



The 54th Meeting of APEC Energy Working Group (EWG)
Wellington, New Zealand, 22-23 November, 2017

13.b. APEC Coal Market Report

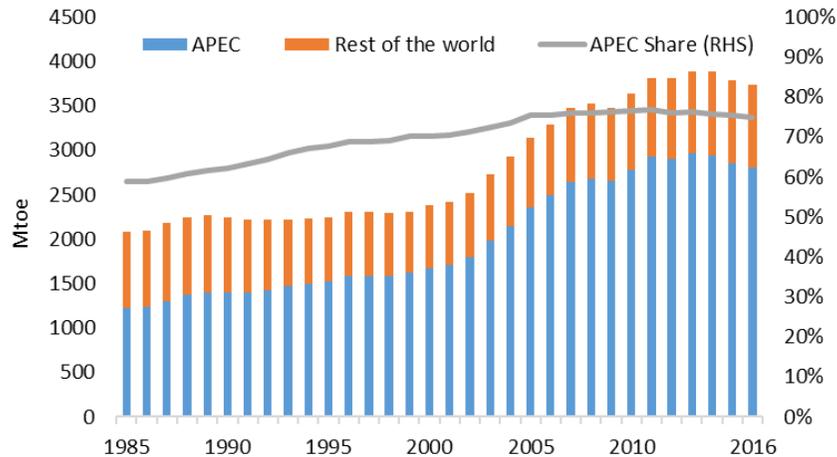
James KENDELL
Vice President, APERC



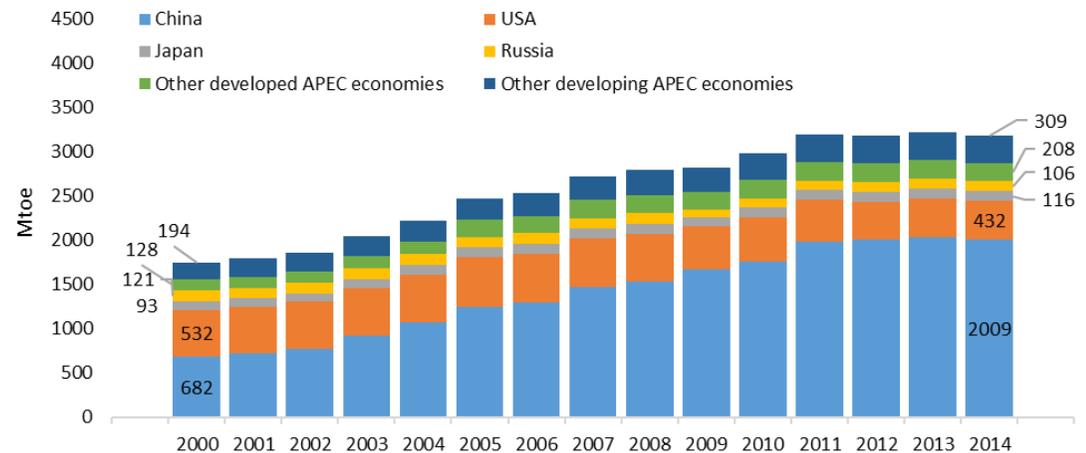
Global coal consumption and economic growth

Nearly 75% of global coal consumption occurs in APEC member economies

APEC and global coal consumption, 1985-2016



Coal consumption in APEC, 2000-2014



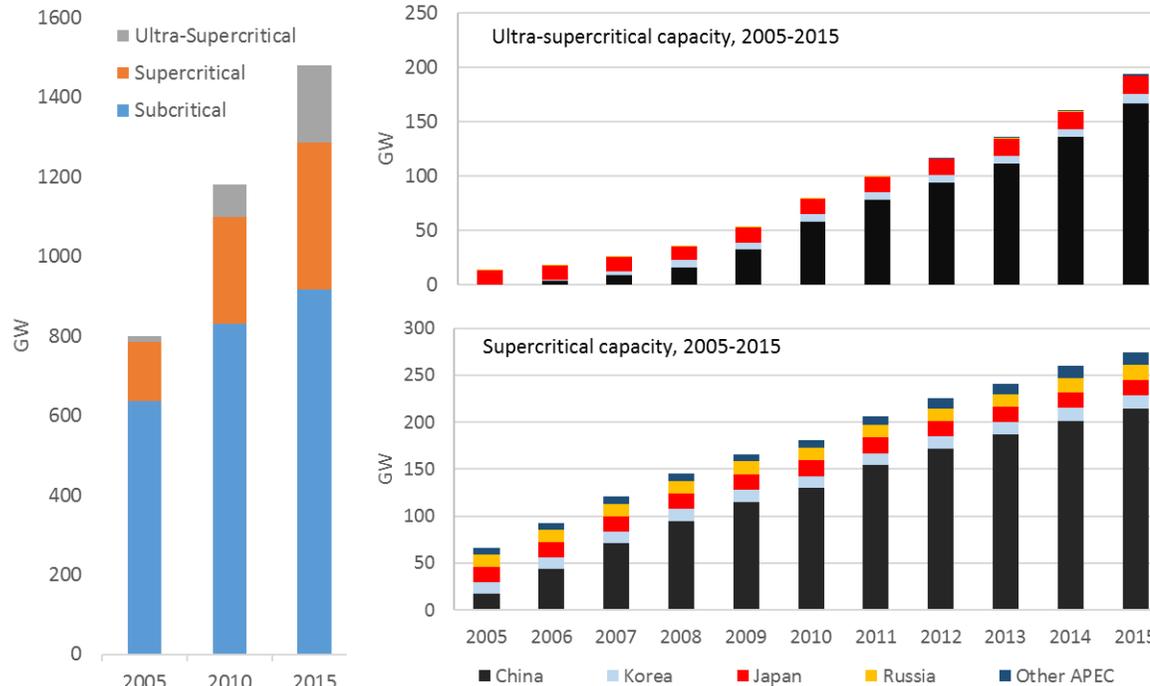
Source: BP (2017) and ESTO (2017).

- APEC coal consumption increased by 19% in 2016 from 2005 level.
- Despite global economic crisis in 2008-09, coal demand continue increased until 2014.
- In 2014, China accounted for two-thirds of total APEC coal demand, double 2005 levels.
- South East Asia has been the other major contributor to increased coal demand in APEC.
- US coal consumption declined by more than 22% from 2005 to 2014

Note: BP Statistical Review of World Energy 2017 lists 19 out of 21 APEC members. The other two APEC members that are not listed are Brunei Darussalam and Papua New Guinea which, based on ESTO data, do not consume any coal.

Coal power plant by technology type in APEC

Subcritical coal power plants continue to dominate APEC's power market



Source: Platts (2016) and APERC analysis

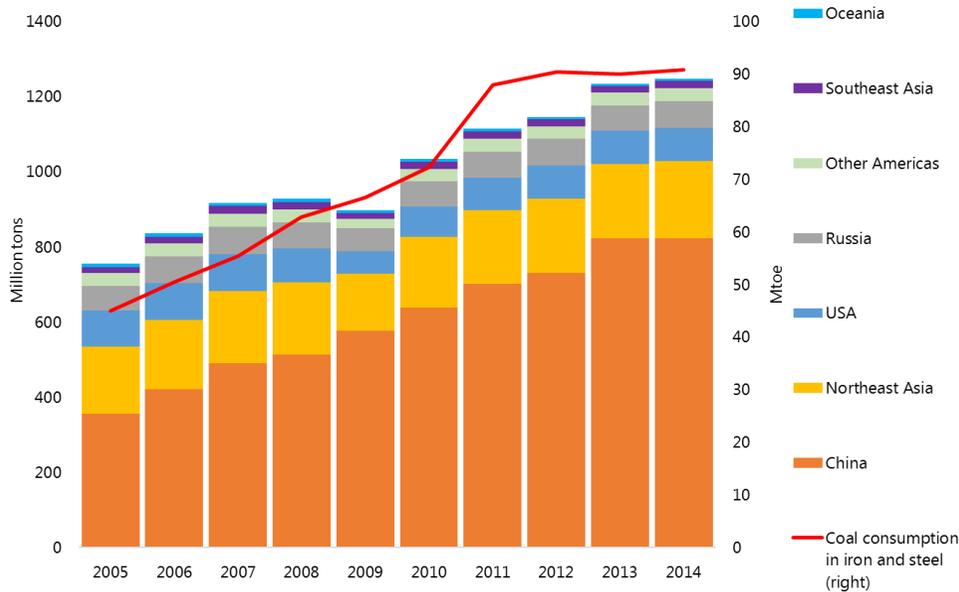
- *Advanced coal technologies (ultra- and supercritical) are gaining market share.*
- *More than 80% of the advanced coal power plants are located in China.*
- *Emerging economies started to deploy advanced coal power plants after 2012.*

Note: Only capacity that is in commercial operation, mothballed or on standby is considered in the analysis

Coal demand in iron and steel industry

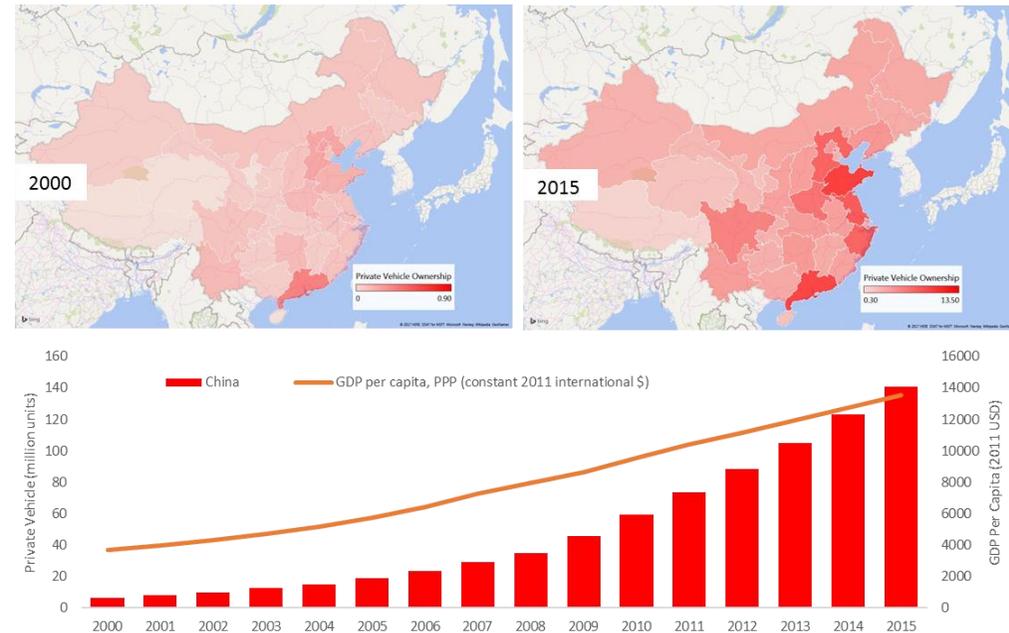
Rapid economic growth increased iron and steel demand in developing economies

Iron and steel production and coal use, 2005-14



Source: World Steel Association (2016) and ESTO (2017)

Private vehicle ownership in China and breakdown by province, 2000-15



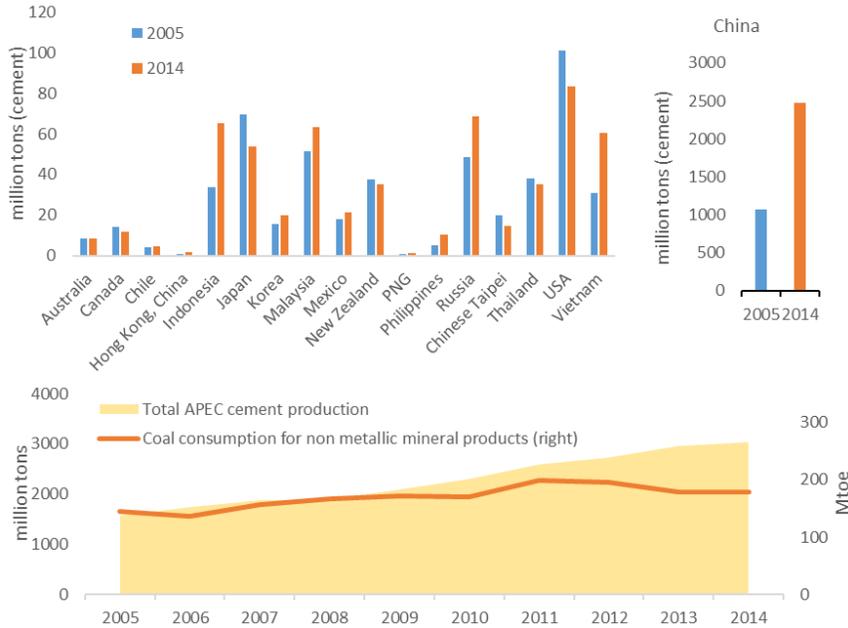
Source: NBS (2017), WB (2017) and APERC analysis.

- Coal consumption for iron and steel production in APEC doubled in a decade
- Financial crisis of 2008-09 affected US iron and steel production hugely but not in Asia.

Coal demand in cement production

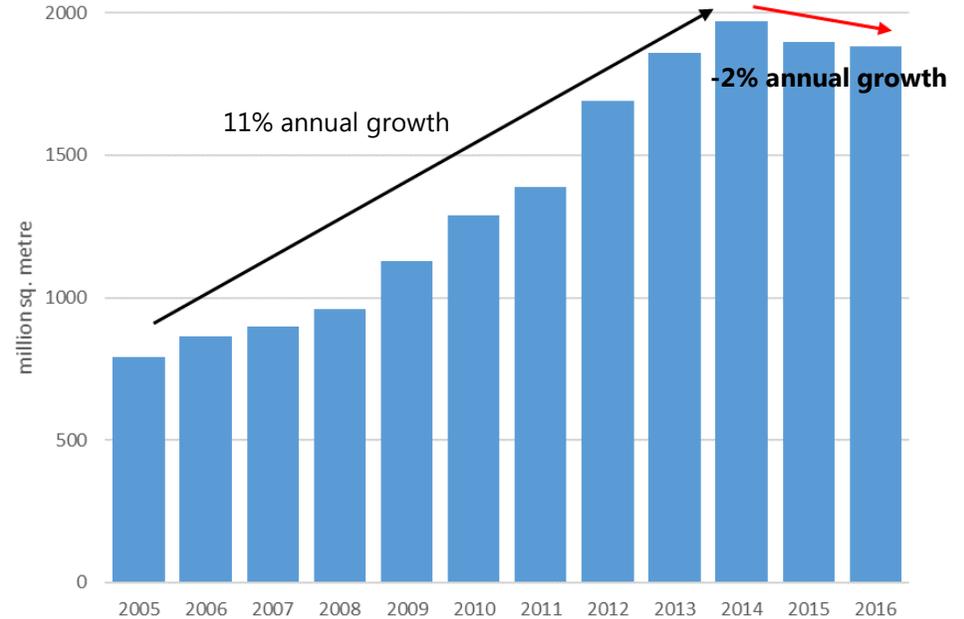
Cement production in APEC may slow down in the future

Cement production and coal consumption in APEC, 2005-15



Source: USGS (2017), ESTO (2017) and APERC analysis.

New floor space completed in China, 2005-16

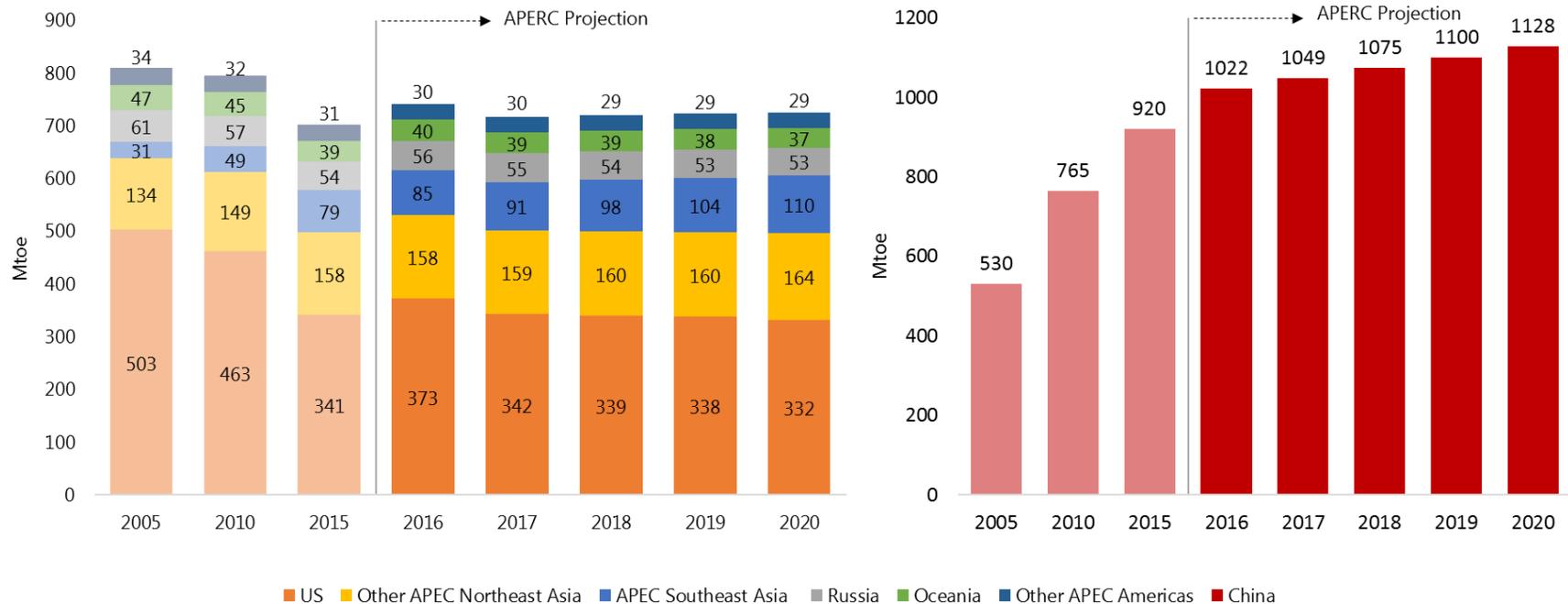


Source: NBS (2017) and APERC analysis.

- Cement production doubled while coal consumption for cement making increased by nearly 20% from 2005 level.
- New floor space completed in China slowed down in past two years. Sign of cooling real estate market?

Outlook for power sector

Growth in Asia will continue to sustain thermal coal demand in APEC



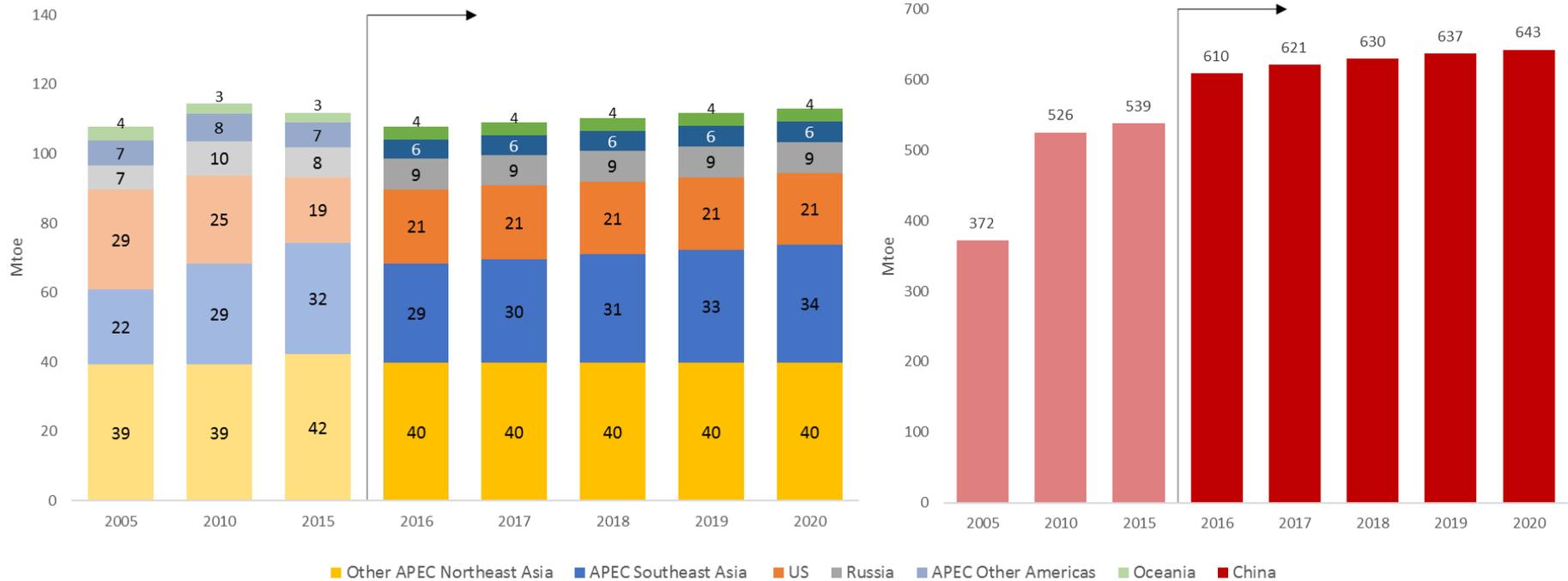
Source: IEA (2017) and APERC (2016).

- *China's coal consumption in power will increase at a very slow pace compared with previous decade as more regulation is introduced by the government.*
- *Coal capacity in Southeast Asia is expected to expand rapidly.*

Note: APERC projection was made in 2016 by using IEA 2014 historical data. Other APEC Northeast Asia – Hong Kong, China; Japan; Korea and Chinese Taipei. APEC Southeast Asia – Brunei Darussalam; Indonesia; Malaysia; Philippines; Singapore; Thailand and Viet Nam. Oceania – Australia; New Zealand and Papua New Guinea. Other APEC Americas – Canada; Chile; Mexico and Peru.

Outlook for industrial sector

Developing Asia expected to use more coal in industrial sector



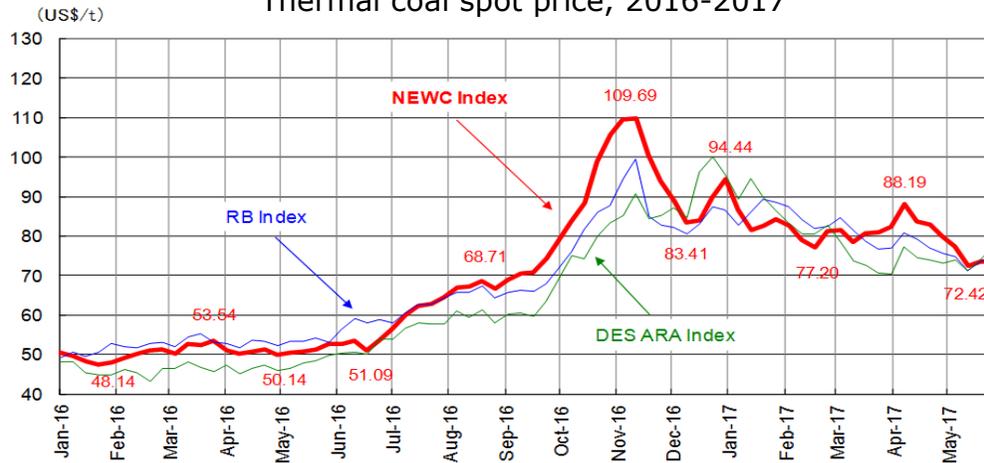
Source: IEA (2017) and APERC (2016).

- China and Southeast Asia economies are projected to record growth in industrial sector coal consumption while other APEC members are flat.

Note: APERC projection was made in 2016 by using IEA 2014 historical data.

Coal price outlook

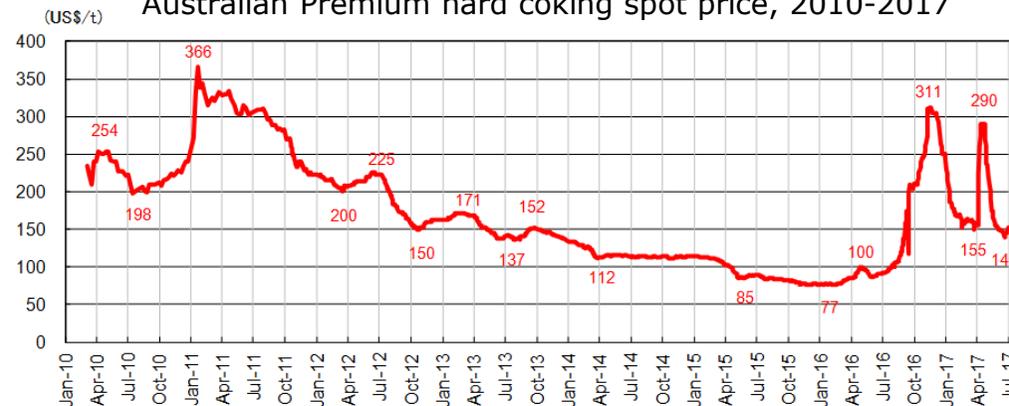
Thermal coal spot price, 2016-2017



Source: globalCOAL (2017)

Thermal coal price, which rose to more than US\$110/tonne earlier this year, dropped to about US\$70/tonne currently and is expected to increase again after 2018, partly because of export reduction from Indonesia.

Australian Premium hard coking spot price, 2010-2017



Source: IHS (2017)

Metallurgical coal prices, which have been rising recently, will enter a downward trend in the immediate future, but stop falling when supply and demand reach a balanced level. After that, they are expected to level off or increase gradually.



Thank you for your kind attention

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