International Energy Agency

Oil 2024 - Analysis and forecasts to 2030

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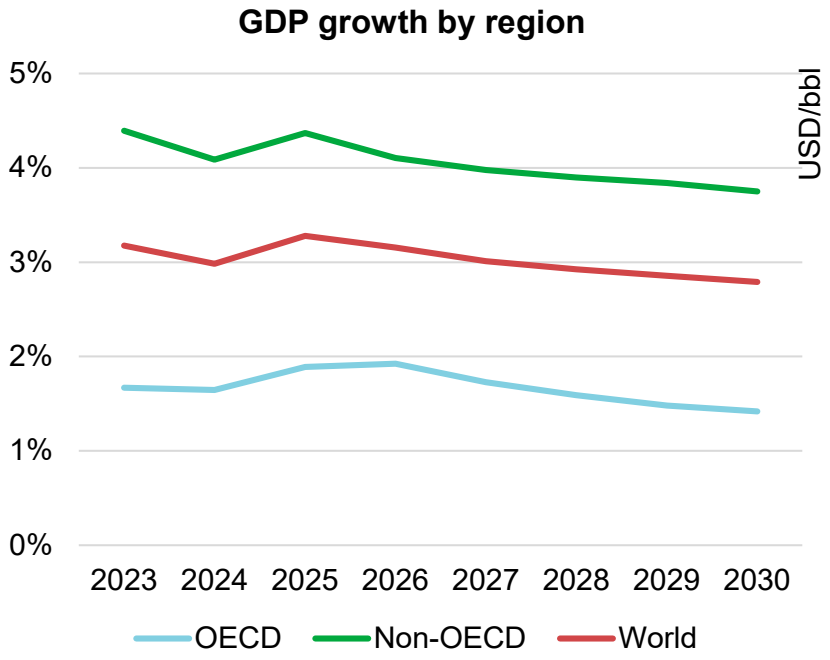
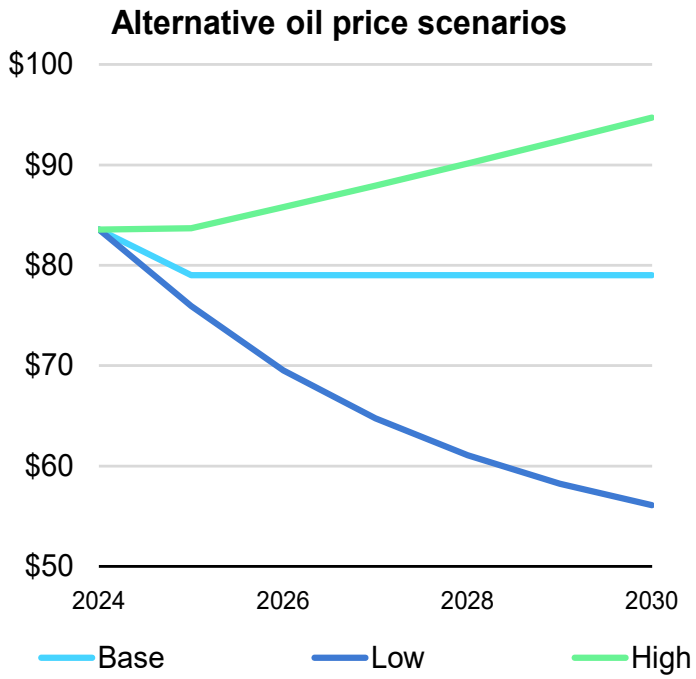
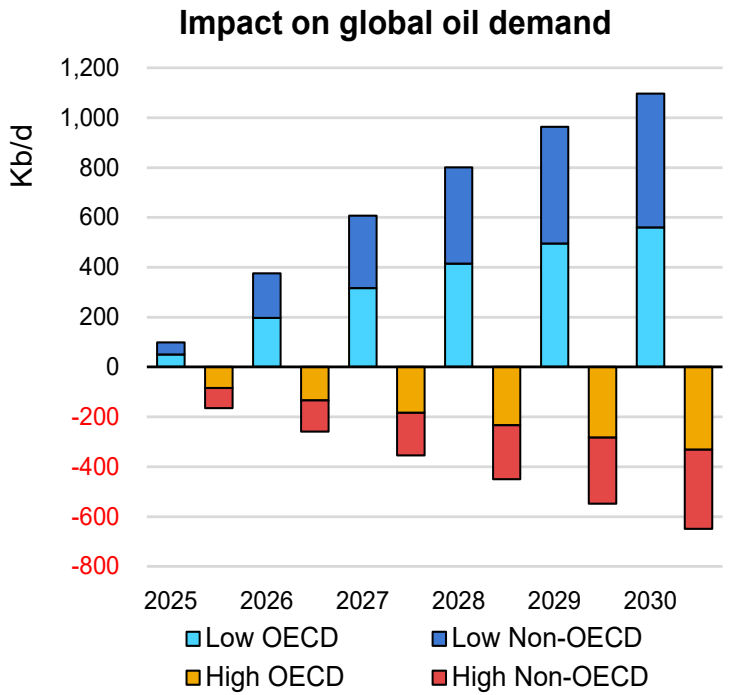
Outlook sensitive to GDP and oil price assumptions

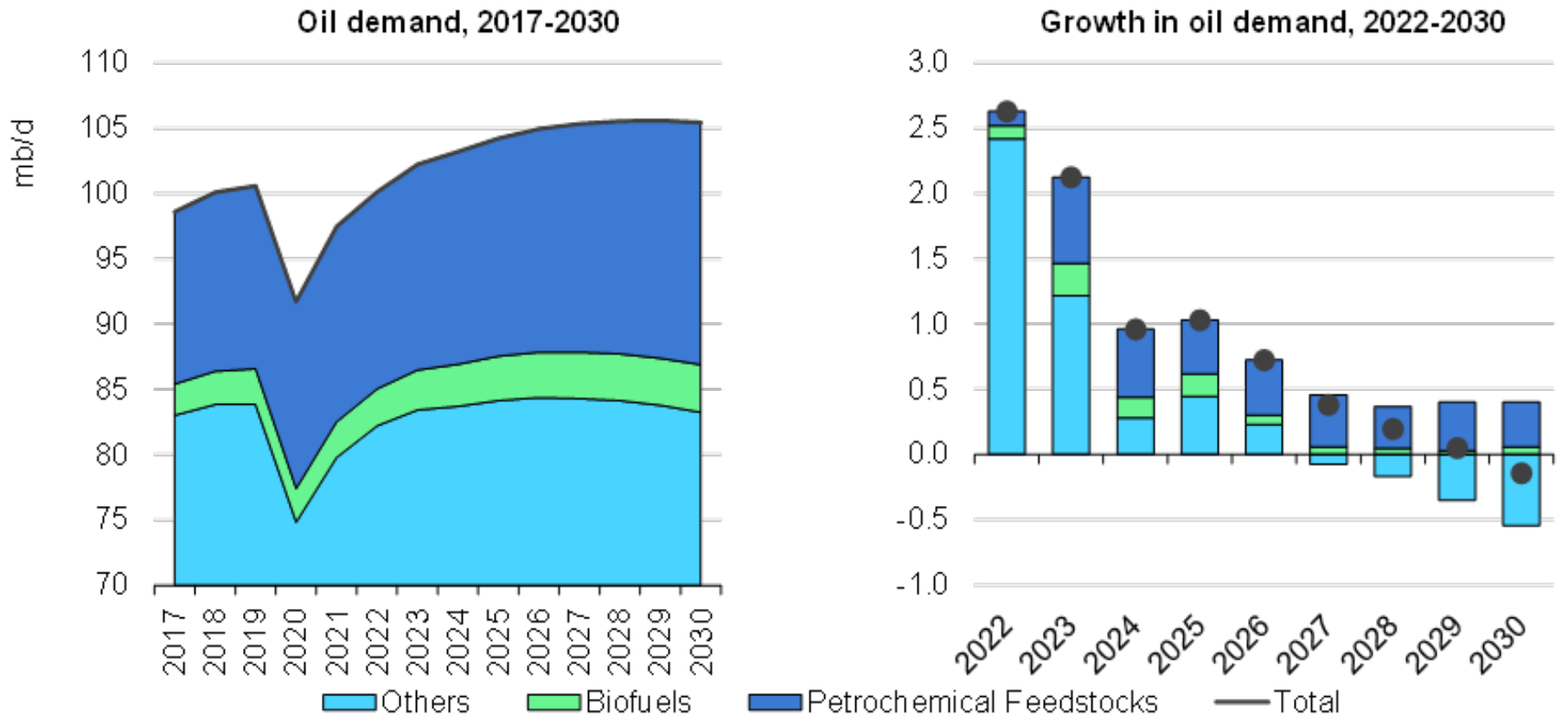






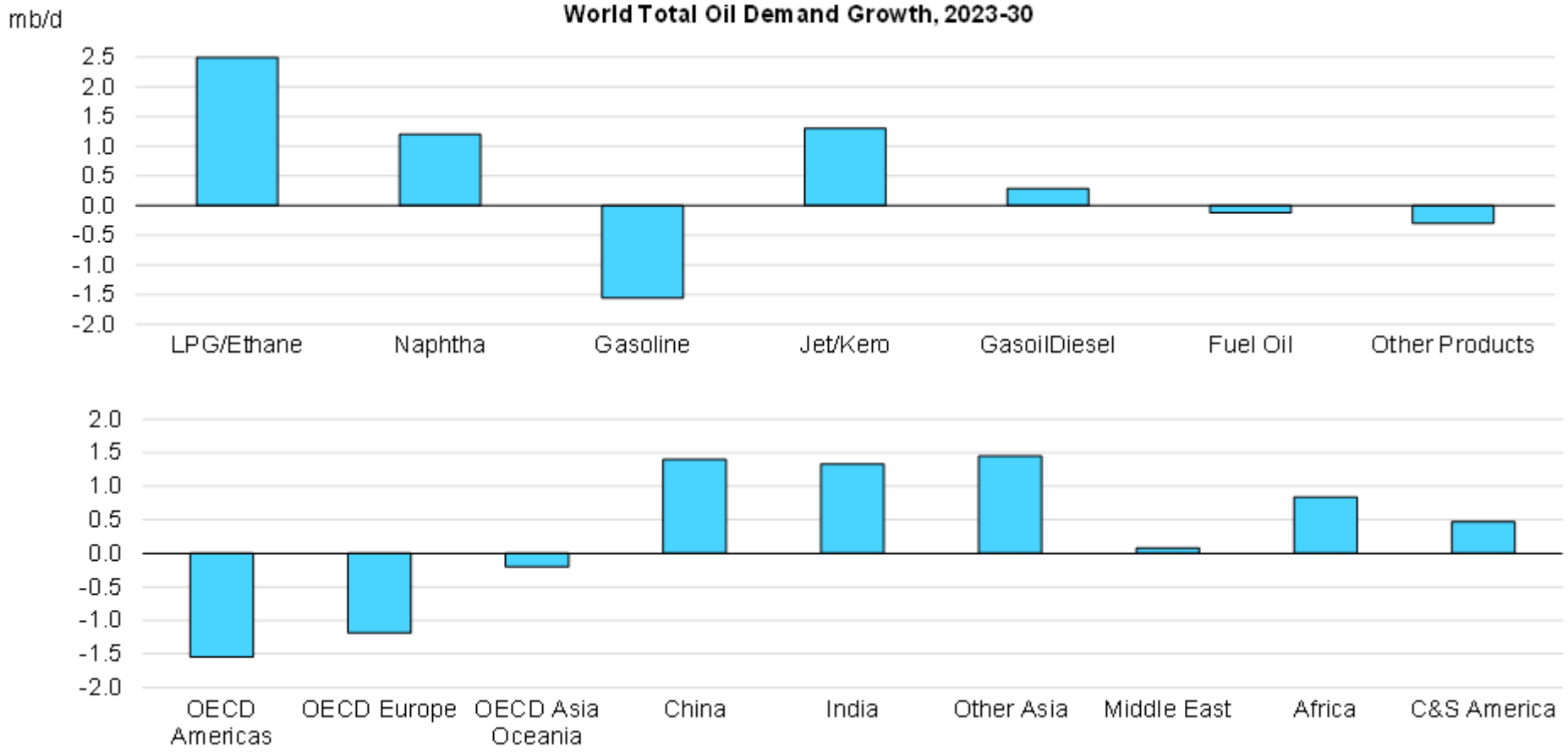
Outlook assumes global GDP growth of 3% (0.5% below pre-pandemic trend) with oil prices staying constant near current level of $80/bbl

World oil demand on course to plateau by 2030



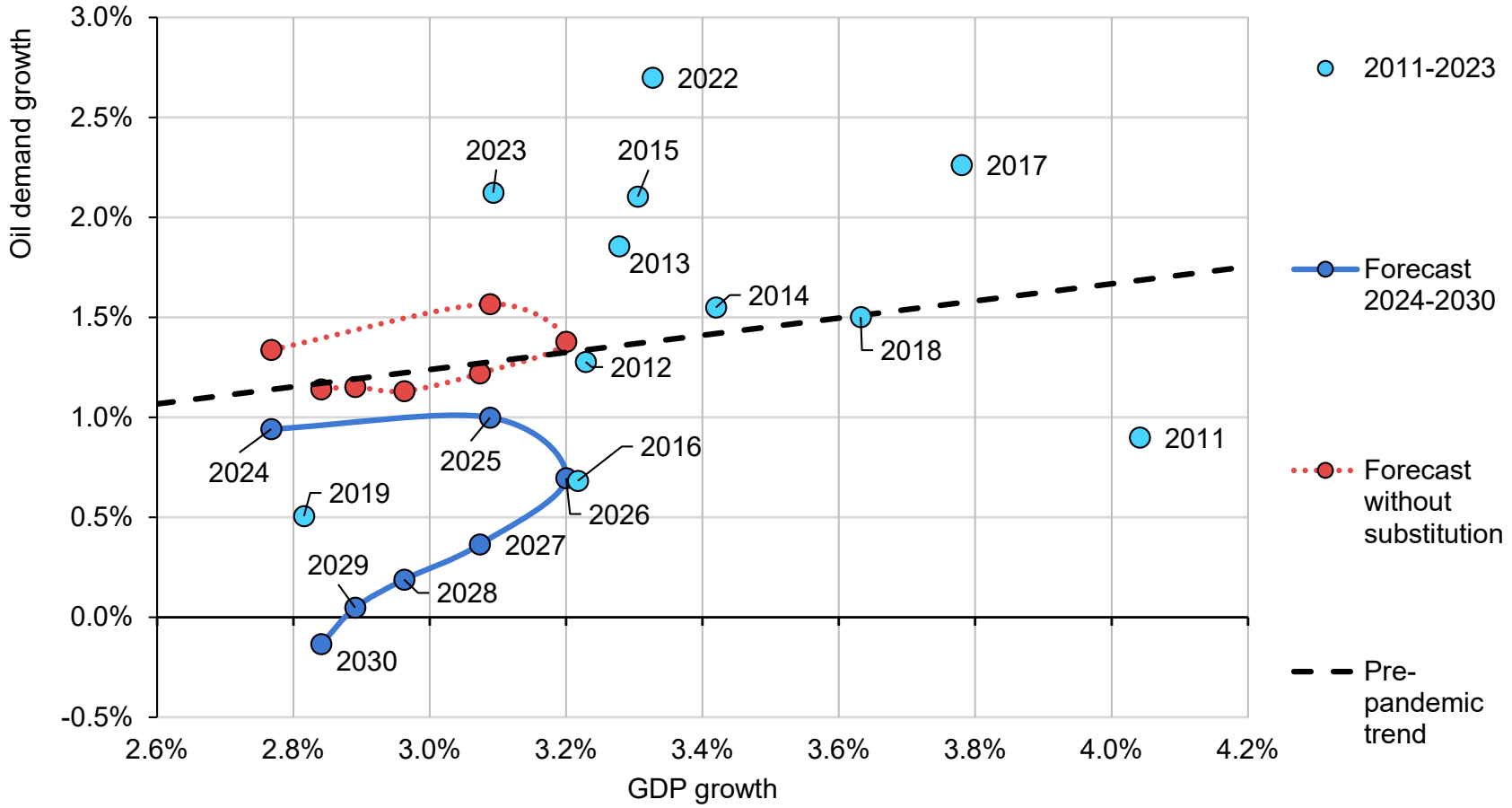
Growth decelerates from 2.1 mb/d in 2023 to less than 1 mb/d in 2024, with a small contraction by 2030. Demand, including biofuels, plateaus at around 105.6 mb/d by the end of the forecast period.

Demand growth dominated by Asia, aviation and petrochemicals



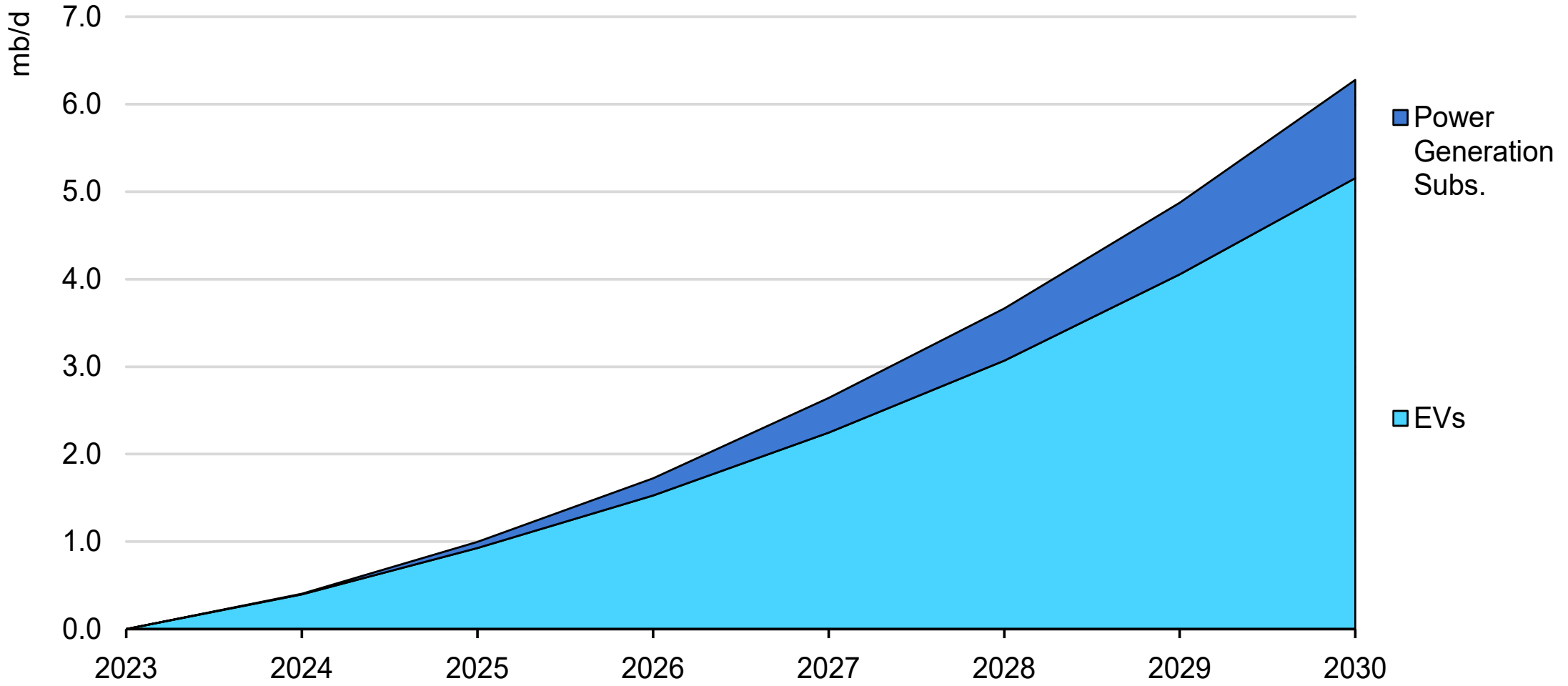
China, India and other emerging and developing economies in Asia each add 1.3-1.4 mb/d. Petrochemical feedstocks, jet fuel drive product gains, while gasoline leads declines.

Slower GDP growth and clean energy deployment gives oil plateau



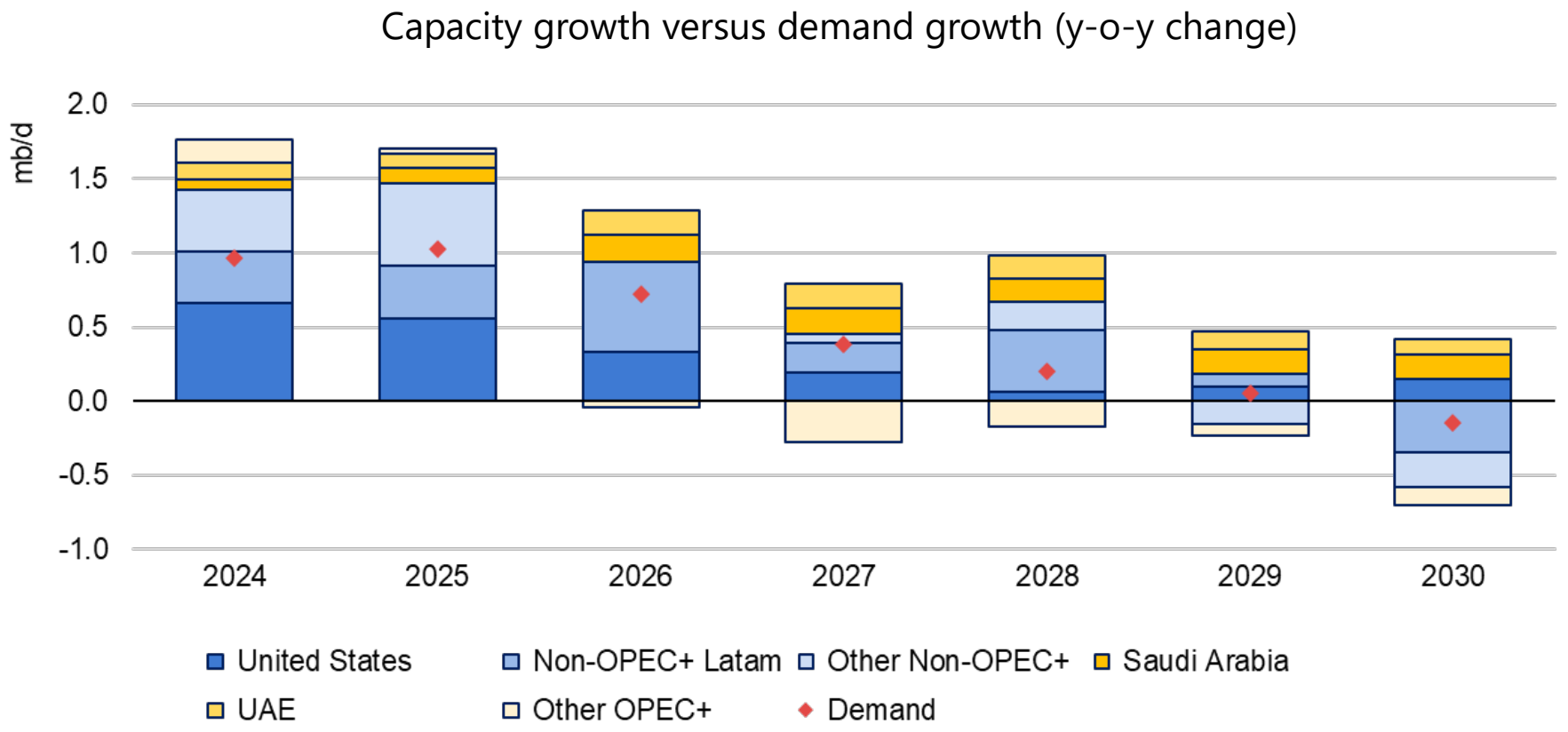
After a post-Covid rebound, growth in oil demand will lose momentum and plateau this decade.
It will disconnect from subpar GDP growth as substitution away from oil undermines consumption.

Substitution effects curb demand growth



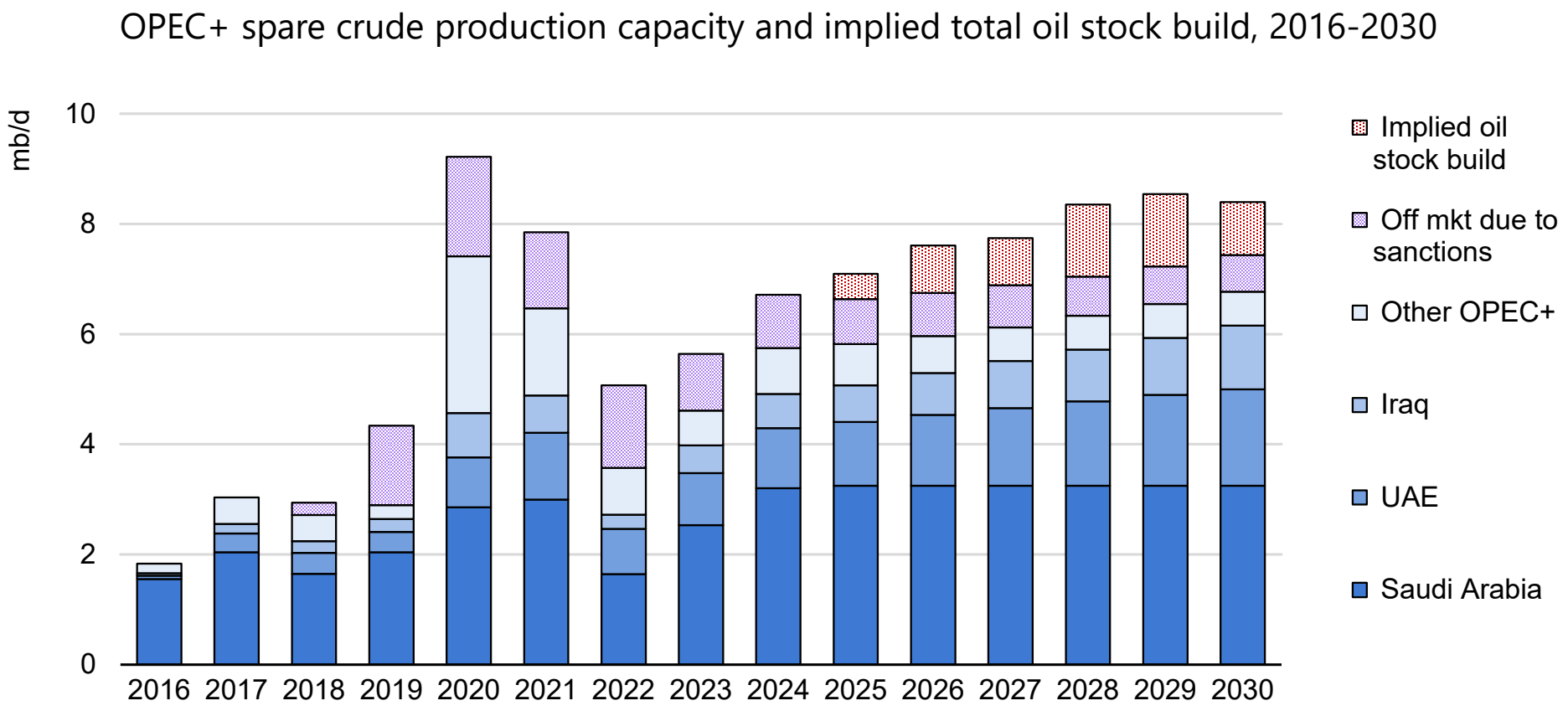
Substitution away from oil set to displace more than 6 mb/d in oil demand by 2030, largely in transport as EV growth continues, with an additional 1 mb/d in Middle Eastern power generation.

Oil capacity building loses momentum towards 2030



The US and other producers in the Americas lead the medium-term capacity expansion, adding 4.7 mb/d. Saudi Arabia suspends crude capacity boost in favour of NGLs build out.

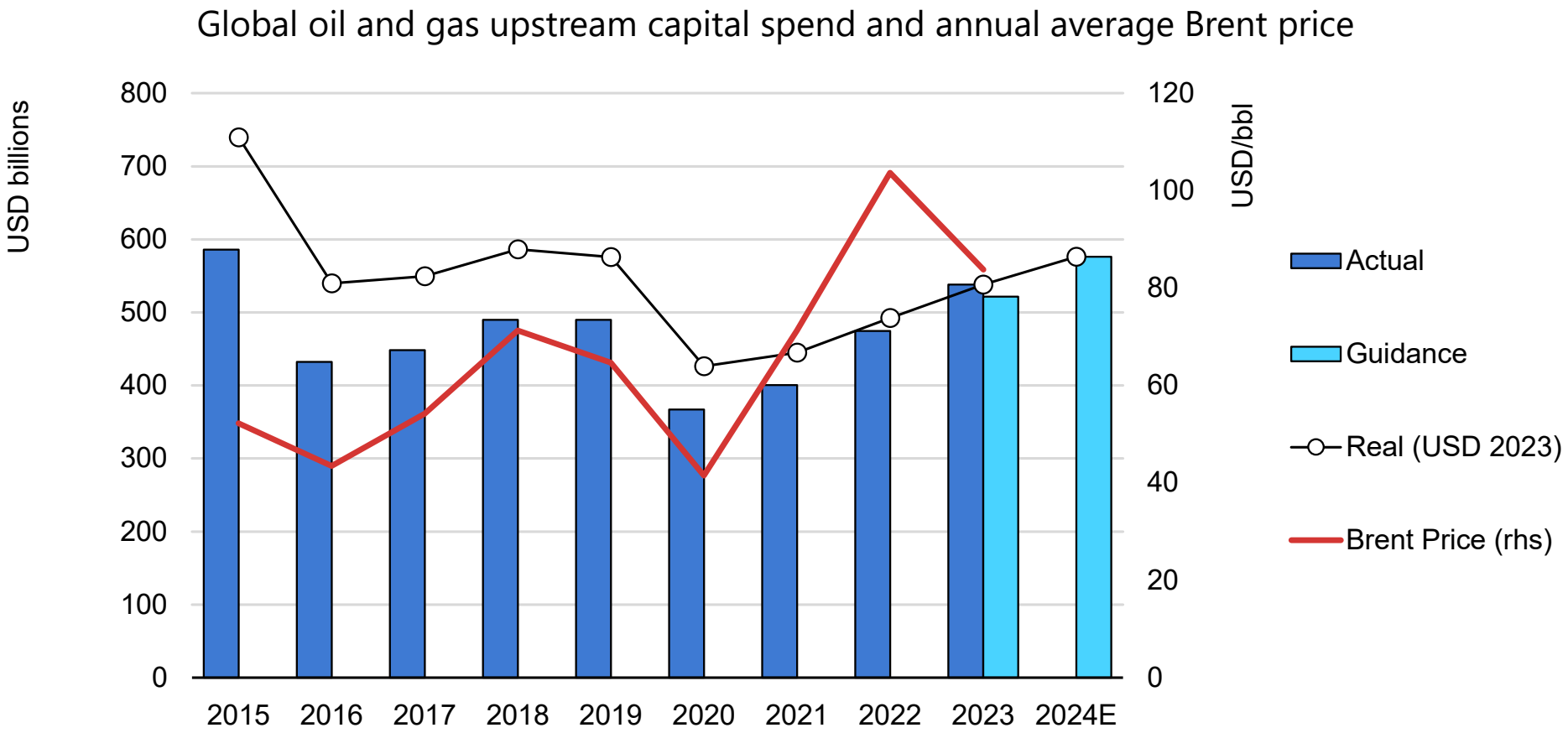
Surplus supply capacity may reach highest level in recent times



Notes: Projections based on the current OPEC+ supply agreement. OPEC+ countries are crude oil only. Assumes Iran and Russia remain under sanctions. Implied oil stock builds include total oil.

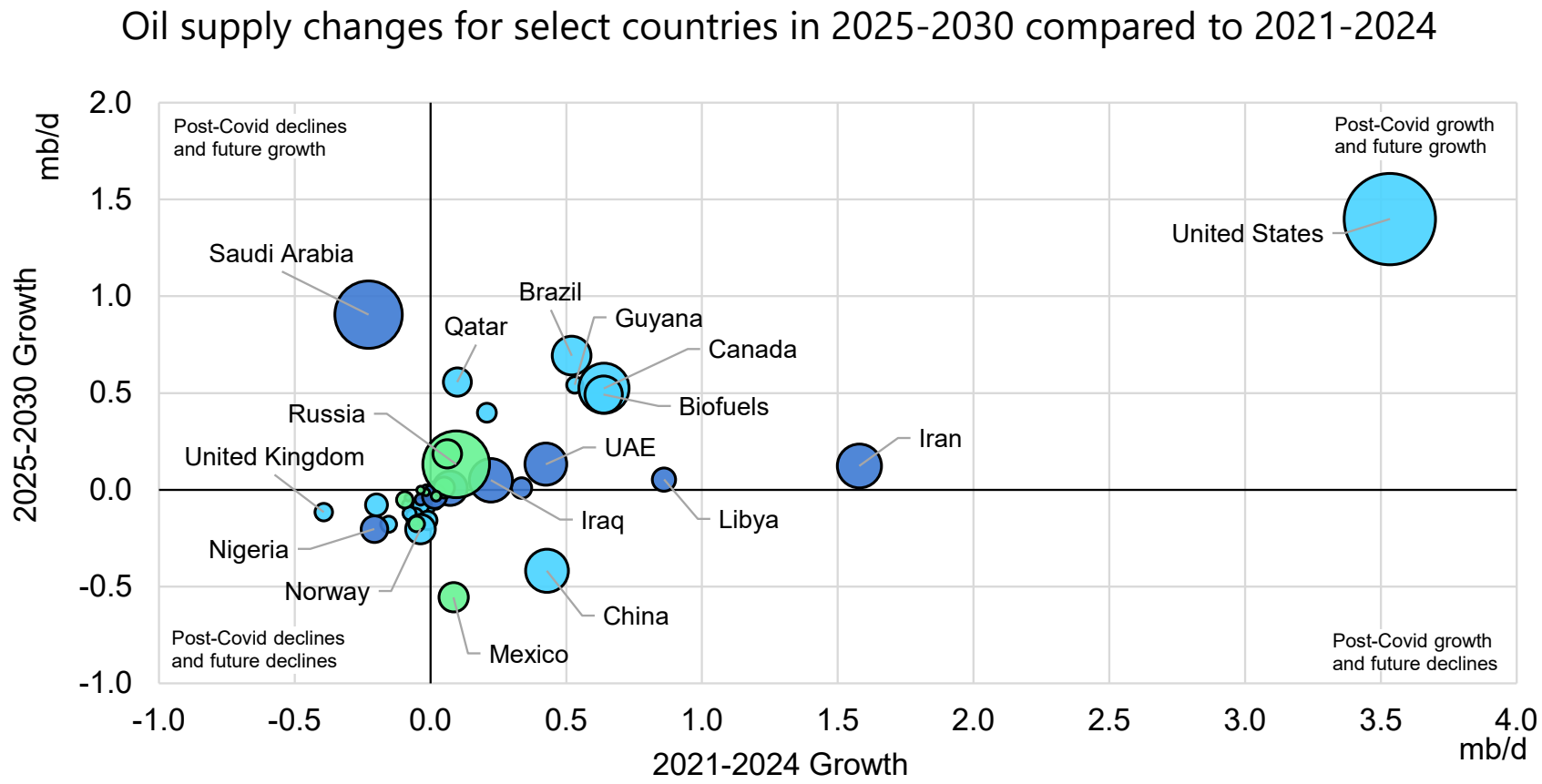
Total supply capacity rises by 6 mb/d to 114 mb/d by 2030, 8 mb/d above projected global demand. Such a massive spare cushion could challenge OPEC+ oil market management and US shale.

Growth in upstream spending moderates



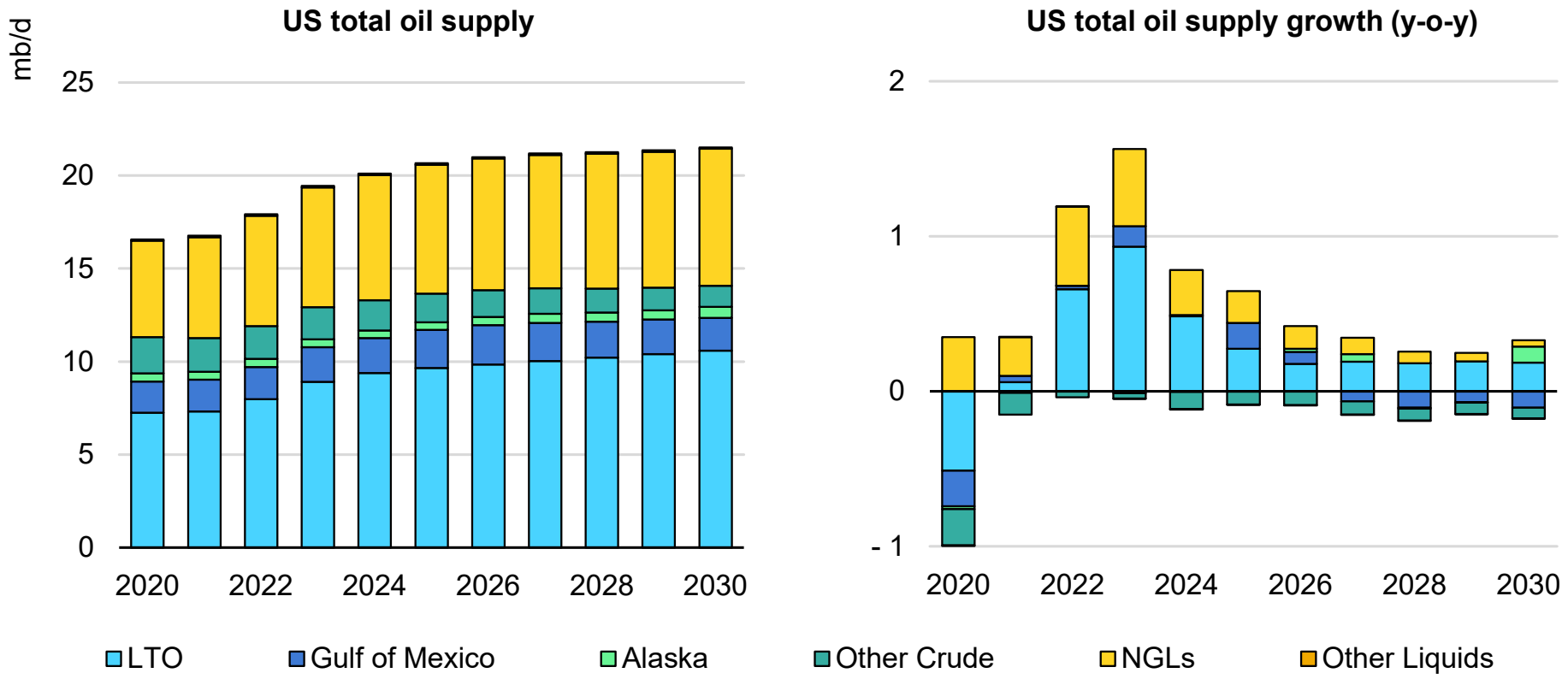
Investment to rise 7% in 2024 to $575 billion, the highest nominal since 2015. Real spend is still below 2019 levels. New facility investment slows while well capex surfs record highs.

Global oil supply growth led by the US and other Americas



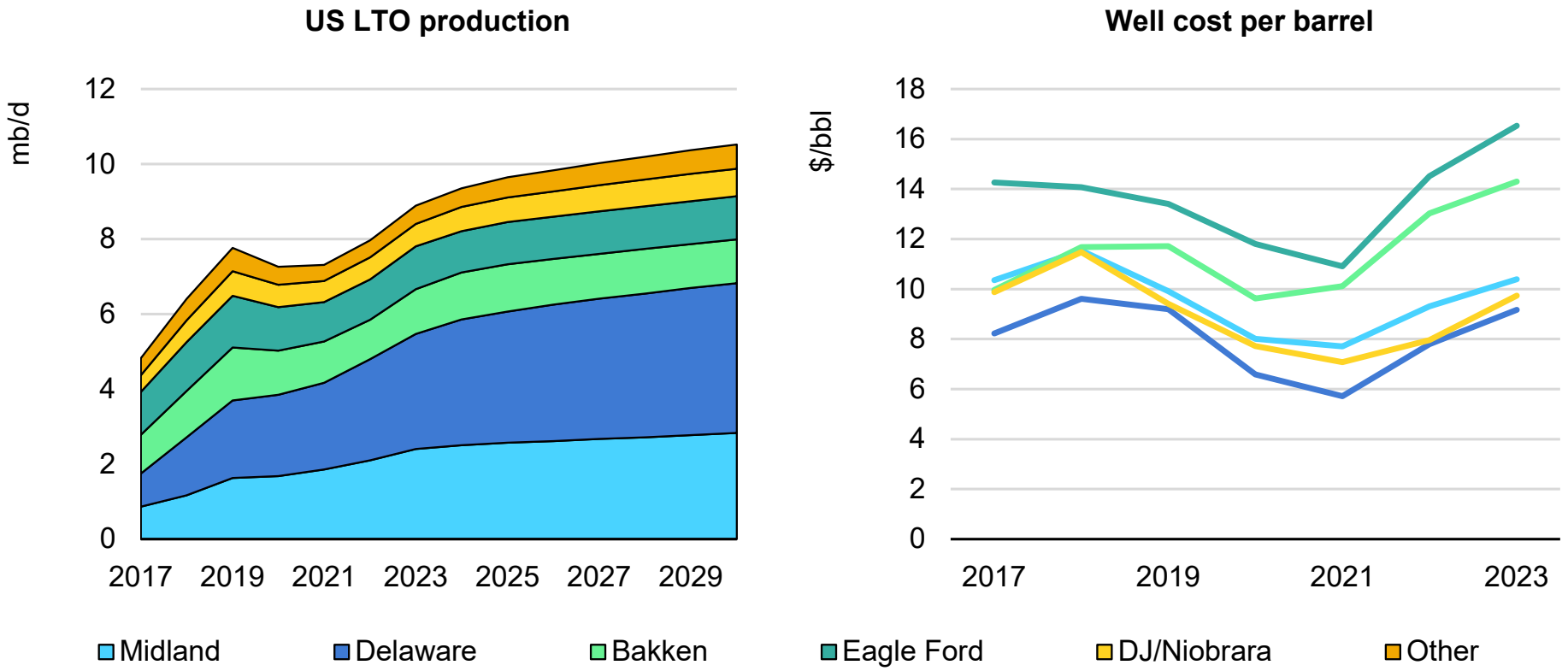
The US, along with Brazil, Guyana, Canada and Argentina lead supply growth through 2030. Mexico posts largest decline

US growth moderated by shifting corporate strategies



Annual growth falls from 1.5 mb/d in 2023 to 150 kb/d in 2030. Shale, powered by the Permian, provides 80% of the growth. Total supply tops 20 mb/d starting in 2024.

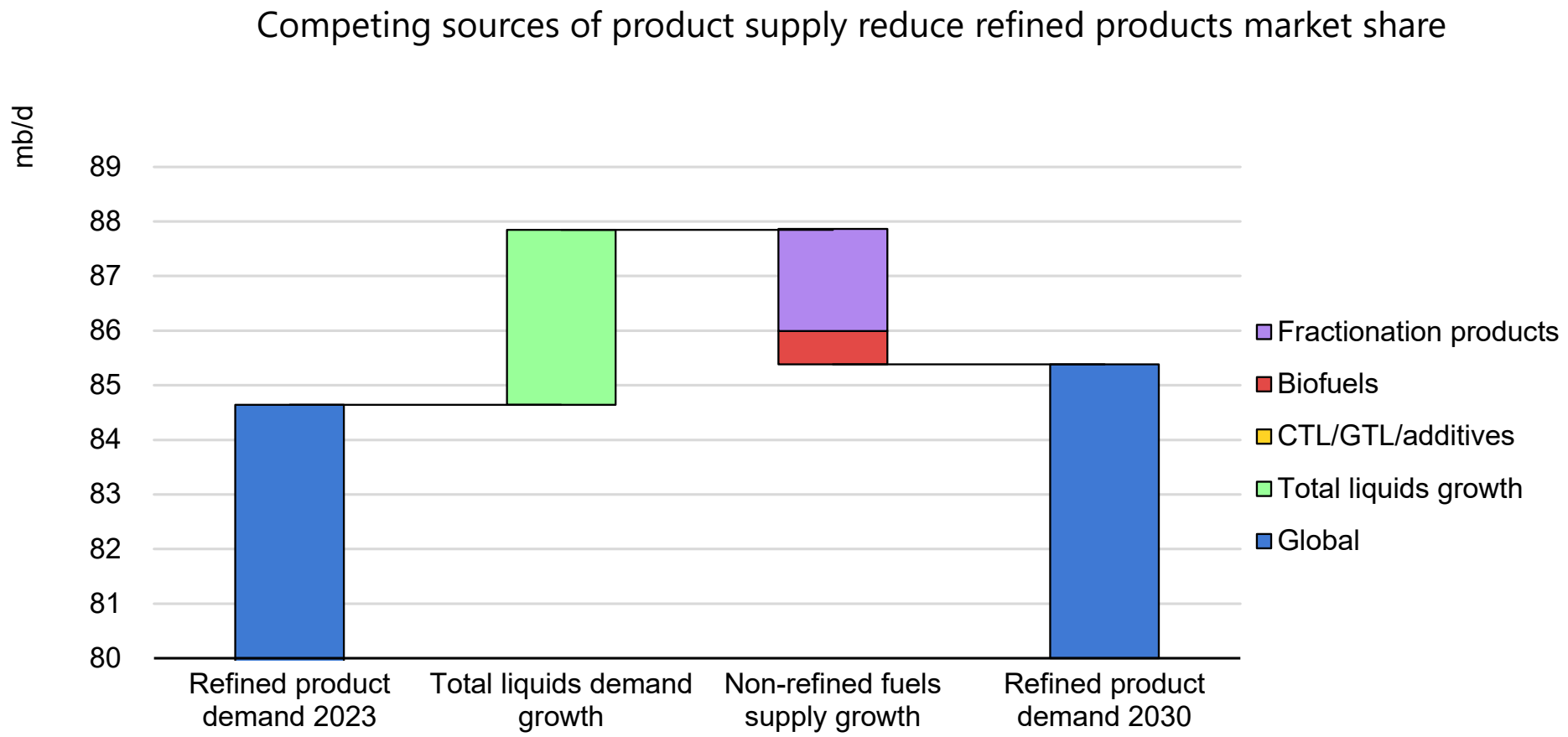
US shale continues to evolve towards high returns and low growth



Notes: Well cost per barrel determined by dividing the median well costs by the median estimated ultimate recovery. Other excluded from well cost chart.
Source: IEA analysis based on data from Rystad Energy ShaleWellCube

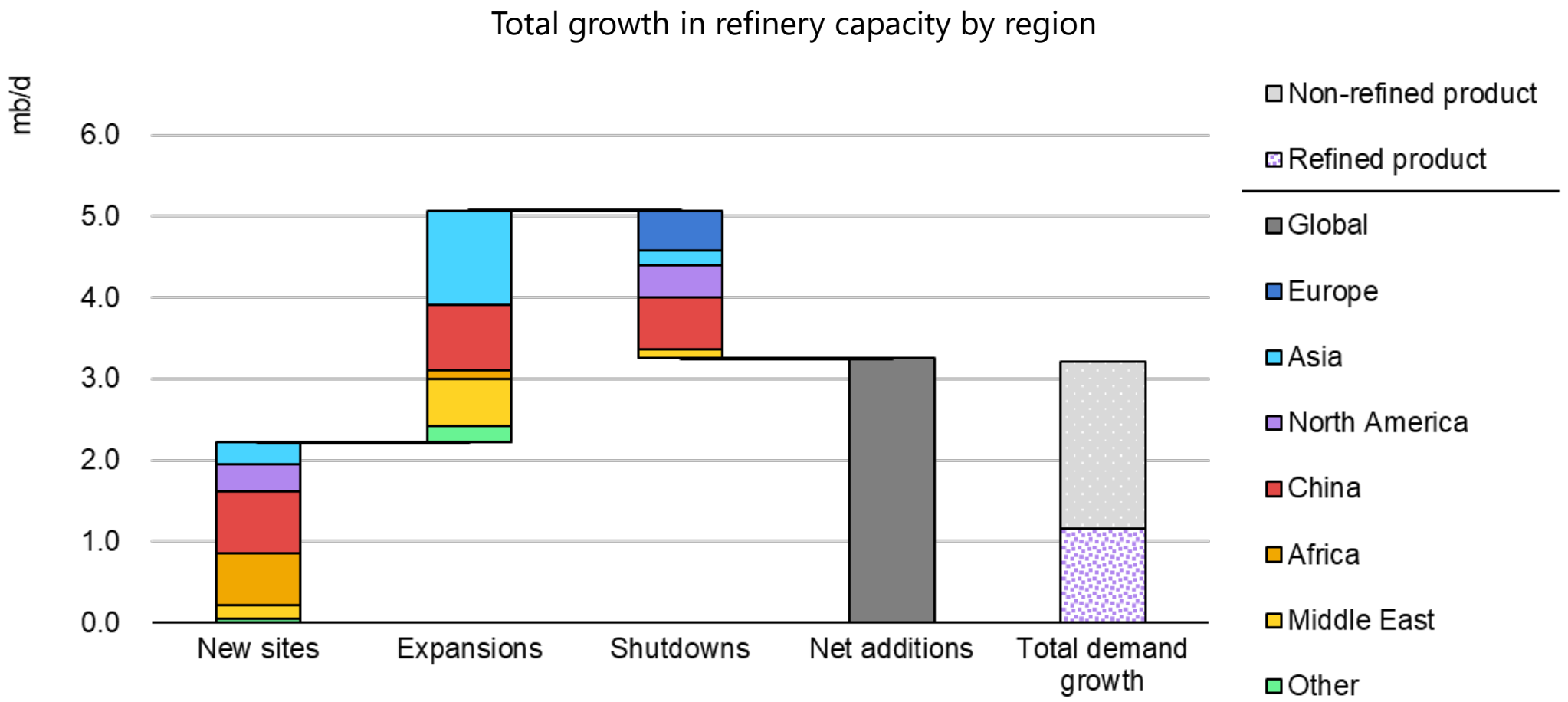
Annual gains drop from 930 kb/d in 2023 to just under 200 kb/d annually in the second half of the decade. Headwinds to growth come amid capital discipline, consolidations and tapering productivity metrics.

Refined product demand growth is crushed by non-refined fuels supply



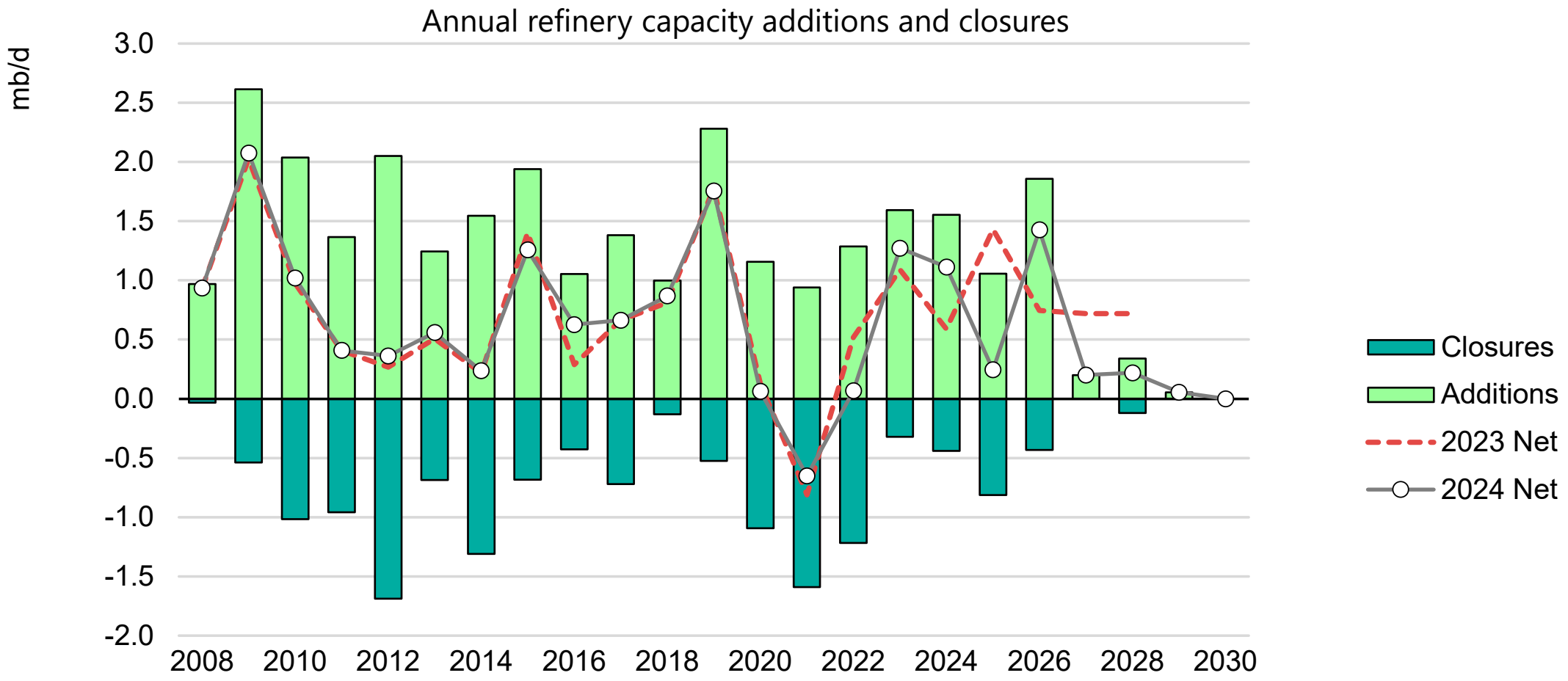
Low cost NGLs and biofuel blending mandates pressure refiners' market share

Refinery capacity growth exceeds oil products demand increase



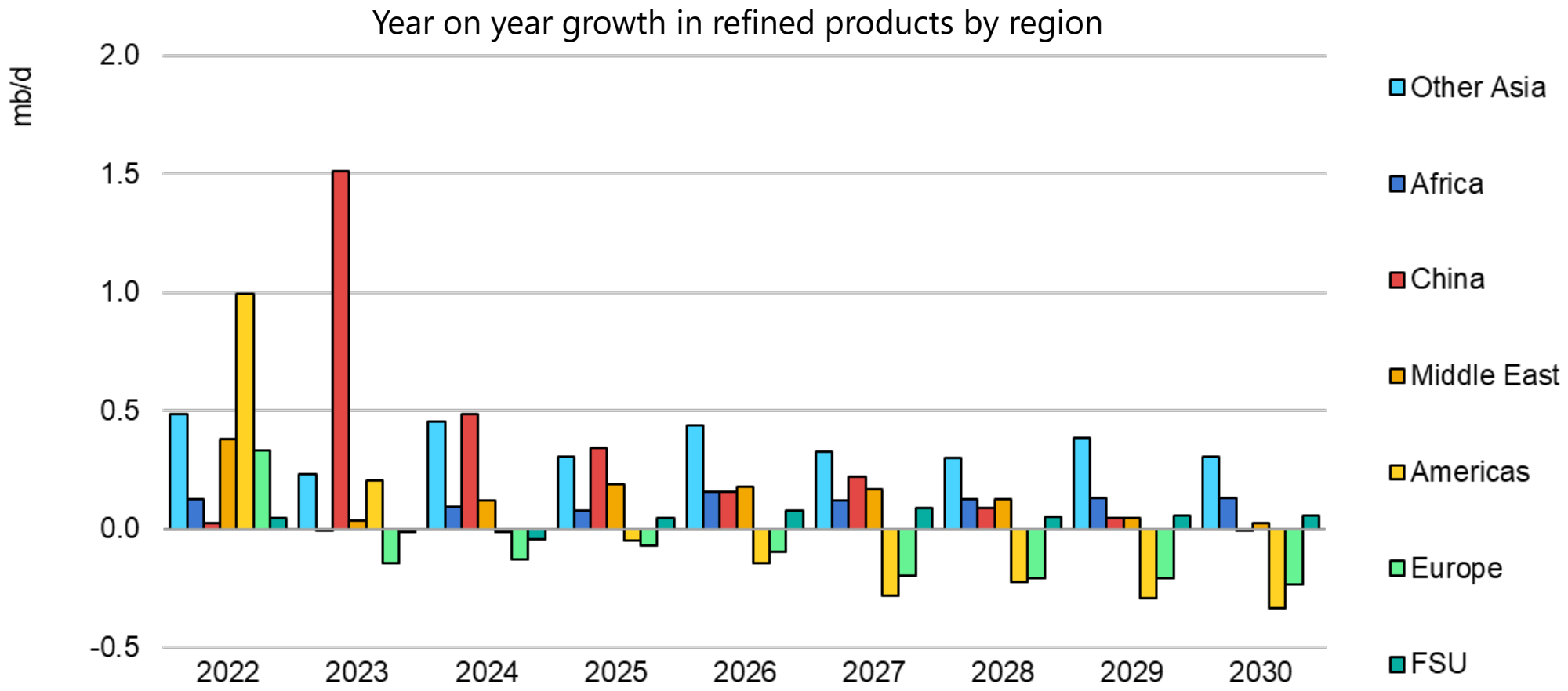
Fuels by-passing the refinery system (crude, NGLs and biofuels) meet 2/3 of demand growth to 2030. Refinery capacity, especially in mature markets, will face renewed risk of closure.

Current wave of refinery capacity build-out slows post 2026



Slowing demand growth caps appetite for more. More closures likely to be announced.

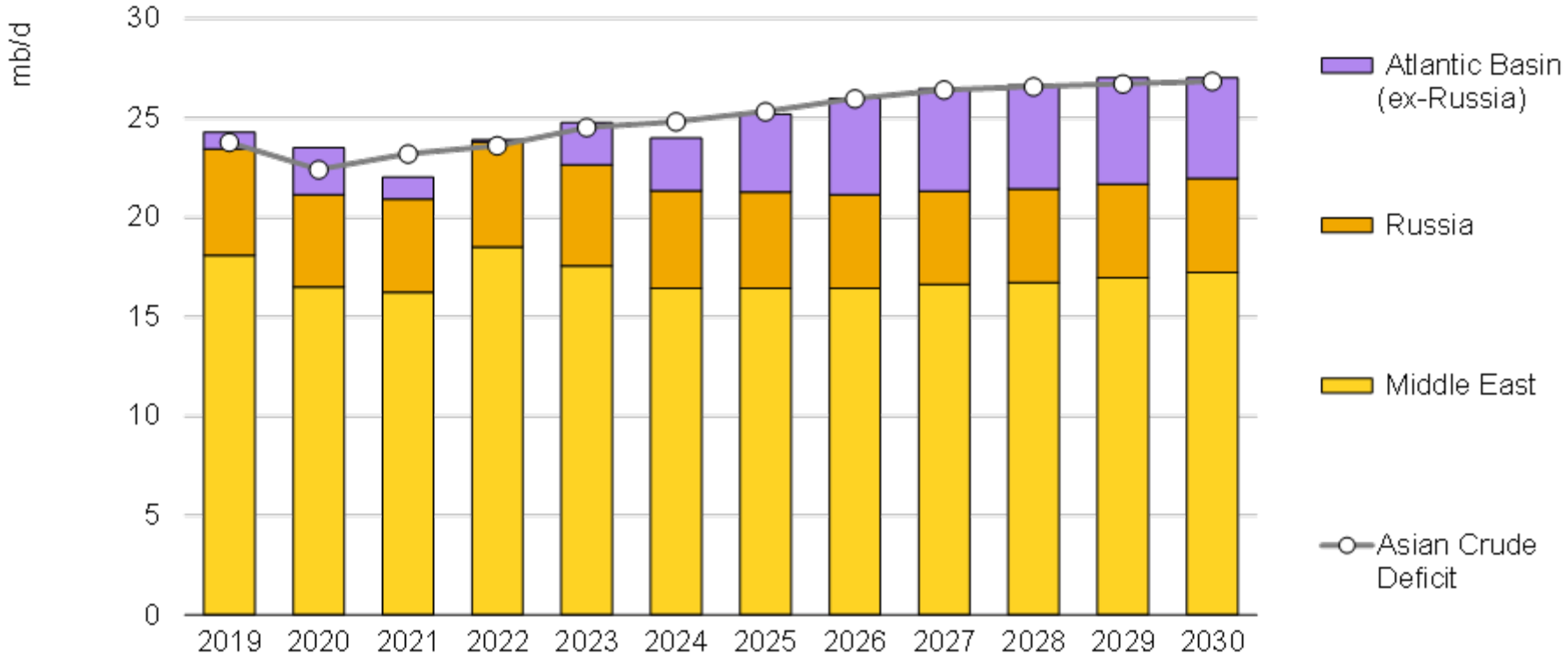
Call on refined products in OECD Europe and then the Americas falls



Asia, led by India, remains the core driver of refined product growth through to 2030.
Conversely, the contraction in US gasoline demand pushes the Americas to lead the decline by 2026.

Atlantic Basin fills Asian crude oil gap in the medium-term

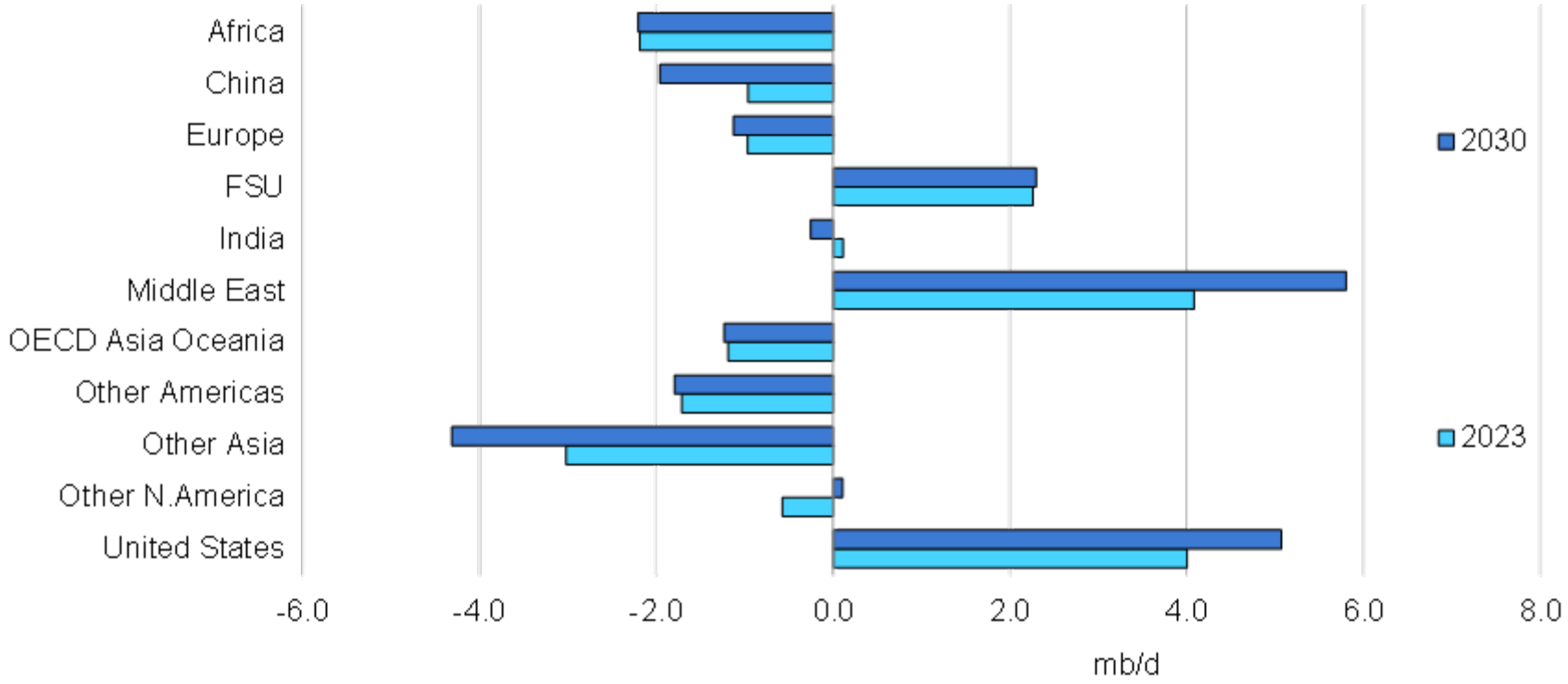
Net crude oil exports versus Asian import requirement, 2019-2030



The crude deficit East of Suez rises from 4.9 mb/d in 2023 to 7.7 mb/d by 2030. It will be met by increased supplies from the Atlantic Basin, including from Russia.

US, Middle East to meet Asia's growing demand for products

Regional balances for total refined products, 2023-2030



Increased product needs in net importers will boost global product trade and provide room for higher exports from the Middle East and the United States.