



**CLARKSONS**  
RESEARCH

**DRYBULK** TERMINALS  
GROUP

# Dry Bulk Shipping Market Update

---

Dry Bulk Terminals Group  
Operational & Technical Conference  
Amsterdam, 9th November 2023

David Whittaker, Clarksons Research

Ref: A4505

# The Clarksons Group

## A complete ecosystem of maritime services

**Broking:** Unrivalled global broking services backed by rich data market intelligence.

**Financial:** Evolving the financial services available to the maritime sector by completing landmark transactions across the marine and offshore sectors.

**Research:** Providing uniquely powerful data and intel to the maritime industry.

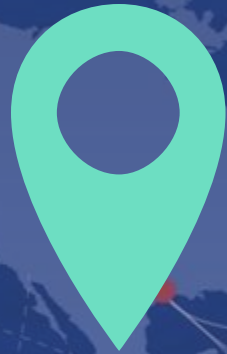


**Port services:** Worldwide port coverage offering unrivalled support for the marine and energy industries.

**Technology:** Offering smarter shipping through the world's first end-to-end digital shipping platform Sea/ the industry's most powerful market insight tool.

# Differentiating Clarksons: ~200 Researchers and Analysts

*“best in class data, intelligence and analysis”*



## Clarksons Research

~150 people

Global leaders in data & intelligence

Long term cash generative business unit, 5,000 clients and supporting the Clarksons Group with data, profile and research



## Shipbroking Sector Analysts

~35 people

Deep sector expertise

Supporting shipbroking and their clients with highly specialist market analysis and presentations



## Equity Research Analysts

~15 people

Market leading equity research

Supporting banking and their clients with market leading coverage across 5 verticals and 75 companies

# Clarksons Research – Sector Coverage

With market-leading digital platforms, Clarksons Research provides clients immediate access to uniquely powerful data, analysis, forecasts and insights.



**Shipping & Trade:** Leading data and insights for all aspects of Shipping & Trade, which underpin the workflows and decision-making processes of thousands of organisations across maritime industry.



**Offshore & Energy:** Comprehensive research and data covering the global Offshore Oil and Gas industry and rapidly expanding Offshore Renewables sector.



**Energy Transition:** Expert analysis framing the impact of energy transition on trade flows. Tracking decarbonisation and the fuelling transition across maritime fleets.



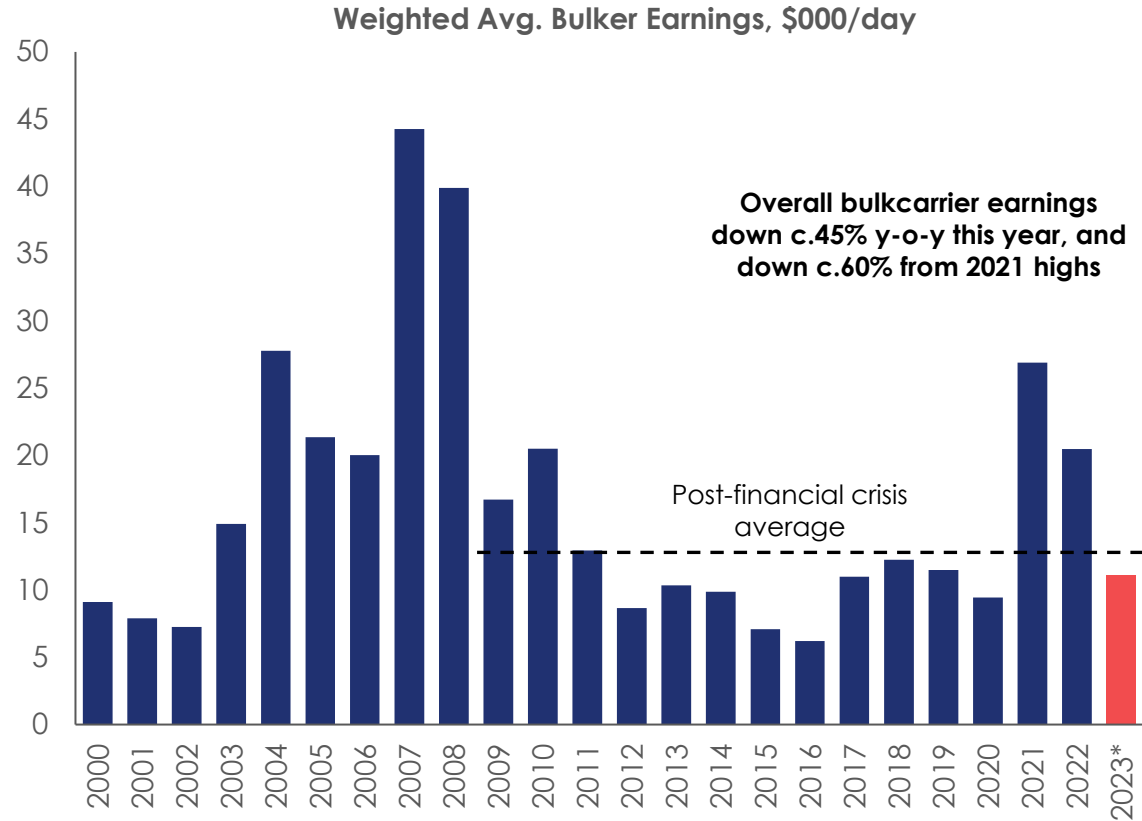
**Valuations:** The world's leading provider of Shipping & Offshore valuations, combining deep market expertise with independent research, validation and technology.



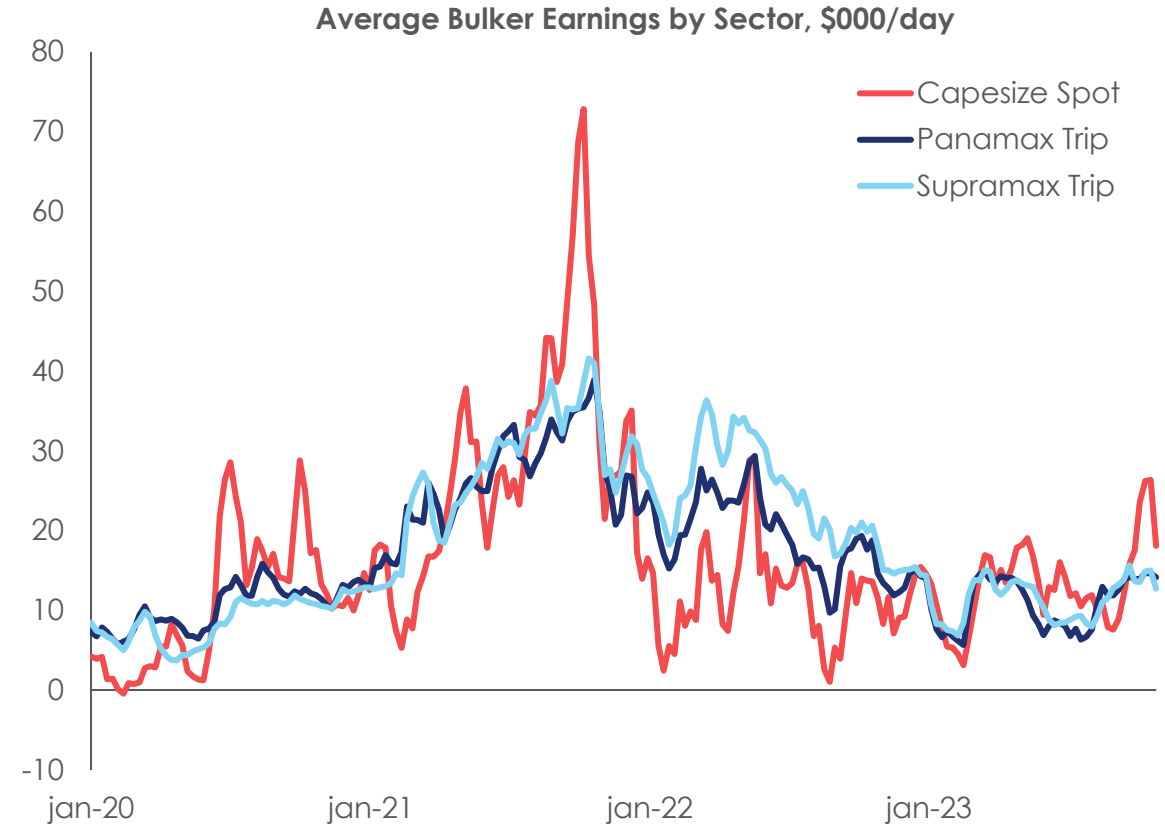
# Bulkcarrier Market: Moderate in 2023 After 2021-22 Strength

Bulker markets softer in 2023 as disruption upside has unwound; modest fleet expansion eroding demand growth...

Earnings have been moderate overall in 2023 so far, close to post-2009 avg. but above 'bottom of cycle' lows...



Sub-Cape earnings more 'normal' after outperforming in '21-'22; Capesizes have seen some upside recently...

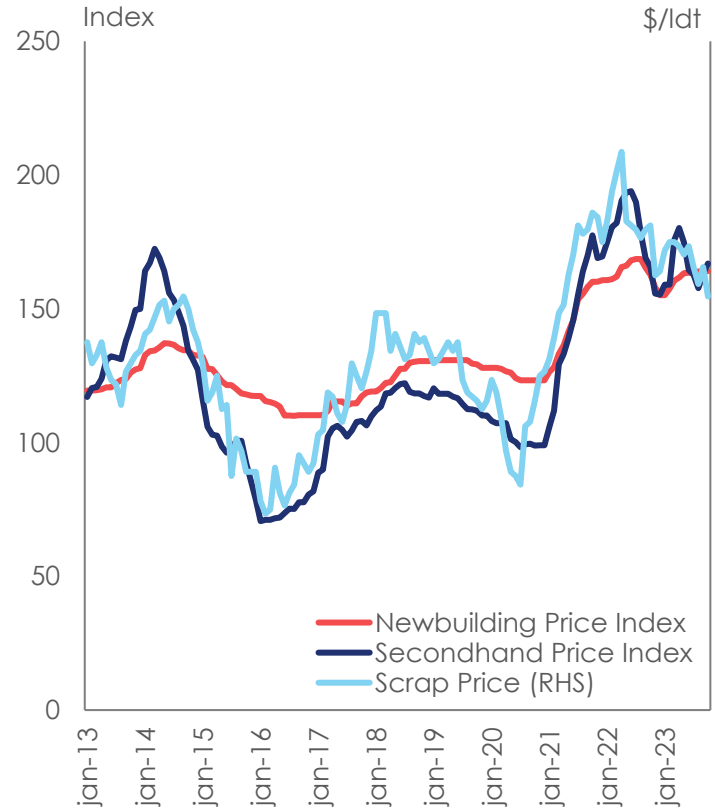


Source: Clarksons Research. Data up to end-October.

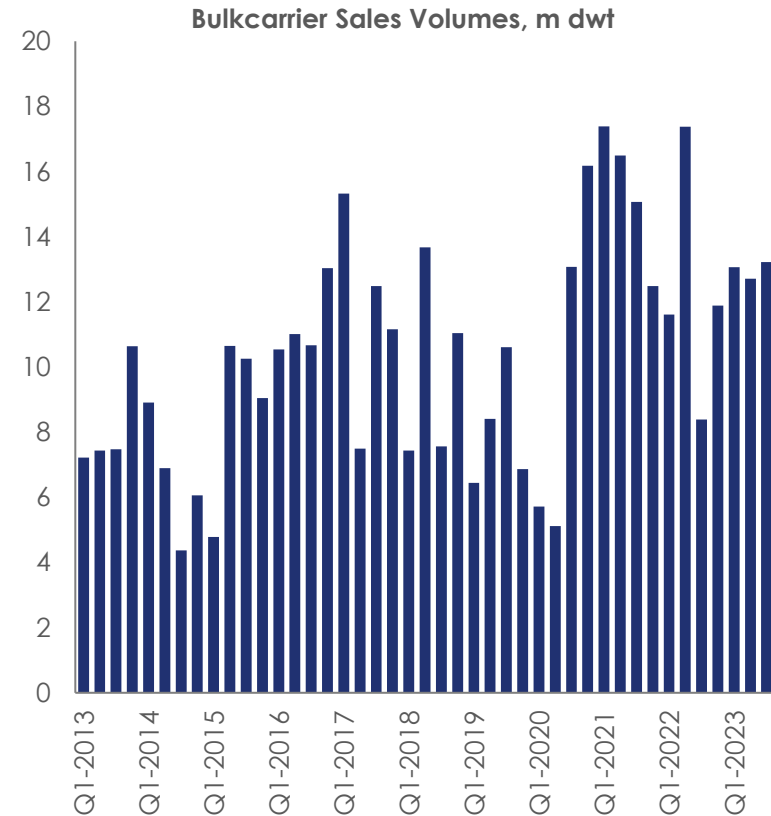
# Bulkcarrier Asset Markets

Newbuild prices remain high, and sales activity remains firm, while contracting remains subdued...

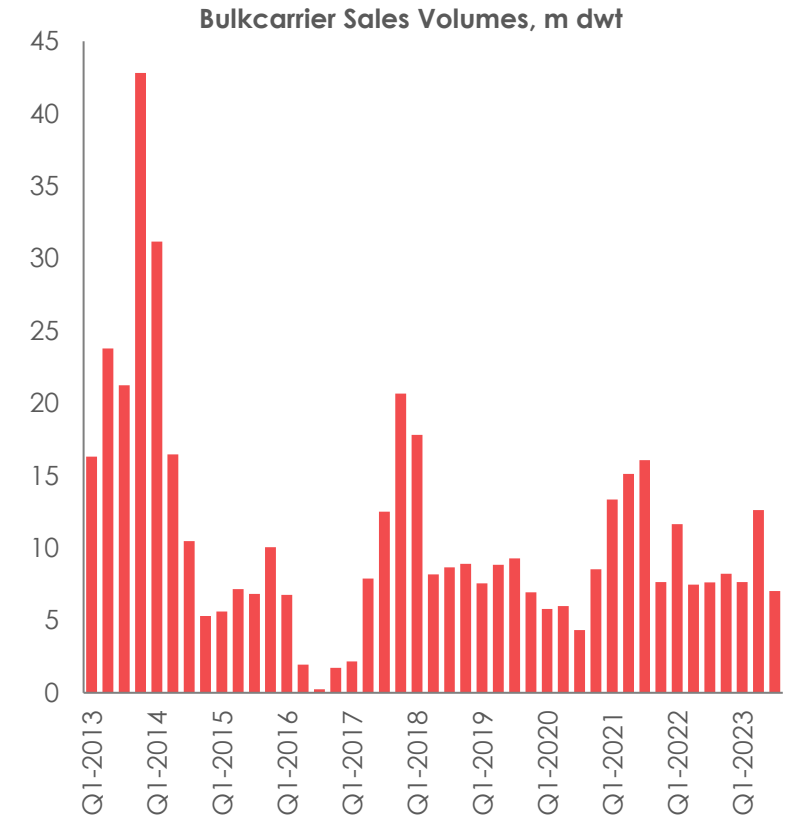
**Newbuild prices near all-time highs, but secondhand & scrap prices have eased...**



**Bulkcarrier secondhand sales activity has remained firm as prices have slipped...**



**Contracting remains subdued given high NB prices, technology uncertainty...**

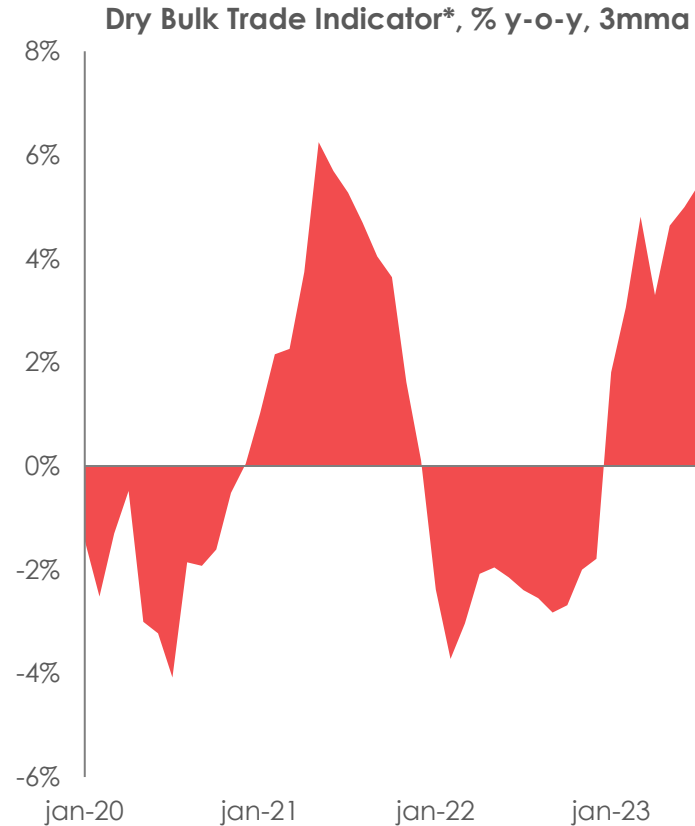


Source: Clarksons Research

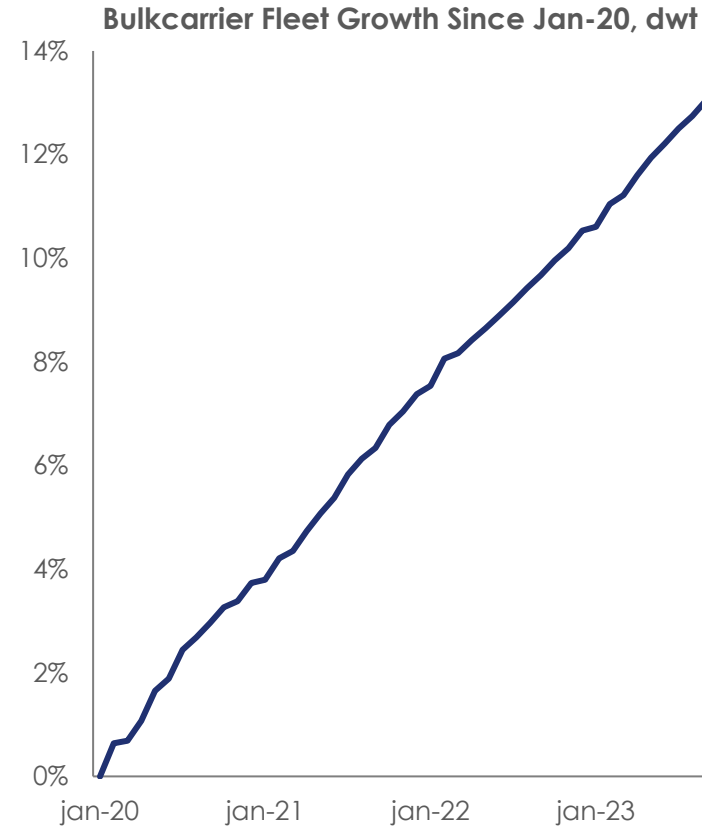
# Key Bulkcarrier Market Drivers In Focus

Moderate fleet growth and lower levels of port congestion have countered rebounding trade this year...

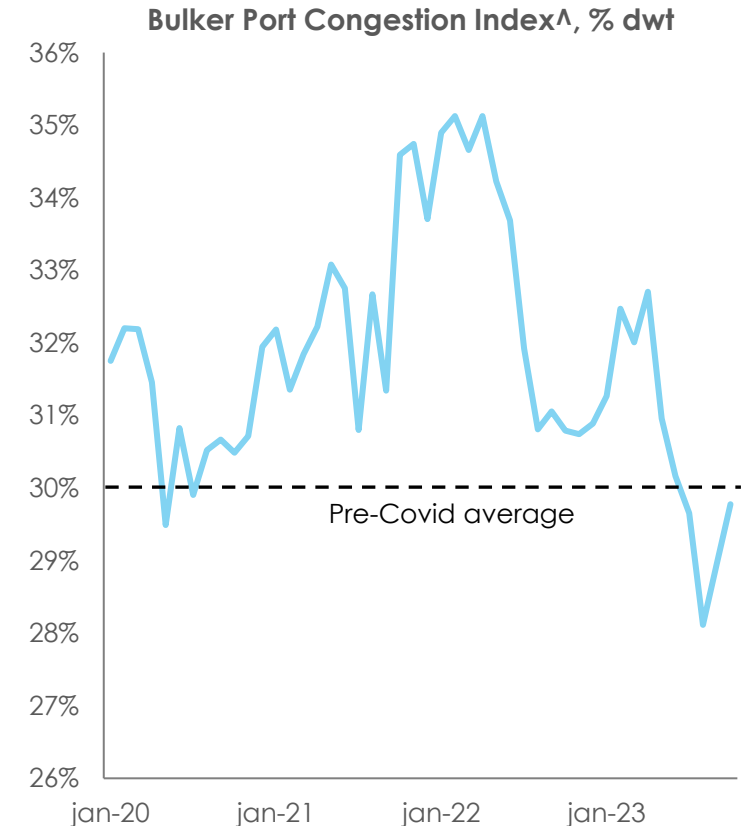
**Dry bulk trade has rebounded in 2023, led by firm demand from China...**



**But cumulative steady fleet growth in recent years has bolstered supply...**



**And unwinding port congestion has released supply back into the market...**

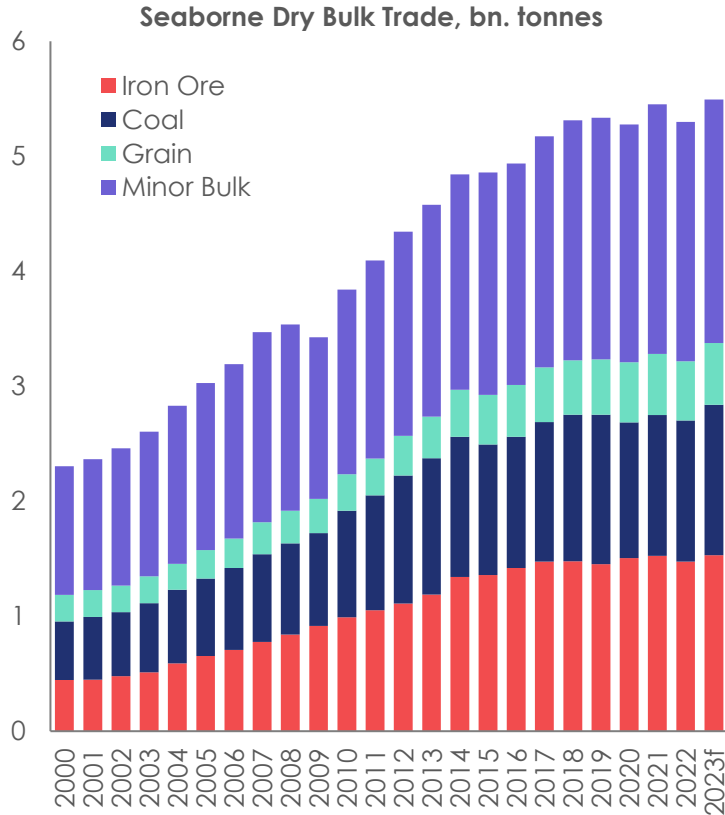


Source: Clarksons Research. \*Trade indicator basis a 'basket' of trade flows covering c.80% of global seaborne dry bulk trade. ^Port congestion index tracks % of Cape/Pmax fleet capacity 'at port' globally, for further details see SIN TSID 547436.

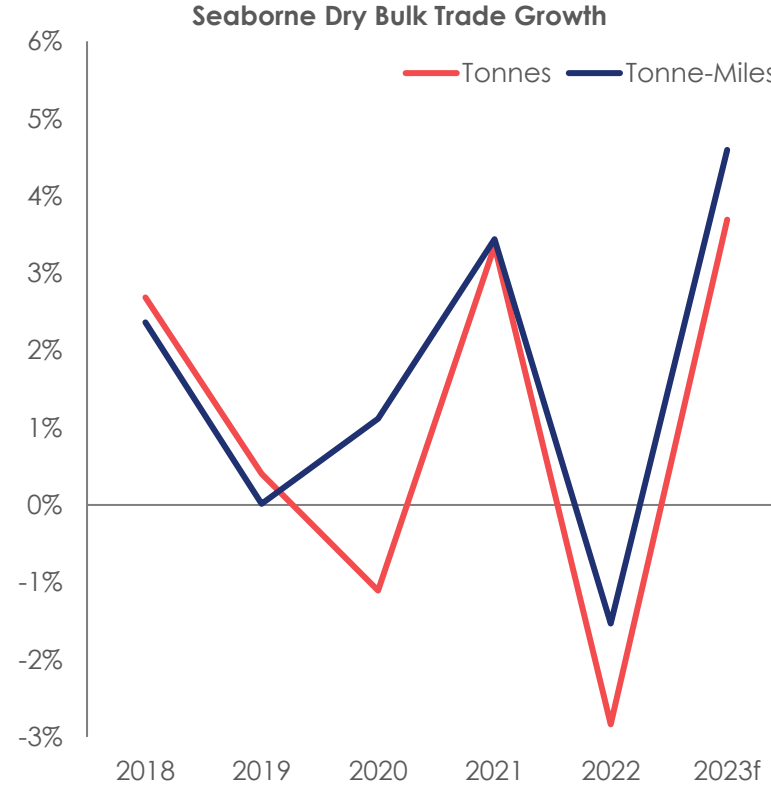
# Dry Bulk Trade: Bouncing Back After A Period Of Volatility

2023 on track for record dry bulk trade volumes, led by China, despite lingering economic headwinds...

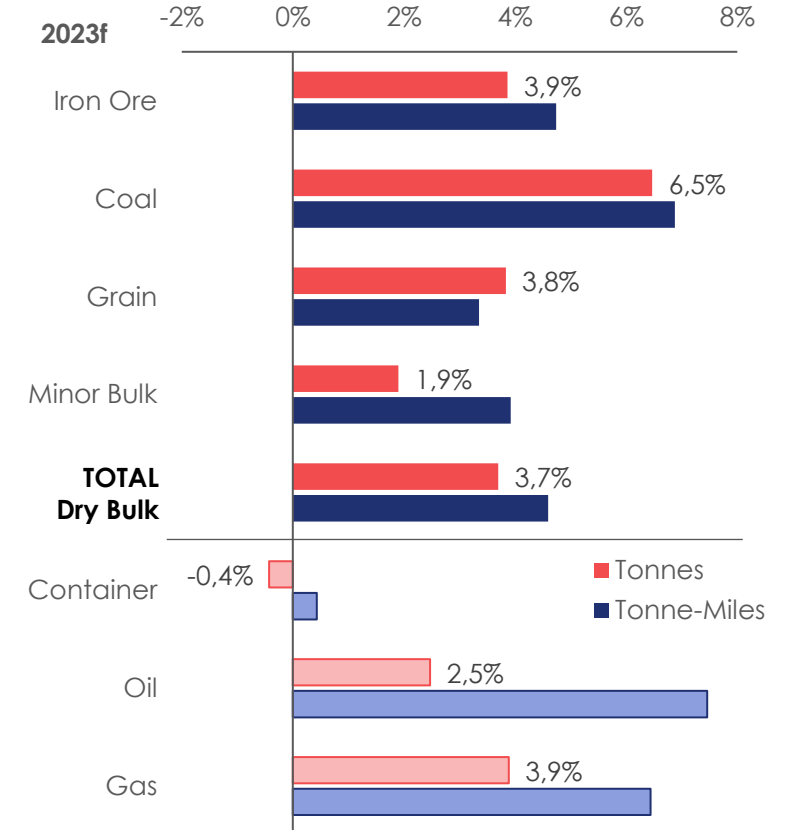
Long-term dry bulk trade growth has moderated, with volatility recently...



Volumes are rebounding in 2023 though, with tonne-miles 'outpacing' tonnes...



Key dry bulk commodities are on track to see firm growth this year...



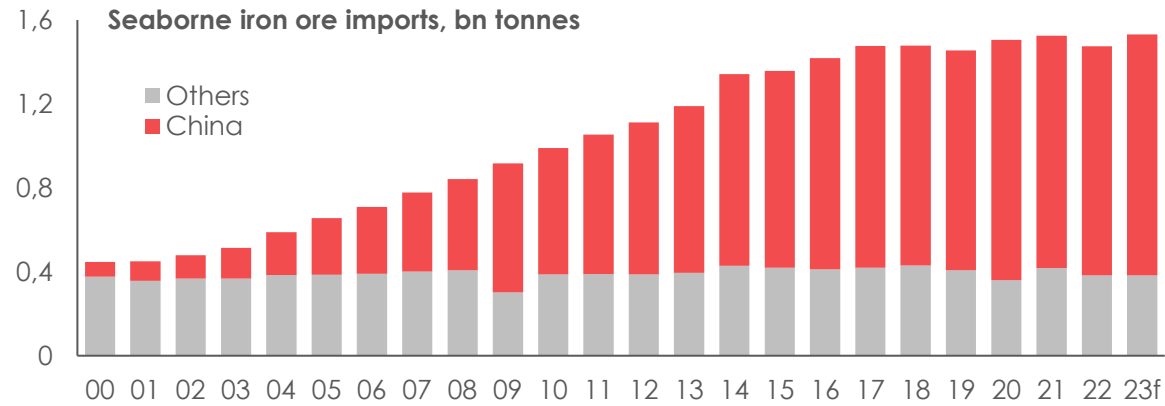
Source: Clarksons Research



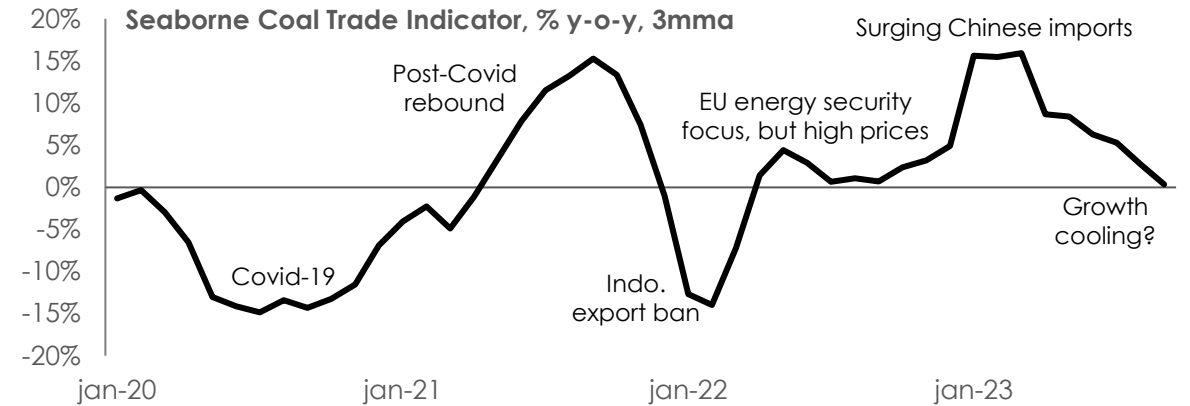
# Dry Bulk Trade: Key Trends By Commodity

Trends fairly positive but vary by commodity and region; a range of drivers (Geopolitics, Energy Security) in focus...

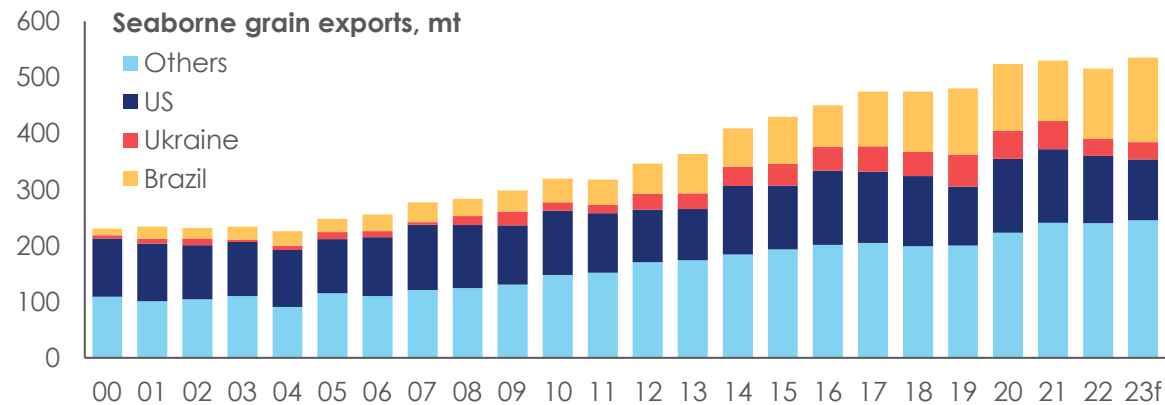
## Iron Ore: mature growth with fluctuating trends in China key



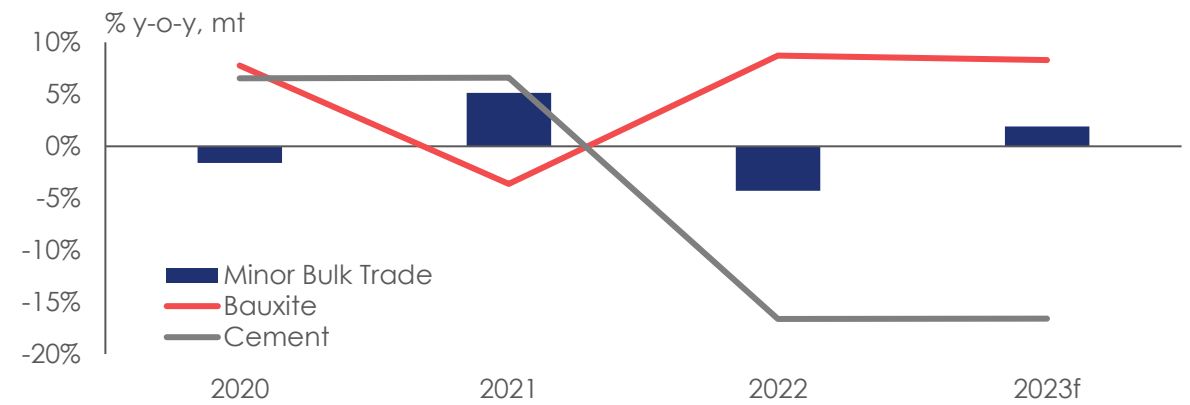
## Coal: ups and downs post-Covid, firm trends led by China in '23



## Grain: Lost Ukrainian vols but firm growth from Brazil continues



## Minor Bulk: Improvements overall but with weak and bright spots



Source: Clarksons Research

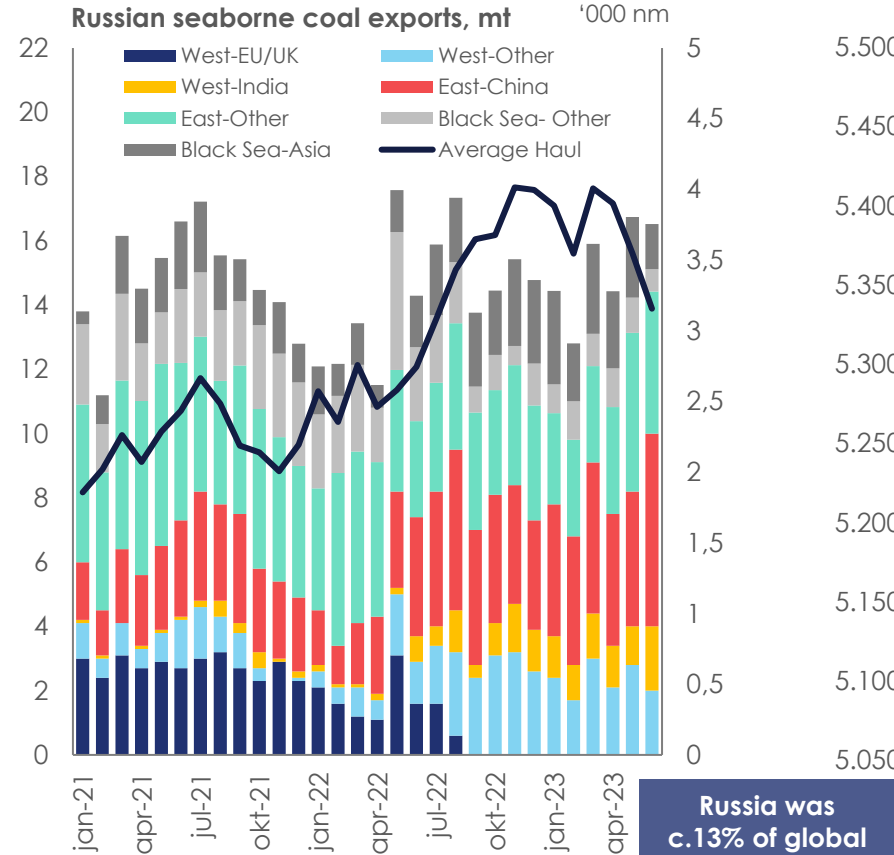
# Geopolitics In Focus: Impacts Of Russia-Ukraine Conflict

Ongoing disruption to Ukraine grain shipments, longer-haul coal flows sustained, shifting container trade patterns

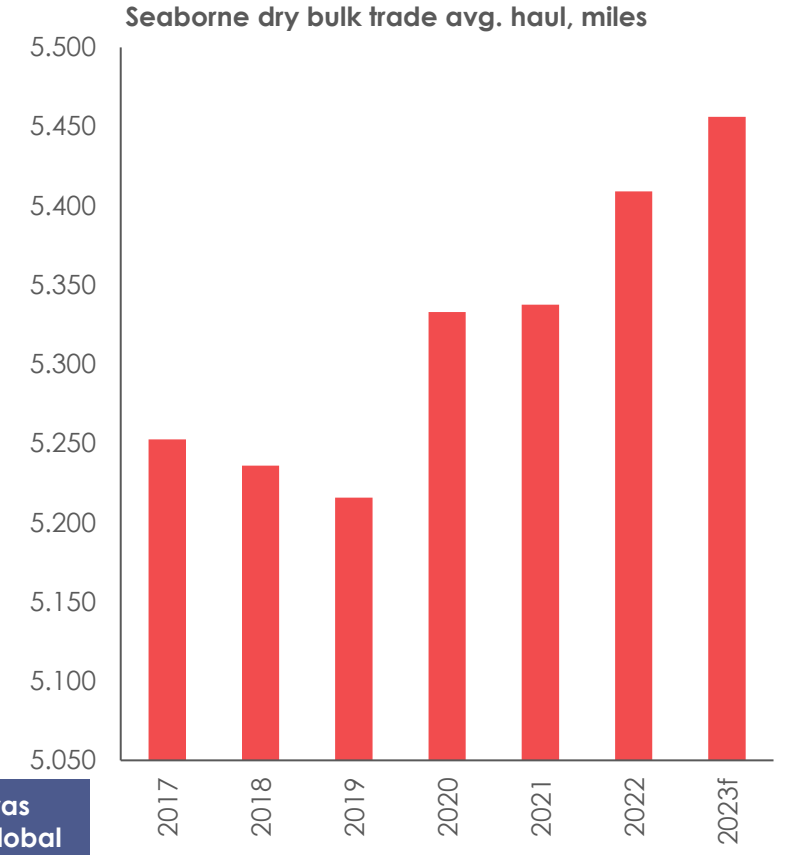
## Ukrainian grain exports have slowed post-BSGI but alternative routes in use



## Russian coal exports have shifted to longer-haul patterns (Eur imports too)



## Economic headwinds have dragged on volumes, but avg. haul boost has helped

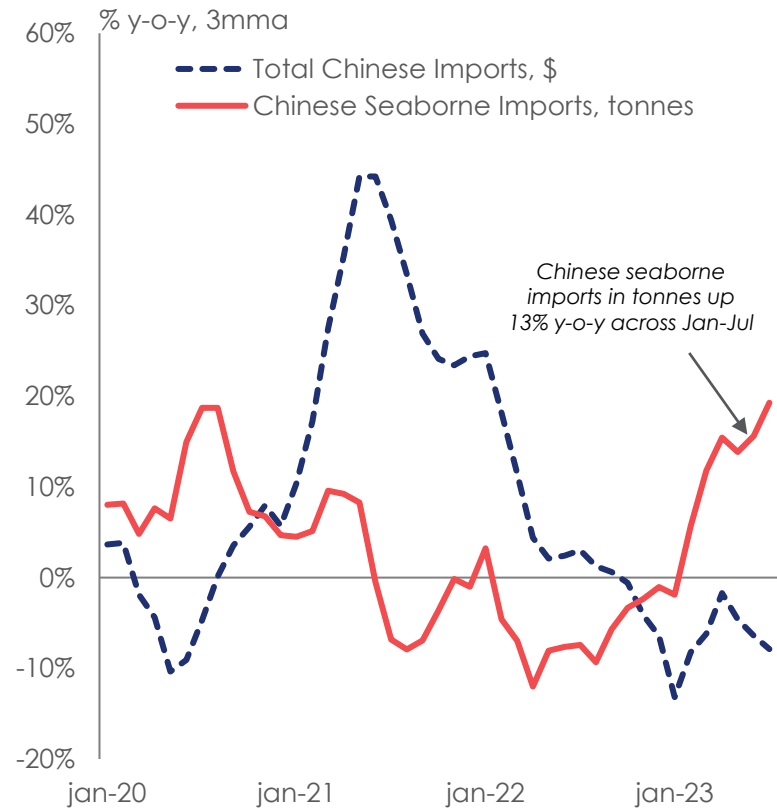


Source: Clarksons Research

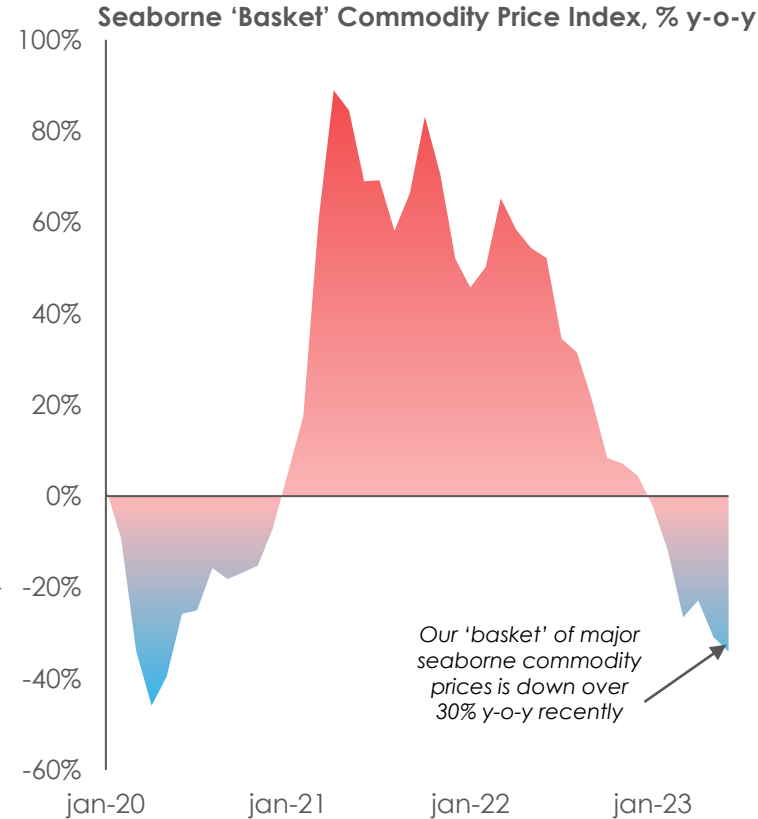
# Chinese Seaborne Trade Trends: Significantly Stronger Than Headline Trade Value Statistics

Seaborne imports growing firmly in 2023, led by dry bulk; 'headline' trade value data impacted by lower prices

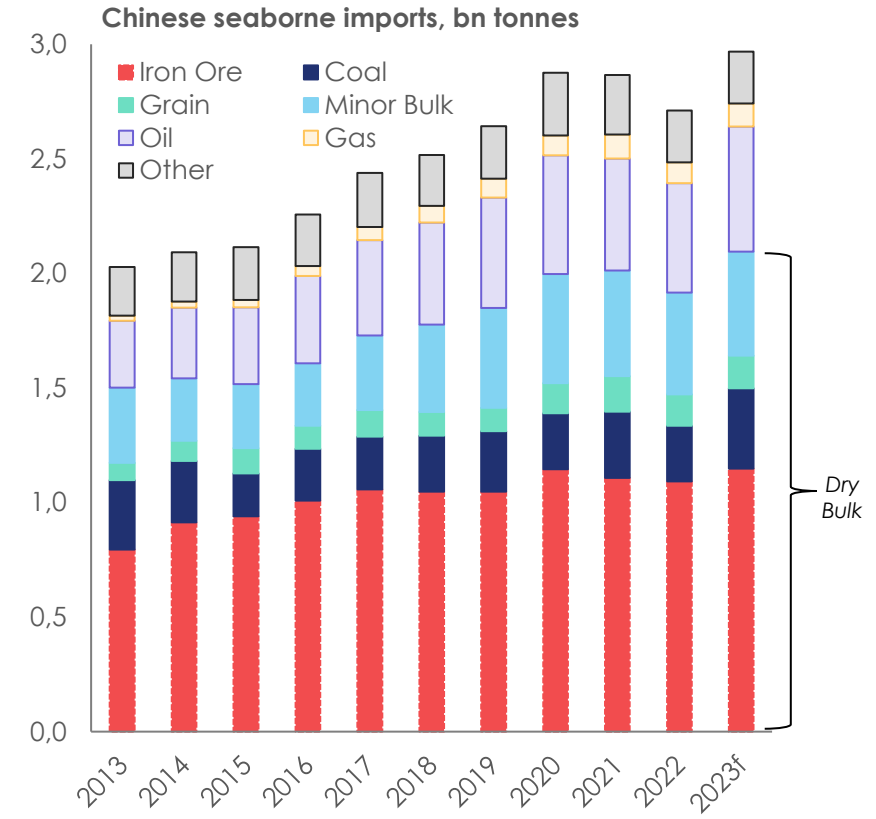
## Chinese seaborne imports in tonnes are growing rapidly in 2023...



## ...with trade statistics in \$ value impacted by softer commodity prices



## Dry bulk imports are a key driver of growth this year, led by coal and iron ore

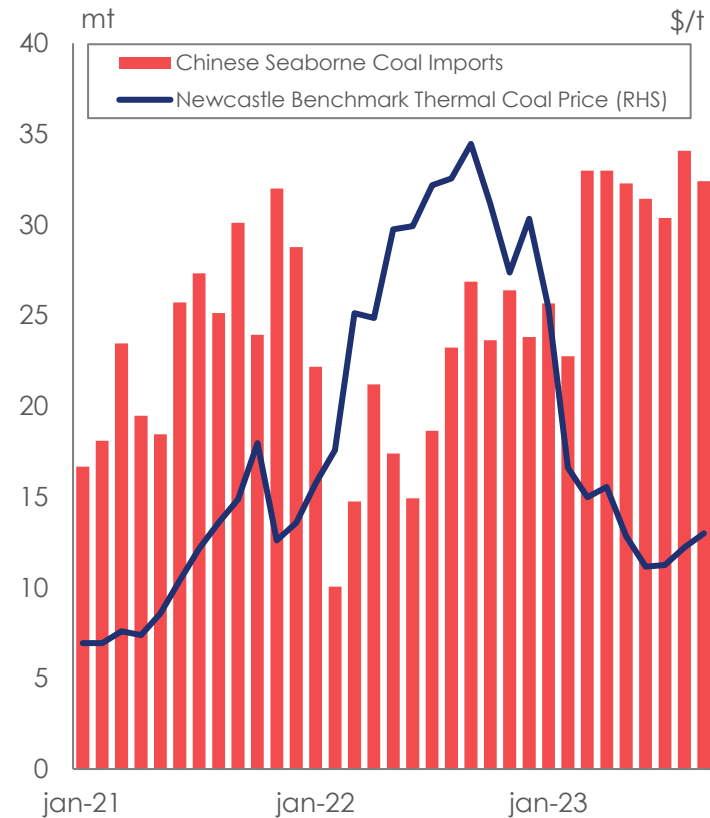


Source: Clarksons Research, NBS, industry sources. Seaborne 'Basket' Commodity Price Index calculated basis a selection of monthly average spot commodity price benchmarks (in \$ per tonne) across the dry bulk, oil and gas sectors weighted by annual seaborne trade volumes.

# Major Chinese Dry Bulk Trends In Focus

Chinese imports of a range of commodities have surged in 2023, with key drivers including energy & food security

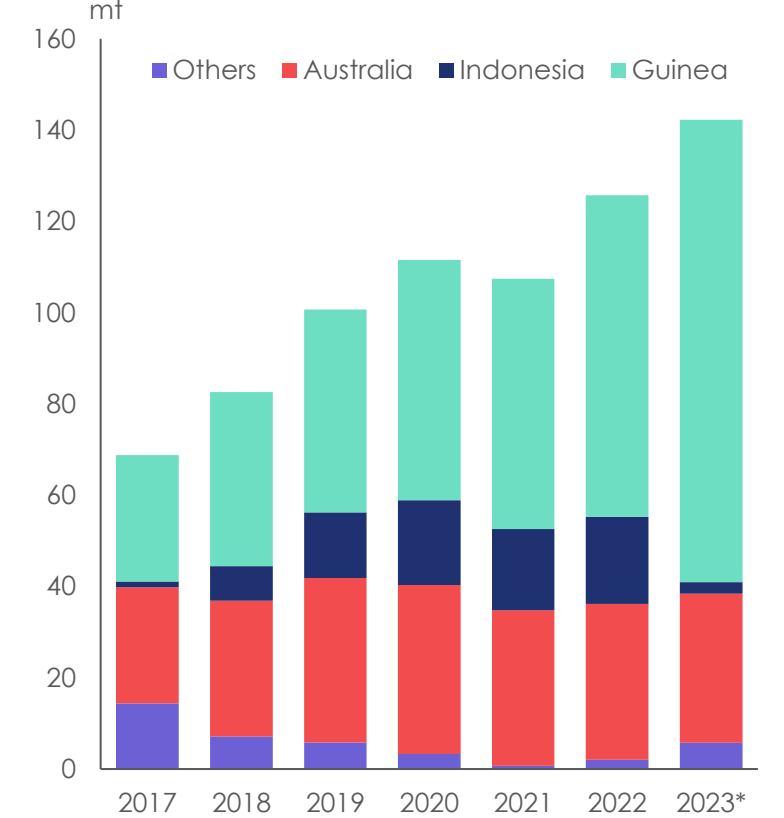
## Chinese seaborne coal imports have surged as prices have normalised



## Chinese grain imports firm recently; food security & diversification of supply in focus



## Chinese bauxite imports continue to grow rapidly following investment in Guinea

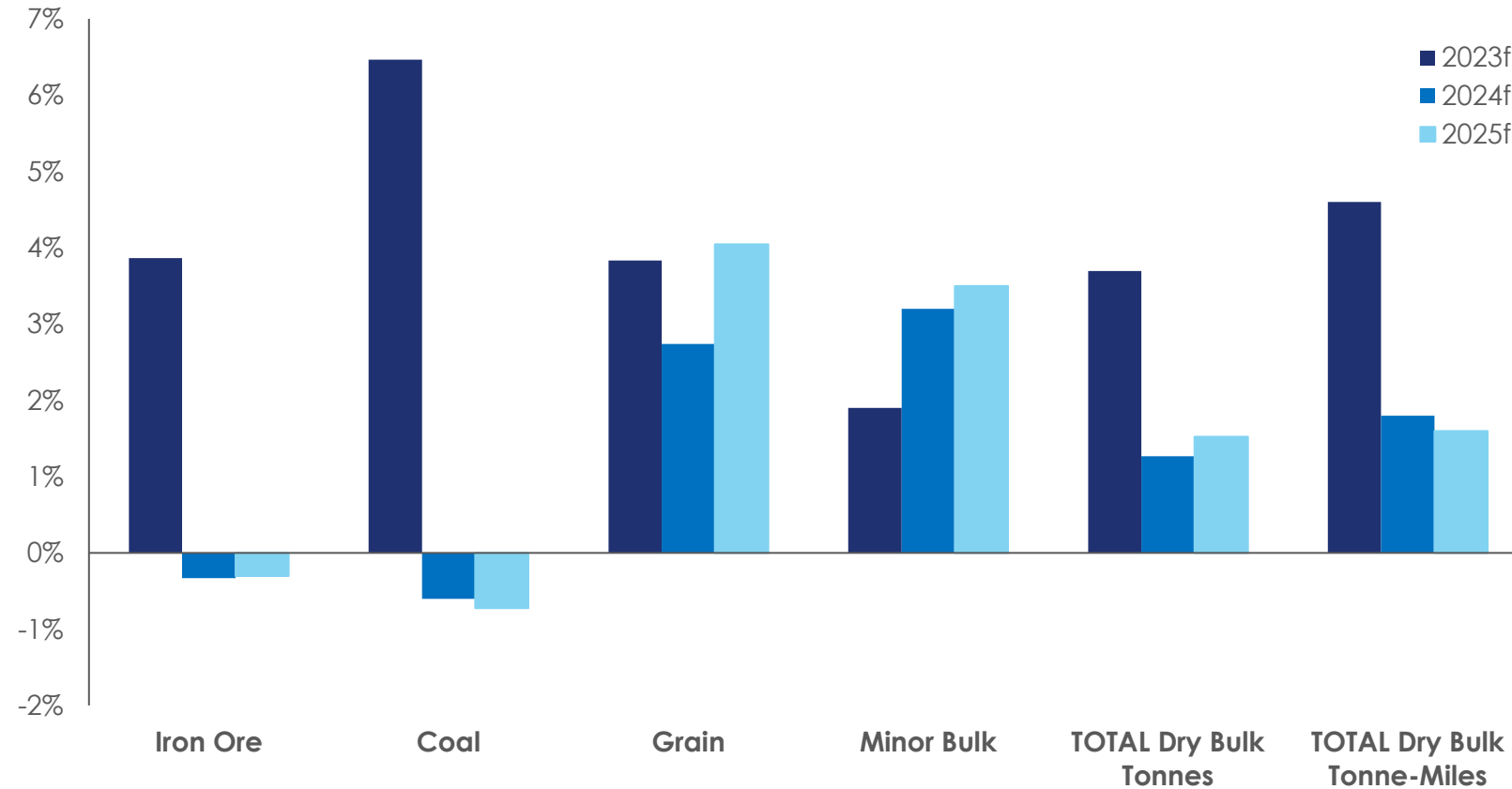


Source: Clarksons Research. \* 2023 annualised full year estimate basis YTD data for Jan-Sep.

# 2023-25 Seaborne Dry Bulk Trade Growth Outlook

Iron ore & coal forecast to stabilise after China-led 2023 expansion; steady growth in grain & minor bulk...

## Seaborne dry bulk trade growth projections in tonnes...



Source: Clarksons Research

## Dry Bulk Commodity Growth Outlook:

### Iron Ore

- **Firm growth in 2023 led by China**, improved seaborne supply availability.
- **Steady volumes expected in 2024-25** as Chinese imports 'plateau'; growth in rest of world limited.

### Coal

- **Firm growth in 2023** as supply disruption eases and prices soften, notably spurring demand in **China**.
- **Volumes could soften in 2024-25** as Chinese imports ease back from recent record pace & **energy transition** impacts start to feed through.

### Grain

- **Steady growth expected in the coming years.** Ukrainian exports expected to gradually pick up, Us harvest looks more promising for 2023-24, Brazil continues to drive growth.

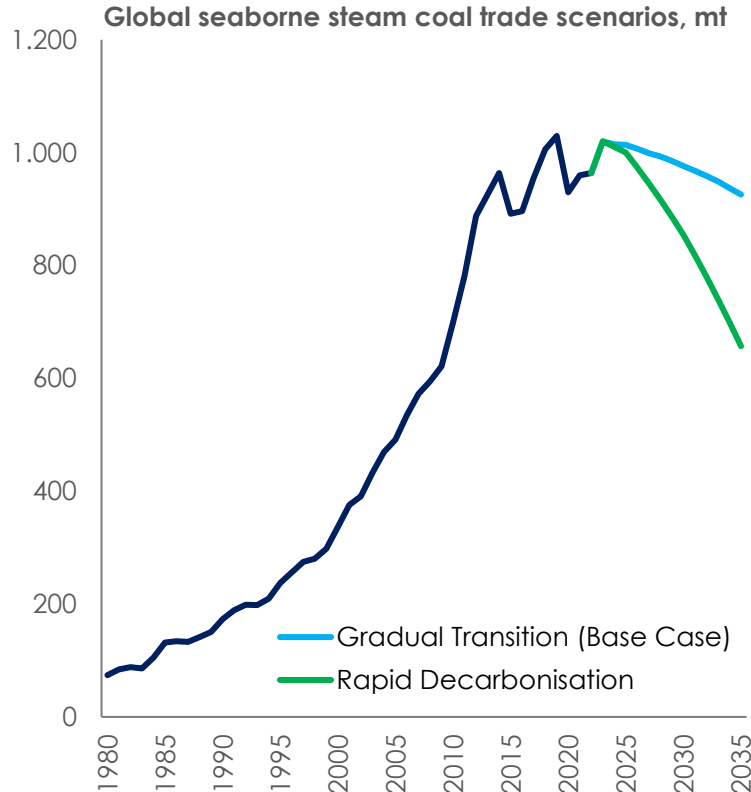
### Minor Bulk

- **Gradual improvements in 2023** as 2022 disruption eases, Chinese demand is supportive.
- **Moderate expansion projected for 2024-25** as economic headwinds potentially ease, and underlying demand growth returns in a range of commodities (e.g. non-ferrous ores, agribulks, etc)

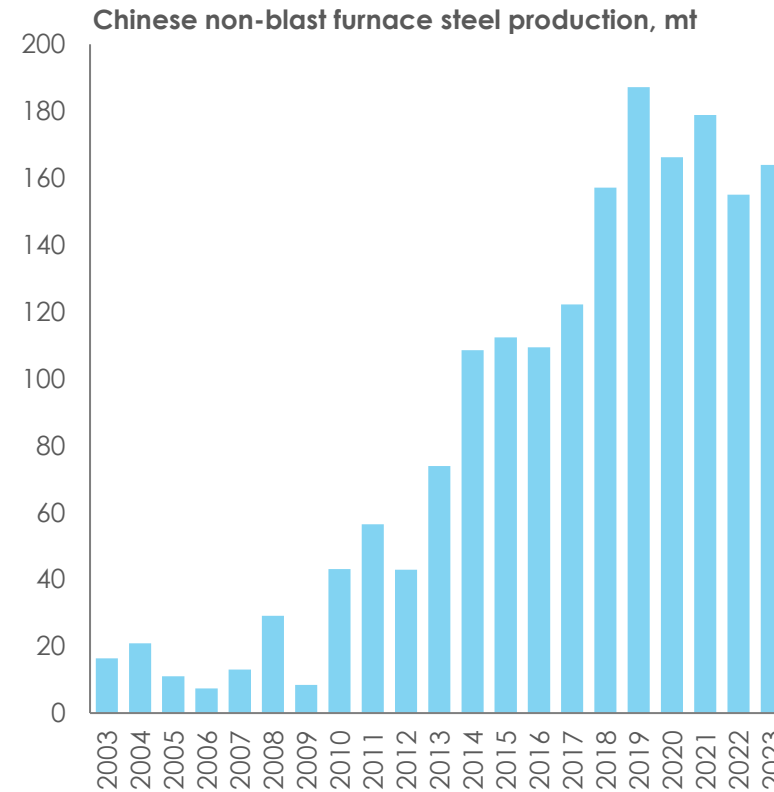
# The Green Transition, Energy Mix & Seaborne Dry Bulk Trade

A range of impacts from the Green Transition are already being seen across a range of dry bulk commodities...

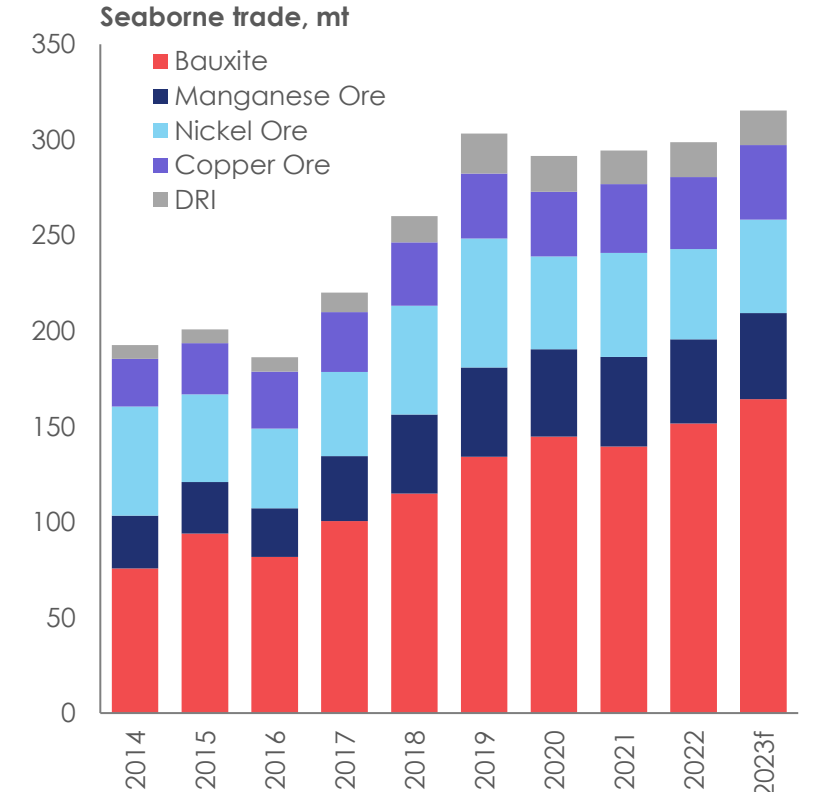
## Energy Security has supported coal trade but the Energy Transition is in sharp focus



## Green steel gaining traction; implications for iron ore, coking coal, scrap, DRI etc.



## Raw materials associated with green technologies are also in sharp focus...

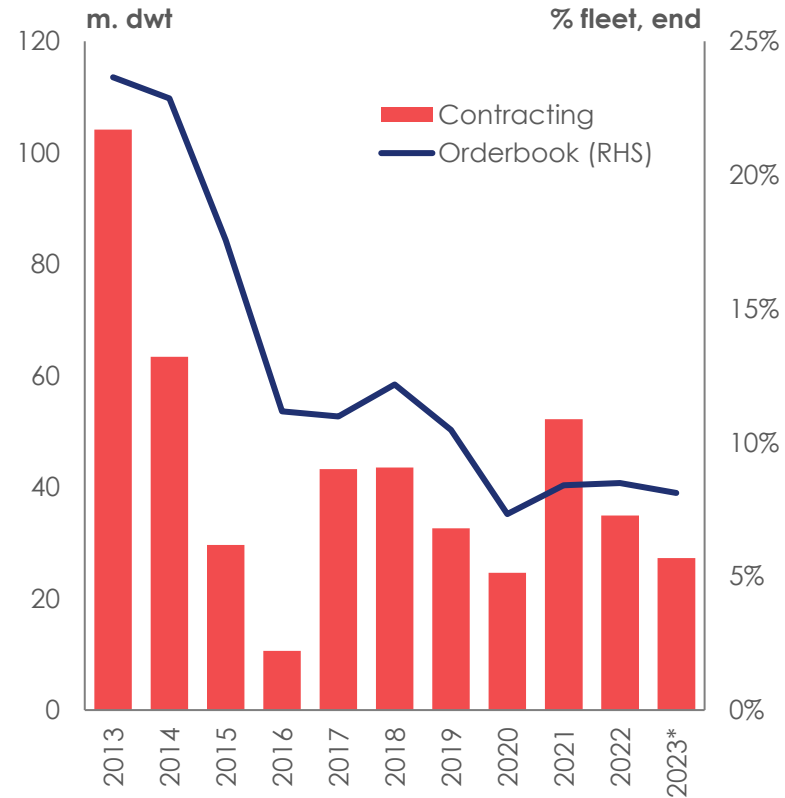


Source: Clarksons Research

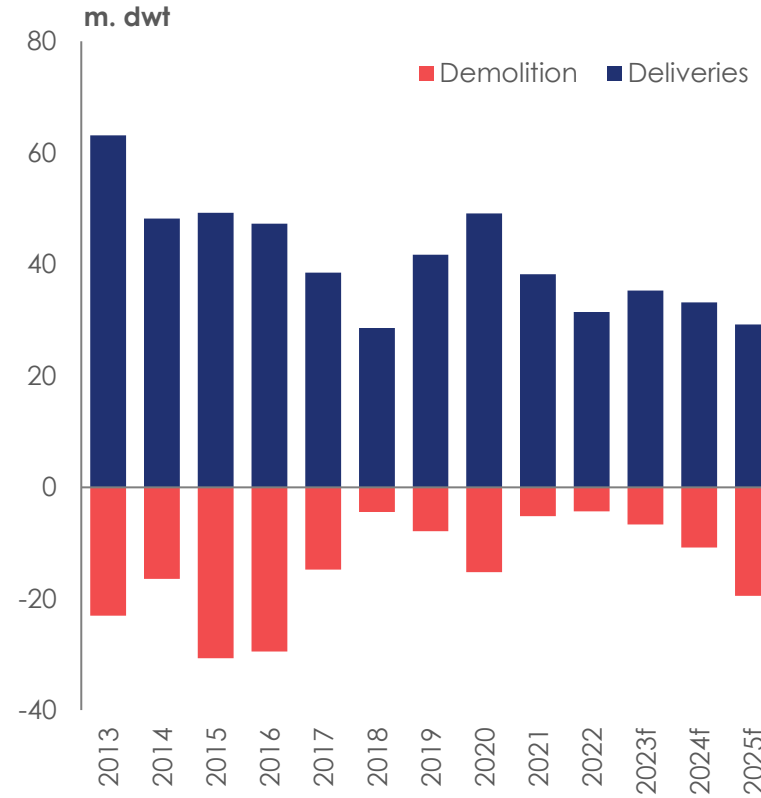
# Bulkcarrier Supply: A Supportive Backdrop

Limited orderbook, potential increase in demolition mean that bulker supply growth looks modest...

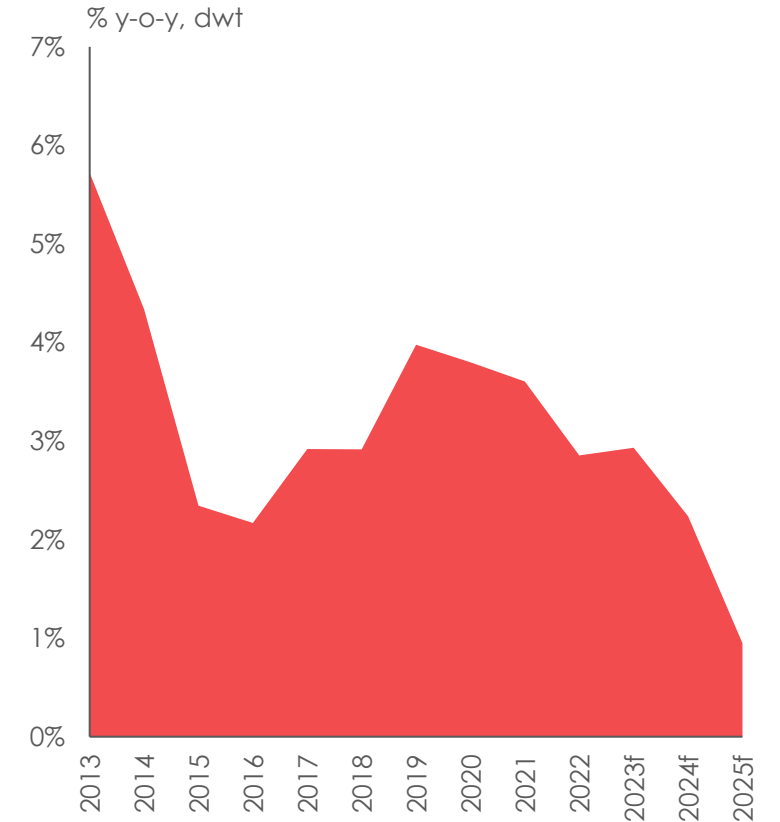
**Bulker contracting remains subdued; orderbook limited at c.8% of fleet...**



**Deliveries up a little in 2023, but set to soften, while demolition could increase...**



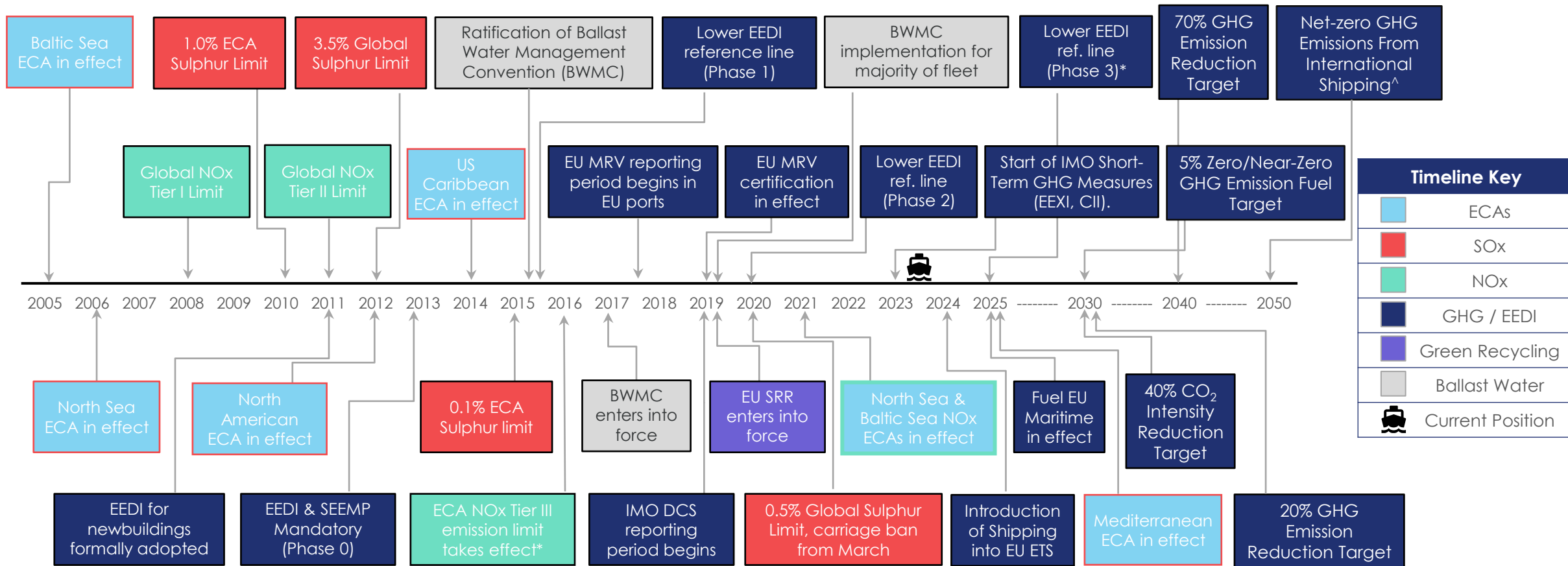
**Overall bulkcarrier fleet growth expected to slow in the coming years...**



Source: Clarksons Research. \*latest as at start-October

# Environmental Regulation Accelerating

Regulatory timeline accelerating and remains key industry focus with the IMO now targeting net-zero GHG emissions by or around 2050; policy ramping up with new GHG regulation in effect; technology uncertain



Source: Clarksons Research, July 2023. \*EEDI phase 3 requirements brought forward to 2022 for gas carriers, general cargo ships and containerships. ^ Net-zero target has been defined as 'by or around, i.e. close to 2050', taking into account different national circumstances.



# Incoming Regulations/Policies Will Have Material Fleet Impacts; Speed, Retrofitting, Recycling

EEXI impact expected to be mostly limited, but CII / EU ETS likely to have material effects on fleet supply/voyage costs

## EEXI

- **Analysis so far suggests bulker fleet likely to be predominantly compliant** (est. c.87%?) with EEXI requirements at today's operating speeds across most of age and design profile (with EPL work).
- General compliance driven by significantly **reduced operating speeds** (~20% since 2000s) and **greater share of 'eco modern' fleet**.
- Many (non-'eco'?) compliant units may require EPL work to align with current speeds. This could limit speed 'upside' in firm markets, and could lend some market support through time out of service for EPL.

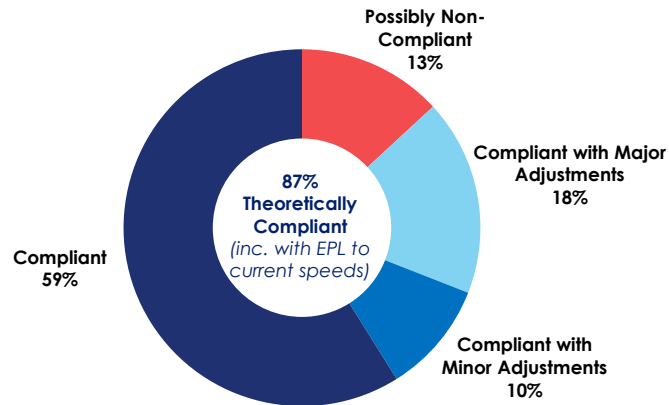
## CII

- **Likely to be more challenging** (basis today's operating speeds/patterns). Incremental improvement required vs 2019 baseline when much of the fleet was already 'eco'.
- Initial estimates suggest **~36% of current fleet might be 'D' or 'E' rated in 2023**, trending to **~53% if still trading in 2026** (without any modification).
- To achieve 'compliance' (C band): **EST retrofitting + speed adjustments + EPL time out of service** may curb active supply by 1.5-2% p.a. on avg. across 2023-24. Could well also spur **additional demolition**.

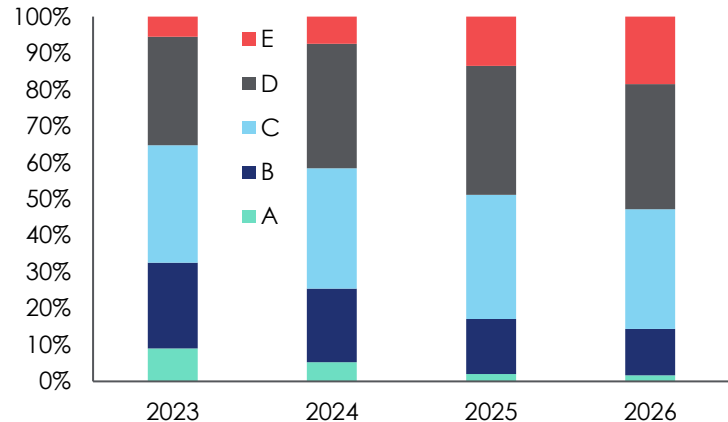
## EU ETS

- **Shipping to be included in EU ETS from 2024 (emissions cap and trade system)**. Material cost implications from requirement for emissions (CO<sub>2</sub> from 2024, CH<sub>4</sub> + N<sub>2</sub>O from 2026) allowances for trading in EU.
- Includes all vessels >5,000 GT (with smaller vessels included in MRV collection data). Allowances to be surrendered in the subsequent year for **40% of reported emissions in 2024**, 70% in 2025, 100% in 2026.
- Voyages **between EU ports: 100%** of applicable voyage emissions. Voyages **to and from EU ports: 50%** of applicable voyage emissions. (Non-EU transhipment ports <300nm to an EU port will not count.)

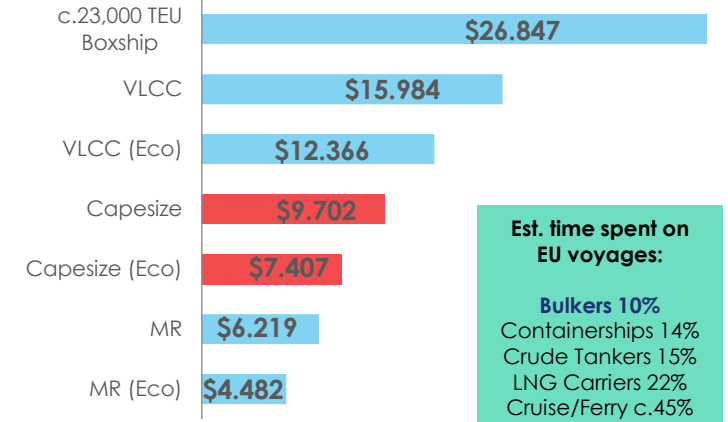
**EEXI Bulker Fleet (25,000+ dwt) Estimated Compliance At Start-2023 Speeds, dwt**



**Provisional Current Bulkcarrier Fleet (25,000+ dwt) CII Rating Estimates, '23-'26, % dwt**



**Potential Additional Daily Costs "In EU", \$/day**



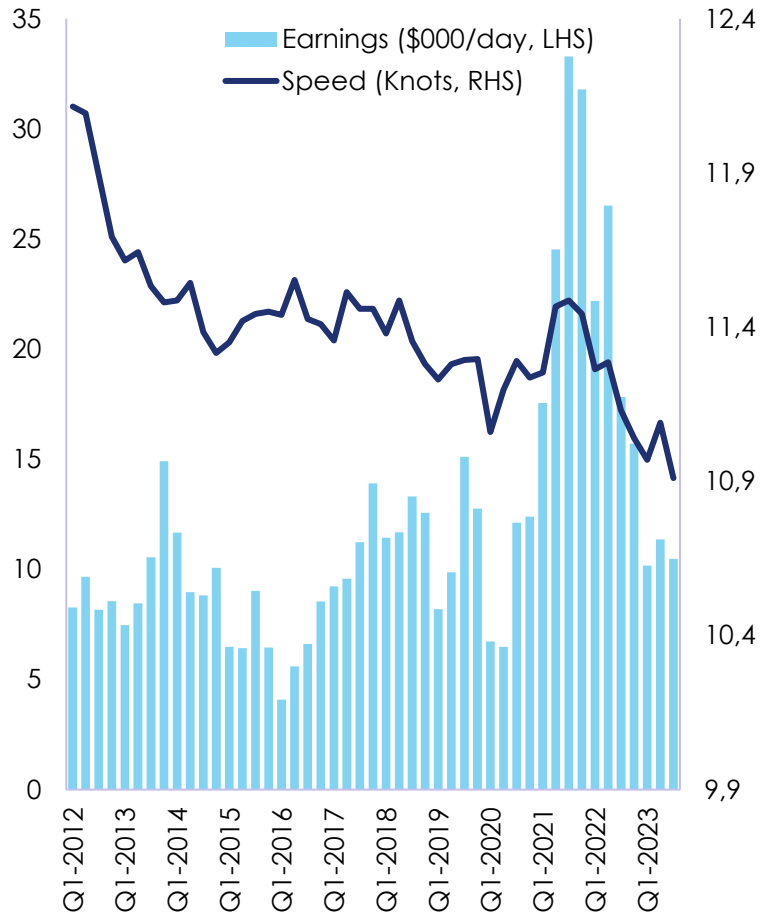
Also a range of other initiatives & regulations 'in play' or being discussed: Seacargo Charter, EU SRR / Hong Kong Convention (Green Recycling), Fuel EU Maritime, IMO Carbon Levy, etc.

Source: Clarksons Research. Provisional CII rating analysis uses Clarksons Research emissions benchmarks (estimated AERs), based on mapping current fleet to Clarksons Research standard ships, and calculated as averages across a 'basket' of standard voyages. Rating estimates based on fleet as at start January 2023 and does not take into account improvements in vessel efficiency, fuelling, speed etc going forwards. Fleet impact scenario basis range of assumptions around speed, consumption and age. \*Basis tank to wake and basis day 'at sea' consumption at full liability. CO<sub>2</sub>e calculations for wider GHG emissions basis IPCC 6th report (AR6) on a 100 year GWP timeline. ITW emission factors basis IMO fourth GHG study where applicable. Black carbon emissions not included.

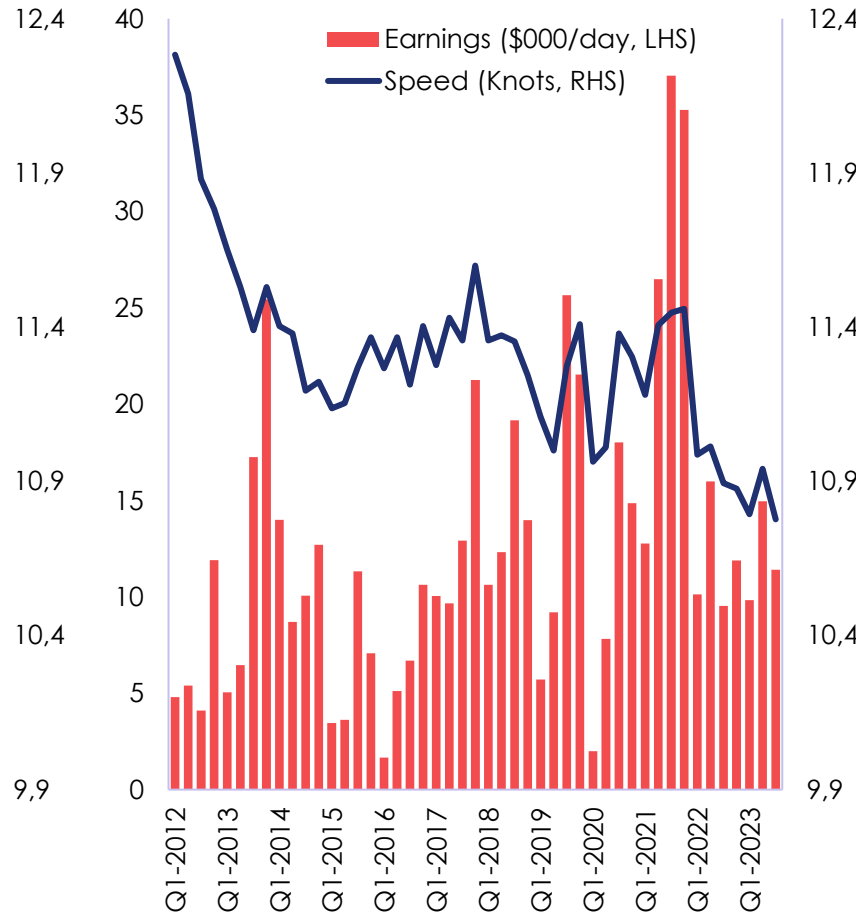
# Long-Term Bulkcarrier Speed Trends Generally Maintained

Bulker speeds continued to trend downwards through firm markets, and are at record lows recently...

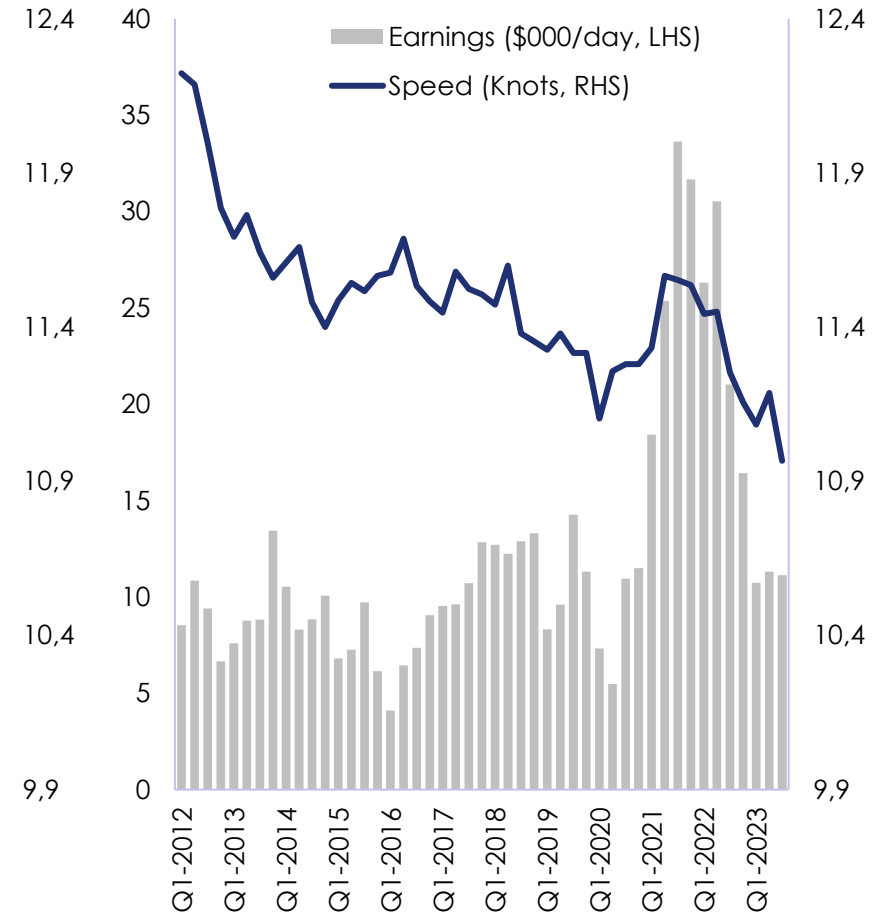
## Bulkcarriers



## Capesize



## Handy/Supramax



Source: Clarksons Research.

# Green Transition & Environmental Regulations Already Impacting Bulker Markets

Environmental regulations starting to impact speeds, supply/demand, earnings, asset prices, etc...

## Bulkcarrier Market & Supply-Demand Impacts from Fuelling Transition...

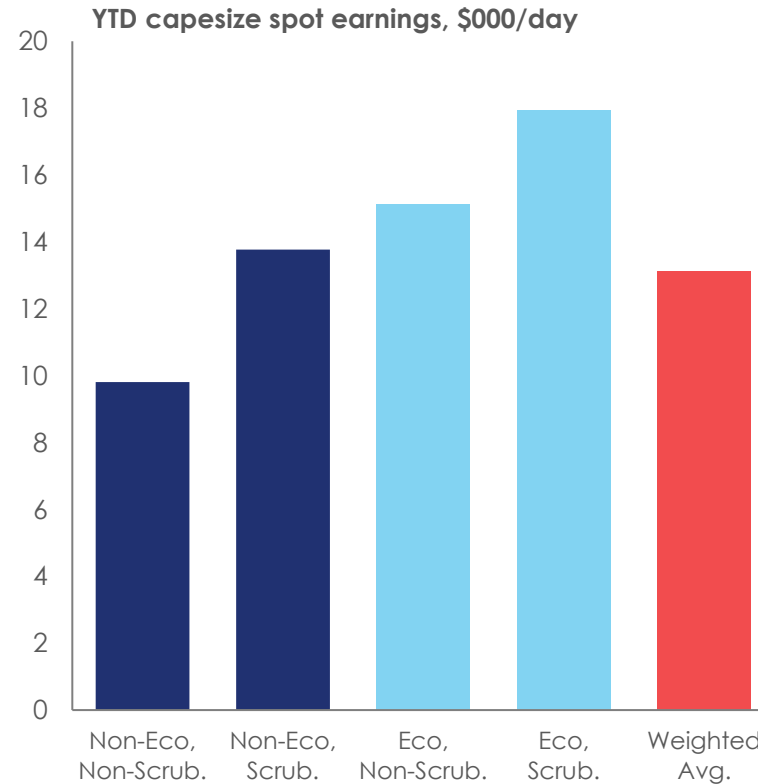
### Impact of "eco" characteristics, fuel technology and ESTs on asset value and earnings potential

- earnings / value differentials & impacts on depreciation curves
- "tiered" and more complex charter and S&P markets

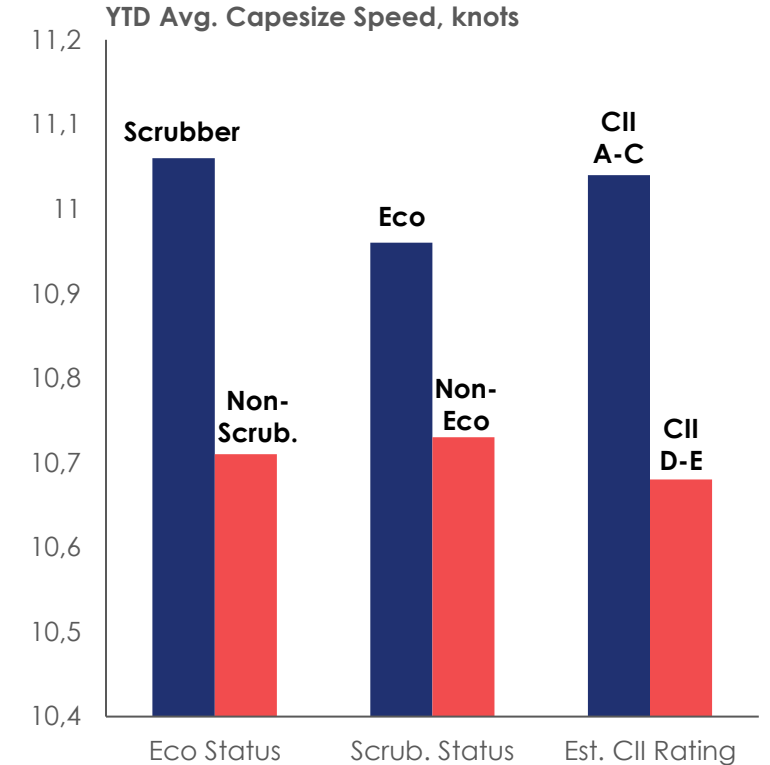
### Impacts on supply-demand factors

- lower speeds
- increased demolition ahead?
- delayed newbuild ordering due to technology uncertainty
- uneven fleet renewal
- operational considerations and shifts in trade flows

## 'Eco' and Scrubber-fitted ships are already earning a clear premium...



## Fuel economics & environmental regs are already creating speed differentials



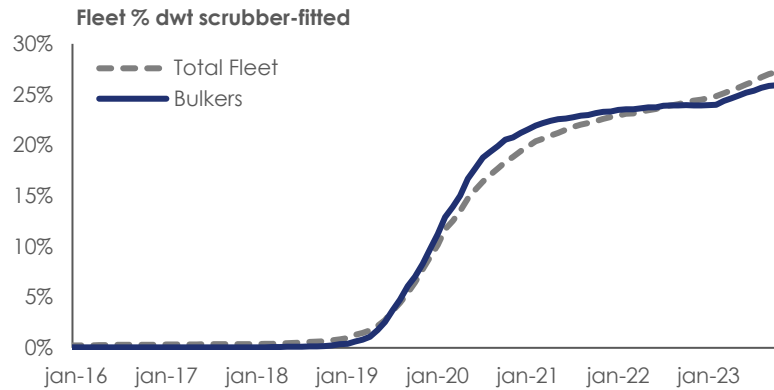
**Asset markets: Capesize Eco Premium for c.5-6yr old secondhand vessel \$7-8m**

Source: Clarksons Research

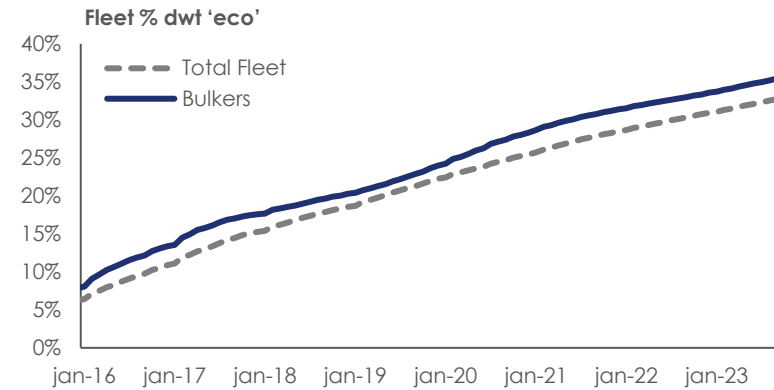
# Tracking Bulkcarrier “Green” Vessel Technology Uptake

Bulker uptake of scrubbers, ESTs and ‘eco’ ships considerable, but lagging behind on alternative fuels...

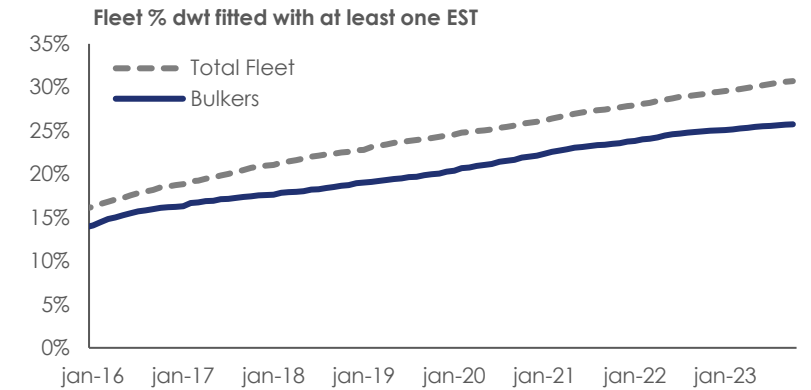
## >25% of bulker fleet scrubber-fitted



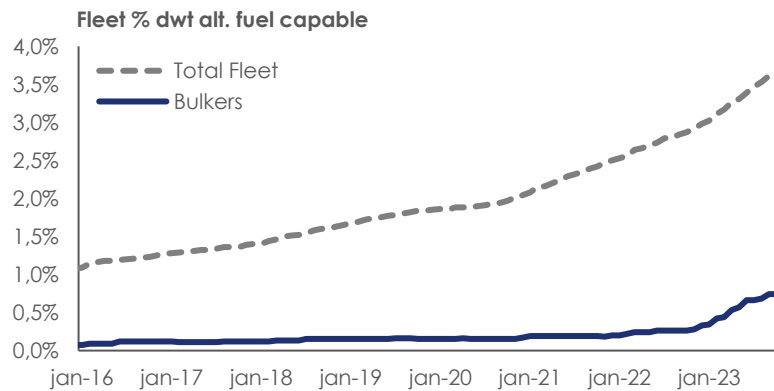
## A significant >35% is now ‘eco’



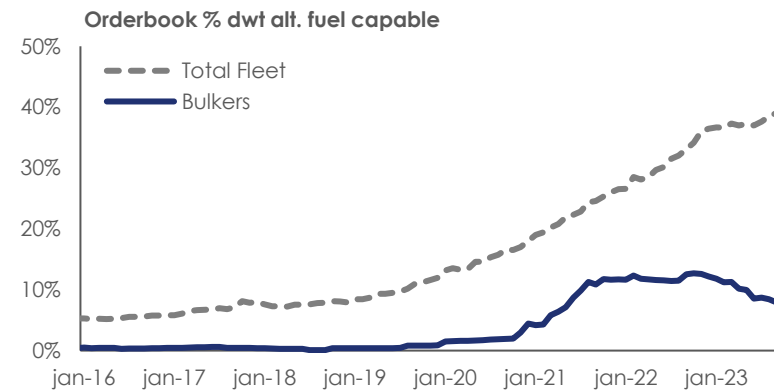
## >25% is fitted with Energy Saving Tech.



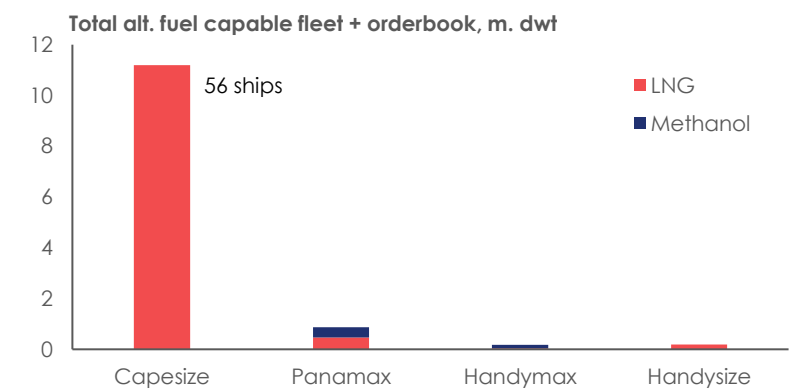
## But <1% of bulker fleet is alt. fuel capable



## Alt. fuel ordering has been limited...



## ...mostly LNG Capes ordered back in 2021

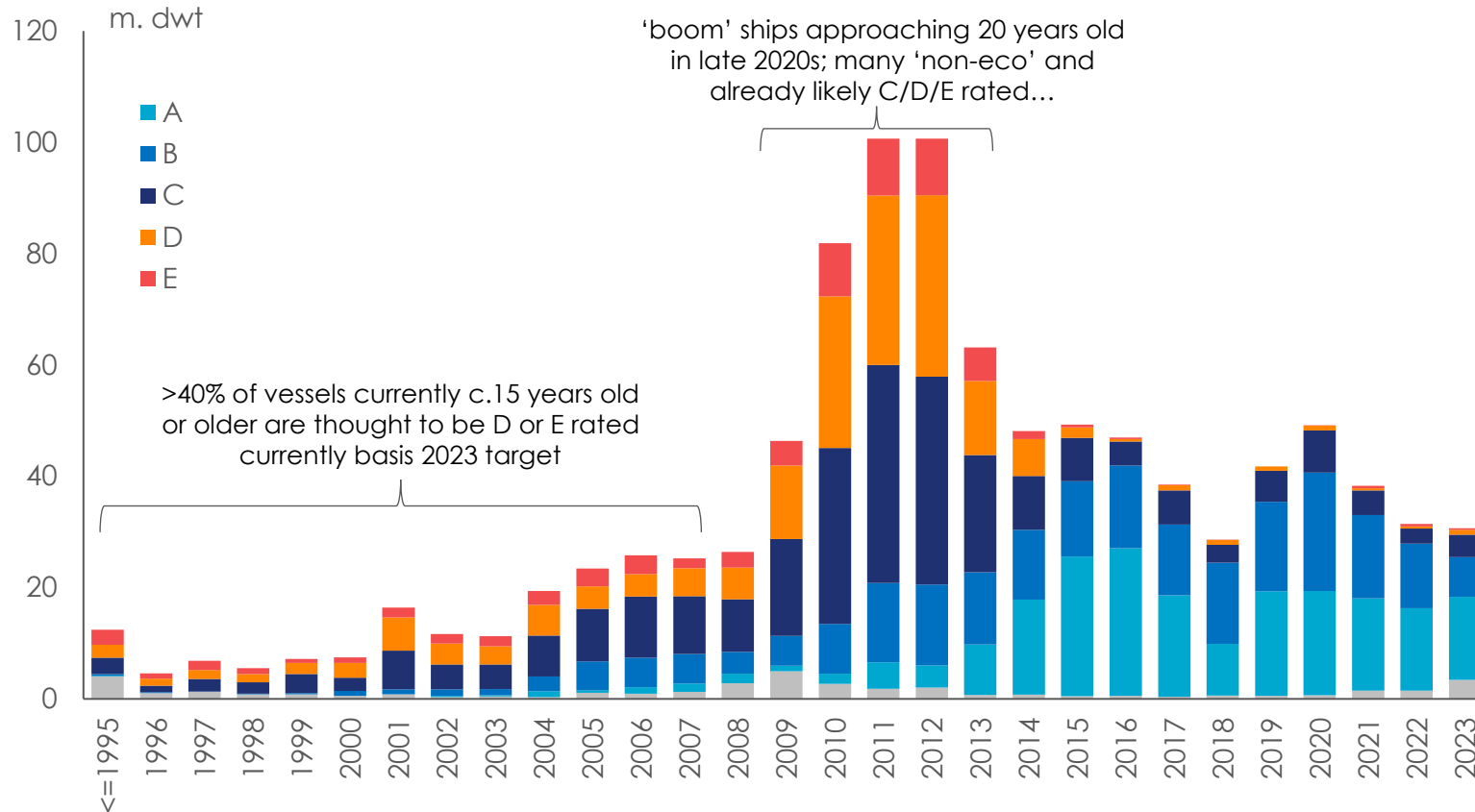


Source: Clarksons Research

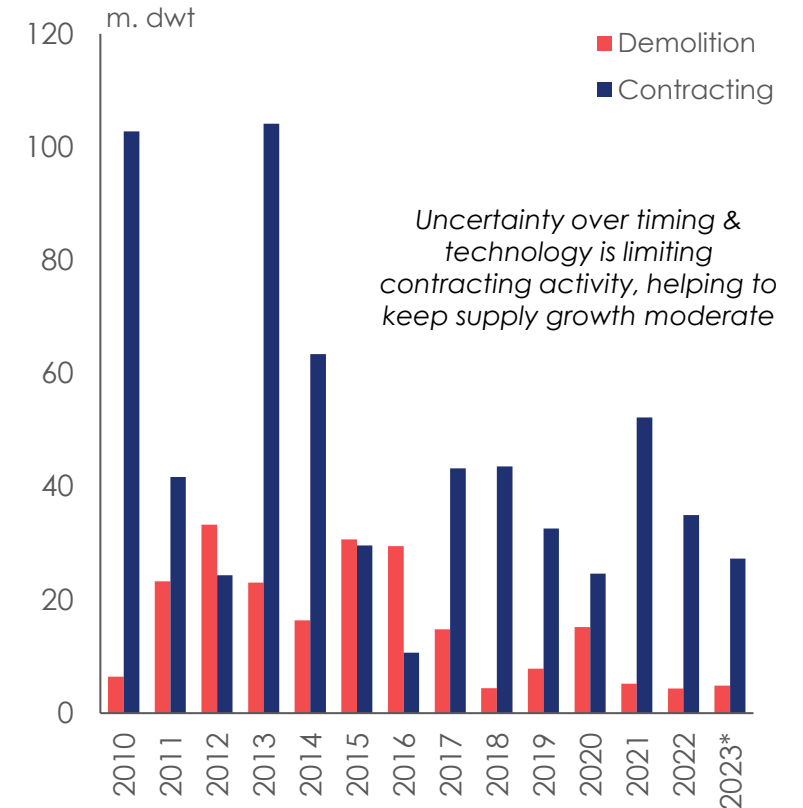
# The Requirement For Bulkcarrier Fleet Renewal

Bulkcarrier fleet renewal is needed, driven by age profile & env. regs, so demo/contracting will need to pick up...

## Bulkcarrier age profile by estimated operational 2023 CII rating; major fleet renewal will be needed to replace ageing non-eco tonnage in coming years...



## Demolition and contracting will need to increase from recent subdued pace...



Source: Clarksons Research. As at late October 2023. \*2023 basis YTD.

# Tracking The Impact Of The Green Transition On The Bulkcarrier Sector

Framework for the key impacts so far and ahead

## THE ENERGY TRANSITION

- **Energy Security** has been a major focus recently given Russia-Ukraine conflict and other geopolitical concerns
- But the **Energy Transition** is already having clear impacts and is likely to have major impacts on trade going forwards

## NEW ENVIRONMENTAL REGULATIONS

- **The environmental agenda is accelerating** with new regulations including EEXI, CII, EU ETS, etc. 'front and centre' in the industry
- Seem likely to have **supportive impacts on supply (slower speeds, retrofit time)** but also create '**tiered markets**' in chartering, S&P

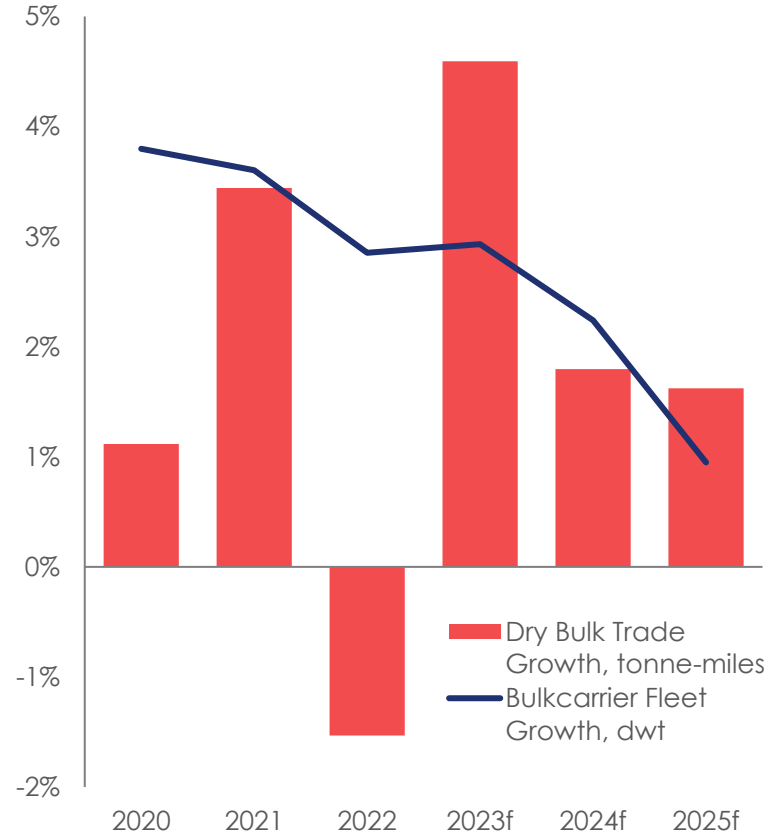
## VESSEL TECHNOLOGY & TIMING

- **Fuel and technology choices are in sharp focus** but there is no clear 'winner' yet and major uncertainty, particularly in the bulker sector
- **Limited progress yet on fleet renewal** is generally keeping a '**lid**' on supply growth; progress will need to accelerate ahead

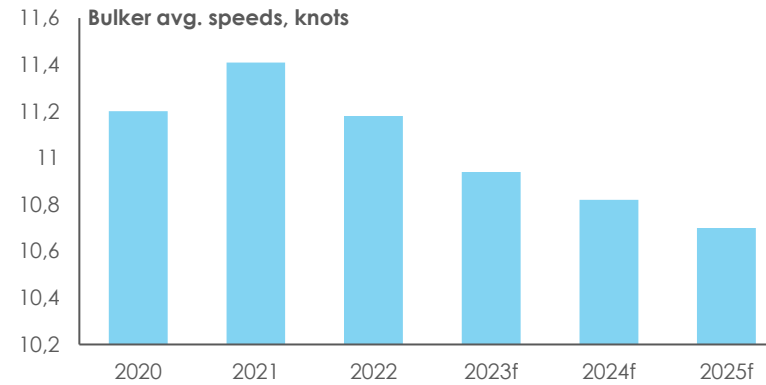
# Bulkcarrier Market Outlook – Increasing Complexity

Headline fundamentals remain central to market balance, but a range of other factors are important to track...

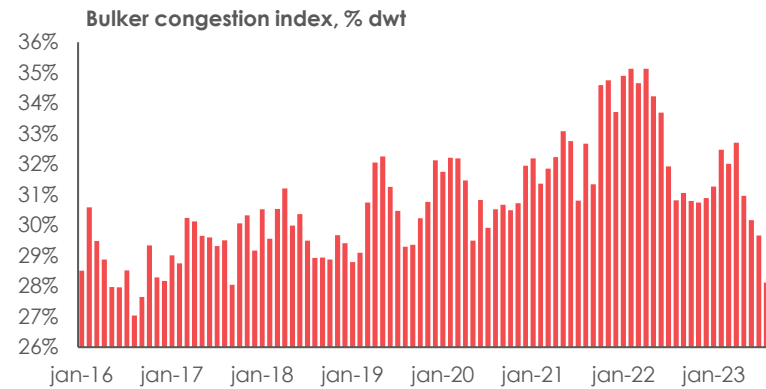
## 'Headline' supply-demand fundamentals balanced-to-supportive in coming years



## Speed scenarios also in focus...



## Congestion & disruption also a wildcard...



## Bulkcarrier market summary & outlook:

### Current Market Conditions

- **Moderate/'uninspiring' market conditions in 2023 so far**, despite some recent seasonal gains – overall earnings close to long-term averages and down from 2021-22 highs
- **Improved supply-demand fundamentals** for 2023 (4.6% tonne-mile growth vs 2.9% fleet growth) but **reduced congestion** and cumulative fleet growth holding back market levels

### 2024 Outlook

- **Fairly balanced headline supply-demand fundamentals** currently projected (demand growth and fleet growth both potentially c.2%).
- Other factors such as **vessel speeds**, **EST retrofit time** could support some market improvements, but economic headwinds need monitoring.

### 2025 Outlook

- **Cautiously supportive** headline supply-demand fundamentals (c.2% tonne-mile demand growth vs c.1% fleet growth)
- **Supportive supply-side backdrop**, **environmental regulations** expected to lend support (speeds, retrofiting, more demolition?) but **energy transition** increasingly needs monitoring for impacts on dry bulk trade (i.e. coal)

Source: Clarksons Research

# Clarksons Research Portal – www.clarksons.net

Access to digital platform of products across shipping & trade, offshore & energy (incl. renewables)

The screenshot displays the Clarkson Research Portal website. At the top left is the Clarkson Research logo. The top right corner features a user profile icon and the text "Login / Sign up". A horizontal navigation bar contains the following items: "About Us", "Portal", "Valuations", "Sign Up", "Contact Us / 联系我们", "Insights", "Wind", and "Clarksons Group".

The main content area is set against a background image of a port with many colorful shipping containers. It is divided into two main sections:

- My Profile and Tools**: This section contains four white tiles:
  - Login**: Includes a user icon, the text "Please login to view your subscriptions and trials", and a "Login | Sign up" link.
  - My Files**: Describes access to data and analysis files prepared for the user by Clarkson Research.
  - Portfolio Manager**: Describes access to valuation authentication, validation, and portfolio management tools.
  - API**: Describes bespoke data delivered via API.
- Additional Products and Services from Clarkson Research**: This section contains a grid of product tiles:
  - Shipping Intelligence Network (SIN)**: Data and analysis tracking and projecting market supply / demand, freight, vessel earnings, vessel values and macro-economic data around trade flows and global economic developments. Includes "Login | Trial" link.
  - World Fleet Register (WFR)**: Data and intelligence around the world fleet, vessel equipment and technology, companies, shipbuilding, emissions regulations, fuelling transition and alternative fuels. Includes "Login | Trial" link.
  - World Offshore Register (WOR)**: Detailed data and intelligence on all offshore oil and gas fields, investment projects, production platforms, offshore support vessels and rigs. Includes "Login | Trial" link.
  - Offshore Intelligence Network (OIN)**: Data and analysis of utilisation, day rates and market supply / demand of the offshore fleet including rigs, OSVs, subsea and floating production. Includes "Login | Trial" link.
  - Renewables Intelligence Network (RIN)**: Leading data, intelligence and analysis around offshore renewables, including the growing offshore wind market. Includes "Login | Learn more | Trial" link.
  - Sea/net**: Developed with our technology partner Maritech, vessel tracking intelligence and analytics, blending satellite and land-based AIS data with the most authoritative vessel characteristics and ports database. Includes "Login | Trial" link.
  - Valuations**: Market leading valuations across all ship types, combining market expertise and technology.
  - Data**: Access our powerful data direct into your own systems and tools, including via API.
  - Consultancy**: Tailored consultancy to support your transactional, strategic and market research needs.
  - Forecasting**: Forecasting of newbuilding investment, fleet development, trade flows, energy supply and vessel earnings.
  - Fuelling Transition**: Detailed intelligence modules around energy transition, emissions policies, eco technology, fuelling transition and alternative fuels, embedded within our offering.

At the bottom of the page, there is a footer with the Clarkson Research logo and "© Clarkson Research Services Limited 2023" on the left, and a series of links: "Contact Us", "Terms of Use", "Disclaimer", "Privacy Policy", "Cookie Policy", social media icons for Twitter and LinkedIn, and a list of product acronyms: "Sea/net", "SIN", "OIN", "WFR", "WOR", "RIN", "Clarksons Group".



# Disclaimer

## Clarksons Research

---

The material and the information (including, without limitation, any future rates) contained in this presentation and in any documentation attached to it (together, the "Information") are provided by Clarkson Research Services Limited of Commodity Quay, St Katharine Docks, London E1W 1BF and/or one of its 'connected persons' (together "Clarksons Research") for general information purposes only. The Information is drawn from Clarksons Research's databases and other sources. Clarksons Research advises that: (i) any Information extracted from Clarksons Research's databases is derived from estimates or subjective judgments; (ii) any Information extracted from the databases of other maritime data collection agencies may differ from the Information extracted from Clarksons Research's databases; (iii) whilst Clarksons Research has taken reasonable care in the compilation of the Information and believes it to be accurate and correct, data compilation is subject to limited audit and validation procedures and may accordingly contain errors; (iv) the provision of the Information does not obviate any need to make appropriate further enquiries; (v) the provision of the Information is not an endorsement of any commercial policies and/or any conclusions by Clarksons Research and its 'connected persons', and is not intended to recommend any decision by the recipient or any other person; (vi) shipping/offshore is a variable and cyclical business and any forecasting concerning it may not be accurate. The Information is provided on "as is" and "as available" basis. Clarksons Research and its 'connected persons' make no representations or warranties of any kind, express or implied about the completeness, accuracy, reliability, suitability or availability with respect to the Information. Any reliance placed on such Information is therefore strictly at Recipients' own risk.

This Information is confidential and is solely for the use of those to whom it is provided by Clarksons Research (the "Recipients"). Neither the whole nor any part of the Information may be used or relied upon by, any other person or used for any purpose without the prior written consent of Clarksons Research. Especially, the information is not to be used in any document for the purposes of raising finance whether by way of debt or equity. All intellectual property rights are fully reserved by Clarksons Research, its 'connected persons' and/or its licensors.

To the extent permitted by law, Clarksons Research and its 'connected persons' shall not be liable to the Recipients or any of them or any third party for any loss, liability or damage, cost or expense including without limitation, direct, indirect, consequential loss or damage, any loss of profit, loss of use, loss of or interruption in business, loss of goodwill, loss of data arising out of, or in connection with, the use of and the reliance on the Information whether in contract, tort, negligence, bailment, breach of statutory duty or otherwise, even if foreseeable.

These exclusions shall override any terms or conditions otherwise applicable but do not apply to (i) death or personal injury caused by the negligence of Clarksons Research and its 'connected persons' or (ii) the liability of Clarksons Research and its 'connected persons' for fraud or fraudulent misrepresentation. In this disclaimer 'connected persons' means, in relation to Clarksons Research, its ultimate holding company, subsidiaries and subsidiary undertakings of its ultimate holding company and the respective shareholders, directors, officers, employees and agents of each of them. This disclaimer shall be governed by and construed in accordance with the laws of England to the jurisdiction of whose Courts the Recipients shall for the benefit of Clarksons Research and by acceptance of the Information be deemed to have accepted as having exclusive jurisdiction over any dispute regarding or involving any of the Information or this disclaimer.