



# Gas 2019

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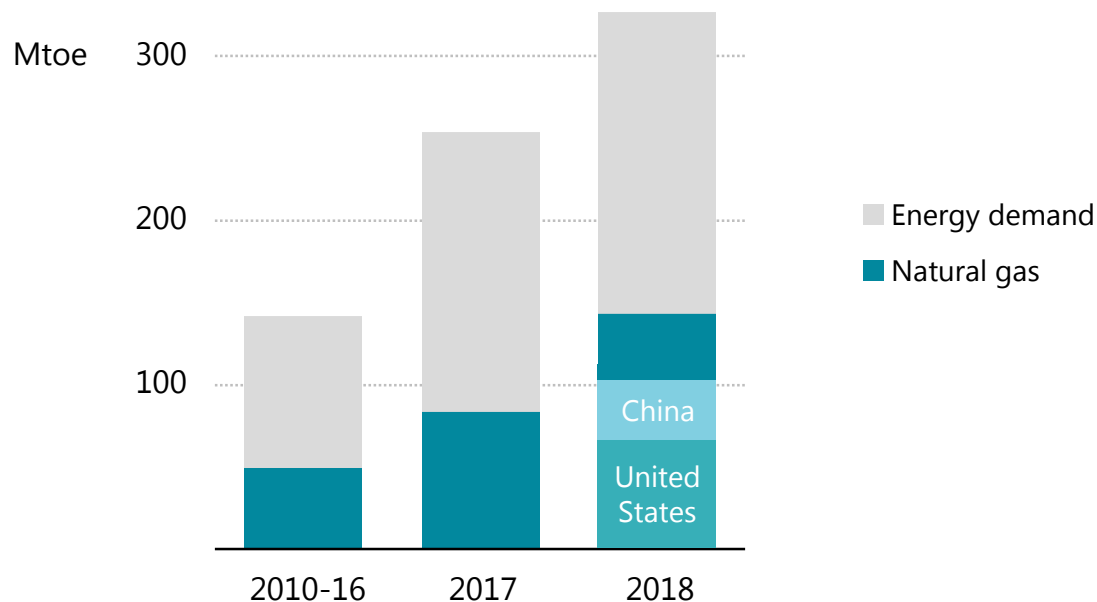
Keisuke Sadamori, Director, Energy Markets and Security

Tokyo, 13 June 2019



# 2018 was another golden year for gas

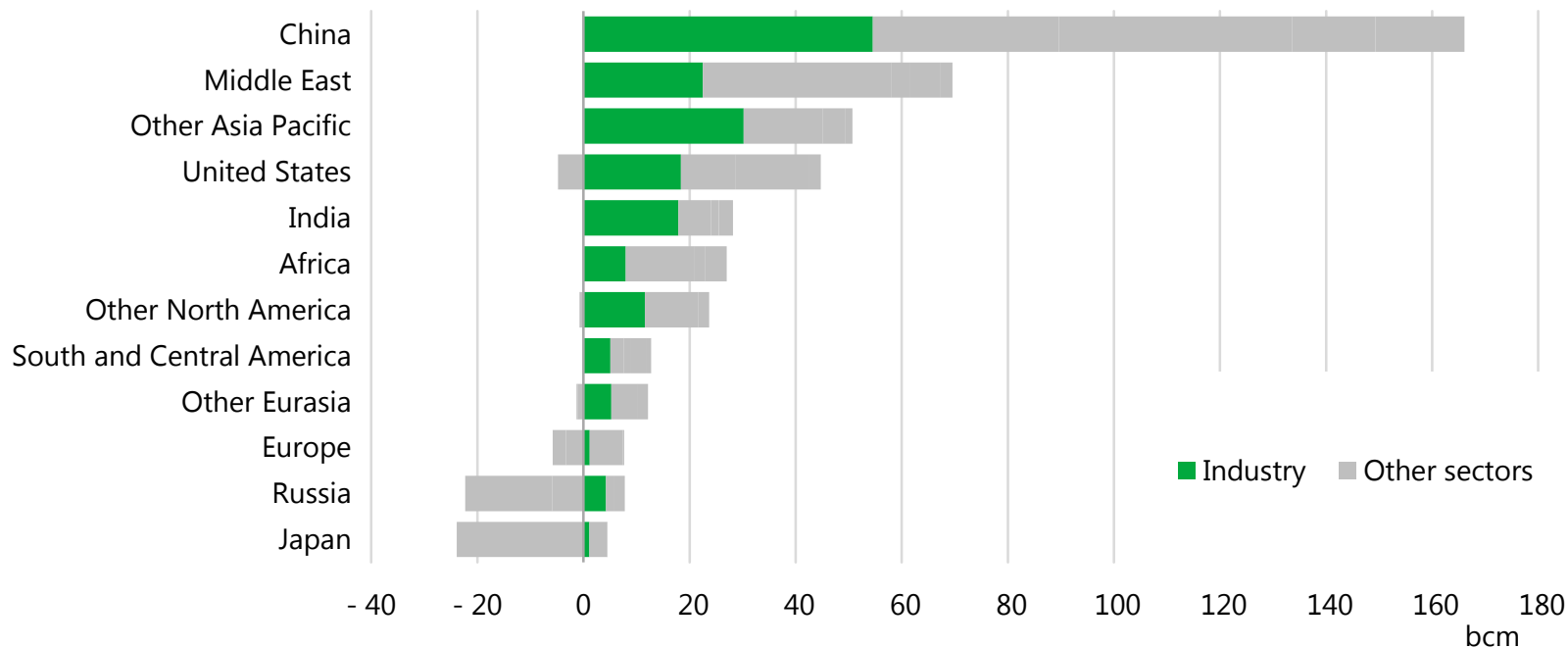
Average annual change in global primary energy demand, 2010-18



**Gas demand jumped by 4.6% in 2018, accounting for nearly 45% of overall demand growth. The United States led the growth due to relatively low prices and weather, China followed, driven by the push for 'blue skies'.**

# Fast growing Asian markets drive future gas demand

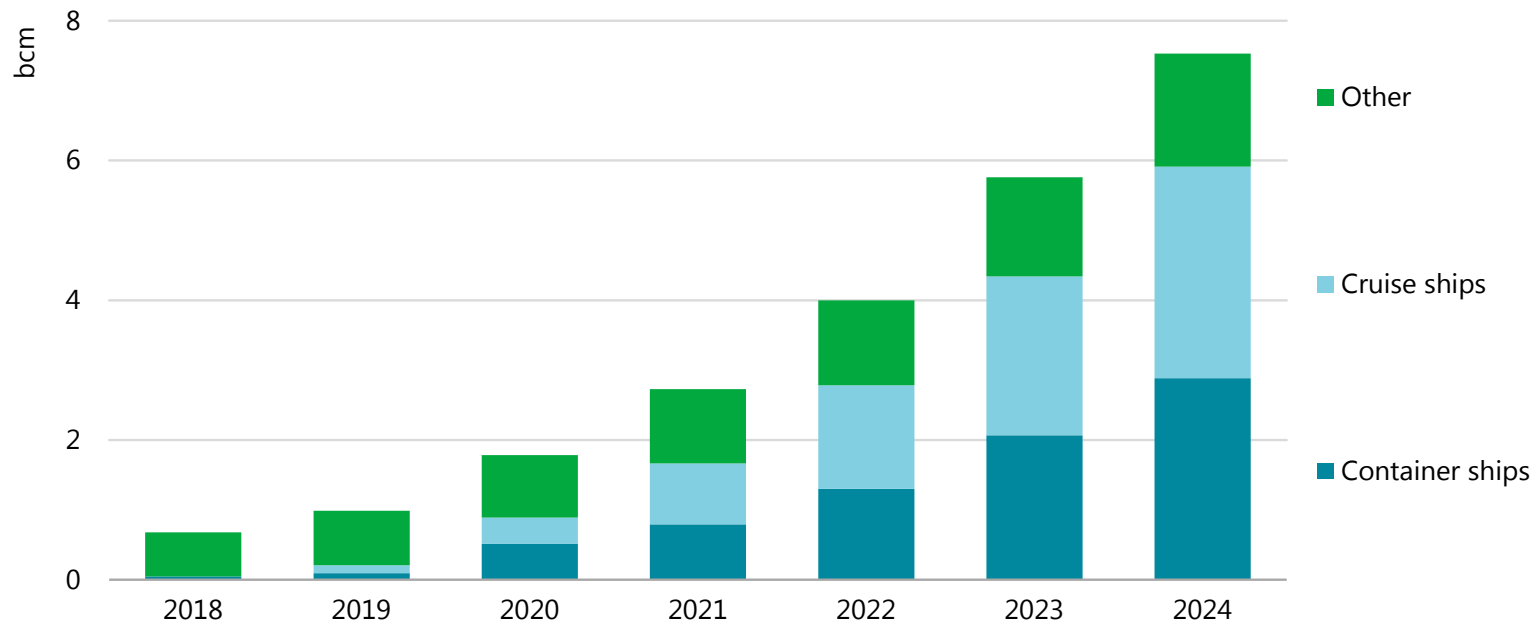
World natural gas consumption growth for selected countries and regions, 2018-24



**China accounts for over 40% of global gas consumption growth**  
**All sectors contribute to growth, with industry taking the lead in most markets**

# LNG emerges as an alternative marine fuel

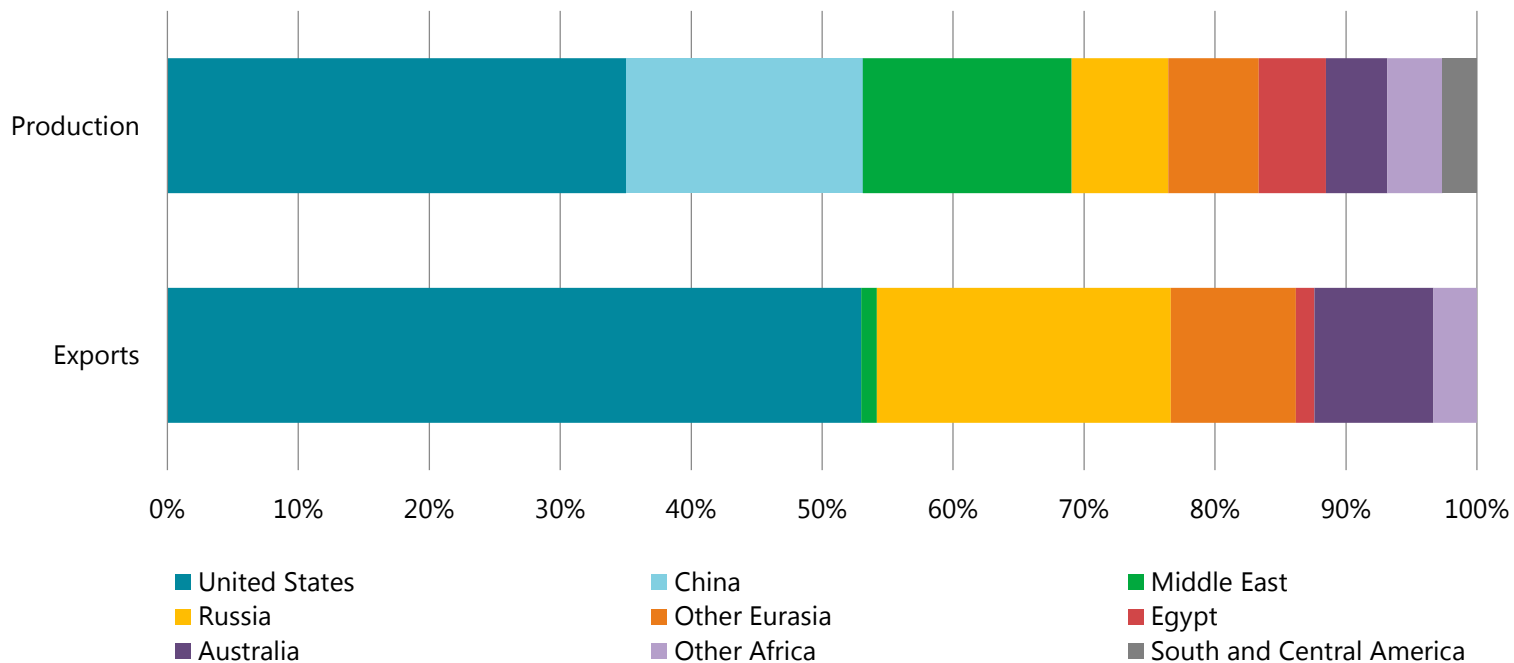
LNG consumption for maritime shipping by main segment, 2018-24



**The growth in LNG as a marine fuel is supported by two main segments – cruise ships and container ships – which account for 80% of expected consumption by 2024**

# The United States leads production and exports growth

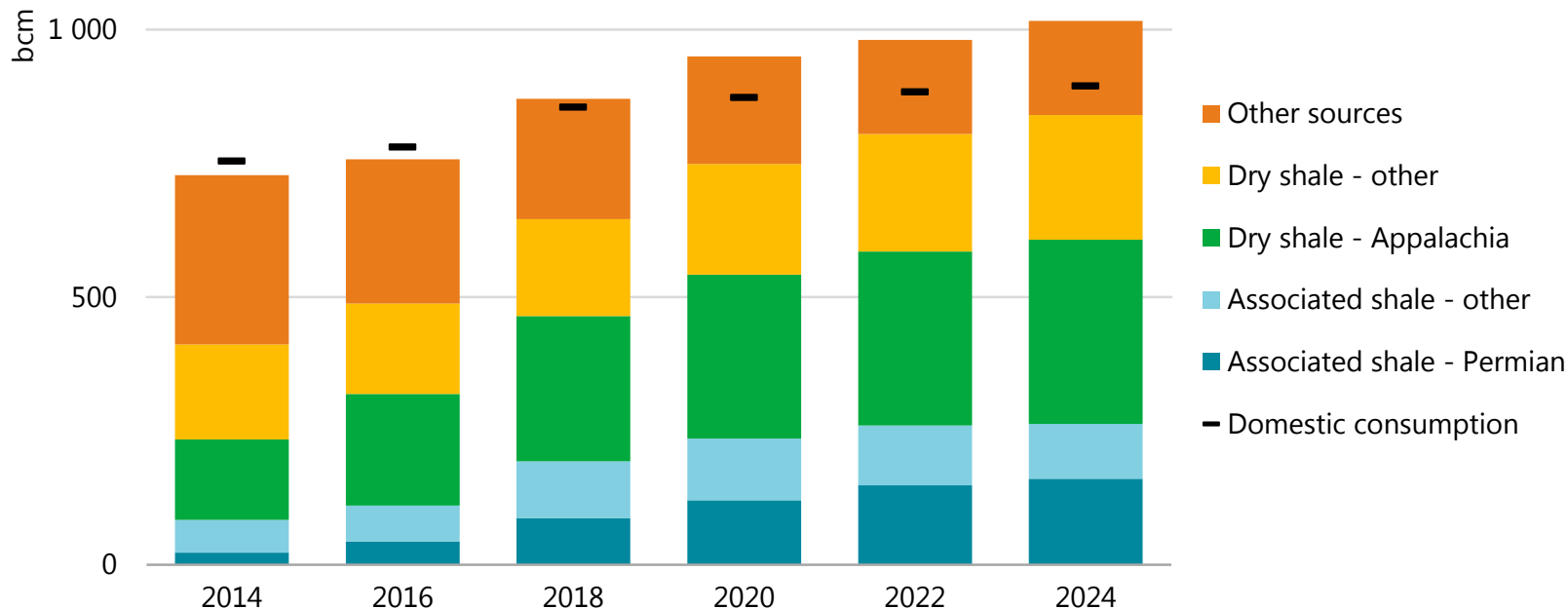
Contributors to natural gas production and export growth, 2018-24



**The United States and China account for over half of total production increment to 2024  
US and Eurasian exports dominate LNG and pipeline trade growth**

# US natural gas production reaches 1 tcm mark by 2024

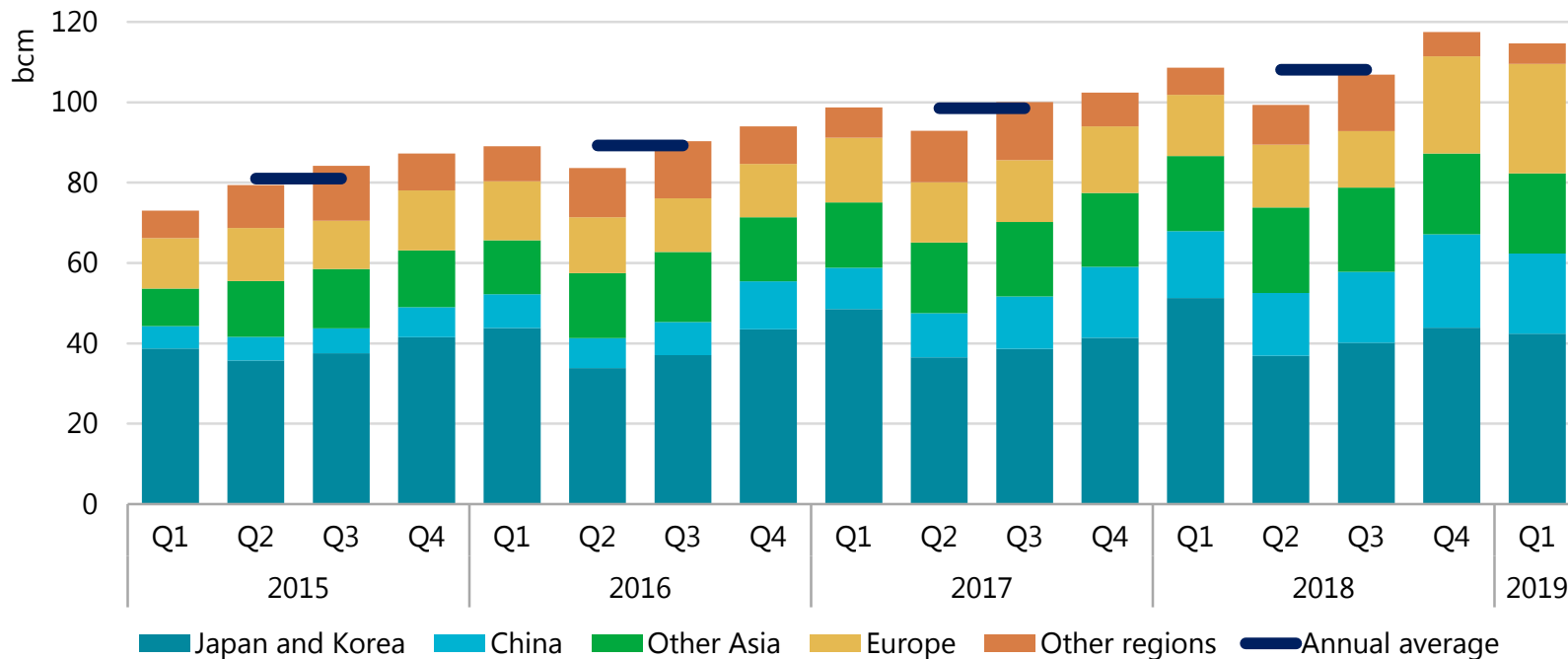
Natural gas production, United States, 2014-24



**Associated shale strongly contributes to short-term production growth up to takeaway infrastructure limits and then slows with lesser LTO growth**

# LNG drives global gas trade development

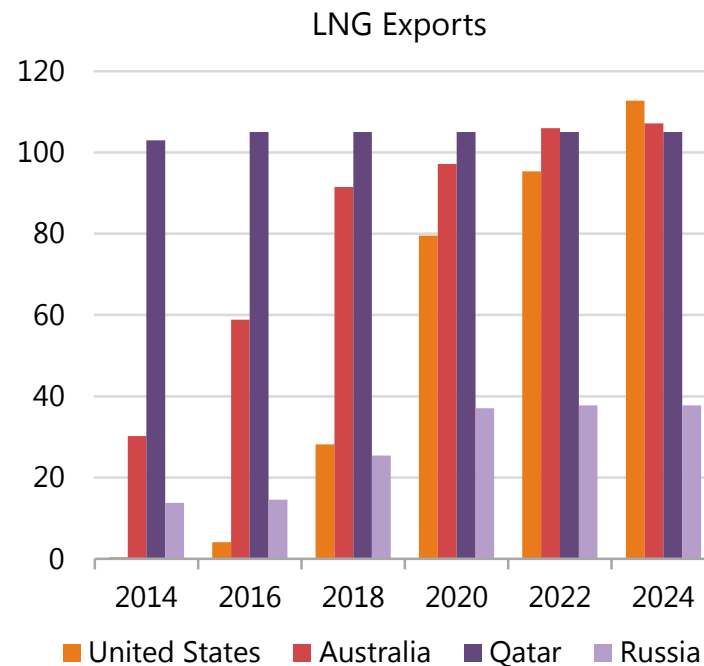
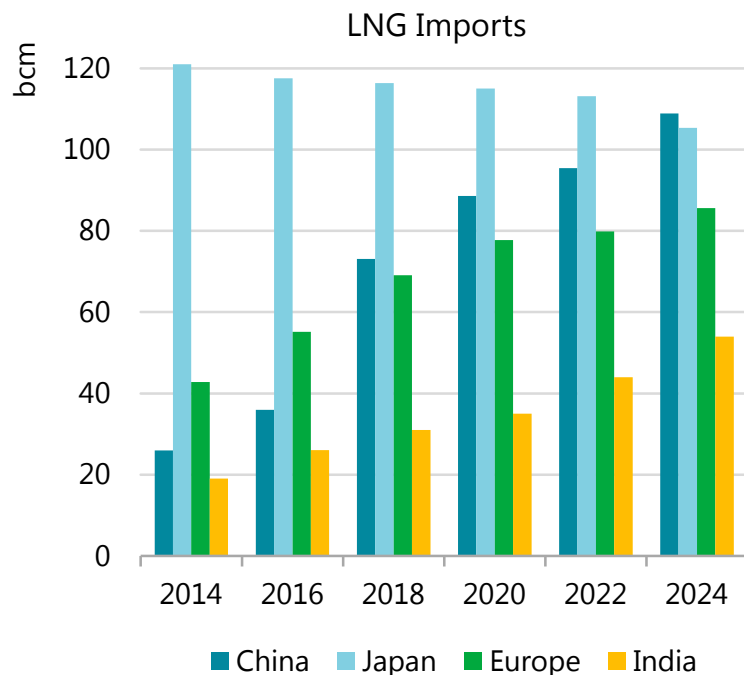
Evolution of LNG imports, quarterly volumes and annual averages, 2015-19



**Global LNG trade grew at an average 10% per annum in between 2016 and 2018, with strong import increases from emerging Asian markets, as well as Korea and Europe (in late 2018).**

# The United States and China become #1 LNG seller and buyer in 2024

World LNG trade for a selection of importers and exporters, 2014-24

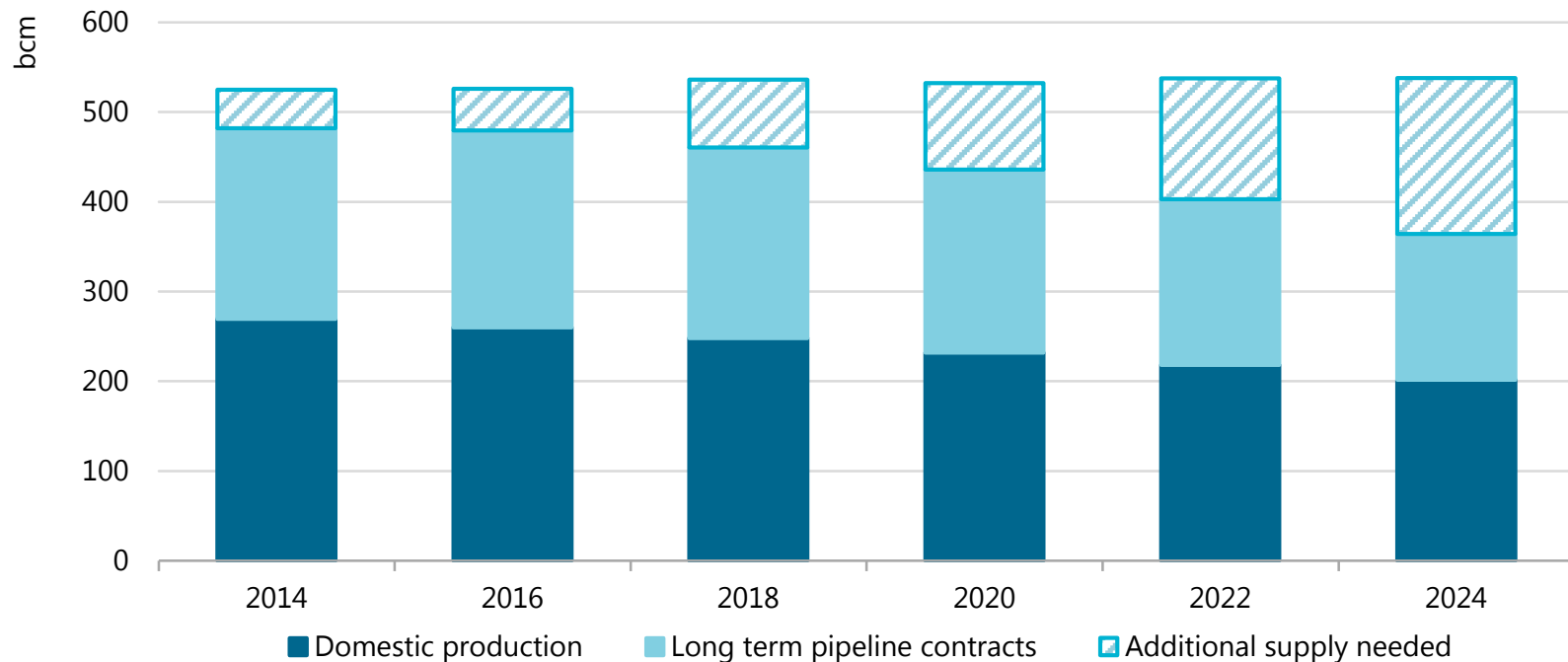


**Fast growing Asian economies and Europe account for over 95% of the increase in LNG imports  
US exports surge while Australia reaches a plateau and Qatar prepares for expansion\***



# Europe's supply gap increases

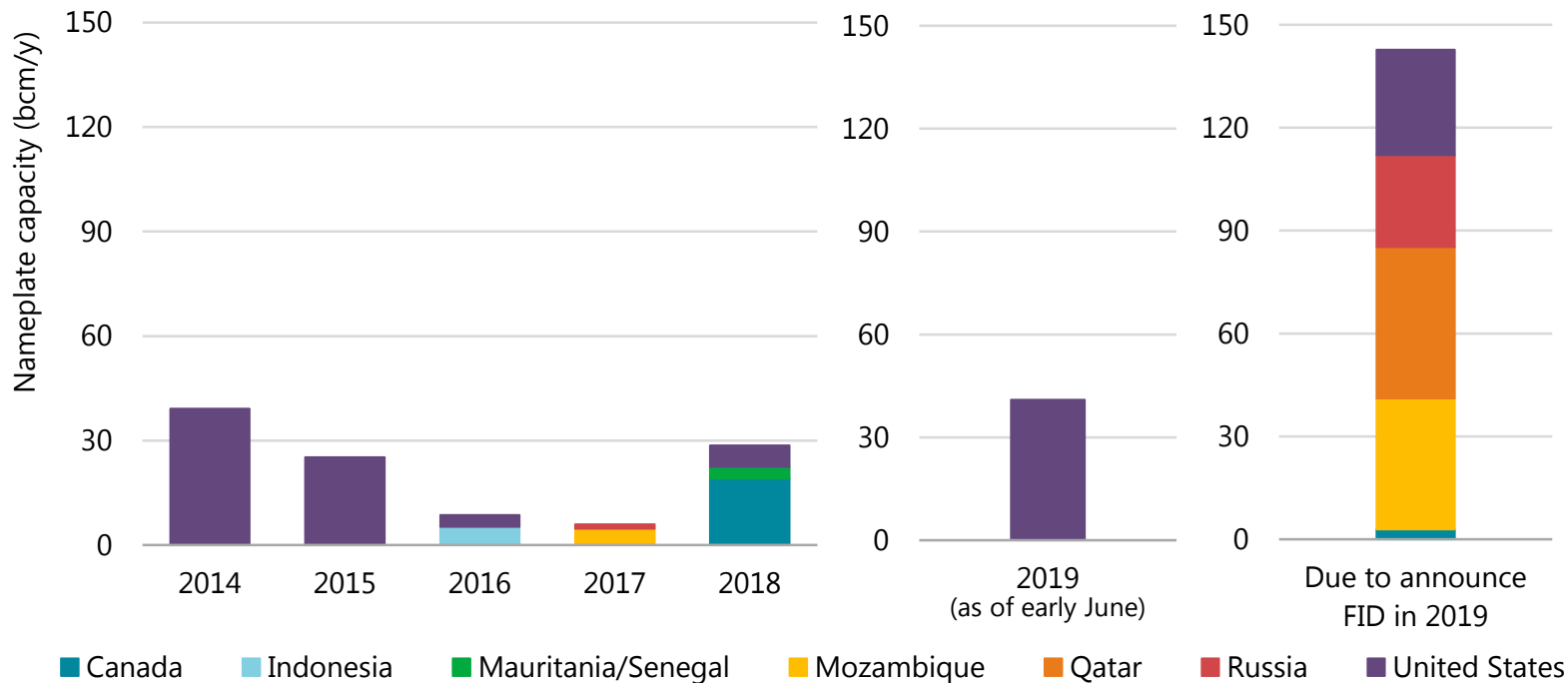
Domestic production and contracted pipeline vs import needs, Europe, 2014-24



**Europe needs to source imports to cover one-third of its demand by 2024, due to sharp declines in its own production & the expiry of pipeline long-term gas import contracts**

# Will 2019 mark the beginning of a new LNG investment cycle?

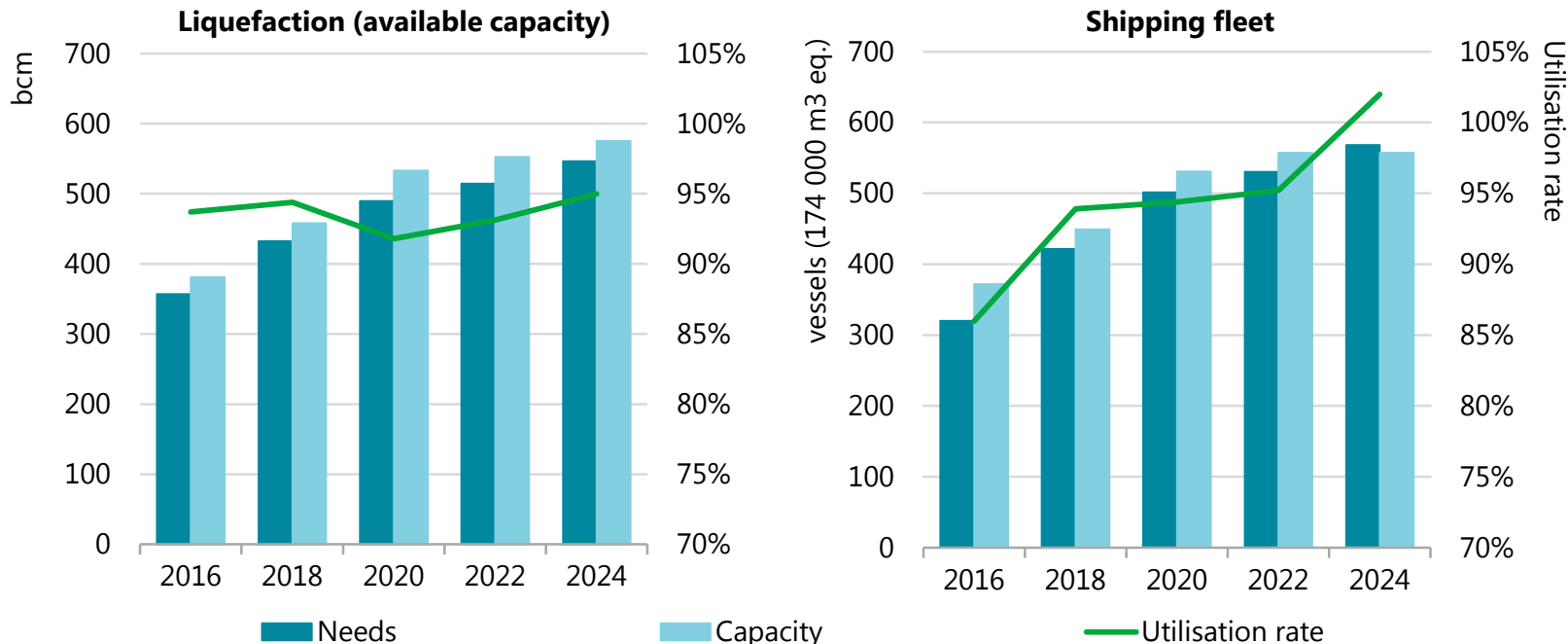
LNG export projects final investment decisions and announcements, 2016-19



**2018 and early 2019 mark a return to LNG investment growth, with a strong list of additional projects announced to take FID in the course of the year**

# More investment will be needed in LNG capacity before 2024

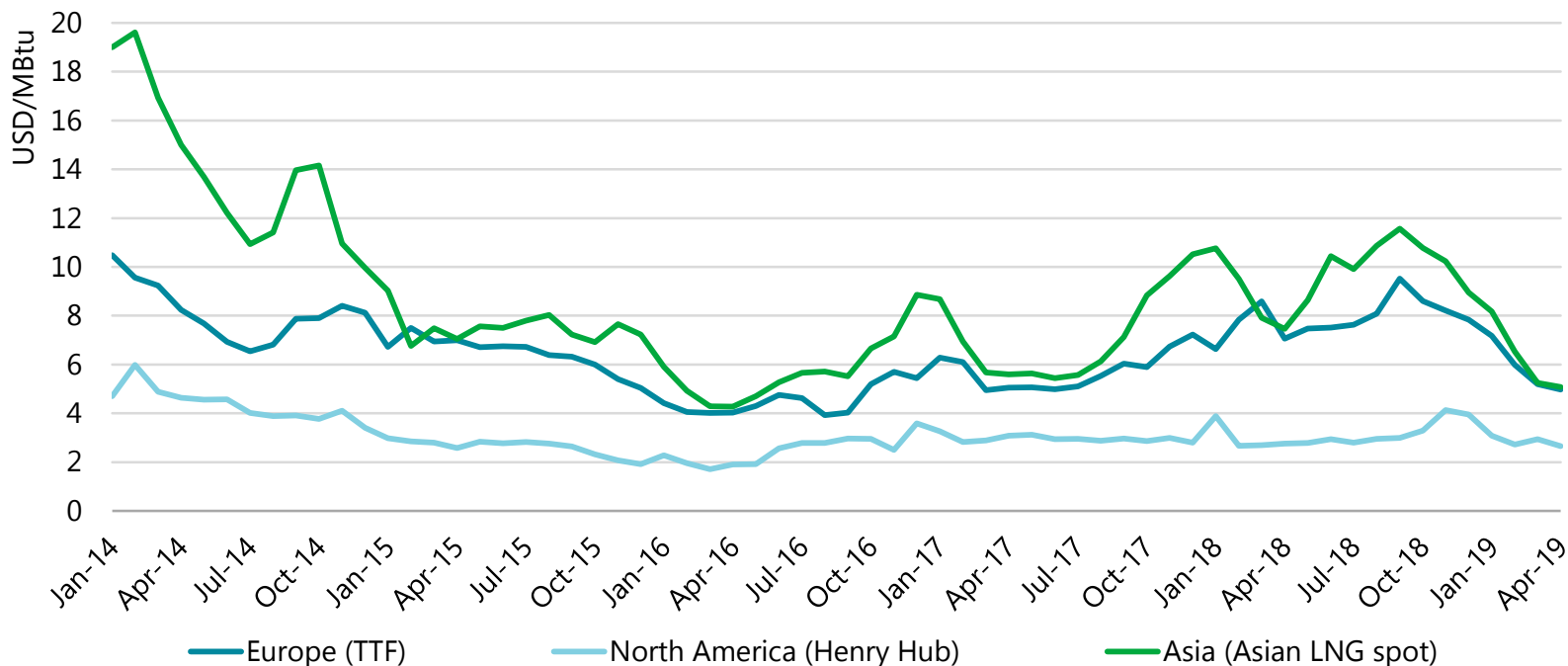
LNG liquefaction and shipping fleet utilisation rates, 2016-24



**New investments in liquefaction and shipping will support LNG trade development but additional capacity will be required to ensure future growth**

# Towards a global convergence of natural gas prices?

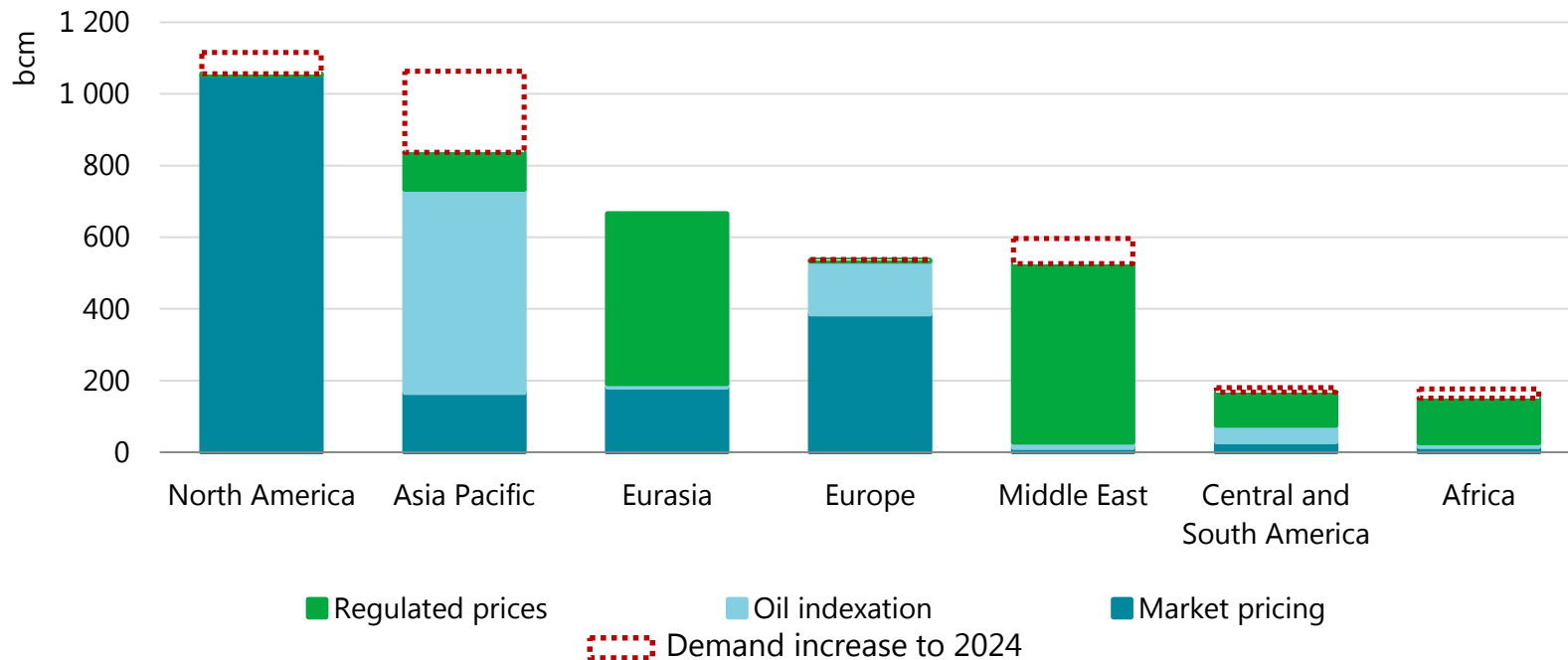
Evolution of natural gas spot market prices, 2014-19



**Gas markets in major regions are closing the price gap thanks to the development of global LNG trade**  
**The Asian spot market still faces a higher degree of price volatility**

# Pricing remains a challenge in developing markets

Natural gas consumption and price mechanisms per region, 2018



Based on IGU, *Wholesale Gas Price Survey* (2019)

**Market pricing currently dominates in North America and Europe – but 85% of growth will take place in other regions**  
**Reforms are underway in major developing markets to enable sustainable gas growth**

- Natural gas demand will continue to grow in the medium-term, driven by emerging Asian economies – and led by China.
- Although production increases in many regions, most of additional exports will come from US LNG and Eurasian pipeline.
- LNG trade remains the main driver of gas market globalisation, and a major source of incremental supply for Asia and Europe.
- This growth is supported by a rebound in investment, but additional capacity development will be necessary before 2024.
- Market prices are converging as global LNG trade expands, and the share of market-driven pricing is increasing in all regions.
- Current gas reforms in major emerging economies are a prerequisite to ensure competitive pricing and sustainable growth in the longer term.



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