

9.c. (1/2) APERCC Oil Report 2019

The 57th Meeting of APEC Energy Working Group (EWG)
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Outline

▪ Demand

- APEC oil demand outlook 2021

▪ Supply

- APEC oil supply outlook 2021

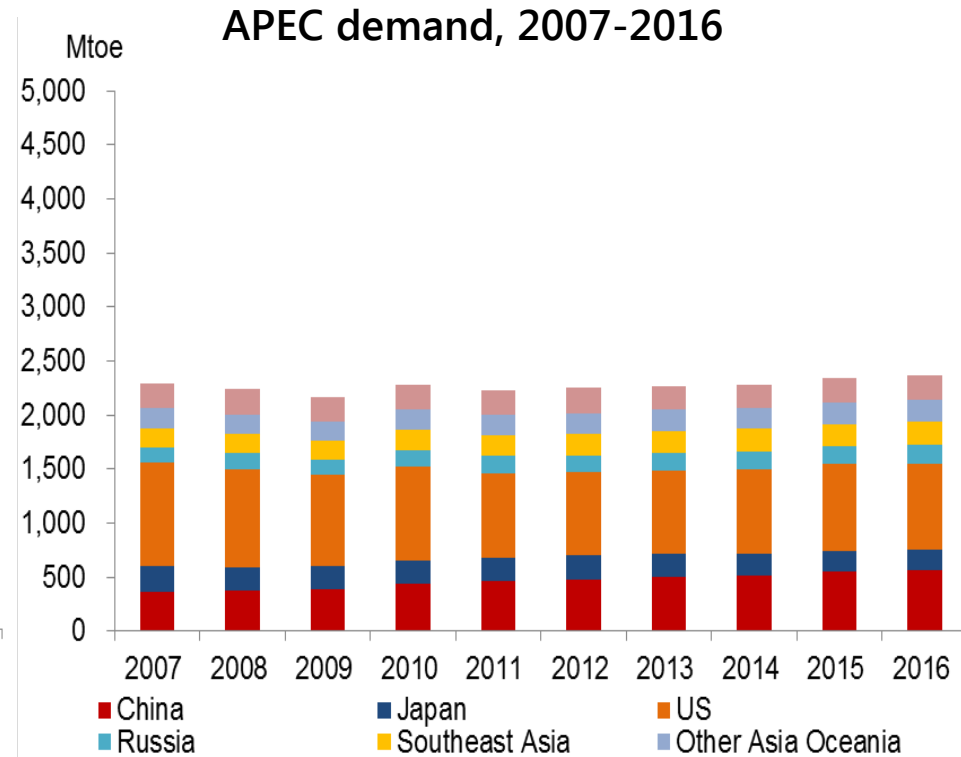
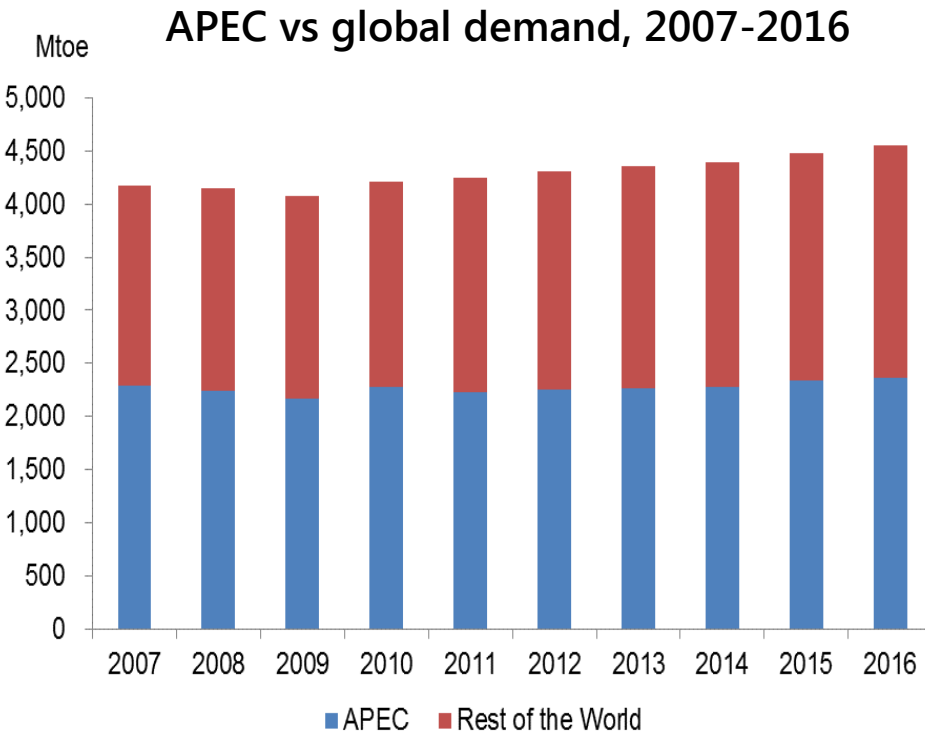
▪ Key factors influencing oil market

- Falling crude prices continue?
- Brent-WTI spread
- US shale oil development
- OPEC vs non-OPEC production cut

▪ Commercial issues

- Quality standard harmonization of gasoline and diesel
- APEC import dependence

APEC accounted for 52% of global oil demand in 2016

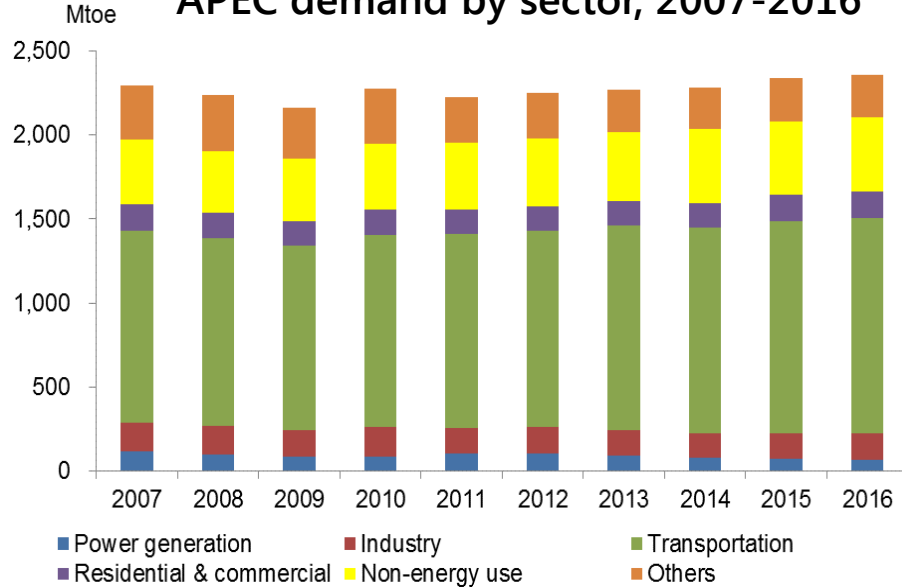


Source: APERC analysis and IEA 2018

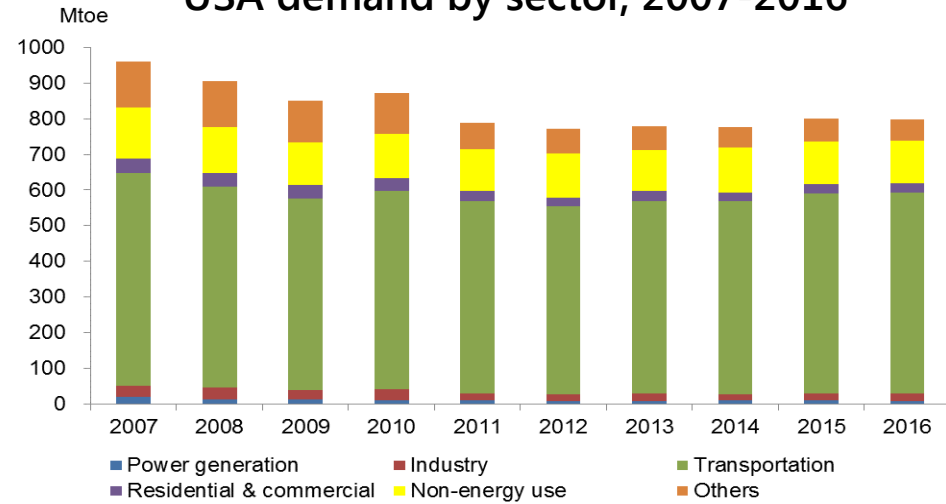
- *Global oil consumption reached 4,557 Mtoe in 2016 (1.0%).*
- *Demand growth in APEC for the past 10 years was 0.31% versus the rest of the world at 1.8%.*

APEC oil demand growth was led by China and SEA

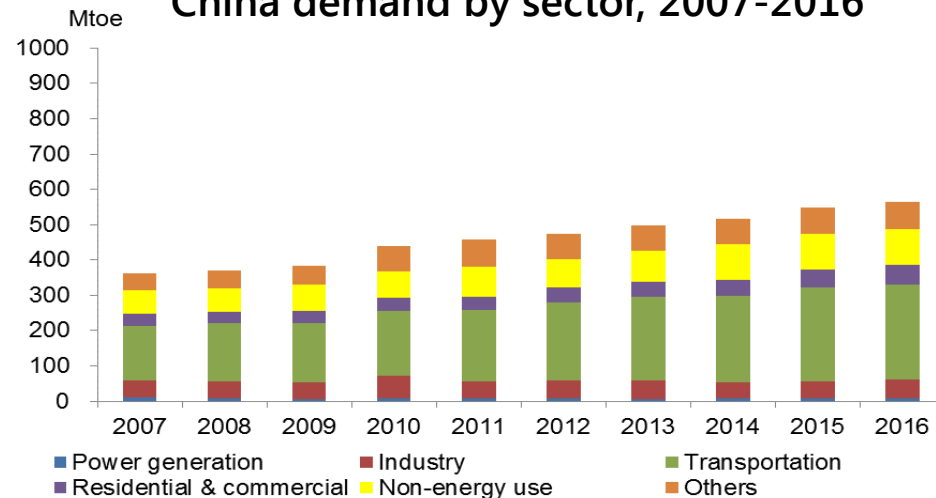
APEC demand by sector, 2007-2016



USA demand by sector, 2007-2016

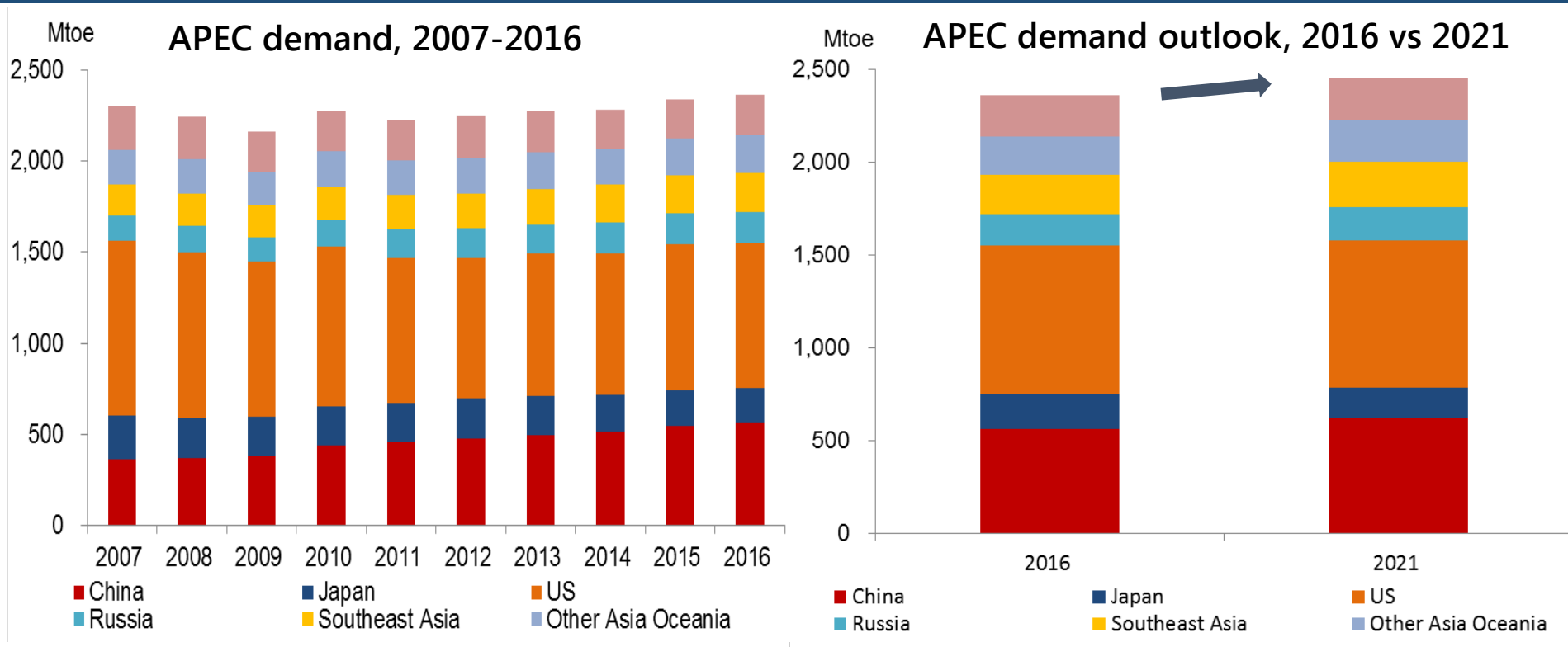


China demand by sector, 2007-2016



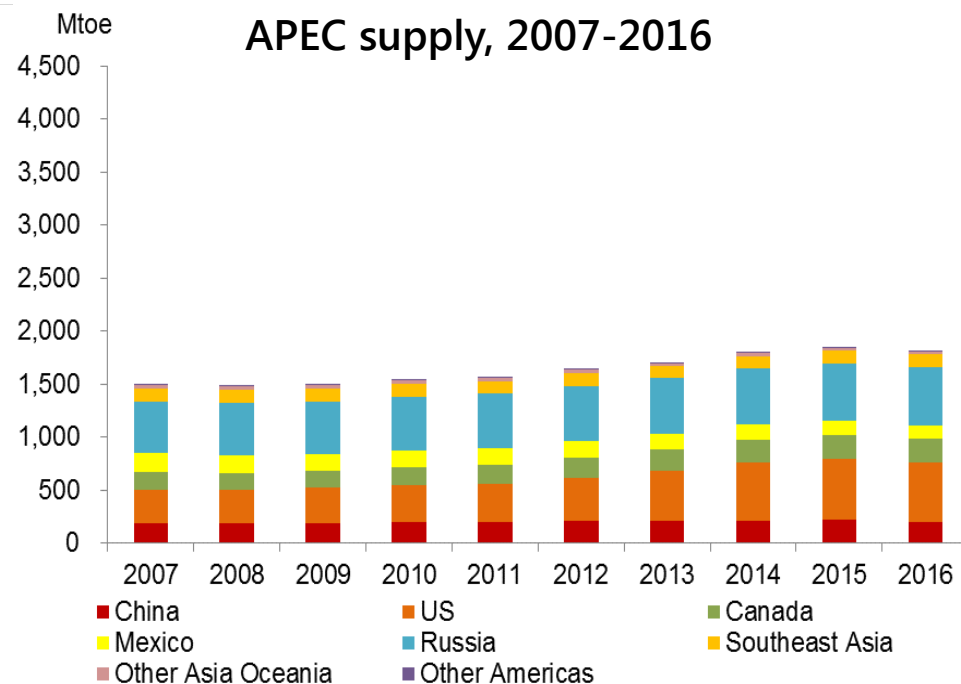
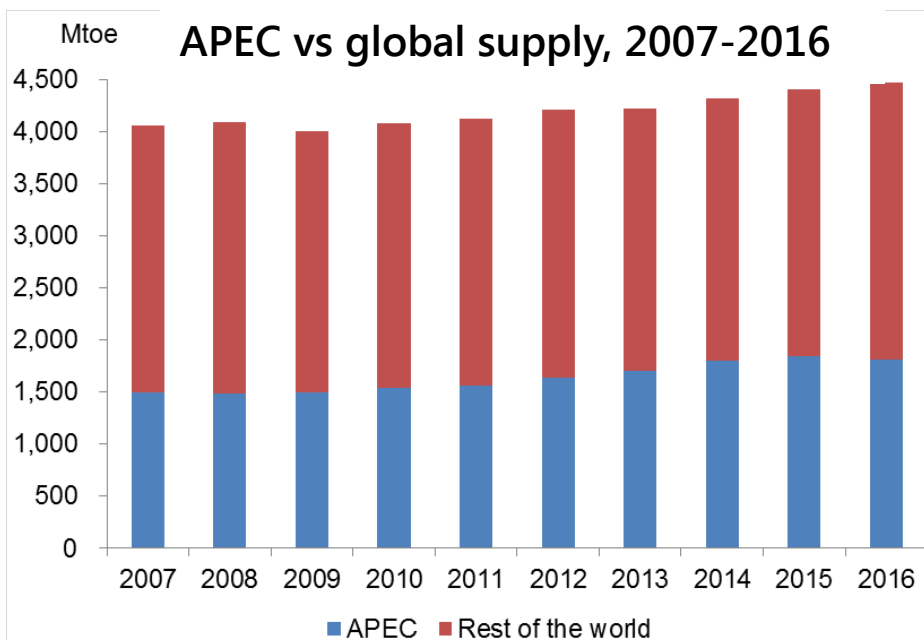
- *Transportation has been both the dominant and growing sector in APEC during 2007-2016.*
- *APEC slowdown due to declining demand in USA and Japan while China and SEA demand is growing strong.*

APEC oil demand will shift more to Asia in the coming years



China's growth is projected to be largest in APEC contributing to 25% share of APEC in 2021.

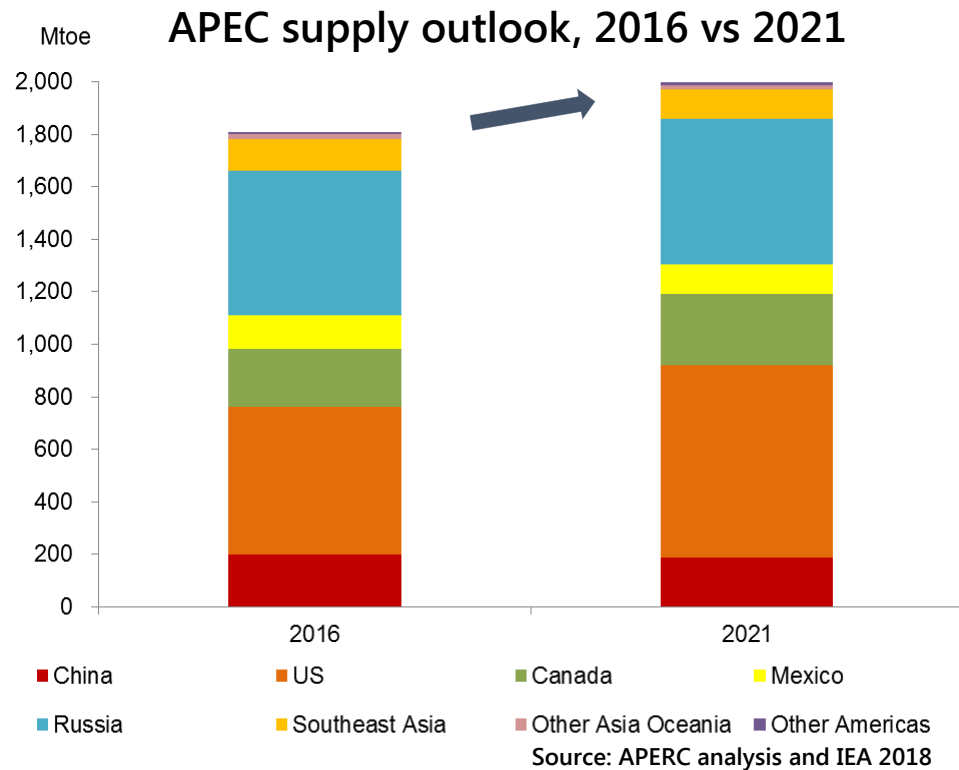
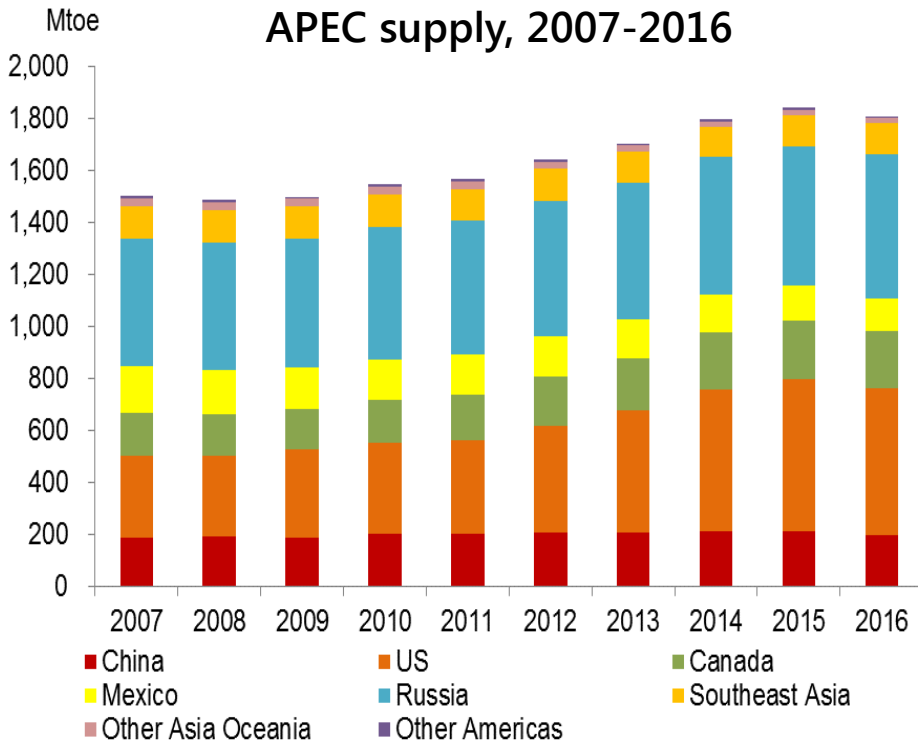
APEC accounted for 40% of global oil supply in 2016



Source: APERC analysis and IEA 2018

- *Global oil supply increased faster than demand to reach 4,473 Mtoe in 2016 (1.1%).*
- *Supply growth in APEC for the past 10 years was 2.1% (vs 0.31% demand).*
- *USA, Russia, and Canada accounted for 74% of APEC supply with significant contribution from US shale.*

APEC oil supply will shift more to North America



APEC supply

growth +2.0% p.a.

1,997 Mtoe @2021

supply center ➡ North America

APEC demand

growth +0.79% p.a.

2,455 Mtoe @2021

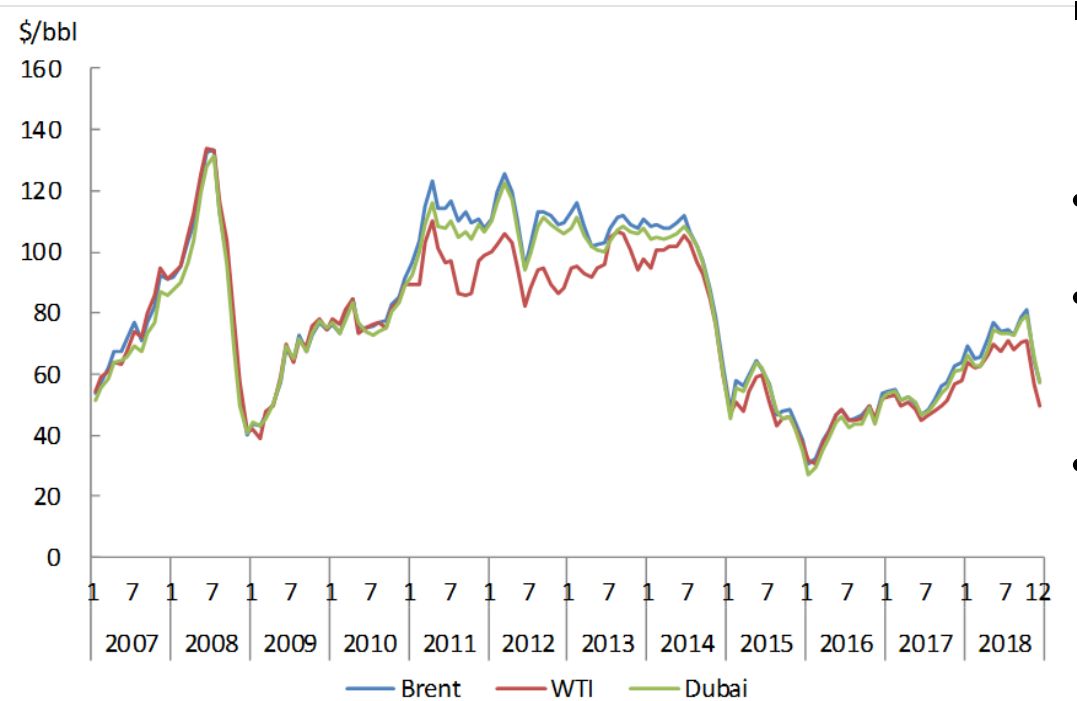
demand center ➡ Asia



- **Key factors influencing oil market**
 - Falling crude prices
 - Brent-WTI spread
 - US shale oil production
 - OPEC and non-OPEC production cut

Bearish oil market sentiment could continue in 2019?

Crude oil prices, 2007-2018

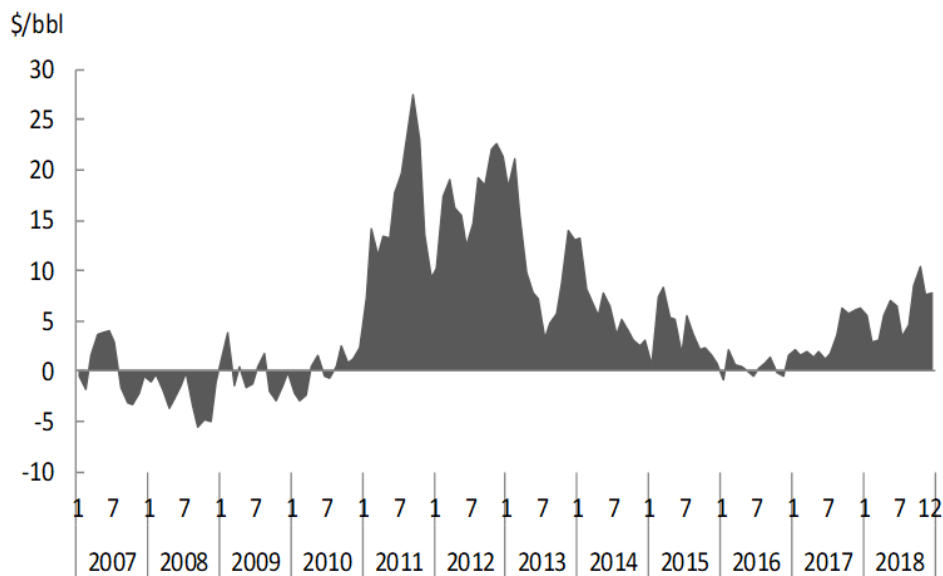


- *Oil price has fallen for the past few years driven by:*
 - *shale oil supply expansion*
 - *diminished oil demand from slowdown of economic growth*
 - *scepticism about compliance with production cut agreement by OPEC and non-OPEC (OPEC+)*

Source: IEA (2018b) and IEA (2019)

Brent-WTI spread has varied substantially since 2011

Brent-WTI spread, 2007-2018



Source: IEA (2018b) and IEA (2019)

- *The unprecedented spread in 2011-2013 is largely explained by:*

- *Factor suppressed WTI - a build-up of crude oil stocks in the USA because of shale revolution and limited takeaway capacity*
- *Factor inflated Brent - Arab Spring*

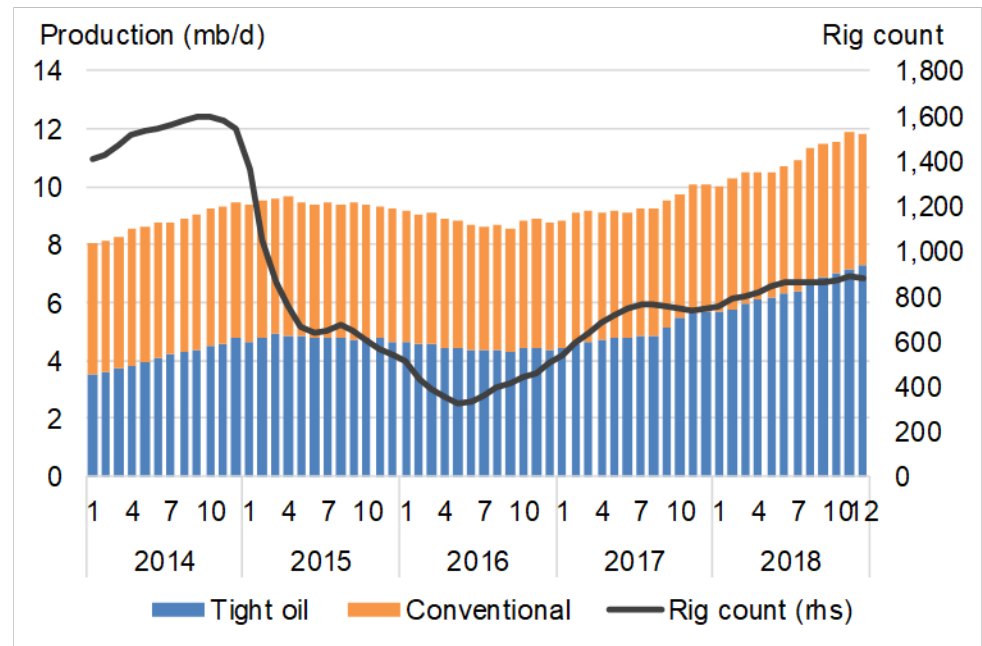
- *Brent-WTI spread once again has widened since 2017 because of:*

a shortage of pipelines to carry oil out of the Permian basin in West Texas, USA

Shale oil has made US less import dependent

- *Total US crude production was 11.8 MBD in 2018, 87% of growth was by shale oil production.*
- *EIA forecasted that US crude production would reach 13 MBD in 2020.*

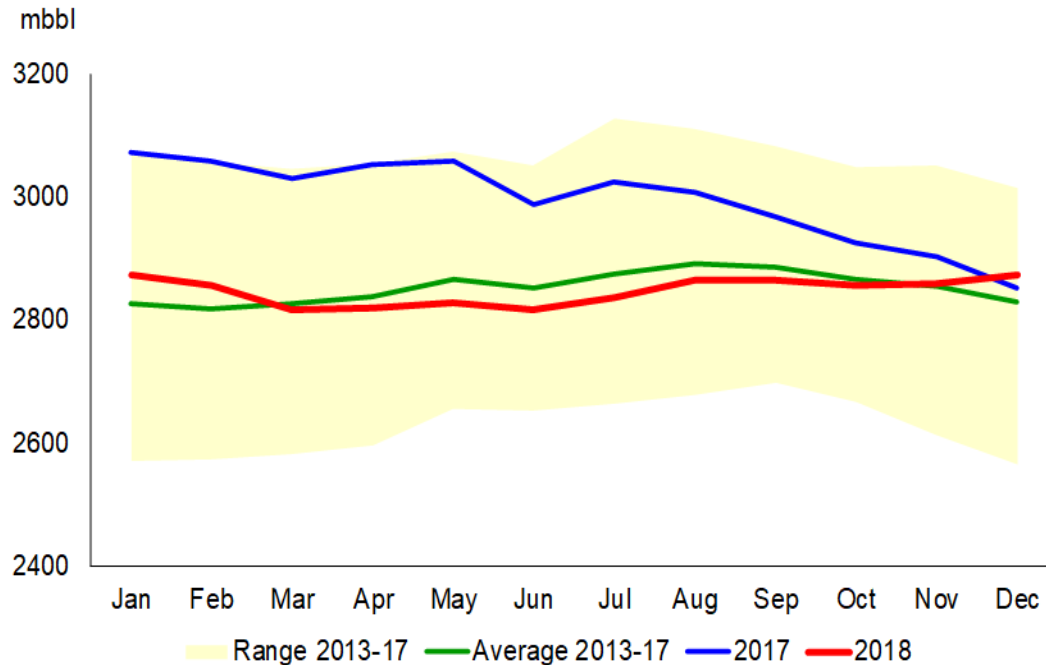
US crude production, 2014-2018



Sources: EIA (2018c), EIA (2018d), EIA (2019b) and Baker Hughes (2018)

Future oil demand growth is challenged by uncertainties

OECD commercial oil stocks, 2013-2018



Source: IEA (2018b) and IEA (2019)

- *Joint production cuts by OPEC and non-OPEC (OPEC+) producers in January 2017 forced crude prices up in March 2018.*
- *OECD commercial stock was below the five-year average.*
- *Strong demand growth is increasingly challenged by remaining uncertainties: US sanctions on Iranian crude exports, USA-China trade war, and OPEC+ compliance rate.*



- **Commercial issues**
 - Harmonization of gasoline and diesel specs
 - APEC import dependence

Differences in gasoline and diesel specs hinder trade

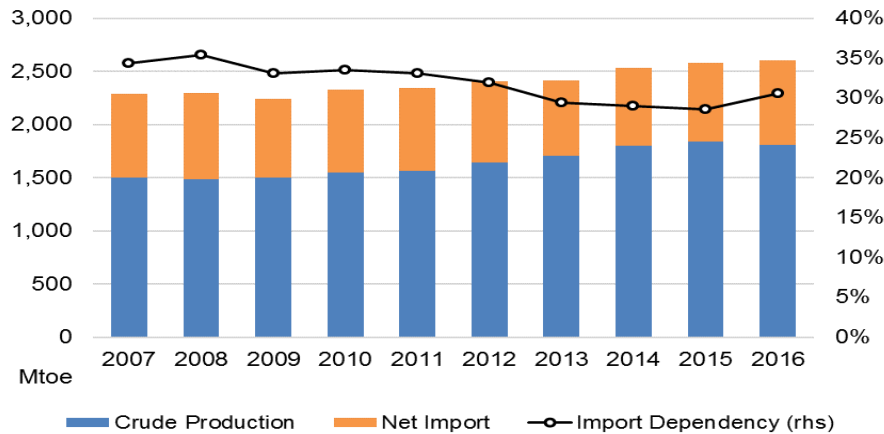
- *Different quality standards for gasoline and diesel have been adopted and traded in APEC economies.*
- *Utilising fuels with common standards in APEC will contribute to more dynamic product trades.*



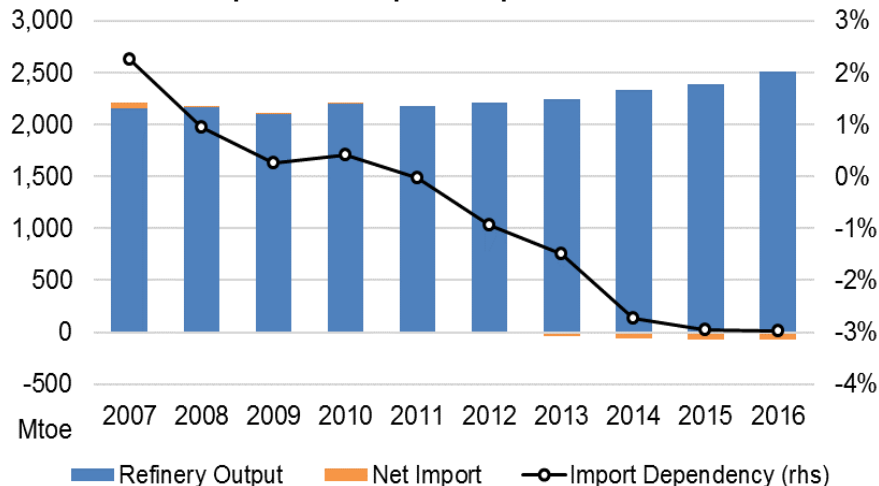
- *Harmonization of APEC oil specifications can alleviate:*
 - *APEC oil trade barriers*
 - *Environmental emissions*
 - *APEC energy security*

APEC import dependence improved significantly over the years

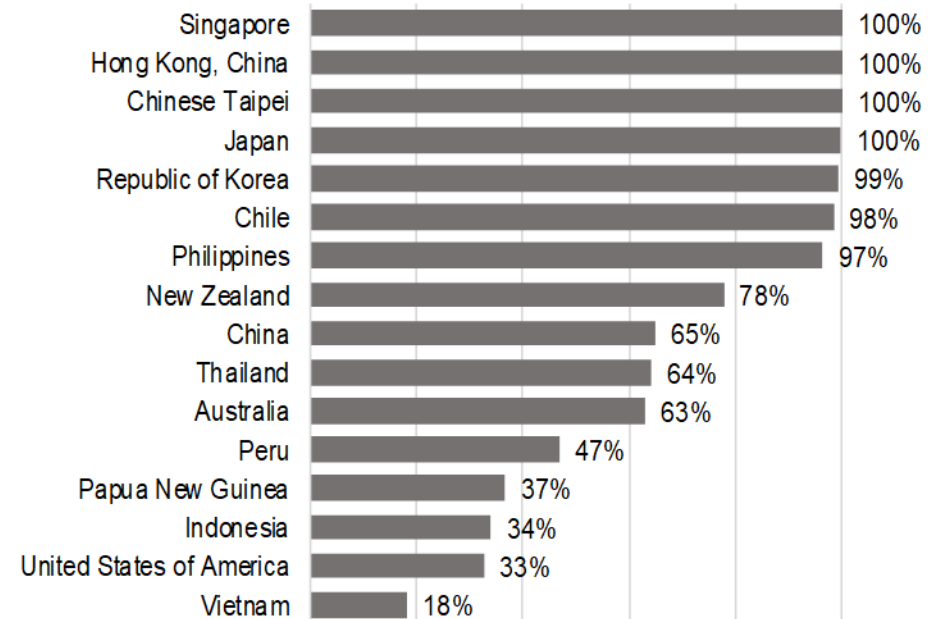
APEC crude import dependence, 2007-2016



APEC oil product import dependence, 2007-2016



APEC crude import dependence by economy, 2016



APEC crude import dependence has decreased from 34% to 31% in the past decade, while it has been self-sufficient in oil products since 2011.

Source: APERC analysis and IEA 2018

Conclusion

- *The supply centre in APEC is shifting more to North America while the demand centre in APEC is moving to Asia.*
- *While USA is bringing the total APEC import dependency down, China is counteracting this to take the total APEC import dependency up.*
- *Bearish oil market sentiment could continue in 2019?*
- *Oil demand growth is increasingly challenged by many uncertainties:*
 - *US sanctions on Iranian crude exports*
 - *USA-China trade war*
 - *OPEC+ production cut and its compliance rate*



Thank you for your kind attention.

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