

# 2<sup>nd</sup> EGCFE Oil and Gas Meeting

# APERC Oil Report 2019

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Sendai, Japan  
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# Topics of Presentation

## **Demand**

**APEC vs global oil demand**

**APEC oil demand outlook 2021**

## **Supply**

**APEC vs global oil 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**

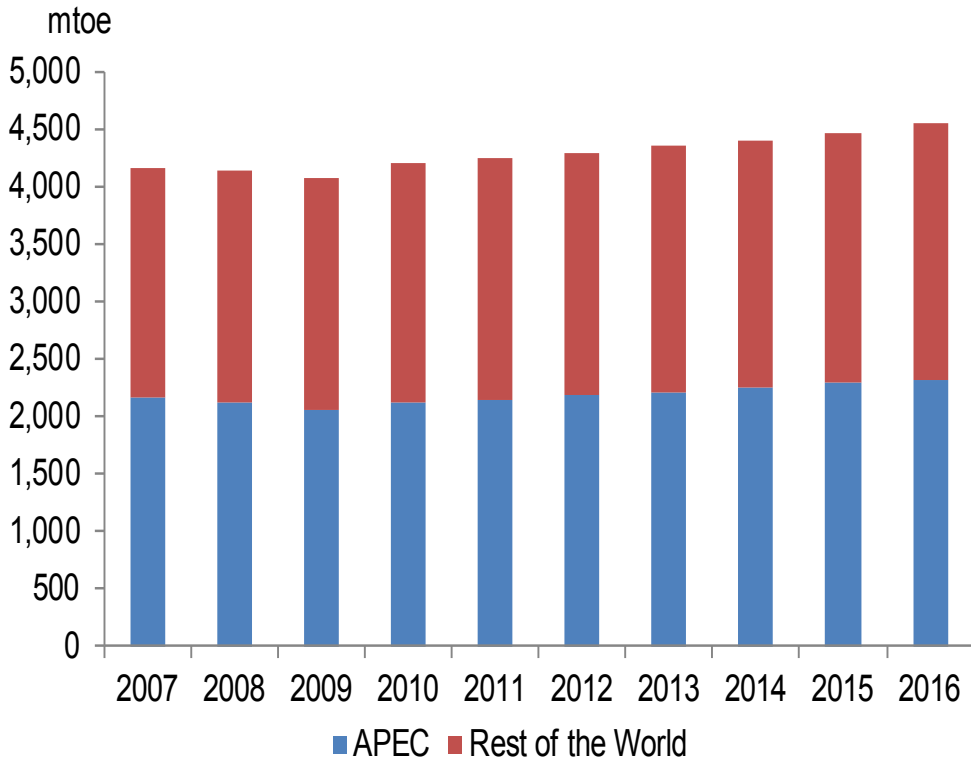
## **Commercial issues**

**Quality standard harmonization of gasoline and diesel**

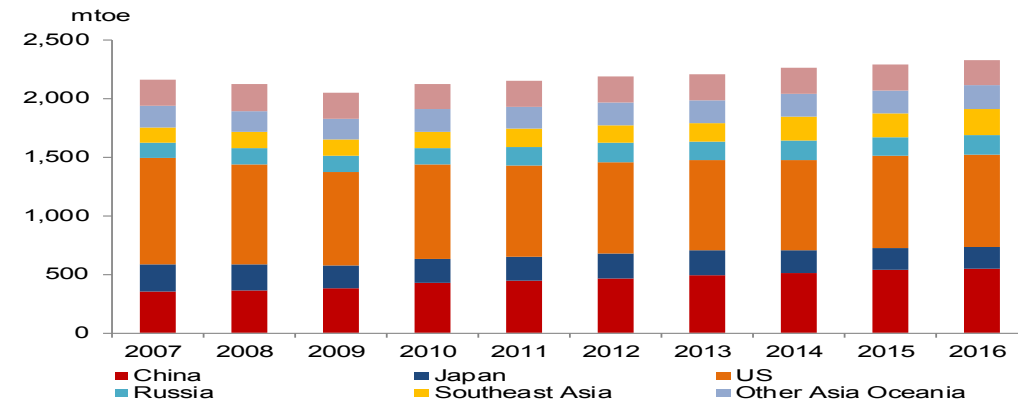
**APEC import dependence**

# APEC vs global oil demand

## APEC vs global demand 2007-2016



## APEC demand 2007-2016



Source: APERC analysis and IEA 2018

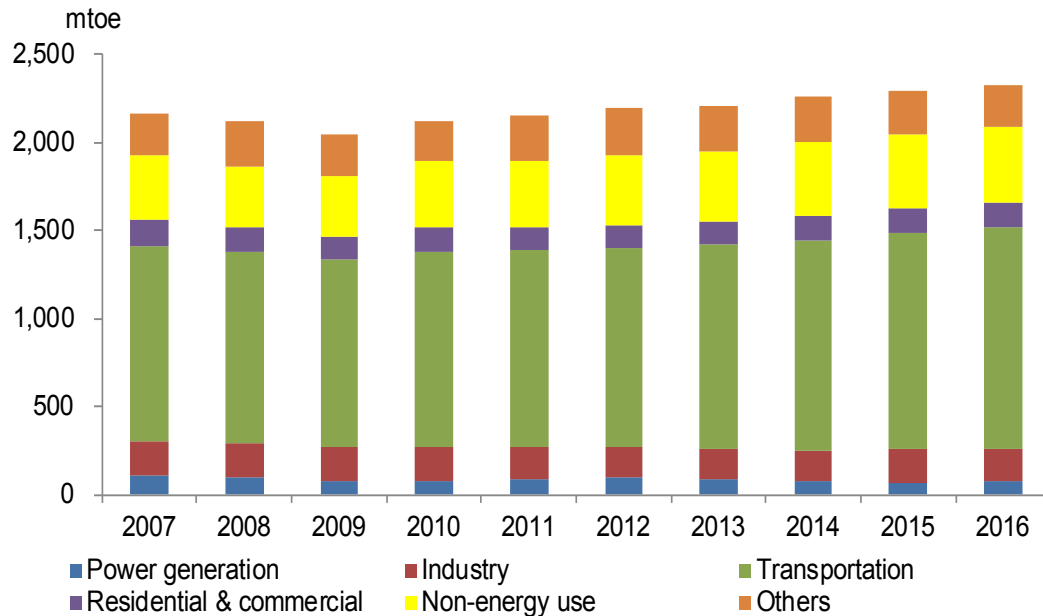
**Global oil consumption reached 4,557 million tonnes in 2016.**

**APEC accounted for 51% of global demand in 2016.**

# APEC vs global oil demand by sector

## USA vs China

### APEC demand by sector 2007-2016



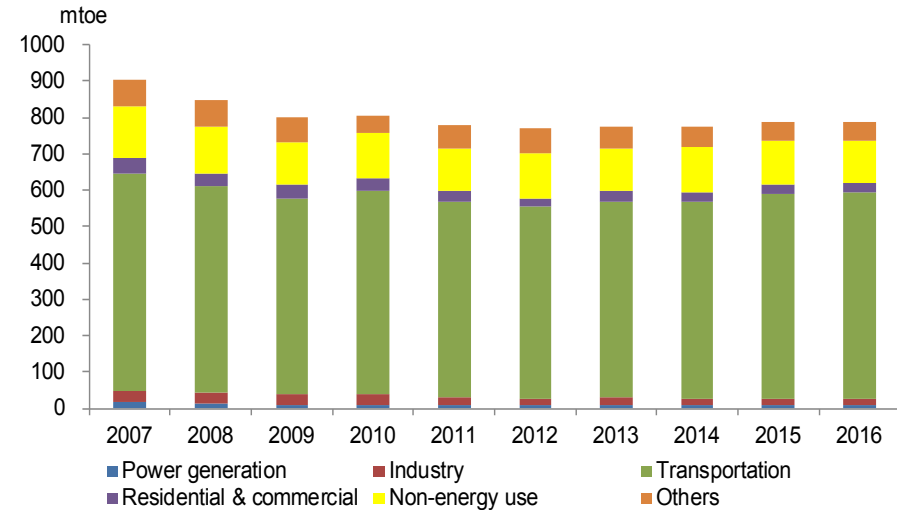
Source: APERC analysis and IEA 2018

**APEC growth in past decade = 0.8% p.a.**  
 (rest global = 1.2% p.a.) led by China and SEA.

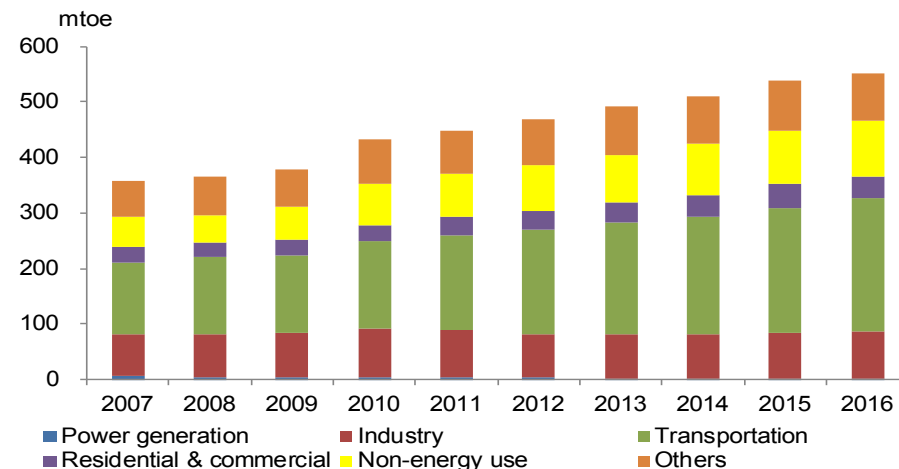
**Transportation has been both the dominant and growing sector in APEC during 2007-2016.**

**APEC slowdown due to declining demand in USA (-1.4% p.a.) and Japan (-2.4% p.a.) while China demand is growing at 4.5% p.a.**

### USA demand by sector 2007-2016



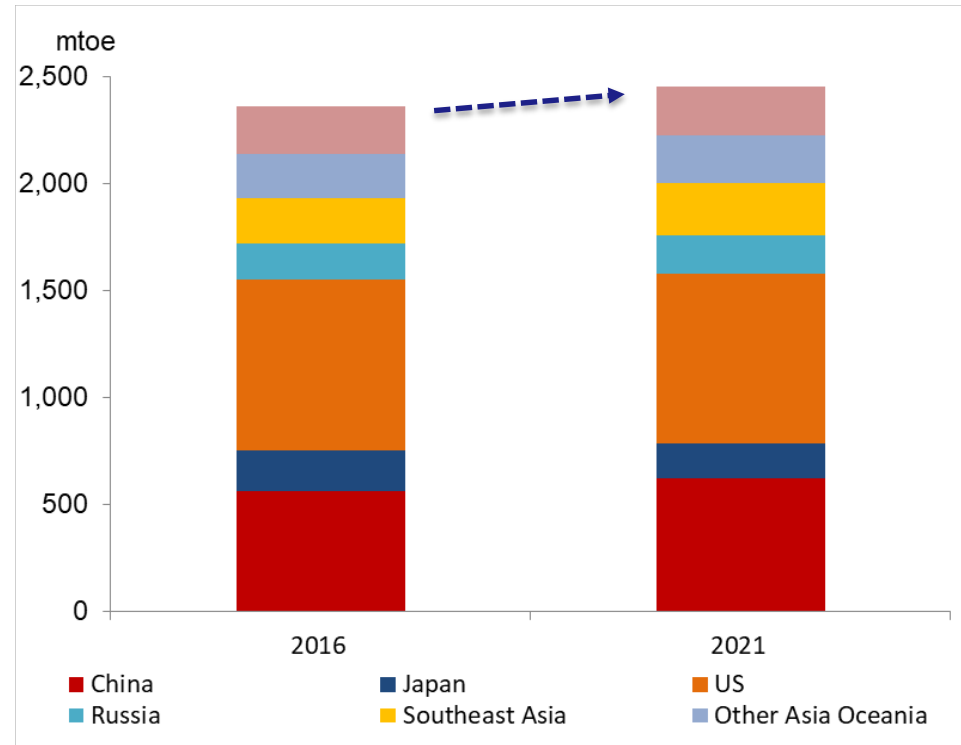
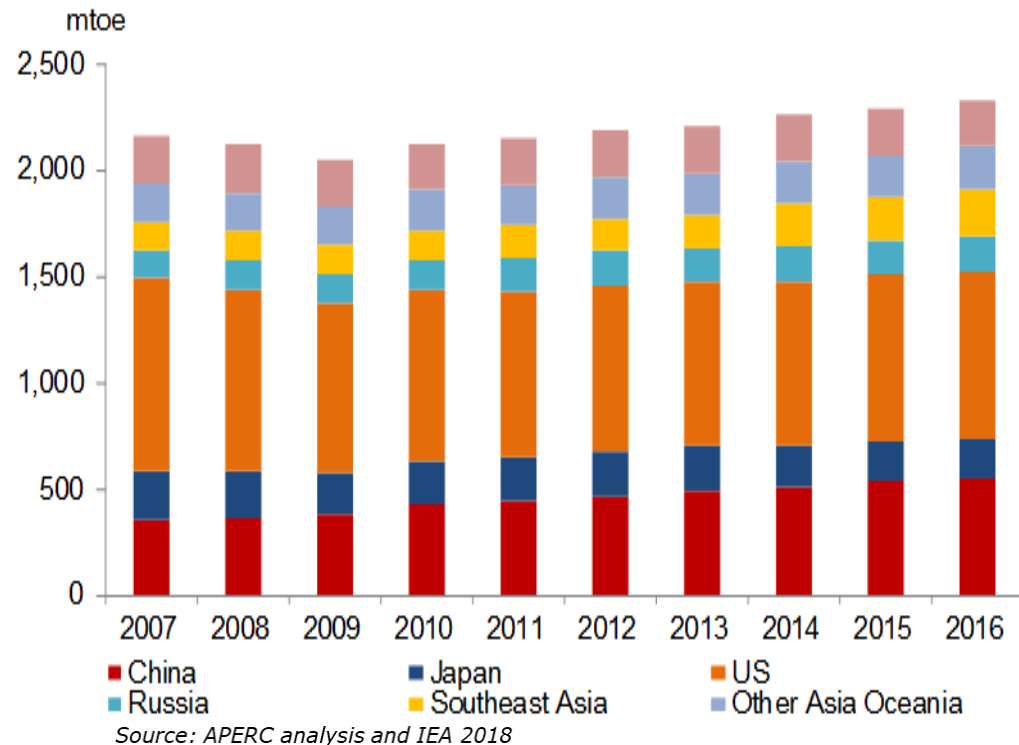
### China demand by sector 2007-2016



# APEC oil demand outlook 2021

## APEC demand 2007-2016

## APEC demand outlook 2016-2021

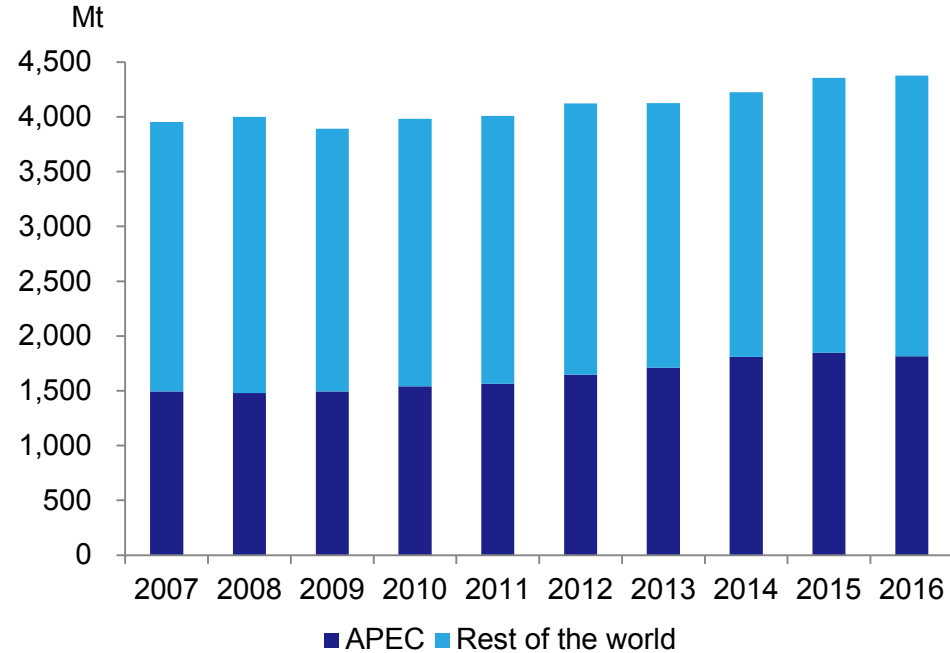


**China growth is projected to be largest in APEC (2% p.a. towards 2021) contributing to 25% share of APEC.**

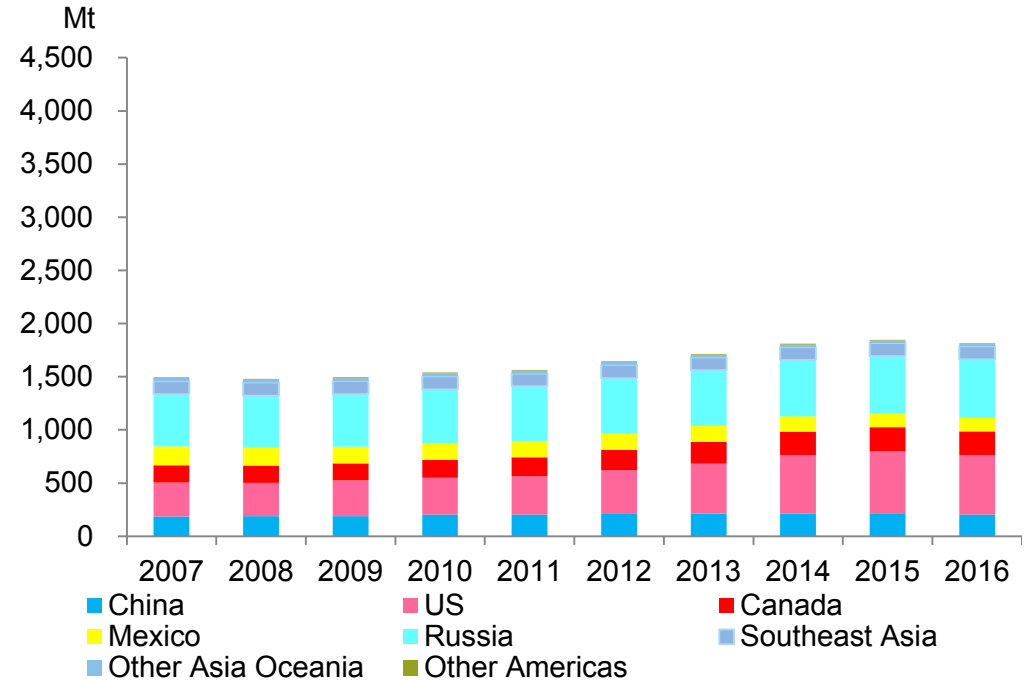
**APEC oil demand will shift more to Asia in the coming years.**

# APEC accounted for 41 % of the global oil supply

## APEC vs global supply 2007-2016



## APEC supply 2007-2016



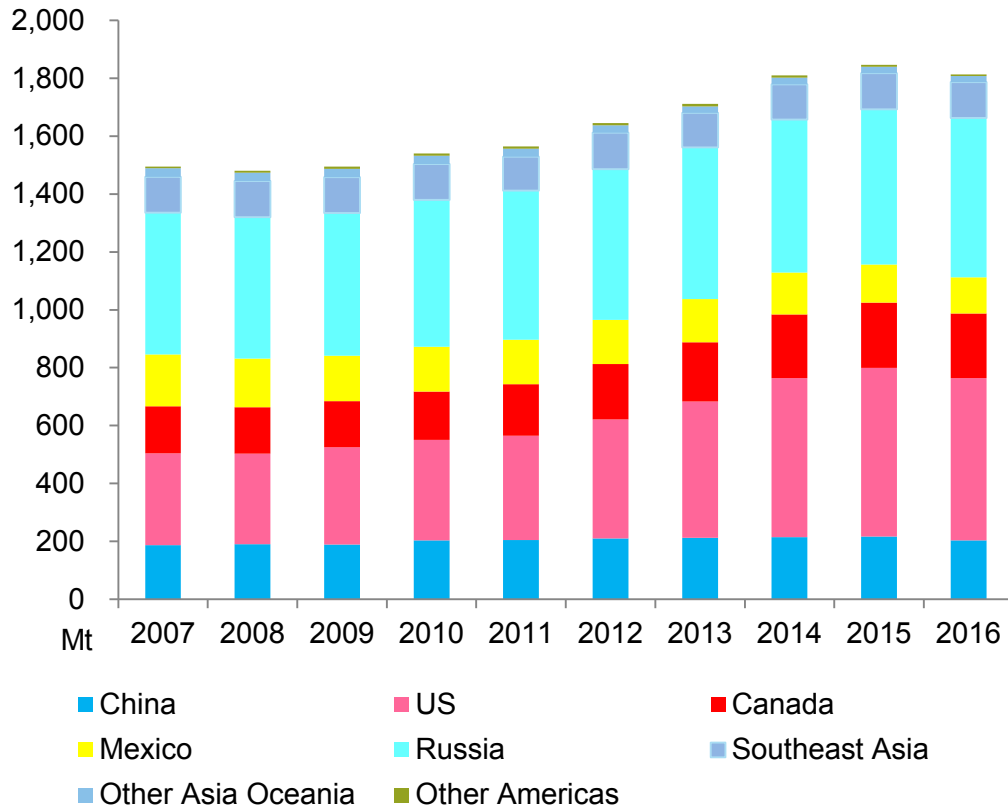
Source: APERC analysis and IEA 2018

**Global oil supply increased faster than demand to reach 4,377 Mt in 2016 (1.1% p.a.).**

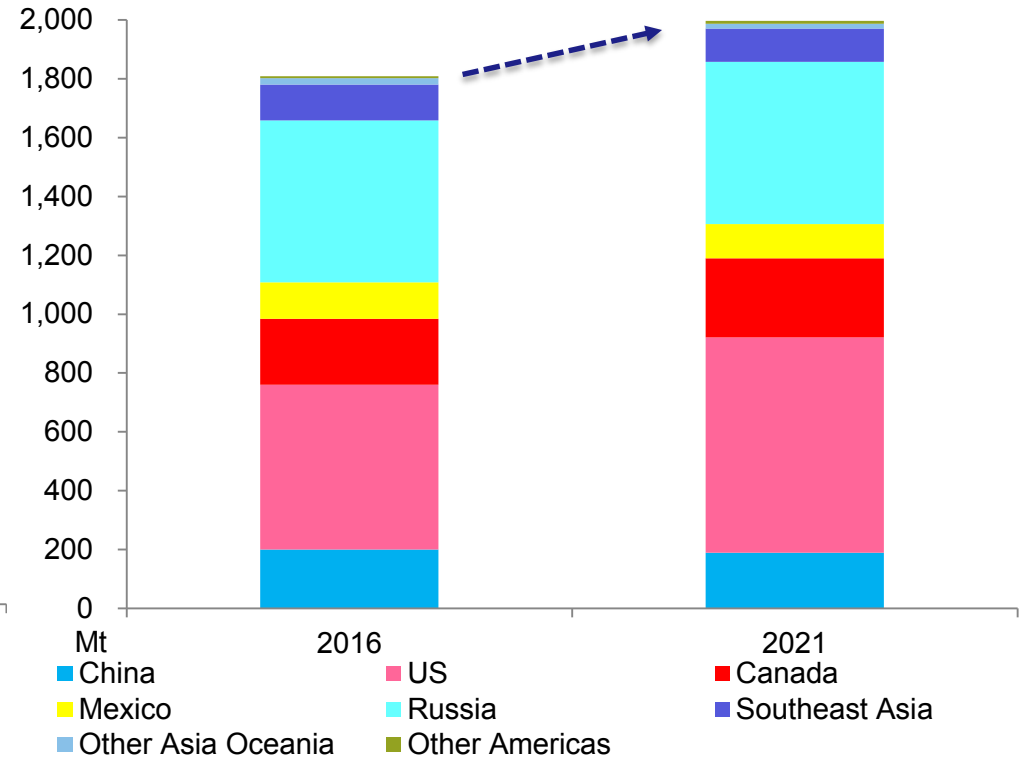
**USA, Russia, and Canada accounted for 74% of APEC supply with significant contribution from US shale.**

# APEC oil supply outlook 2021

## APEC supply 2007-2016



## APEC supply outlook 2016 vs 2021



**APEC supply**  
**Growth +2.0% p.a.**  
**(1,997 mt @2021)**

**Supply center → North America**

**APEC demand**  
**Growth +0.8% p.a.**  
**(2,455 mt @2021)**

**Demand center → Asia**



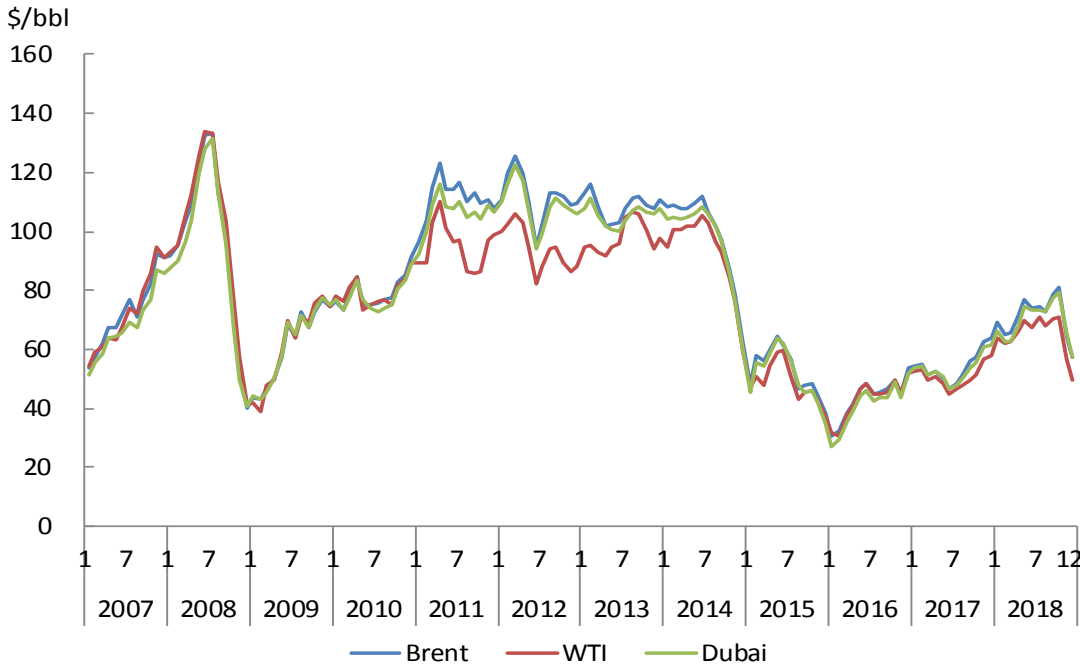
# Key factors influencing oil market

## Falling crude prices

## Brent-WTI spread



## Crude oil prices, 2007-2018



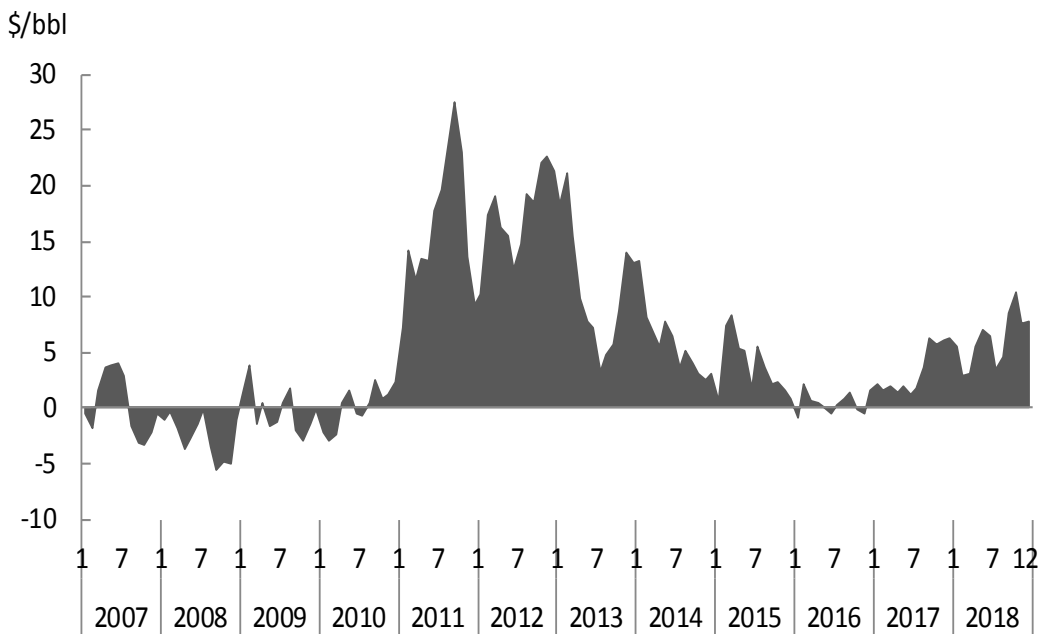
Source: IEA (2018b) and IEA (2019)

## 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+)

# Brent-WTI 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 due to 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, the USA.**



# Key factors influencing oil market

## US shale oil production

## OPEC and non-OPEC production cut

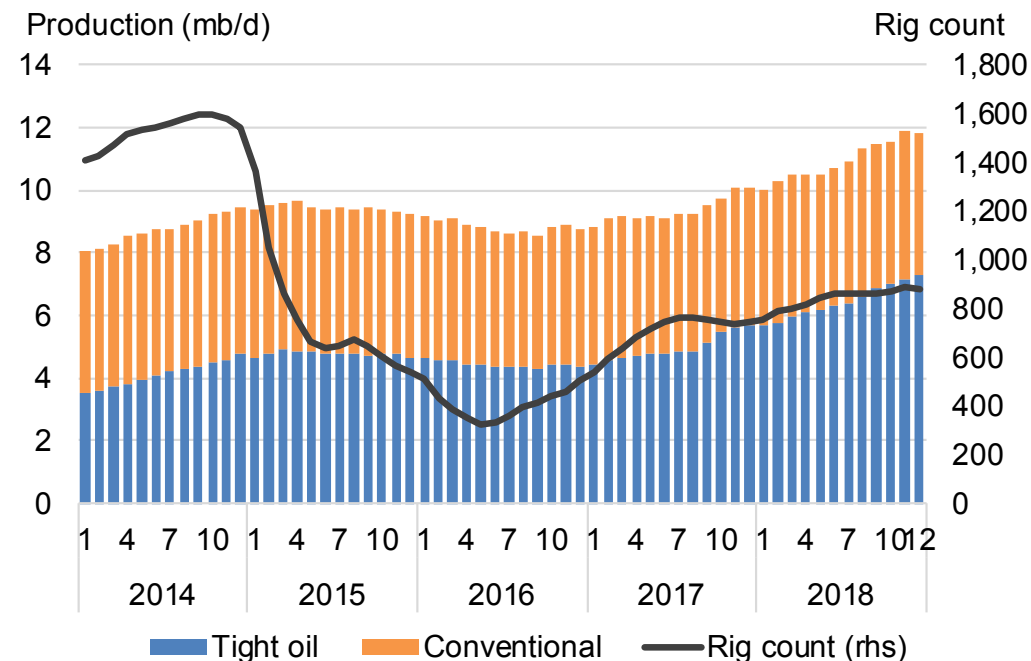
# US shale oil production

## Crude production and rig count in the USA, 2014-2018

Total US crude production was **11.8 mbd** in 2018, 87% of which was shale oil production.

EIA forecasted that US crude production would reach **13 mbd** in 2020.

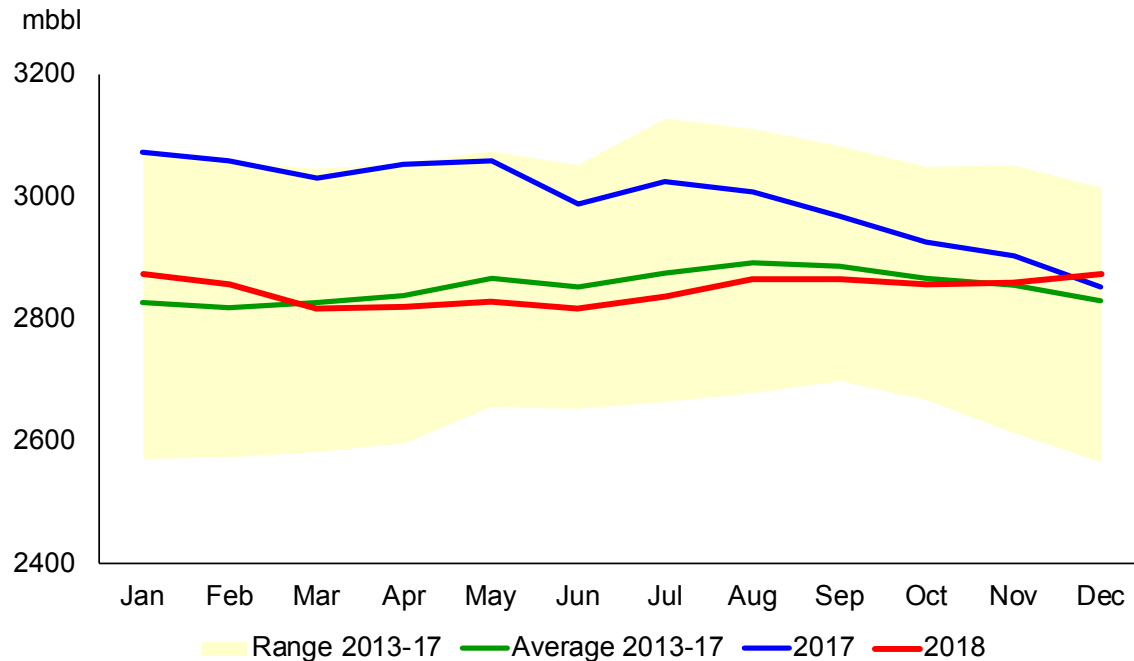
US energy balance has transformed into less import dependence due to shale oil boom.



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

# OPEC+ production cut

## OECD commercial oil stocks, 2013-2018



**Joint production cuts by OPEC and non-OPEC producers (OPEC+) in January 2017 subsequently forced the crude prices up in March 2018.**

**OECD commercial stock was recorded below the five-year average.**

**Strong demand growth is increasingly questioned with 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 of gasoline/diesel specs hinder trade

Different quality standards of gasoline and diesel have been adopted and traded in APEC economies; e.g., EURO III, EURO IV, EURO V, and EURO VI.

Gasoline and gas oil trade hampered by differences in their specifications.



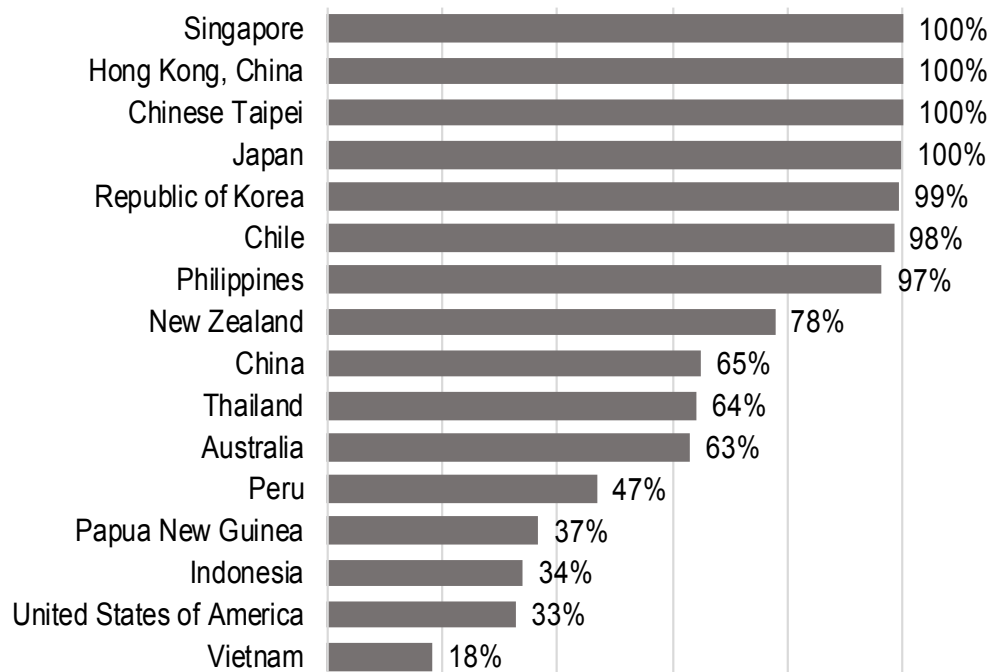
Utilising fuels with common standards in APEC will contribute to more dynamic product trades.

Harmonization of APEC oil specifications can alleviate:

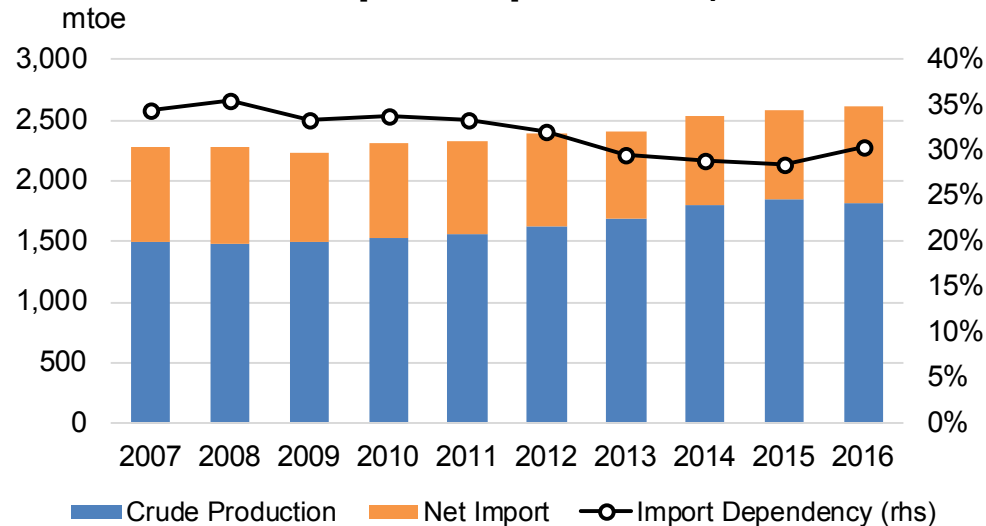
- APEC oil trade optimization
- Environmental emissions
- APEC energy security

# APEC import dependence

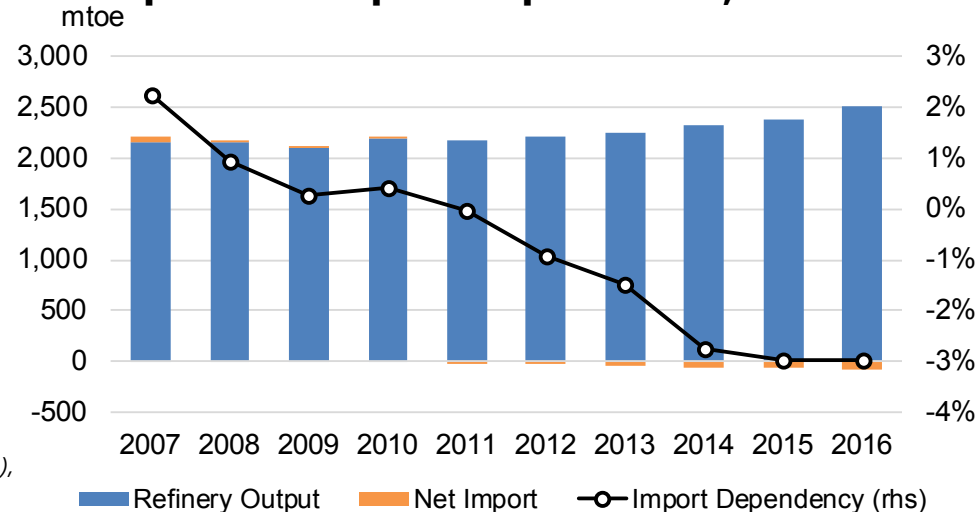
## APEC import dependence by economy in 2016



## APEC crude import dependence, 2007-2016



## APEC oil product import dependence, 2007-2016



**APEC crude import dependency has decreased from 35% to 30% for the past decade while it has been self-sufficient in oil products since 2014.**

*Note: Economies not listed are net-exporters of oil: Brunei (-798%), Russia (-190%), Canada (-127%), Mexico (-34%) and Malaysia (-8%)*  
 Source: APEC (2018)

note: Import dependence = (net import + stock changes) / total supply



The background of the slide is a composite image. The top portion shows a cityscape with a complex highway interchange and a large solar panel array. The bottom portion shows a similar scene with a different perspective, possibly a different part of the same city or a different location, also featuring a highway and solar panels. The central part of the slide is a solid blue rectangle containing the main text.

# Thank You for Your Attention

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