



## Gas 2022

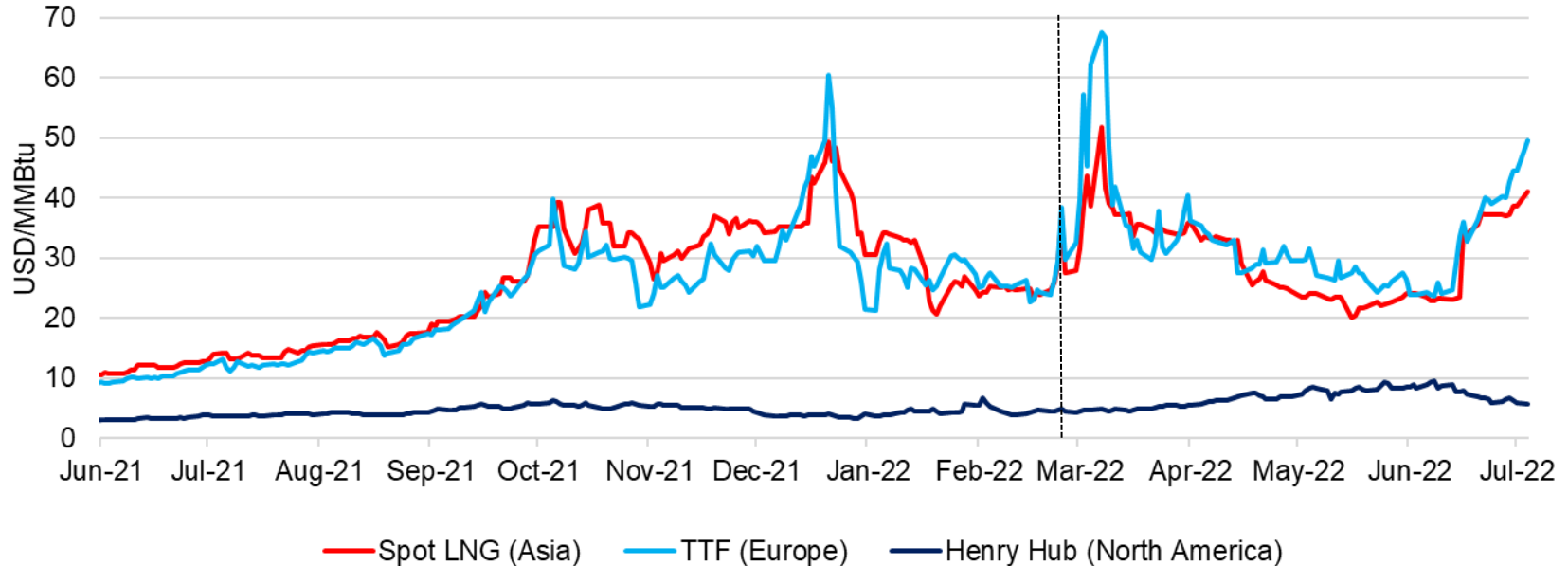
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Clingendael International Energy Programme – Istituto Affari Internazionali, 07 July 2022

# The invasion of Ukraine drove European and Asian prices to record highs

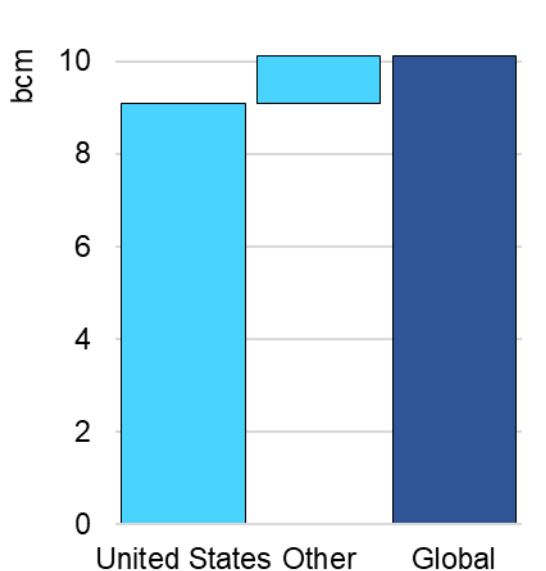
Key regional natural gas prices evolution since June 2021



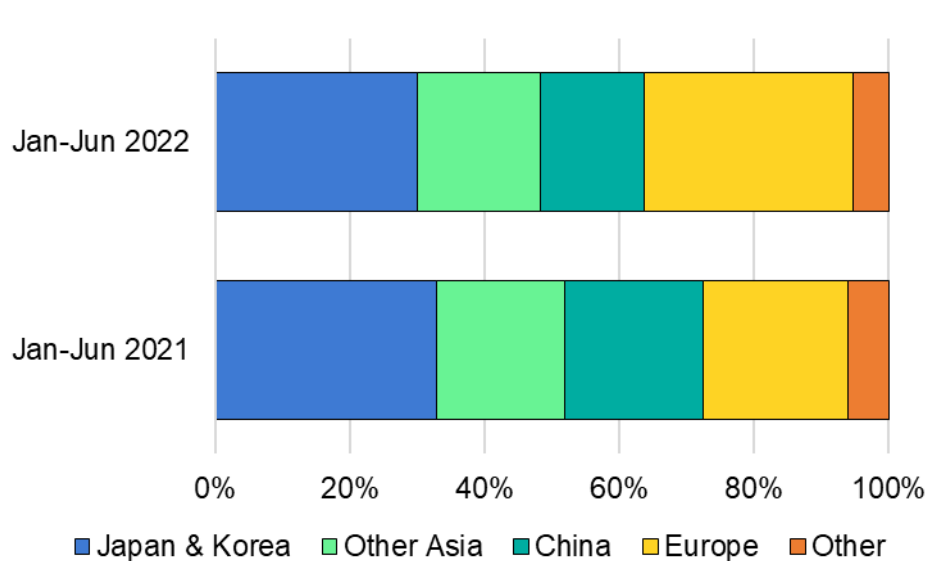
Russia's invasion of Ukraine created a moment of unprecedented uncertainty and volatility both for European and Asian spot gas prices.

# Global LNG trade increased by over 4% y-o-y in H1

LNG supply evolution (Jan-Jun), 2021-2022



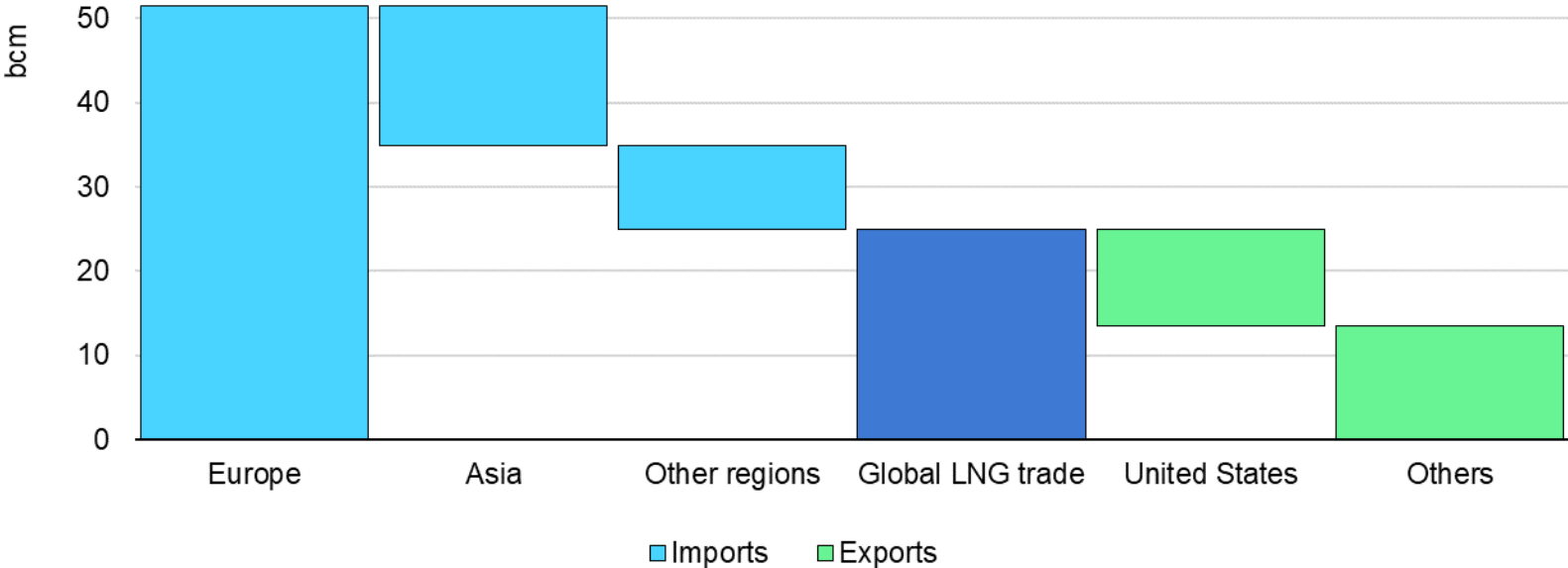
LNG demand per main market (Jan-Jun), 2021-2022



US LNG ramp up accounted for close to 90% of total supply increase in the first half of 2022; Europe's imports grew by 50% y-o-y over the same period.

# Europe's incremental supply needs drive LNG growth and tightness

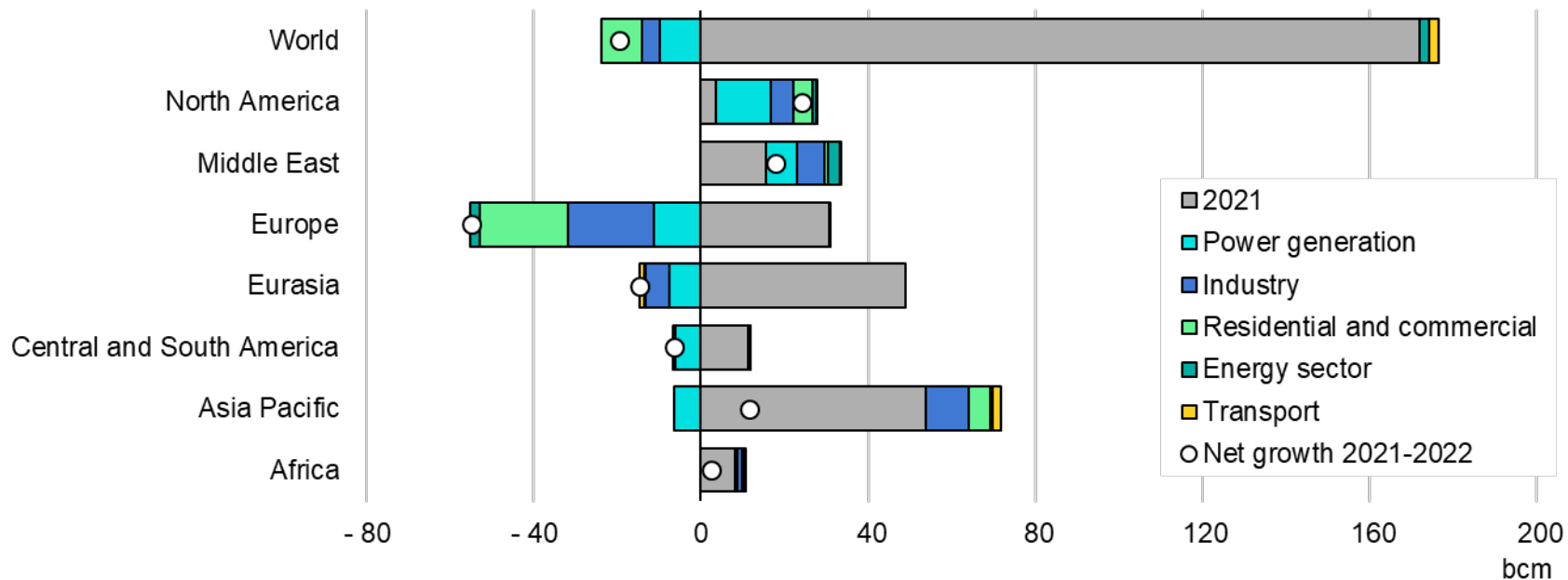
Global LNG balance, y-o-y change, 2021-2022



Global LNG trade flows reconfigure in 2022 as Europe becomes the premium market for LNG.

# Global gas growth rate is expected to turn negative in 2022

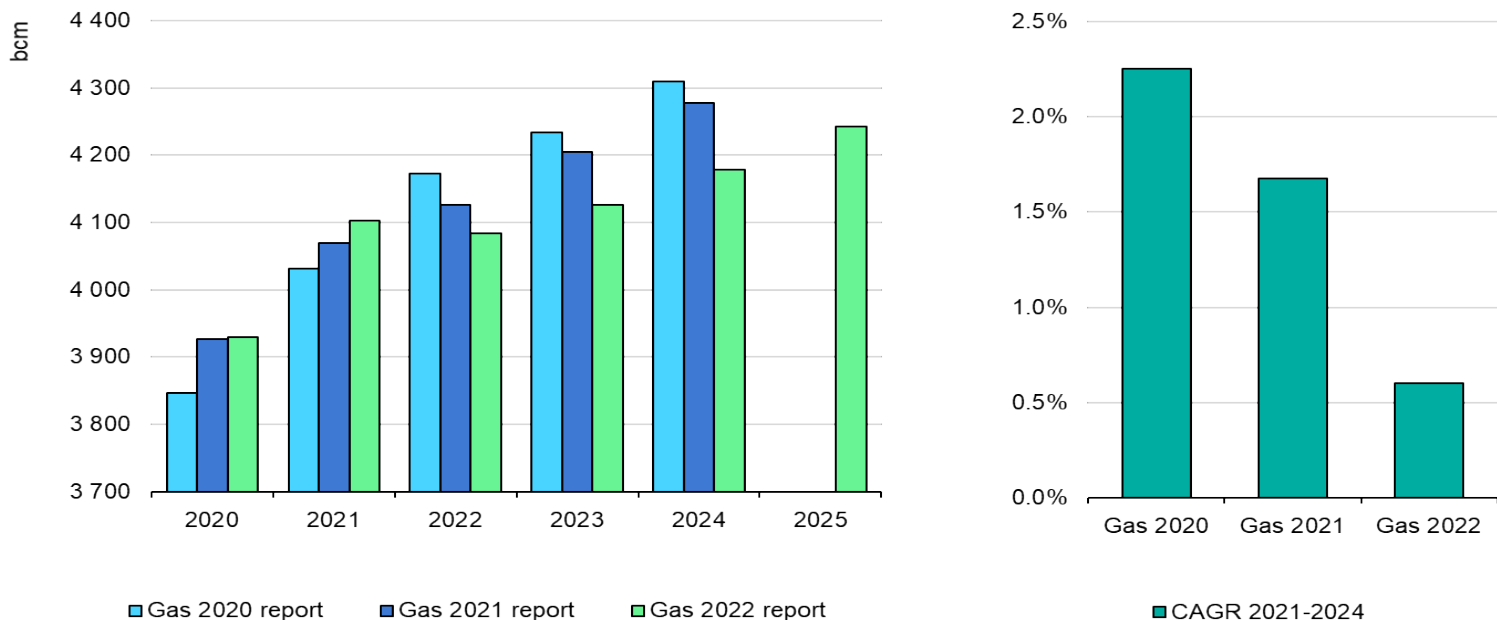
Change in gas demand by region, 2021-2022



Asia Pacific demand increase is capped by tensions on access to supply, while European gas consumption is foreseen to plunge below its 2020 level.

# Short-term growth comes to a halt, uncertainty limits growth potential to 2025

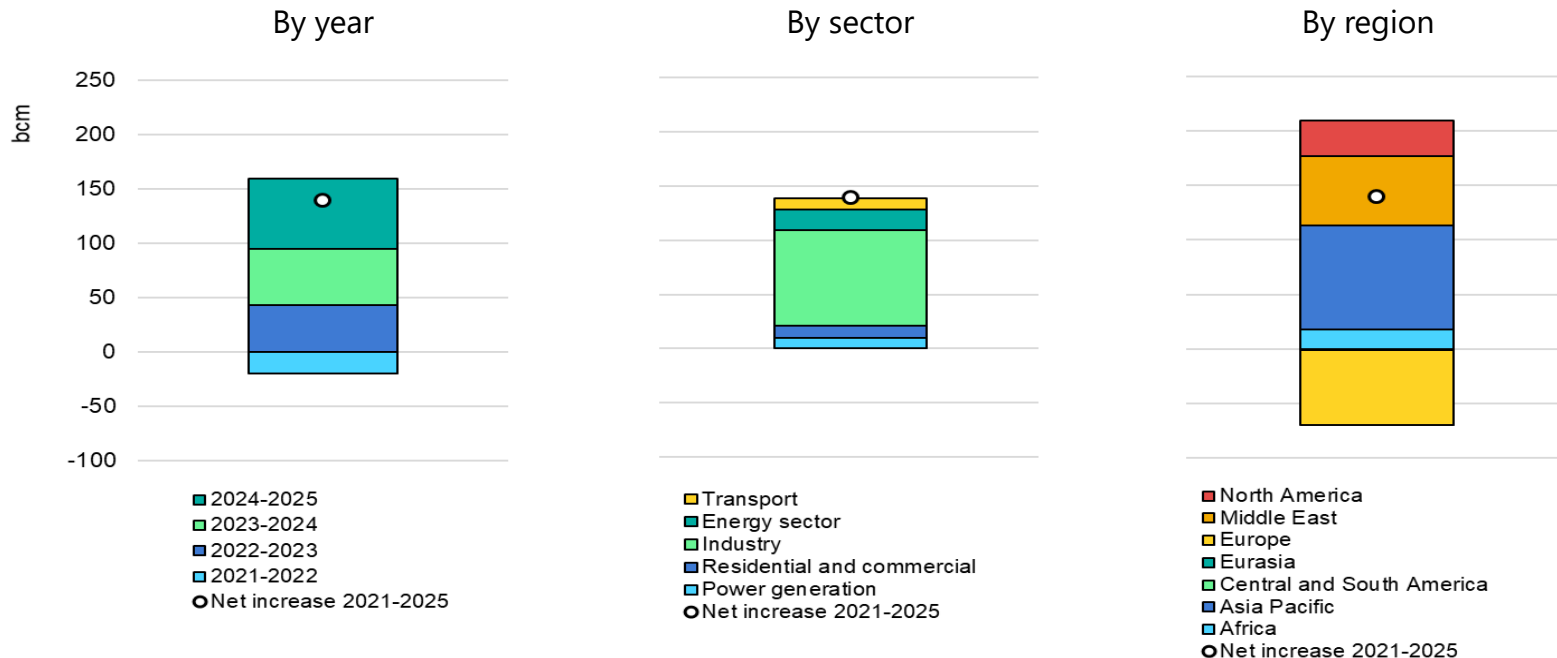
Evolution of global gas demand forecasts in the three latest issues of the IEA medium-term gas report



Current market tensions and medium-term uncertainty result in a 60% cut in our forecast of average growth in gas demand to 2024, compared to our previous outlook.

# Growth recovery is slow and progressive, led by Asia

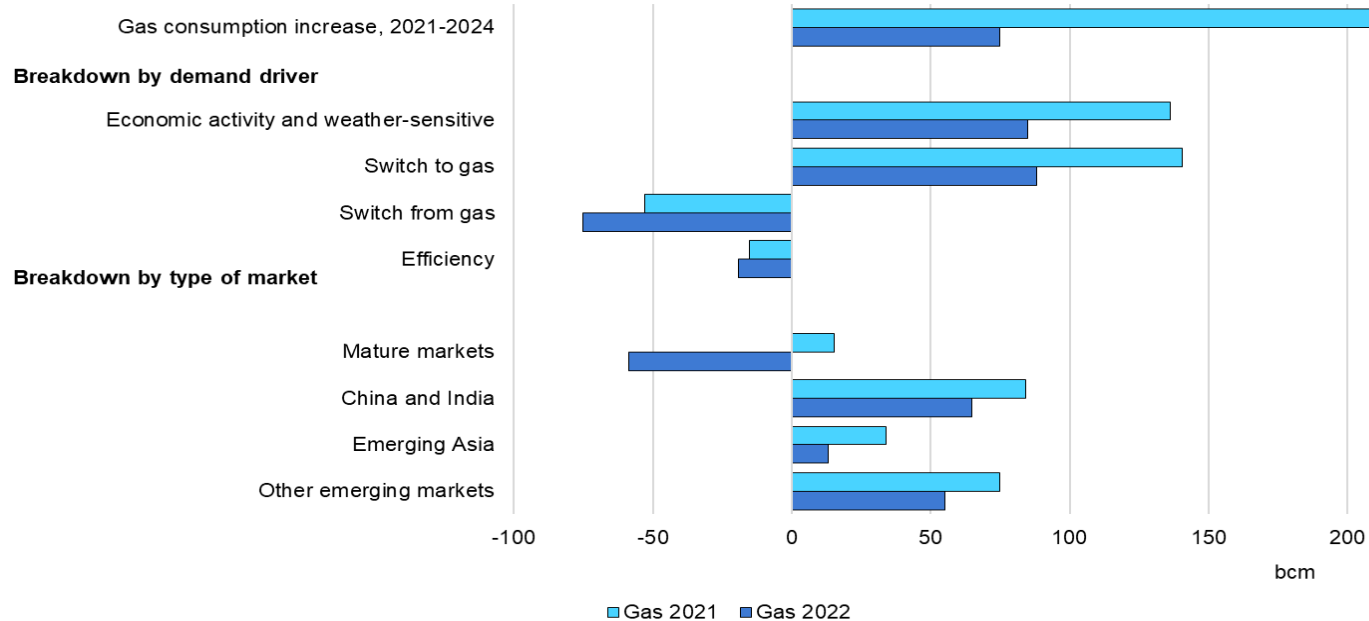
Breakdown of forecast growth in global natural gas demand, 2021-2025



Lower global gas growth potential further highlights the outsize role played by Asia and the industrial sector in the medium-term consumption increase.

# Slower gas demand growth does not mean a faster transition

Global gas consumption forecast in the two latest issues of the IEA medium-term gas report, 2021-2024

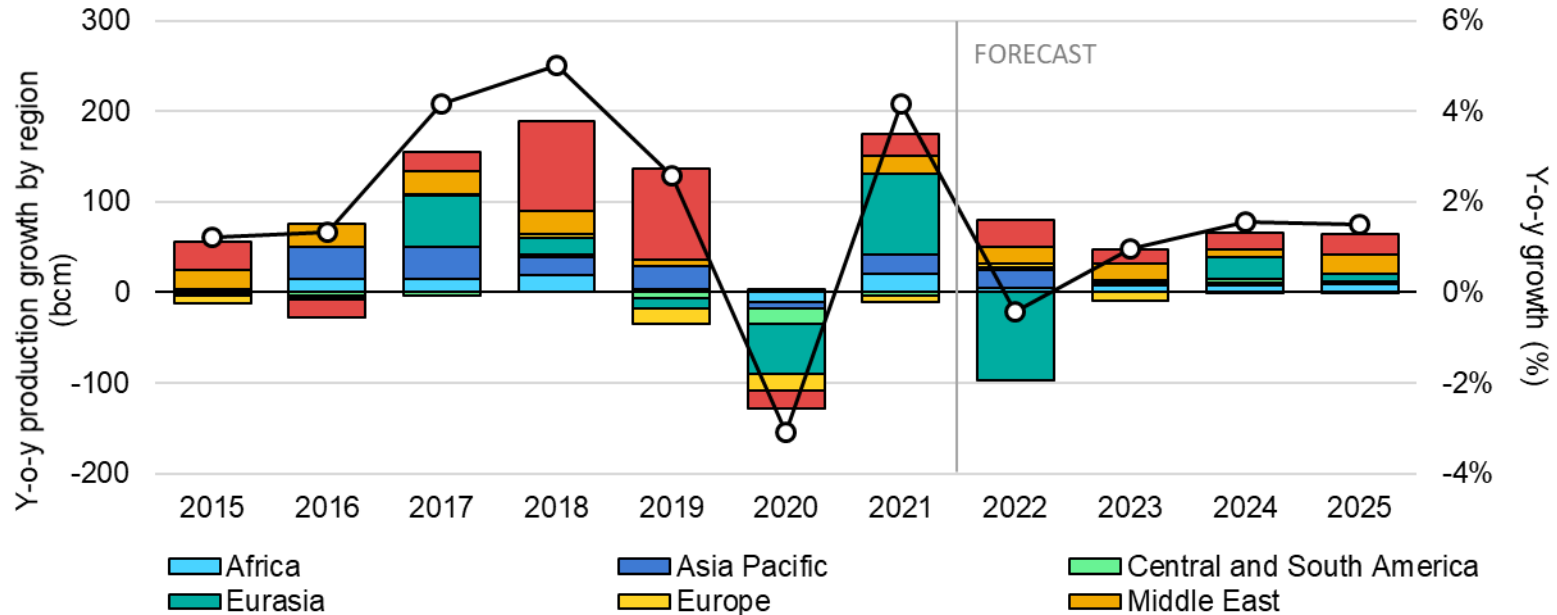


Gas demand growth to 2024 shrinks by 60% compared to the previous forecast, but switch from gas and efficiency only account for 20% of the downward revision.



# Gas production growth to 2025 remains limited and concentrated

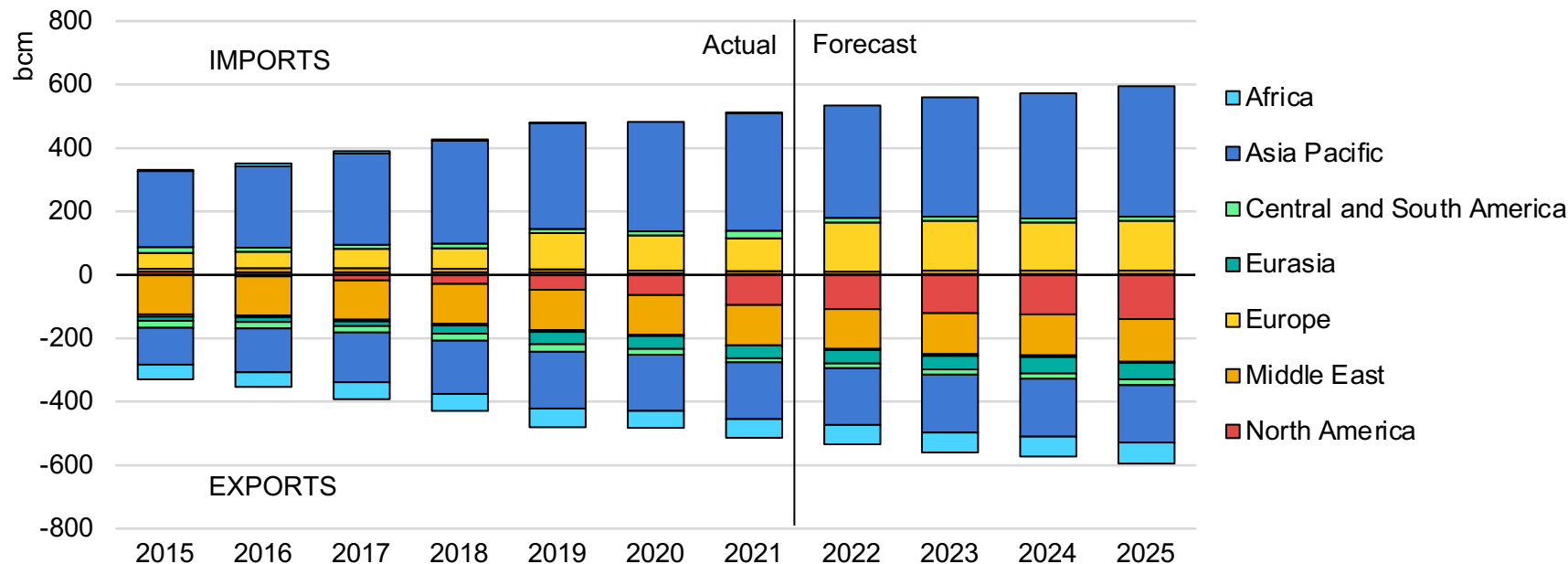
Global natural gas production growth by region, 2015-2025



North America and the Middle East take a strong lead on additions to gas production while Russia dips on declining export prospects.

# Global LNG trade volume on course to approach 600 bcm by 2025

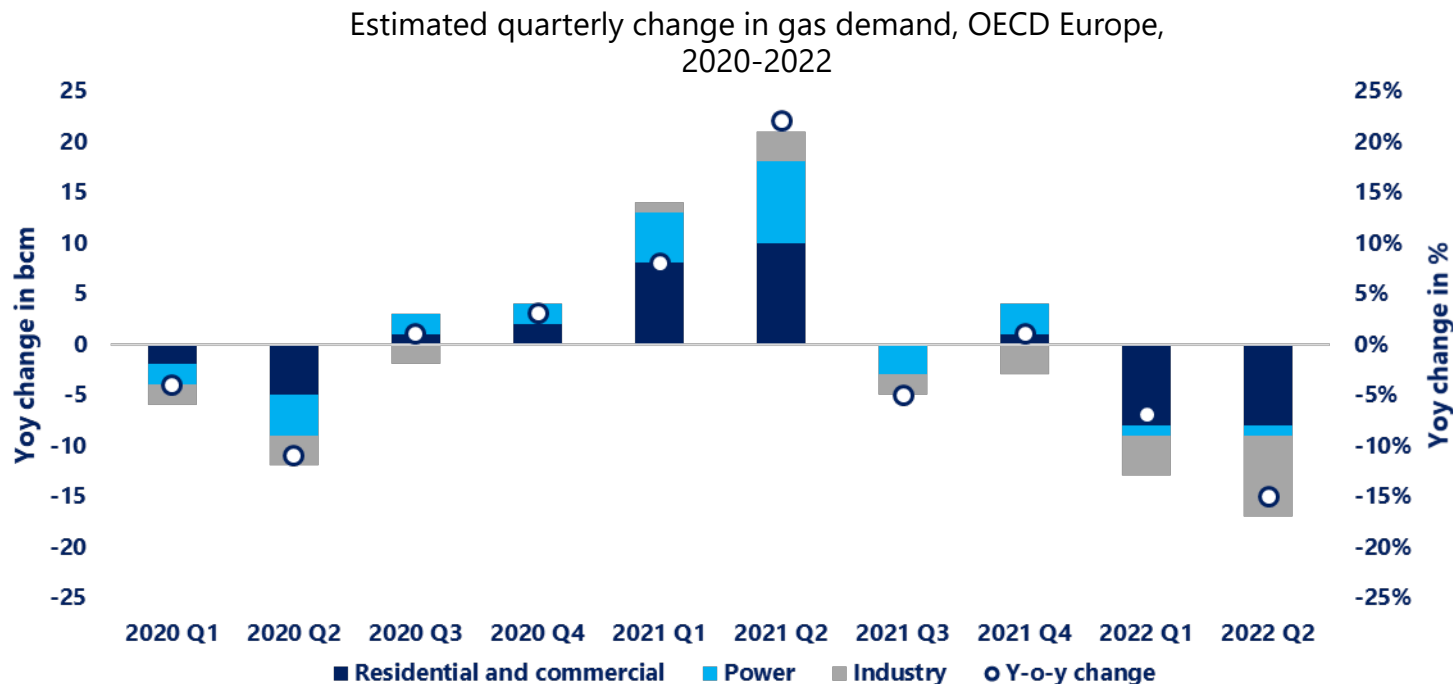
World LNG imports and exports by region, 2015-2025



Global LNG trade is expected to grow at an average annual rate of 4% to 2025, led by European demand and North American supply.

# Focus on Europe

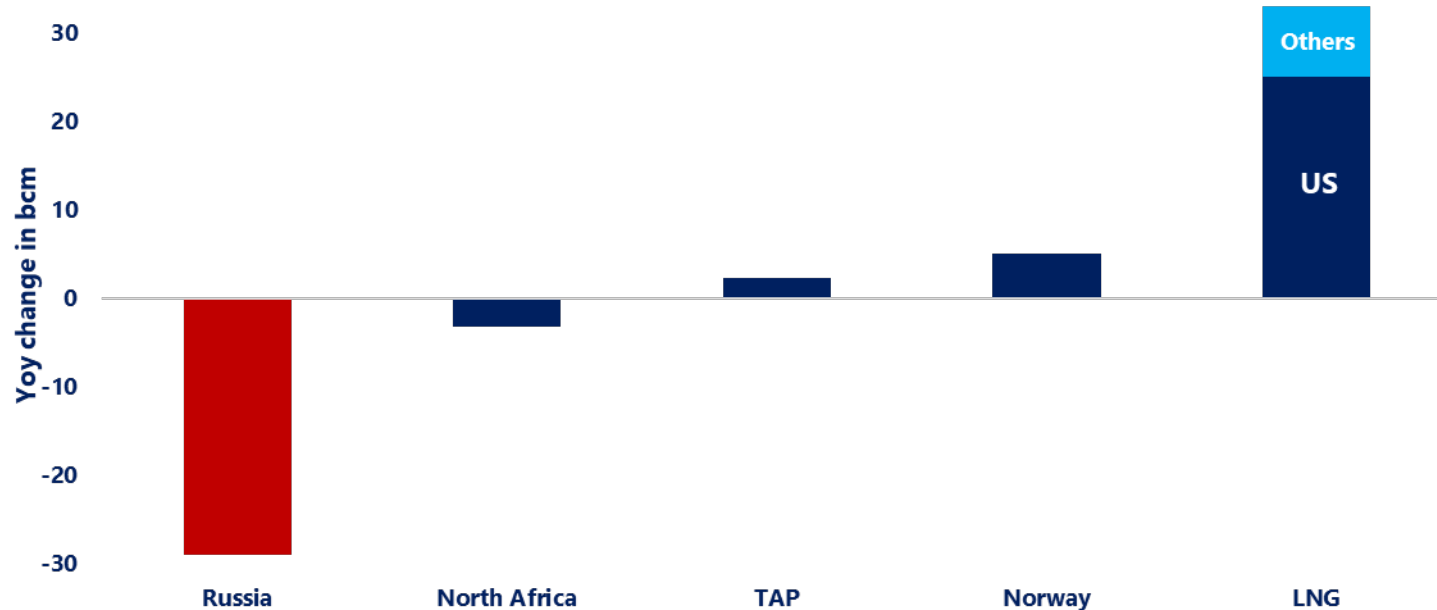
# Gas demand in OECD Europe fell by 10% in H1 2022



Milder temperatures weighed on distribution-network related gas demand. Industry displayed strong demand response in H1 2022. Gas burn in the power sector remained more resilient.

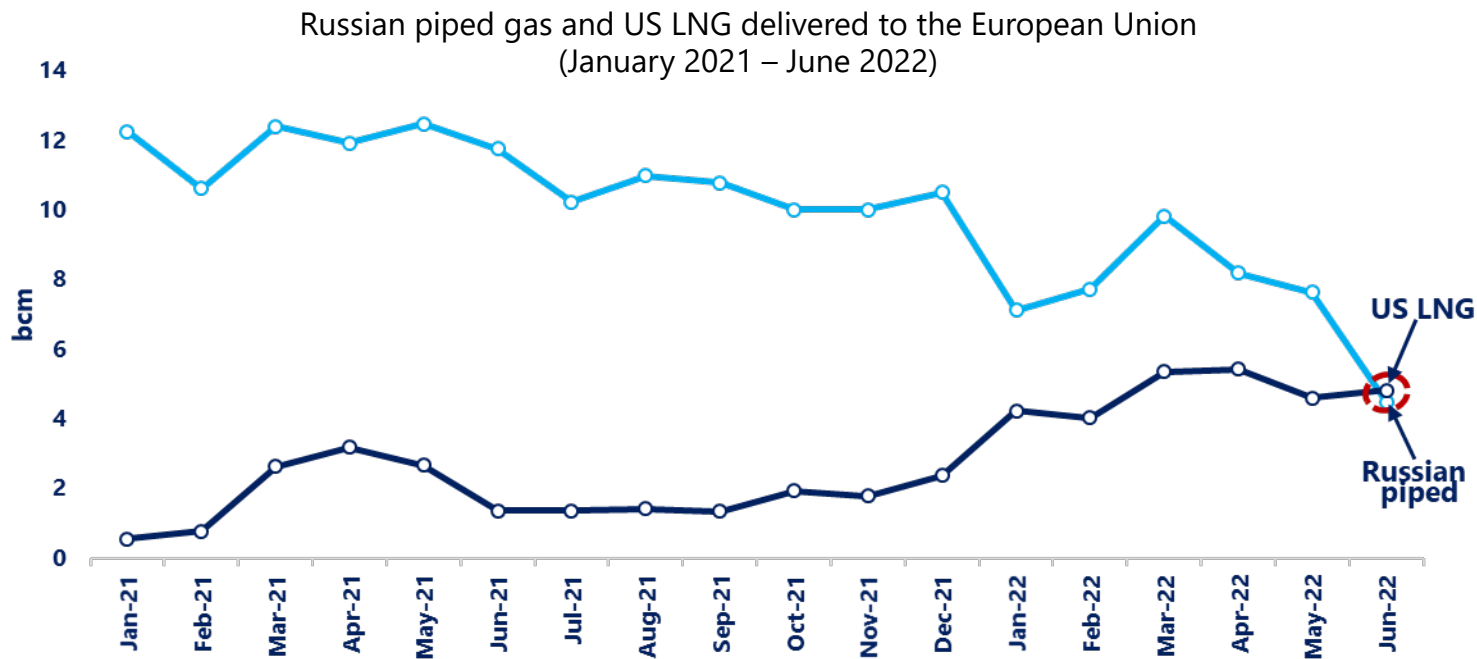
# Lower Russian flows were compensated by record LNG inflow

Y-o-y change in European natural gas imports and deliveries from Norway, H1 2022 vs H1 2021



Russia reduced its piped gas supplies to the European Union by 37% yoy in the first half of the year, which have been compensated by the record high LNG inflow –primarily from the United States.

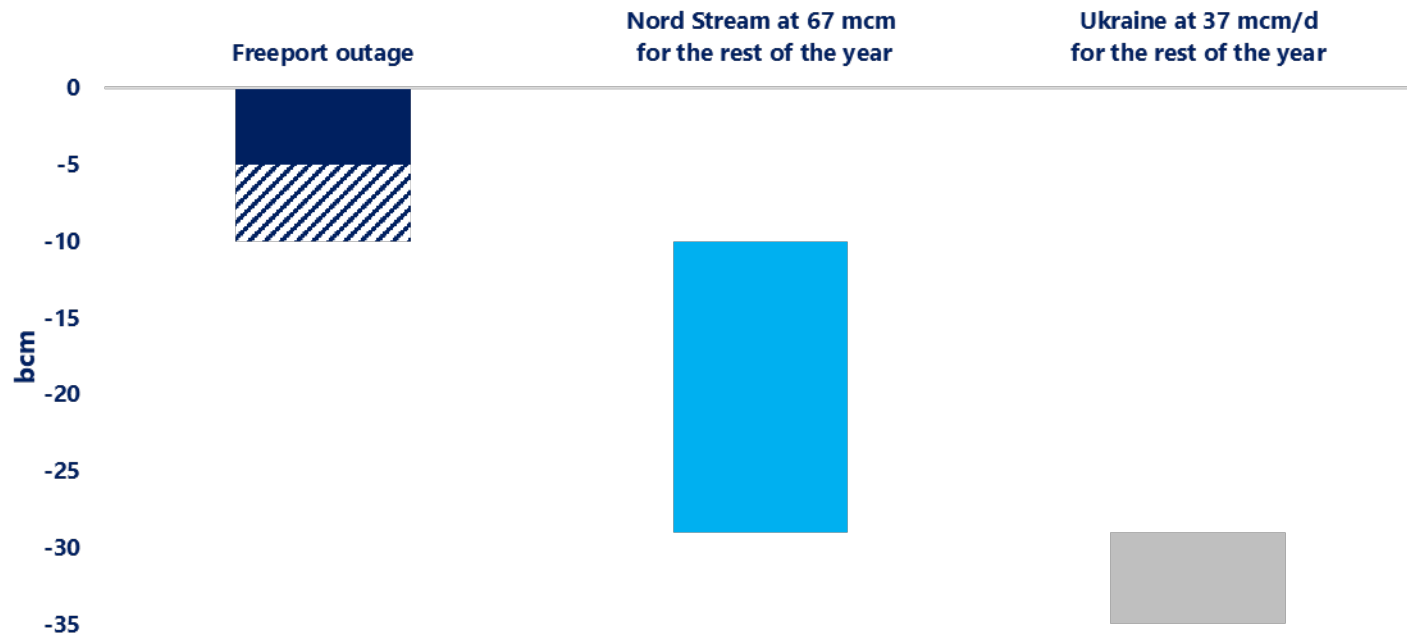
# US LNG took over Russian piped supplies to the EU in June 2022



Russia cut further gas supplies to the European Union in June, with deliveries falling below US LNG supplies. Flexible US LNG played a key role, although alone would not be sufficient to offset the shortfall.

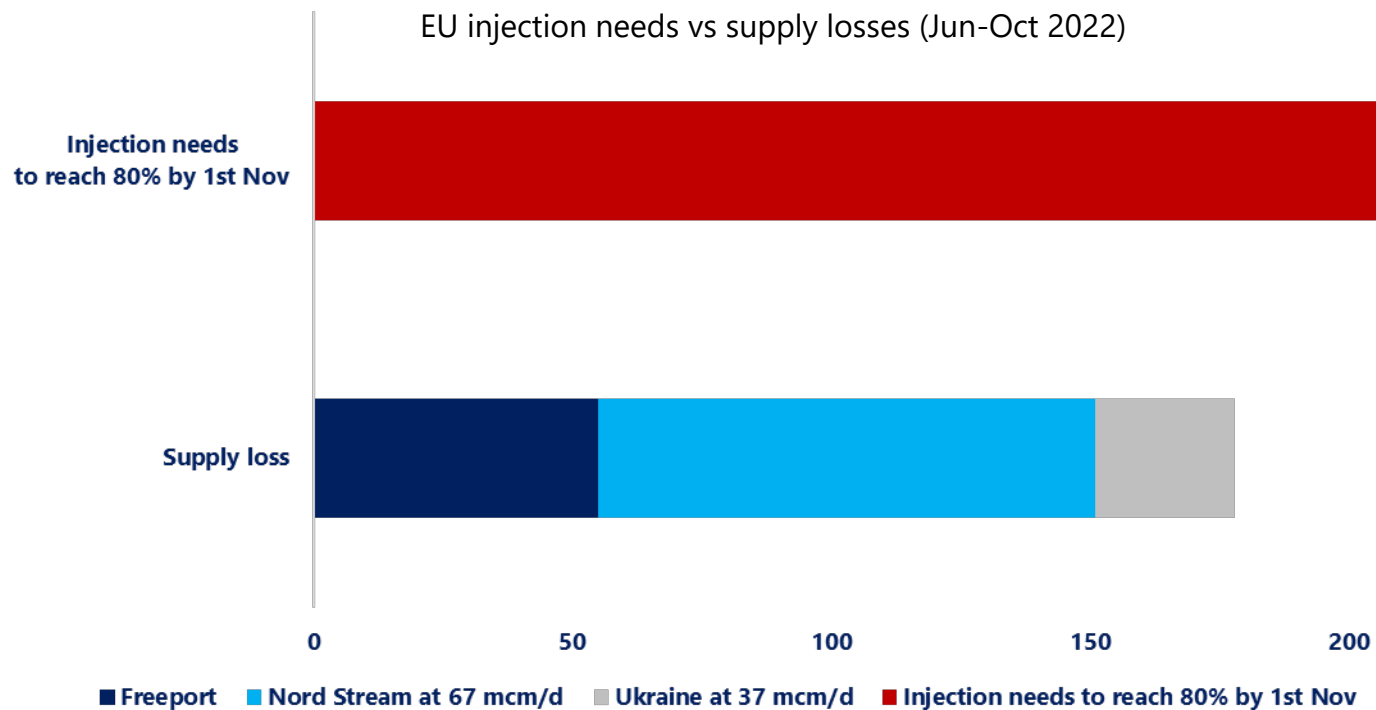
# Gas supply losses put at risks Europe's storage ambitions

Potentially lost gas supply volumes (Jun-Dec 2022)



Global and European gas supply could decline by 35 bcm as result of the Freeport outage and lower Russian inflows. This would put at risk storage injections, if no demand-side measures are introduced.

# Combined gas supply losses equate ~85% injection needs

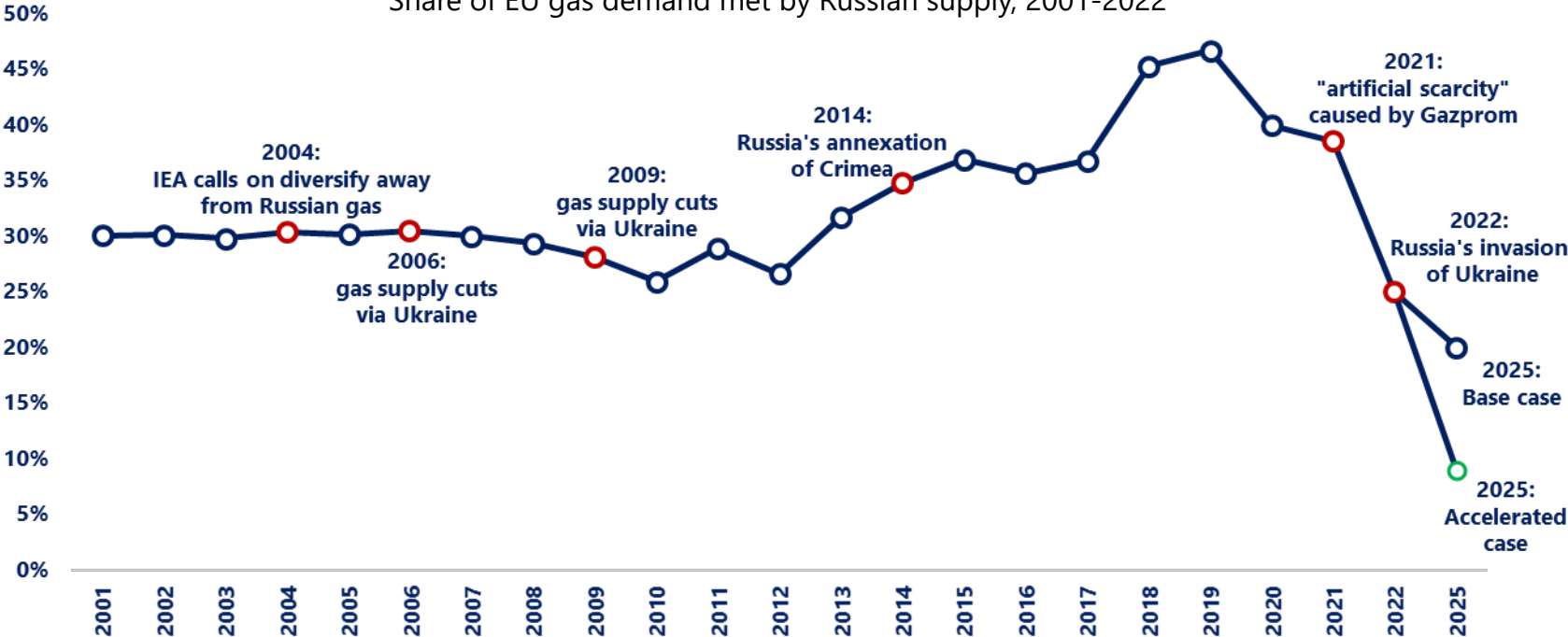


Tightening supply is set to weigh on the EU's summer injections.



# Never ignore red flags: EU-Russian gas trade

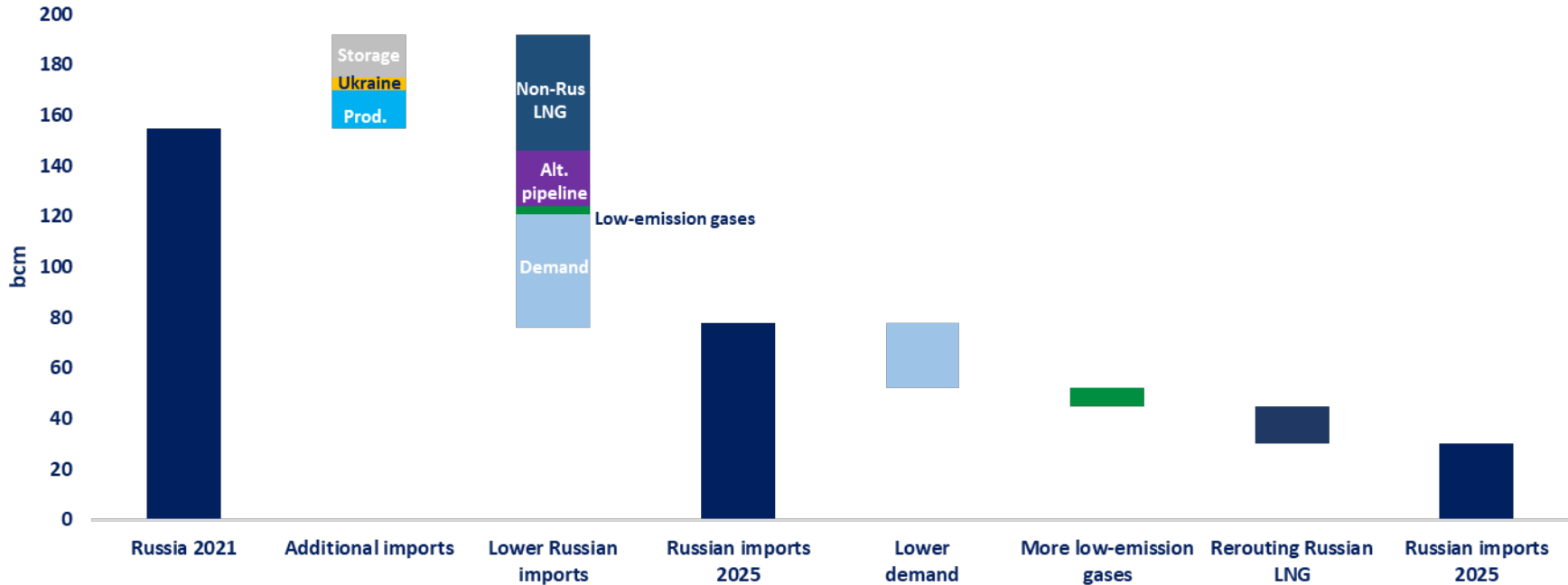
Share of EU gas demand met by Russian supply, 2001-2022



The reliance of EU states on Russian gas has increased steadily through the 2000s. In 2022, the share of Russian gas could drop to 25% -its lowest level in the last two decades.

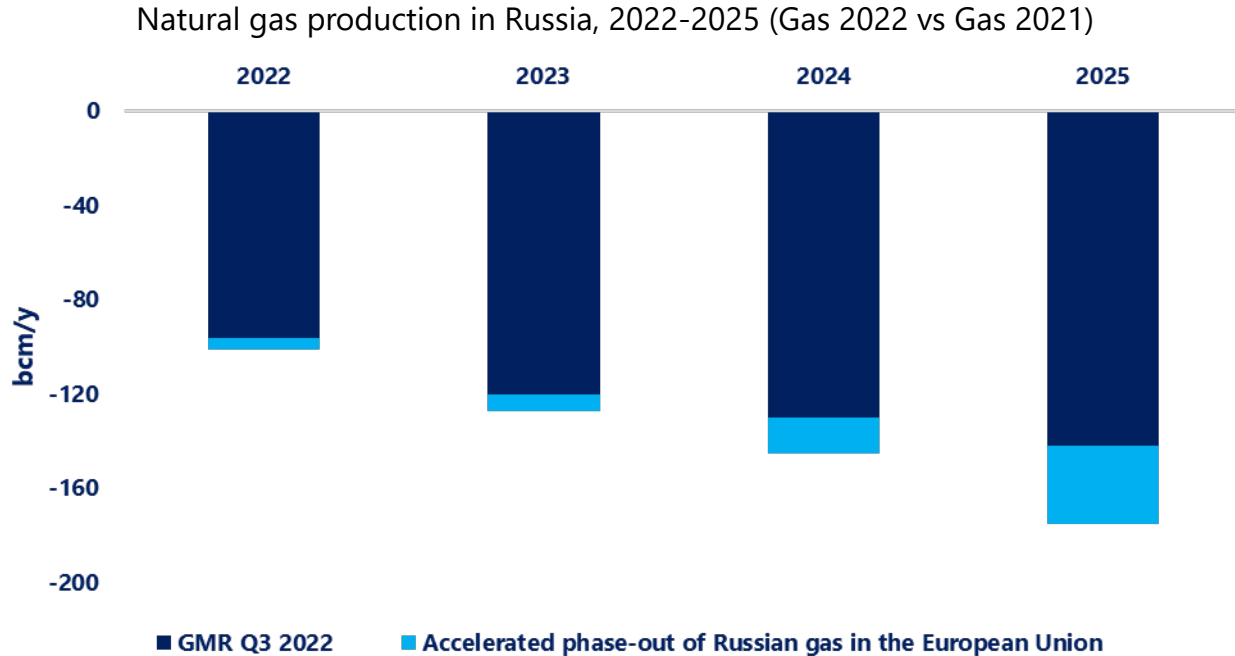
# An accelerated and orderly phase-out of Russian gas

Outlook for Russian gas imports into the European Union, 2025 vs 2021



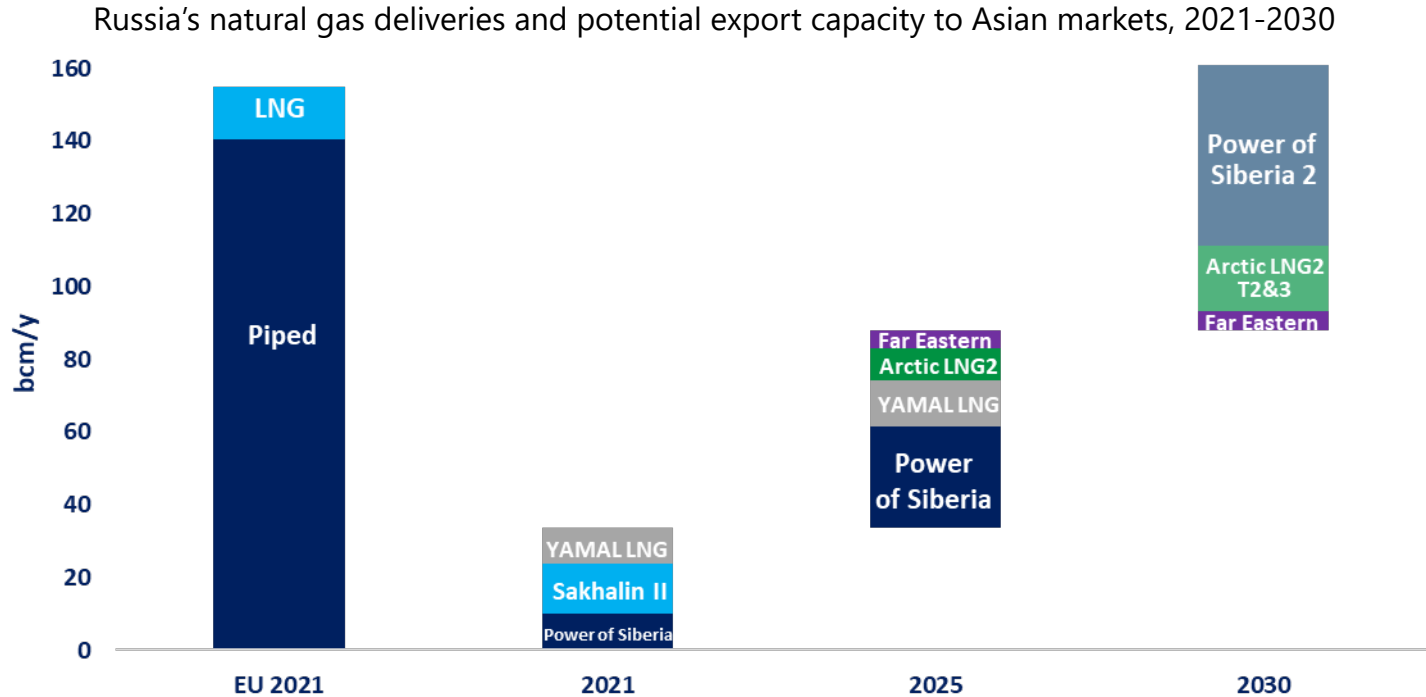
A combination of supply- and demand-side measures will be necessary to phase out Russian gas in an orderly manner.

# A bleak outlook for Russian upstream



Russia's deteriorating export prospects lead to a steep downward revision to its production outlook: a cumulative production loss of over 480 bcm compared with our previous medium-term forecast.

# A long and bumpy road for Russian gas towards Asia



It would take Russia at least a decade to ramp up gas supplies to Asian markets to a level close to its 2021 exports to the European Union.

# Key takeaways

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- Gas demand declines in 2022 (-0.5%), after an exceptional 4.5% recovery in 2021. Asia Pacific demand increase is capped by tensions on access to supply, while European gas consumption goes below its 2020 level.
- Market growth after 2022 is slow and remains highly uncertain ; global natural gas demand grows at an average of 0.8% per year through 2025, a marked slowdown on the previous edition of this forecast.
- Slower natural gas demand growth does not mean a faster energy transition, as switch from gas and efficiency only account for 20% of the downward demand revision.
- Production growth prospects to 2025 are geographically concentrated in North America and the Middle East, while Russia dips on declining export prospects.
- Global LNG trade grows at an average 4% per year on limited liquefaction capacity additions to 2025, which raises the risk of prolonged tight market conditions.
- Our forecast expects a 55% in Russian pipeline flows from Russia to the EU between 2021 and 2025; we also consider an accelerated case in which Russian pipeline gas exports to the EU fall by over 75%.

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