



Energy transition and long-term outlook for oil tanker supply/demand

8th October 2024

Session 2: Tanker market

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Presented by:

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Executive Chairman

Drewry Shipping Consultants

**5th Athens Triennial Meeting
*combined with***

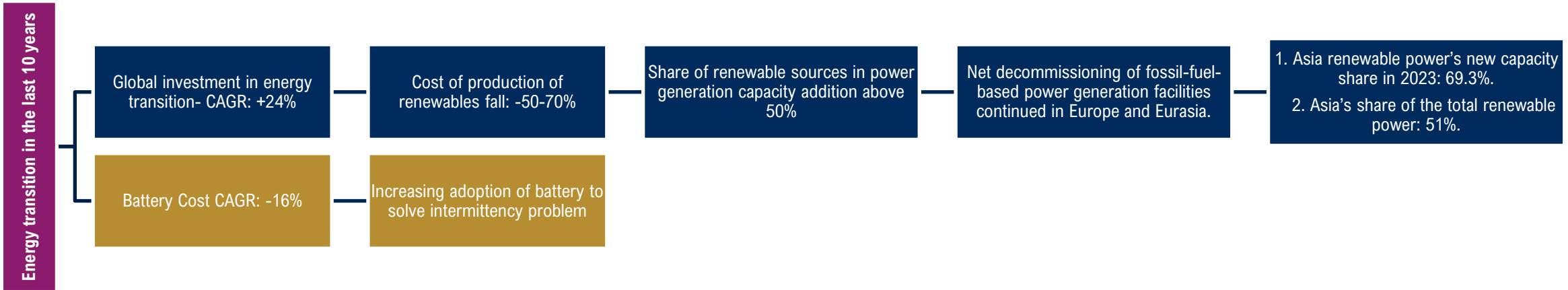
**The 40th Anniversary of the Costas Grammenos Centre
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"Industry challenges: A global perspective from Athens"

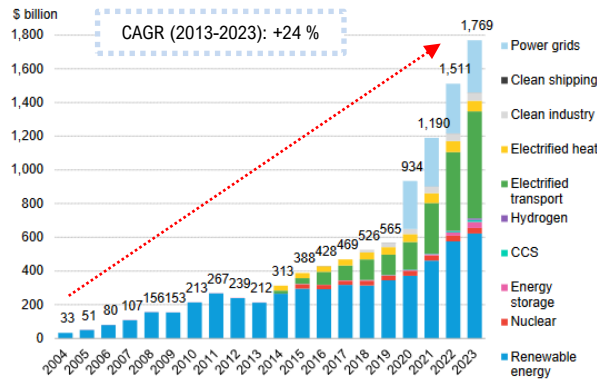


Investment in renewables increasing rapidly, above 80% share since 2019

Global investment in energy transition has increased a whopping CAGR of 23% since 2004 recording US\$1.8 trillion in 2023. Since 2019 over 80% of additional power generation capacity has been done in renewable sources of energy. China had the largest share of the renewable-sourced power generation capacity addition.

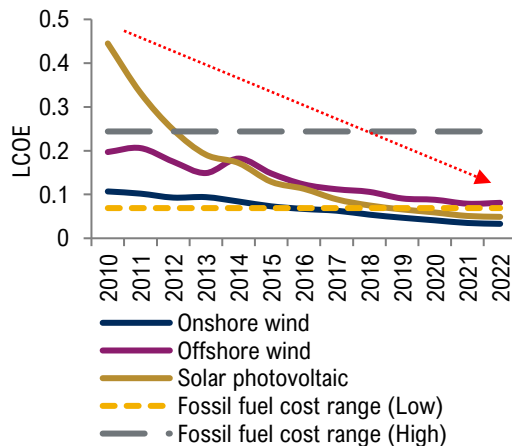


Global investment in energy transition by sector

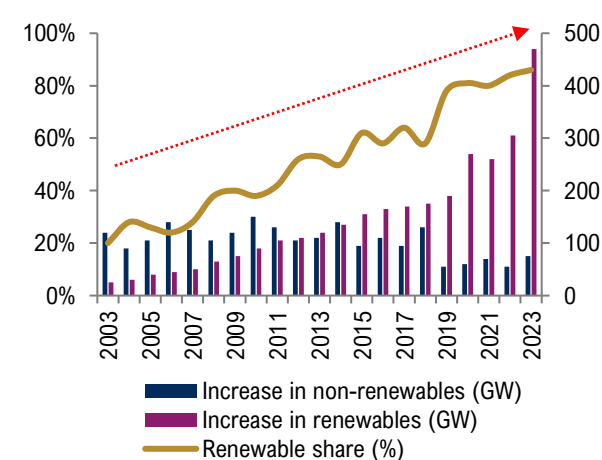


Note:
EMEA refers to Europe, Middle East and Africa
LCOE price is based on 2022 price. LCOE is quoted in USD / kWh

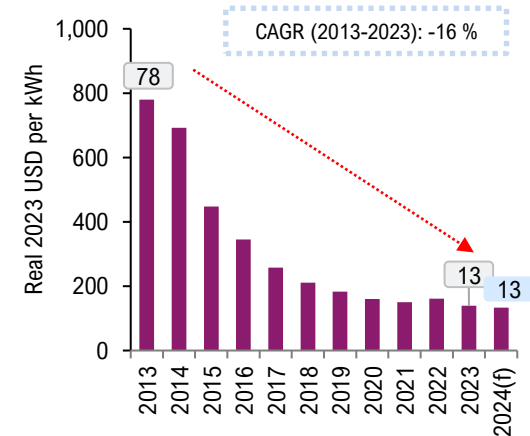
Cost of production : by sources of electricity



Renewable share of annual power capacity expansion



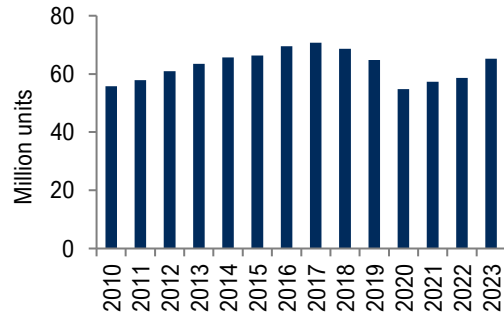
Battery Cost



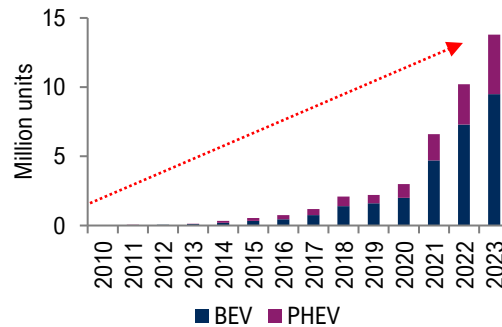
Global car sales and electric vehicles sales accelerating

Electric cars took a market share of around 21% of global car sales in 2023, increasing by 4 percentage points from the 17% figure seen in 2022. Currently, EVs have a share of about 1% in global car stock. It is projected to reach around 20% by 2030. 1.3 mbpd oil was displaced by EVs in 2024.

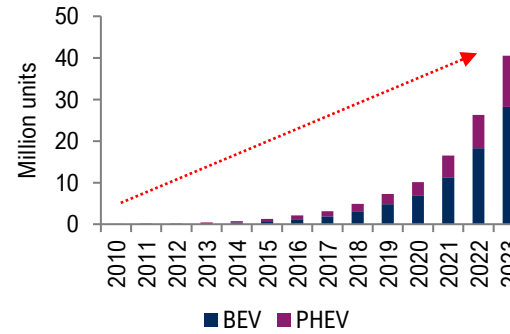
Global car sales



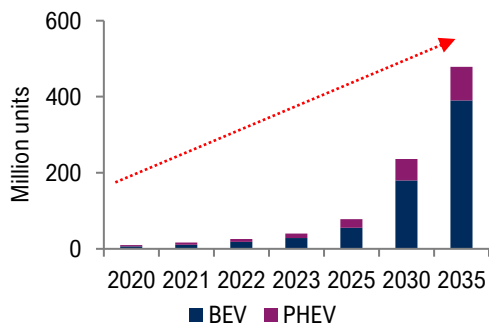
Global electric car sales



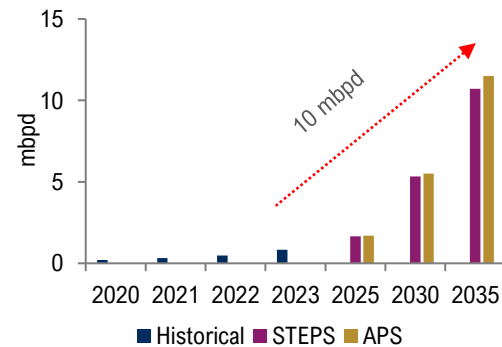
Global electric car stock



Global electric car stock projection



Oil displacement by EVs



Gasoline and Diesel contribute over 70% of total refined petroleum products tanker demand.

Note: As defined by the IEA, electric vehicles can be classified into two categories: Battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs).

Source: Drewry, IEA, OICA

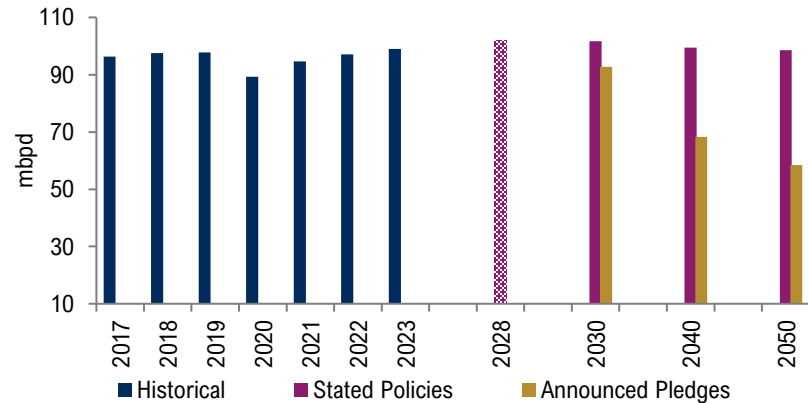
Key takeaway

- Global car sales are stable at about 0.3% per annum during the last decade (2013-2023). Covid-19 led to the biggest drop in car sales by 16% in 2020 compared to 2019.
- However, global electric car sales grew at a CAGR of 62% during 2013-2023.
- Simultaneously, there has been a fall in battery cost by over 80% in the period 2012 – 2023.
- The share of electric car sales has increased from nearly zero in 2010 to about 21% of new sales in 2023.
- In 2024, 1.3 mbpd of oil displaced by EVs.
- IEA estimates that the sales of EV in 2024 will be around 17 million units.
- About 1.2 billion cars are on the road. At present, EVs only account for about 1% of the total.
- According to IEA, global electric car stock is projected to be approximately 240 million units by 2030, and 480 million units by 2035, representing a huge growth rate of 23% per annum from now till 2035.
- Besides EVs, methanol cars and hydrogen trains may further dent oil demand.

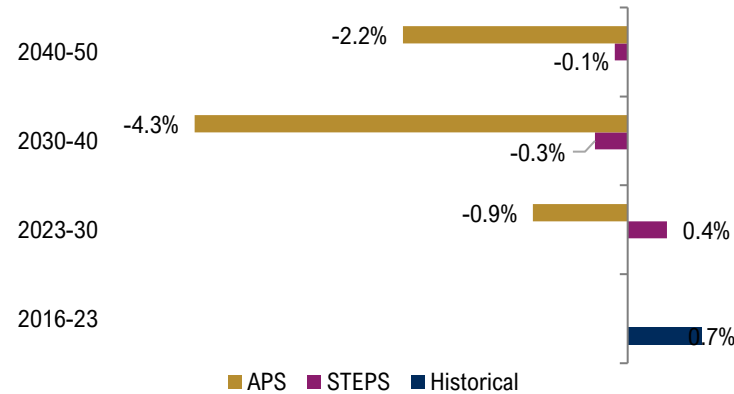
Energy transition to curb oil demand

Global energy transition will hamper the long-term prospects of oil demand as demand for renewables will surge at the expense of fossil fuels. Global oil demand will start declining in 2029 with the rapid electrification of vehicles and a surge in biofuel demand. Global oil demand will increase at a CAGR of 0.4% before declining at a CAGR of 0.3% and 0.1% during 2030-40 and 2040-50 respectively.

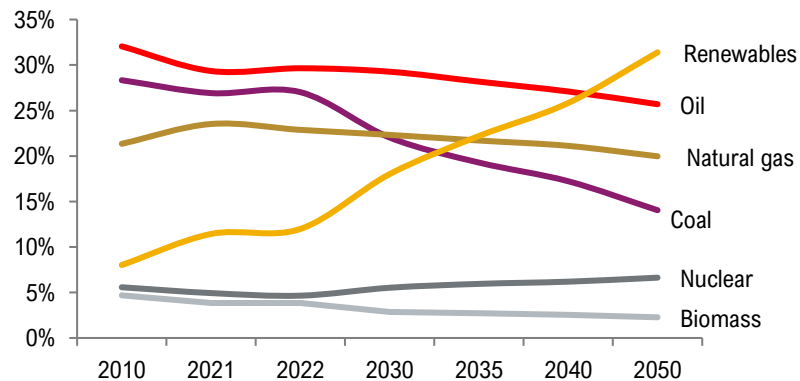
Global oil demand



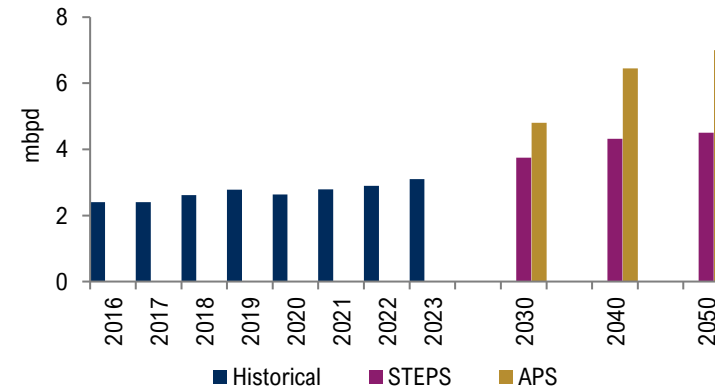
Global oil demand growth (CAGR)



Global energy mix



Biofuel demand



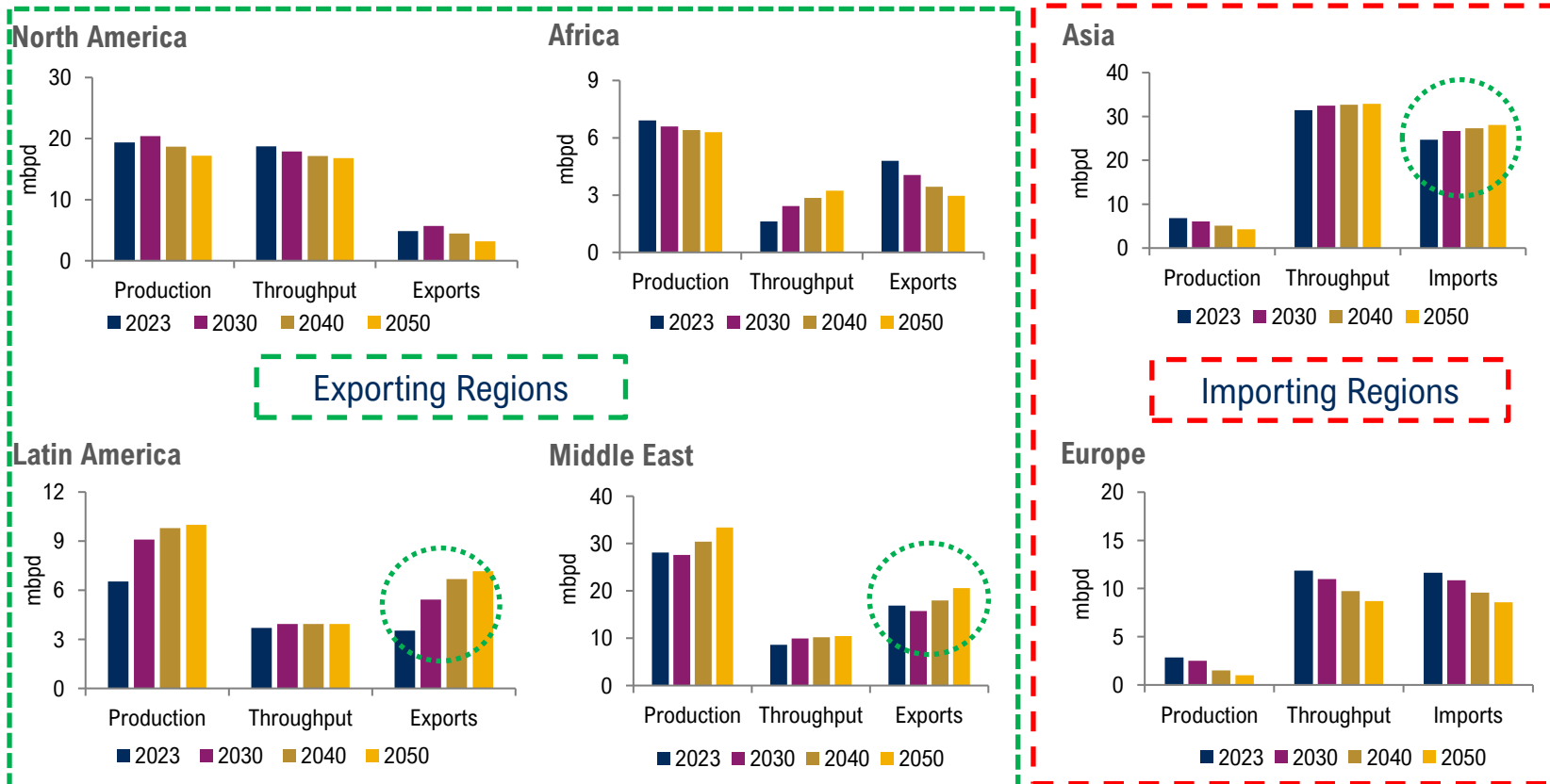
Key takeaway

- An acceleration in the global energy transition will hurt the demand for fossil fuels in the long run. The share of oil in global energy demand will decline from 30% in 2022 to 26% in 2050.
- A rapid increase in the EV fleet will displace about 10 mbd of oil demand from the transportation sector during 2023-35.
- Strong growth in biofuel demand will also squeeze the share of oil in the overall liquid fuel demand. Biofuel demand will increase. From 3.1 mbd in 2023 to 4.5 mbd in 2050.
- Global oil demand will continue to rise during the most part of this decade before peaking in 2030. While OECD demand will decline, demand in developing countries will continue to rise.
- In the Stated Policies scenario, oil demand will increase at a CAGR of 0.4% during 2023-30 before declining at a CAGR of 0.3% during 2030-40.
- In the Advanced Pledges scenario, oil demand will decline at a CAGR of 0.9% during 2023-30 and decline further at a CAGR of 4.3% during 2030-40.

Crude oil balance in importing and exporting regions

Global crude oil trade will increase in the medium term before peaking in 2028 with the expansion in refinery capacity in Asia. Exports from all regions, barring Latin America and the Middle East, will decline, and imports from all regions except Asia will decline.

Period	2023-30	2030-40	2040-50
Global trade growth (CAGR)	0.7%	-1.0%	-0.3%

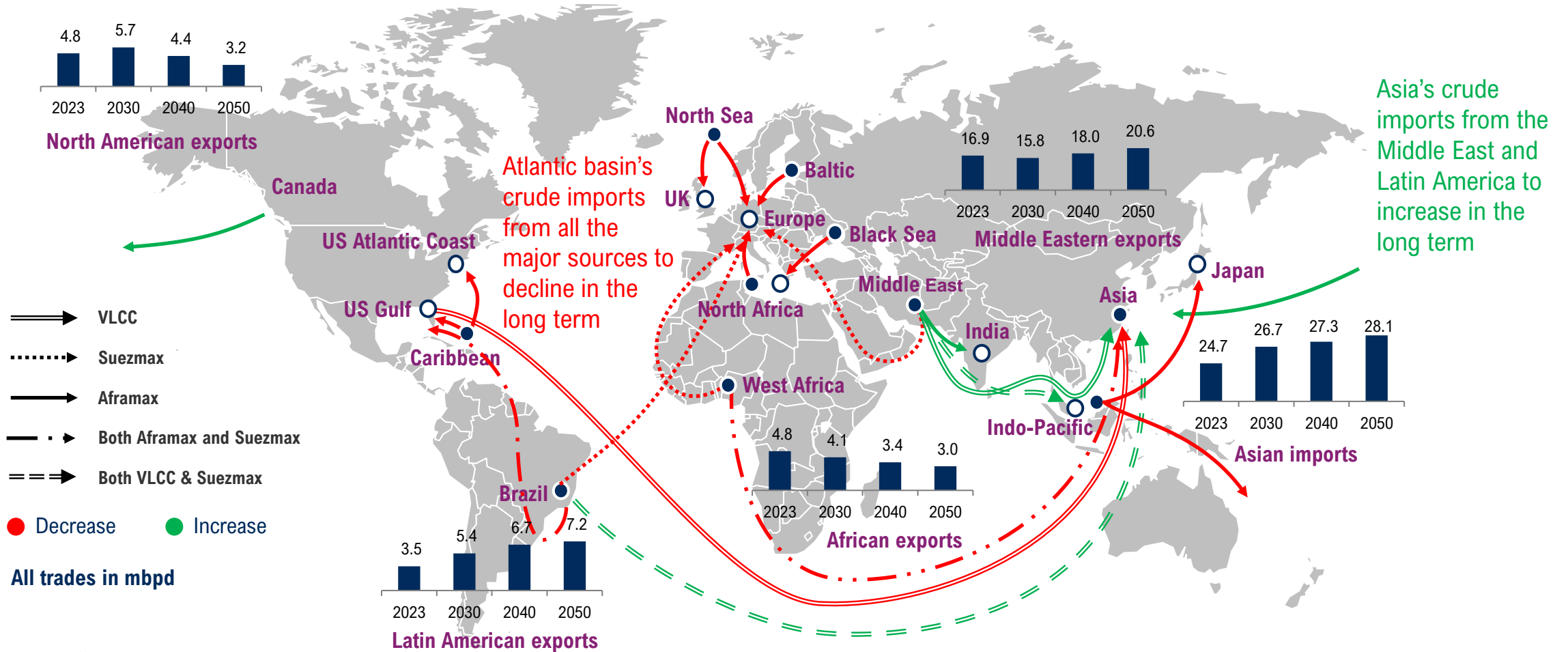


Key takeaway

- Global crude oil trade will increase at a CAGR of 0.7% during 2023-30 led by rising demand in Asia. The trade will decline at a CAGR of 1% and 0.3% during 2030-40 and 2040-50 respectively.
- Asian imports will increase with an increase in refinery runs and decline in domestic production in the region. Imports by Europe and the US will decline sharply because of a steep decline in oil demand and refinery runs in these regions.
- All the growth in exports in this decade will come from the Americas, whereas exports from Africa and the Middle East will decline because of a decline in production and a rise in refinery runs.
- In the long term, exports from Africa and North America will decline, whereas exports from the Middle East will rebound. Latin American exports will continue to rise, albeit slower.

Change in trade patterns of crude oil and vessel size mismatch

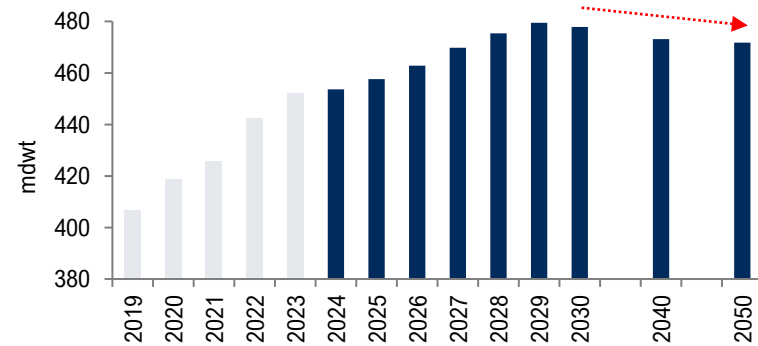
Mid-size tankers, which benefitted from the shift in trade patterns because of the Russia-Ukraine war, will continue to enjoy strong demand in the Atlantic market in the medium term, but their long-term prospects are poor because of a sharp decline in short-haul trades to Europe and the US. VLCCs will perform better in the long-term as long-haul Asia-bound trade from the Middle East and Latin America continues to grow. If ordering in the Mid-size tanker segments continues to remain strong, there will be a vessel size mismatch in the market in the long term.



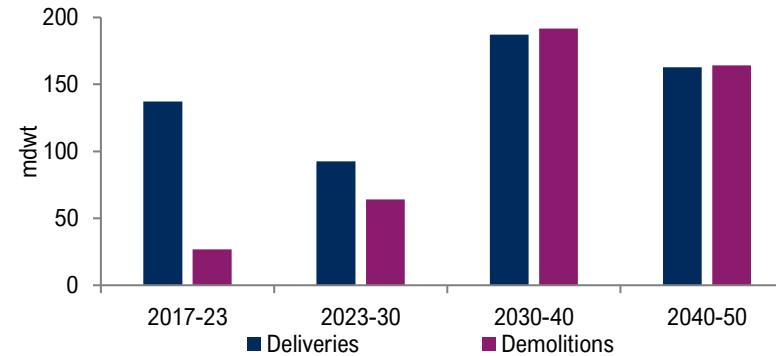
Crude tanker fleet development and potential oversupply

The crude tanker fleet will increase at a CAGR of 1% during 2023-29 before gradually shrinking at a CAGR of 0.1% during 2030-50 in tandem with a decline in crude oil trade. A fleet demand decline after 2029 will mean owners will have to keep tonnage orders lower than the potential scrapping. Any oversupply in a shrinking market will be painful to rebalance as demand will keep declining.

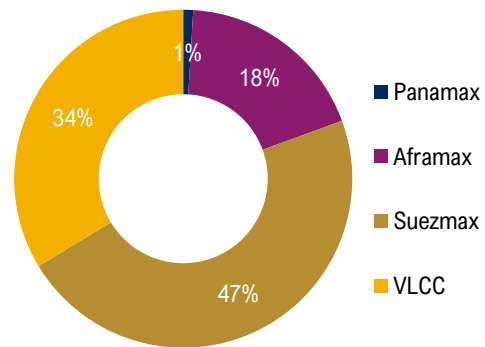
Crude tanker fleet



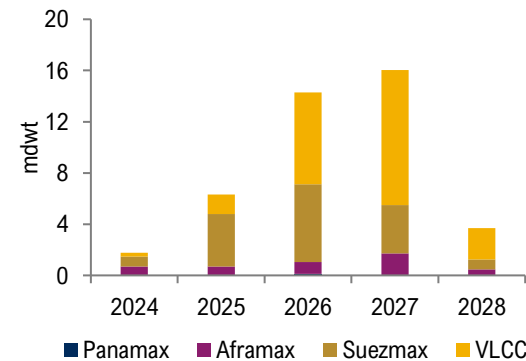
Deliveries and demolitions



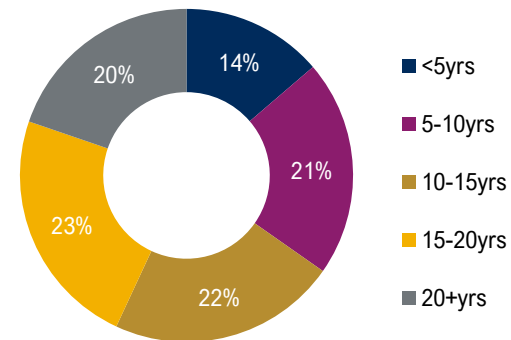
Orderbook vessel mix



Orderbook delivery schedule



Age profile



Key takeaway

- A likely deceleration in crude oil trade will cap the growth in demand for the crude tanker fleet in the medium term. After expanding at a CAGR of 2.7% during 2019-23, the fleet will increase at a CAGR of 1% during 2023-29.
- Attractive earnings and a positive demand outlook will keep tonnage ordering buoyant in the medium term. Scrapping will also increase during 2023-29 despite a strong charter market as the IMO regulations will hurt the employability of old vessels.
- The crude tanker fleet will decline after 2029 in tandem with the slowdown in global oil demand and trade.
- Once the trade starts shrinking in the 2030s, the market will take longer to rebalance any oversupply, unlike a growing market, where any oversupply is partly absorbed by an increase in demand in addition to other market measures like slow ordering and demolitions.

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