What’s Next on the Horizon for the Shipping Markets - Storm Clouds or a Pot of Gold?

14th Annual Marine Money London – 26th January 2023

Dr Adam Kent - MSI

MSI

The Helicopter View

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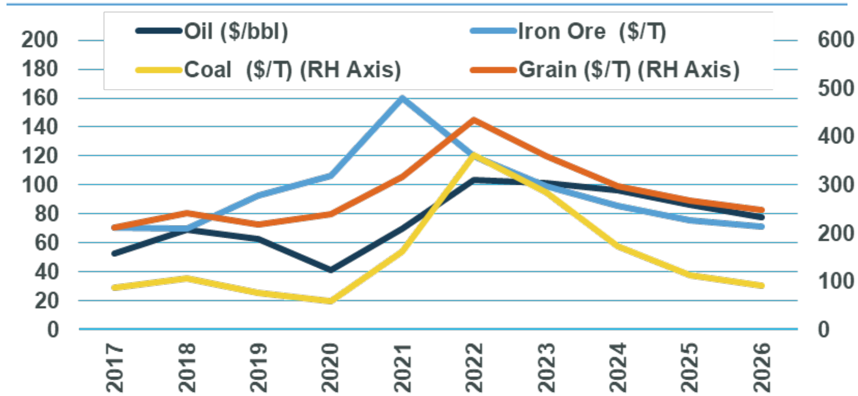
Macro Picture

“Sawtooth” profile with some strong headwinds

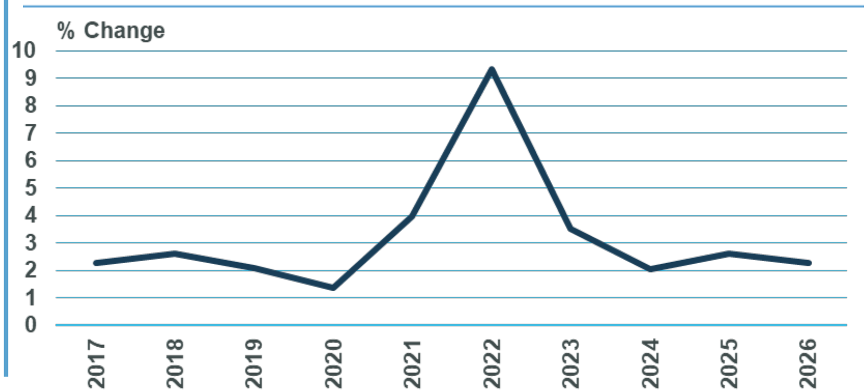
- **Helicopter View**
- China Changes
- Trade Maps
- Supply
- 2ndhand Values

GDP Growth

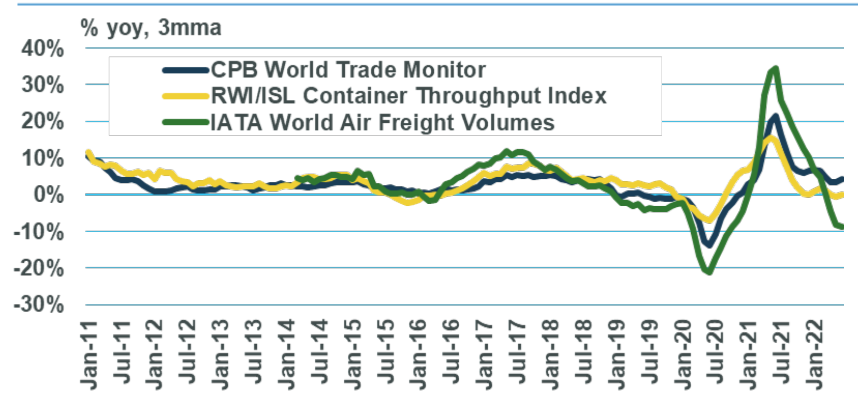
Commodity Prices



OECD Price Inflation



World Trade Trends



Cargo Growth

Dry sectors have been struggling

- **Helicopter View**
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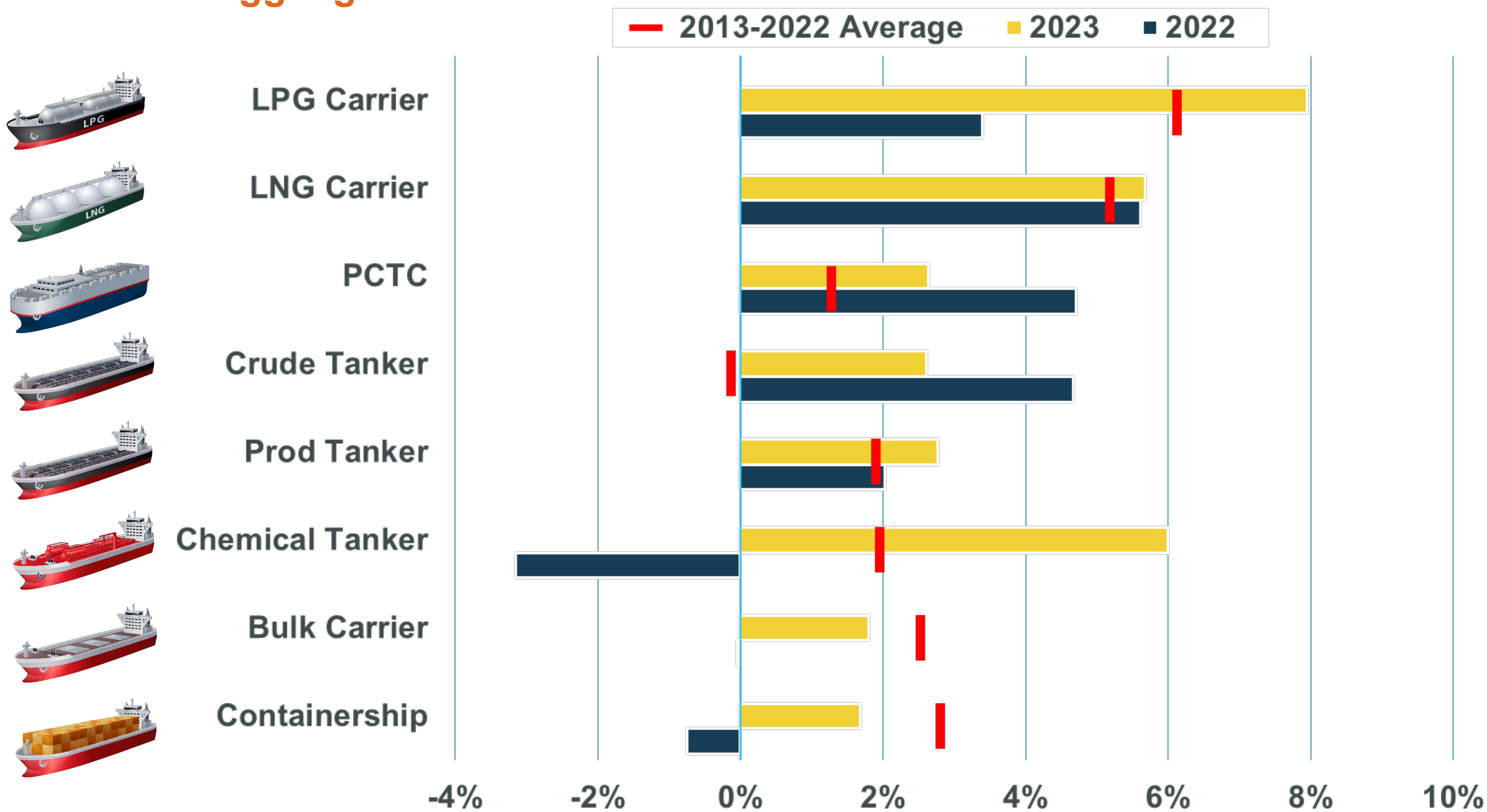

Fleet Growth

In most cases it's been manageable

- Helicopter View
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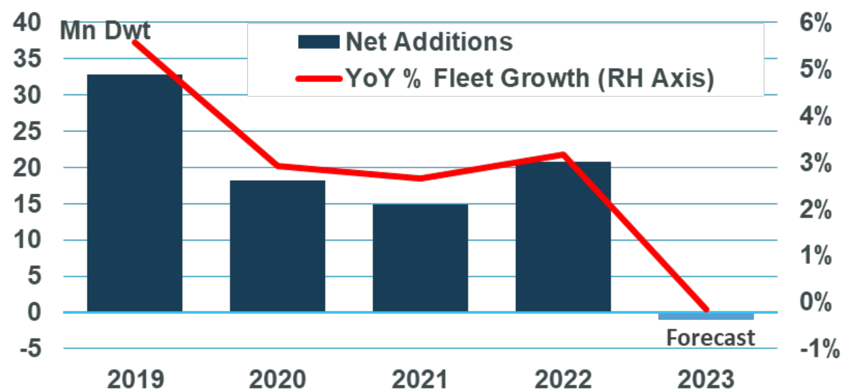
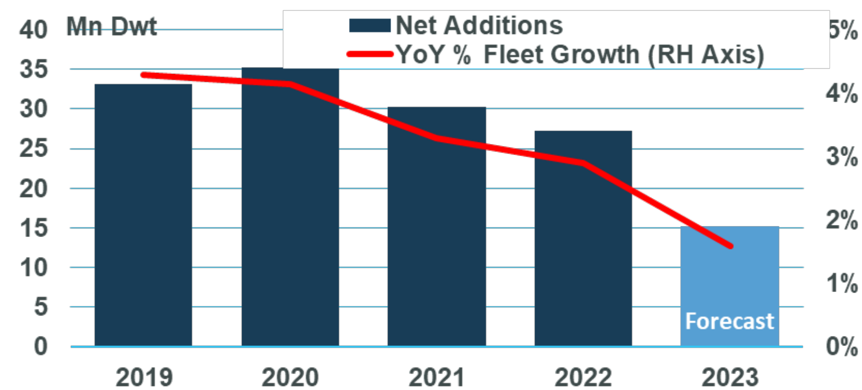
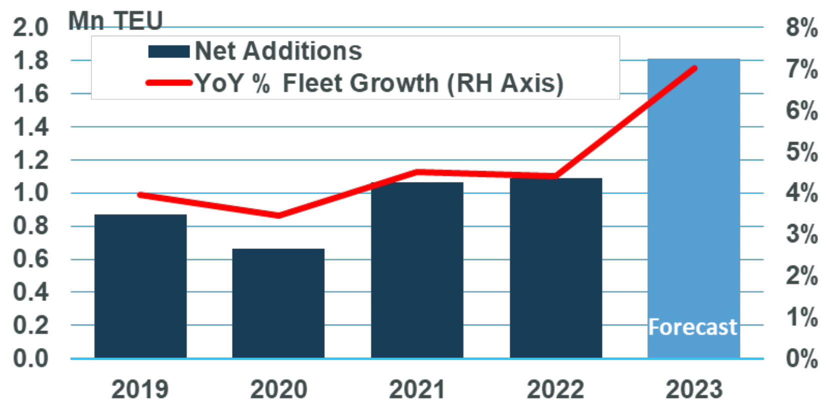
Tankers



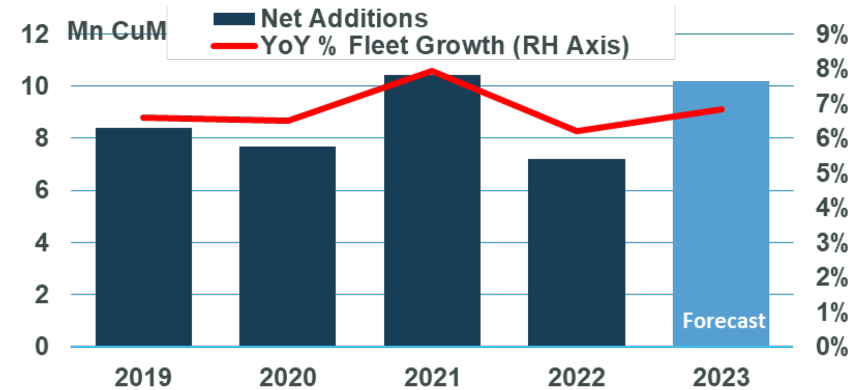
Bulkers



Containers



Gas Carriers



Market Balance

Shipping demand is key

- **Helicopter View**
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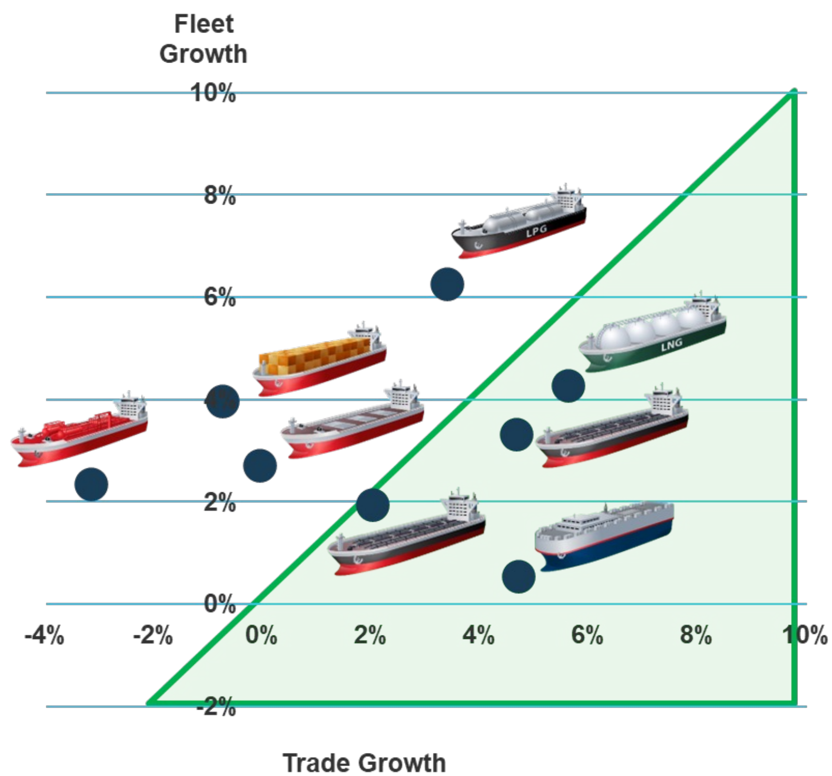
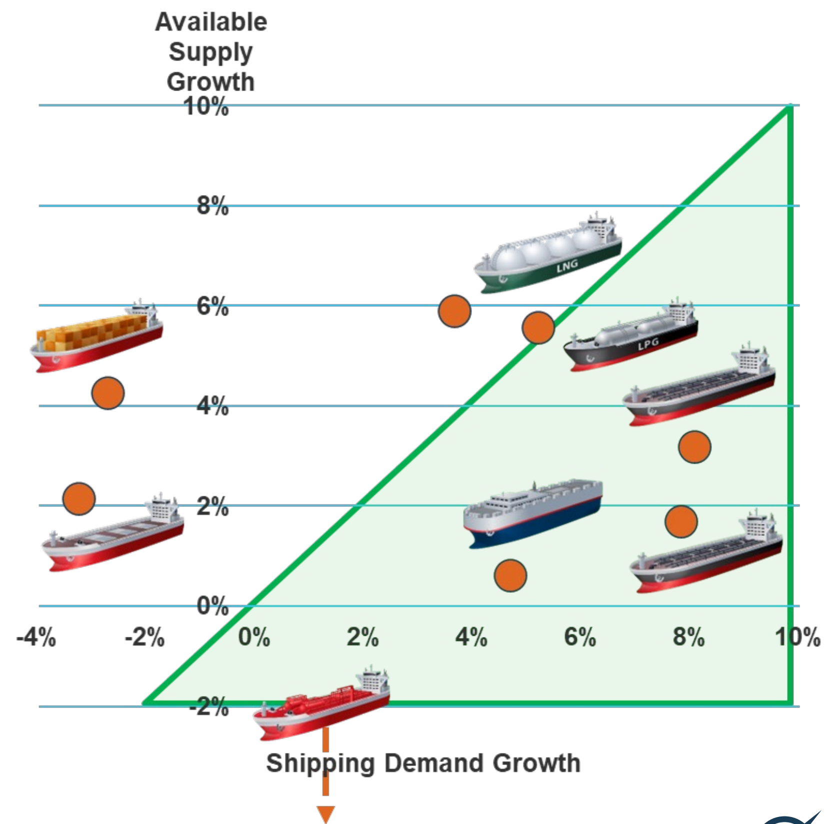
Fleet Growth versus Trade Growth



Fleet Growth versus Shipping Demand Growth



Current Earnings
Where are we on the cycle?

- **Helicopter View**
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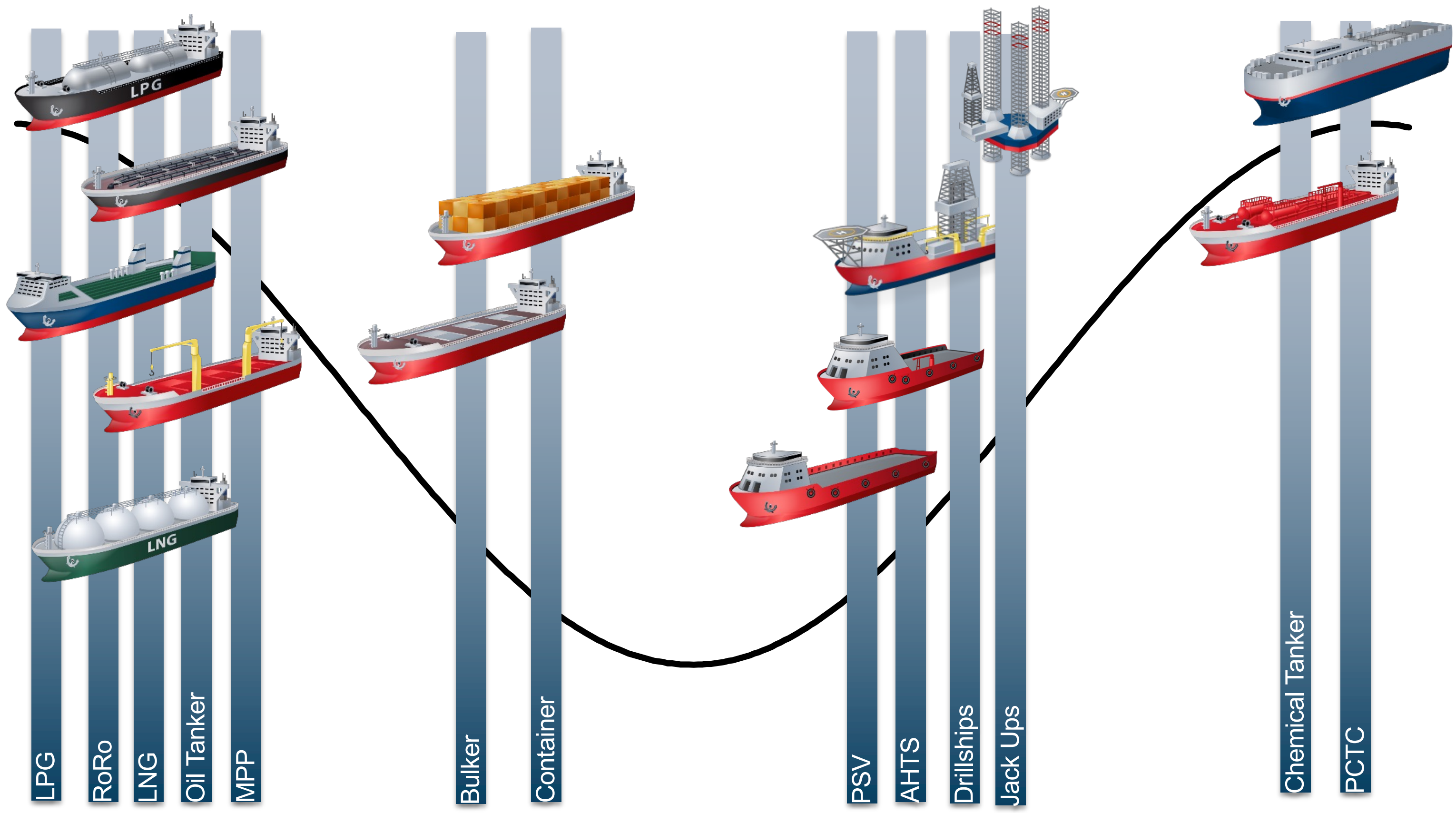

Note: Schematic for illustrative purposes only!

Earnings and Prices – Start 2022 v Today

Average % Change

- **Helicopter View**
- China Changes
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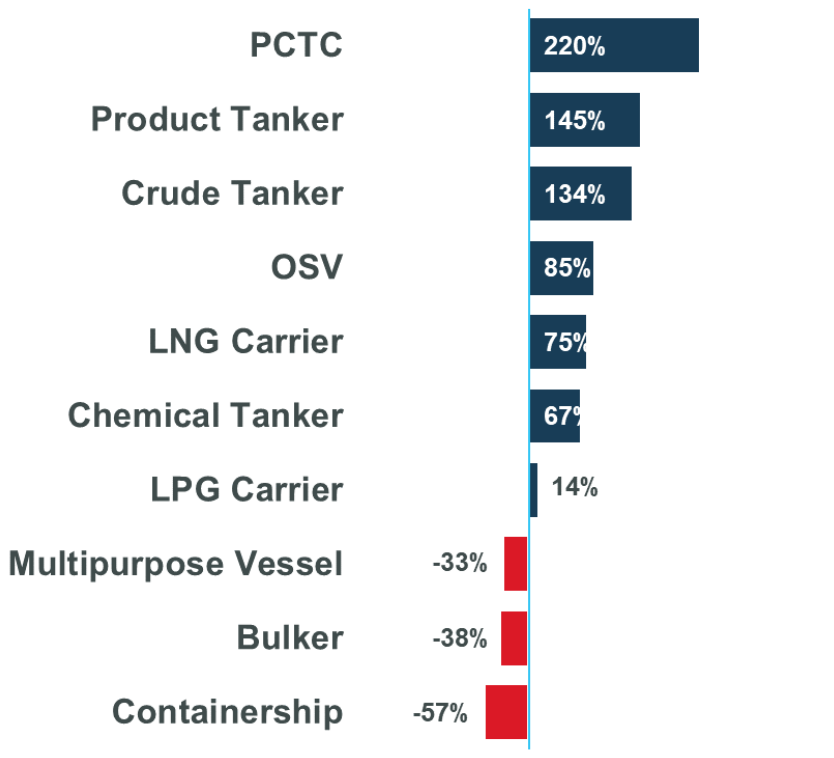
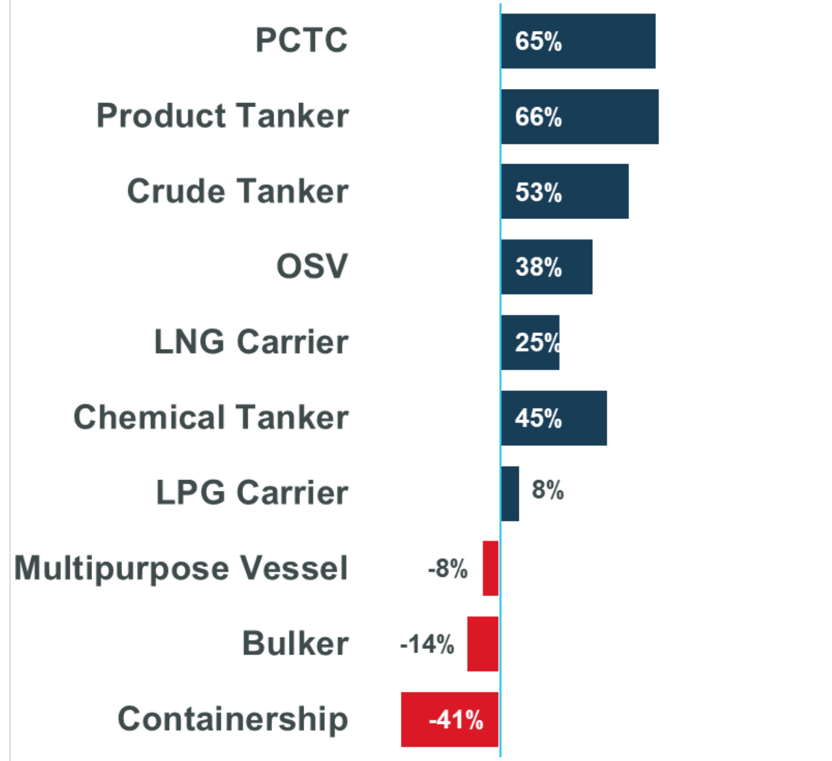
Changes in Earnings - 1 Yr T/C Rates



Changes in 10 Yr Old Prices



Breakeven Levels

Earnings at OK levels at todays prices

- **Helicopter View**
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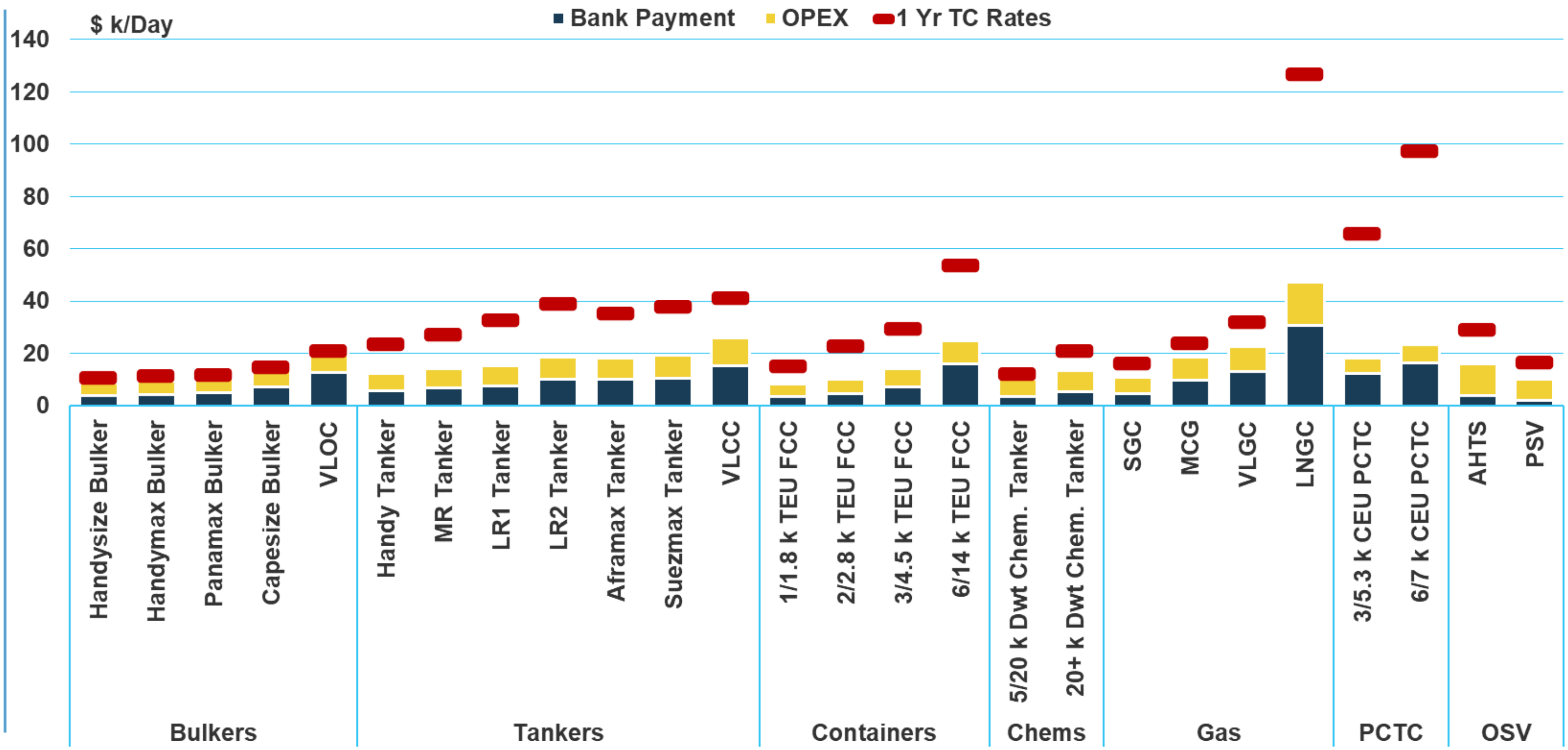

60% LTV, Libor+ 3%, over 15 years

Chinese Demand – A Change in Pace

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Chinese Demand Story Isn't What it Once Was

Continues to cool

- Helicopter View
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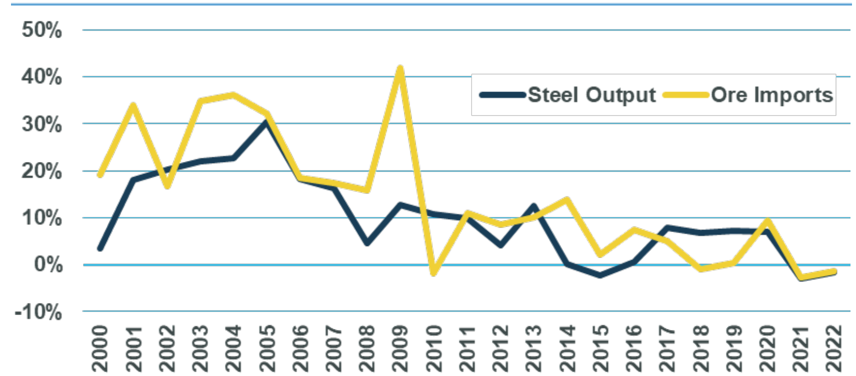
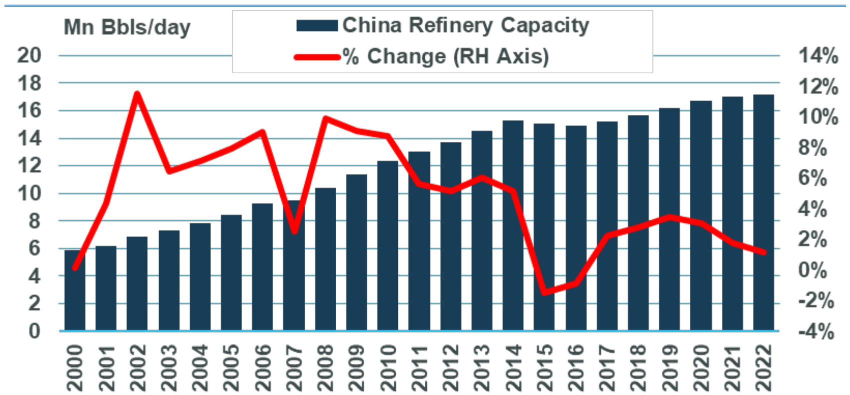
Chinese Property Market

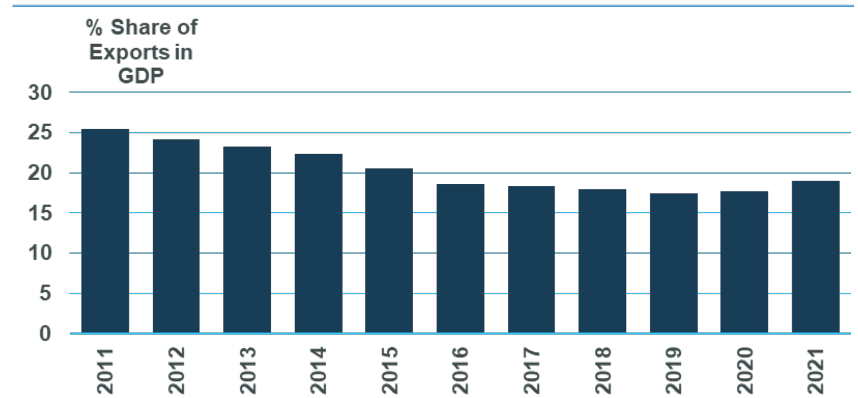
Chinese Steel Output and Iron Ore Imports



Chinese Oil Refinery Capacity



Chinese Exports as Share of GDP



Chinese Longer Term Concerns for Dry Bulk

Structural changes afoot

- Helicopter View
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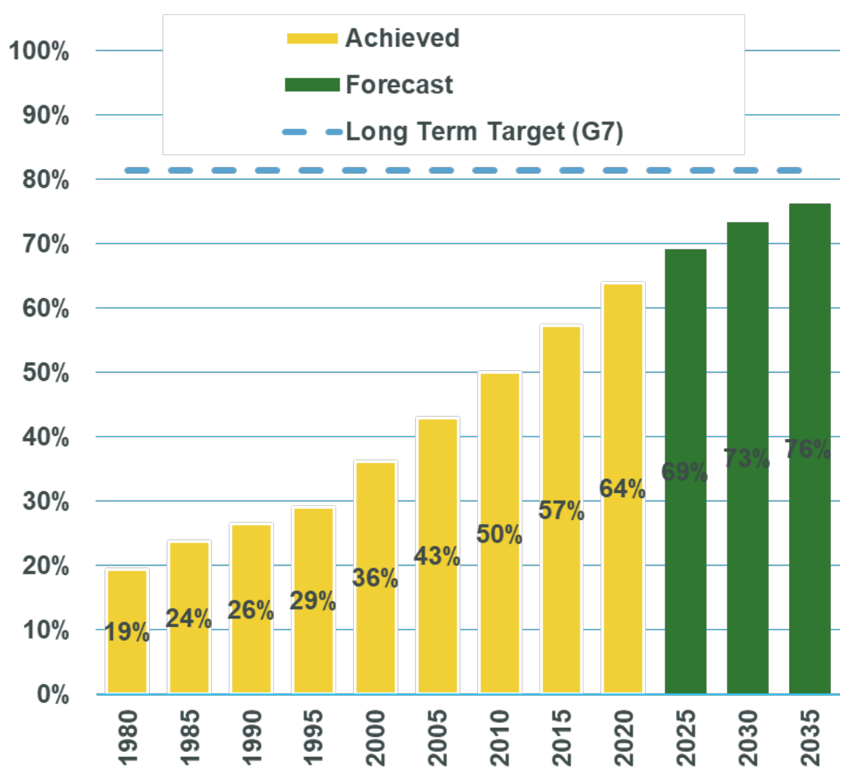
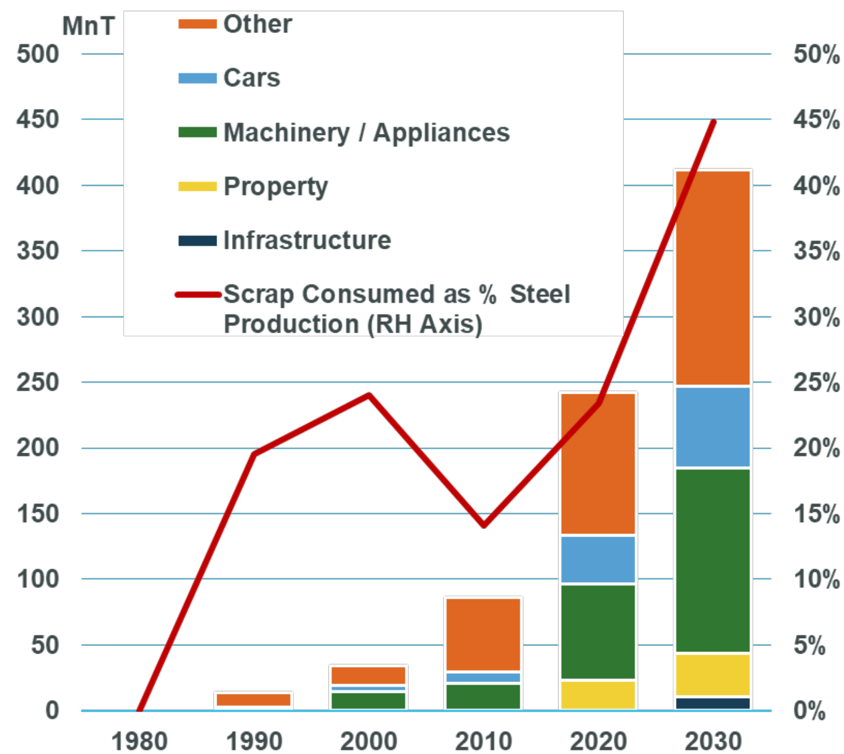
Slowing Rate of Urbanisation in China



MSI's Assessment for Steel Scrap Availability in China



Changing Trade Map – Demand Shifts

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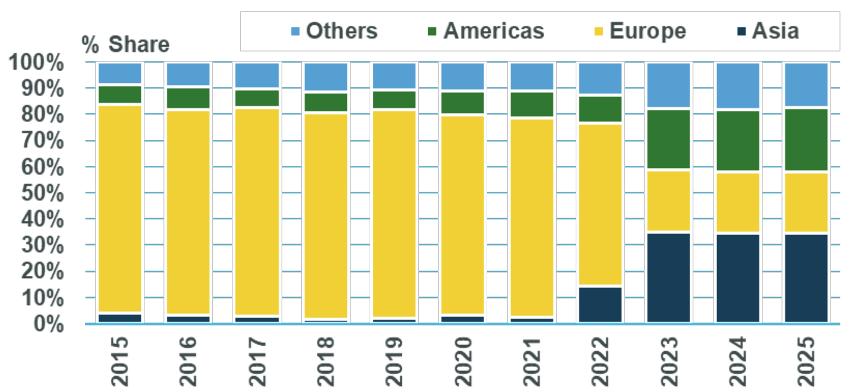
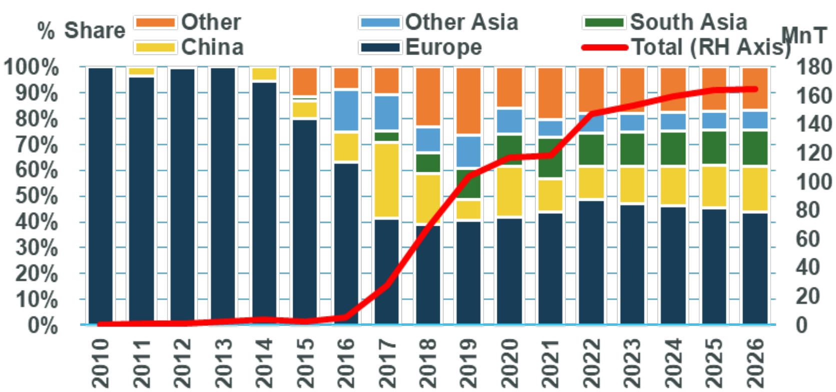
Oil Trade

Where most of the shuffling is happening

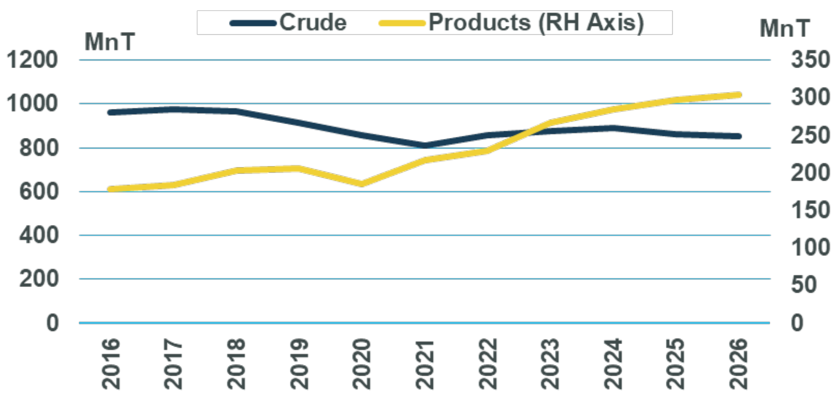
Black Sea/Baltic Crude/Product Exports by Destination



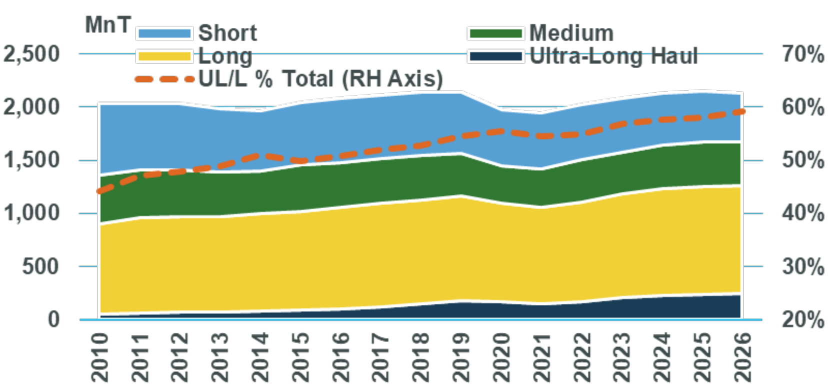
US Crude Exports by Import Destination



Middle East Exports



Seaborne Crude Flows by Route Type

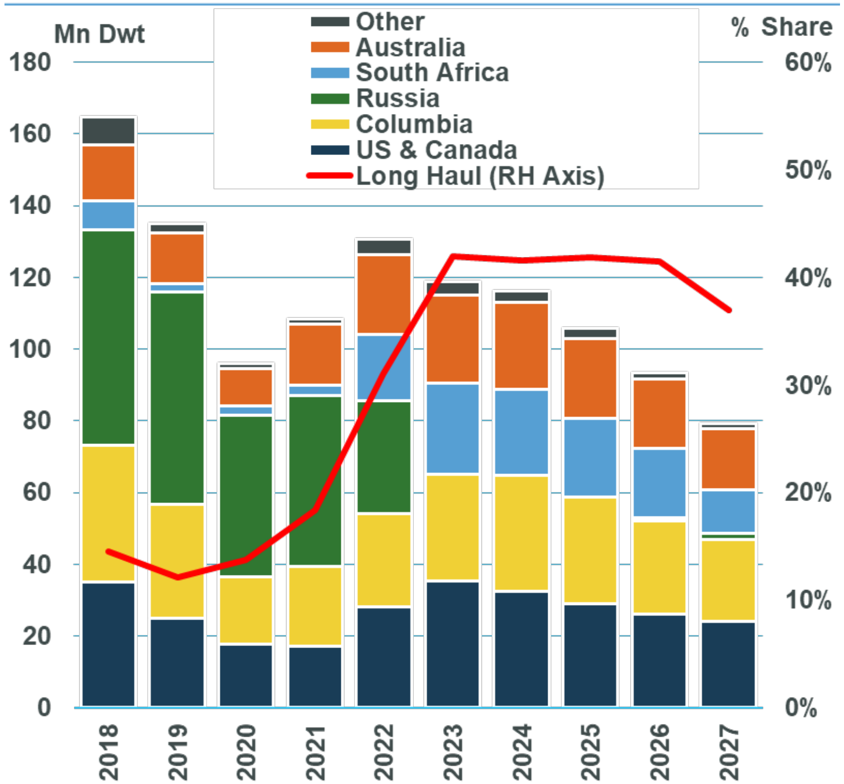


Tonne-mile shifts

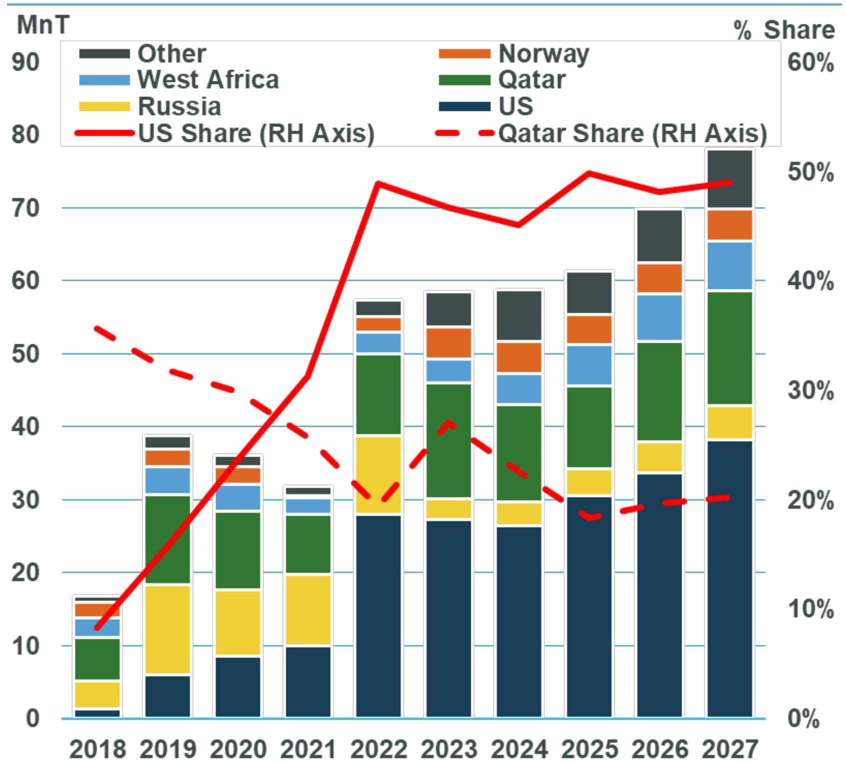
Developing picture

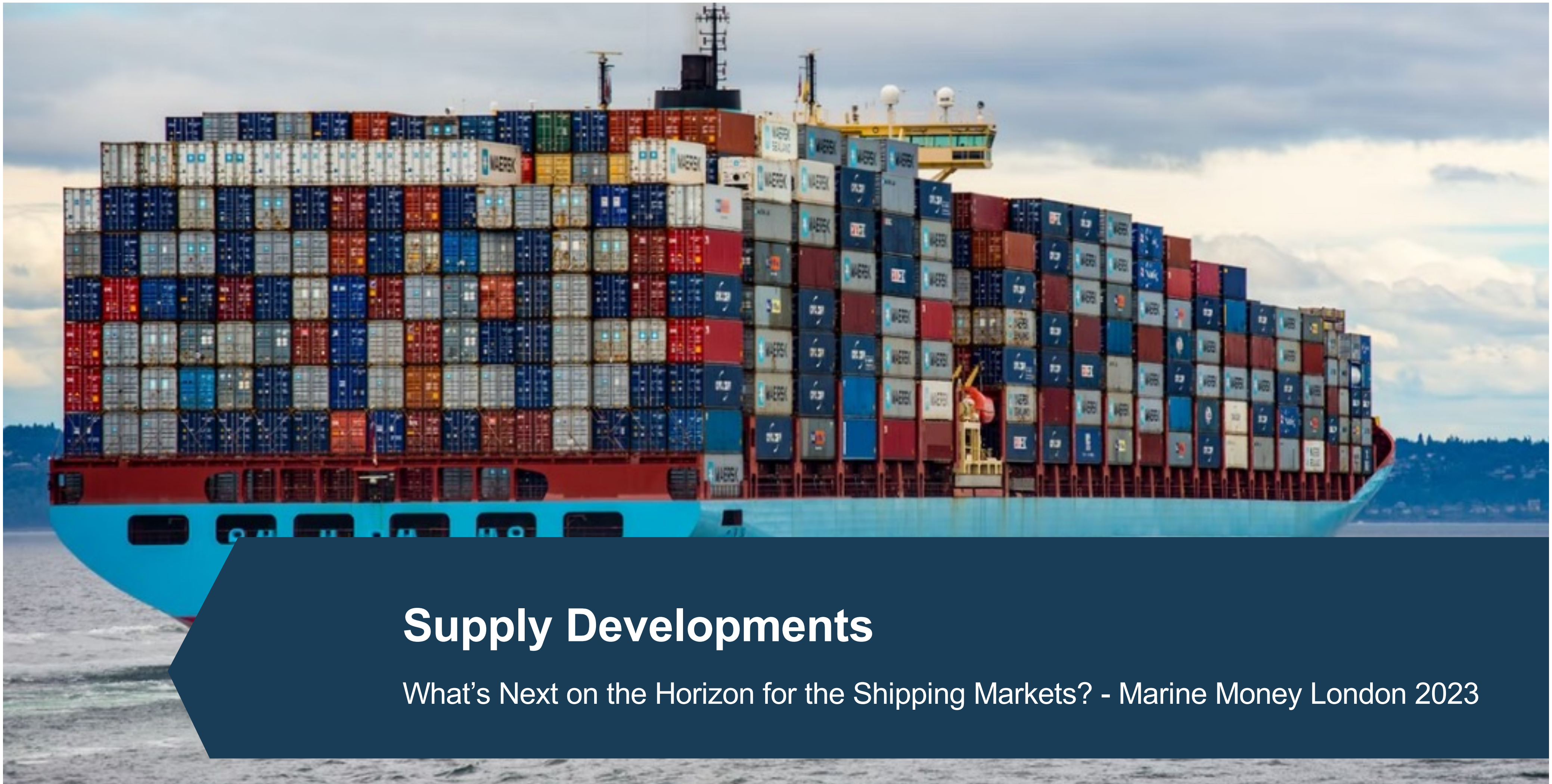
- Helicopter View
- China Changes
- **Trade Maps**
- Supply
- 2ndhand Values

Western Europe Coal Imports by Exporter (Shipping Demand)



Northern Europe LNG Imports





Supply Developments

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Contracting Bifurcation

Container and gas carriers have dominated

- Helicopter View
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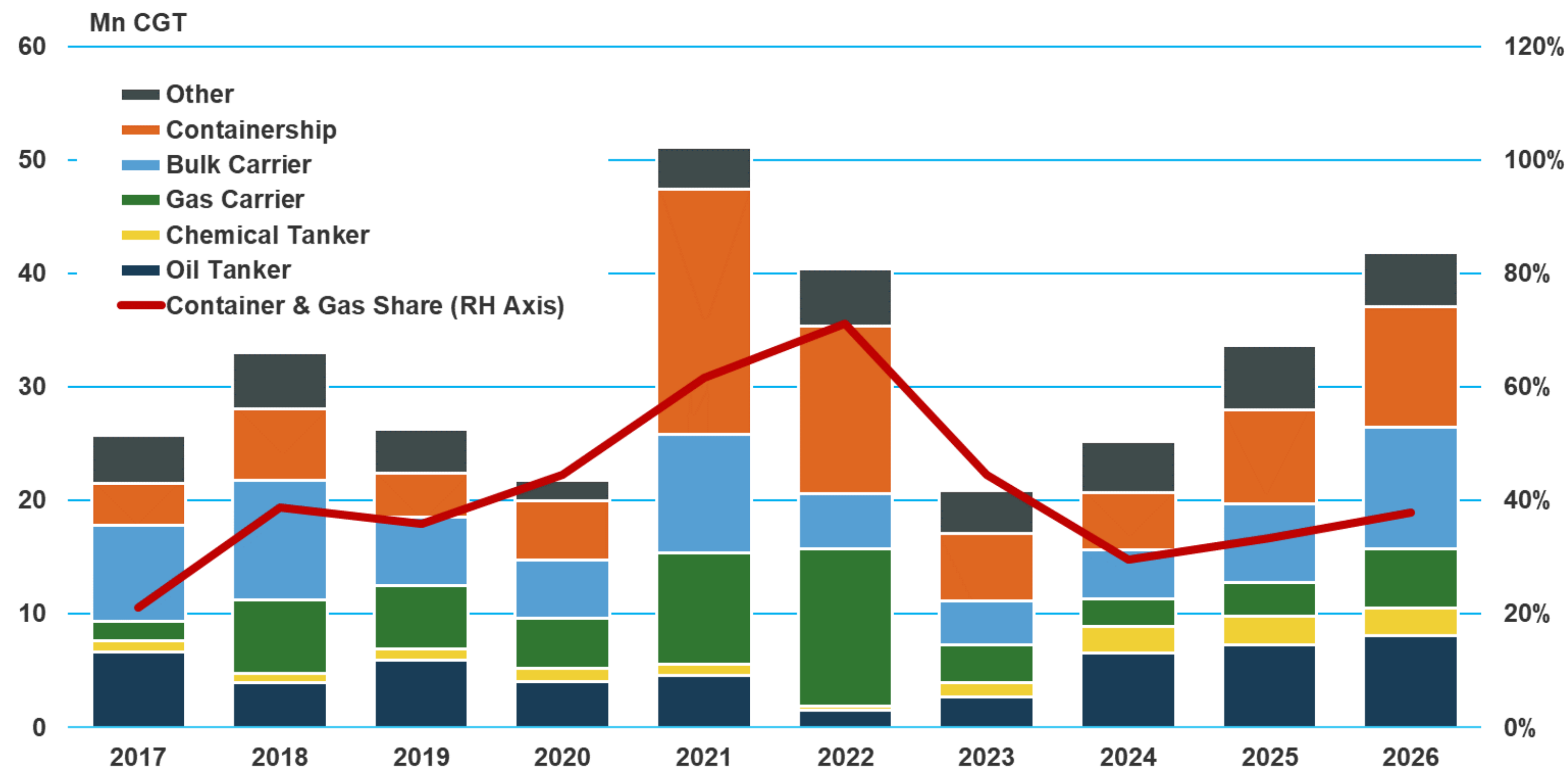

Orderbook as % of Fleet

Contained issues

- Helicopter View
- China Changes
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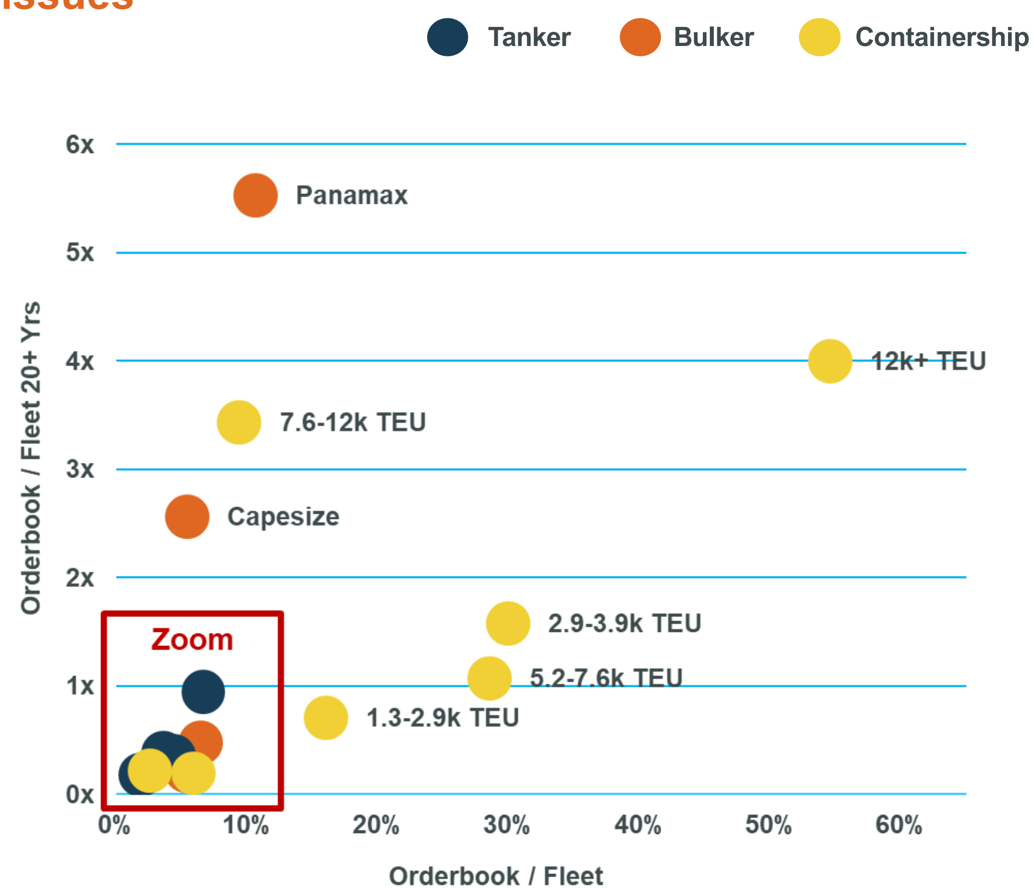

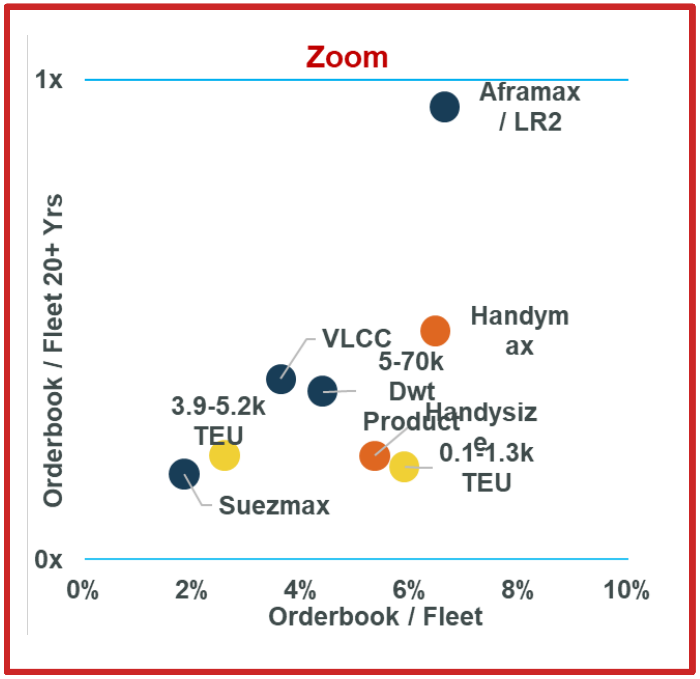

Alternative Fuels

Containers are leading the way

- Helicopter View
- China Changes
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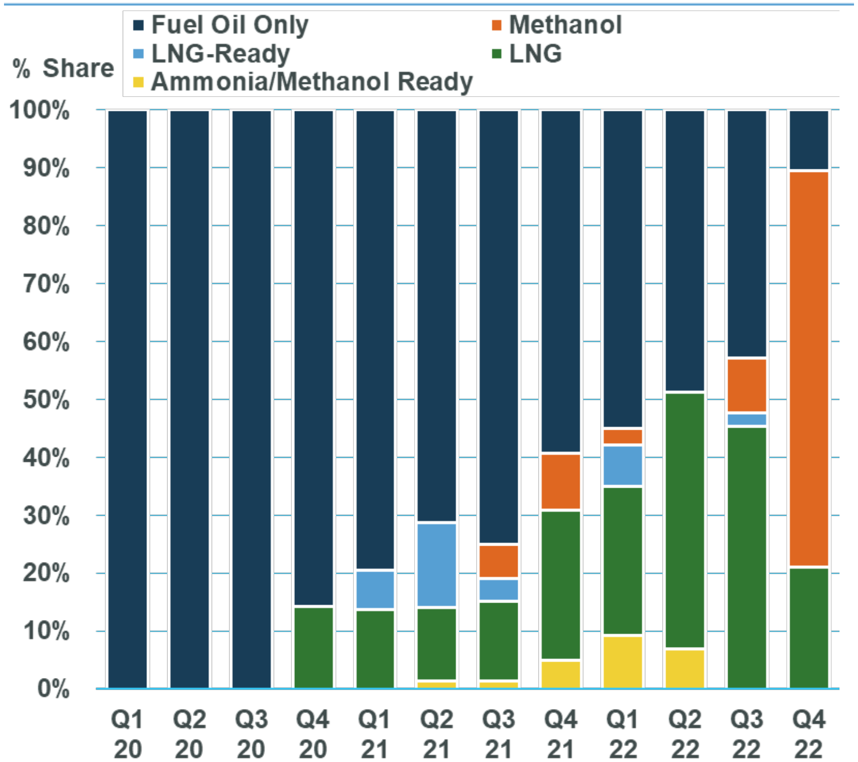
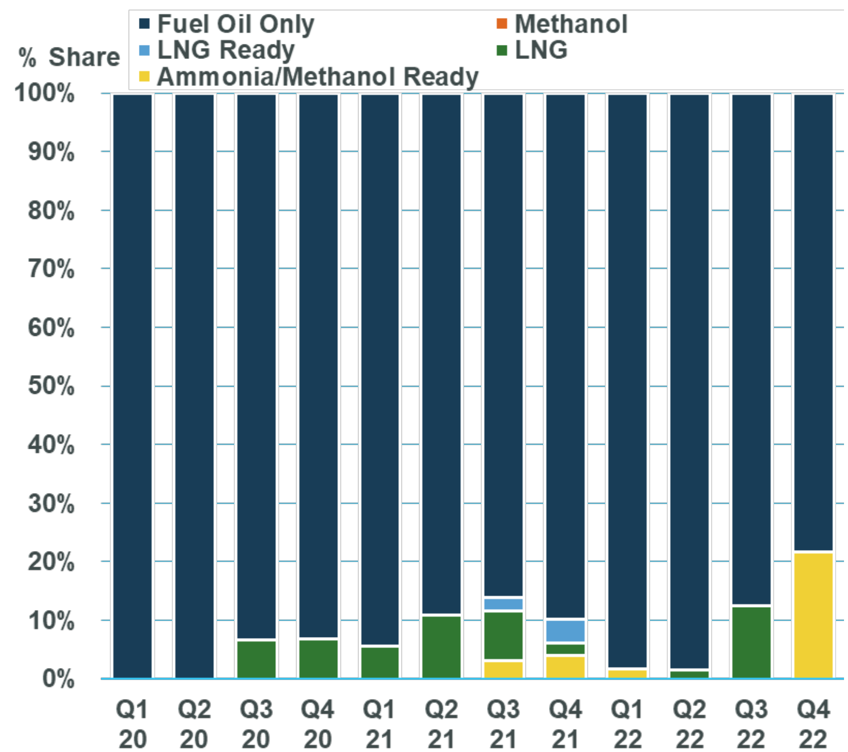
Contracting of Containerships by Fuel System Type (# of vessels)



Contracting of Dry Bulk Ships by Fuel System Type (# of vessels)



MSI Fuels/Bunker Model

Assessments by type, size and contracting year, delivery year and fleet

- Helicopter View
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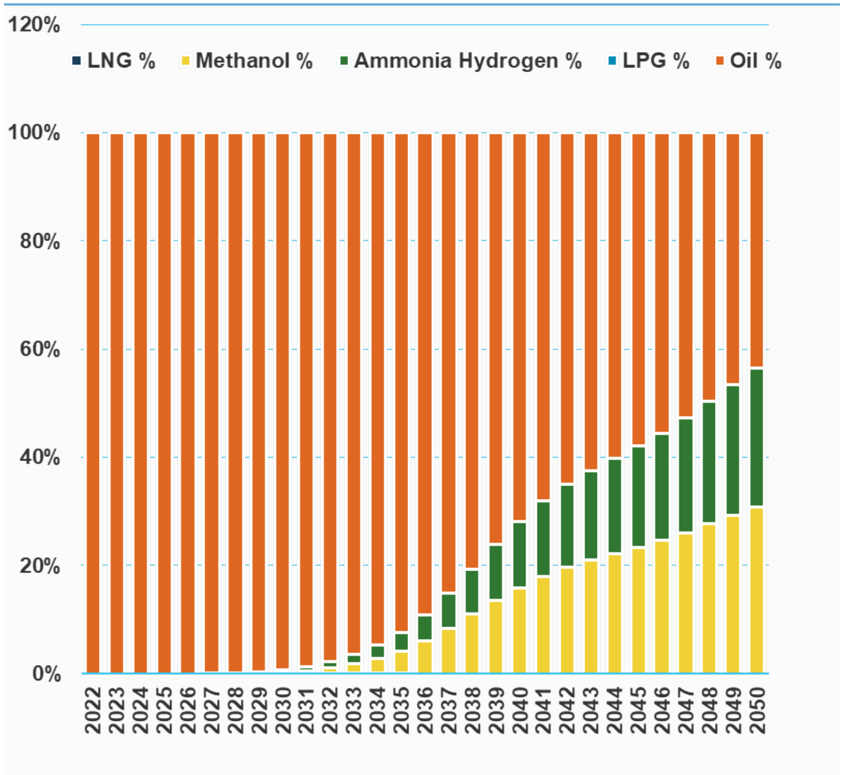
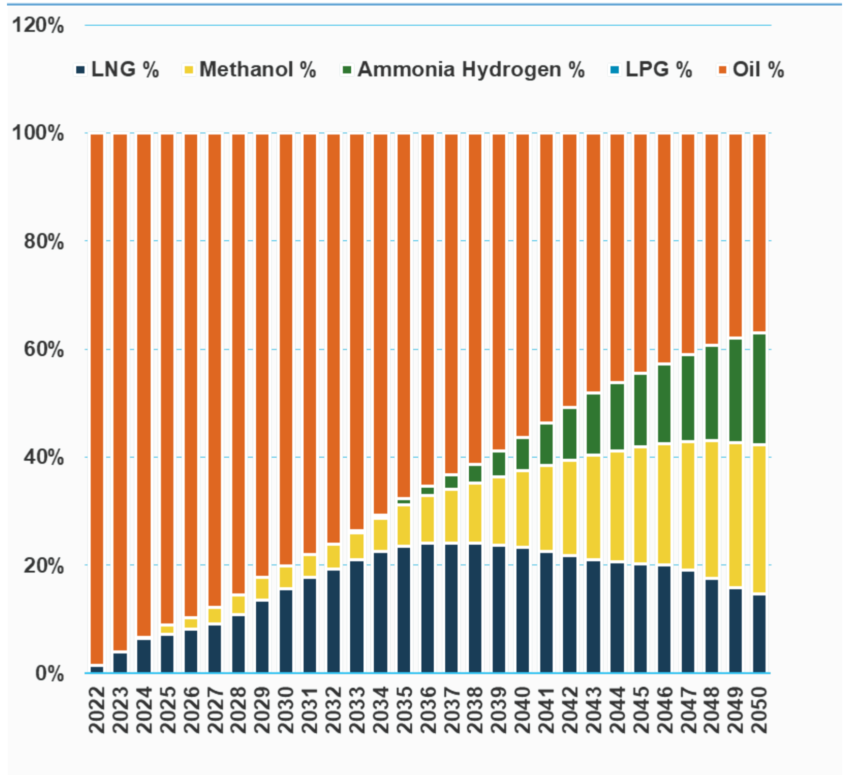
Fuel Type Share - 5 k Dwt to 40 k Dwt Bulker Fleet



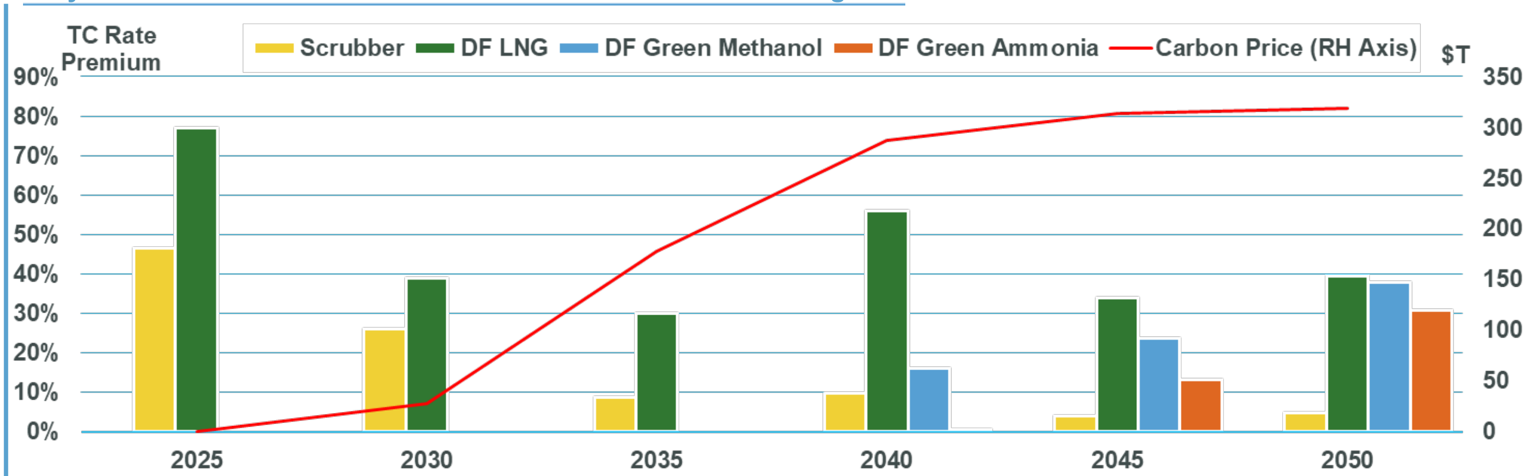
Fuel Type Share – 12k + TEU Container Fleet



Alternative Fuel Adoption Model

Zero carbon fuel prices prohibitive for a while

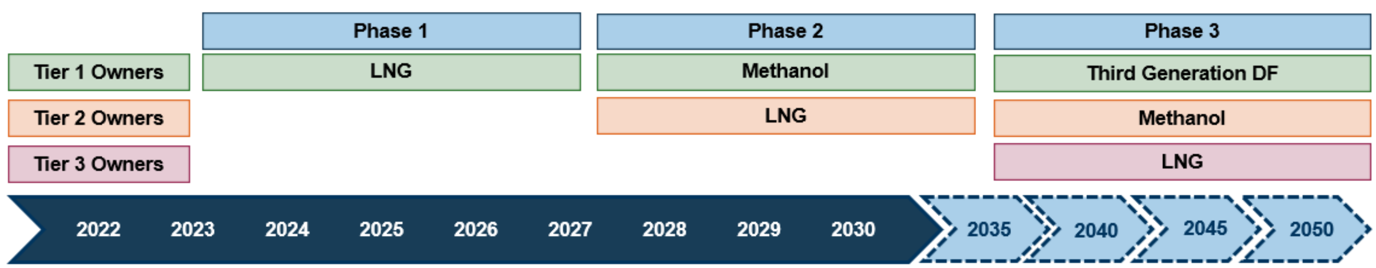
Dry Bulk 1 Yr TC Rate Premium Versus Conventional Fuel Oil Engine



Includes assumptions on:

- Supply and demand
- Employment rate
- Fuel adoption
- Days at sea
- Bunker consumption
- Bunker costs
- CO2 emission factors
- Pilot fuel share
- Carbon cost

Fuel Adoption Timeline – Trickle Down Effect



Secondhand Values

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Newbuilding Prices

Downward pressure in the short to medium term

- Helicopter View
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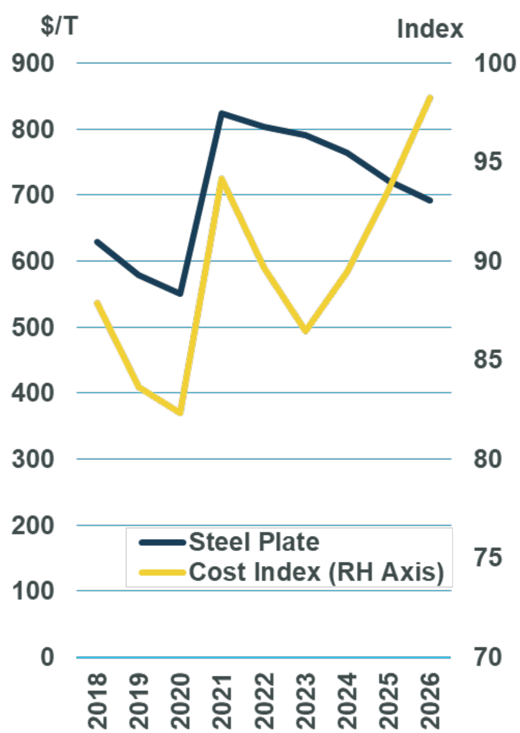
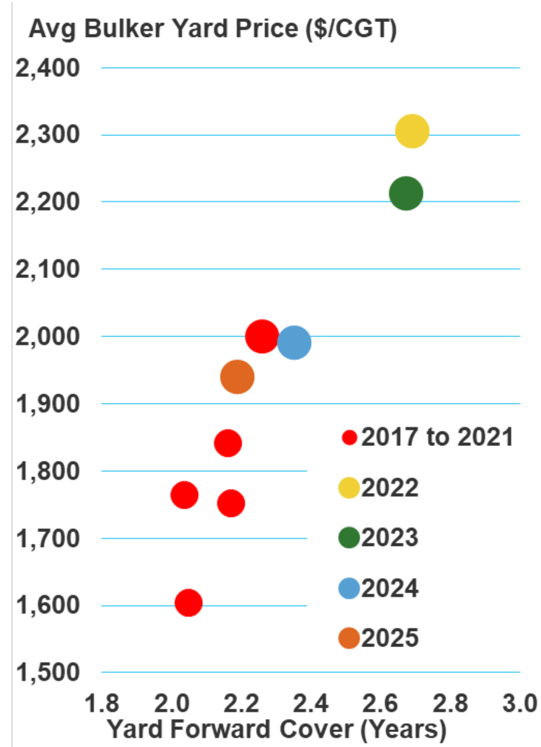
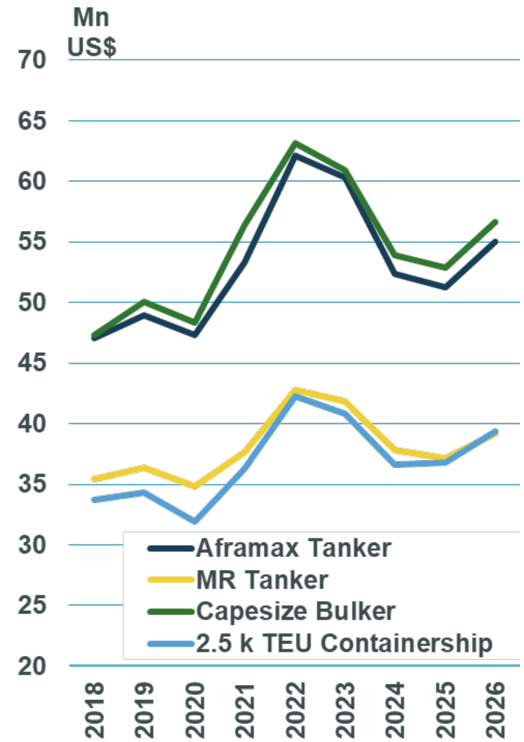
Costs



Forward Cover



Newbuilding Price

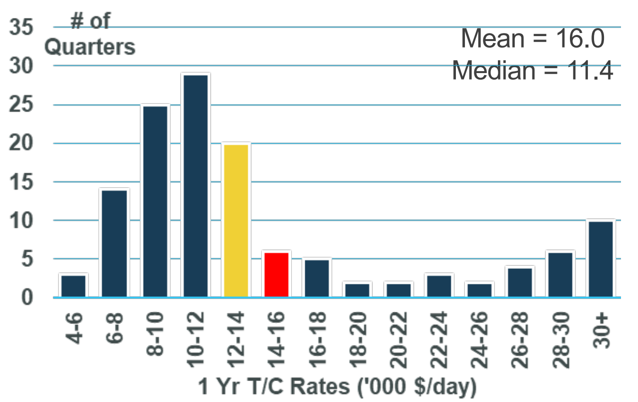


Earnings Outlook 1 Yr T/C Rate

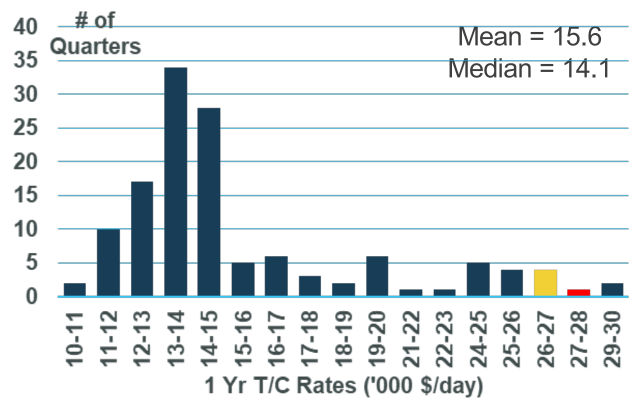
Q1 2023 2027

Quarterly Historical Distributions v Q1 23 v 2027

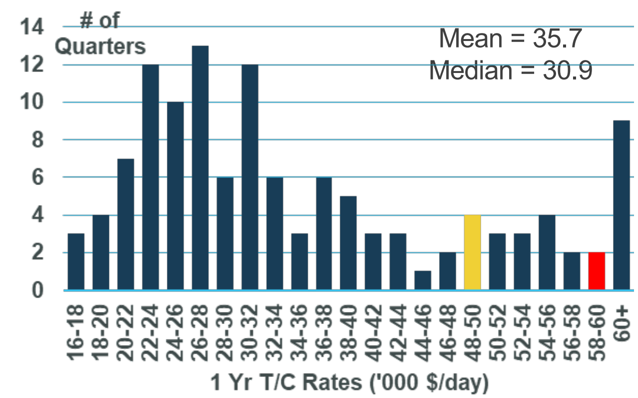
Panamax Bulker



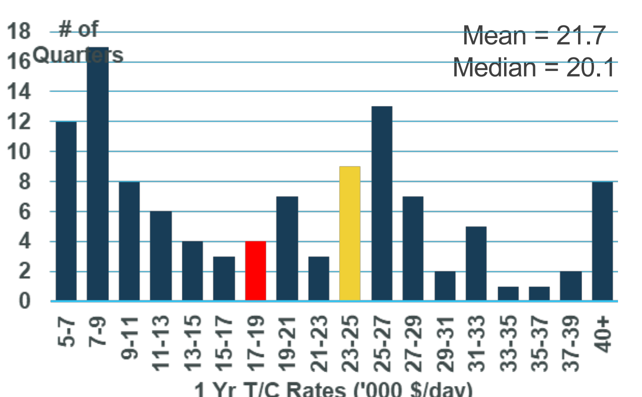
MR Tanker



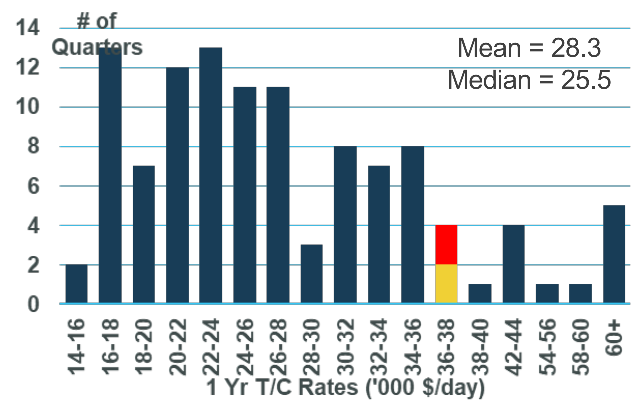
VLCC



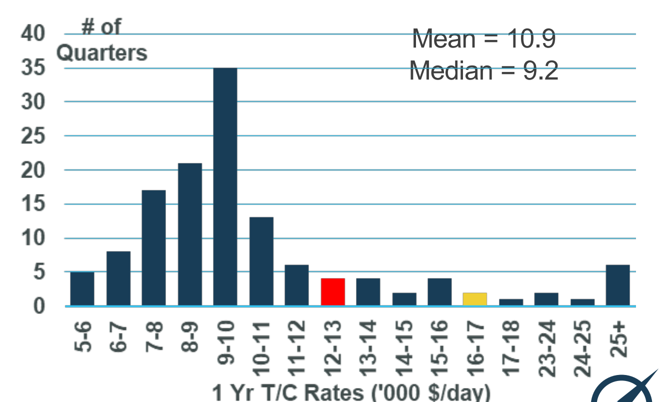
3.4kTEU Container



VLGC



MPP



IRRs

Buy today sell in 2027

- Helicopter View
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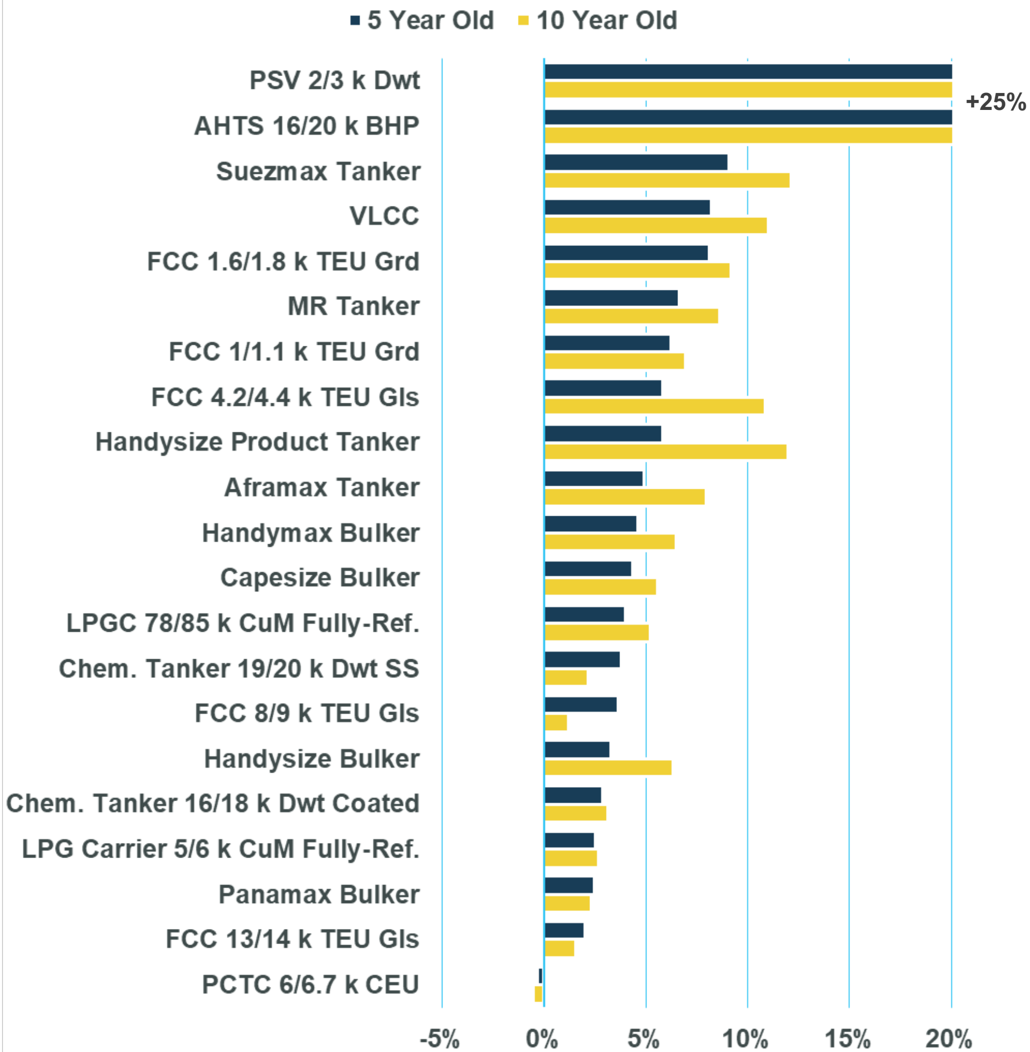


Note: Buy a vessel in Q1 2023 and sell in 2027
Indicative returns based on annual average values
Includes net earnings (1 Yr TC Rate – OPEX) and sale price
No financing costs included

MSI Background and Disclaimer

For over 35 years, MSI has developed integrated relationships with a diverse client base of financial institutions, ship owners, shipyards, brokers, investors, insurers and equipment and service providers.

MSI's expertise covers a broad range of shipping sectors, providing clients with a combination of sector reports, forecasting models, vessel valuations and bespoke consultancy services.

MSI's team is comprised of professionals with extensive academic credentials, deep industry knowledge and many years experience of delivering successful client projects.

MSI balances analytical power with service flexibility, offering a comprehensive support structure and a sound foundation on which to build investment strategies and monitor/assess exposure to market risks.

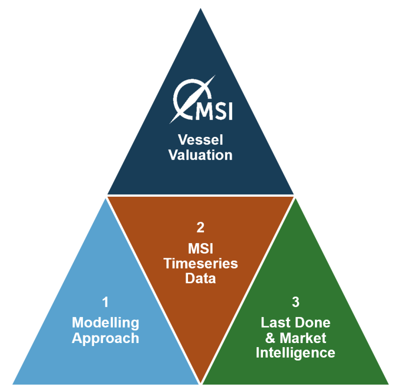
Introduction to MSI

Maritime consultancy offering modelling, data, asset valuation and strategic advisory services

MSI's Strategic Advantage

Approach	MSI specialises in model-based forecasting of shipping, offshore and allied industries and offers structured quantitative analysis to support business decisions.
Expertise	MSI's team is comprised of professionals with extensive academic credentials, deep industry knowledge and many years experience of delivering successful client projects.
Coverage	MSI's depth and quality of market coverage is unparalleled, providing reports, models, valuations and consultancy across all commercial shipping and offshore sectors.
Independence	MSI provides unbiased, independent market forecasting and business advisory services.
Network	MSI can draw upon a number of corporate partners and our extensive network of industry contacts to offer a broad range of consulting and analytical services.

Current and Forecast Asset Valuations



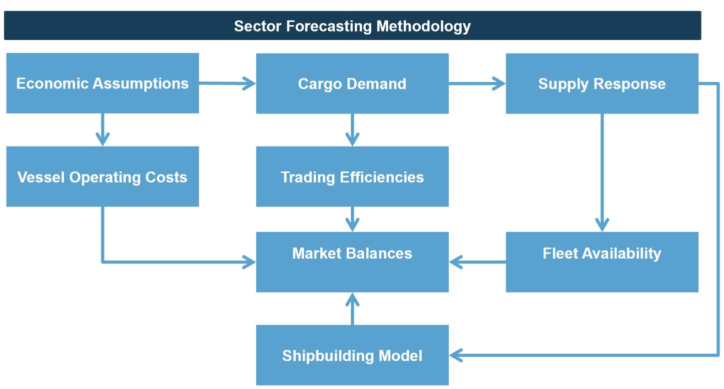
MSI independent valuations are derived by applying a meta analysis approach using:

1. MSI's proprietary econometric modelling processes and algorithms developed over the last 25+ years
2. Vessel benchmarked and analysed in relation to MSI published timeseries data
3. Vessel directly compared to last done sales and current market intelligence on likely sale candidates and prices.

MSI's valuation services include:

- Certificated spot valuations
- Vessel forecasts (value, earnings, nb price and opex)
- Charter attached valuations
- Option price valuations
- Forecast value sensitivity and stress testing
- RVI support including soft value, forced value, recessionary value, cautious plausible value, 1 in 100 value etc.
- Valuation briefing notes
- Valuation reports
- Expert witness/Expert testimony

Forecasting Models (All Marine Markets) & Market Reports



Advisory Services

- Is there a clear strategic vision for the development of the business?
- Does the market, customer and competitor analysis in the BP align with MSI's assessment contained in Stages 1 and 2?
- What external stakeholders will influence the business plan's success or failure
- Are the financial projections realistic in light of MSI's forecasts contained in Stage 1?
- What are the key enablers for success?

- Based on the results of the analysis performed in Stages 1 and 2, MSI will review the companies existing business plan (BP) to assess:
  - Viability relative to external market conditions
  - Feasibility based on the companies likely ability to deliver upon it
- The review will focus on the following factors
  - market-related
  - financial
  - organisational structure
  - Office locations
  - Operating cost benchmarking
  - Overhead costs
  - Management team experience
  - Business development processes

Contact Us

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