



**Presentation to the
G20 Energy Transitions Working Group:**

Recent Energy Security Issues and Risks to Sustainable Recovery

I n t e r n a t i o n a l E n e r g y F o r u m

24 March 2021, Yogyakarta



Briefing on Global Energy Security



Key Messages

Update on Current Situation

What is the Challenge

How should the G20 respond?

Recent Energy Security issues and Risks to Sustainable Recovery

Recover Together and Recover Stronger

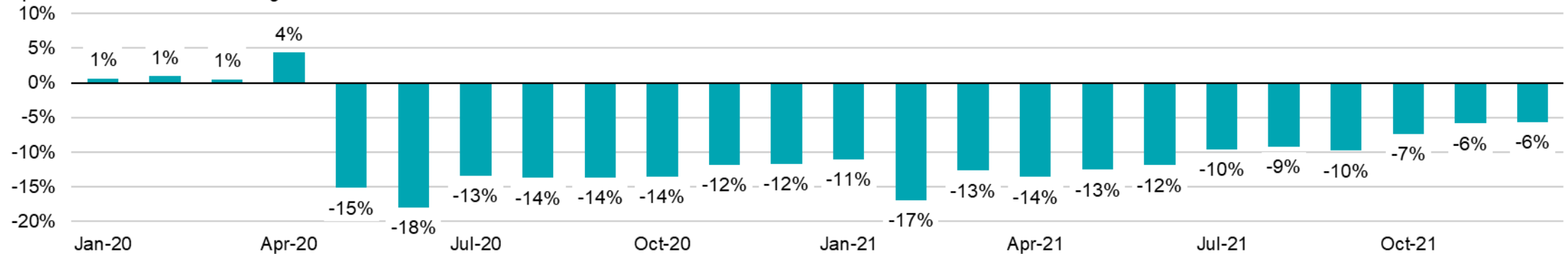
Key Messages

- As of January 2022, neither oil production or demand had returned to pre-covid levels
- Low inventories combined with low spare capacity gives little ability to absorb a supply shock
- Neither producers nor consumers benefit from current situation, all co-depend on well functioning energy markets
- Clear, stable, long-term energy policy guidance must unlock investment for more diverse energy supplies, affordable access, and inclusive development
- Temporary and targeted measures e.g. to shield consumers should not add to market distortions or create new barriers
- Easing access to finance, clean technologies, and resources including critical minerals, will accelerate transitions and boost sustainable growth

Update on Current Situation

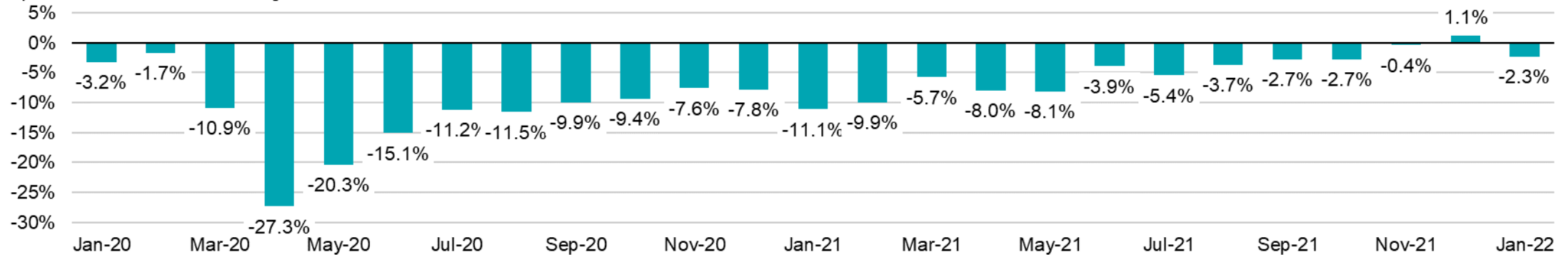
As of January 2022, oil demand was at 97% of pre-COVID levels in January while crude production lags at 93%

Crude oil production versus 2019 annual average (25 country aggregate)
percent of 2019 annual average



Source: IEF, JODI Oil

Oil product demand versus 2019 annual average (43 country aggregate)
percent of 2019 annual average

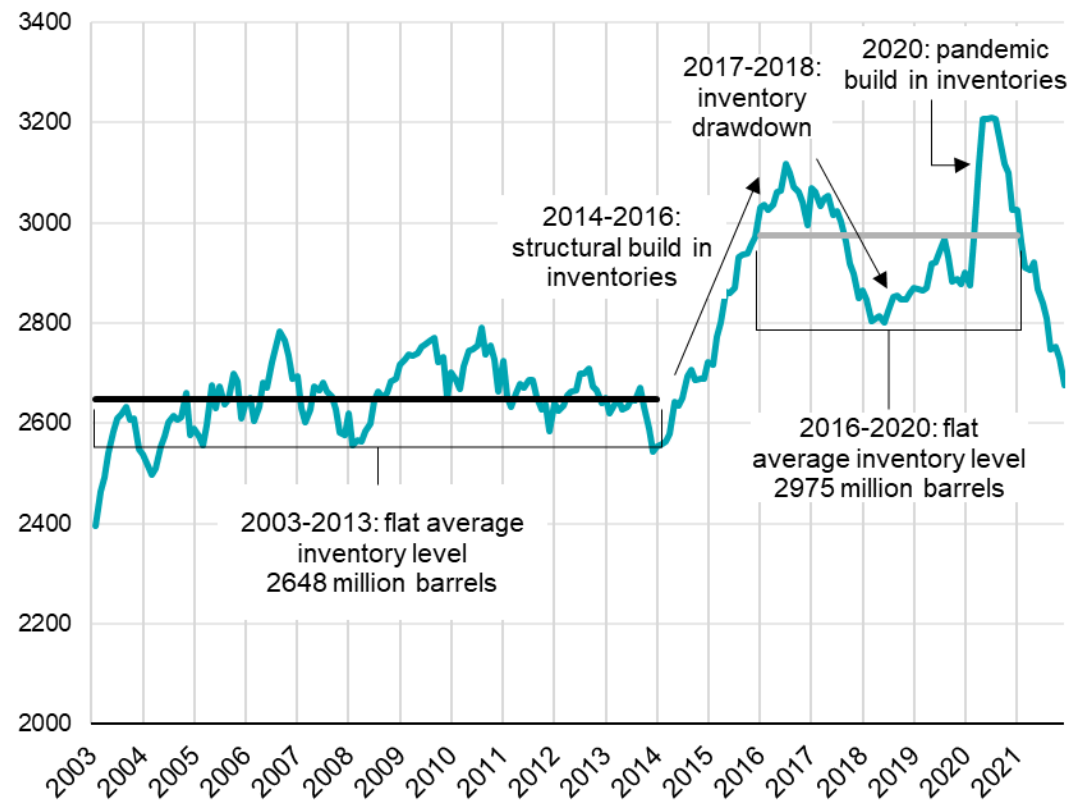


Source: IEF, JODI Oil

Lower inventories combined with low spare capacity means the market has little ability to absorb supply shocks

OECD inventories - (commercial crude oil and petroleum products)

million barrels

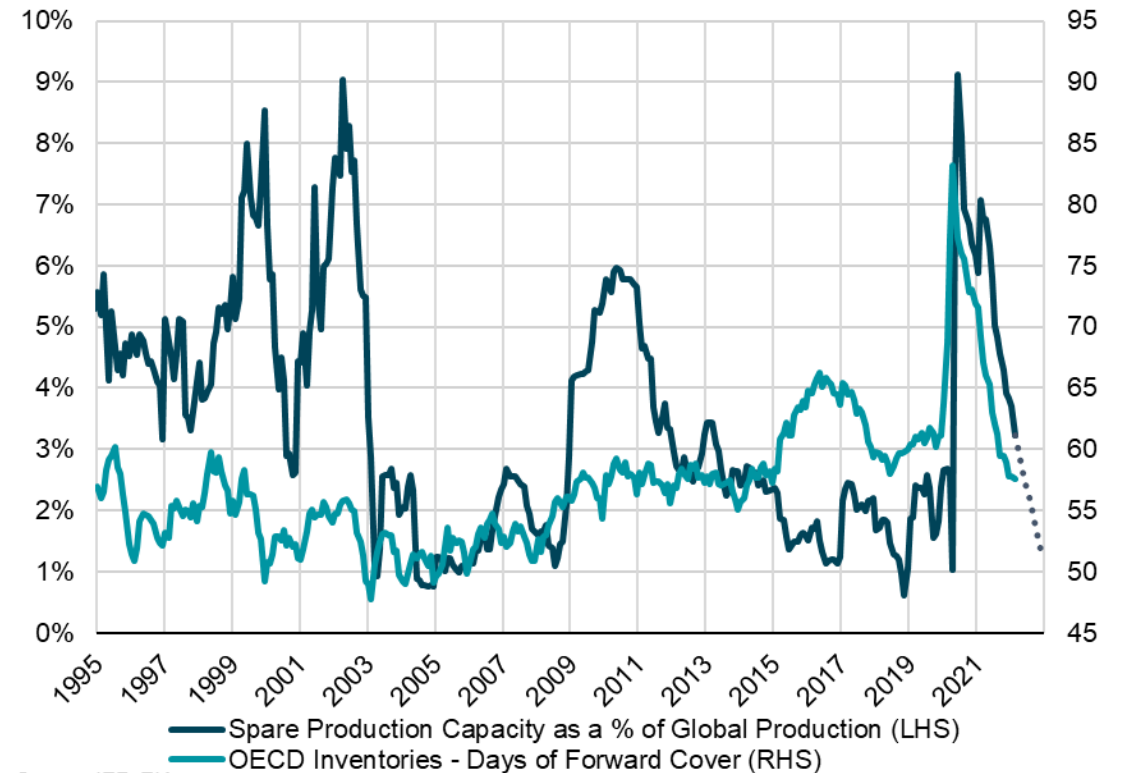


Source: IEF

Global spare production capacity and OECD inventories

Global spare capacity as a % of global production

Days of forward OECD inventory cover

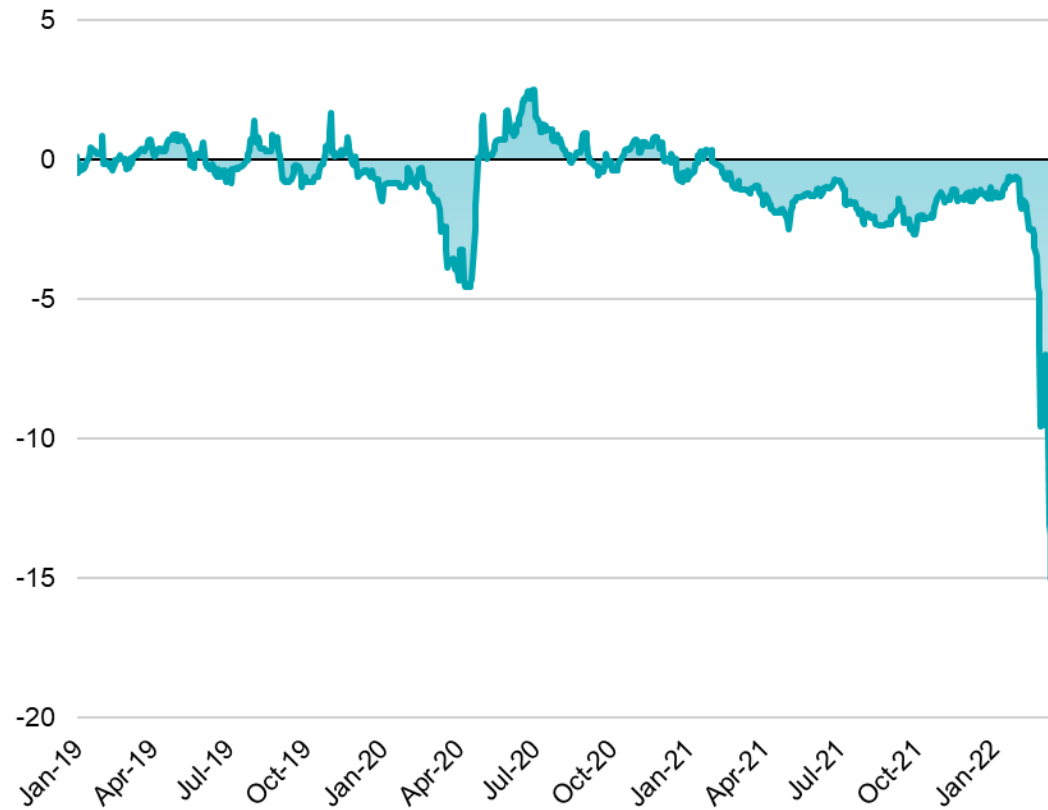


Source: IEF, EIA

What is the Challenge

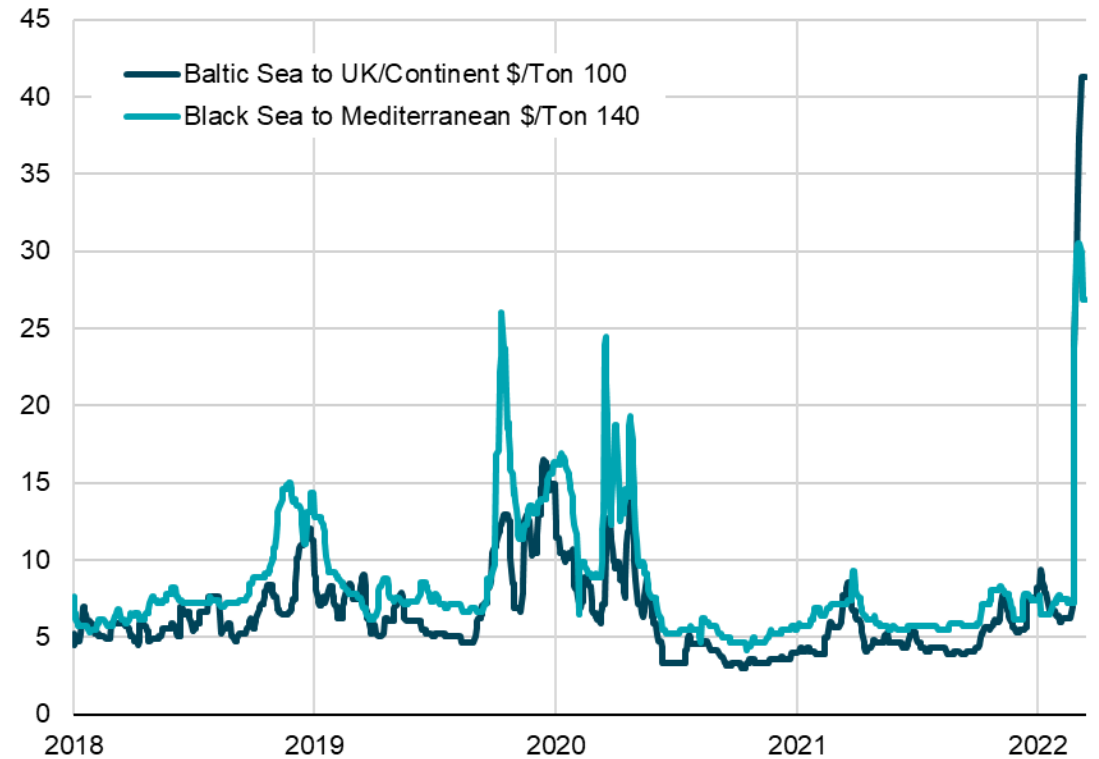
Some market participants are “self sanctioning” and shipping rates have spiked as markets adjust

Russian Urals (Med) crude oil price *minus* Dated Brent
dollars per barrel



Source: IEF, Bloomberg L.P.

Dirty Tanker Rates
Dollars per ton (vessel size kDWT)

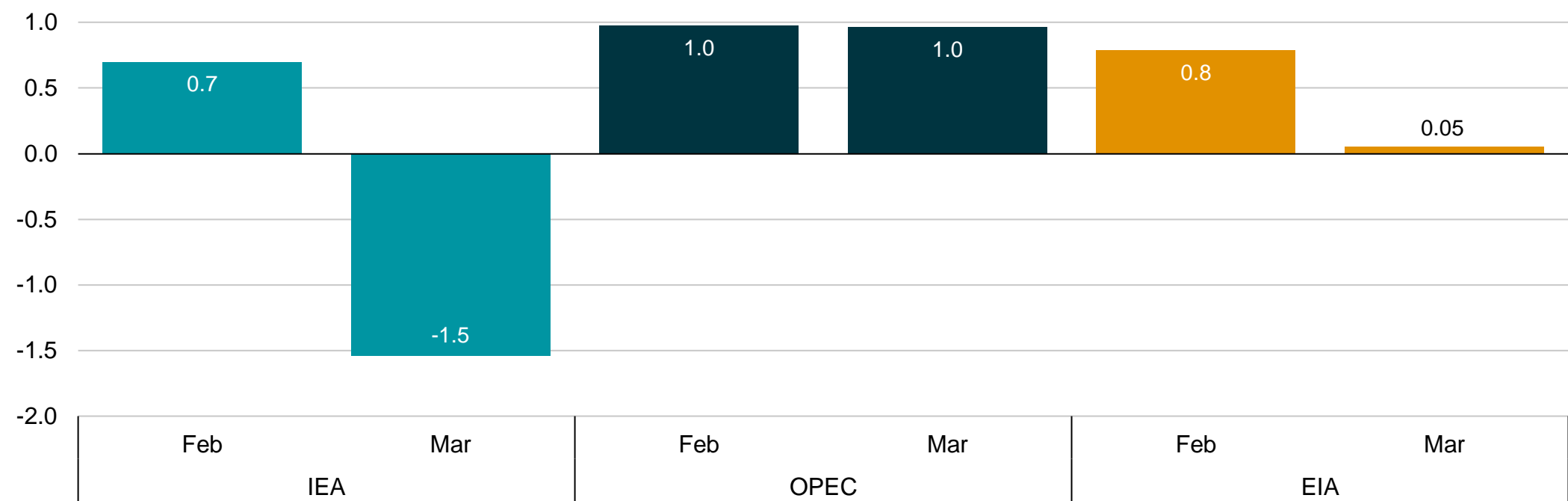


Note: Dirty denotes cargo of crude oil and other unfinished/unrefined oils
Source: IEF, Bloomberg L.P.

Russian supply assessments differ, risk of shut-ins grows due to limited domestic storage

Russia Supply Growth Forecasts for 2022 (Y/Y)

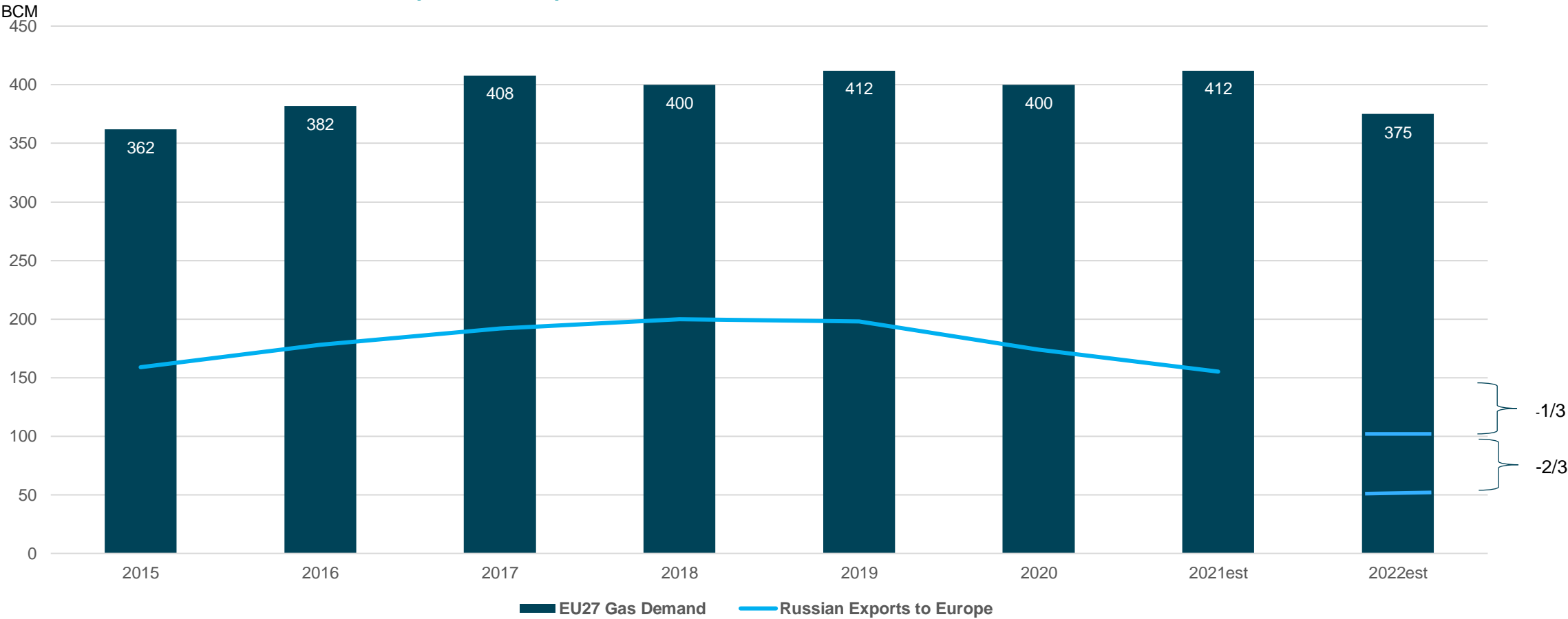
Million barrels per day



Source: IEF, IEA, OPEC, EIA

OECD IEA and EU aim to sharply reduce fossil fuel imports starting with gas

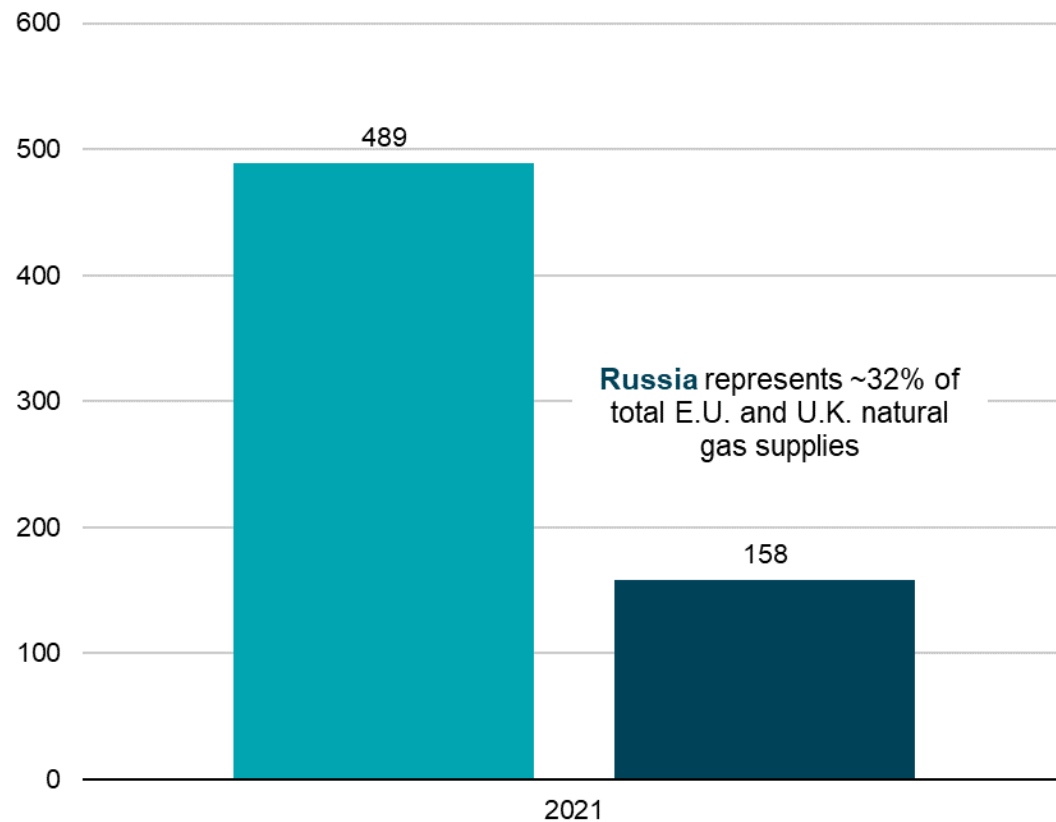
EU27 Gas Demand and Russian Gas Exports to Europe



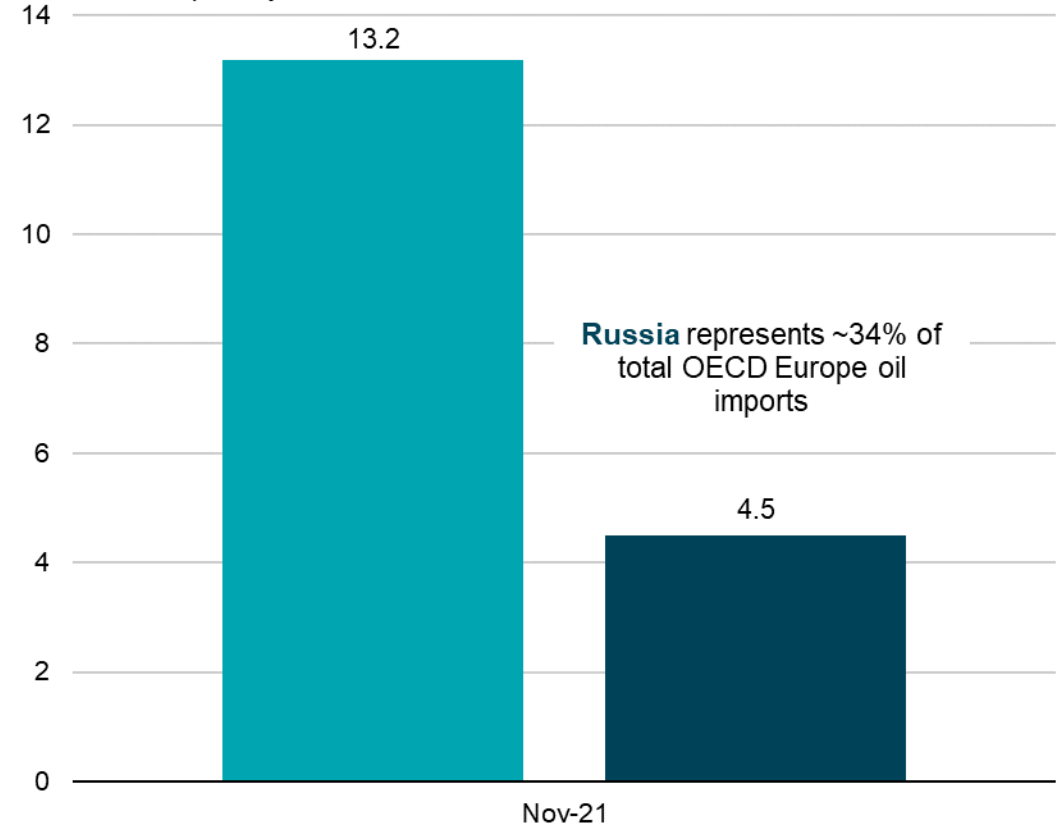
IEF, Source: Eurostat Oxford Institute for Energy Studies, Gazprom, Statista, IEA, European Commission

Europe diversifying away from Russian energy supplies will shift global markets and supply chains

Natural gas supplies to European Union and U.K.
billion cubic meters



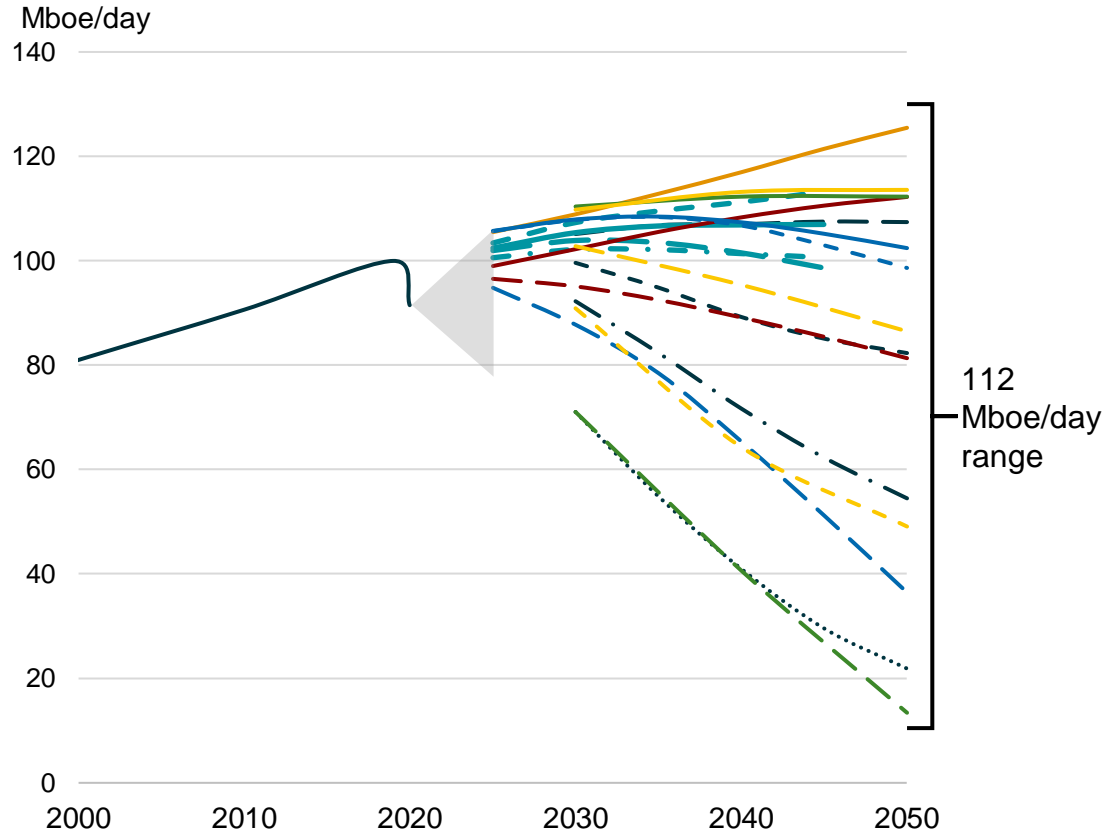
OECD Europe oil imports
million barrels per day



Crises add to an already uncertain energy future

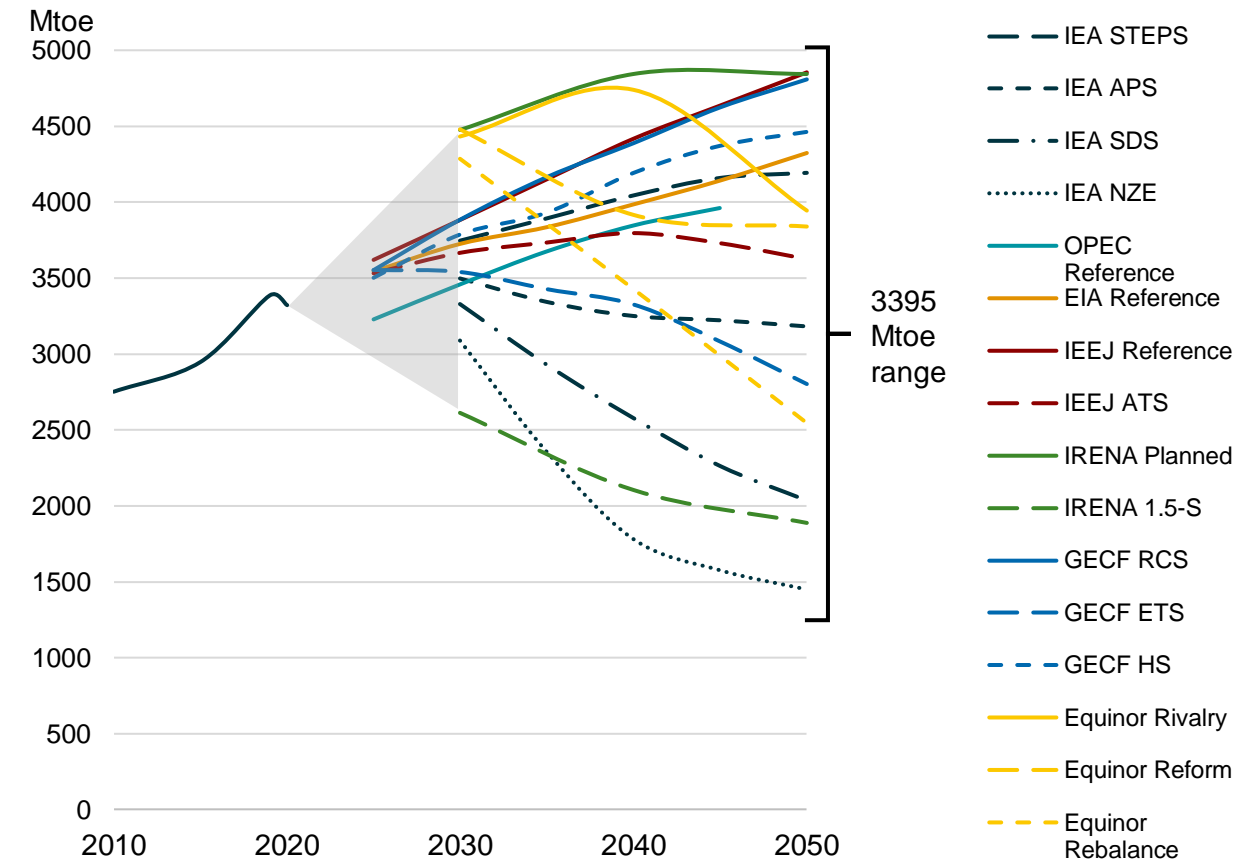
The gap between outlooks exceeds current market size

Liquids Demand Scenario Projections to 2050



IEF-RFF Outlooks Comparison Report 12th IEA-IEF-OPEC Symposium on Energy Outlooks Riyadh 16 February 2022

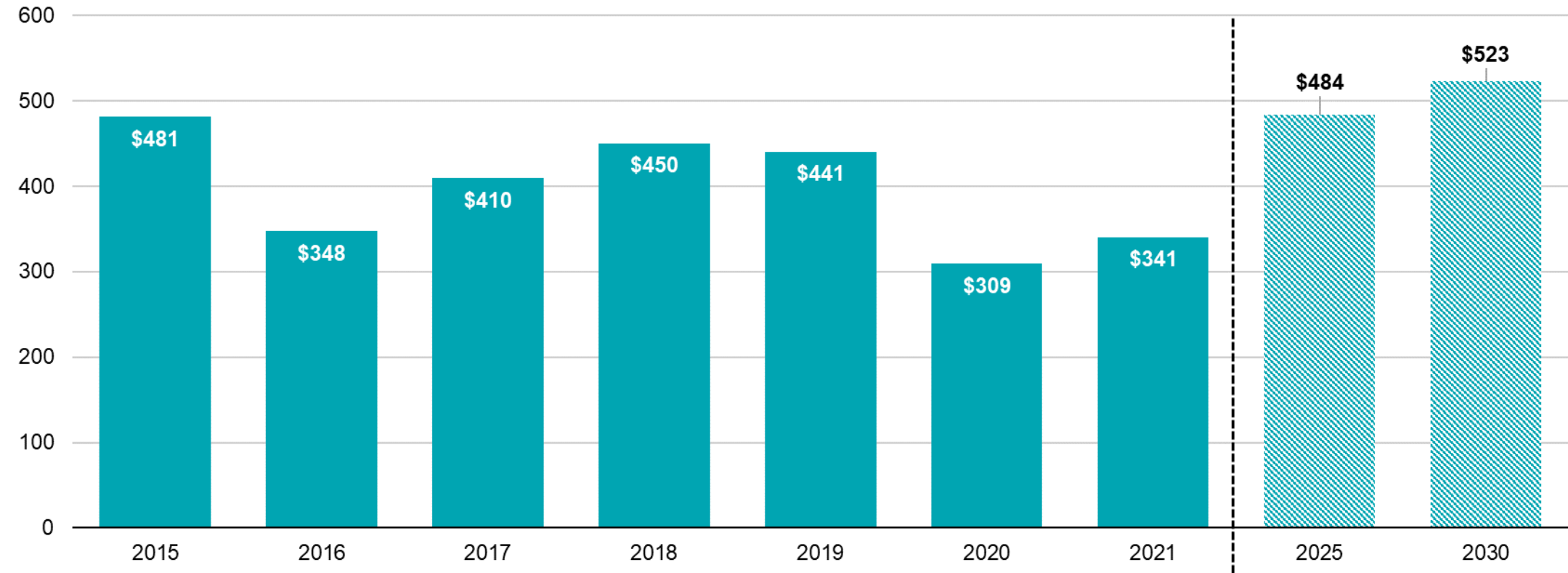
Gas Demand Scenario Projections to 2050



Uncertainty hinders already low investment in oil & gas supplies required during transition

Global Upstream Oil and Gas Capex

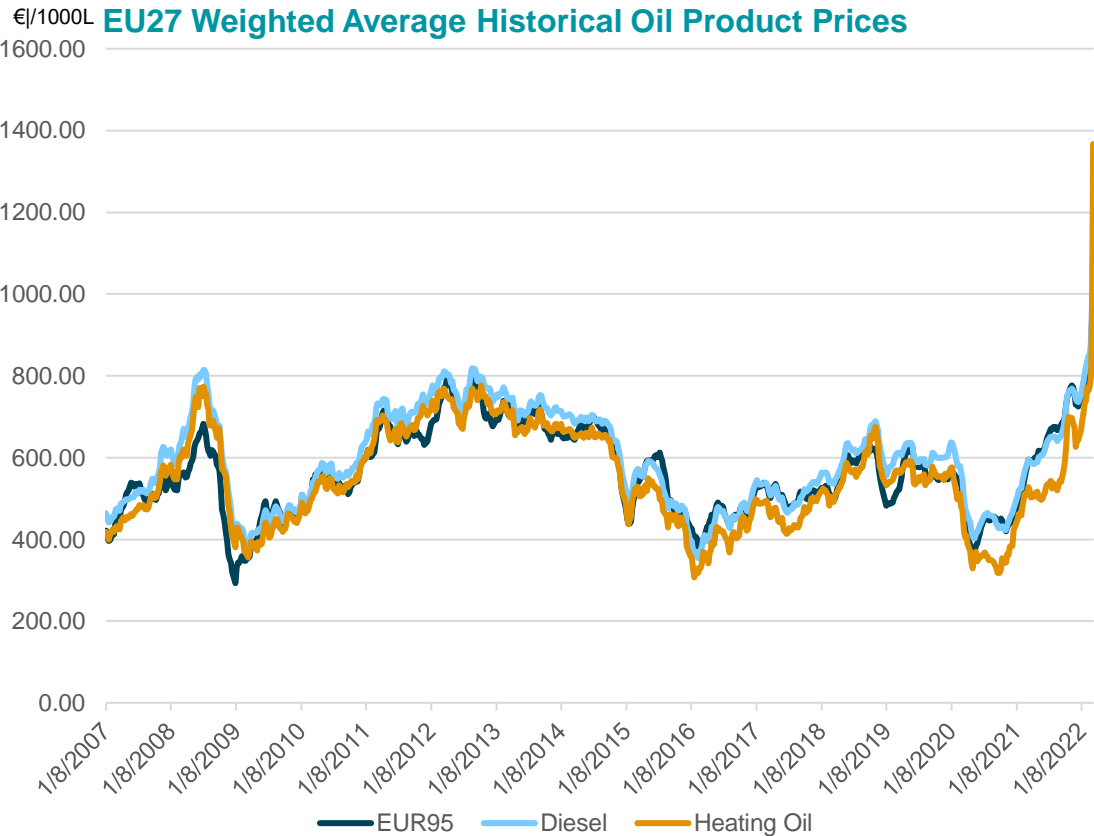
Billion USD (nominal)



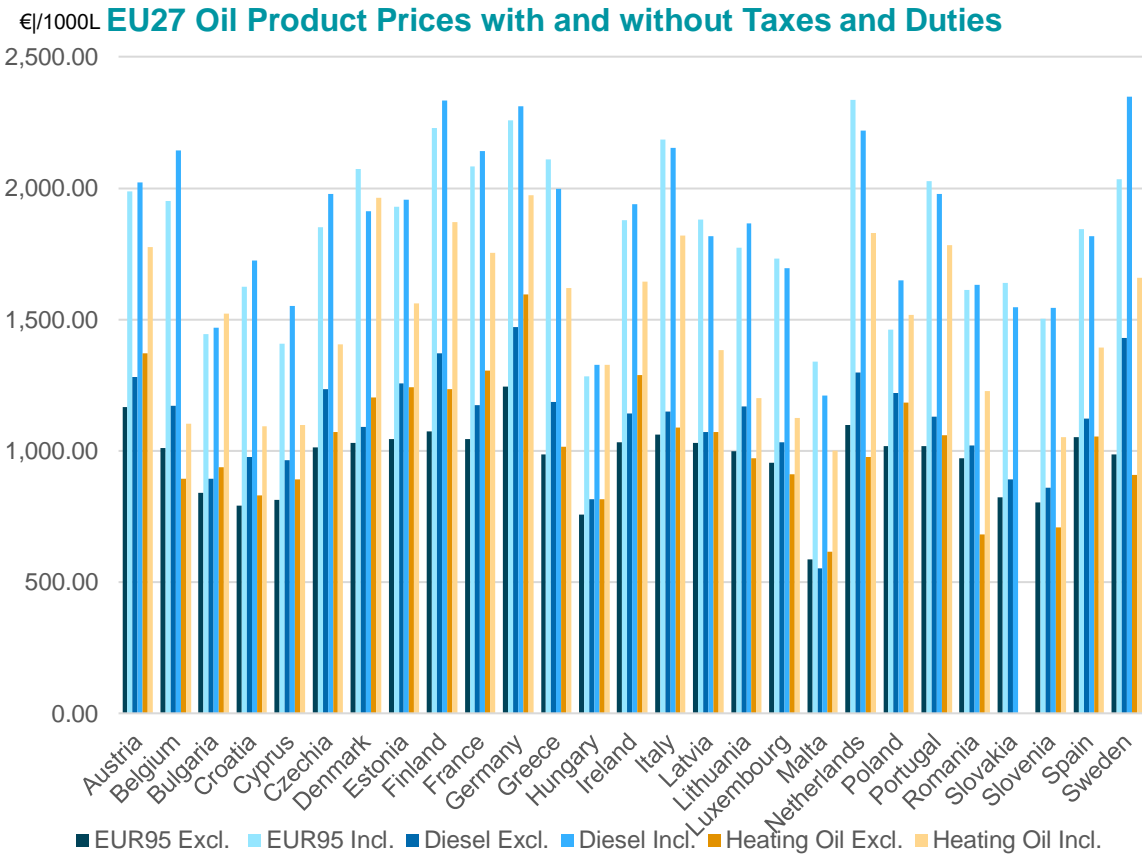
Source: IEF, IHS Markit

Consumers exposed to unsustainable price shocks

Easing of taxes and duties to provide temporary relief



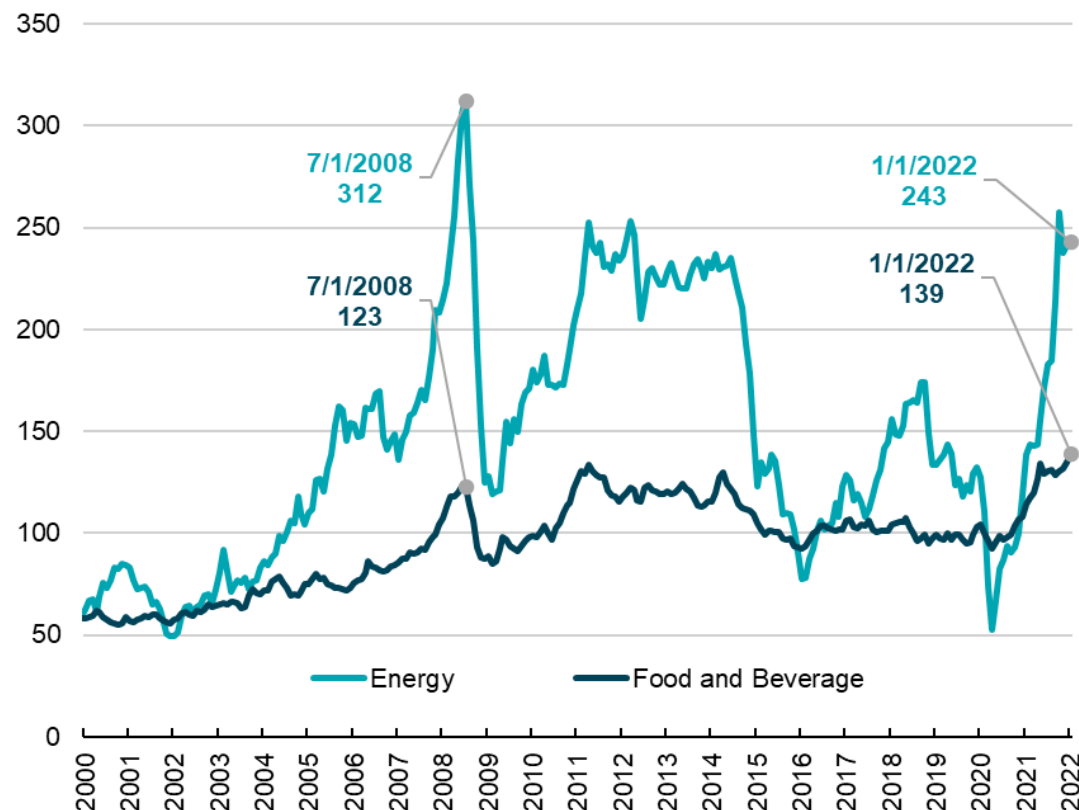
IEF, Source: EUR 27 Weekly oil bulletin n° 2091, prices at 14/03/2022



High energy and food prices create risks to sustainable recovery

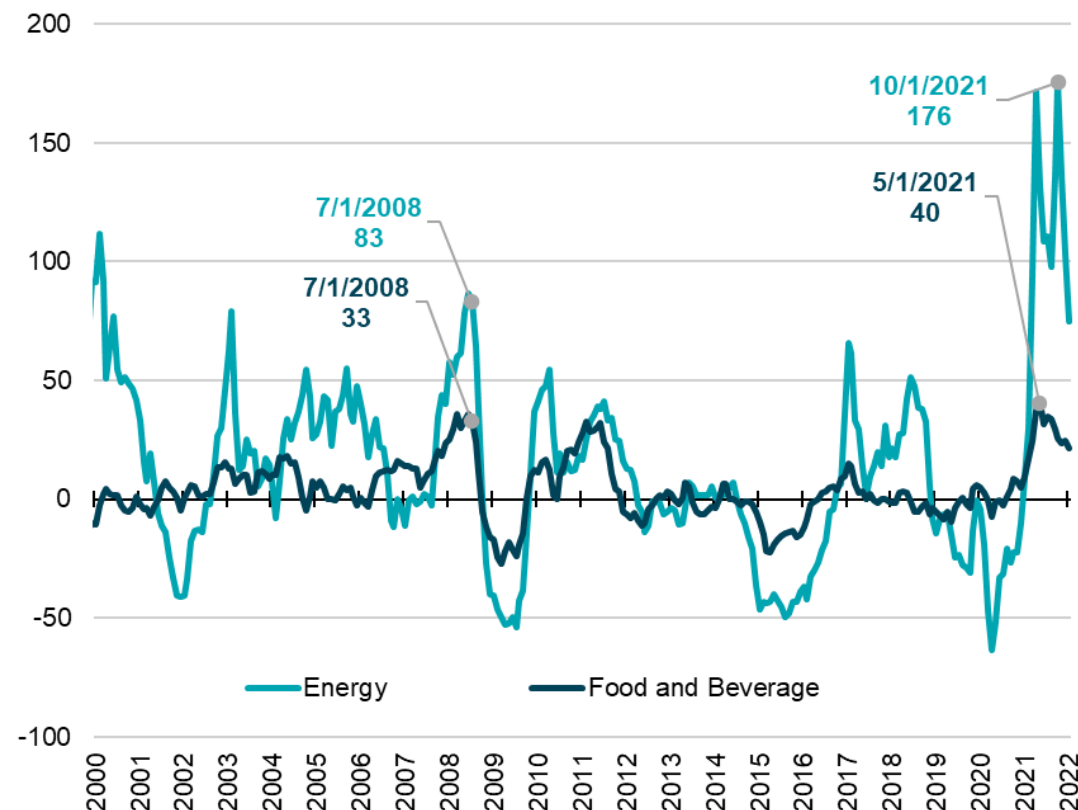
Primary Commodity Price System - Energy, Food and Beverage Indexes

Index (2016 = 100)



Primary Commodity Price System - Energy, Food and Beverage Indexes

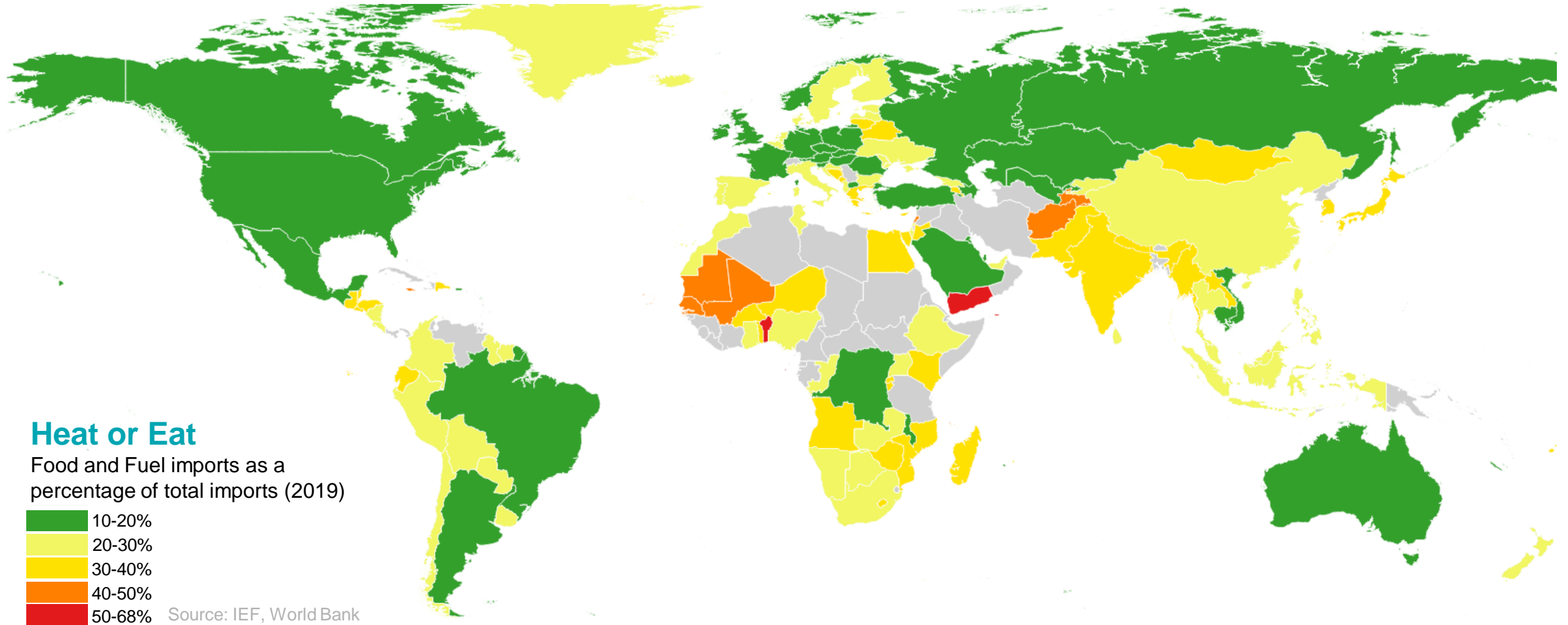
Percent change year-over-year



Source: IEF, IMF, Primary Commodity Price System

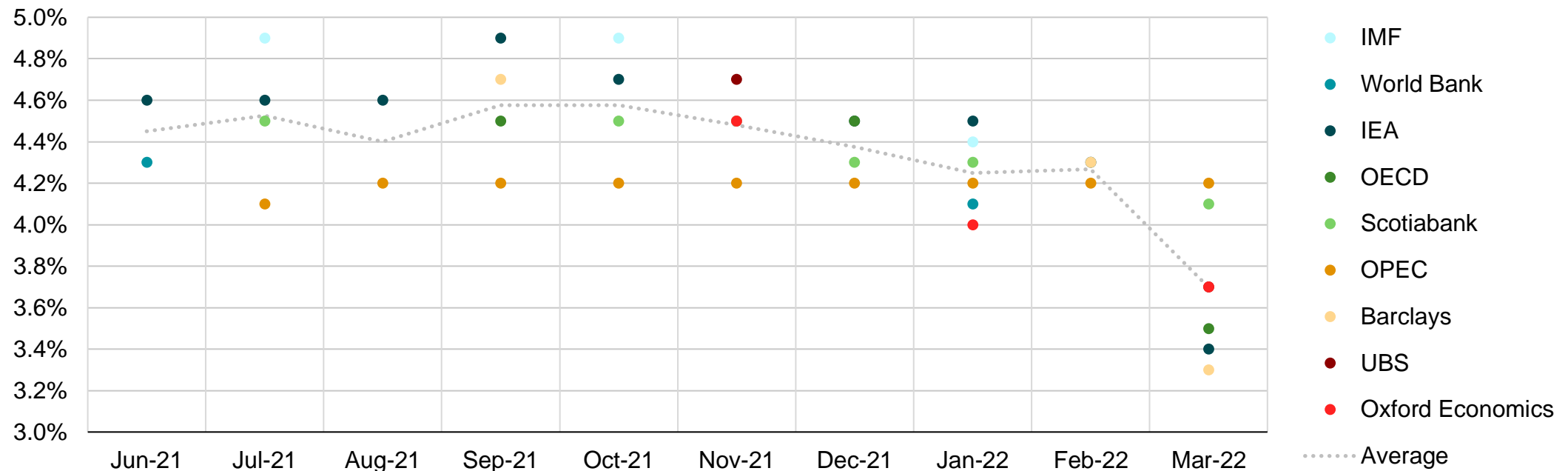
Note: Index includes global benchmark prices for Crude oil, Natural gas, Coal, Propane, Coffee, Tea, Cereals, Meats, Sugars and other foods.

Approximately 2.5 billion people live in countries where food and fuel imports combined are 30% or more of total imports



These risk result in ongoing GDP downgrades amounting to a ~1.0 percentage point reduction so far

Global GDP Forecasts for 2022
% Global Growth

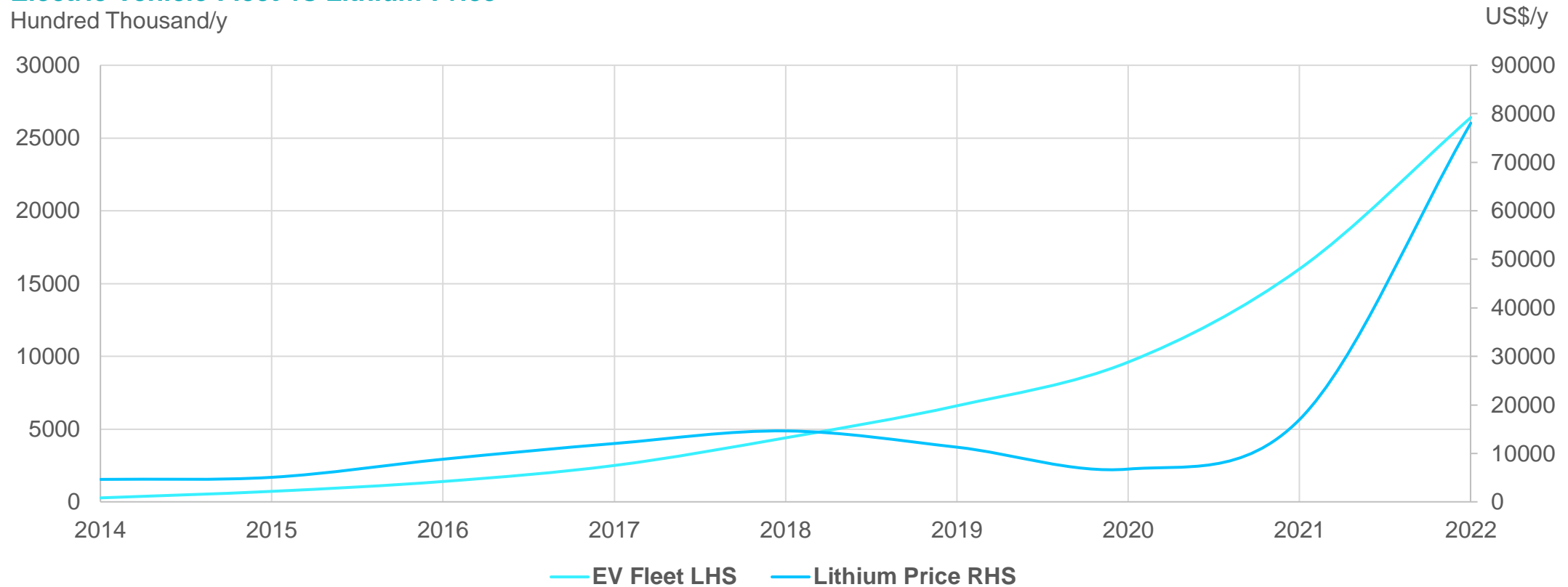


Source: IEF, IMF, World Bank, IEA, OPEC, Barclays, UBS, Scotiabank, Oxford Economics, Bloomberg

Accelerated transitions drive up critical mineral prices creating new co-dependencies and governance demands

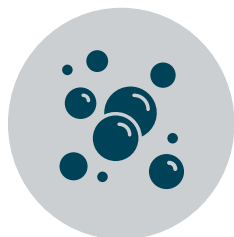
Electric Vehicle Fleet vs Lithium Price

Hundred Thousand/y



How Should G20 Respond?

G20-IEF Global Economic and Energy Market Governance



Avoid disorderly and costly transitions in fragmented global energy markets

Fortify global energy trade and investment rules, reduce tariff and non-tariff hurdles, step-up investment in RD&D and facilitate technology transfer.



Alert to measures taken, minimize global impacts and review emergency mechanisms

Assure timely notification and transparency on measures taken, optimize preparedness, policy and market responses to minimize global impacts.



Intensify producer consumer dialogue with market stakeholders

Reinforce rule of law and collaboration, pool resources to accommodate changes in flows and engage with private sector stakeholders to address challenges



Deepen collective market insight on energy sector investment, trade and market dynamics

Monitor physical and financial market fundamentals to ensure that supply recovers in step with demand growth. Ensure viable market signals and risk management.



Bolster energy security and market stability with investment in productivity, flexibility, and resilience

Strengthen energy productivity and connectivity to enhance efficiency and optionality, Commoditize available and stimulate investment in new infrastructure capacities



Expand global energy markets data to meet new demands

Including data on energy flows, storage spare capacity and critical minerals, and leverage alternative metrics to overcome data gaps.



Stimulate sustainable growth with clear and stable policies focused on diversification and development

Shield consumers with temporary and well targeted measures. Diversify access to markets and resources, including critical minerals to accelerate sustainable growth.



Expedite share and report on data faster

Step up more regular submissions directly to the Joint Organisations Data Initiative including by leveraging digitalization for nearer to real time assessments.



Thank You

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