



## The 2<sup>nd</sup> Quarter of 2023 Management Discussion and Analysis

“ There must be urgency in our action. The global climate crisis is more evident by the day, and today’s actions are crucial. Carbon must become a priority, equal to money in all future decision-making. ”

Roland Hunziker, Director of built environments,  
At the World Business Council for Sustainable Development,  
Reuters, 18 May 2023



## Our Key Performance Indicators

### 2nd Quarter 2023 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 8.21 million, compared to a net profit of USD 47.95 million in Q2 2022. The earnings per day per ship in Q2 2023 came in at USD 11,424, much lower than the Q2 2022 figure of USD 23,901. The daily operating costs per ship in Q2 2023 came in at USD 5,113, higher than the USD 4,683 figure recorded in Q2 2022, but lower than our target of USD 5,400 for the year. The EBITDA was USD 18.38 million, compared to USD 57.46 million recorded in Q2 2022. Earnings per share came in at Baht 0.18, compared to Baht 1.06 in Q2 2022.

THE HARD FACTS	Q2 2022	Q2 2023
Highest earnings per day per ship in USD	40,000	25,064
Average earnings per day per ship in USD	23,901	11,424
Av. earnings per day per Handy size ship in USD	21,400	10,465
Av. earnings per day per Supramax ship in USD	21,629	11,564
Av. earnings per day per Ultramax ship in USD	32,461	13,782
Av. earnings per day per Supramax/Ultramax ship in USD	26,726	12,608
Operating cost per day per ship in USD	4,683	5,113
EBITDA in million USD	57.46	18.38
Net Profit (Loss) in million USD excluding exchange gain (loss) and non-recurring items	47.36	7.40
Net Profit (Loss) in million USD	47.95	8.21
Earnings (Loss) Per Share in Thai Baht excluding exchange gain (loss) and non-recurring items	1.05	0.17
Earnings (Loss) Per Share in Thai Baht	1.06	0.18

### Consolidated Financial Performance (Thai Baht Terms)

For the quarter ending 30 June 2023, the Company earned a net profit of Baht 285.87 million as compared to a net profit of Baht 1,659.65 million in Q2 2022. 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 2023 is 50% lower than the Net Vessel Operating Income recorded in Q2 2022. This is mainly due to a decrease in the average earnings per Vessel per day which decreased from USD 23,901 in Q2 2022 to USD 11,424 in Q2 2023, as a weak global macro environment took a toll on freight rates. As of 30 June 2023, the fleet constituted 38 vessels, compared to 36 vessels in the same quarter of last year.
- Vessel running expenses in Q2 2023 are 14% higher than the figure in Q2 2022, driven by higher dry-dock, victualling and stores/spares expenses. 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 4,683 for Q2 2022 to USD 5,113 for Q2 2023.

- Administrative expenses (including management remuneration) for Q2 2023 came in Baht 25.20 million lower than the figure in Q2 2022, mainly due to a decrease in variable compensation expenses.
- Finance cost for Q2 2023 was Baht 14.87 million higher than the figure in Q2 2022, due to an increase in the LIBOR/SOFR benchmark rate.
- Gain on derivatives for Q2 2023 of Baht 15.26 million was realized due to the unwinding of several interest rate swap agreements.
- Exchange gain for Q2 2023 of Baht 12.93 million, was mainly on account of changes in the US Dollar equivalent figure of our Thai Baht liabilities.

For the six-month period ending 30 June 2023, the Company earned a consolidated net profit of Baht 364.56 million compared to a consolidated net profit of Baht 2,953.57 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 2023 is about 50% lower than the figure during the same period last year. This is mainly due to a decrease in the average earnings per Vessel per day which decreased from USD 22,956 in the first half of 2022 to USD 10,727 in the first half of this year, as a weak global macro environment took a toll on Dry Bulk Freight rates. As of 30 June 2023, the fleet constituted 38 vessels, compared to 36 vessels in the first half of last year.
- Vessel running expenses during the first half of 2023 are 15% higher than the figure during the same period last year, mainly due to higher dry-dock, victualling and stores/spares expenses. 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 4,797 in the first half of 2022 to USD 5,172 during the first half of this year.
- Administrative expenses (including management remuneration) for the first half of 2023 came in Baht 45.01 million lower than the same period last year, mainly due to a decrease in variable compensation expenses.
- Finance costs during the first half of 2023 were Baht 36.63 million higher than the same period last year, due to an increase in the LIBOR/SOFR benchmark rate.
- Gain on derivative during the first half of 2023 of Baht 15.26 million was realized due to the unwinding of several interest rate swap agreements.
- Exchange gain for the first half of 2023 of Baht 37.49 million, was mainly on account of changes in the US Dollar equivalent figure of our Thai Baht liabilities.

## Update on the Chayanee Naree

There was a hearing at the Federal High Court of Nigeria in Lagos in July 2023. During this hearing, the prosecution witness testimony was concluded. Subsequently, on 27 July 2023, the Company's lawyers filed 'no-case' submissions, contending that the prosecution has not presented sufficient evidence against the crew and the vessel, and therefore, the charges should be dismissed without the defense having to present its own case. Following this, the parties will have the right to exchange their responses to these submissions. The next hearing is scheduled for 13 October 2023, where

oral arguments regarding the no-case submissions will take place. The Company should receive a decision on the submissions about a month later. 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 579 points, as derived from an average Time Charter (TC) rate of USD 10,414 per day. In comparison, our Handy size fleet earned USD 10,465 and outperformed the BHSI TC rate by 0.49%. The Baltic Supramax Index (BSI) averaged 978 points, as derived from an average TC rate of USD 10,763 per day. In comparison, our Supra/Ultra fleet average earnings were USD 12,608 per day and outperformed the BSI TC rate by 17.14%. Our target has been to outperform both the indices.

**The next SET Opportunity Day** will be virtually held at 15.15 hours on the 9th 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 Q1/2023 held on 10th of May 2023 on the SET website/YouTube had 245 views and 64 on Facebook for a grand total of 309 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 23% with a visible revenue stream of USD 168.06 million.

Year	2023	2024	2025	2026
Total Available Days	13,870	13,908	13,870	13,870
Fixed T/C Days*	6,940	2,212	1,825	1,825
% age Fixed T/C Days	50%	16%	13%	13%
Av. T/C Rate/Day in USD**	12,251	13,533	14,550	14,550
Contract value in million USD	85.02	29.94	26.55	26.55

\*This comprises charters on 5 ships on fixed rate charter and 17 ships on variable rate charters

\*\*Average T/C Rate/Day for the variable rate charters is estimated based on actual earnings for Q1&2 2023 and rates prevailing in July 2023 for the period thereafter.

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

## BDI Developments and our read of the market

- 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. At the start of Q3 these figures were 8.24% (20+ year old fleet) and 7.36% (forward order book.)

- Supply-demand has been in 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.
- During FH 2023, the global economy has done better than anticipated. In the SH, USA and the Euro zone may become areas of weakness if their economies enter a mild recession. Demand for manufactured goods has been weak, as a result, commodity prices have fallen as has their volatility. Unfortunately, the economic expectations of China exiting Covid 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 to date in the freight markets, and disruptions to established trade routes have boosted ton-mile demand. The recent closure of the BSGI removes some 3 MMT of monthly grain cargoes and removes the tying up of tonnage in that area due to the inefficient delays of about a month between in/out inspections per voyage. However, this same grain will now have to come from some further away countries and will add to the ton-mile demand.
- According to Bloomberg (25 Jul 23), China is adding new measures to stabilize and grow their economic recovery targeting the real estate sector.
- There is no playbook for dealing with a pandemic recovery, where we are not reverting to pre-pandemic behavior nor to prior levels of investment and economic growth. On top of that you have the end to a prolonged period of near zero interest rates post-GFC and the return of 'sticky' inflation. And then you have 17 months of the largest European war since 1945, with no end in sight. These events have combined to make for an unusually challenging economic and geopolitical backdrop. For bulkers, the expectation remains that supply-side discipline will be rewarded even if demand growth is half-hearted.
- [An article by Ruchir Sharma](#), chairman of Rockefeller International, in the FT points out that Wall Street's forecasts are more optimistic than Beijing's growth target. Chinese consumers accumulated excess savings during the pandemic worth 3% of GDP, in the US it was 10%. While the US got a big reopening boost from stimulus, China did not get one. Chinese consumer debt has doubled in the past decade to 30% of disposable income (10% in the US) and urban youth unemployment is at 20%. If Ruchir Sharma is right, dry bulk shipping will be adversely affected.
- According to [this article in the FT](#), the American consumer is not ready to throw in the towel and has much more than \$1.1t in excess savings to spend. The authors therefore throw cold water at those crying [wolf] recession.
- According to [a Reuters special report](#) human encroachment into the animal kingdom has created conditions ripe for another bat-borne disease to spill over to humanity, with more than 20% of the world's population living in such 'jump zones.' Covid allowed profits for shipping to increase significantly starting six months after the WHO defined it as a pandemic, and not a single shipping-pundit predicted that. Here we have 9m square KMs in 113

countries that could create similar zoonotic black-swan events, with similar impacts on shipping.

- A news article from Bloomberg claims that 70% of guidance by companies is inaccurate on key numbers that investors rely upon. We do not, as you may know, release any forward-looking statements to any of our regulators or investors.
- 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, and though the ton-mile demand rate has been steadily falling from 2003-2009 (+5.4% per annum) to 2023 (+3.27%e), as excess supply has been finally absorbed, the very marginal increase in ton-mile demand in 2021 (3.68%) compared to the reasonably robust net increase in supply (3.55%), managed to push the BDI to a 13-year high of 5,650 points in October 2021.
- The BDI averaged 1,157 points in the FH of 2023, which was -49% as compared to 2,279 points in FH 2022. If you look at the individual sectors/index ships, in FH 2023 as compared to FH 2022, then Capes averaged TC of \$12,249 compared to \$18,089 (-32%), Panamaxes averaged TC of \$11,772 compared to \$24,876 (-53%), Supras averaged TC of \$10,457 compared to \$26,983 (-61%), and Handy sizes averaged TC of \$10,047 compared to \$25,782 (-61%). So, all sectors of the dry bulk market underperformed the time charter rates in FH of 2022.
- Though China's demand grew in FH 2023 it was much lower than anticipated when compared to other countries that exited Covid but looked high due to the low base effect as covid-zero lockdowns kept large portions of the Chinese population away from their jobs/livelihoods for about 2 to 3 months in FH 2022. As a result, the Chinese government has put massive stimulus plans in place, \$1.8 trillion according to a Bloomberg article dated 10th April 2023, to combat the slower demand growth. That has led to greater imports of iron ore, coal, and soybeans in FH 2023. Climate change has increased summer temperatures to record highs adversely affecting crops disrupting normal trade flows and adding to ton-mile demand, increased power requirements, and increased power generation.
- 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 3.0% for both 2023 and 2024. Besides, dry bulk demand has decoupled from world GDP growth rates and is now more dependent on government stimulus, impact from El Nino and La Nina, climate change, geopolitics, inefficiency, lockdowns, congestion etcetera.
- 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.
- Consumers should not be counted out. US households have a cash cushion to help navigate high inflation. And lest we forget, consumer spending accounts for 70% of US GDP growth rates.
- If you see the expected ton-mile demand for 2023 (Clarksons estimated it at +1.59% in Jan, revised it up to +1.92% in Mar, and revised it up again to +3.27% in Jun 23), China's dramatic

increase in imports in the FH, and the expected supply side growth, we should have had a much stronger FH than we have had. If you look at the index ships Time Charter earnings in FH 2023, they have been weak and certainly cannot be justified if you take just the ton-mile demand growth into account. It is the reduction in the inefficiency in the dry bulk fleet, coupled with the existing obstacles in the ROW with zero economic stimulus (other than by China and Japan), QE tapering, interest rates hiked at a record pace, threat of global stagflation, China's economy growing at a slower speed compared to other countries' exit from Covid, and the Russia-Ukrainian war, that has reduced rates in FH 2023. Overall, dry bulk has still done reasonably well when you consider all these factors. 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. Unfortunately, the drop in inefficiencies in the world fleet due to Covid-19 restrictions/delays fading away, has kept rates under check.
- 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, for reasons best known to their government, 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.
- Real Estate Foresight, a research firm, presents three key arguments to counter the overly pessimistic outlook on China's real estate sector:

**Significance of Urban Household Growth:** Since the late 1990s, a series of major property market reforms in China led to a remarkable increase in urban households, rising from 122 million in 1999 to 351 million in 2022. During the same period, 202 million 'modern housing' units were sold in Urban China. A substantial portion, about 160 million urban households, still reside in houses built before 1999, providing a sizable market opportunity for real estate developers focused on modern housing.

**Demographics in Urban Areas:** While the mainstream media emphasizes the deteriorating demographics in China's overall population, a deeper analysis reveals that this challenge primarily pertains to rural regions. When examining the population change in urban China from 2010 to 2020, there was an increase in all age categories except the 20-29 age group, which declined, though to a much lesser extent than the national average. This distinction is crucial as the 'new home sales' market primarily caters to the urban population, especially those seeking 'modern housing.'

**Realistic Construction Supply:** Reports quoting roughly 7 billion sqm of under-construction gross floor area in official statistics give the impression that China is overbuilding and exceeding its demand. However, upon deeper analysis, it is evident that nearly half of this

figure consists of stalled projects that began construction over 5 years ago and should not be considered as part of future supply.

Contrary to what the headlines may imply, when one considers the Chinese government's goal to increase the urbanization rate from 65% in 2022 to 75% by 2035, thereby adding 10 million urban residents each year, coupled with a growing urban demographic, aging housing stock, and a relatively moderate supply picture, it suggests a more optimistic outlook for the property sector in the near to medium term.

- China's iron ore imports will rise in 2023 due to steel mills using more ore and less steel scrap in production, as scrap is more expensive.
- The Russian-Ukrainian war is heaping uncertainty onto a world that was getting to grips with the Covid-19 pandemic, while facing the fastest spike in interest rates to combat 'sticky' inflation. It appears that the cure has worked with inflation falling in almost every country. However, with Russia and Ukraine again at loggerheads on the extension of the Black Sea Grain Initiative, the regular source of grain cargo from the Black Sea has had a hard stop. And there is the fear that the ROW will fall into a recession due to QE taper combined with much higher interest rates strangling economic growth. This last outcome appears to have been avoided, but it is early days, and we need to see inflation fall far enough for the ROW central banks to restart the easing cycle again.
- When 4 times as much DWT is delivered annually (2012 & 2016) as is ordered, then the BDI has increased in the subsequent year (+31% in 2013 and +70% in 2017). In 2020 48.66 MDWT was delivered, while 13.86 MDWT was ordered (or 4 times), and the BDI for 2021 at 2,943 points was 176% higher than the BDI in 2020 at 1,066 points. In 2021 37.62 MDWT was delivered, while 37.65 MDWT was ordered, and the BDI for 2022 at 1,934 was 34% lower than the BDI in 2021 at 2,943 points confirming this rule still holds good. In FH 2023 19.25 MDWT was delivered, while 14.42 MDWT was ordered, and the BDI for FH 2023 at 1,157 was 49% lower than the BDI in FH 2022 at 2,279 points. This again proves this rule holds good and points to a weaker 2023 compared to 2022.
- Due to the ongoing Russia-Ukraine war, coal is being shipped from Australia to Europe, resulting in significant increase in ton-mile demand from alternate coal suppliers.
- India banning export of all rice except Basmati rice, will halve annual exports, and increase ton-mile demand for Rice from Thailand, Vietnam, China, replacing Indian rice, to West Africa.
- 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 2023 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 population.
- The sharp slowdown in the demand for cyclically sensitive commodities, particularly outside China, has affected dry-bulk freight rates. Nevertheless, the trade growth of commodities with secular demand continues in line with historical trends. Over time, we expect the trade of commodities with secular growth to more than 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.



- 18.5% of Chinese iron ore imports came from Brazil (106.6 MMT) up +5.0% and 64.2% from Australia (370.2 MMT) up +4.1% in FH 2023. As longer ton-mile from Brazil replaced the shorter ton-mile from Australia, it positively affected the Cape sector in FH 2023.
- World steel production reached 943.9 MMT in FH 2023, down -1.1% from FH 2022.
- China's PMI index was 49.0/50.3 during Q2/FH 2023 indicating a slower exit from Covid.
- China's Q2 2023 GDP growth was 6.3%. The Chinese government have taken several measures to stimulate their economy and we hope to see sustained demand for SH 2023.
- The orderbook to fleet ratio at the start of Q3 2023 for the dry-bulk sector was 7.36% (8.86% for the geared sector and 6.55% for the gearless sector) one of the lowest readings for over two decades!
- During Q2 2023 0.89 MDWT of ships were recycled across the dry bulk fleet compared to 0.62 MDWT (up by +44%) in Q2 2022. The existing age profile at the start of Q3 2023 of 80.97 MDWT or 8.24% (12.33% in the geared segment and 6.02% 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 7.36% (order book up to end 2026 compared to net supply at the start of Q3 2023), would make the world dry bulk fleet grow at a slower pace.
- According to Clarksons expectations, ton-mile demand will grow by 3.27% and 2.54% compared to net supply growth of 3.6% and 1.8% in 2023 and 2024, respectively (demand and supply forecast dated 30th June 2023). 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 3.7% in 2023, with minor bulks growing at 2.5%, according to Clarksons.
- Ships 20 years or older, comprising about 80.97 MDWT or 8.24% of the existing fleet (42.67 MDWT of the geared fleet or 12.33% and 38.30 MDWT of the gearless fleet or 6.02%) at the start of Q3 2023 would be ideal candidates for recycling in 2024 under the new IMO regulations of EEXI/CII.
- Healthier recycling is expected during 2023/2024 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.

## The EU and Coal Imports:

In the FH of 2023, global coal imports were up 15.6% y-o-y to 636.2 MMT, while the EU imports were down 14.8% y-o-y to 48.8 MMT. The EU's coal imports in 2021 increased by 29.8% y-o-y to 86.8 MMT. In 2022, coal imports into the EU increased by 32.8% y-o-y to 115.3 MMT. In 2021, as much as 44% of the EU's coal imports were sourced from Russia.

## Supply Side Developments:

We started 2023 with 966.03 MDWT and have increased to 982.74 MDWT (+1.73%) at the start of Q3 2023. If we were to apply slippage of 15% (it was actually 19.76% for FH 2023) to the scheduled deliveries in the SH of 2023 and 2024 and assume recycling reaches 8 MDWT (it was actually 2.55 MDWT during FH of 2023) we would be left with a net fleet growth of 2.70% (966.03 MDWT to 992.08 MDWT of which 340.73 MDWT to 349.58 MDWT for the geared sector +2.60%, 625.30 MDWT to 642.50 MDWT for the gearless sector +2.75%) by end of 2023 and 2.05% by end of 2024

(992.08 MDWT to 1,012.40 MDWT of which 349.58 MDWT to 359.67 MDWT for the geared sector +2.89%, 642.50 MDWT to 652.74 MDWT for the gearless sector +1.59%) Congestion, ballasting ships, slowing speeds, especially in 2024 due to EEXI/CII regulations, will further assist in supply side tightening.

## Container Shipping

Rates on containers have come off their astronomical heights reached in 2020 to 2022. Spot rates are back to pre-pandemic levels except in the Asia-Europe trade, where they remain stronger, and in the long-haul trades, where they are weaker till the end of June. Since then, rates have spiked upward by 27% from the June levels. Annual contracts are expected to be signed at 15 to 20% above pre-pandemic levels, so earnings for most lines will continue to fall quarter over quarter in 2023 and into 2024. However, if peak season liftings are higher, it may allow SH 2023 rates to strengthen if trade volumes increase. The tsunami of new container ships has started to arrive but is not being offset by recycling enough older ships. This is forcing lines to add more ships to each loop, but demand is not growing or growing marginally. Blanked sailings will allow more ships to be absorbed in each loop whilst maintaining scheduled sailings. Lines will try and delay deliveries of new ships, cancel those that they can, and increase recycling of older units dramatically. Slow steaming will become the norm for the next few years, will help absorb more ships, reduce GHG emissions, and allow lines to comply with GHG regulations under EEXI/CII. All this will force lines to face a longer period of sub pre-pandemic rates and reduced profits, or losses in the future. But we are talking about shipping where rates change on a dime.

## The Russia-Ukraine war

- [This article, covering a briefing](#) made to the UN Security Council on 11 July 2023 raises interesting points on who bombed the Nord Stream pipelines. But if you ever had any doubts about who was responsible for the pipeline bombing, [this short video should put that to rest](#).
- This [Reuters article dated 4 July 2023](#) explains that the Russia-Ukraine war has benefitted the fossil fuel industry, increasing global warming, with millions of dollars being pumped into brand new oil and gas facilities.
- The Eisenhower Media Network had [an interesting article](#) in which they state "As Americans and national security experts, we urge President Biden and Congress to use their full power to end the Russia-Ukraine War speedily through diplomacy, especially given the grave dangers of military escalation that could spiral out of control. Sixty years ago, President John F. Kennedy made an observation that is crucial for our survival today. 'Above all, while defending our own vital interests, nuclear powers must avert those confrontations which bring an adversary to a choice of either a humiliating retreat or a nuclear war. To adopt that kind of course in the nuclear age would be evidence only of the bankruptcy of our policy—or of a collective death-wish for the world.'"
- Finally, leaders are now talking about organizing peace talks between Russia and Ukraine. [This article from Salon states](#) 'Now that the war has dragged on for over a year with no end in sight, other leaders have stepped forward to try to push both sides to the negotiating table. In an intriguing new development, Denmark, a NATO country, has stepped forward to offer to host peace talks. On May 22, just days after the G7 meeting, Danish Foreign Minister Lokke Rasmussen said that his country would be ready to host a peace summit in July if Russia and Ukraine agreed to talk. "We need to put some effort into creating a global

commitment to organize such a meeting,” said Rasmussen, mentioning that this would require support from China, Brazil, India, and other nations that have expressed interest in mediating peace talks. Having an EU and NATO member promoting negotiations may well reflect a shift in how Europeans view the path forward in Ukraine.’

- [Seymour Hersh’s latest article](#) states: Secretary of State Antony J. Blinken in a June 2 speech in Helsinki welcomed Finland as NATO’s newest member state. A career hawk when it comes to Russia, he outdid himself in the fierceness of his commitment to the Ukraine war. ‘Now, over the coming weeks and months,’ Blinken explained, ‘some countries will call for a ceasefire. And on the surface, that sounds sensible—attractive, even. After all, who doesn’t want warring parties to lay down their arms? Who doesn’t want the killing to stop? But a ceasefire that simply freezes current lines in place and enables Putin to consolidate control over the territory he’s seized, and then rest, re-arm, and re-attack—that is not a just and lasting peace. It’s a Potemkin peace. It would legitimize Russia’s land grab. It would reward the aggressor and punish the victim.’ Dramatically opposite the views expressed in the earlier article from Salon where others are actively looking for an end to this senseless war.

## Inequality

- Climate change, its heat, drought, floods, death, and destruction affect the poor in the global south far more than the developed north. Disruption from war, climate change, and other crises affects prices of food, fuel, and fertilizers. Once again, the impact is felt deeply by the poor in the global south. As if to say that the lot of the poor wasn’t bad enough, now they have these additional burdens to bear with no relief in sight, neither from nature mangled by the GHG emission from the industrialized countries over the last 2 centuries, nor from the developed north in the form of promised climate relief funds which have yet to appear.
- The killing of Floyd George in Minnesota, and Nahel Merzouk, an unarmed teenager in Paris, are indicative of the underlying issues of deep-seated racism, hypocrisy, deprivation, poverty, and unemployment faced by people of color in the West. An example of the Western hypocrisy is the 24/7 news coverage of the 5 super-rich who died in a submarine, while a dangerously overloaded boat carrying over 750 colored migrants, including more than 100 children, in the Mediterranean was shunted out of Greek waters, to sink literally minutes later, with the loss of hundreds of lives, and their deaths receiving scant media attention. [This article written by Andrea Mazzarino on 20 July](#), used Google search to discover there were 483,000 search results in 1 second for ‘migrant ship’, yet the search for ‘titan submersible’ got 79.3m hits in less than half a second. All life is important, but some are more important than others.
- An article titled [‘No, we are not all to blame for poverty’](#) states “For centuries, US capitalism has let a minority profit while leaving millions of others destitute. Desmond wants to connect — and create a causal relationship between — omnipresent poverty and all the ways in which the well-to-do are subsidized. It is not, in Desmond’s telling, the government or multinational corporate monopolies that produce and reproduce poverty: rather, it owes to a myriad of interchanges, scalable from an everyday cheap product bought without care for the worker, to a tax break exclusively for homeowners. What truly entrenches poverty is the exchange between those with and those without.”

## Climate Change

- The summer of 2023 could be characterized as ‘the summer of our lives’ where extreme climate change has brought droughts followed by extreme heat, fires, haze, death, and destruction. Then, the heavens seemed to open, rains, storms, floods, death, and destruction followed. These are not isolated events, but country after country has been forced to face them affecting millions of people. Climate change is no longer a fairy tale, or a nightmare. Climate change is real, it is here, and it is now.
- Shockingly, [this article from Reuters](#) dated 10 July, confirms that the militaries around the world have been exempted (!?!?) from disclosing, much less, reducing their GHG emissions. The article states, ‘As temperatures hit new highs, scientists and environmental groups are stepping up pressure on the UN to force armies to disclose all their emissions and end a long-standing exemption that has kept some of their climate pollution off the books. Among the world's biggest consumers of fuel, militaries account for 5.5% of global GHG emissions, according to a 2022 estimate by international experts.’
- The impact from climate change could increase inflation by 1% a year over the next decade, with food prices rising by 3% per annum due to crops feeling the ‘heat’ literally.
- Kelly Shue at Yale School found that the average ‘brown’ firm has 261x the emissions of the average ‘green’ firm.
- China will account for 55% of all global additional renewable power capacity in 2023 and 2024!
- Extreme heat in India is 30 times more likely due to Climate change.
- Climate change has burnt 10 to 15 times the area in Canada by end June 2023 than the 10-year annual average.

## Regulations

- The FT in an article titled [“China urges developing countries to oppose ‘unrealistic’ shipping levy”](#) dated 2 July 2023, argues that ‘China has urged poorer countries to oppose a levy on shipping emissions and stronger targets for decarbonizing one of the world’s most polluting industries, criticizing wealthy nations for setting “unrealistic” goals with “significant” financial costs.’ But this, and most other articles on decarbonization, are silent about the Livestock Industry that accounts for 15% of GHG emissions, while shipping that carries 90% of all cargoes in the world accounts for a mere 2.1-2.3% of all GHG emissions, according to Clarksons. Could it be that the FT fears blowback from this Industry, just as the silent politicians are, when it comes to decarbonizing the Livestock industry? And there is absolutely no talk in the FT about decarbonizing the armies of this world that are responsible for 5.5% of all GHG emissions.
- With the right ambition IMO can still make itself more relevant. Unfortunately, the MEPC did not go far enough to meet expectations at the IMO in London in early July. It was a crucial meeting, and one where concrete action was needed to ensure the industry was given the regulatory guidance it needs on its path towards zero GHG emissions. MEPC 80 achieved some goals, but the major goal of a Carbon Tax was the missing elephant in the room.

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 CO<sub>2</sub> 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 \$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 2027. This would delay the IMO achieving the following 7 things.

1. Annual resources (~\$90-\$100b) available with IMO exclusively for decarbonizing shipping.
2. Not prevent other 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 other 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. The earliest start has been pushed back to 2027.
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 zero-emission vessels (ZEVs) they need to build each year to get shipping to zero GHG by 2050.

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 any deadlines.
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 getting to 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 up such a hard stop for discussion at MEPC 80 nor in the future. This will hamper the IMO from achieving the following 9 things:

1. Immediately reducing GHG emissions from 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 money to order the much more expensive ZEVs that will bring us to zero GHG. Dr. Martin Stopford, the eminent shipping economist stated, replacing fuel-burning ships with ZEVs will cost between \$1t to \$1.5t all things going well, or \$2t to \$3t with all things going poorly. How will this massive investment ever 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 out 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.

- [This article from Bloomberg supporting the use of nuclear energy onboard ships](#), states ‘the trend of the shipping industry over the past decade has been one of consolidation among a handful of national champions in China, Japan, South Korea, Taiwan, and Europe. A network where nuclear-powered megaships ply trunk routes between the biggest ports while alternative-fueled feeder vessels supply smaller harbors would closely resemble the structure the industry is already developing. If we want the shipping trade to get all the way to net zero, nuclear may be the only way to achieve it.’

We think the above proposal, by David Fickling, is at best wishful thinking, for the following reasons.

1. Nuclear has no GHG emissions and is very energy dense. If, and this is a gigantic if, it could be deployed safely, it would be able to assist the shipping industry achieve net-zero more rapidly than by using any other alternate fuel. The huge upfront capital cost and operational expenses, however, make it much too expensive to deploy or to maintain.
2. We cannot convince the public or ‘greens’ to reopen nuclear power in places where there is an urgent energy crisis like Germany, imagine trying to adopt it on the seas where everyone’s access to ‘marine food’ will be at stake. Look at the reaction from South Korea and China to the release of treated radioactive water into the Pacific Ocean from the Fukushima plant. If you thought these were imaginary fears/reactions, please [read this article in The Guardian](#) dated 24 July 2023 which opens with ‘A fish living near drainage outlets at the Fukushima Daiichi nuclear power plant in May contained levels of radioactive cesium that are 180 times Japan’s safety limit.’ And then [there is this article](#) that describes nuclear weapons waste as ‘The toxic legacy of nuclear weapons production is far from being resolved, with the United States government currently leaving behind 54 million gallons of radioactive sludge for future generations to deal with at the Hanford Site in Washington State, a major plutonium processing facility during the Cold War. Enough said.
3. Then you have the NIMBY (not in my backyard) people to contend with. Would countries allow such ships in their territorial waters? What about piracy and or terrorists getting their hands on such a ship? Whose responsibility would it be in case of a mishap? The owner? The operator? The manufacturer of the reactor? The Class that has certified it as safe? The flag State? How would these ships be decontaminated and scrapped? And which country would allow such ships to be scrapped in their backyard?
4. Molten Salt Reactors (MSR) that are being touted as the savior, have yet to get a proof-of-concept prototype in action. The prototype will be ready by 2030 and will be fitted onto a ship by 2035 at the earliest, all going well. The issue is that the MSR will cost more than the ship!
5. Small Modular Reactors (SMR) are another nuclear solution that could be used onboard ships with all the attendant risks. Again, cost would be an issue, and management a bigger headache. With all the rules and regulations that we currently have for our officers and crew, and their certification, we still have accidents and ships sinking. How would that sit with the NIMBY crowd when a nuclear fueled ship sinks in their port waters?
6. To get the world shipping fleet to zero GHG via nuclear power on ships would take much longer, be more expensive, require very detailed regulations, require a level of training and certification that ordinary seamen may be incapable of passing. And I could go on.
7. Medical equipment that uses very small doses of radiation, manufactured by extremely capable engineering corporates, still have an almost impossible time to get their equipment cleared in different countries, yet we have Bloomberg pushing nuclear energy on ships as the solution.
8. Nuclear waste, currently carried on board very few ships, finds it extremely difficult to get insurance coverage for third party liability, so what would be the cost of insurance for the

commercial fleet of over 100,000 ships powered by MSRs or SMRs? And where are the brave underwriters that would insure such risks?

9. Yes, land based nuclear powered reactors are essential if we need to get enough 'green' energy to produce green Ammonia which is the least bad option to get us to zero GHG.
- [In this article debunking nuclear energy as the savior](#), Joshua Frank writes, 'In a [recent interview with ABC News](#), Bill Gates couldn't have been more candid about why he has embraced the technology of so-called small modular nuclear reactors, or SMRs. "Nuclear energy, if we do it right, will help us solve our climate goals," he claimed. As it happens, he's also invested heavily in an "advanced" nuclear power start-up company, TerraPower, based in Bellevue, Washington, which is hoping to build a small 345-megawatt atomic power reactor in rural Kemmerer, Wyoming. The nuclear industry is banking on a revival and placing its bets on SMRs like those proposed by the Portland, Oregon-based [NuScale Power Corporation](#), whose novel 60-megawatt SMR design was approved by the [Nuclear Regulatory Commission \(NRC\)](#) in 2022. While the underlying physics is the same as all nuclear power plants, SMRs are easier to build and safer to run than the previous generation of nuclear facilities — or so go the claims of those looking to profit from them.'
  - According to BIMCO, "Over 15,000 ships could be recycled over the next decade, more than twice the amount recycled in the previous ten years, providing great potential for the circular economy. But it must be done the right way. The Hong Kong Convention will allow for the safe and environmentally sound recycling of ships. We need ship owners to choose globally compliant yards. We need the Hong Kong Convention to enter into force now." This [video from BIMCO](#) says it all. The good news is that the Hong Kong Convention has finally come into force.

## Inequality News

Carl Icahn's fortune fell 41% to \$14.6 billion, dropping him from the world's 58th-richest person to the 119th. (Bloomberg – 2 May 23)

Median pay for top US CEOs rose 7.7% in 2022 to a record \$22.3m as big stock awards helped them stay ahead of inflation. (Reuters – 5 May 23)

CEO pay for companies in the S&P 500 Energy Sector Index was worth roughly \$500 million, up sharply from earlier estimates of \$187 million. How are they managing this? Well, they tie their performance to total shareholder return – which is then of course compared against other energy companies, all of whom are getting hit at the same time. (Reuters – 5 Jun 23)

He was born with only one nostril, and a keyhole-shaped pupil in his right eye covered by a deformed lid. He survived, and his early childhood was marked by dozens of surgeries to address the birth defects that his mother, a worker at a DuPont plant in West Virginia, initially struggled to explain. A group of researchers at the University of California, San Francisco conducted a detailed analysis of hundreds of pages of previously secret documents from DuPont and 3M that outlined the efforts by the companies to hide the risks associated with the group of man-made 'forever chemicals' commonly known by the acronym PFAS (pronounced: pee-fass.) Exposure to forever chemicals can increase the risk of cancer and a range of other health problems. (Inside Climate News – 27 Jun 23)

One in seven people in the UK faced hunger last year because they did not have enough money, according to a report published by food bank charity the Trussell Trust. (Reuters – 28 Jun 23)

Apple made Wall Street history as the first company with a market value of more than \$3t, the latest sign of big tech's seemingly unstoppable dominance in equity markets. (Bloomberg – 30 Jun 23)

The world's 500 richest people added \$852b to their fortunes in the first half of 2023. Each member of the Bloomberg Billionaires Index, including big names like Mark Zuckerberg and Elon Musk, made an average of \$14m per day over the past six months, according to Bloomberg. It was the best half-year for billionaires since the back half of 2020, when the economy began to rebound from the Covid-19 recession. (Bloomberg – 3 Jul 23)

Blackstone paid CEO Stephen Schwarzman \$253m in 2022, making him the highest-paid executive. Nine CEOs had pay packages over \$100m, a group that does not include Apple CEO Tim Cook, who earned a measly \$99m. Fewer CEOs are getting bumper compensation packages as companies trim equity awards for top executives. (WSJ – 4 Jul 23)

## Economic News

Three out of four financial professionals say their companies' earnings would fall within the guidance they give investors. But a new analysis shows that isn't exactly the case. Companies' guidance is inaccurate 70% of the time on key numbers that influence investors. (Bloomberg – 23 May 23)

Central European companies are scouting out locations, signing contracts, and launching projects, seeking a foothold for future reconstruction work in Ukraine that could be worth hundreds of billions of dollars. (Reuters – 26 May 23)

China is working on a new basket of measures to support the property market after existing policies failed to sustain a rebound in the ailing sector. Regulators are considering reducing the down payment in some non-core neighborhoods of major cities, lowering agent commissions on transactions, and further relaxing restrictions for residential purchases. News of the potential measures buoyed hopes that Beijing will roll out policy stimulus to reinvigorate a faltering economic recovery. (Bloomberg – 2 Jun 23)

Chinese authorities are said to have asked the nation's biggest banks to lower deposit rates for at least the second time in under a year, marking an escalating effort to boost a troubled economy. Beijing has rolled out a raft of such measures to address the consequences of industry crackdowns and lengthy Covid-19 lockdowns. The government is seeking to boost lending after recent data showed a slowdown in its nascent recovery. (Bloomberg – 6 Jun 23)

China's exports slumped 7.5% year-on-year in May, much larger than the forecast 0.4% fall and the biggest decline since January. Imports contracted 4.5%, slower than an expected 8.0% decline and April's 7.9% fall. The figures add to a growing list of indicators that suggest the country's post-Covid economic recovery is quickly losing steam. (Reuters – 7 Jun 23)

The inverted yield curve is the warning sign that cried wolf. It has stayed inverted for so long, almost a full year, that stocks have become used to it as background noise. Equities have undoubtedly been buoyed by the slowdown in the pace of the Fed Reserve's epic tightening campaign, and



expectations it will soon halt, or even reverse. If bonds are right that a recession will hit, then the most likely time for it to strike is around the time the Fed stops hiking. (Bloomberg – 8 Jun 23)

The EU economy was in technical recession in the first three months of 2023, data from Eurostat showed, after downward revisions of growth in both Q4 of 2022 and Q1 2023. The euro zone GDP fell by 0.1% in Q1 compared with Q4 of 2022. (Reuters – 8 Jun 23)

The Federal Reserve kept its key interest rate unchanged Wednesday after having raised it 10 straight times to combat high inflation. But in a surprise move, the Fed signaled that it may raise rates twice this year, beginning as soon as next month. (Boston Globe – 14 Jun 23)

“The consensus view continues to stubbornly call for a recession shortly,” Stephen Stanley, chief US economist at Santander US Capital Markets, said in a note. “But the economic data are telling a far different story.” That story was in the latest reports on retail sales, inflation-adjusted consumer spending, and the job market. (Bloomberg – 27 Jun 23)

China's iron ore imports are set to rise in 2023 for the first time in three years, due to steel mills using more ore and less steel scrap, as scrap has become more expensive. (Reuters – 11 Jul 23)

The hottest June on record has been followed by an early July that now includes 10 of the hottest days in history. Heat waves are suffocating the US, much of Europe and parts of Asia, while El Niño intensifies in the Pacific Ocean and the Atlantic waters off Florida hit an unprecedented 32.2C. It's already enough to put 2023 on a likely trajectory to become the warmest year since record-keeping began in the 1800s. Earth has already warmed 1.2C since the preindustrial era due to growing greenhouse gas emissions in the atmosphere. This has resulted in a clear trend: 22 of the last 23 years were the hottest ever, according to NOAA. El Niño is just another type of extreme event that has gotten stronger in recent decades due to climate change. Since 1950, El Niños have been significantly stronger than any time from 1400 to 1950, according to a 2021 IPCC report. (Bloomberg – 17 Jul 23)

An extreme heatwave peaked in the western US on Sunday, with temperatures reaching 53 Celsius in the California desert, while flash flooding continued to menace the Northeast, killing at least five people. Nearly a quarter of the US population fell under extreme heat advisories. A remote township in China's arid northwest endured temperatures of more than 52 Celsius, state media reported, setting a record for a country that was battling minus 50C weather just six months ago. Meanwhile, Italy issued hot weather red alerts for 16 cities, with warnings that temperatures will hit record highs across southern Europe in the coming days. Spain, Italy, and Greece have been experiencing scorching temperatures for several days, damaging agriculture and leaving tourists scurrying for shade. (Reuters – 17 Jul 23)

China's economy grew at a frail pace in Q2 as demand weakened at home and abroad, raising pressure on policymakers to deliver more stimulus to shore up activity. GDP grew just 0.8% in April-June from the previous quarter, compared with a 2.2% expansion in Q1. (Reuters – 17 Jul 23)

China's Evergrande posted losses of more than \$81b over two years as the world's most-indebted developer released its long-delayed results in a bid to resume stock trading. (Bloomberg – 18 Jul 23)

China's top decision-making body signaled more support for the real estate sector alongside pledges to boost consumption and ease local government debt, though it fell short of announcing large-scale stimulus to support the slowing economic recovery. (Bloomberg – 25 Jul 23)

US economic growth picked up in Q2 due to resilience among consumers and businesses despite high interest rates. GDP rose at a 2.4% annualized rate compared with 2% over Q1. Europe is a different story. Christine Lagarde is confronting how tighter monetary policy is driving the euro-zone economy to the ground while delivering a ninth consecutive interest-rate increase and said that the Governing Council is open to another potential hike in September. China's top housing official put pressure on regulators and lenders to strengthen efforts to revive the country's ailing property sector. Minister of Housing and Urban-Rural Development Ni Hong called for homebuyers who have paid off previous mortgages to be considered as first-time buyers, Xinhua news agency reported. (Bloomberg – 27 Jul 23)

## Supply Side news

In FH 2023, there was a total increase of 5.27 MDWT in the Handysize and Supra fleet, +16% y-o-y in DWT terms from 4.53 MDWT in FH 2022. Demolition is expected to increase in 2023 to 1.09 MDWT. In FH 2023, a total of 0.72 MDWT was recycled, +518% y-o-y from 0.12 MDWT in FH 2022. Net fleet growth for bulkers in the 20-64,999 DWT range is expected to continue at around +3% y-o-y in 2023, and then again at about +3% in 2024. The fleet grew by +3% y-o-y in 2022. Contracting activity has slowed down throughout 2022 after a quite strong 2021. The orderbook-to-trading ratio is still a relatively modest 8.4% in DWT terms. (Banchemo Costa – 12 Jul 23)

When we reviewed the orderbook in January our delivery forecast was for around 81% of the nominal orderbook to deliver, due to the usual combination of cancellations and slippage. As the market has deteriorated, there appears to be a growing number of cancellations together with increased slippage into 2024 so that we now forecast around 75% of the nominal orderbook to deliver this year. Looking historically delivery ratios tend to be linked to dry bulk market conditions with 2019 (75%), 2020 (76%) followed by 85% in the strong 2021 and 79% last year. Of the 37.6 MDWT slated for delivery at the start of the year we now expect just over 28 MDWT to deliver this year with the greatest reductions in the higher volume sectors of Panamax/Kamsarmax and Supra/Ultramax. (Howe Robinson – 21 Jul 23)

## Russia-Ukraine War News

The war in Ukraine is deepening the climate crisis. A new report calculates that the first 12 months of the war will trigger a net increase of 120 MMT of greenhouse gasses, equivalent to the annual output of countries such as Belgium. (Reuters – 6 Jun 23)

War-torn Ukraine is seeking up to \$40b to fund an initial phase of a "Green Marshall Plan" to rebuild its economy, a senior Ukrainian government official told Reuters ahead of a summit this week, co-hosted by Ukraine and Britain. (Reuters – 20 Jun 23)

Oil and gas companies have intensified the hunt for new deposits in a long-term bet on demand, as they reinvest some of the record profits from the fossil fuel price surge driven by the Ukraine war, according to data and industry executives. (Reuters – 4 Jul 23)

Chevron reported a preliminary \$5.8b in adjusted net income in the second quarter, a 52% decline from last year, when the war in Ukraine boosted profits. (WSJ – 24 Jul 23)

## Regulation News

Our latest estimates suggest shipping's emissions ("tank-to-wake" basis) will contribute 2.1% and 822 MMT of global CO<sub>2</sub> output in 2023 (<2% if all GHGs are considered). This is down marginally on 2022 (2.3%, 845 MMT) as slower speeds impact (container fleet all-time slow speeds in Q1). To put this in context, overall transportation contributes ~21% of global CO<sub>2</sub> (power generation is largest at ~39%), with road freight 6.5%, road passenger 9.7%, aviation 2.0% and rail 0.2%. Across the period 2009-2019, IEA shows both passenger vehicle and road freight CO<sub>2</sub> increased by ~20%, with growing vehicle volumes (~1bn to ~1.6bn) outweighing any fuel efficiency gains and early stages of electrical vehicle (EV) adoption. Aviation emissions data shows even greater growth (unsurprising as annual passenger numbers grew from ~2.5bn to ~4.6bn & air freight volumes grew ~25%). Rail emissions were stable and shrank in overall share terms. Our estimates for shipping suggest CO<sub>2</sub> emissions have declined by ~14% over the same period (with a declining global contribution 3% to 2.1%). Principally due to slow steaming response to structural over capacity in the 2010s (deep sea ships slowed down by ~15% between 2009 and 2019) with a smaller contribution from more efficient ships (in 2009 the "eco" fleet was negligible, by 2019 it was 18%, and next year project it to reach 32%) and alternative fuels (3% of fleet capacity by 2019, 5% today). Shipping's downward CO<sub>2</sub> emissions trend evolved while moving ~40% more cargo (8 vs 12 BMT). Shipping's carbon transportation efficiency also compares well: rail is x3 shipping and truck is over x10. Our decarbonization scenarios suggest a mix of inputs for shipping's pathway including slow steaming, retrofitting ESTs, fleet renewal, routing efficiencies, slower trade growth and a much larger role for alternative fuels (the ultimate choice of which is uncertain). Overall progress but, reflecting challenges specific to shipping, perhaps a bumpier pathway ahead. (Clarksons – 26 May 23)

If the IMO, the UN body which regulates shipping, taxed carbon emissions, it would encourage ships to go green faster. The body could then channel the money raised, perhaps \$100 billion a year, to poorer countries to help them cope with climate change. The time is ripe to push for a global levy. Though this would push up the cost of traded goods around the world, Maersk estimates it would only add a few cents to the price of a pair of sneakers. Shipping emits about 1 BMT in greenhouse gases (GHGs) each year. So, a levy of \$100 a tonne, which would make dirty fuels roughly as expensive as cleaner ones, would raise \$100b a year. Rich countries have made various promises to help poor nations meet the costs of transitioning to a zero-carbon economy but have so far struggled to find enough money to do the job. An annual pot of up to \$100b from shipping is one of the few practical large new sources of funding. The IMO's environment committee is expected to introduce a more ambitious strategy for curbing GHG emissions in July. The IMO could agree to a levy that will take effect from 2025. UCL's Smith, a close observer of IMO negotiations, says this is unlikely because there's not yet sufficient consensus. However, he believes the environment committee might set a later timetable for introducing a tax. Other observers think it could settle on the EU's proposal for a start date of 2027. The IMO normally moves slowly because it likes agreement among the governments which are its members. But it doesn't have to. It can take decisions based on a majority vote. It can also enforce its will. If a country refused to apply an agreed tax, the international shipping industry would effectively be unable to operate from its ports. The IMO has shown that it can move fast when there's an emergency. Climate change is also an emergency. The sooner the IMO gets cracking, the better. (Reuters – 12 Jun 23)

A demand signal, or demand aggregation, is needed to show that the shipping industry is ready to commit to future fuels in sufficient quantities for suppliers to deliver them. But the demand needs to be there as there are costs involved for the offtake of the fuel. It helps bring the market down to the level where they can do it themselves. Shipping lines, ports and governments could all help, Regulation was also a demand signal. Are there opportunities to aggregate demand, for example, between the power sector and the bunkering sector? Then you can have meaningful quantities. Ikea supply chain operations global sustainability manager Elisabeth Munck said it was important that sustainability should not come at a premium to the customer. Ikea was willing to collaborate and share the investments that are needed initially. We don't want to pay a forever premium, but we all know we need to make this transformation and there are initial investments that need to be made. Large-scale retailers had the buying power to push through changes in their supply chains. We have our targets, and we know we cannot reach these if we do not collaborate and have our service providers on board. We want to work with the ones who will share this journey with us. (Lloyd's List – 14 Jun 23)

Transport & Environment shipping program director Faig Abbasov said it's hard to think of an international organization more useless than the IMO, except for international football body FIFA. "This week's climate talks were reminiscent of rearranging the deckchairs on a sinking ship," he said. "The IMO had the opportunity to set an unambiguous and clear course towards the 1.5C temperature goal, but all it came up with is a wishy-washy compromise." (TradeWinds – 7 Jul 23)

## Shipping News

The ratio of the price of a 5-year-old ship to the newbuild price of a similar vessel is a classic shipping market indicator. Basis a 25-year lifetime, a 5-year-old ship, depreciating on an even basis (to zero), would be worth around 80% of the newbuild price (or a little more allowing for some scrap value; shorter or longer lifetime assumptions would also impact.) However, if investors feel market conditions are strong enough, or the lead-time for new buildings looks too long, they may be willing to pay a premium to get their hands on a secondhand vessel operating today (converse scenarios might suggest a discount.) In the bulker sector, the ratio for a Capesize stands at 88% (highest since 2011.) Bulker markets have picked up from a weak start to the year, and there is firm demand for assets on the water with the 5yo Capesize price rising this year to \$54.5m (the highest level since 2010), supported by strong market sentiment and limited availability. To put this into context, aside from during the recent container shipping market boom, the average of the 5yo ratios [for bulkers, tankers, and container ships] stands at its highest point for 13 years, despite relatively firm newbuilding prices. However, current ratios are well below previous highs in periods of very strong markets and acute interest in secondhand tonnage. Last year saw all-time high containership ratios, the Capesize ratio hit >110% in 2010 and 160% pre-financial crisis, whilst the Aframax ratio was ~110% in late 2005. Today's price ratios reflect current positive sentiment in many shipping sectors (though beyond the near term, the outlook in containers looks weaker.) These classic market indicators are still well worth checking up on. (Clarksons – 5 May 23)

2023 has started strongly, with relaxing of Covid restrictions in China from December lending support to import demand, alongside a range of other drivers. Dry bulk imports were key; volumes were up 13% y-o-y in Q1 and accounted for 60 MMT of total growth. Exports in tonnes have also started firmly overall, up 12% y-o-y in Q1. It's been a strong start to 2023 for Chinese seaborne trade, particularly imports. Some headwinds remain and growth could moderate going forward, but our full year growth projections (~4% for imports and ~2% for exports) point to a healthy rebound.

Given China's role as shipping's biggest market, this is a welcome positive trend. (Clarksons – 12 May 23)

South Korea's Daewoo Shipbuilding & Marine Engineering has notched up its 10th loss-making quarter and reported a net loss of \$90m for Q1 of 2023. (TradeWinds – 15 May 23)

Over the next ten years, 2023 to 2032, more than 15,000 ships of more than 600 MDWT are to be recycled, more than twice the amount recycled in the previous ten years. (BIMCO – 16 May 23)

India has been at the heart of several minor bulk trade shifts since 2020, including the sudden burst of wheat shipments in the aftermath of war in Ukraine. The potential for monsoon rains to subdue domestic steel demand, prompted speculation that Indian steel exports would rise in the near term. Indeed, after a spell of being a net steel importer, export volumes rebounded in April to 0.9 MMT. India's steel consumption will rise by 7.5% in the year to March 2024 thanks to infrastructure spend and the ongoing process of urbanization. For the 2024/25 (April-March) year the ISA anticipates growth of 6.3%. Braemar expects the strong Q1 for iron ore exports (mainly to China) of 11.7 MMT will be followed by an almost equally strong Q2 approaching 11 MMT. As one of the world's leading suppliers of sugar, export availability also shapes dry bulk trade flows. Fearing production shortfalls caused by El Nino, India has capped sugar exports until the start of 2024. Brazil's position as the largest sugar exporter in the world will therefore be consolidated, with sugar importers in West Africa, for example, reliant on Brazil. USDA projected Brazil's 2023/24 (April-March) exports at 32.4 MMT, up 4.2 MMT YoY. Some 3.4 MMT of exports were already confirmed in April/May. Brazil accounts for most of the USDA's global export growth expectations for 2023/24. (Braemar – 13 Jun 23)

Judging by official trade statistics and data from the International Grains Council, volumes from the world's major exporters of corn, soybeans and wheat are on course for a 5.7% annual growth in the first half of 2023. (Braemar – 15 Jun 23)

Brazilian iron ore exports rose 10% y-o-y in 1H 2023 to c.170 MMT following modest capacity increases and reduced weather disruption compared to last year; meanwhile, Australian iron ore exports totaled c.440 MMT in 1H, up 3% y-o-y partly owing to the ramp up of operations at South Flank, though coal exports fell 3% y-o-y amid heavy rainfall and railway maintenance. (Clarksons – 7 Jul 23)

Coal trade has really picked up pace and is now fully back to pre-Covid levels. In FH 2023, total seaborne coal loadings increased by a whopping +11.9% y-o-y to 637.1 MMT. This was well above the 569.5 MMT in FH 2022, the 560.5 MMT in FH 2021, the 560.3 MMT in FH 2020, and a shade below the 637.9 MMT in FH 2019. (Banchemo Costa – 11 Jul 23)

Spot charter rates for Handysize and Supras surged throughout 2021, and were very positive in FH 2022, before softening since 3Q 22. In FH 2023, the Baltic Supramax TC equivalent averaged 10,543 USD, -61% y-o-y, whilst the Baltic Handysize TC equivalent averaged 8,724 USD, -60.9% y-o-y. Benchmark newbuilding prices in June 2023 for a Supramax were estimated at \$35.8m, and for a Handy at \$30.5m. Indicative 5-year-old secondhand prices in June 2023 for a 64K Supramax were estimated at about \$26.4m, and for a 38k Handy at about \$25.2m. (Banchemo Costa – 12 Jul 23)

Vietnam's coal imports climbed to the highest level for three years in the FH of 2023, as a lengthy heatwave has driven a spike in air conditioner use. The heatwave has strained an electricity network

already contending with rapid growth in commercial and industrial electricity consumption as manufacturing activity relocates from China to diversify global supply chains. Coal accounted for 38% of Vietnam's electricity generation in 2022, but coal's share in the generation mix rose to more than 50% in March as power firms increased coal-fired output. (Reuters – 13 Jul 23)

Strong trends in global seaborne trade in 1H also reflect a rebound in major bulk volumes, where Chinese demand (which fell last year) has improved notably, even if other factors (i.e., lower port congestion) continue to hold the bulker market back. Iron ore trade was up 5.8% y-o-y in 1H, while grain trade was up 4.9% on restarted Ukrainian exports and a bumper Brazilian crop. Coal trade was up a firm 8.4% y-o-y in 1H as supply disruption (e.g., Jan-22 Indonesia export ban, Aus. flooding) has eased and Chinese demand has rebounded. (Clarksons – 14 Jul 23)

India ordered a halt to its largest rice export category in a move that will halve shipments by the world's largest exporter, triggering fears of further inflation on global food markets. (Reuters – 21 Jul 23)

Container freight rates for voyages from Asia to the US have been on the rise over the past three weeks, thanks mostly due to better seasonal demand and reduced liner capacity. Asia to the US West Coast have improved 27.3% since 3 July to \$1,539 per feu on Monday, while rates for boxes headed from Asia to the US East Coast have risen 10% to \$2,609 per feu. (TradeWinds – 24 Jul 23)

Seaborne coal trade is projected to reach a record 1.335 BMT in 2023, surpassing 2019 levels by 24 MMT, according to an IEA report China, India, US, Russia, and Indonesia are the five largest consumers of coal. Chinese coal demand in the SH of 2023 is to slow marginally from the 5.5% y-o-y gain seen in the FH. Indian demand is forecast to be 5% higher than 2022, at 1.2 BMT. In 2024, coal demand would remain stable, but at a level never reached before 2022, the report said. Coal demand hit a fresh record in 2022 driven by high gas prices, weaker nuclear power, and hydropower generation. China and India together consume double the amount of coal as the rest of the world combined. (Lloyd's List – 27 Jul 23)

## Climate Change News:

In Q1 of 2023, Exxon, Chevron, Shell, and BP reported a combined record-breaking profit of \$32.6b. (Reuters – 2 May 23)

According to the WMO, 58% of the ocean surface has experienced at least one marine heat wave in 2022. (Bloomberg – 2 May 23)

This week, heavy flooding and landslides have killed 130 people in Rwanda and six in Uganda as the region has been experiencing heavy and sustained rains since late March, which experts attribute to extreme weather events increasing in frequency due to climate change. (Reuters – 5 May 23)

4 MMT of methane is gushing out of low-producing US oil wells each year, according to a 2022 study, six to 12 times higher than the national average. (Bloomberg – 5 May 23)

2.4m homeowners in China invested in rooftop solar panels in the past five years. One in five panels installed worldwide in 2022 were on a Chinese roof. (Bloomberg – 4 May 23)

The deal struck between rich countries and South Africa before COP26 to accelerate its transition away from coal was valued at \$8.5b. Similar arrangements are being negotiated with nations including Vietnam and Senegal. (Bloomberg – 8 May 23)

The G-7 target for solar capacity in their countries by 2030 is 1,000 GW. But the G-7 is also open to new gas investments. (Bloomberg – 9 May 23)

Methane leaks from Turkmenistan's two main fossil fuel fields caused more global heating in 2022 than the entire carbon emissions of the UK, satellite data has revealed. (The Guardian – 9 May 23)

250 illegal wells, stealing scarce water, were uncovered by the Spanish police after a four-year investigation. (Bloomberg – 11 May 23)

Climate change is raising temperatures and exacerbating heat waves, testing the limits of the human body in the process. Dehydration is more common in high temperatures, increasing the risk of heart attack and stroke. Heat can worsen breathing problems, especially where pollution levels are elevated. Heat stress makes it harder for people to work, especially outdoors, and increases the likelihood of injuries. Throw in humidity, and the human body struggles to cool itself through sweating. In places with extreme heat, every aspect of life becomes more challenging, and inequalities more acute, especially in cities. Power consumption rises, straining the grid and pushing up prices. Heat also exacerbates drought, adding further stress to hydropower and nuclear power production. (Bloomberg – 13 May 23)

Despite its 50-year history, all the CCS plants deployed globally capture only about 40 MMT of CO<sub>2</sub> each year. That's less than 0.1% of global greenhouse-gas emissions. If every plant in the pipeline collated by the Global CCS Institute gets built, that would grow to about 0.5%. But will the boom happen? The past decade is littered with CCS plants that were announced to great fanfare but were never constructed, along with some multibillion-dollar failures after building began. And Japan wants to capture 240 MMT of CO<sub>2</sub> per year by midcentury. (Bloomberg – 16 May 23)

For the first time, global temperatures are more likely to breach +1.5C in the next five years, the WMO said. This does not mean the world would cross the long-term warming threshold of 1.5C above pre-industrial levels set out in the 2015 Paris Agreement. But a year at +1.5C could offer a glimpse of what crossing that threshold, based on the 30-year global average, would be like. (Reuters – 18 May 23)

Nuclear reactors coming online at Georgia's Vogtle plant have the capacity to generate 1.1 gigawatts of power, while 33% of the global population will be living in dangerously hot conditions by 2080 if the world stays on its current trajectory. (Bloomberg – 22 May 23)

South Africa is extending the lives of its biggest coal-fired power plants as the government seeks energy security amid a deepening crisis. (Bloomberg – 23 May 23)

\$1.7t will be invested in a variety of clean energy technologies in 2023 compared to about \$1t going into fossil fuel supplies and power production, the IEA says. (Bloomberg – 25 May 23)

Mawar is now one of the three strongest storms ever to hit the North Pacific in May and the most powerful, in terms of windspeed, of 2023 so far, according to Jeff Masters, a meteorologist for Yale Climate Connections. And there is still a lot of year left. (Bloomberg – 26 May 23)

\$1.1b was invested in hydrogen in 2022. This is almost triple the previous year's amount. (Bloomberg – 30 May 23)

The average temperature in Japan in the three-month period from March through May was the highest since record-keeping began in 1898, Japan Meteorological Agency said. (Bloomberg – 1 Jun 23)

“Without unprecedented investments to...create more resistant agricultural systems, climate change could add 100 bps to global inflation every year between now and 2035,” the European Central Bank and the Potsdam Institute for Climate Impact Research said in a recent report. (Fortune – 1 Jun 23)

An interesting research piece from Kelly Shue at Yale School of Management states: Withholding capital from high-emissions firms (or "brown companies"), and incentivizing them to cut back, may cause them to pollute more. Said Shue and her coauthor: Starving brown firms of cheap money leads them to double down on existing methods of production, because continuing with old high-pollution production is how brown firms earn cash quickly to avoid bankruptcy.” They also found that “the average brown firm has 261x the emissions of the average green firm.” (Fortune – 1 Jun 23)

China will account for nearly 55% of global additions of renewable power capacity in both 2023 and 2024, said the IEA. (Reuters – 2 Jun 23)

Climate change has made extreme heat in India 30 times more likely. (Bloomberg – 2 Jun 23)

Parts of Puerto Rico reached a “life-threatening” heat index of 125 degrees Fahrenheit, driven by the combination of a heat dome, El Niño, and climate change. (Inside Climate Change – 6 Jun 23)

Global temperatures in May were the second warmest in the past three decades as polar ice continues to melt, according to Copernicus. (Bloomberg – 7 Jun 23)

Forest fires continue to burn as Canada endured its worst-ever start to wildfire season, forcing thousands of people from their homes and sending a smoky haze billowing across US cities. About 3.8m hectares have already burned, roughly 15 times the 10-year average. (Bloomberg – 7 Jun 23)

Sales of passenger electric vehicles increased globally by more than 60% in 2022 against the backdrop of an essentially flat global auto market. In 2022 more than 40% of global electricity was zero-carbon. The power sector is continuing to decarbonize and by 2050, it will be more than 80% zero-carbon. More than three-quarters of all driving in 2050 will be in EVs, and the power that tops them up will be more than 80% zero-emission. China had only 6 long-range EVs in 2018 now has 141; North America had 8 now has 56; EU had 6 now has 61. (Bloomberg – 8 Jun 23)

Three people were killed at Wuhu Shipyard in China after heavy winds toppled a crane, as storms caused damage across the country. The deaths occurred after the 450-tonne gantry crane keeled over on Saturday into the security post where the three staff were stationed. The site was hit by wind speeds exceeding force 12. (Splash – 12 Jun 23)



Rich countries transferred to poor nations \$83b in 2020 to fund projects to reduce emissions and avoid climate impacts. The goal was \$100b and most funding was as loans rather than grants, according to Oxfam. (Bloomberg – 13 Jun 23)

Global temperatures during the first 11 days of June have hit the highest level on record. Rising temperatures signal that Europe may be in for another summer of extremely hot weather, while other parts of the globe grapple with the return of El Niño. (Bloomberg – 15 Jun 23)

Several cities in northern China broke heat records for June this week, with soaring temperatures straining the country's electricity supplies and leading authorities to practice emergency drills. Mexican authorities urged people across the country to take safety precautions as an unusual late Spring heat wave sent temperatures soaring. An oppressive heat wave settled over a wide swath of the US South, bringing record-breaking temperatures that could top 38 Celsius in many spots and creating dangerously hot conditions from Texas to Florida. (Reuters – 16 Jun 23)

Some parts of India reached 46.1°C this month. Nearly 100 people in two of India's most populous states, Bihar and UP, have died since late last week because of unusually high temperatures. China is bracing for more extreme weather in coming days, bringing further risks to grain production across the nation. While high temperatures in northern areas could affect corn planting and harm wheat crops, heavy rains are likely to hurt rice in key southern growing regions, according to a report from the National Meteorological Center. (Bloomberg – 20 Jun 23)

Global energy demand rose 1% last year and record renewables growth did nothing to shift the dominance of fossil fuels, which still accounted for 82% of supply, the industry's Statistical Review of World Energy report said. (Reuters – 26 Jun 23)

US timber building projects in 2022 reached 755, up from just 69 in 2013. Construction and building operations account for a third of the world's total carbon emissions, and the quest for new approaches is setting off a boom in timber construction. (Bloomberg – 28 Jun 23)

At least 43,000 people died in Somalia in 2022 because of the worst drought in four decades. A study found that global warming is changing rain patterns and bringing more heat to Somalia and some of its neighbors, for longer stretches. More than 60,000 people died because of record-breaking temperatures in the EU in summer of 2022, raising concerns about a lack of preparation for extreme heat. A massive heat wave will build in the southern US and expand into the Pacific Northwest, with temperatures in the Southwest rising to as much as 49C on Thursday, Friday, and Saturday. (Bloomberg – 29 Jun 23)

China is on track to nearly double its wind and solar capacity by 2025 and blow past the country's 2030 clean power target five years early, according to Global Energy Monitor. (Bloomberg – 29 Jun 23)

A three-week-long heat wave in Mexico killed at least 100 people due to heat-related causes. About 64% of the deaths occurred in the northern state of Nuevo Leon bordering Texas. Most of the rest were in Tamaulipas and Veracruz on the Gulf coast. The World Bank said it had approved \$1.5 billion in financing to accelerate the development of India's low carbon energy sector. The financing will help India promote low-carbon energy by scaling up renewable energy, developing green hydrogen and stimulating climate finance for low-carbon energy investments, the bank said in a statement. (Reuters – 30 Jun 23)

This summer's heat has put millions of people at risk. China is in a scorching heatwave and temperatures have broken records in Beijing. Extreme heat in June in India has been linked to deaths in some of its poorest regions. And the UK just experienced the hottest June on record. (Bloomberg – 4 Jul 23)

Temperatures are expected to soar further across large parts of the world after El Nino weather pattern emerged in the tropical Pacific for the first time in seven years, the WMO said. (Reuters – 4 Jul 23)

The world saw the warmest June of the past three decades, with several places in western Europe hitting all-time records for the month. (Bloomberg – 6 Jul 23)

Extreme weather events are wreaking havoc across Latin America and China this week, causing challenges to power grids and water security, while floods ruin crops and threaten urban populations. (Reuters – 6 Jul 23)

Private-jet flights increased by 64% in 2022, leading to an almost-doubling of CO2 emissions, according to a study conducted by Dutch environmental consultancy CE Delft, commissioned by Greenpeace. And in the run-up to the four-day weekend over July 4th, US air travel set a record. The TSA said it screened nearly 2.9m fliers on June 30, the highest daily count in the agency's history. Flying in the US has rebounded from its Covid lows. (Bloomberg – 6 Jul 23)

The average worldwide temperature reached 17.23C on Thursday, exceeding records hit on Monday and Tuesday. (Bloomberg – 7 Jul 23)

56% of the global ocean, a territory larger than the total land area on Earth, experienced a color change between 2002 and 2022, a phenomenon that is likely driven by climate change. (Bloomberg – 12 Jul 23)

The USEPA estimated that in 2020 methane emissions from natural gas and petroleum systems, along with abandoned oil and natural gas wells, were responsible for about a third of US methane emissions and about 4% of overall greenhouse gases. Much of China's methane emissions come from coal mines, which account for about 28% of the world's biggest methane emissions points. Overall, methane accounts for about 30% of global warming. (Reuters – 17 Jul 23)

Canadian wildfires have burnt 25m acres this summer, an area the size of Iceland, with no end to the burning anytime soon. Tokyo smashed a 150-year-old heat record. Rome recorded its hottest temperature ever. Phoenix hit 110 degrees, for the 19th straight day. The world is burning up under extreme heat waves turbocharged by man-made global warming. June was already the hottest on record, and 10 of the hottest days of the year were in July. Wild weather patterns, from flooding in the Eastern US to extraordinary wildfires in Greece, Switzerland, and Canada, underscore the life-threatening seriousness of a dangerously changing climate. (Bloomberg – 18 Jul 23)

Tourists flocked to a giant thermometer in China showing surface temperatures of 80C while the death toll from torrential rains in South Korea hit 44, the latest extreme weather is sparking havoc and curiosity around the world. (Reuters – 19 Jul 23)

There's a giant gash in the ground in Russia's Sakha Republic that is expanding as permafrost thaws. It will release ever greater quantities of greenhouse gases, as will other parts of Russia's warming tundra. (Reuters – 22 Jul 23)

The USA's most flood-prone counties saw a net influx of 400K people in 2021 and 2022, a 103% increase from the two-year period before. The US counties with the highest risk of wildfire saw a net influx of 446K people in 2021 and 2022 (a 51% increase from 2019 and 2020). The counties with the highest heat risk had a net influx of 629K, a 17% uptick. People are seeking out places with warm weather and low taxes. Those near-term concerns tend to trump any of these climate risks. (Bloomberg – 24 Jul 23)

As fire-ravaged Athens braces for near-record temperatures this week, a longer-term ecological catastrophe threatens the cradle of western civilization: the Greek capital risks turning into a desert. Greece is among the countries in southern and southeastern Europe, including Spain, Portugal, Italy, Bulgaria, and Romania, that are vulnerable to desertification as temperatures increase and rainfall dwindles, fueling wildfires. That trend is forecast to continue as GHG emissions keep warming the planet. (Bloomberg – 24 Jul 23)

During an average wildfire season in Canada, 24,600 sq km of land will burn. This year is different. Four times as much land has burned. The G20 member countries together account for over three-quarters of global emissions and gross domestic product, and a cumulative effort by the group to decarbonize is crucial in the global fight against climate change. (Reuters – 25 Jul 23)

A 2019 study predicted that Madrid's climate in 2050 will resemble the north African city of Marrakesh; London will be more like Barcelona and Stockholm like Budapest. This would be a tectonic shift for Europe's travel and tourism industry, which contributed €1.9 trillion (\$2.1 trillion) to the regional economy last year and remap travel patterns in a way that will likely deal a blow to some countries in southern Europe. Global ocean surface temperatures in June were the highest in 174 years of data, with the emergence of the El Niño weather pattern piling onto the long-term trend. (Bloomberg – 25 Jul 23)

A Canadian utility is looking to add 4.8-gigawatt to its 6.2-gigawatt nuclear power facility, which would make it the world's biggest atomic energy plant. More than 100 wildfires in Greece have emitted over 1 MMT of carbon into the atmosphere in July, the most in at least two decades. Across Canada, 1,032 fires are burning with 633 out of control. This year, 12.2m hectares have burned. (Bloomberg – 27 Jul 23)

In its 'State of the UK climate' report, the Met Office national weather service found that the sea level around the UK has risen around 18.5 cm since the 1900s, with 11.4cm of that happening over the past 30 years. (Reuters – 28 Jul 23)

## **Covid-19/Health News**

More than 20m people have been killed by covid over the three-plus years it has afflicted humanity, wreaking unspeakable misery and sorrow upon the global population. The WHO has formally called an end to the emergency. (Bloomberg – 5 May 23)

The Covid emergency is officially over, but it is still killing at least one person every 4 minutes globally. (Bloomberg - 24 May 23)

65 million people are living with long Covid, although the exact nature of the condition, whose symptoms include headaches, fatigue, 'brain fog' and more, is debated. Studies are shedding light on rates of recovery as well as the prevention and treatment of complex conditions. (Nature – 27 Jun 23)

The WHO will declare Aspartame one of the world's most widely used artificial sweeteners, found in thousands of sugar-free foods from soft drinks to jelly and chewing gum, as potentially cancer-causing. (Bloomberg – 30 Jun 23)

Japan is set to receive a final report from a UN watchdog that is widely expected to approve a plan for the tsunami-wrecked Fukushima plant to release radioactive water into the ocean over the next 30 to 40 years. (Reuters – 4 Jul 23)