships, tankers, gas, car carriers, offshore vessels, for their available slots. And within dry bulk the geared sectors will be the last to go green as the various ports that we call at are so off the beaten track that green fuel availability will be an issue. Then we have the charterers, our clients, who do not want to pay extra for any such green ships, nor are they willing to sign long-term charters of more than 5 years. Without a commercially viable case, how on earth are dry bulk geared ships supposed to go green? The only way would be if the IMO were to impose a universal carbon tax and place a few strategic deadlines. In the meantime, those that ordered LNG engine ships must deal with expensive methane slip abatement efforts, those with Methanol engine ships belatedly realize that the cost of green methanol will be multiple times higher than the cost for green ammonia. Being the first seems to be a curse when selecting the fuel for your future ships.

The EU ETS covering shipping came into effect at the start of 2024 and is estimated to cost \$3.6b in 2024. The most efficient ships will therefore trade to the EU, pay the price of the ETS, charge it to their customers, and those ships that are less efficient will continue to trade elsewhere. The total CO2 generated will not have gone down an iota due to this tax, yet the EU would have collected \$3.6b via their ETS, which the common EU person would end up

paying for. However, if the IMO would impose a universal global CO₂ tax, then every ship would be paying for it no matter where they were trading, overall CO₂ would come down, and the inefficient ships would be forced to end up at the scrapyards where they belong. A win-win solution, but commercial understanding seems to escape the regulators.

From the above it is evident that we desperately need regulations via the IMO uniformly applicable to all ships if we are to ever reach zero GHG emissions in shipping.

Historical Events on the Path to Zero GHG Emissions:

In 2015, the Paris Agreement on climate change was agreed by parties to the UN Framework Convention on Climate Change (UNFCCC). It entered into force on 4 November 2016. Its goal is to keep global temperature rise below 2°C above preindustrial levels, and preferably limited to 1.5°C.

Even though the Paris Agreement does not include international shipping, the IMO committed to contribute its efforts to address climate change features prominently in its strategic plan. Consequently, in April 2018, IMO adopted an initial strategy on the reduction of GHG from ships, i.e., emissions including CO₂, methane (CH₄) and nitrous oxide (N₂O), expressed in CO₂e (carbon dioxide equivalent). In July 2023 (MEPC 80), the IMO adopted its strategy on reduction of GHG Emissions from ships in accordance with the agreed program of follow-up actions.

The IMO's strategy envisages:

1. A reduction of the average carbon intensity (CO₂ emissions per transport work) of international shipping by at least 40% by 2030, pursuing efforts towards 70% by 2050, as compared to 2008 levels.
2. To reduce total annual GHG emissions from shipping by at least 50% by 2050 compared to 2008, while pursuing efforts towards phasing them out entirely within this century.
3. The uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources which must represent at least 5%, striving for 10% of the energy used by international shipping by 2023.
4. The 2023 IMO GHG Strategy also introduces indicative check points to reach net-zero GHG emissions from international shipping, namely: a. to reduce the total annual GHG emissions from international shipping by at least 20%, striving for 30%, by 2030, compared to 2008; and b. to reduce the total annual GHG emissions from international shipping by at least 70% striving for 80%, by 2040, compared to 2008.
5. To reduce GHG emissions from international shipping as soon as possible and to reach net-zero GHG emissions by or around 2050, considering different national circumstances, whilst pursuing efforts towards phasing them out consistent with the long-term temperature goal set out in Article 2 of the Paris Agreement.

2008 is the baseline year against which future reduction targets are assessed, while 2050 represents an important milestone in the Paris Agreement, which the IMO explicitly references in its strategy. These ambitions are to be accomplished by a blend of measures applicable in the short, medium, and long-term.

Measures have been recently adopted by the IMO as amendments to the MARPOL Annex VI, requiring ships to take a technical and operational approach to reduce their carbon intensity. The mid- and long-term measures are likely to require a high degree of innovation and to result in the global uptake of green fuels and technologies.

The Practical Problems:

The current maximum shipbuilding capacity in the world is about 40 million compensated gross tons (MCGT) reached in 2019. The maximum capacity ever reached was in 2010 at about 60 MCGT. As of the end of 2022 the existing commercial fleet of ships in the world was

959.42 MCGT, hence at 2019 shipbuilding levels you would be able to replace all existing ships in 26 years or by 2049, and if you could reach the all-time high of 2010, then you would need 16 years to do so, by 2040. This, of course, presumes that trade will NOT grow in the interim. Shipping economist, Dr. Martin Stopford, has indicated that trade would expand by 2.5 times current levels by 2050, meaning we would need 2.5 times the current fleet to handle the expected increase in trade by 2050. That would set the year for replacing all ships with ZEVs to 2064 at 2010 productivity level that it would be impossible to get to zero GHG emissions by the IMO by 2050. If IMO were to put hard deadlines, then shipyards would have a deadline for producing/delivering fuel burning IC ships; they would know the total MCGT of ships that would need to be replaced by 2050 to take shipping to zero GHG emissions; they would be able to increase their shipbuilding capacity, by the requisite amount, to produce/deliver enough ships so that the world could have a zero GHG shipping industry by 2050; and producers of alternate 'green' fuels would know the quantities of green fuels that need to be produced, the total size of such a market, exact supply points, vehicles required to supply green fuels to ships, i.e., the producers of green fuels must know the scale of production, logistics, delivery ports, delivery vehicles, and the full supply chain to achieve zero GHG emissions from shipping by 2050.

Without deadlines, zero GHG shipping by 2050 is just a pipe dream.

What the IMO Must do to Reach Zero GHG Emissions from Shipping by 2050:

Our first recommendation was for IMO to agree a zero GHG target by 2050, and while this was achieved, MEPC should have also imposed a Carbon tax of \$100 per ton of CO₂ starting on January 1, 2024, increasing to \$200 by January 1, 2030. Had this been done, it would have increased the cost of every ton of fuel oil burnt by every single ship anywhere in the world by \$320 from January 1, 2024, increasing to \$640 per ton by January 1, 2030. Instead, MEPC 80 kicked this can down the proverbial road to 2025 for a decision and implementation starting in 2027. This would prevent the IMO from achieving the following 7 things.

1. Annual resources, via the universal Carbon Tax, ~\$90-\$100b, double this amount from 2030 onwards, available with IMO for decarbonizing shipping.
2. Not prevent multiple nations from applying similar taxes when ships call at their ports.
3. No clear rules and regulations from the IMO. Instead, different rules and regulations on carbon tax will be imposed by multiple countries.
4. Inability at the IMO to conduct and/or sponsor R&D in alternate fuels, their engines, and the infrastructure needed at bunkering ports.
5. Inability to subsidize alternate fuels on 'first mover' green ships between now and 2027.
6. Inability to assist island nations from the worst impact of climate change.
7. No clarity for shipyards with number of ZEVs they need to build each year to get shipping across the 'zero GHG by 2050' line.

Our second recommendation was for IMO to put a hard stop to any fuel-burning ships delivered by shipyards on or after January 1, 2030. Look at the auto industry. Once they were given a deadline after which they could not produce or deliver diesel engine cars, significant numbers of electric cars are rolling off the assembly lines in every serious automotive manufacturing country. MEPC did not even bring such a hard stop up for discussion, now or in the future. This will hamper the IMO from achieving the following 5 things.

1. Absence of clarity for shipyards, for owners, for charterers, and for end consumers, without a deadline.
2. To deliver the required number of ZEVs, increased capacity needed at shipyards by a specific date, will not take place.
3. Owners will not have a crystal-clear road map for achieving zero GHG emissions by 2050.

4. Charterers will not need to tie up long-term contracts with owners who have already contracted ZEVs.
5. End cargo users will not be able to factor in the cost of 'green' shipping services.

Our third recommendation was for the IMO to set a deadline for 20 years or older ships to be scrapped by January 1, 2035. The IMO did not even bring this up for discussion at MEPC 80 nor plans to in the future. This will hamper the IMO from achieving the following 9 things:

1. Immediately reducing GHG emissions by removing the older gas-guzzling ships built in the past.
2. Shrink the supply of ships and force users to start paying more for services and reduce/remove cost differentials between fuel burning ships and ZEVs.
3. Shipowners will not be able to generate enough funds to order the much more expensive ZEVs that will bring shipping to zero GHG. Dr. Martin Stopford, the eminent shipping economist said, replacing fuel-burning ships with ZEVs will cost between \$1t and \$3t. How will this massive investment be funded??
4. IMO regulations for the safe operation of alternate fueled ships will be delayed.
5. Crew regulations and training for handling such alternate ZEV fuels will be delayed.
6. Bunkering hubs for ZEV fuels will not be created, with their entire infrastructure, for alternate ZEV fuels.
7. Charters for ZEVs on long-term contracts will not be available, and the logistics chain will not be able to map their costs and returns when using ZEVs.
8. Cargo owners will not have to pay a fair freight rate to move their products on 'green' ships.
9. Cargo owners will not charge their end consumers for a 'green' service, and the logistics chain, unfortunately, will not be prepared for this change.

These three recommendations, if followed by the IMO, would accelerate the transition to 'green' ships by 2050. Now, we are not so sure if we will reach 'green' shipping by the 2050 deadline.

News Articles on The IMO and Regulations:

TradeWinds reported that a study by Sweden's Chalmers University of Technology, spread over eight years of research, claimed open-loop Scrubber water discharged in the Baltic Sea had resulted in environmental pollution and losses of more than \$ 730 million. In the meantime, owners of those ships recorded a net profit, after recovery of scrubber installation costs, of more than \$5 billion from the use of 'dirty high sulphur' fuel oils!

[Scrubbers have a poor track record](#) when it comes to the marine environment. Opportunity Green's latest legal analysis shows that they could also conflict with the IMO's air pollution rules known as Annex VI of the International Convention for the Prevention of Pollution from Ships (Marpol).

BIMCO reports: Decarbonization is the most important challenge the world is facing. The shipping, and offshore industry is no exception to this. Watch the '[No Turning Back](#)' video on this topic.

Bloomberg reports: (1) Ships seeking to avoid ongoing attacks by Houthi rebels are [emitting millions of additional tons of carbon](#), making it tougher for companies using ocean freight to reduce pollution across their supply chains. (2) A 2021 report found that some private jets emit two tons of CO2 per hour, at least five times more polluting per passenger than commercial flights and 50 times worse than trains. (3) The [cost to decarbonize the aviation industry is \\$5t](#). Sustainable aviation fuel is a major part of that cost as it can be more than

double the price of normal jet kerosene.(4) Bill Gates said he's prepared to [plow billions of dollars](#) into a next-generation nuclear power plant project in Wyoming to meet growing US electricity needs. TerraPower, a startup founded by Gates, broke ground for construction of its first commercial reactor last week in Wyoming. TerraPower has explored simpler, cheaper reactors since 2008 and expects to complete the new reactor in 2030.

Reuters reports: The growing shadow fleet of tankers transporting sanctioned oil is [filling up with the cheapest fuel available](#), hindering industry efforts to use cleaner fuel to cut shipping emissions.