

3-3 APERC Gas Report 2020 (Draft)

APERC Workshop
The 60th Meeting of APEC Energy Working Group (EWG)
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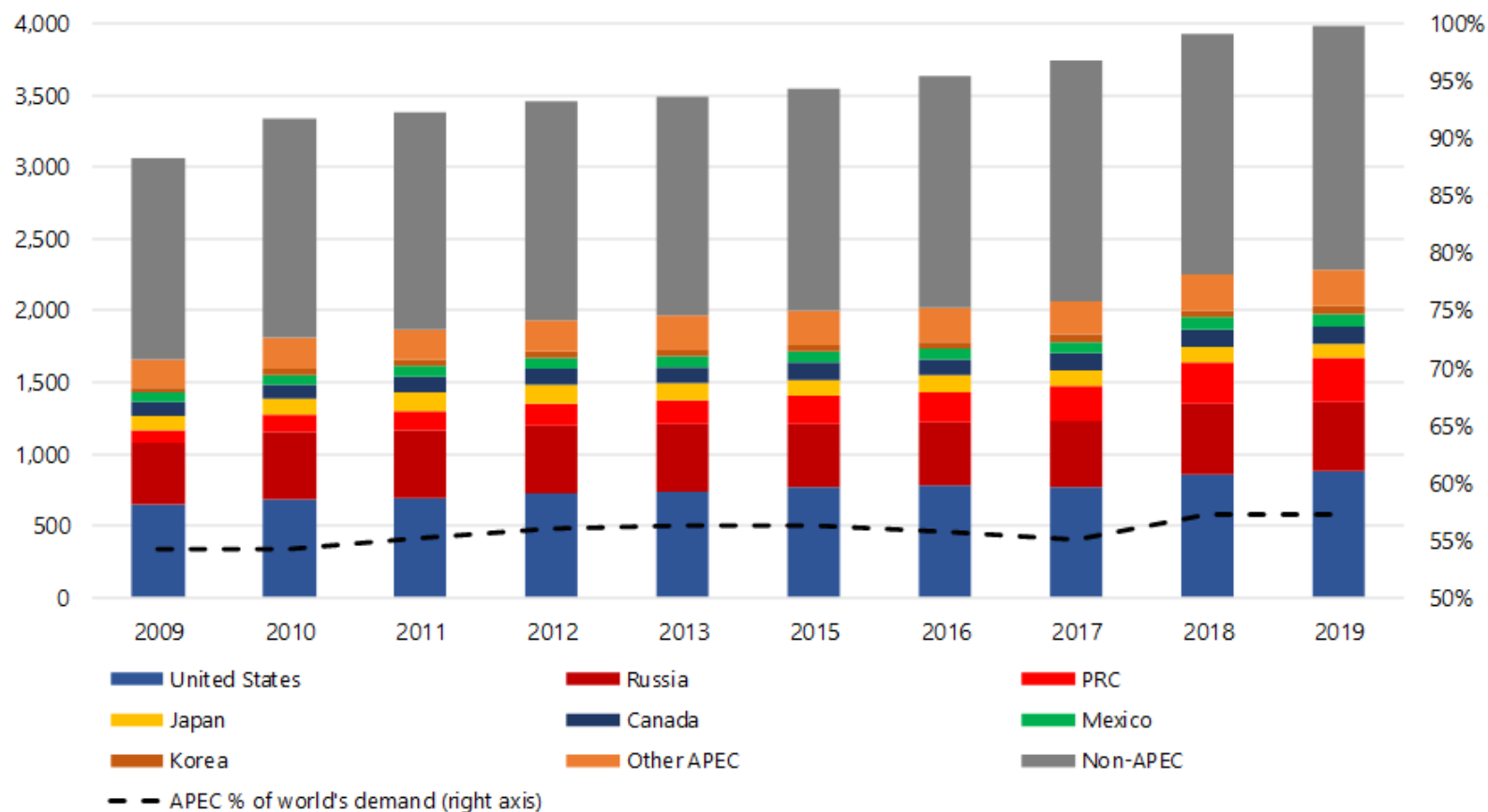
Outline of presentation

- Gas Demand
- Gas Production
- Gas Trade
- Gas Prices
- Impact of COVID-19 on APEC gas demand
- Conclusion



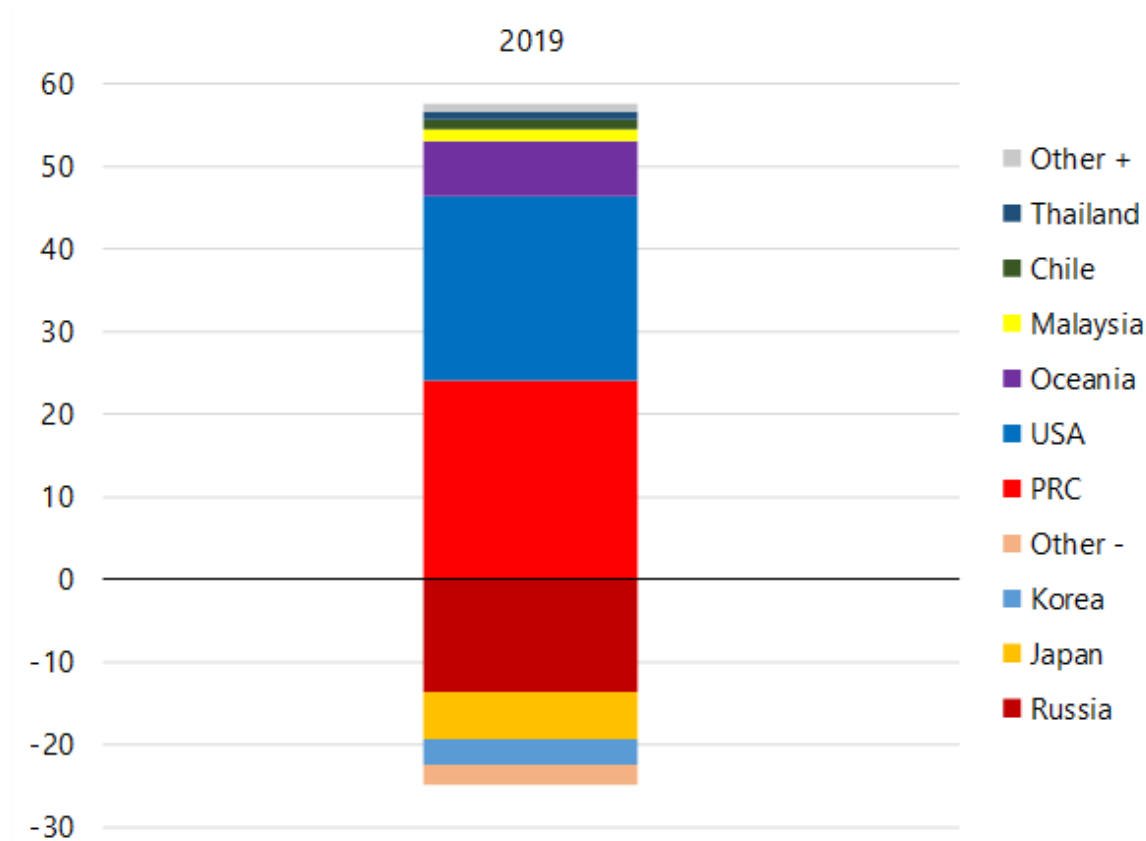
Gas Demand

Natural gas demand in APEC and the world, 2009-2019 (bcm)



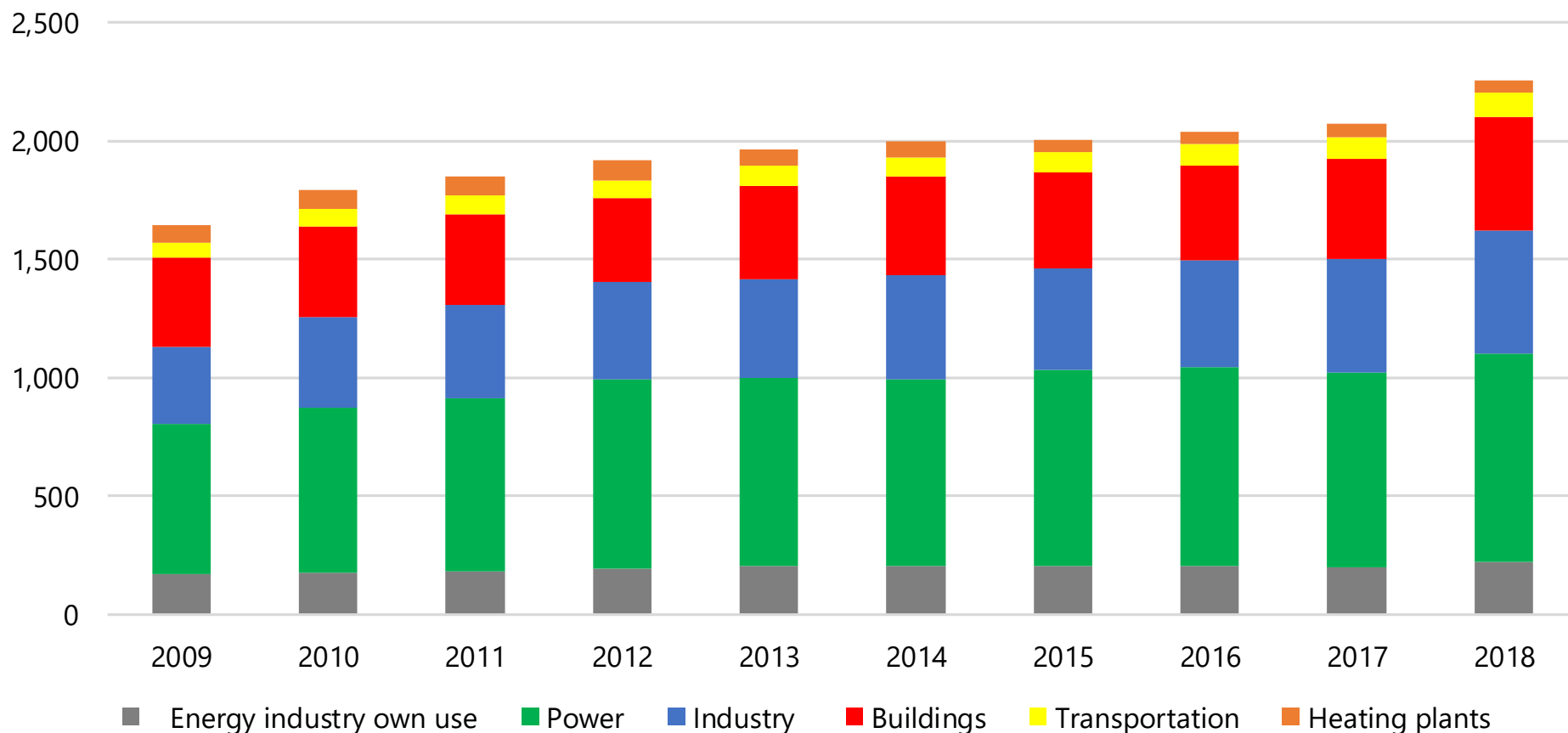
- APEC accounted for 57% of global gas demand and 67% of demand growth in 2019.
- In 2019, gas accounted for at least 10% of TPES in 18 APEC economies,
- Only 2 economies decreased gas demand in the past decade.
- Global gas demand growth slowed-down in 2019 (1.5% vs 5.1%), APEC economies crucial role.

Natural gas demand growth in APEC by economy, 2018-2019 (bcm)



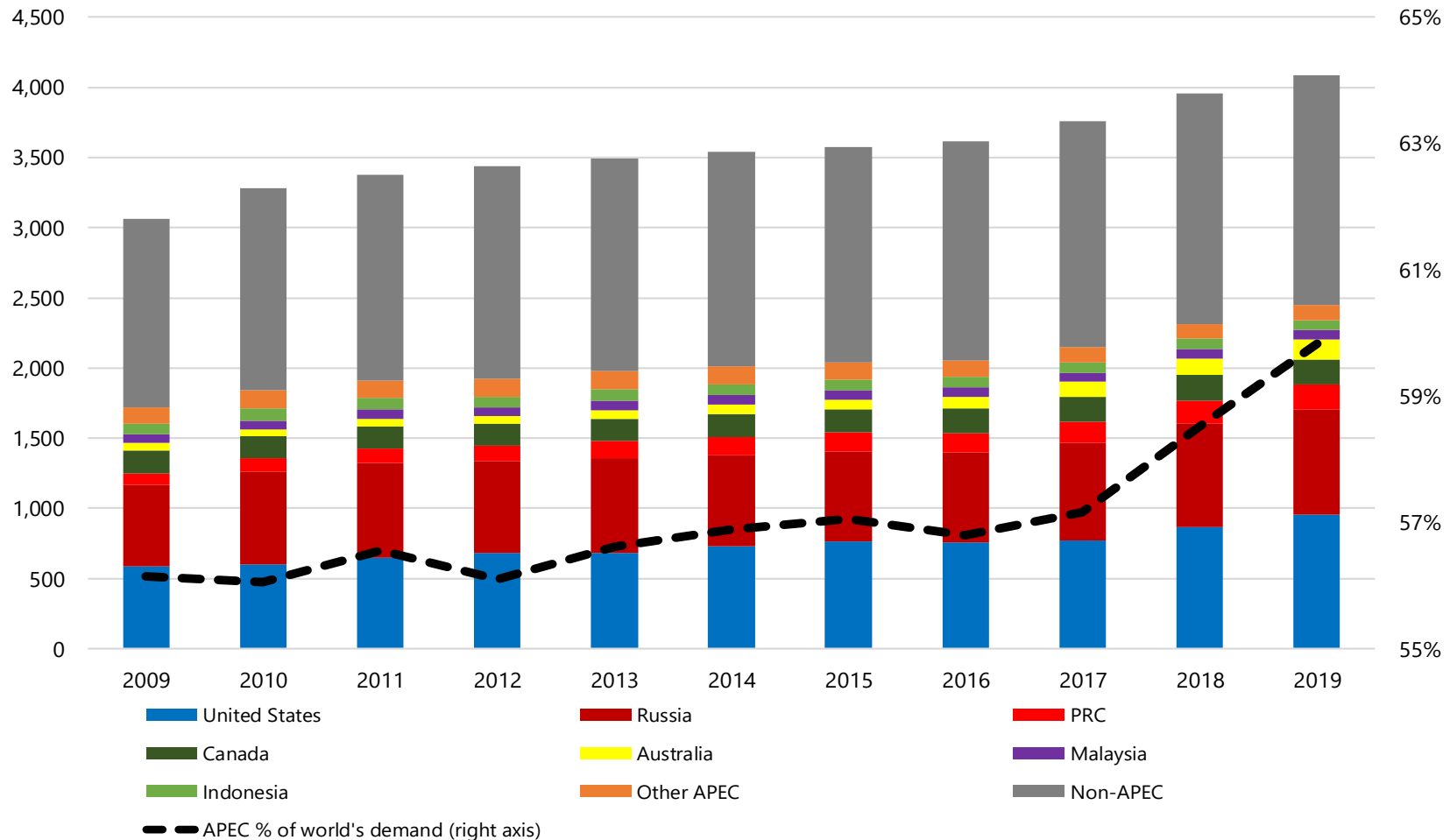
- *APEC demand grew only 33 bcm or 1.5% in 2019 (vs 190 bcm of growth in 2018).*
- *The US remains the main gas consumer in the world; PRC the fastest growing.*
- *Russian gas demand fell by 13 bcm; demand also declined in Japan, Korea, and Indonesia.*

Natural gas demand by sector, 2009-19 (bcm)



- *Power is the largest gas consuming sector and grew the most (247 bcm). (USA, Mex, etc.)*
- *Industry had the fastest growth rate (4.8% CAGR), lead by increases in USA and China*
- *Buildings sector grew by 2.5% depending on seasonal heating needs. (China, Russia and USA).*

Natural gas production in APEC and the world, 2009-2019 (bcm)

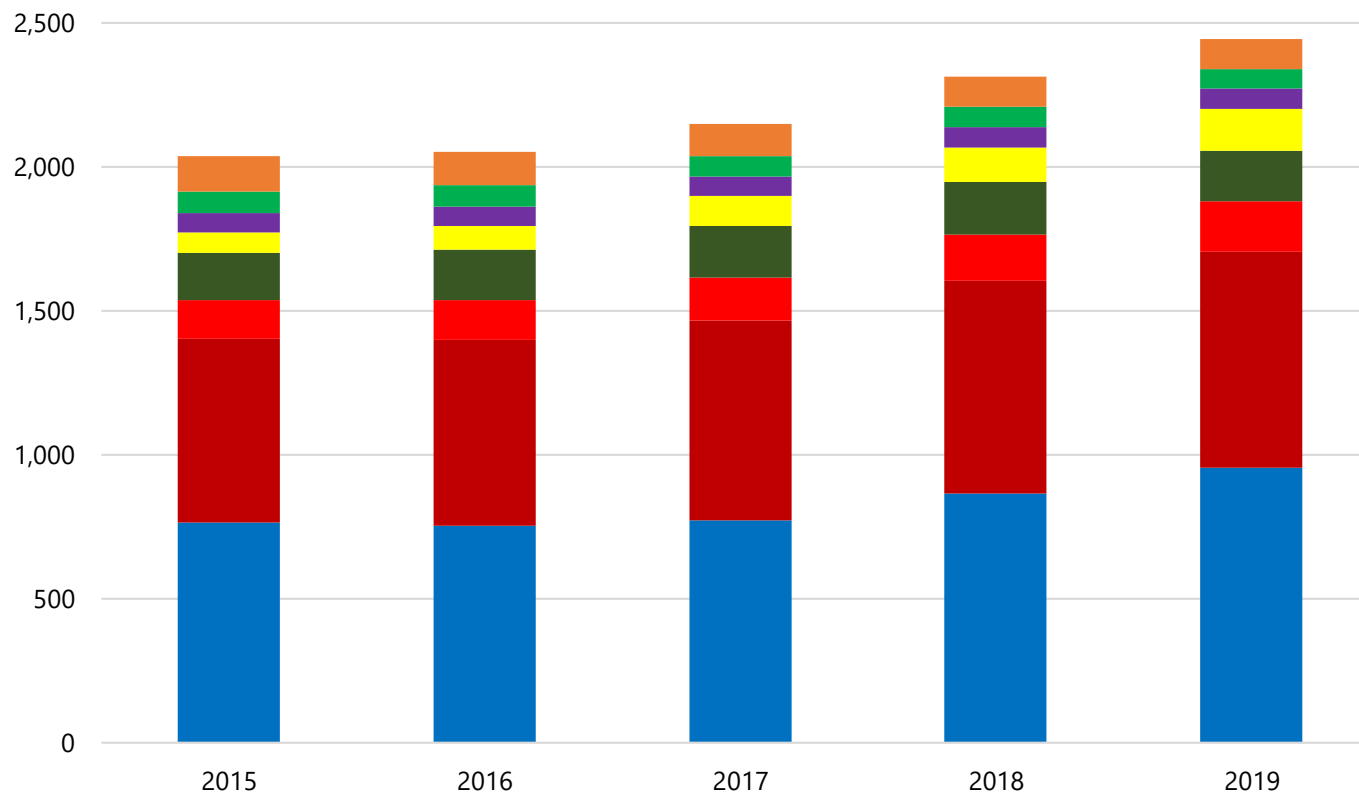


- APEC gas production grew by 42% in the last decade, increasing its share of global production to 60%.
- 4 of the world's 5 top gas producers are APEC members (US, Russia, China and Canada).



Gas Production

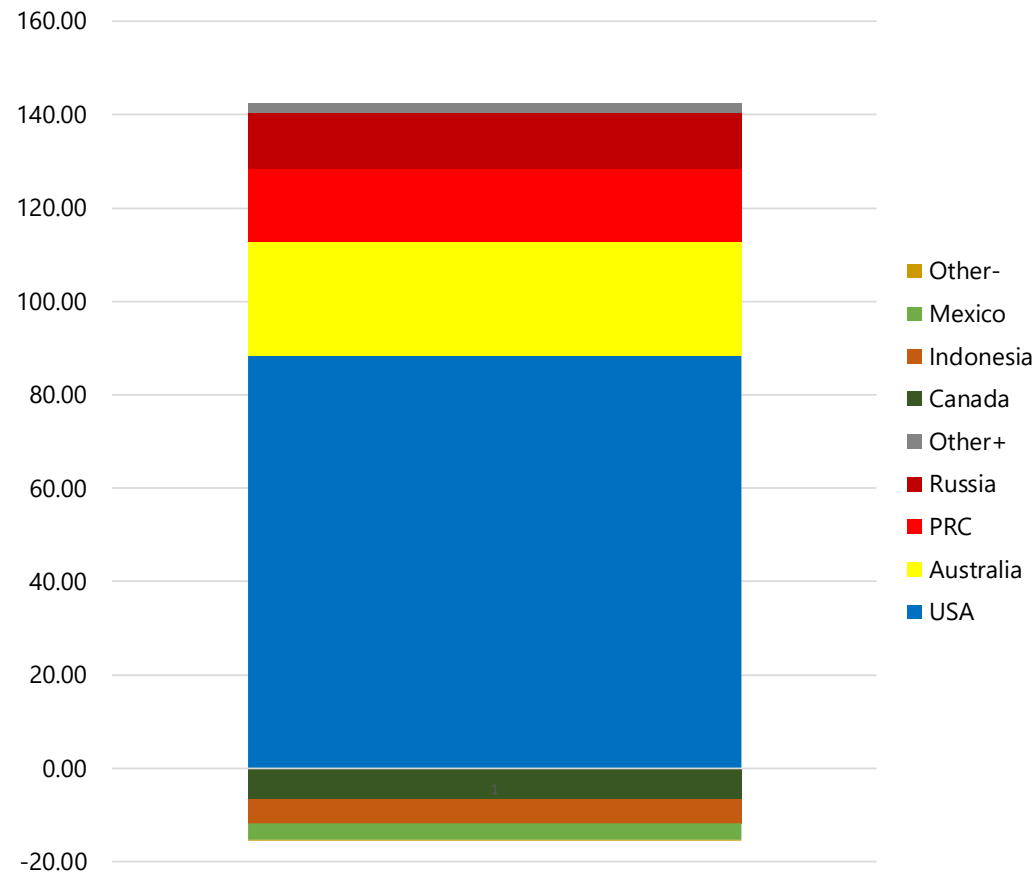
Gas production growth in APEC by economy, 2014-2019 (bcm)



■ United States ■ Russia ■ PRC ■ Canada ■ Australia ■ Malaysia ■ Indonesia ■ Other APEC

- *Production increased by 25% in the US, 18% in Russia and 7% in Canada since 2014.*
- *Meanwhile it grew by 32% in China and doubled in Australia.*
- *Growth more than offset a 35% decrease in Mexico and a 11% decline in Indonesia.*

Gas production growth in APEC by economy, 2009-2019 (bcm)

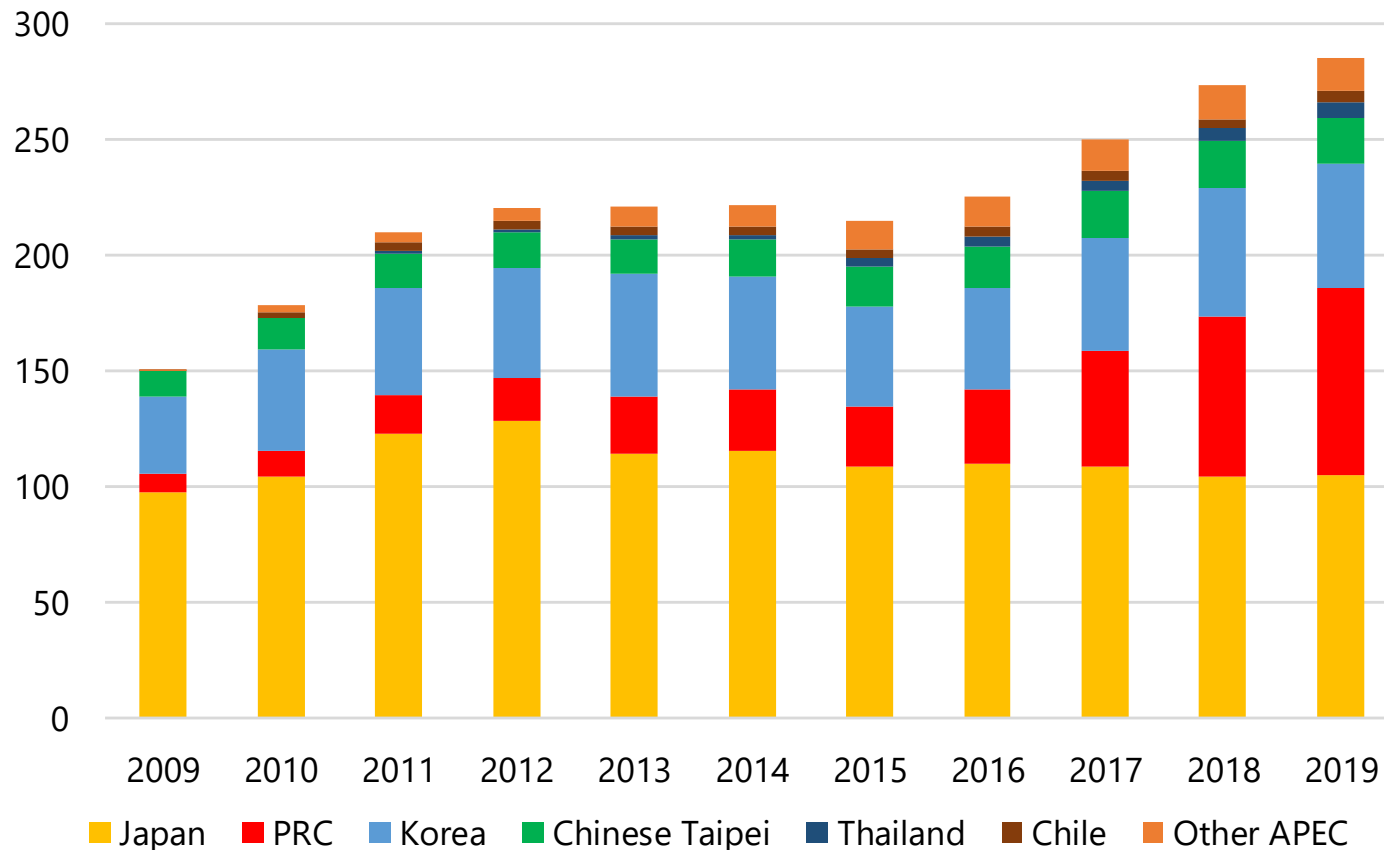


- *APEC production grew by 130 bcm in 2019 (vs 167 bcm in 2018), lead by the US, Australia, China and Russia.*
- *Incremental production more than offset decreases in Canada (4%), Indonesia (7%), Mexico (12%) and others.*



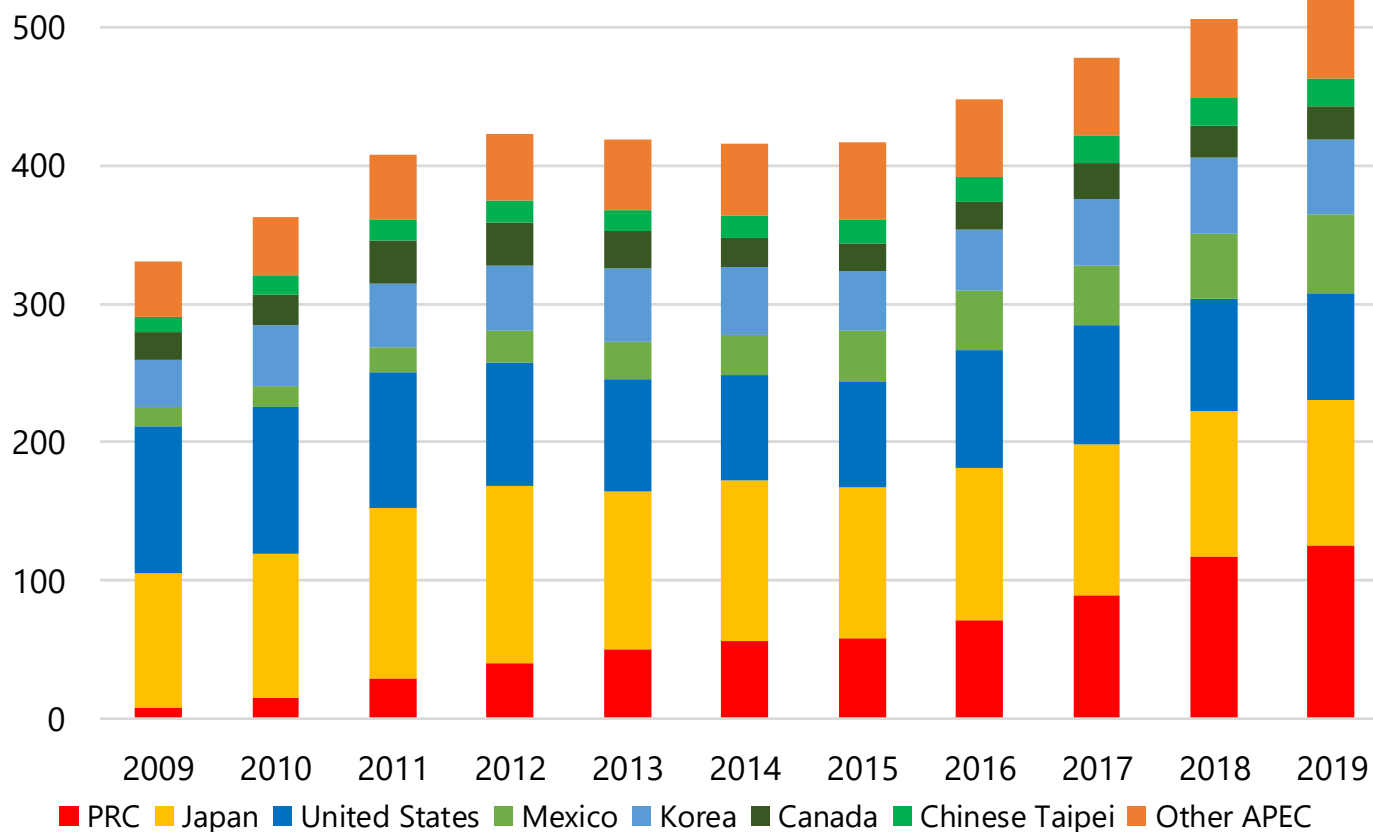
Gas Trade

Trade: APEC LNG imports by economy, 2009-2019 (bcm)



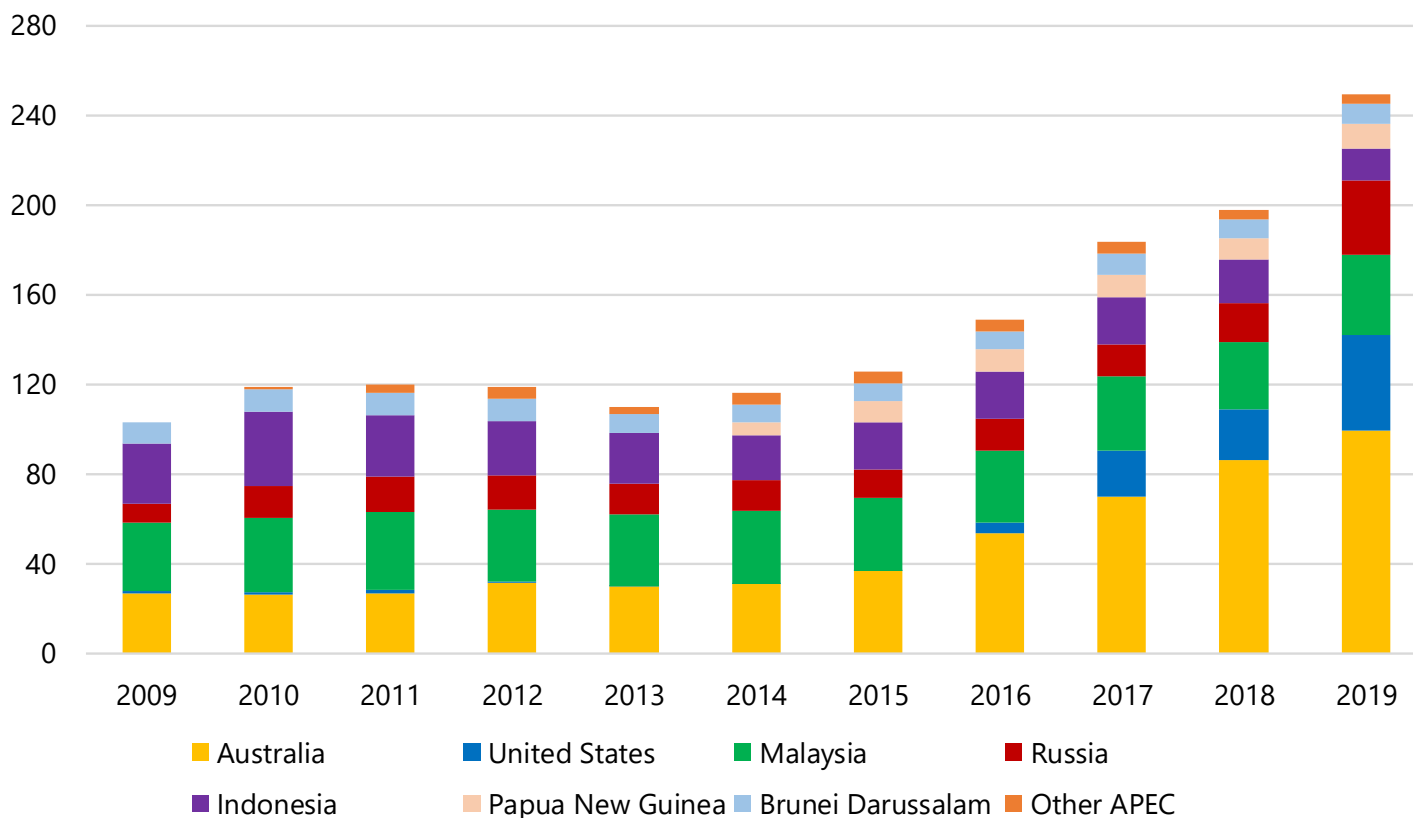
- LNG imports grew by 70% since 2009, however APEC's share of world imports decreased to 61%.
- In 2019, LNG imports increased by 15 bcm, a growth rate of 5.6% vs 6.8% in 2018.
- Most of this growth took place in the PRC and more than offset decreases in Korea and the USA.
- ASEAN LNG imports grew in Thailand and Malaysia. Philippines and Viet Nam join the club.

Trade: APEC gas imports by economy, 2009-2019 (bcm)



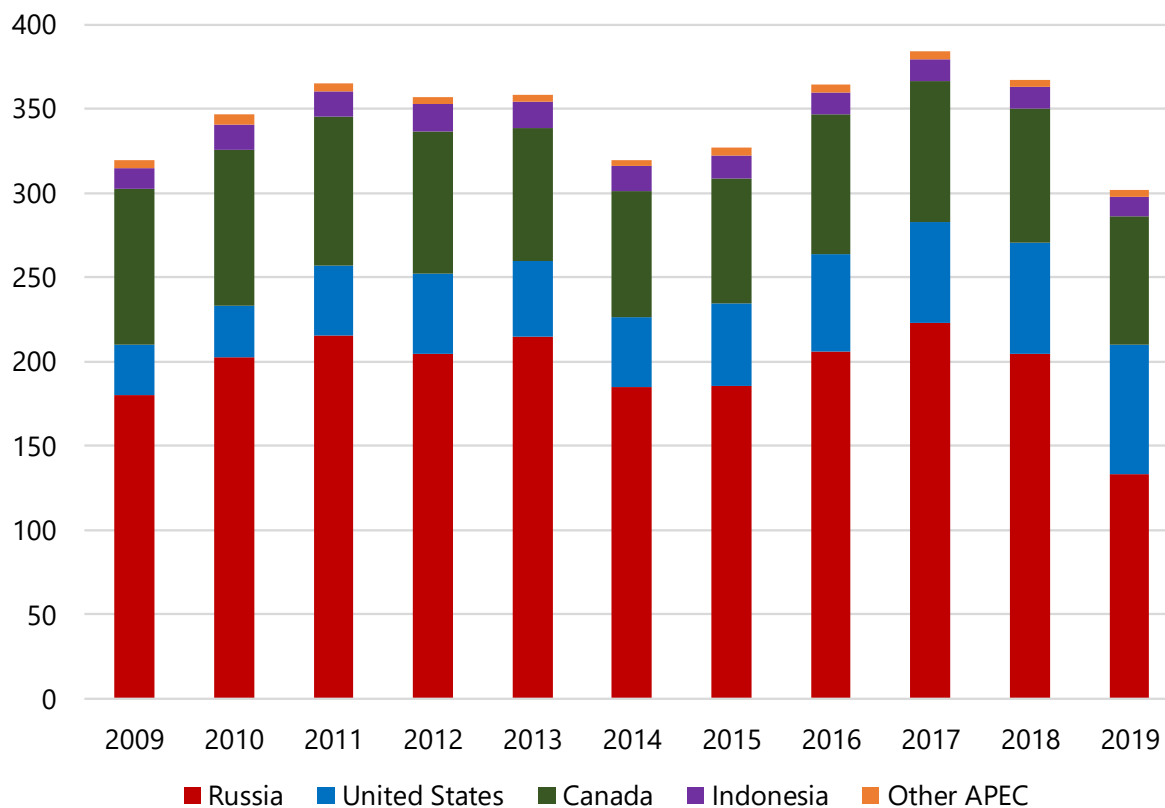
- APEC members increased their imports by 36% since 2009, accounting for 42% of global imports.
- In a decade China's gas imports rose by 118 bcm (#1 importer), while US imports shrank by 29 bcm.
- In 2019, APEC growth was driven by Mexico (10 bcm), the largest growing piped importer since 2009.

Trade: APEC LNG exports by economy, 2009-2019 (bcm)



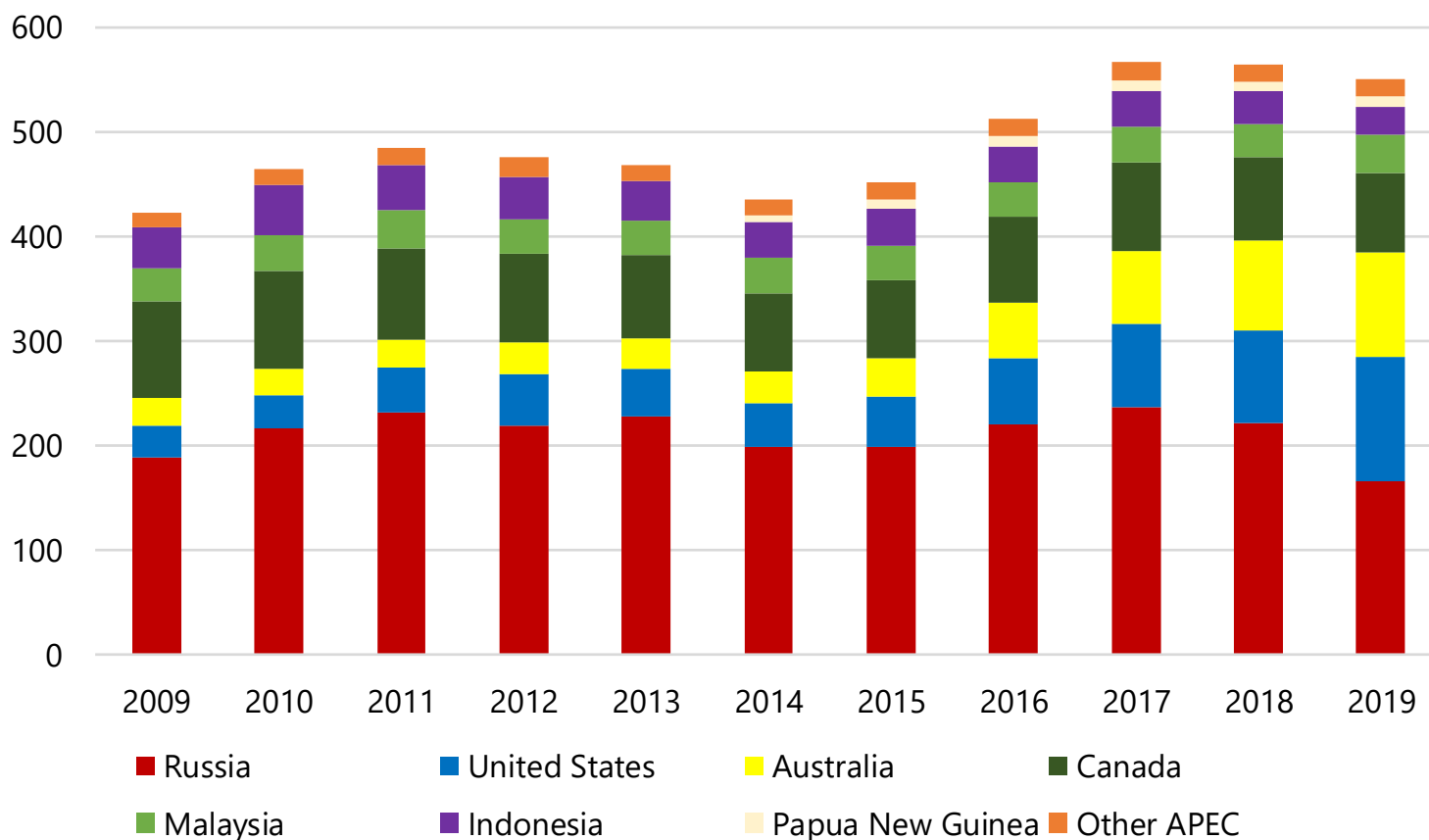
- From 2009-19, APEC LNG exports more than doubled. Equivalent to 54% of global LNG exports (vs 41%).
- Australian exports lead growth, almost quadrupling in the same period.
- Non-traditional LNG exporters in APEC: PNG, Peru and the USA.
- Russian exports doubled in 2019, while Indonesian ones fell by 24%.

3- Trade: APEC gas pipeline exports by economy (bcm)



- *Piped gas exports from APEC economies fall by 17% in 2019 and have been declining since 2017.*
- *Russian exports shrank by 47 bcm, losing ground to LNG in Europe but... Power of Siberia?*
- *US piped exports more than doubled since 2009 and rose by 10 bcm in 2019, most of it to Mexico. Canadian exports to the US fell by 18%, since 2019.*
- *Indonesian exports continue declining and fell by 7% in 2019, they are expected to stop in 2023.*

Trade: APEC gas exports by economy, 2009-2019 (bcm)

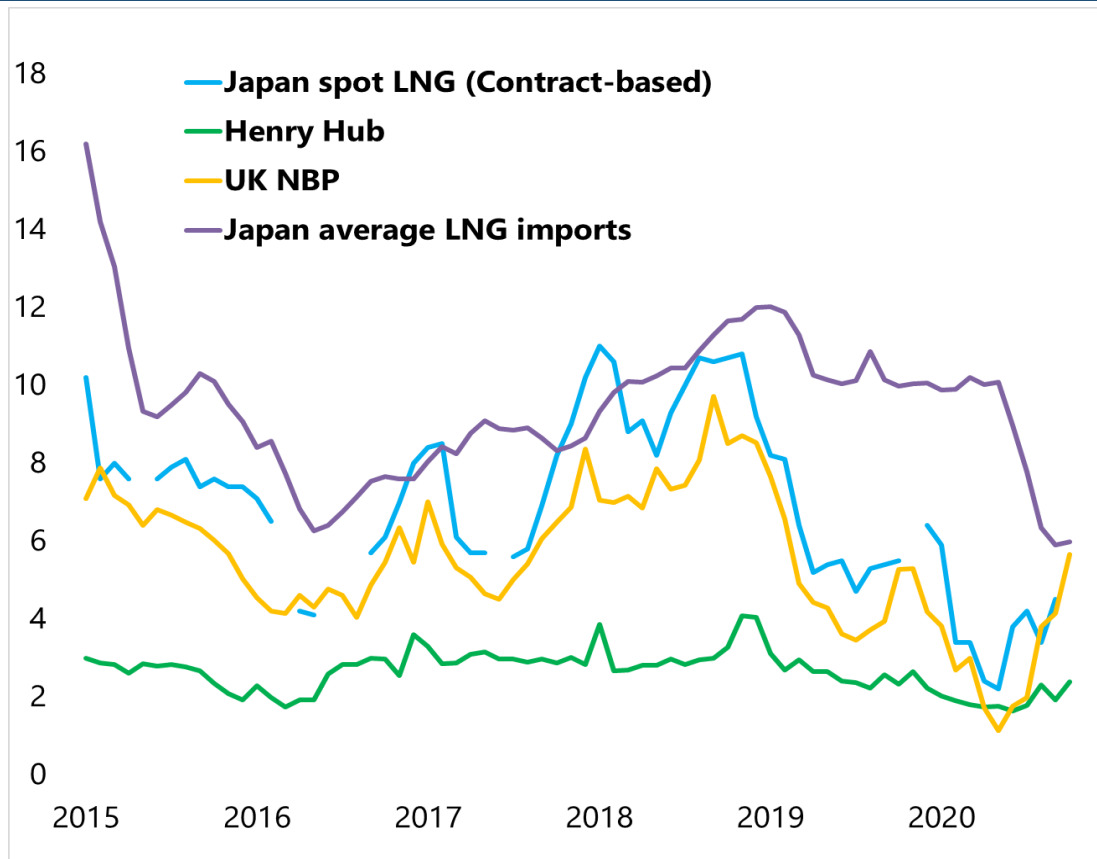


- *APEC gas exports decreased overall in 2019 by 13 bcm (2%), falling to 45% of global exports.*
- *Russian exports shrunk by 55 bcm, however it still remains the world's largest exporter.*
- *Exports from the US and Australia rose by 30 and 13 bcm, respectively, supported by LNG.*



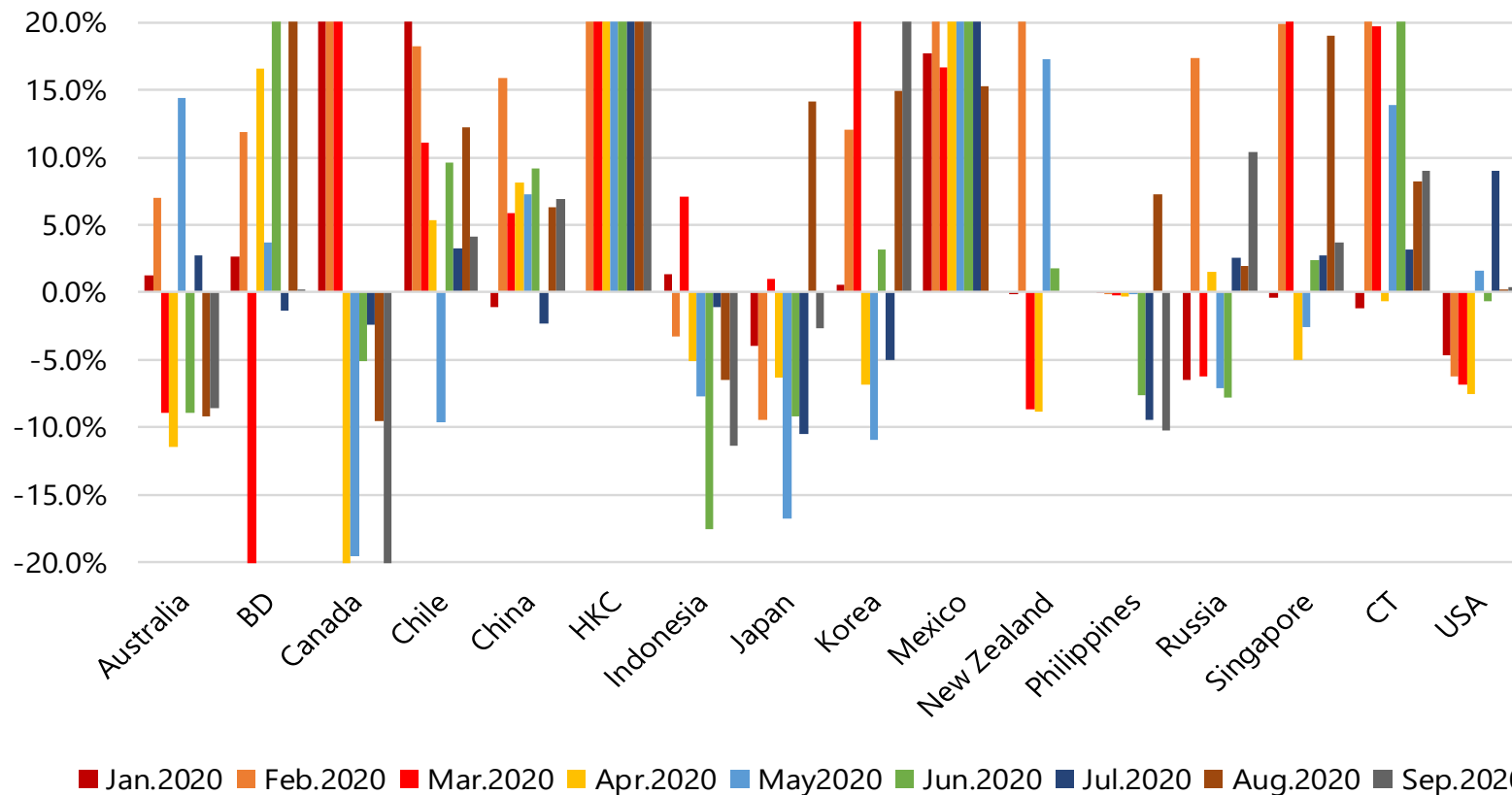
Gas Prices

International gas price benchmarks



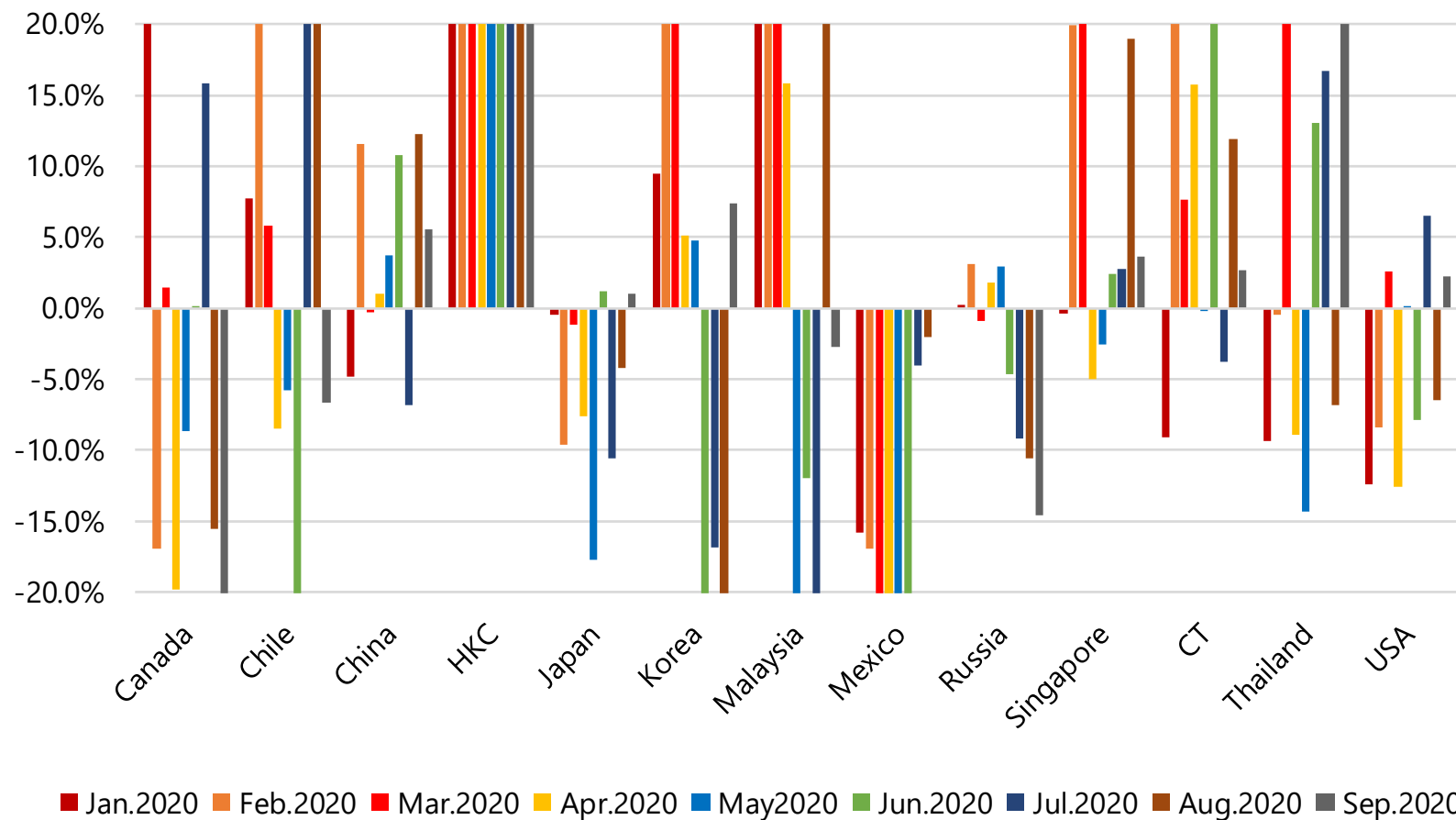
- The main regional price benchmarks have seen historical lows in 2019 and 2020. average price of LNG imports to Japan have almost halved since August 2020, reflecting the extremely low-crude price scenario observed in March 2020.
- The NBP fell below the Henry Hub in May 2020, at \$1.13 /Mmbtu; increased demand to Europe and declining production
- Henry Hub has remained below \$3/Mmbtu since 2019 on a monthly basis. Except for August and October, the benchmark has been at least 25% lower than in 2019.

Case study: Impact of COVID-19 in APEC gas demand (% m-o-m 2020 vs 2019)



- The COVID-19 pandemic impacts and the restrictive measures undertaken by governments have varied substantially across the region.
- Through September 2020, gas demand shows an annualized growth of 0.6% (vs 1.5% in 2019).
- The IEA expects a global gas demand decline of 3%, highlighting the relative resilience of gas demand in some APEC economies.
- Demand in Japan and Indonesia has declined by 5% while it has grown by 34% in Mexico.

Case study: Impact of COVID-19 in APEC gas imports



- Imports in the APEC region, in contrast, have fallen overall by 0.6%.
- This results from a combination of declines in imports {Japan (5.5%) and Mexico (17%)}, moderate growth in China (3.7%) and double-digit growth rates in economies including Chinese Taipei, Thailand and Malaysia.



Conclusion

Conclusions

- *With 57% and 60% of global gas demand and production, respectively, APEC is at the centre of the global natural gas dynamics.*
- *APEC gas demand continued to grow in 2019 but decelerated substantially, increasing by only 33 bcm.*
- *The US shale revolution continue allowing domestic production and exports grow. The US become the second largest LNG exporter in APEC.*
- *China became the world's largest gas importer and is poised to become the largest LNG importer in the next 5 years.*
- *APEC LNG exports grew by 28% in 2019, supported mostly by new liquefaction facilities in Australia, US and Russia.*
- *Three dynamics to follow:*
 1. *Impacts of the commission of the Power of Siberia pipeline and the new pipeline company in China?*
 2. *Regasification projects under construction in Thailand, Viet Nam and the Philippines, how much demand will they actually capture?*
 3. *The COVID-19 pandemic has diminished gas demand in the near-term and could be a long-term effect of the pandemic in the APEC region.*



Thank you for your kind attention!

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