# Shipping, commodities y traders al descubierto

## Las nuevas claves del comercio internacional

**JOEL GRAU**
SHIPBROKER Y COO EN HIZONE GROUP

Shipping Markets

Desglobalización?

Trade disruptions

Inversión?

Geopolitics

Commodity Traders

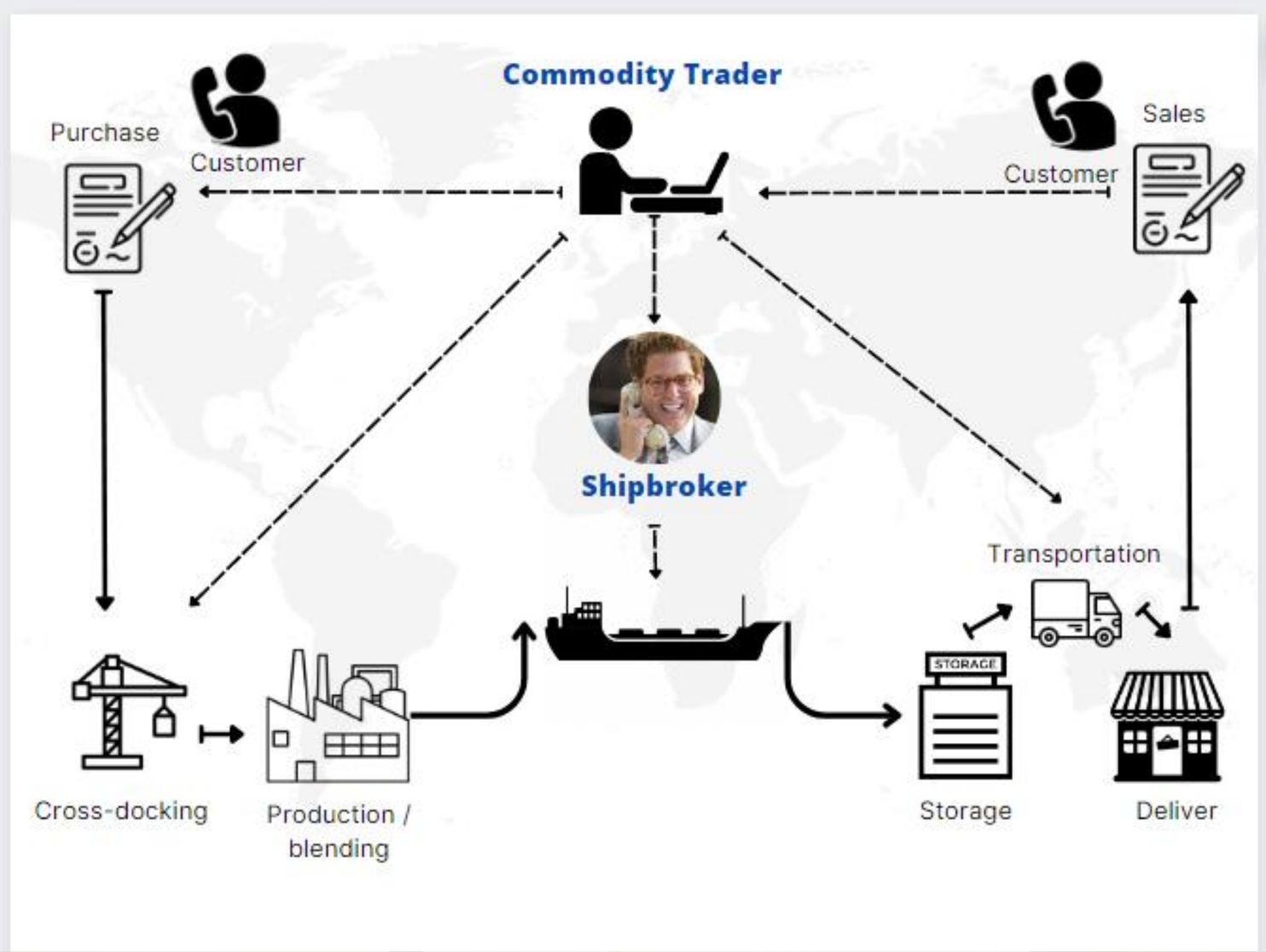
.. y más!

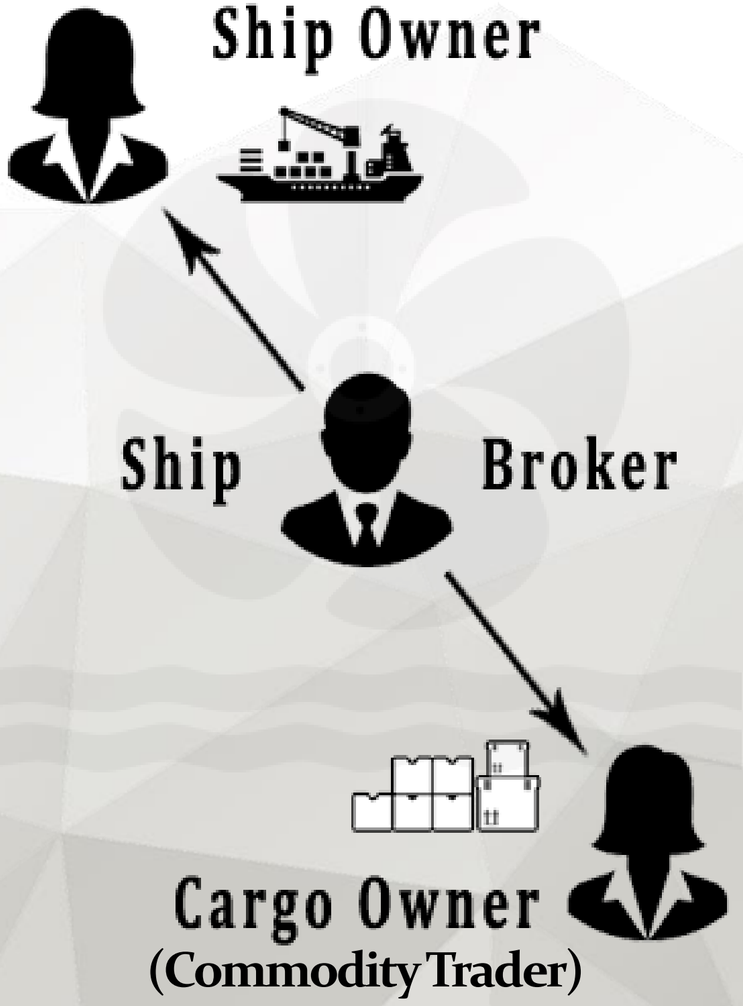
# ¿Quiénes son los Commodity Traders?

Las materias primas (trigo, petróleo, carbón, gas, fertilizantes y un largo etc...) 'normalmente' **no** se producen donde **más** se consumen y/o demandan.

Necesitamos *industry players* que asuman ese rol con sus riesgos implícitos (y sus beneficios).

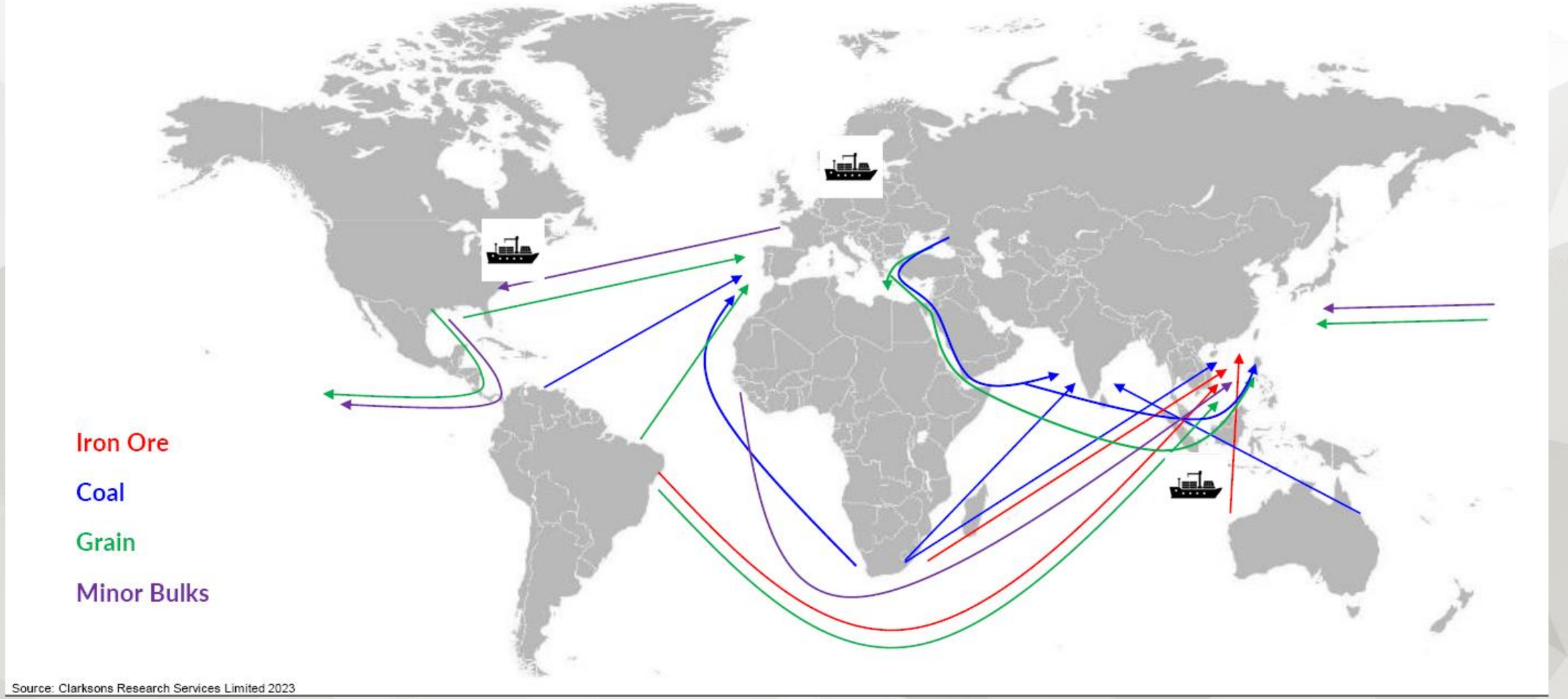
**Who?**
Los *commodity traders (CT).*


Commodity Trader
Purchase
Customer
Customer
Sales
Shipbroker
Transportation
STORAGE
Cross-docking
Production / blending
Storage
Deliver


Ship Owner
Ship
Broker
Cargo Owner
(Commodity Trader)

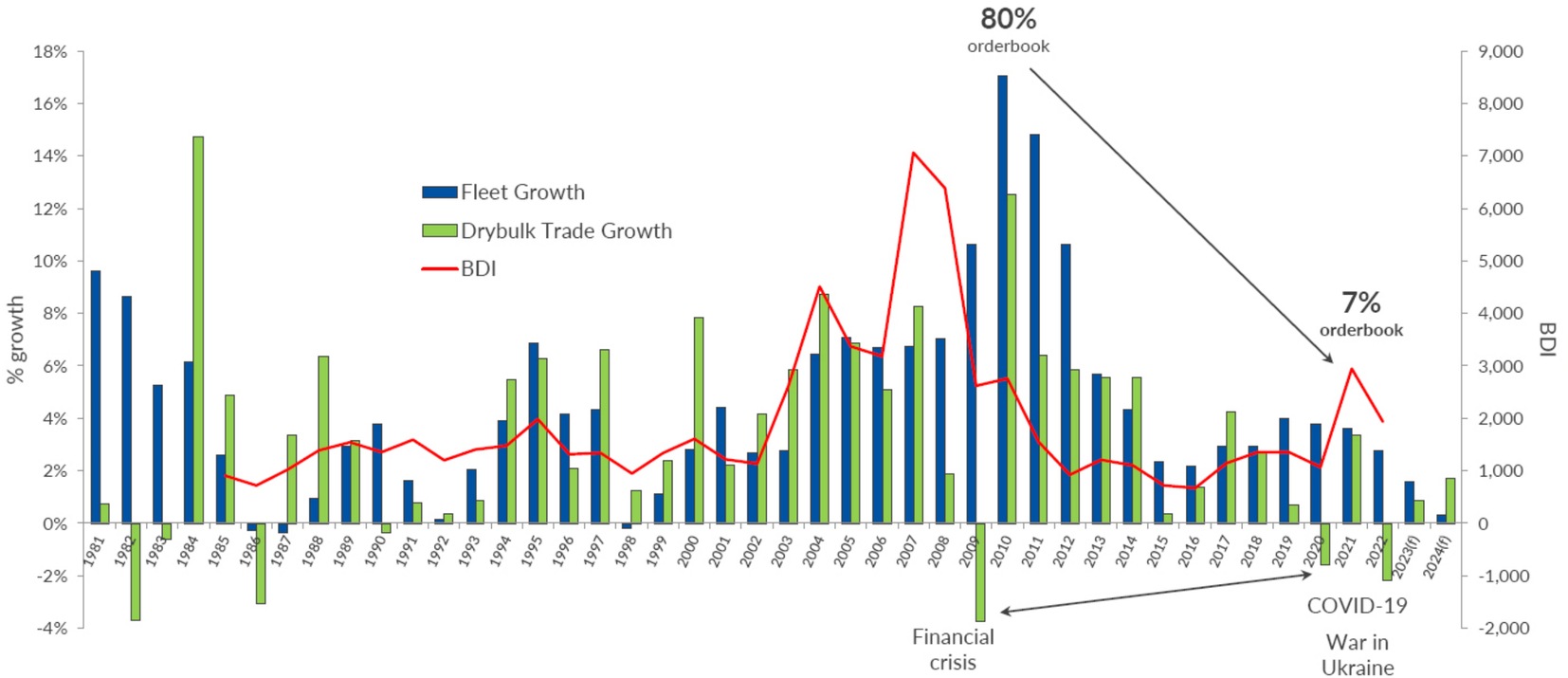
# Global drybulk trade and key routes

~90% of global trade is carried by the international shipping industry – Genco's global footprint maximizes revenue generation by capturing market trends in real-time




Source: Clarksons Research Services Limited 2023

# The drybulk supply and demand equation




Source: Clarksons Research Services Limited 2023

# Current drybulk market trends

## Orderbook


Historically low newbuilding vessel orderbook as a percentage of the fleet to limit net fleet growth

## Environmental


Environmental regulations have led to lower newbuilding orders, could result in increased scrapping / slower vessel speeds

Sources: Clarksons Research Services Limited 2023

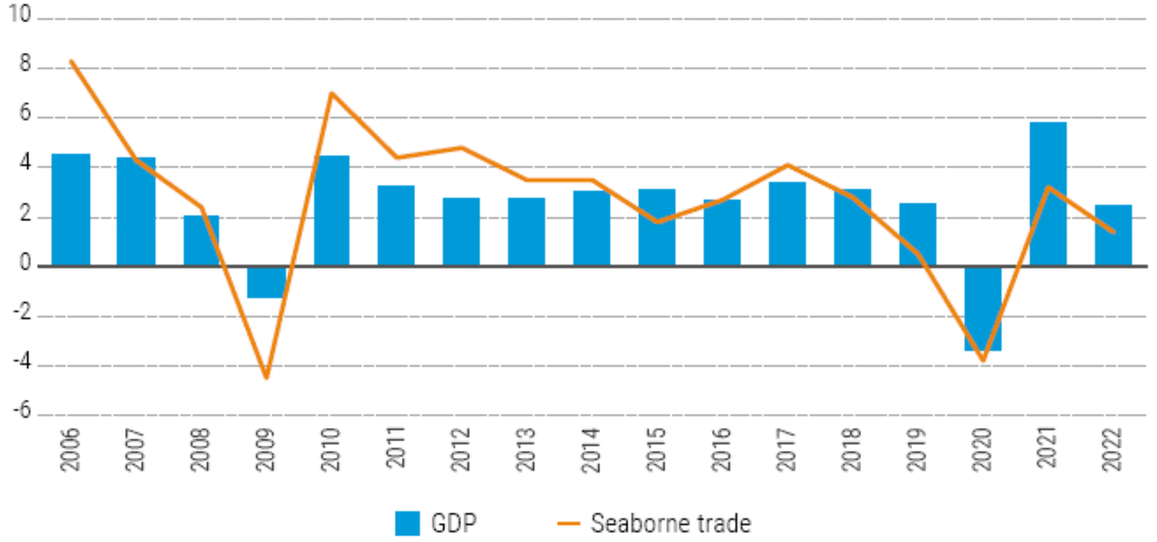
## Geopolitical / macro


Russia's war in Ukraine has resulted in a re-routing of cargo flows for coal and grain shipments with ton-miles lengthened on the coal trade in particular

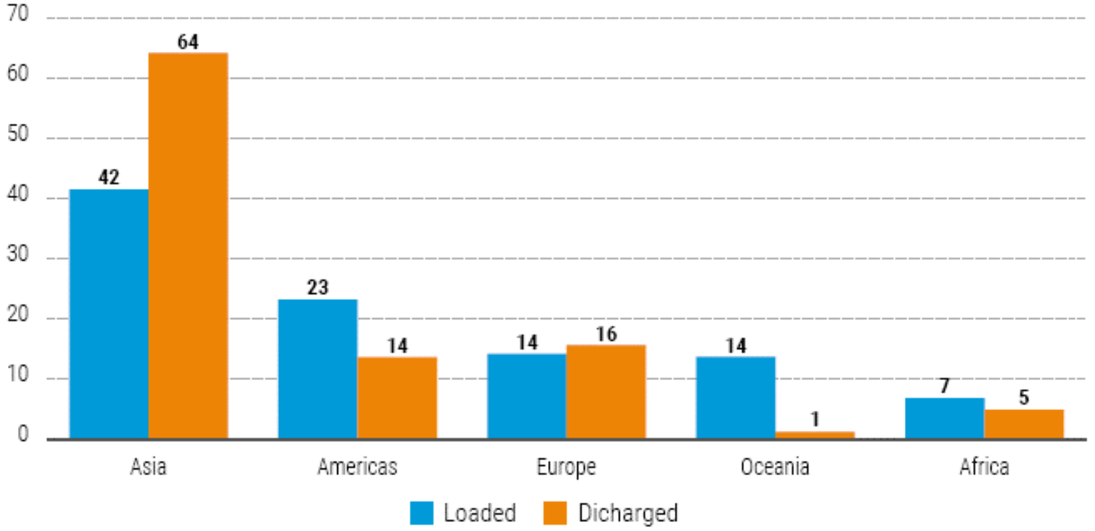
## China


China's pivot from zero-Covid policies + stimulus to support domestic demand is positive for the iron ore and coal trades

**International maritime trade and world GDP**
**Selected years** (percentage annual change)

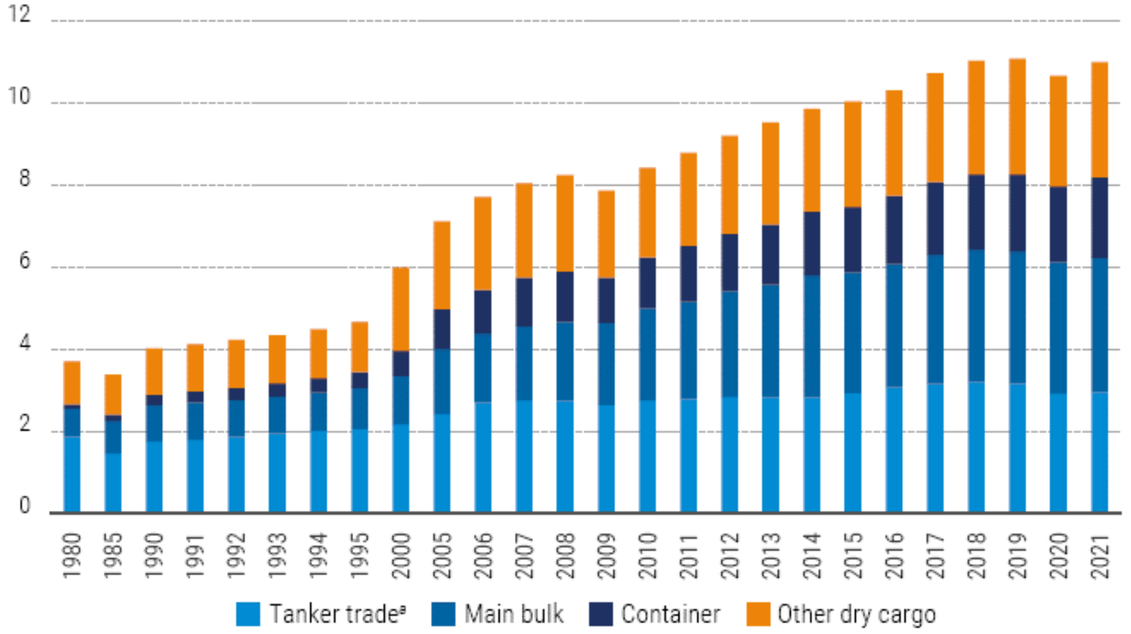



**International maritime trade, by region, 2021**
(percentage share in world tonnage)




*Source:* UNCTAD secretariat, based on table 1.2 of this report.

**International maritime trade by cargo type, selected years**
(billions of tons loaded)

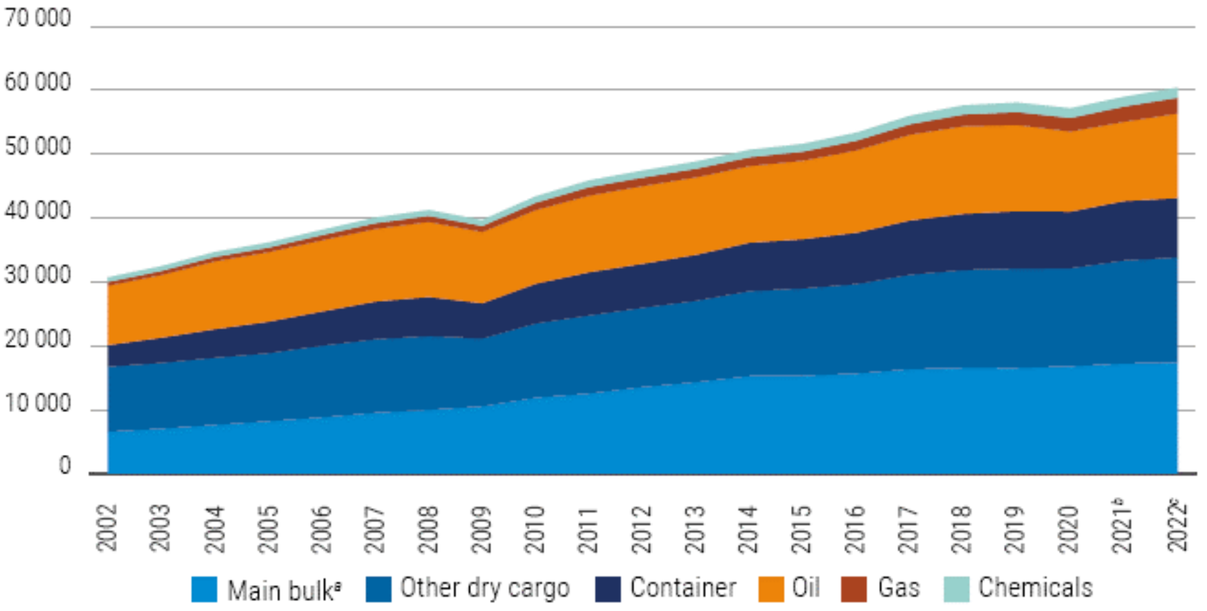



*Source:* UNCTAD *Review of Maritime Transport*, various issues. For 2006–2021, the breakdown by cargo type is based on Clarksons Research, Shipping Review and Outlook, Spring 2022 and Seaborne Trade Monitor, various issues.

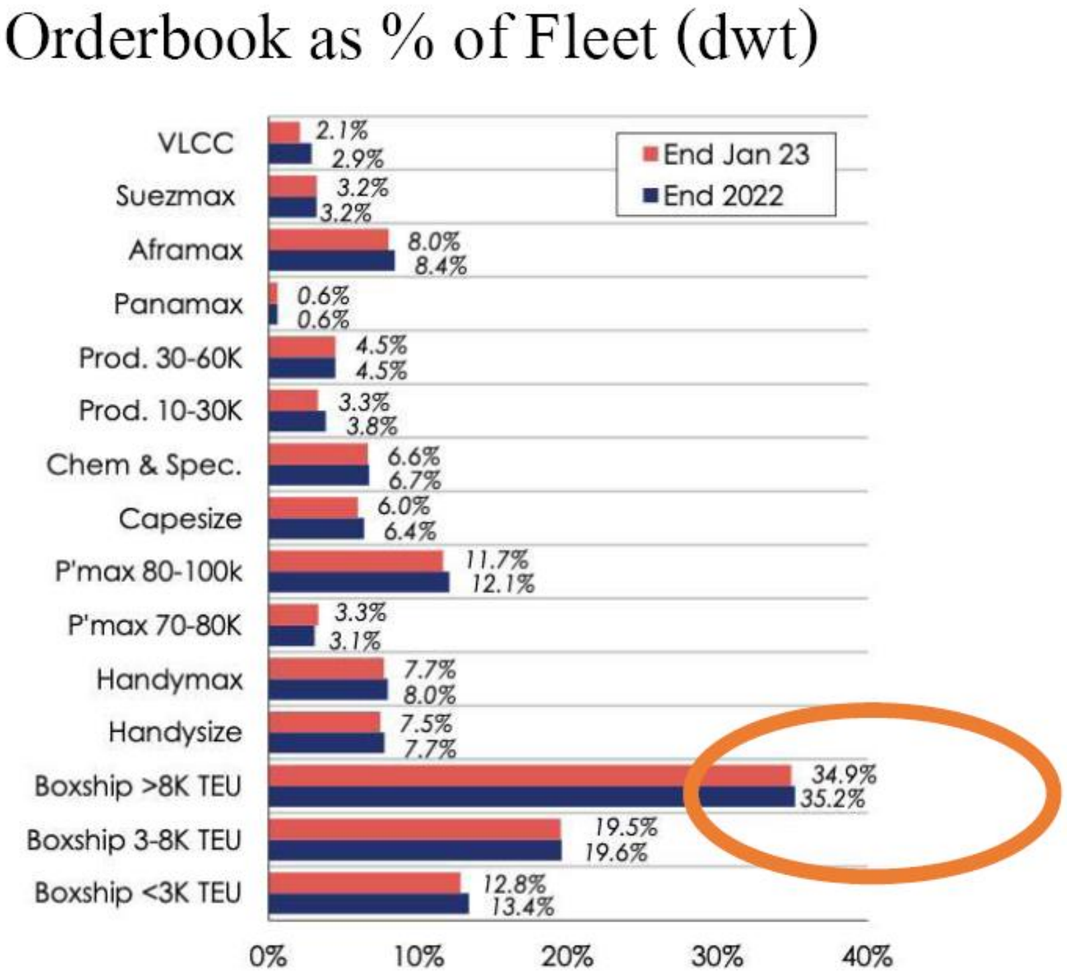
*Note:* 1980–2005 figures for "Main bulk" include iron ore, grain, coal, bauxite/alumina, and phosphate. Starting in 2006, "Main bulk" includes iron ore, grain, and coal only. Data relating to bauxite/alumina and phosphate are included under "Other dry cargo".

[a] Tanker trade includes crude oil, refined petroleum products, gas, and chemicals.

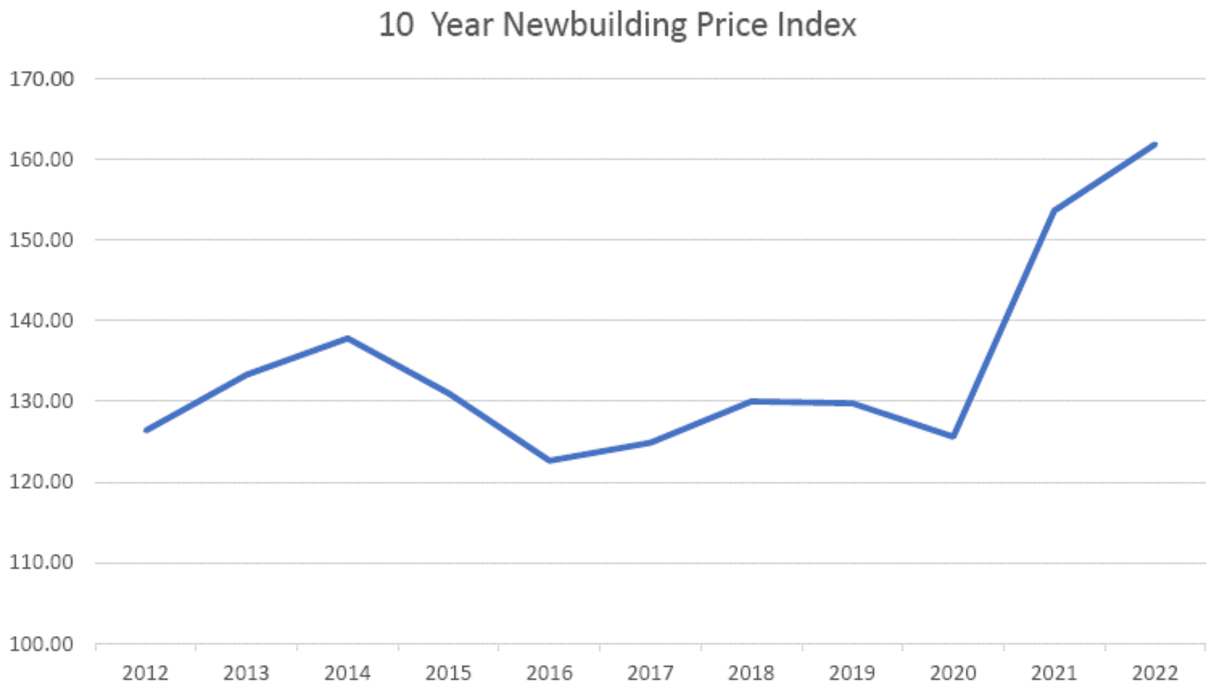
**International maritime trade, billions of cargo ton-miles, 2002–2022**

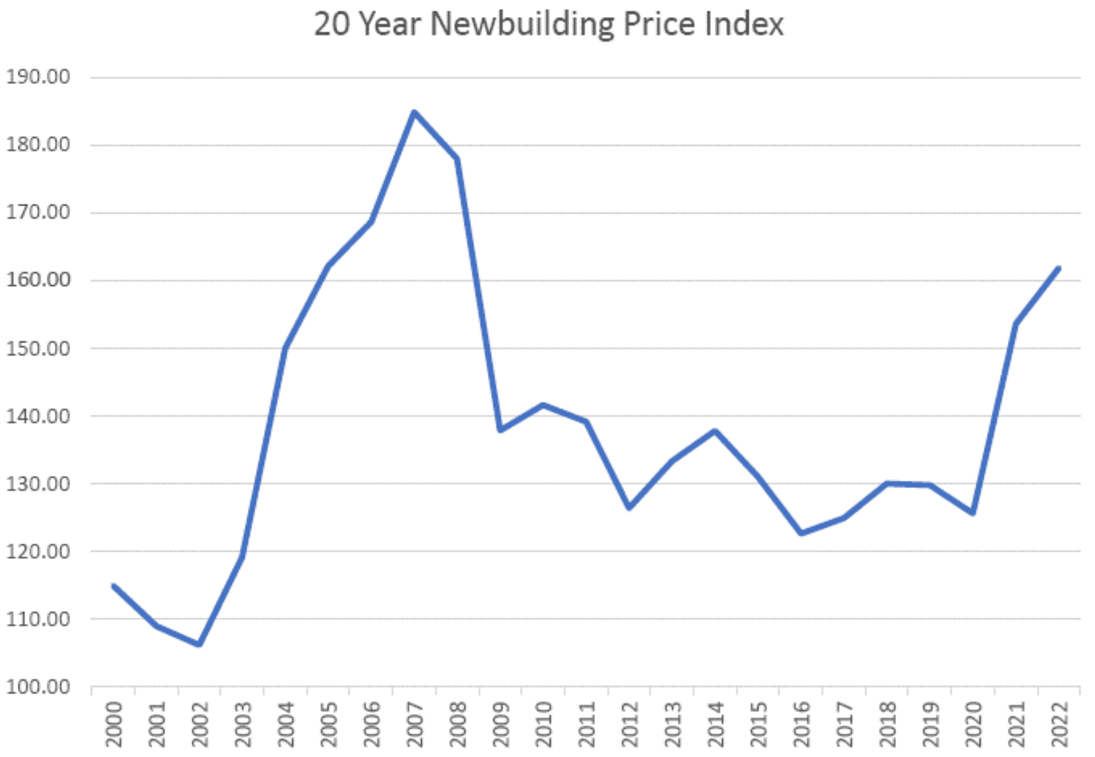


# Orderbook by Vessel Type



# Newbuilding Price Index



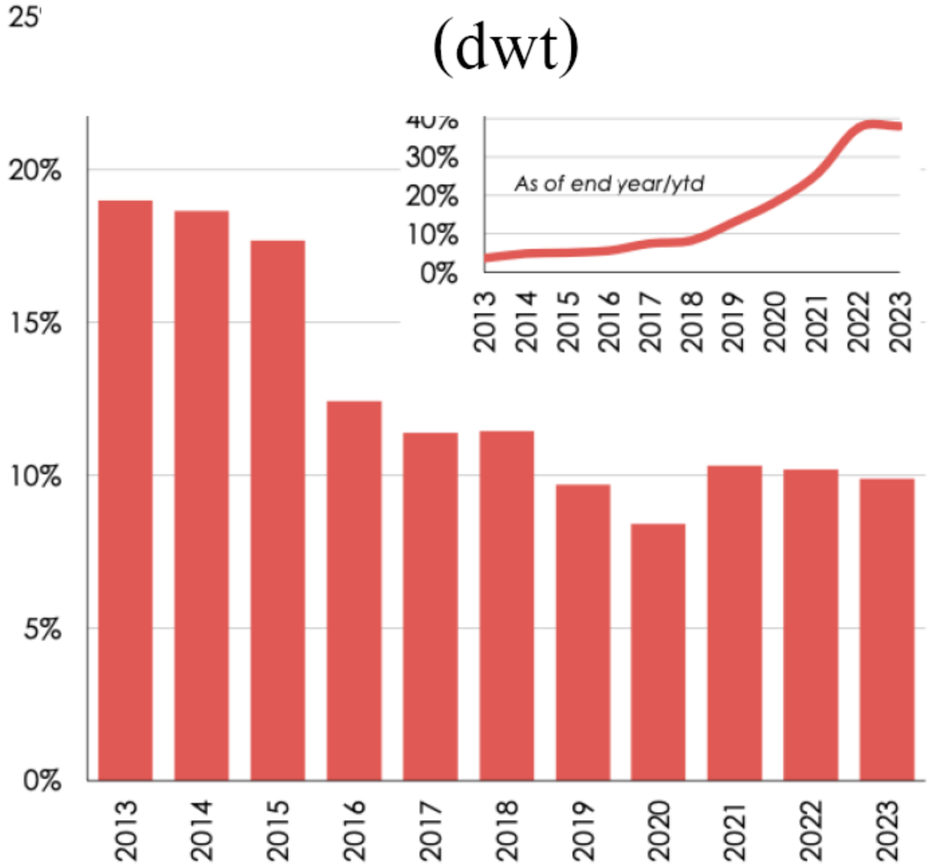
# Changes in Number of Active Chinese Shipyards

# Alternative Fuels Mapping

| | VLSFO (benchmark) | Methanol | Ammonia | LNG | HFO & Scrubber | CCS |
|---|---|---|---|---|---|---|
| General Comments: | - | Widely traded, existing terminal network.<br>Existing infras. for HFO & MGO could be adapted.<br>Liquid at ambient temp.<br>Toxic, corrosive, Flammable | Engines' availability 2025 onwards..<br>Highly Toxic, Flammable & Corrosive.<br>Liquid at -33oC (1atm) | Volatility on bunker cost.<br>Mature tech. (bunkering infrast, engines' & machinery)<br>Methane Slip (GHG)<br>Liquid at -162oC (1atm) | well proven,<br>Fuel spread attractive,<br>HFO available,<br>need CCS towards 2050 GHG pathway | LNGCs & LNG-fueled vsls ideal first candidates (due to "clean" EG),<br>Carbon Storage Infrastructure & CO2 carriers will play a key role in the CCS value chain |

# Alternative Fuel as % of Fleet

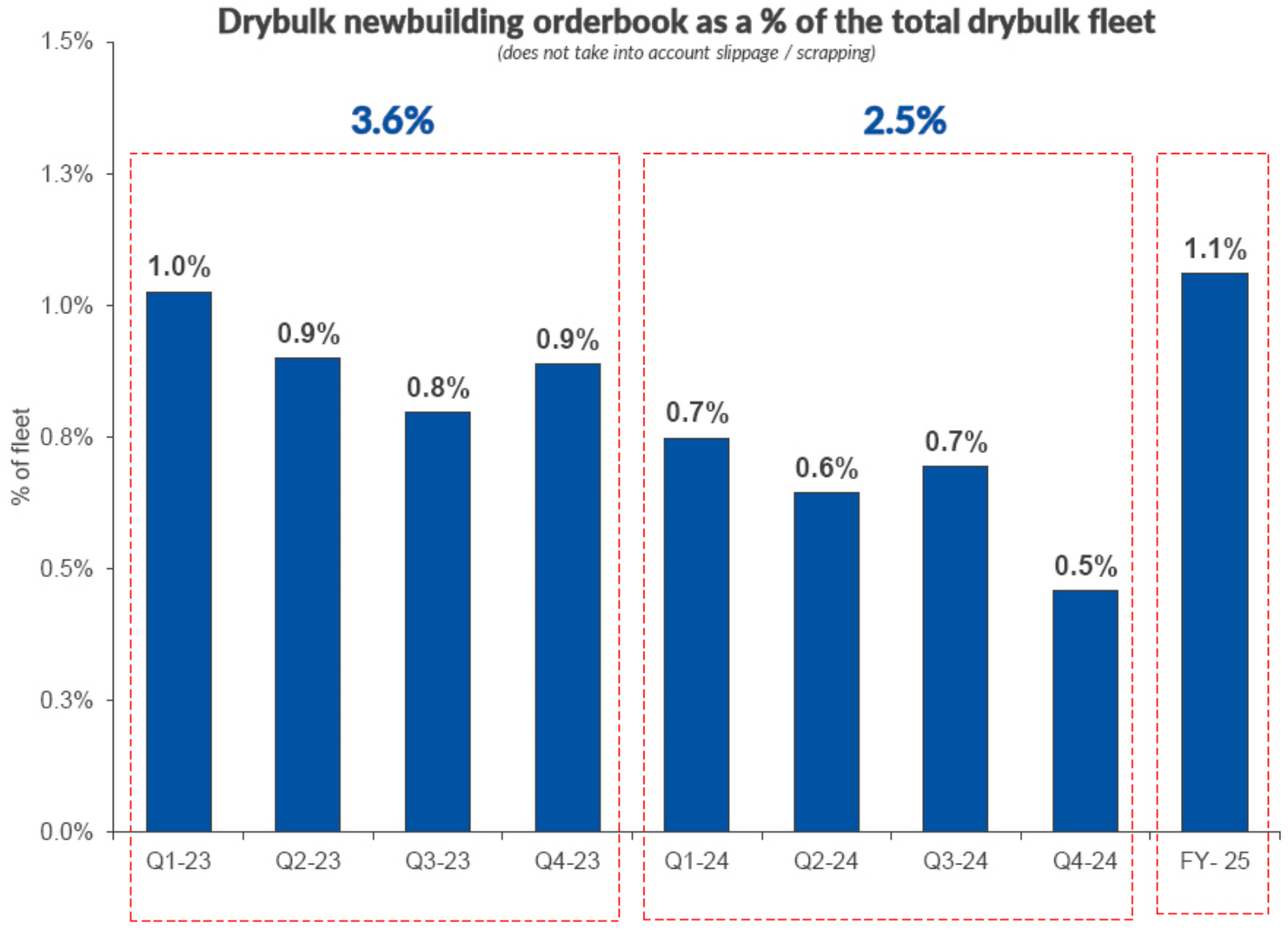
(dwt)




**38% of new orders based on NON conventional fuel bunkering**

*the number a bit based due to big number of LNG,PCTC, Containers but we keep it , to end with a positive note!

# Historically low newbuilding orderbook




**7.2%** Orderbook as a % of the total drybulk fleet

**8.0%** % of the total drybulk fleet >=20 years old

**-19%** Newbuilding deliveries down 19% in 2022

Source: Clarksons Research Services Limited 2023

## Ownership of the world fleet, ranked by commercial value (million US$), 2022, main vessel types

| | Country or Territory of Ownership | Container Ships | Bulk Carriers | Oil Tankers | Offshore vessels | Ferries & Passenger Ships | Gas Carriers | General Cargo Ships | Chemical Tankers | Other/NA | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | China | 45 104 | 56 487 | 14 948 | 11 457 | 5 219 | 4 630 | 9 026 | 3 857 | 4 098 | 154 827 |
| 2 | Greece | 30 051 | 55 797 | 35 608 | 228 | 2 280 | 22 432 | 297 | 932 | 533 | 148 157 |
| 3 | Japan | 34 010 | 51 558 | 10 105 | 5 145 | 3 264 | 18 420 | 3 670 | 5 270 | 13 036 | 144 477 |
| 4 | United States | 5 230 | 5 385 | 5 056 | 14 119 | 50 999 | 1 553 | 1 626 | 963 | 1 035 | 85 966 |
| 5 | Germany | 52 934 | 8 072 | 1 800 | 666 | 10 100 | 1 572 | 5 211 | 762 | 533 | 81 649 |
| 6 | Singapore | 21 249 | 19 553 | 12 942 | 4 274 | 12 | 4 844 | 1 393 | 5 406 | 809 | 70 481 |
| 7 | United Kingdom | 17 232 | 5 717 | 4 095 | 14 218 | 5 507 | 7 212 | 1 016 | 1 552 | 3 788 | 60 336 |
| 8 | Hong Kong, China | 29 066 | 15 475 | 7 160 | 124 | 2 075 | 1 619 | 1 305 | 266 | 1 613 | 58 704 |
| 9 | Norway | 4 297 | 5 573 | 5 436 | 20 251 | 3 423 | 8 224 | 1 397 | 2 488 | 5 235 | 56 325 |
| 10 | Republic of Korea | 13 801 | 11 854 | 6 994 | 403 | 524 | 6 029 | 701 | 1 587 | 4 035 | 45 929 |
| 11 | Switzerland | 25 913 | 917 | 535 | 2 896 | 10 546 | 196 | 227 | 168 | 5 | 41 404 |
| 12 | Denmark | 26 742 | 1 858 | 3 439 | 1 675 | 1 169 | 2 170 | 903 | 825 | 152 | 38 932 |
| 13 | Taiwan Province of China | 22 435 | 10 703 | 1 410 | 128 | 71 | 351 | 550 | 223 | 112 | 35 983 |
| 14 | Bermuda | 4 727 | 6 842 | 6 637 | 3 062 | | 8 311 | | 107 | 98 | 29 784 |
| 15 | Netherlands | 854 | 989 | 416 | 11 221 | 452 | 623 | 4 705 | 2 058 | 2 616 | 23 935 |
| 16 | France | 13 906 | 438 | 91 | 5 151 | 1 879 | 388 | 206 | 117 | 131 | 22 307 |
| 17 | Italy | 21 | 1 077 | 1 949 | 5 042 | 10 097 | 205 | 2 310 | 393 | 1 131 | 22 225 |
| 18 | Brazil | 1 370 | 253 | 830 | 13 843 | 61 | 108 | 38 | 74 | 2 | 16 580 |
| 19 | Monaco | 3 837 | 3 064 | 6 688 | | 26 | 1 630 | | 25 | 47 | 15 317 |
| 20 | Türkiye | 2 675 | 5 319 | 1 502 | 705 | 323 | 342 | 2 623 | 1 173 | 45 | 14 706 |
| 21 | Indonesia | 3 154 | 1 920 | 2 500 | 1 201 | 2 062 | 965 | 1 637 | 449 | 66 | 13 953 |
| 22 | Russian Federation | 395 | 410 | 3 467 | 1 542 | 156 | 1 834 | 2 647 | 629 | 1 821 | 12 901 |
| 23 | United Arab Emirates | 1 652 | 3 253 | 3 123 | 2 392 | 37 | 857 | 169 | 632 | 235 | 12 350 |
| 24 | Belgium | 853 | 2 180 | 3 559 | 334 | | 983 | 873 | 208 | 2 021 | 11 011 |

## Reported tonnage sold for ship recycling by major vessel type and recycling country, 2021
(thousands of gross tons)

| Vessel type | Bangladesh | Pakistan | India | Türkiye | China | Rest of the world | World total | Percentage |
|---|---|---|---|---|---|---|---|---|
| Oil tankers | 4 565 | 2 200 | 1 044 | 318 | 42 | 45 | **8 213** | 53.6 |
| Bulk carriers | 2 011 | 477 | 133 | 112 | 60 | 22 | **2 815** | 18.4 |
| Offshore vessels | 160 | 116 | 470 | 274 | 37 | 125 | **1 182** | 7.7 |
| Liquefied gas carriers | 703 | | 35 | 7 | | 7 | **751** | 4.9 |
| Ferries and passenger ships | 101 | 178 | 316 | 148 | 1 | 6 | **748** | 4.9 |
| Chemical tankers | 150 | 13 | 430 | 9 | | 3 | **604** | 3.9 |
| General cargo ships | 113 | 62 | 41 | 82 | | 190 | **489** | 3.2 |
| Container ships | 42 | | 101 | | | 27 | **170** | 1.1 |
| Other | 182 | | 80 | 86 | | 8 | **356** | 2.3 |
| **Total** | **8 025** | **3 045** | **2 649** | **1 036** | **140** | **433** | **15 329** | **100.0** |
| *Percentage* | *52.4* | *19.9* | *17.3* | *6.8* | *0.9* | *2.8* | ***100.0*** | |

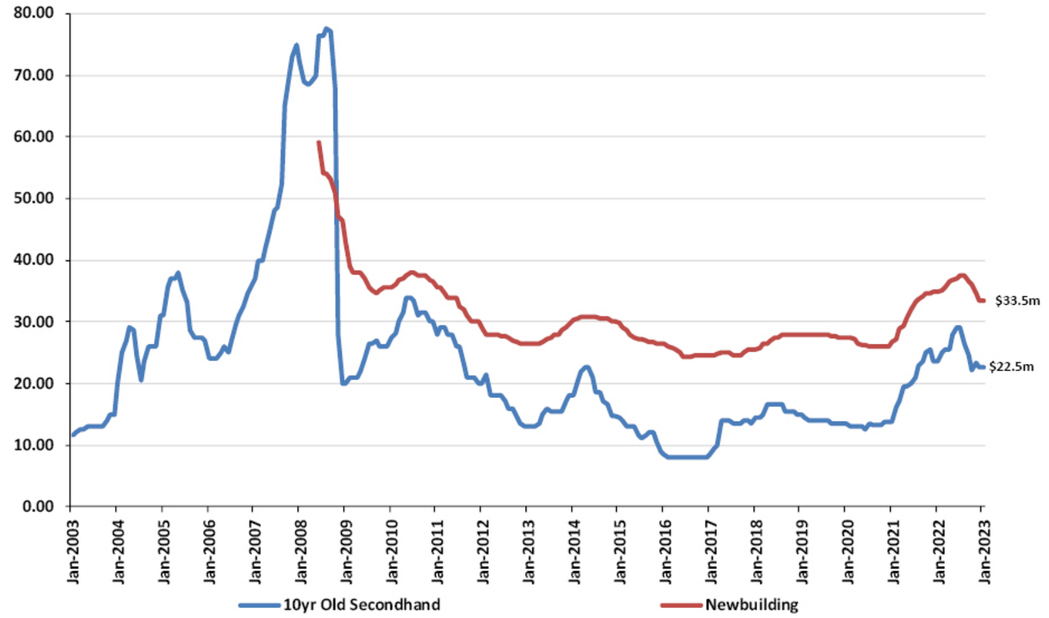
*Source:* UNCTAD calculations, based on data from Clarksons Research.

*Notes:* Propelled seagoing vessels of 100 gross tons and above. Estimates for all countries available at http://stats.unctad.org/shiprecycling.

## Current Point in the Market Cycle

### Panamax[1] vessel prices ($m)

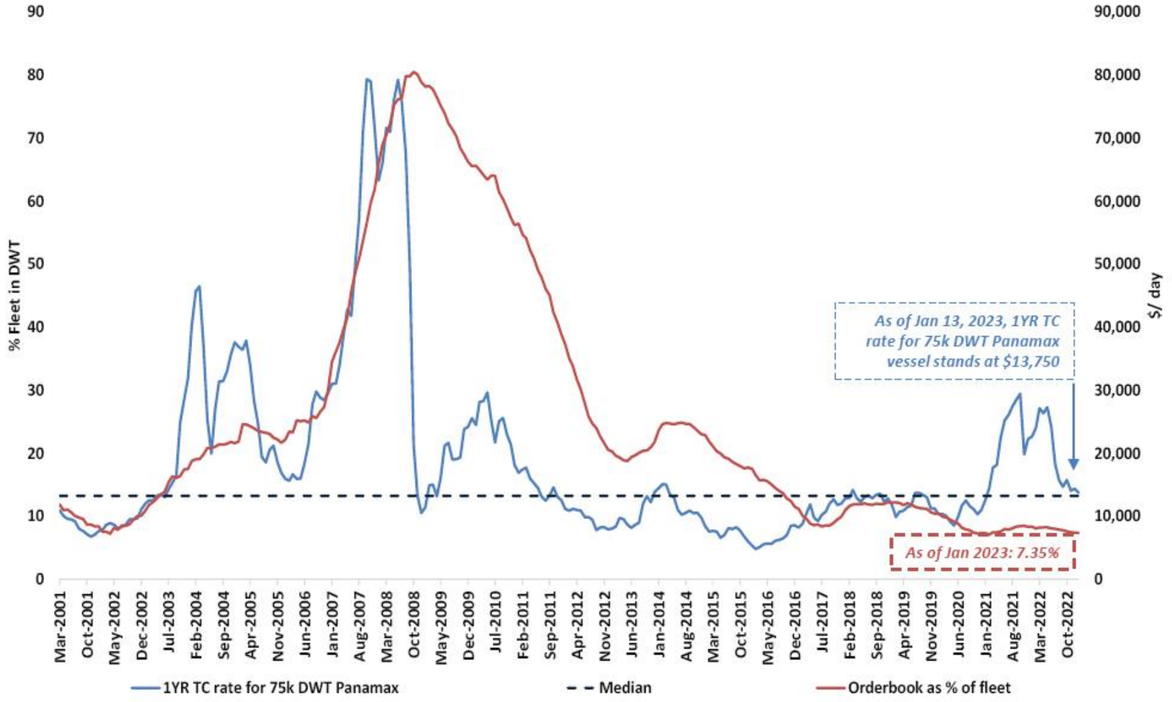
*Values over the last three months have been correcting potentially creating opportunities*



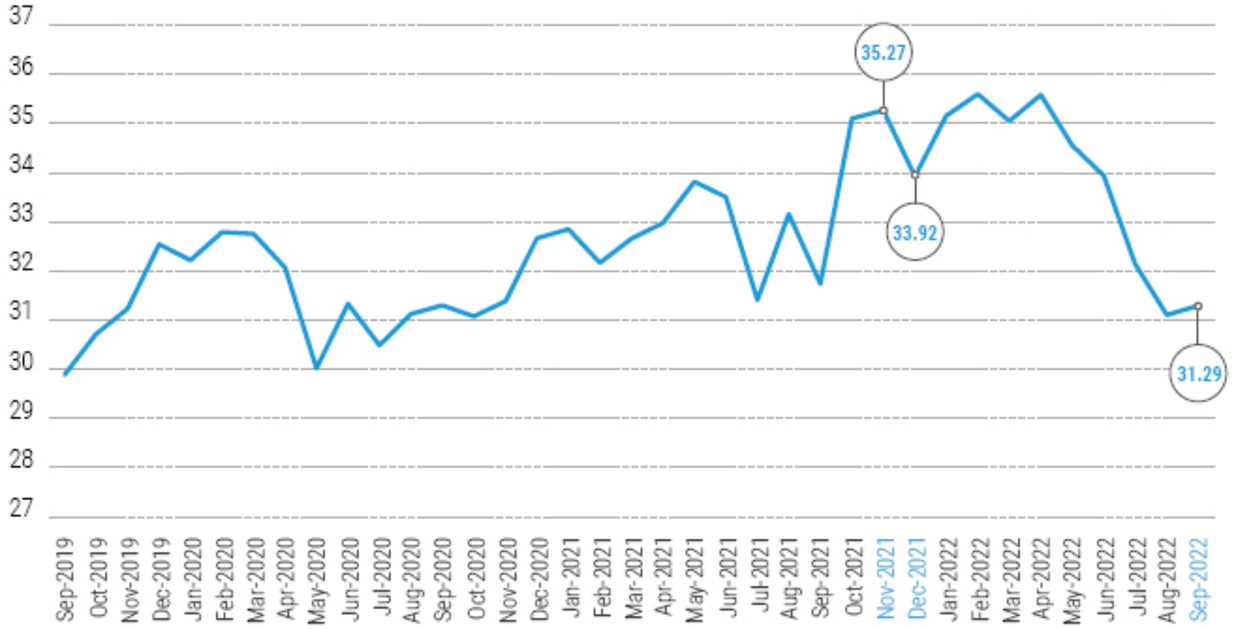

## Current Point in the Market Cycle

### TC rate for 75k DWT Panamax vs Fleet Orderbook

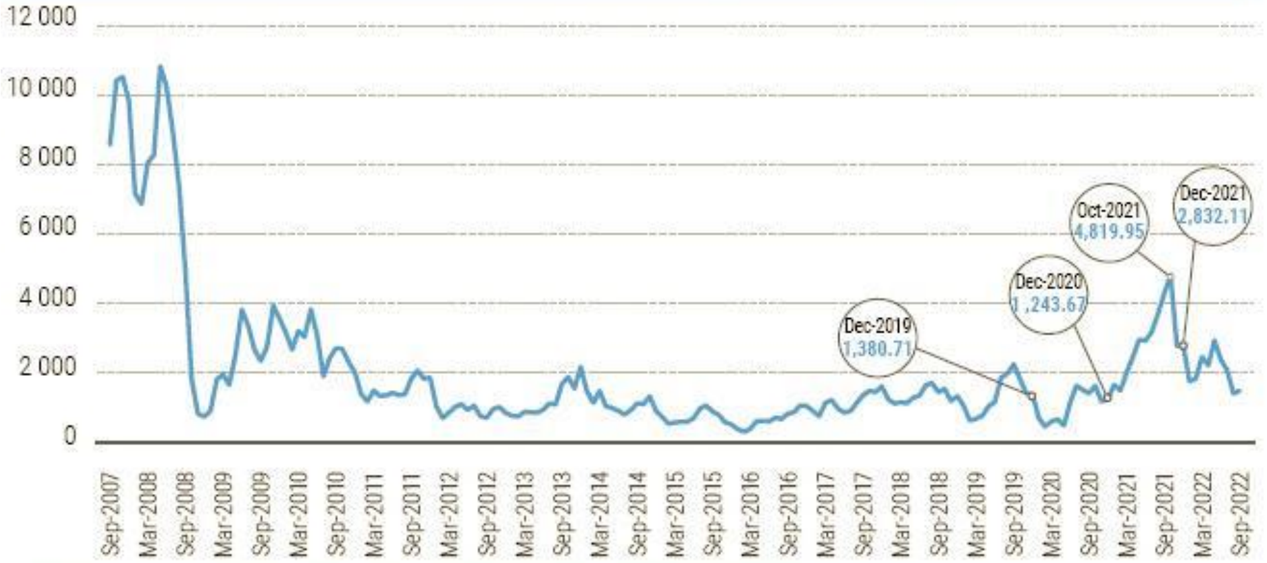
The orderbook in the sector, just 7.35% of the fleet, remains one of the lowest in history, while there is also potential for increased recycling from 2023 amid the introduction of new environmental regulations.



## Clarksons port congestion index – percentages of deep-sea cargo bulk carriers in port, September 2019–September 2022

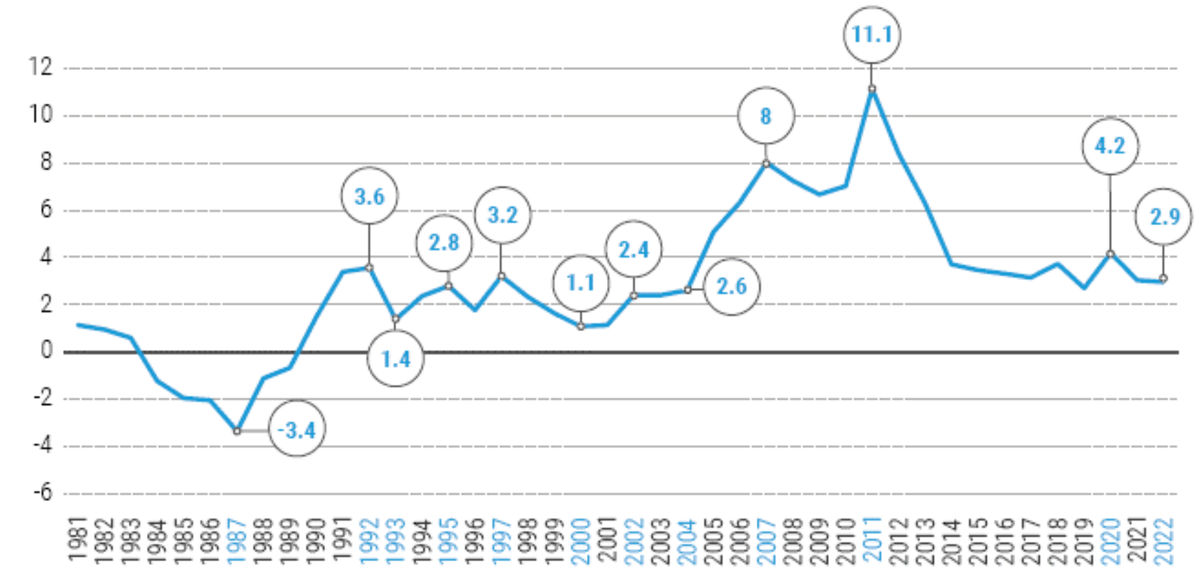



## Baltic Exchange dry index, September 2007–September 2022




*Source:* UNCTAD, based on data from Clarkson Shipping Intelligence Network.

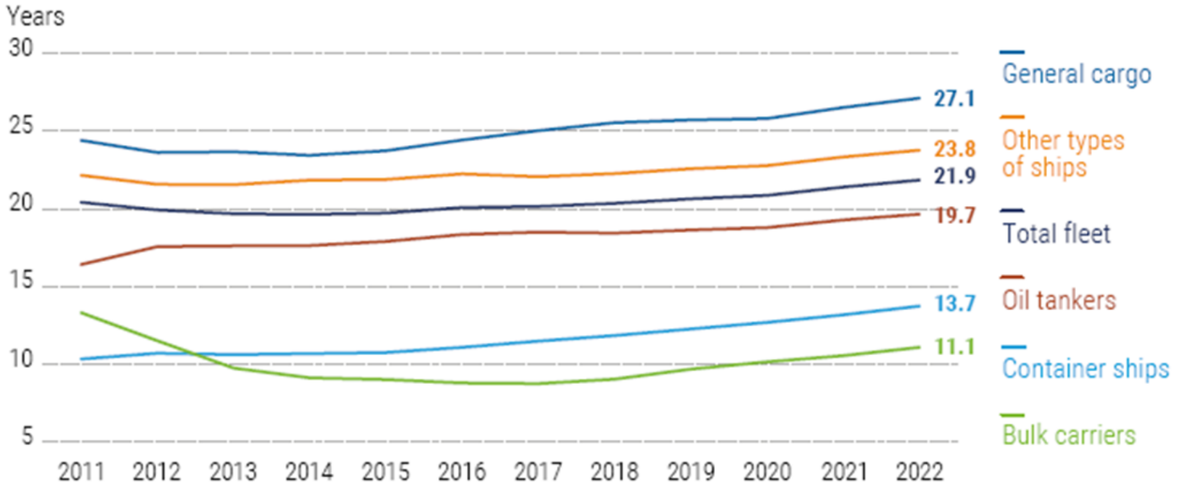
## Annual growth of commercial fleet, 1981–2022
**Growth rate** (percentage of the dwt)




*Source:* UNCTAD calculations, based on data from Clarksons Research.

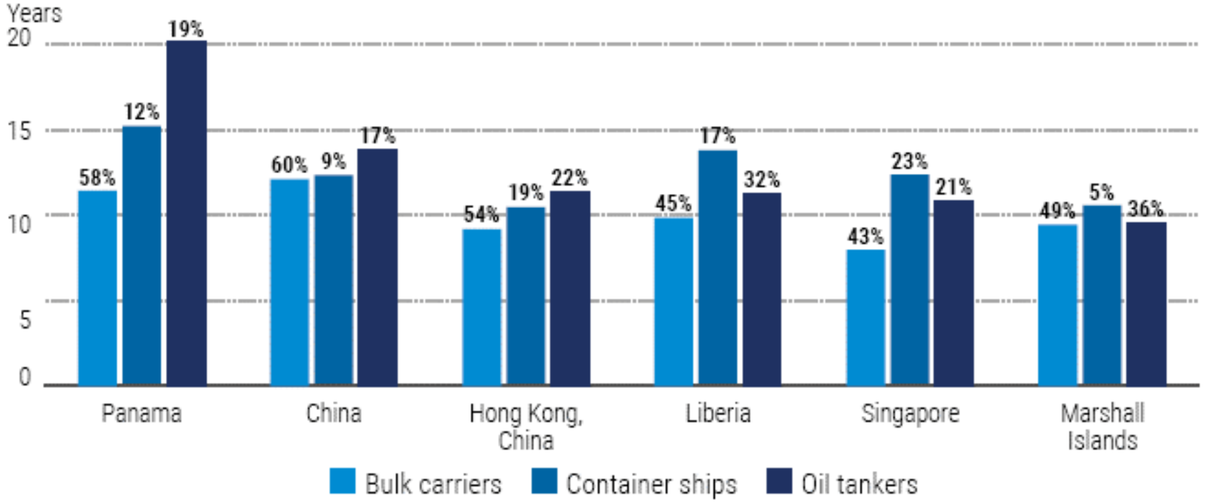
*Note:* Propelled seagoing vessels of 100 gross tons and above, as of 1 January 2022.

## Average age of the commercial fleet, weighted by number of ships, by vessel type, 2011–2022



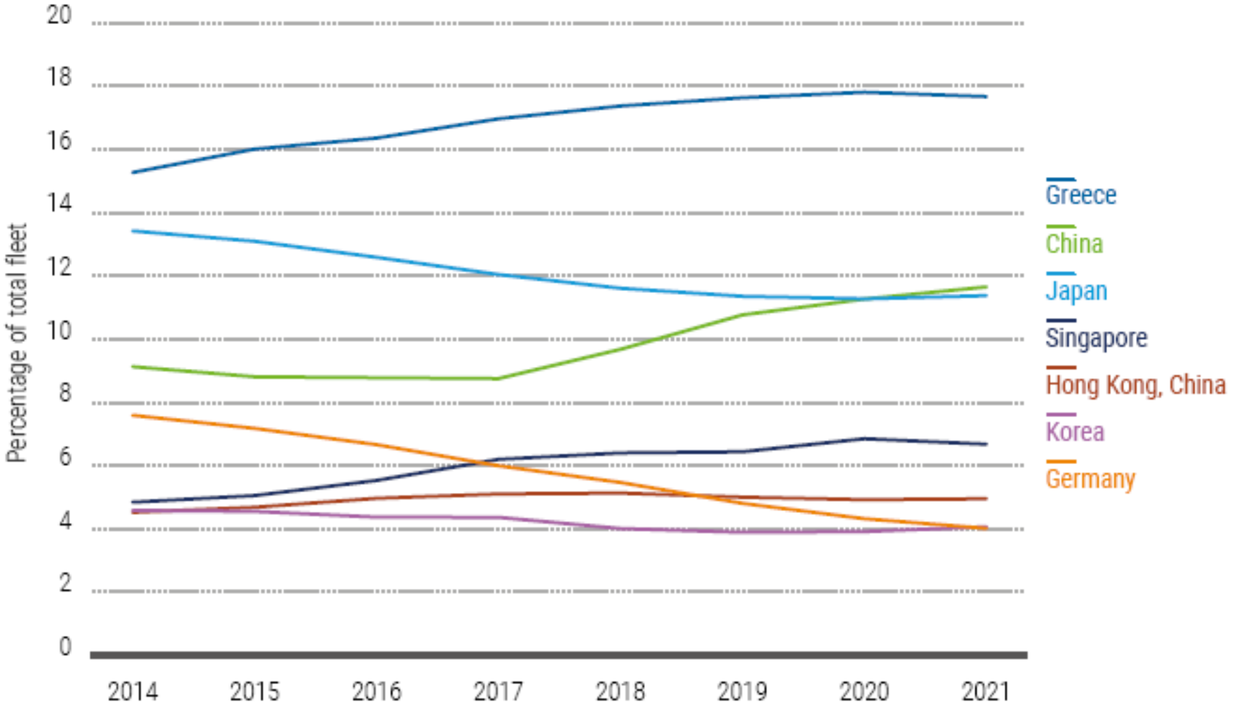

*Source:* UNCTAD calculations, based on data from Clarksons Research.

**Average of the bulk carrier, container ship and oil tanker fleets in the top 6 flag of registration by dwt and percentage of each ship type in the total fleet, as of 1 January 2022**




*Source:* UNCTAD calculations, based on data from Clarksons Research.

**Beneficial ownership of the global fleet, percentage share, top 7 ship-owing countries, 2014–2021, deadweight tonnage**




*Source:* UNCTAD calculations, based on data from Clarksons Research.

# Cost Driven Forces

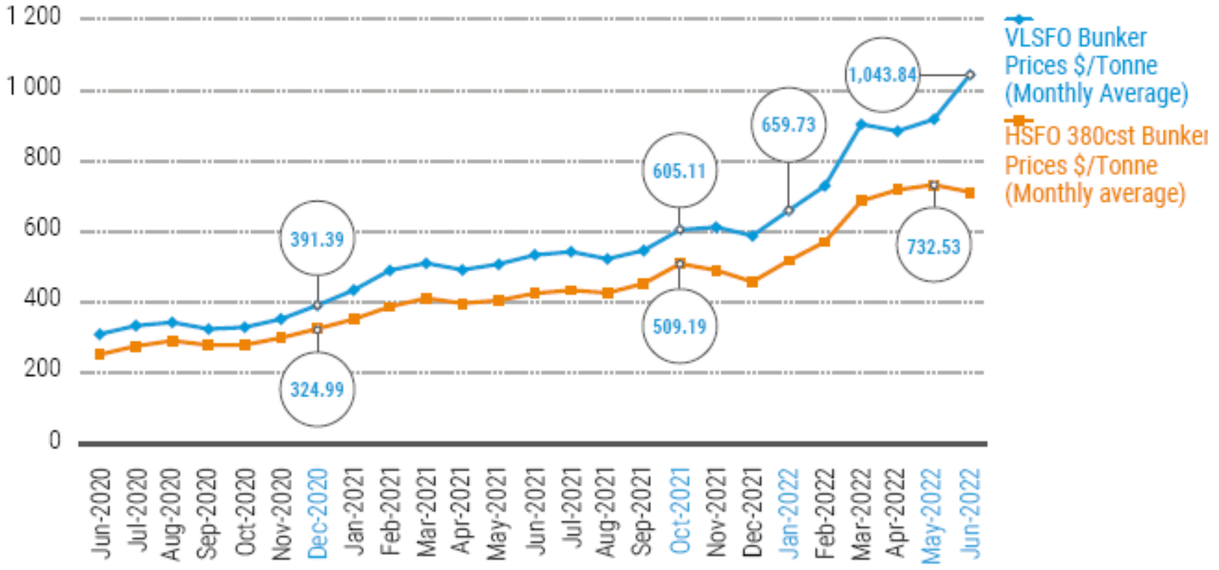
- Inflation
- Demand Driven increase of equipmetn cost
- Spike of Labour Cost
- Steel Prices
- Interest Costs

*what about the strong Dollar ?

# Comentarios

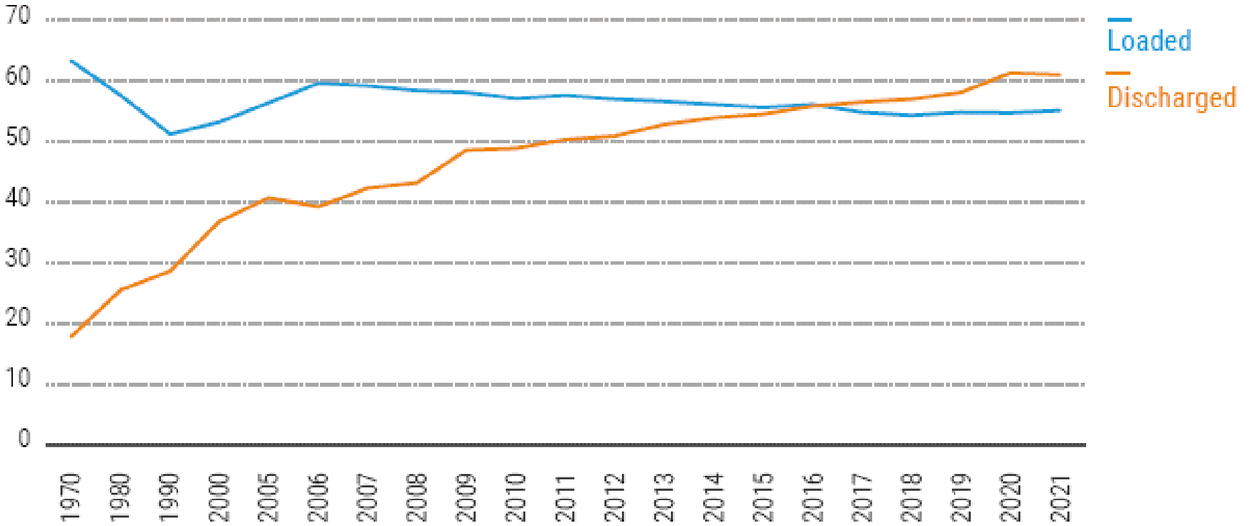
| | |
|---|---|
| **7 Sisters OPEC** | Oil: final del oligopolio y nacionalizaciones: CT toman relevancia. |
| **Disolución URRS** | Desintegración del estado. Caos. CT toman el mando de los recursos naturales a cambio de financiación. |
| **China driver** | Superciclo, supply issues. CT conectando Africa - China |
| **Is Trading over?** | Asset control: para fletar hay que ser shipper o receiver? La actividad se basa en volumen y escala. Crecimiento WS/LCs. |
| **CT como Charterers** | Acceso público precios FOB. Margen y control en Shipping en posiciones CFR. |

**Bunker prices, heavy fuel oil and very low sulphur fuel oil, monthly averages, from June 2020 to June 2022**




*Source:* UNCTAD, based on data provided by Clarksons Research Shipping Intelligence Network.

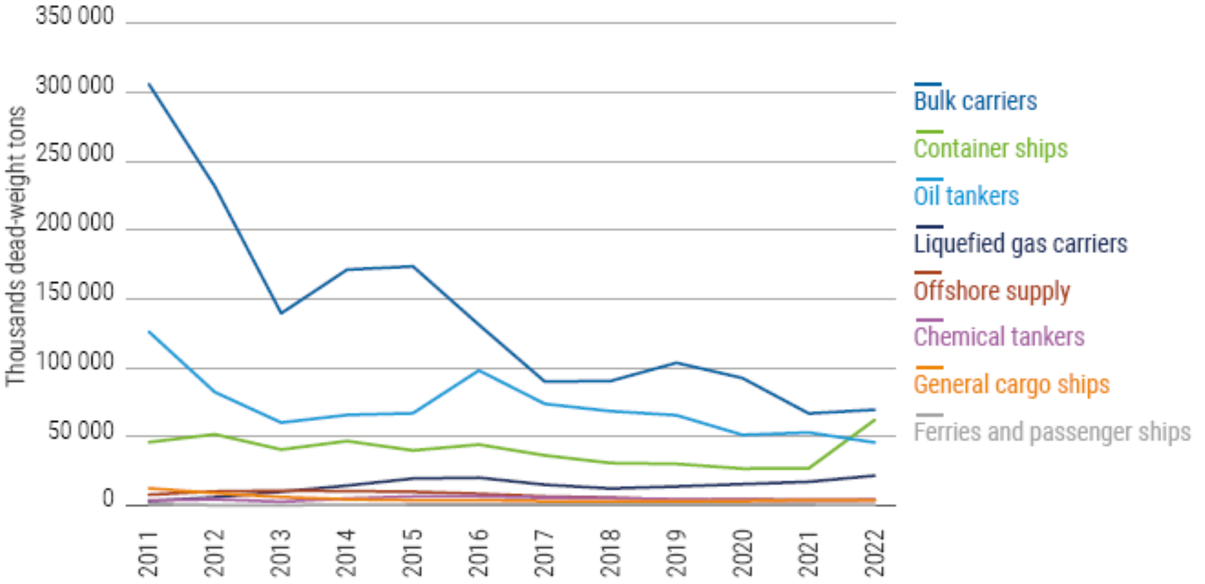
**Participation of developing countries in international maritime trade, selected years** (percentage share in total tonnage)



Ta _eading flags of registration by dead-weight tonnage, 2022

| | Flag of registration | Number of vessels | Share of world vessel total (percentage) | Dead-weight tonnage (thousands dead-weight tons) | Share of total world dead-weight tonnage (percentage) | Cumulated share of dead-weight tonnage (percentage) | Average vessel size (dead-weight tonnage) | Growth in dead-weight tonnage 2021 to 2022 |
|---|---|---|---|---|---|---|---|---|
| 1 | Panama | 8 025 | 7.8 | 350 401 | 15.9 | 15.9 | 43 664 | 1.7 |
| 2 | Liberia | 4 311 | 4.2 | 335 114 | 15.2 | 31.2 | 77 735 | 11.9 |
| 3 | Marshall Islands | 4 042 | 3.9 | 289 781 | 13.2 | 44.3 | 71 693 | 5.7 |
| 4 | Hong Kong, China | 2 661 | 2.6 | 207 816 | 9.5 | 53.8 | 78 097 | 1.4 |
| 5 | Singapore | 3 227 | 3.1 | 131 369 | 6.0 | 59.8 | 40 709 | -3.6 |
| 6 | China | 7 309 | 7.1 | 114 952 | 5.2 | 65.0 | 15 727 | 6.0 |
| 7 | Malta | 2 047 | 2.0 | 114 910 | 5.2 | 70.2 | 56 136 | -0.9 |
| 8 | Bahamas | 1 307 | 1.3 | 72 998 | 3.3 | 73.5 | 55 851 | -1.8 |
| 9 | Greece | 1 234 | 1.2 | 61 817 | 2.8 | 76.4 | 50 095 | -4.3 |
| 10 | Japan | 5 590 | 5.4 | 40 263 | 1.8 | 78.2 | 7 203 | 2.4 |
| 11 | Cyprus | 1 030 | 1.0 | 33 461 | 1.5 | 79.7 | 32 487 | -1.7 |
| 12 | Indonesia | 11 015 | 10.7 | 29 332 | 1.3 | 81.0 | 2 663 | 1.1 |
| 13 | Danish Int'l Register | 612 | 0.6 | 26 061 | 1.2 | 82.2 | 42 583 | 5.6 |
| 14 | Madeira | 672 | 0.7 | 25 863 | 1.2 | 83.4 | 38 486 | 13.7 |
| 15 | Norwegian Int'l Register | 695 | 0.7 | 21 300 | 1.0 | 84.4 | 30 648 | -3.1 |
| 16 | Isle of Man | 291 | 0.3 | 20 661 | 0.9 | 85.3 | 71 002 | -6.1 |
| 17 | Iran (Islamic Republic of) | 942 | 0.9 | 20 195 | 0.9 | 86.2 | 21 439 | -2.6 |
| 18 | India | 1 810 | 1.8 | 16 934 | 0.8 | 87.0 | 9 356 | -1.1 |
| 19 | Republic of Korea | 2 063 | 2.0 | 15 635 | 0.7 | 87.7 | 7 579 | -0.6 |
| 20 | Saudi Arabia | 413 | 0.4 | 13 887 | 0.6 | 88.3 | 33 625 | 1.6 |
| 21 | United States of America including Puerto Rico | 3 636 | 3.5 | 12 526 | 0.6 | 88.9 | 3 445 | -0.1 |

Fi World tonnage on order, selected ship types, 2011–2022
,lead-weight tons)




*Source:* UNCTAD calculations, based on data from Clarksons Research.

*Notes:* Propelled seagoing merchant vessels of 100 gross tons and above; beginning-of-year figures.

# Situación actual y previsión

- Precios commoditie; falta de inversión en oferta (ESG, demonización solid fuels). Fletes firmes en tankers Viene dry.
- Covid - MV Europe/Glencore, congestión, guerra.
- CT como Fletadores y Operators (carriers).
- Sanciones, trade disrupcions.
- Tipos en subida, exceso deuda, inflación. Recesión?
- CT como mineros, productores y/o 'no traders'?.
- Financial constrains/margin calls/casualties?.

- Futuro CT: democratizacion info, proteccionismo, cambio climático, diversidad, clientes-compradores creando sus propios departamentos de trading: Cofco, Unipec y otros. Supply security.

# Actores clave en la economía global

Cargill

**$ 165B** Ingresos 2022

**155k** empleados

**700** barcos fletados

GLENCORE

**$ 256B** Ingresos 2022

cobre, cobalto, zinc, nickel y carbón (con una produccion + 103mill tons)

TRAFIGURA

**$ 318B** Ingresos 2022

**abt 7 mill** bpd

abt 5,000 fixtures

200-250 TC vessels

Vitol

**$ 505B** Ingresos 2022

**abt 8 mill bpd**

**LSC 46** tankers

**6500/7000** fixtures

**300-350** under control

Para poner estos números en contexto en 2022:

**Microsoft** generó unos ingresos de $ 204B

**Meta/Facebook** $ 116B

**Alphabet (Google)** $ 282B

**PIB España** 2021 € 1.3T

# un poco más ...


**Libros:**

- Libros:
- The World for Sale (Javier Blas/Jack Farchy)
- Kochland (Christopher Leonard)
- The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron (Bethany McLean)
- Numbers Don't Lie: 71 Things You Need to Know About the World (Vaclav Smil)

**Podcasts/Youtube:**

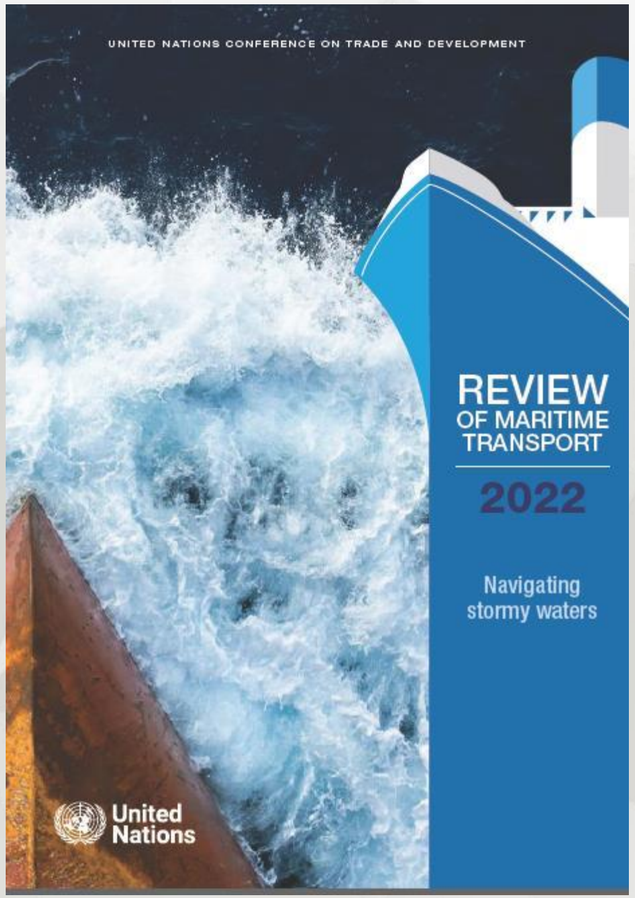
- How the Federal Reserve Broke the American Economy w/ Christopher Leonard
  - https://podcasts.apple.com/us/podcast/we-study-billionaires-the-investors-podcast-network/id928933489
- Gas - Carlos Mora
  - https://www.youtube.com/watch?v=95wFE82a-Ao
- Tankers + con Alberto Ayuso
  - https://www.youtube.com/watch?v=yCbMn9EcjMY
- El Superciclo del OIL & GAS - Con Gabriel Castro
  - https://www.youtube.com/watch?v=ycrIzTo1LmU
- Fundamentos del mercado de gas natural. Las razones de una crisis energética - Value School
  - https://www.youtube.com/watch?v=ott9Uo86Irg

# Shipping, commodities y traders al descubierto

## Las nuevas claves del comercio internacional

**JOEL GRAU**
SHIPBROKER Y COO EN HIZONE GROUP

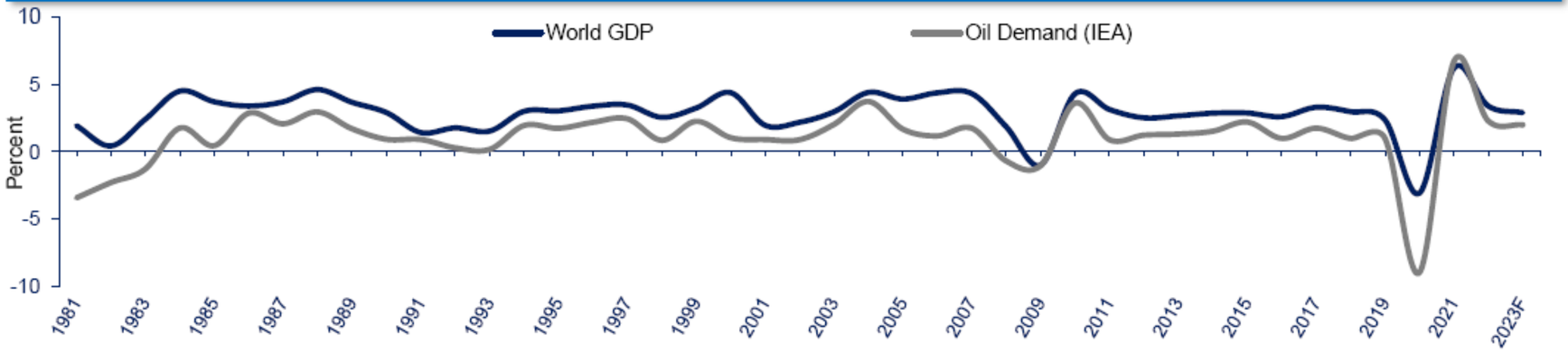
# Endnotes


UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
REVIEW
OF MARITIME
TRANSPORT
2022
Navigating
stormy waters
United
Nations


November 2021

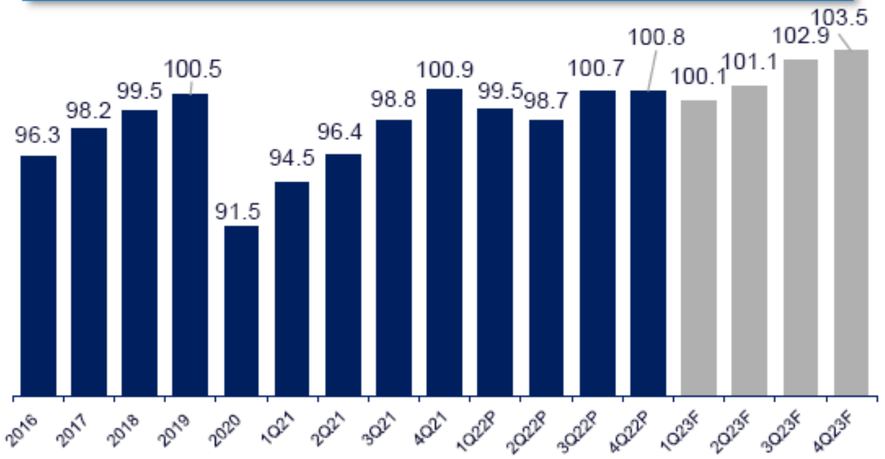
# Global Oil Demand

## Global Oil Demand and GDP Growth

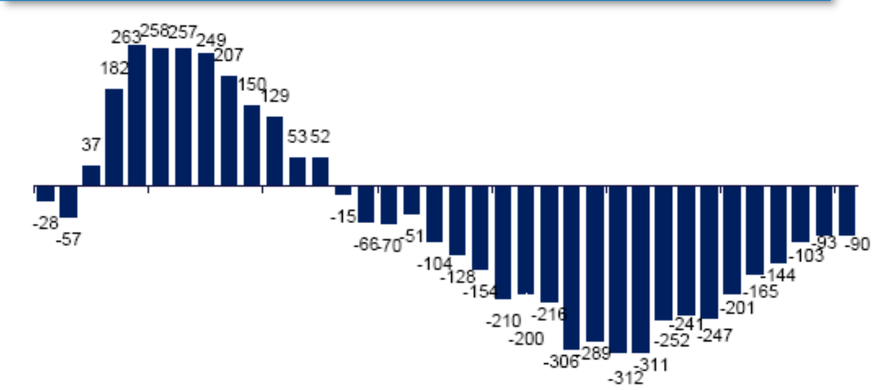



- World GDP is expected to grow 2.9% in 2023 and 3.1% in 2024, based on the IMF's January forecasts
  - ~ 85% correlation of world oil demand to global GDP growth
- Oil demand is expected to grow by 2.0% (2.0 mb/d) in 2023 to 101.9 mb/d. 2022 oil demand increased by 2.3%
- China's oil demand is expected to grow by 0.9 mb/d or 6.0% in 2023 to 15.9 mb/d (45% of 2023 world demand growth)
- OECD oil inventories stocks decreased Jul 2020 to Feb 2022: US SPR withdrawals will lead to refilling inventories in the future

## Global Oil Demand (2016-2023) (mb/d)




## OECD Total Oil Industry Stocks (MB) vs 5 yr avg




Source: Clarksons, IEA Feb 2023, EIA STEO report, GDP projections based on IMF Jan 2023

# Crude Oil and Products: Changing Trading Patterns

- Seaborne crude and product trades have been affected by the war in Ukraine
- Sanctions:
  - December 5, 2022; New EU sanctions on Russian crude imports and price cap
  - February 5, 2023; EU sanctions on the import of Russian products
- Trade readjustments due to the war are shifting trade patterns towards longer-haul routes
  - Russian crude and products increased voyage distances by traveling further to India and China
    - 4% of Russian crude exports to the EU by sea in December 2022 versus 89% at the start of 2022
      - It is estimated that Russian Baltic crude travels 3x longer (from EU to India)
    - Russia increased exports of naphtha to Brazil by 77% to 10.1 million barrels in 2022
  - EU imports are adjusting
    - Crude imports have increased from the US, Brazil and the Middle East
    - Product imports have increased from the US, India and the Middle East
  - Worldwide ton mile growth is expected to expand at higher rates than overall oil demand
    - Crude oil ton mile demand grew by 4.6% in 2022 and is expected to increase 6.4% in 2023
    - Product ton mile demand increased by 4.8% in 2022 and is expected to grow 11.2% 2023

**Crude Oil: Trading Pattern Changes**

**Products: Trading Pattern Changes**

Increased routes

Decreased routes

**Crude ton mile growth expected to increase by 6.4% in 2023**
**Product ton mile growth expected to increase by 11.2% in 2023**

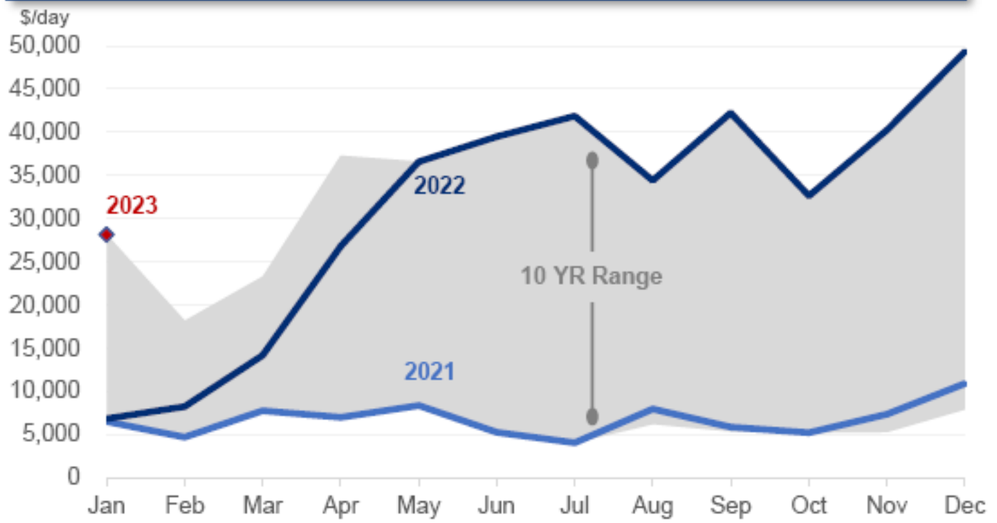
Source: Clarksons (including OTTO Jan 2023), IEA Jan, Feb 2023 OMR, FT, Bloomberg 2/3/23; 2/15/23

# Market Outlook Summary

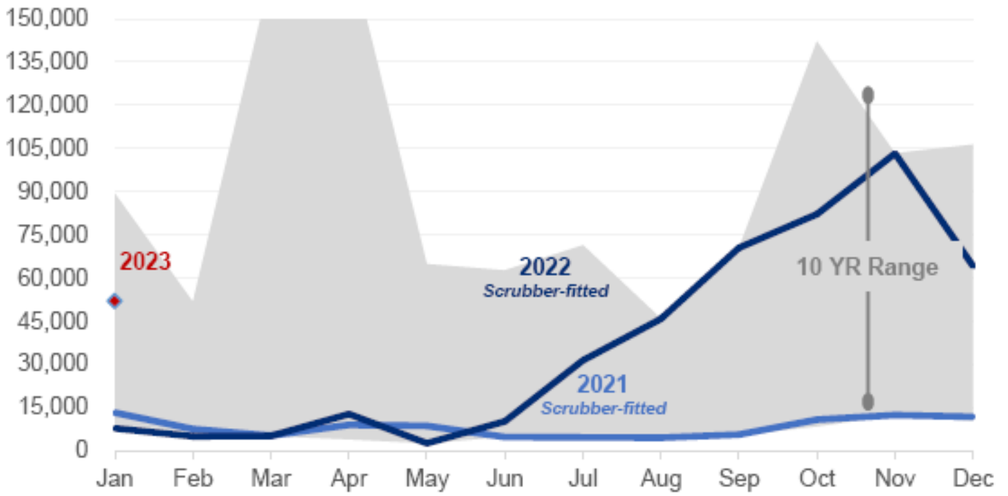
| | | |
|---|---|---|
| **Momentum building in tanker markets** | Near | • Tanker revenue rates spiked in product carriers; large crude carriers followed<br>• Oil demand above pre-pandemic levels; recessionary concerns could curb global oil demand<br>• Imminent EU embargo on Russian crude and refined products will drive ton-mile demand<br>• Inventories drawn to below 10-year averages |
| **Disconnect of oil supply growth & oil demand growth creates further demand for tankers** | Medium | • Oil production growth driven largely from Americas<br>• Oil demand growth principally from Far East<br>• Displaced tonnage from WAF/EU establishes more ton-miles from Americas<br>• Additional distance creates higher tanker utilization |
| **Changes to the refinery landscape establishes further regional imbalances** | Medium | • Simple, less complex refineries unable to compete with high conversion capacity<br>• Upgrading and grass roots growth mostly from East of Suez<br>• Mothball or conversion candidates likely West of Suez<br>• New capacity building for export purposes |
| **Tanker fleet under pressure as aging vessels face removal from commercial trading** | Medium | • Average fleet ages have grown substantially over last 10 yrs<br>• Vessels aged 15+ face different trading patterns, nearly 30% of tanker fleet<br>• Scrapping, recycling, removal candidates significant over next few years<br>• Candidates substantially higher to scheduled newbuildings |
| **Lack of investment in fleet growth due to decarbonization** | Long | • Uncertainty remains on the next viable fuel alternative on a vessel that trades nearly 25 years<br>• Shipping industry, due to its worldwide reach, facing attention in global environmental efforts<br>• Strength of other shipping sectors has led to further consumption of newbuild yard capacity<br>• Previous weakness in tankers has created lack of investment |

# Current Tanker Rates

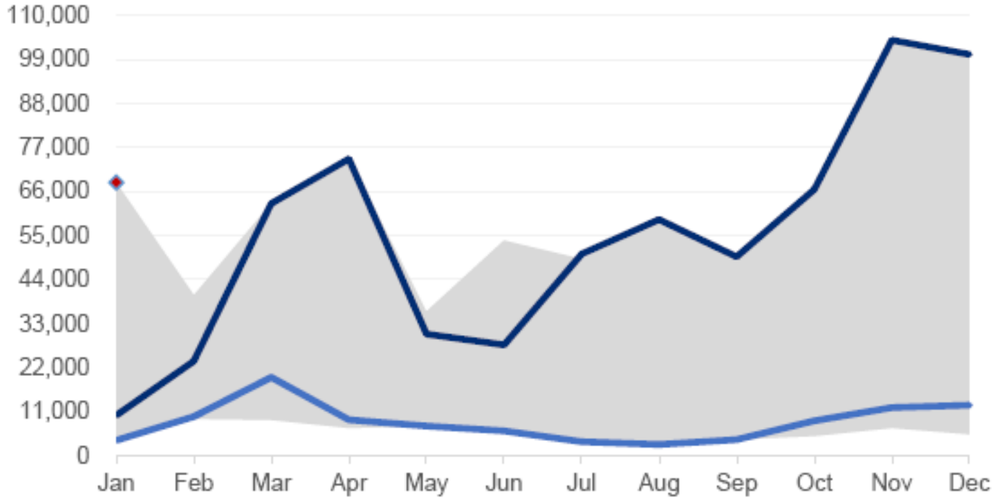
## MR Spot Rates



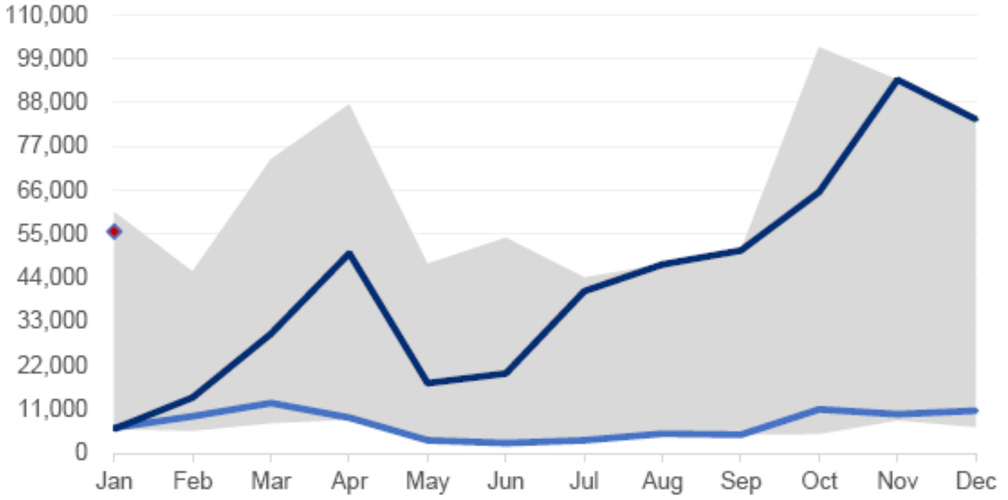

## VLCC Spot Rates




## Aframax Spot Rates

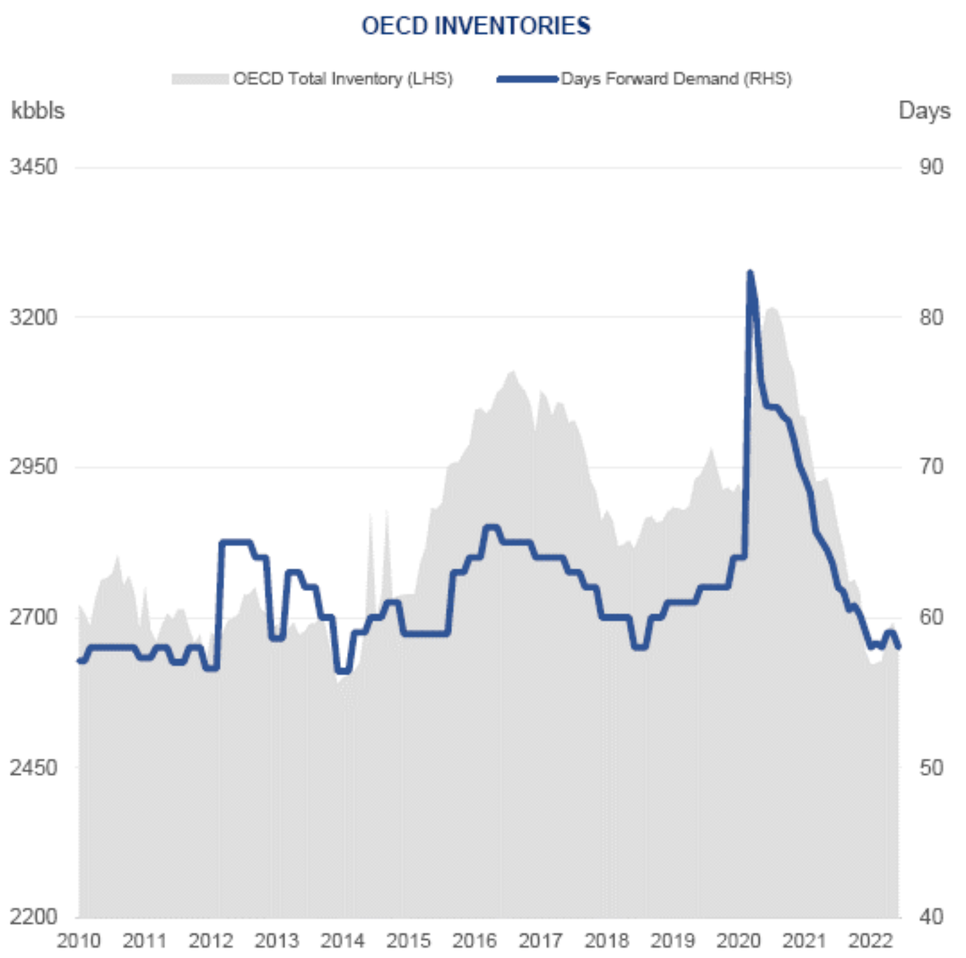



## Suezmax Spot Rates



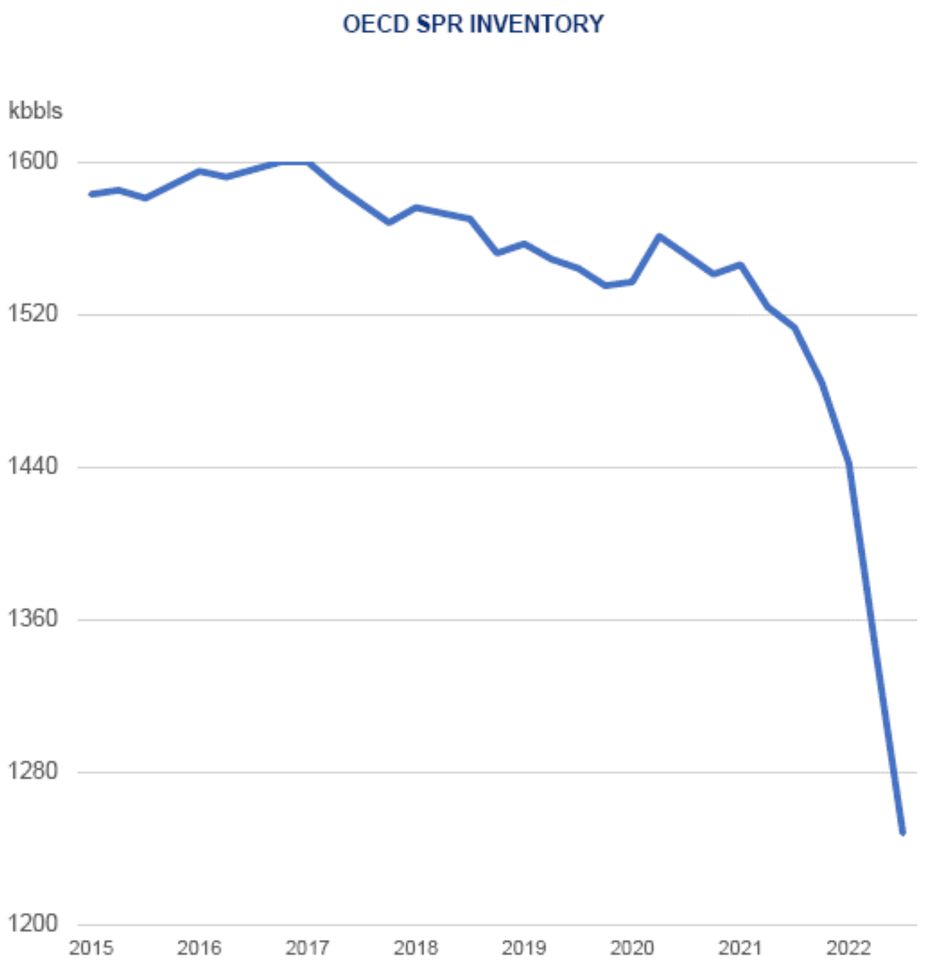
# Low Global Inventories Drive Seaborne Demand

## Commercial Inventories Well Below 10Yr Average




*Source: OPEC*

## Strategic Reserves Historically Low




*Source: OPEC*

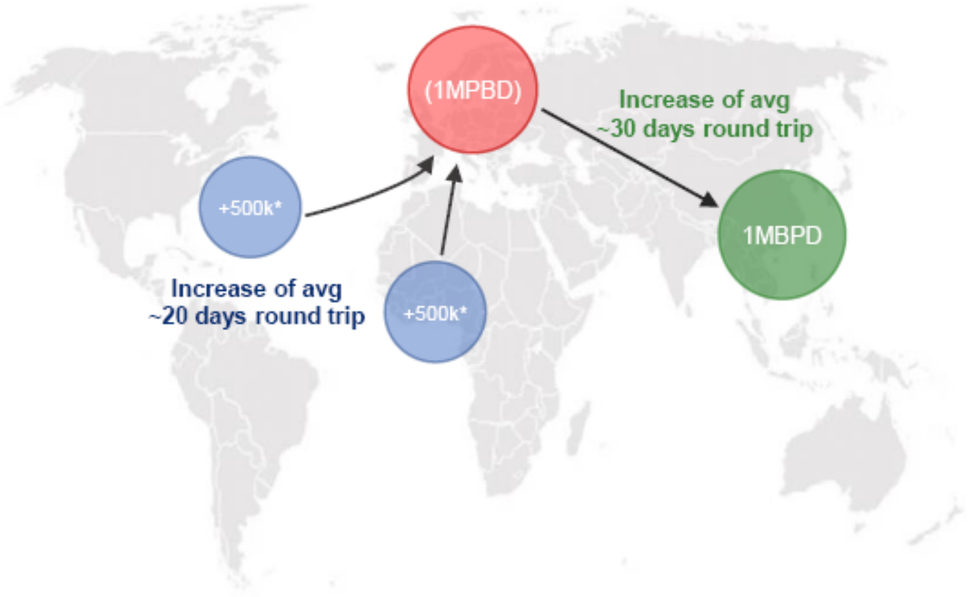
# Current Topics: Russian Exports Ahead of Sanctions

## Russian Crude Displacement Just Beginning Ahead of Dec Ban

**Background**
Approximately 2.5 mbpd of Russian crude by sea was exported to Europe prior to the invasion of Ukraine

The EU sanction of Russian crude imports comes in effect on December 5

Roughly 1/3 of Russian crude has been displaced from the EU and largely is headed for Asia

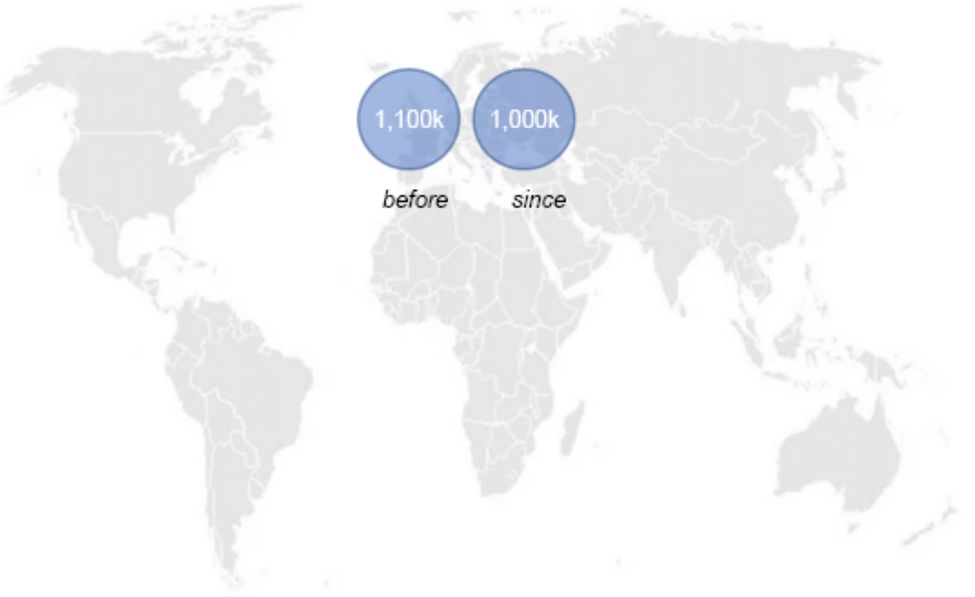



## Russian Product Exports Not Yet Altered Ahead of Feb-23 Ban

**Background**
Approximately 1.0 mbpd of Russian products were exported to Europe prior to the invasion of Ukraine

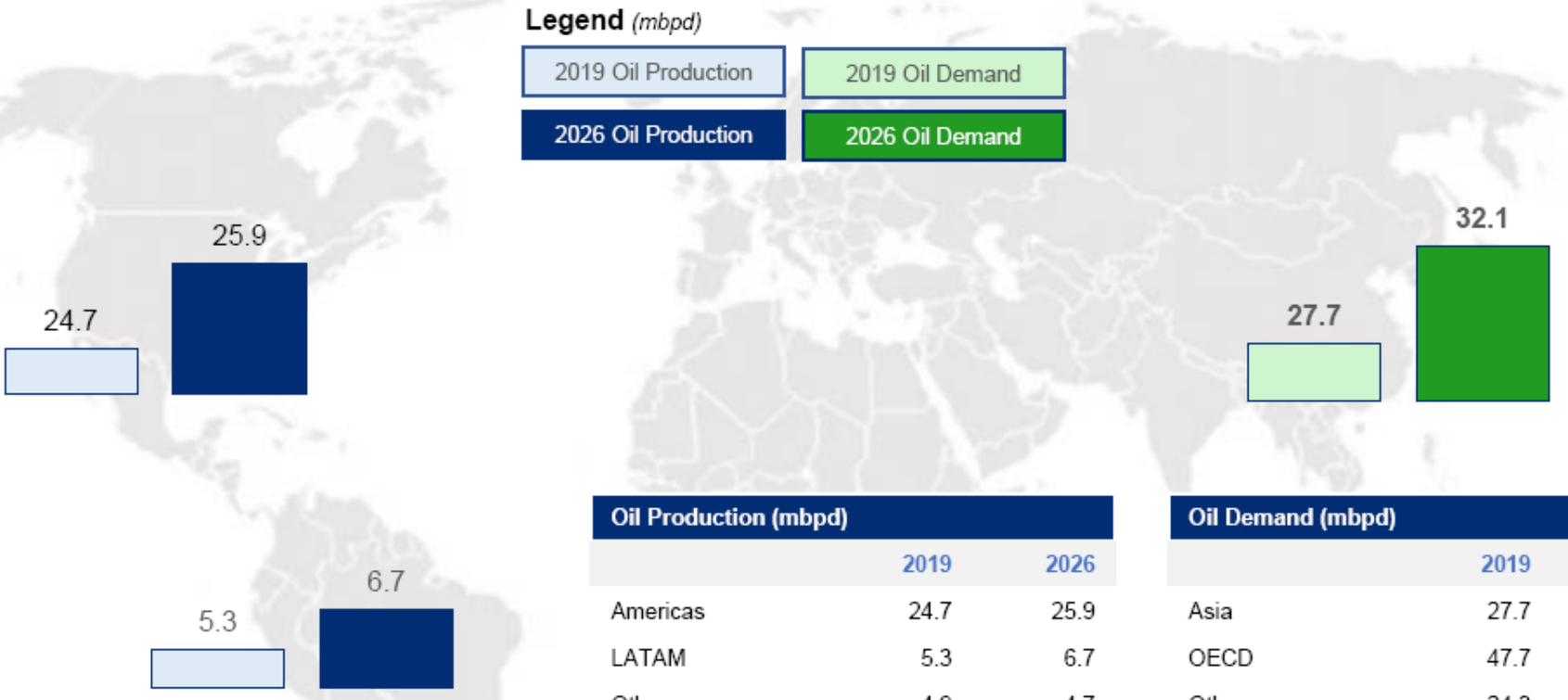
The EU sanction of Russian product imports comes in effect in February 2023

Most of EU clean product imports from Russian continue



# Disconnect: Regional Imbalances in Oil Impact Tanker Demand

***Growing disconnect between oil production growth and oil consumption growth should lead to greater demand for tankers***



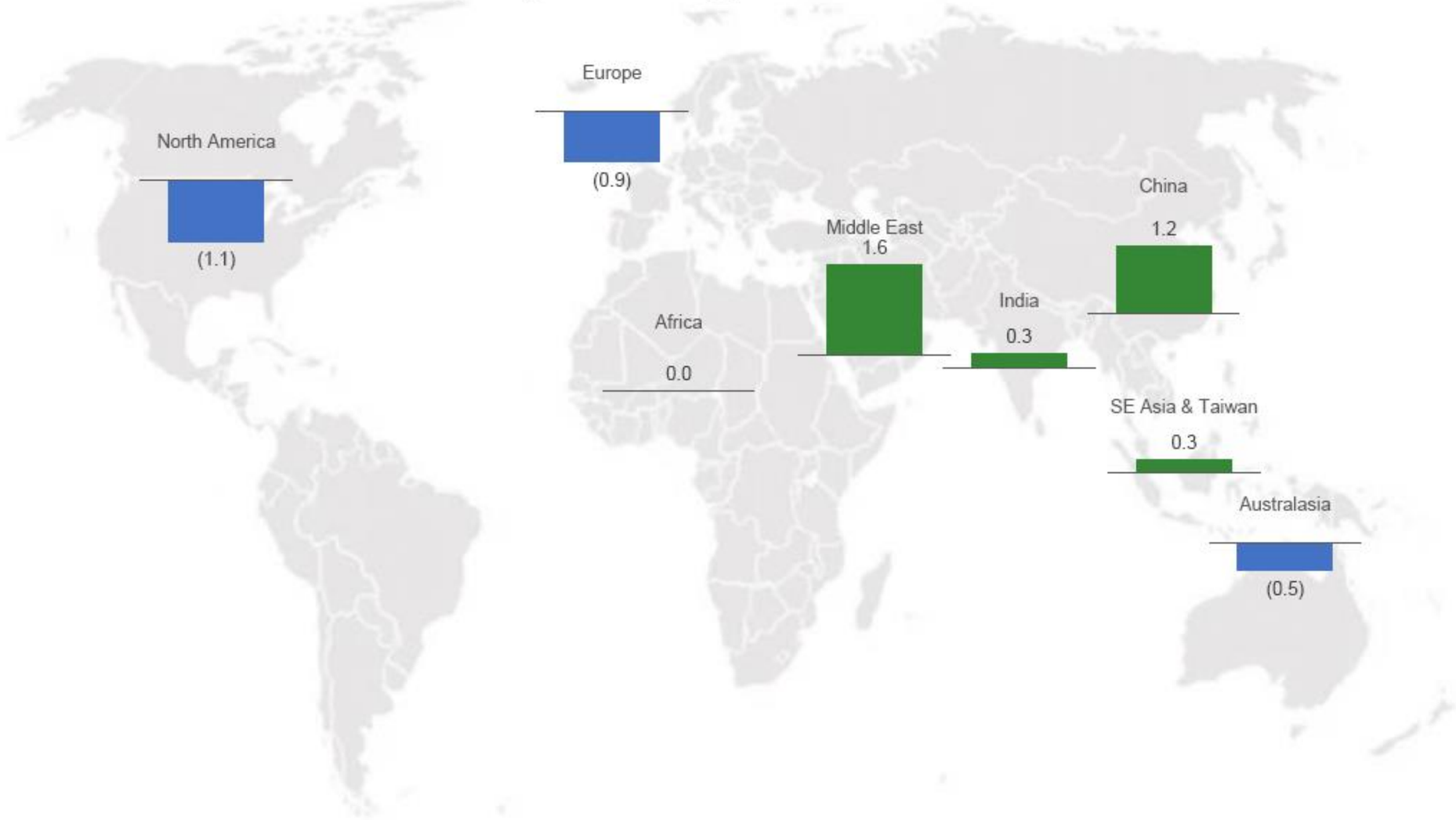

| Oil Production (mbpd) | 2019 | 2026 |
|---|---|---|
| Americas | 24.7 | 25.9 |
| LATAM | 5.3 | 6.7 |
| Others | 4.9 | 4.7 |
| **Total West of Suez** | **34.9** | **37.3** |
| Asia* | 7.7 | 6.7 |
| Middle East | 3.2 | 3.5 |
| Former USSR | 14.6 | 14.4 |
| **Total East of Suez** | **25.5** | **24.6** |

| Oil Demand (mbpd) | 2019 | 2026 |
|---|---|---|
| Asia | 27.7 | 32.1 |
| OECD | 47.7 | 45.8 |
| Other | 24.3 | 26.2 |
| **Total** | **99.7** | **104.1** |

# Disconnect: Changes in Refinery Capacity

***Refining landscape is likely to shift product trade patterns as expansion largely in the East is partially offset by smaller, less upgrading capacity in the West.***

**Likely changes to net refinery production 2020 vs 2023**



# Global Oil Demand on the Rebound

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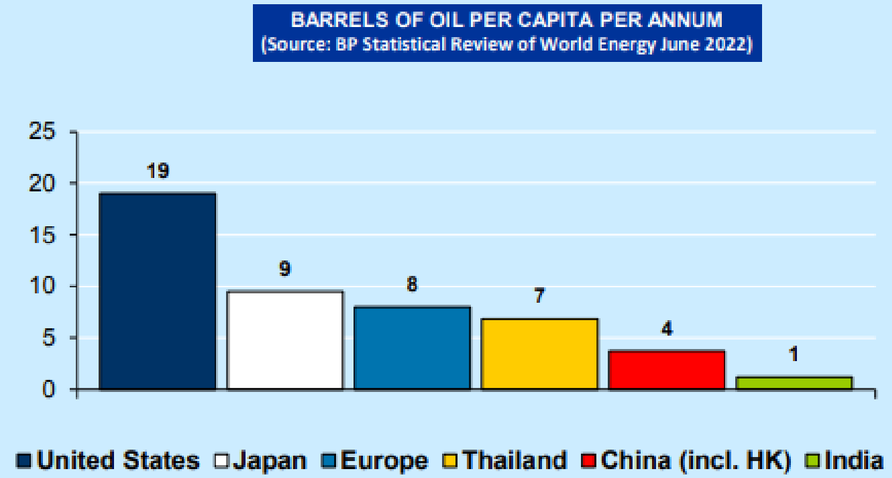
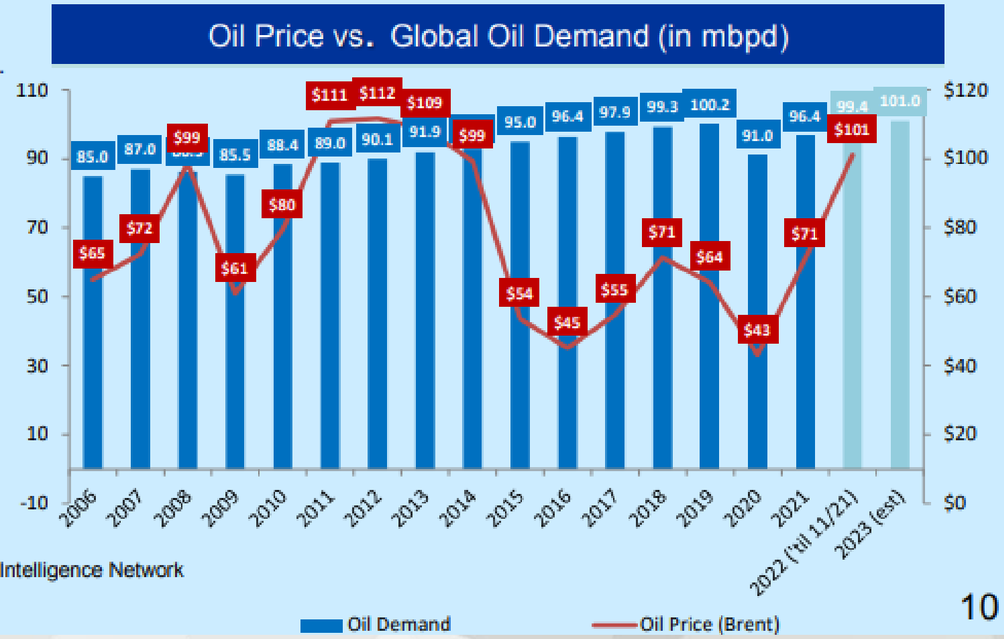
- Strong potential of China and India with a combined population of 2.5 billion in a world of 7.0 billion. Their per capita oil consumption is at extremely low levels and have already embarked on an aggressive industrialization program
- If China reaches the same levels of consumption as Thailand, Chinese oil demand (based on existing population) would rise to 18mbpd, an increase of 5mbpd from current levels
- China and India will continue to play a significant role in oil demand recovery in 2022 and beyond
- Trading dislocations created by current geopolitical turmoil should be additive to tanker freight rates and asset prices




- Oil demand growth in 2022 +2.1mbpd and +1.6mbpd in 2023. World oil demand is forecasted to reach 101.0mbpd in 2023, surpassing pre-pandemic levels.
- Global GDP declined by 3.3% in 2020 but expected to rebound to 6.0% in 2021, 3.2% in 2022 and 2.7% in 2023
- Post-covid global economic recovery underway
- The current crisis in the Ukraine has created a **global redrawing of trade routes** leading to an increase in oil tanker voyages – **Positive for ton-mile demand**

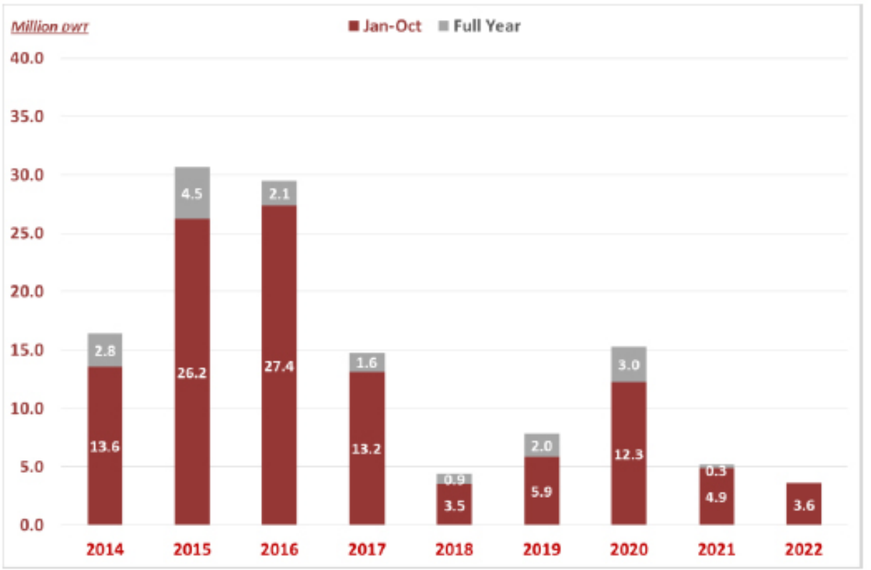



Source: International Energy Agency, Oil Market Report, IMF & Clarkson Shipping Intelligence Network

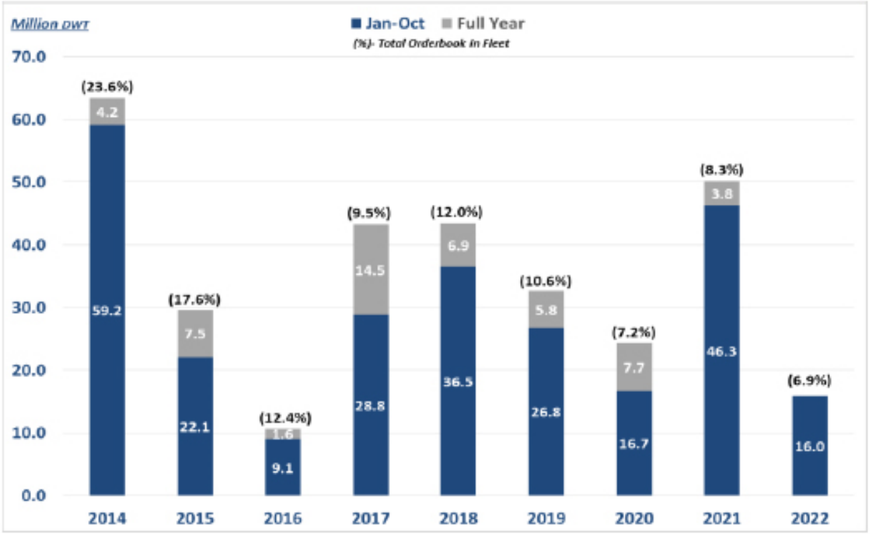
# Dry Bulk Supply Update

- **Dry bulk NET fleet growth running at +2.8% during the last 12 months**
  - Jan-Oct 2021 deliveries : 26.0 mil. dwt / Down from 33.4 mil. dwt
  - Jan-Oct 2022 demolition: 3.6 mil. dwt / Down from 4.9 mil. dwt
- **Orderbook at a record low of ~6.9% of the fleet (~66.8 mil. dwt)**
  - Jan-Oct 2022 contracting: 16.0 mil. dwt / Down from 46.3 mil. dwt
  - Environmental regulations, increased shipbuilding costs and limited shipyard capacity are keeping new orders under control.
- **Vessels above 15 years of age at ~18.7% of the fleet (~180 mil. dwt)**
- Steaming speeds experiencing downward pressures (-5.3% y-o-y) as a result of record high bunker cost environment.
- Global congestion corrected from the record highs observed throughout the last year, but still stands at elevated levels.
- **NET fleet growth unlikely to exceed 2% p.a. during 2023-2025**

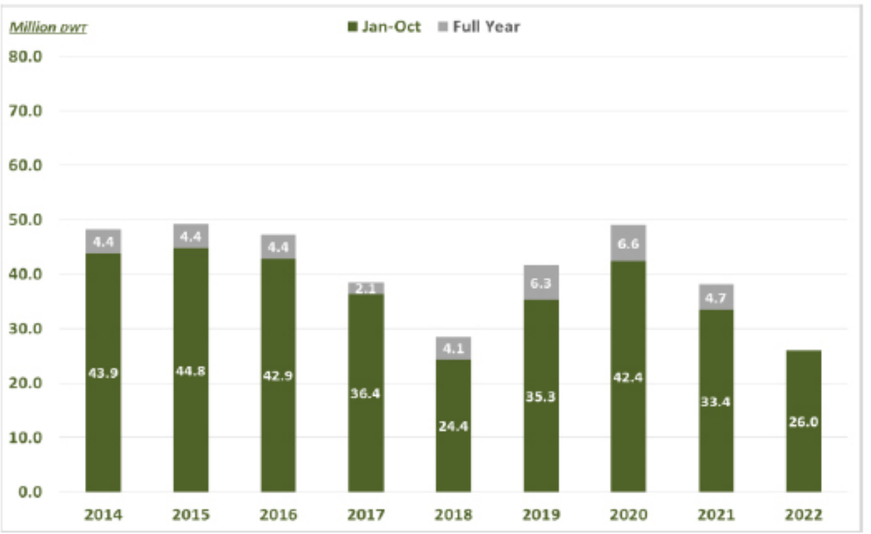
## Dry Bulk Demolition




## Dry Bulk New Orders




## Dry Bulk Deliveries




Source: Clarkson Research Services Ltd. (Shipping Intelligence Network, database)

# Dry Bulk Demand Update

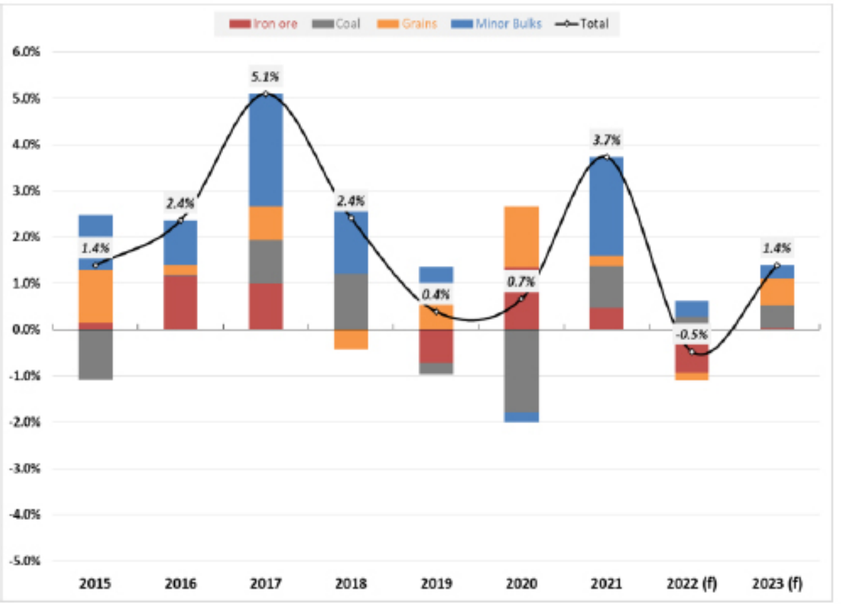
- **During 2022, TOTAL dry bulk ton-miles projected to contract -0.5%**
  - Trade volumes affected by the war in Ukraine, the slowdown of Chinese imports amid lingering COVID19 impacts and weaker global economic sentiment caused by surging commodity prices, multidecade high inflation and interest rates hikes.
  - Gradual shifts in coal, grains and minor bulks trade patterns to longer-haul routes are slowly inflating ton-miles and help moderate the decrease of volumes.
- **During 2023, TOTAL dry bulk ton-miles projected to increase +1.4%**
  - IMF projecting global GDP growth at 2.7% in 2023, as advanced economies expected to expand by just 1.1% and developing economies by 3.7%.
  - A relaxation of the strict zero COVID policy and reopening of the Chinese economy will have a positive effect for dry bulk trade.

**Key Dry bulk cargoes breakdown:**

- **Iron ore ton-miles growth projected at -3.2% for 2022 and +0.1% for 2023**
  - Crude steel production decreased by 3% in China and by 5% in the rest of the world during the first three quarters. Over the last months Chinese production has gradually recovered, while domestic iron ore output and stockpiles have decreased and provide a positive indicator for imports.
- **Coal ton-miles growth projected at +1.7% for 2022 and +2.8% for 2023**
  - Global focus on energy security and high gas prices are positive for coal consumption and the medium-term trade outlook. European buyers seeking longer-haul cargos to replace Russian coal. China and India domestic coal production experienced strong increases but thermal electricity production also growing at a high pace.
- **Grains (incl. soybeans) ton-miles projected at -1.2% for 2022 and +4.3% for 2023**
  - During Q3 grains trade improved due to strong corn exports from Brazil and the resumption of Ukrainian exports. Strong US soybean exports expected during Q4 and will be followed by a record high Brazilian harvest. Increasing focus on food security and the return of Ukrainian grains to inflate trade over the next years.
- **Minor bulk ton-miles growth projected at +0.8% for 2022 and +0.7% for 2023**
  - Minor bulks trade have a high correlation with global GPD growth. Atlantic steel shortages are incentivizing Pacific exports and inflating backhaul trades. Bauxite exports from West Africa expanded by 15% during the year aiding Capesize ton-miles.

| Dry Bulk Trade *(Million tons)* | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (f) | 2023 (f) |
|---|---|---|---|---|---|---|---|
| Iron ore | 1,472 | 1,475 | 1,454 | 1,502 | 1,517 | 1,484 | 1,480 |
| Coal | 1,206 | 1,271 | 1,296 | 1,178 | 1,232 | 1,227 | 1,243 |
| Grains | 475 | 474 | 479 | 518 | 528 | 515 | 537 |
| Minor Bulks | 2,043 | 2,115 | 2,143 | 2,087 | 2,192 | 2,156 | 2,156 |
| **Total Dry** | **5,196** | **5,335** | **5,372** | **5,286** | **5,469** | **5,384** | **5,428** |
| *Annual Growth (tons)* | *211* | *140* | *37* | *-86* | *183* | *-85* | *44* |
| *Annual Growth (%)* | *4.2%* | *2.7%* | *0.7%* | *-1.6%* | *3.5%* | *-1.6%* | *0.8%* |
| *Ton-miles growth* | *5.1%* | *2.4%* | *0.4%* | *0.7%* | *3.7%* | *-0.5%* | *1.4%* |

## Dry Bulk Ton-miles – Full Year Growth

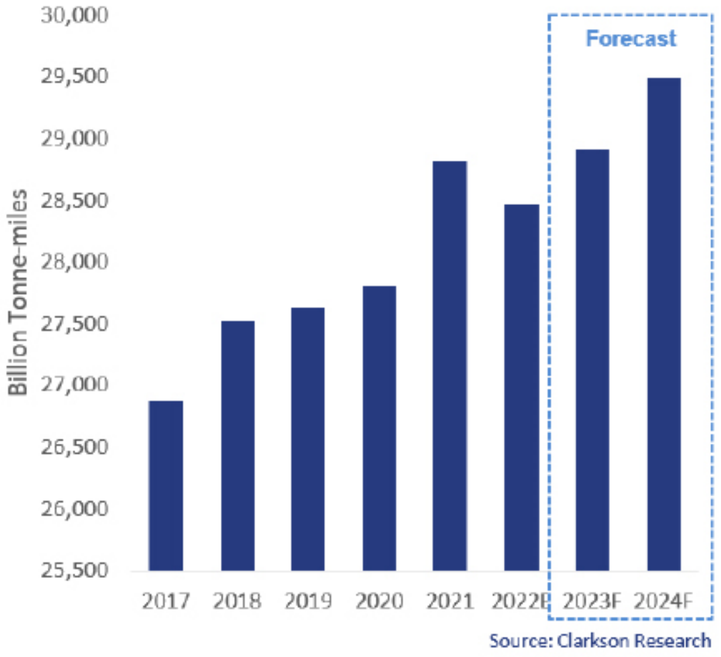



Source: Clarkson Research Services Ltd. (Shipping Intelligence Network, database)

# THE DRY BULK MARKET

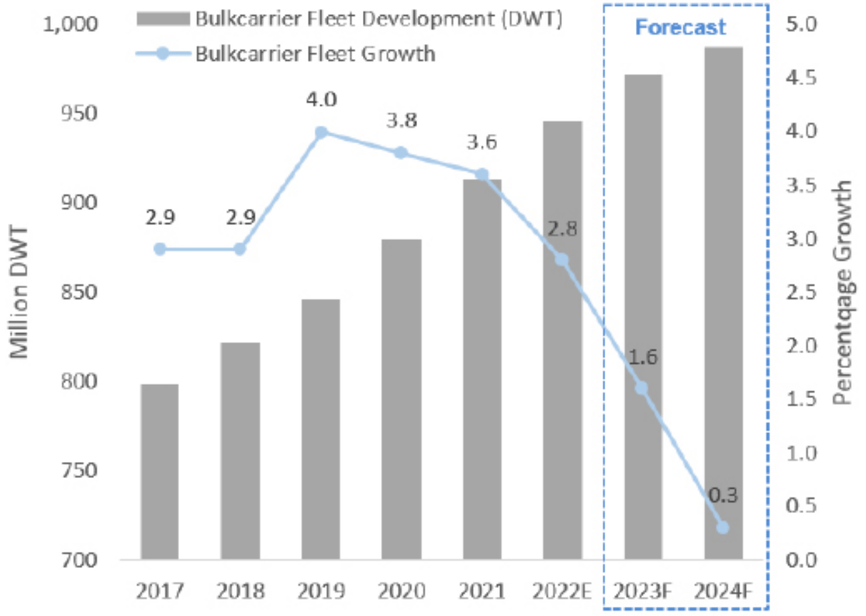
- Healthy supply fundamentals with the current orderbook standing at one of the lowest points of the last 20 years.
- The annual fleet growth during 2023 is expected at 1.6%, following an average annual growth between 2010 and 2021 of 6.2%.
- A gradual improvement of dry bulk demand is expected starting from 2023 with the forecasted tone-miles demand growth rate standing at 1.6%.

## World Seaborne Dry Bulk Trade




Source: Clarkson Research

## Bulkcarrier Fleet Development




Source: Clarkson Research

## *The war in Ukraine disrupts food and energy supplies and moves shipping into sharp focus*

The war in Ukraine, and the related economic restrictive measures, are affecting maritime transport far beyond Europe and the war zone. The war dented global busine jogra fidence, amplified uncertainty and increased volatility. The effects rippled across commodity and financial markets, and supply chains, with serious implications for food and energy security as well as for inflation and the cost of living. Inflation had already started rising in 2021 amid high freight rates, but the war in Ukraine further drove up commodity prices and inflation, opening up the prospect of stagflation and a global recession.

Ukraine and the Russian Federation are among the world's breadbaskets; they provide around 30 per cent of the world's wheat and barley, one-fifth of its maize, and over half of its sunflower oil. The Russian Federation is also a major supplier for other critical products: together with Belarus, the country exports around a fifth of the world's fertilizers, and is leading exporter of natural gas and the second-largest exporter of oil. The war thus has serious implications for commodity shipments and food security and has brought shipping and ports to the forefront of public attention.

The war stopped grain shipments through Black Sea ports, with dire consequences for poor countries. In 2021, Ukraine's grain exports had been about 4.2 million tons per month, totalling 50 million tons for the year. By early March 2022 they had dropped to zero. Food prices, which had already been increasing, then soared.

Dry bulk freight rates also increased because of the war in Ukraine, rising energy costs, and the prolonged pandemic. An UNCTAD simulation projects that higher grain prices and dry bulk freight rates can contribute to a 1.2 per cent increase in consumer food prices (figure 7). The price increases will be slightly higher in middle-income economies whose food imports depend more on dry bulk shipping (figure 8). Low-income economies have limited capacity in primary food processing and import more processed food which arrives in containers (figure 9).

## *The war alters trading patterns and disrupts supply chains*

Following the war in Ukraine, trade patterns are shifting as buyers seek substitute suppliers, who are usually more distant, adding to ton-miles. Nigeria, for example, is now sourcing potash from Canada, while Egypt is importing wheat from India, as are several East Asian countries. African countries are importing more grain from Brazil, while China is expected to switch its corn sources to Brazil and buy more from the United States. The European Union is also likely to import more corn from Brazil and from the United States.

Oil and gas trades are also being reconfigured as the war deeply challenged global energy supply. Bans on Russian exports are likely to boost global coal demand, while also stimulating investment in renewable electricity, which will in turn boost the demand for minor bulk metals.

There have also been impacts on container shipping. Nine of the top-ten global container lines have suspended operations in the Black Sea region, while other logistics businesses have exited the Russian market. As a result, between the first and second quarters of 2022 Ukraine lost all its liner shipping connections. Over the same period, the Russian Federation lost 50 per cent of its liner services – for its ports in the Black Sea, Baltic Sea and the Far East.

The fall in direct connections to the Black Sea area has affected global logistics, and amplified port congestion in Europe. Moving ahead, the war's impact on container shipping is likely to deepen as a protracted war will dampen global economic growth, cut consumer spending power and reduce demand. It will also increase oil prices, inflation, and the cost of living, and add economic and investor uncertainty.

The Russian Federation and Ukraine are not deeply integrated into global networks for container shipping. Nevertheless, because the two countries supply metals used in the manufacture of cars and renewables the war is amplifying global supply chain disruptions.

In addition, restrictions have made it difficult for shippers and logistics service providers to use the China–Europe rail route which runs through the Russian Federation. They are, however, finding new routes, such as the Middle corridor and the Trans-Caspian International Transport Route.

## *To meet climate goals, shipping and ports look to alternative fuels*

Ship owners face more stringent environmental regulations. On 1st January 2023 three new IMO regulations come into force – aiming to reduce maritime greenhouse gas emissions and the environmental impact of ships. One is the CII regulation, on the basis of which 30 to 40 per cent of containerships and dry bulk carriers were considered non-compliant in 2021.

The most immediate way to reduce emissions is slow sailing. But ship owners can also retrofit their ships with energy-efficient technologies so as to use alternative fuels such as LNG, methanol, ammonia, or electricity, or make operational changes. This will drive up costs and affect insurance coverage, as well as future access to investment and capital.

Alternative fuels currently cost two to five times as much as conventional fuel so are not yet commercially viable. Fleet owners can, however, keep their options open with dual-fuel vessels. As of 1 March 2022, almost 40 per cent of the orderbook consisted of ships capable of running on one or more fuels. To scale up the use of alternative fuels, ports need to provide low-emission energy supply infrastructure.

Ports, carriers and everyone involved in maritime supply chains can redefine the competitive landscape for low-emission shipping. This could, however, create a two-tier system of ports and corridors in which only small proportion are alternative-energy-ready. This would limit the number of potential routes.

## *Digitalization transforms trade and transport*

Disruptions are accelerating the use of technology to navigate through the complexities of transport planning and supply chain operations. In a post-COVID, post-war era, higher expectations of rapid delivery put a premium on efficiency, optimization, reliability, visibility, resilience, predictability, and sustainability. If maritime transport operators are to navigate through this new environment, they will need to find innovative business models, and use more advanced digital technologies.

Digitally enabled shopping boosts trade. At the same time, other technologies, such as automation which may reduce the need to offshore production to take advantage of lower labour costs, will probably constrain trade flows. Either way, maritime transport and trade will need to adjust and adapt to technology, and an important part of this is to defend information and communication systems and infrastructure against ever present threats to cybersecurity.

Governments and international organizations must therefore make every effort to close digital divides in transport and logistics and ensure that developing countries can also ride the digitalization wave.

## *Frequent disruptions and geopolitical risks fuel supply chain reconfiguration debate*

The limitations of the just-in-time supply chain model have been exposed not only by the pandemic but by other disruptors observed over the past decade, including, earthquakes, floods, blockage of strategic maritime passages, trade tensions and restrictive trade measures.

In 2022, supply chains were further threatened by the deteriorating geopolitical environment – especially those that relied on one or two suppliers, whether for food, energy or parts and components. These risks were spotlighted by the 2021–2022 semiconductor shortages, whose effects rippled across many industries, notably car manufacturing, electronics, and healthcare.

# FOREWORD

Rarely has the importance of maritime logistics for trade and development been more evident than during the last year. Historically high and volatile freight rates, congestion, closed ports and new demands for shipping following COVID-19 and the war in Ukraine have all had measurable impacts on people's lives. With ships carrying over 80% of volume of global trade, higher shipping costs and lower maritime connectivity lead to higher inflation, shortages of food, and interruptions of supply chains – all of which are among the features of the current global crisis.

Concretely, the *Review* estimates that higher grain prices and dry bulk freight rates in early 2022 contribute to a 1.2 per cent increase in consumer food prices. Container ships spent 13.7 per cent longer in port in 2021 compared to 2020, exacerbating delays and shortages. And during the last year, total greenhouse-gas emissions from the world fleet increased by 4.7 per cent.

UNCTAD's *Review of Maritime Transport* has assessed and accompanied developments in shipping and seaports since 1968. The experience and extensive data sets generated during the last decades help UNCTAD provide a comprehensive and thorough assessment of the causes and impacts of the trends covered in the *Review*. And the message emanating from our analysis is clear: The world again needs the shipping industry to navigate through the rough seas of crises.

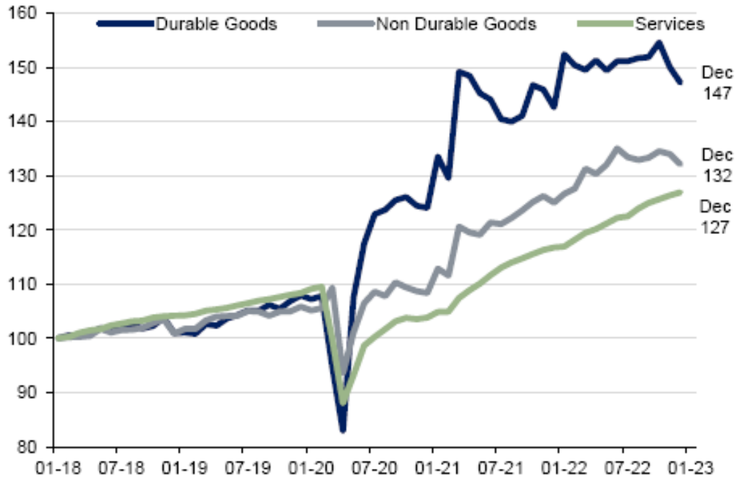
The war in Ukraine has disrupted major shipping routes and supply chains. It has also triggered record prices that could push tens of millions more people across the world into hunger and poverty this year, as has been stated by the UN Global Crisis Response Group. Maritime transport has a key role to play in cushioning the blow. Prices need to come down to affordable levels, especially for developing countries, and for the world to have enough fertilizers to feed itself.

# World Container Trade 1996-2024


**Declining demand and spending on goods driven by inflation – US durable/nondurable goods slowing – US inventories increasing**

## Surge in US Goods Spending Continues

**PCE Durable, Non Durable, Services (Jan 18=100 seasonally adj)**




## US Retail Inventory to Sales Ratio

**Off recent lows but still lowest since 1992 (seas adj)**


## World Seaborne Container Trade Growth

- 2021 : 6.6%
- 2022P: -3.8%
- 2023F: -1.6%
- 2024F: 3.3%

Source: Clarkson Research Services, IMF Jan 2023, St. Louis Federal Reserve Bank (Fed Res Econ Data)

# Container Fleet Data

- 2022 Net fleet growth ~ 4.0%
- 2023 Expected net fleet growth ~ 6.7%
- 2024 Expected net fleet growth ~ 5.5%
- Current orderbook of 29.5% of the fleet by TEU skewed towards larger vessels:
  - ~ 72% of containership orderbook is for vessels of 10,000+ TEU
    - ~ 67% of orderbook is for vessels of 13,000+ TEU;
    - ~ 5% of orderbook is for vessels of 10,000 – 13,000 TEU
- Vessel over 20 years of age = 11.7% of the fleet (15+ years old = 33.9%)

**Deliveries**

| Year | Actual | Projected | % Non-Delivery |
|---|---|---|---|
| 2023 Jan | 76 K | 157 K | 52% |
| 2022 | 1,015 K | 1,015 K | 0% |
| 2021 | 1,086 K | 1,180 K | 8% |
| 2020 | 861 K | 1,139 K | 24% |
| 2019 | 1,070 K | 1,128 K | 5% |
| 2018 | 1,299 K | 1,667 K | 22% |

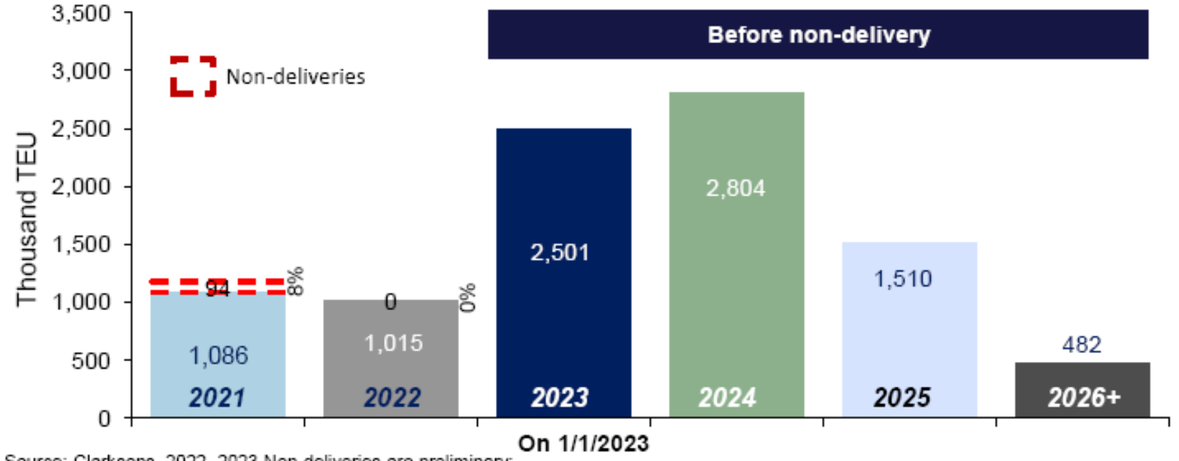
**Removals**

| Year | TEU | % of Fleet |
|---|---|---|
| 2023 | 16 K | 0.1% |
| 2022 | 18 K | 0.1% |
| 2021 | 15 K | 0.1% |
| 2020 | 189 K | 0.8% |
| 2019 | 184 K | 0.8% |
| 2018 | 125 K | 0.6% |

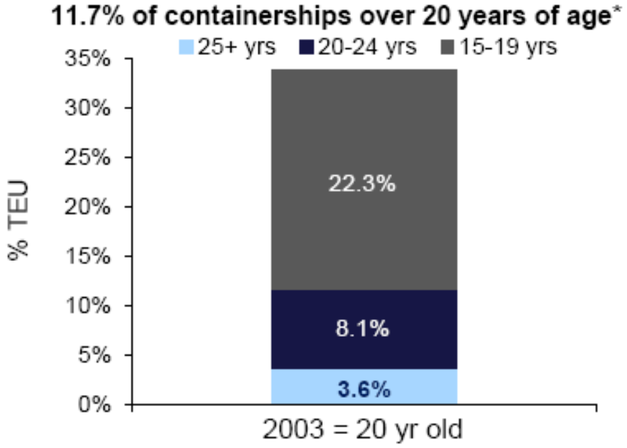
**Net fleet growth**

| Year | TEU | % of Fleet | Fleet Period End |
|---|---|---|---|
| 2023(1) | 78 K | 0.3% | 25,827 K |
| 2022 | 997 K | 4.0% | 25,749 K |
| 2021 | 1,071 K | 4.5% | 24,752 K |
| 2020 | 673 K | 2.9% | 23,681 K |
| 2019 | 885 K | 4.0% | 23,008 K |
| 2018 | 1,174 K | 5.6% | 22,123 K |

## Orderbook (by year of delivery) as of Jan 1, 2023




## Containerships Age Profile




Source: Clarksons, 2022, 2023 Non-deliveries are preliminary;
Clarksons Expected net fleet growth based on 1.96M TEU deliveries for 2023 (22% non delivery rate) and 0.23M TEU removals
Orderbook on 2/14/23: Total= 7.62M TEU; 2023= 2.44 M TEU; 2024= 2.90 M TEU; 2025+= 2.28 M TEU;
Orderbook was 29.5%, above 1996-2022 average of 28.5% of fleet (min 8.5% - max 61.3%) * 2003 = 20 yr old
(1) Net Fleet Growth through 2/14/23: 90.9K TEU delivered; 16.2K TEU removed