

# CHINA ECONOMIC UPDATE JULY 2017



## Old King Coal – coal still a big part of China’s energy mix but its role is on the wane

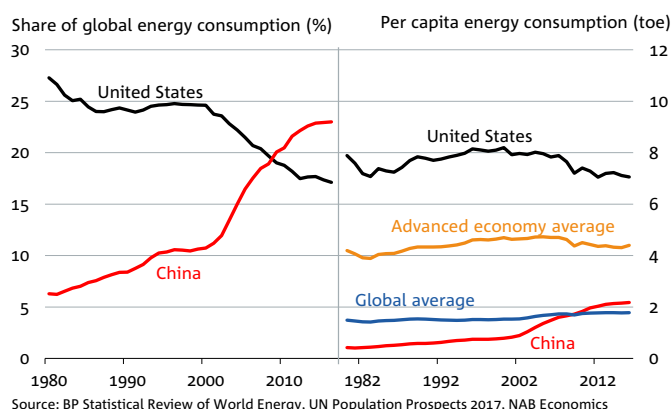
NAB Group Economics

In early 2016, Chinese authorities introduced restrictions on domestic coal mining designed to improve the profitability of the sector, which has been plagued by high debt levels and falling demand. Coal consumption has fallen in recent years, however the fuel still makes up a sizeable share of China’s energy mix, and will continue to do so for the foreseeable future. While changes to the energy mix will likely be slow, they could have a major impact on global commodity markets.

### CHINA’S ENERGY USE STILL TRENDING HIGHER

China is the world’s largest energy consumer – having overtaken the United States in 2009 – with China accounting for 23% of the global total in 2016 (compared with around 17% for the United States). However on a per capita basis, China continues to lag – with consumption of almost 2.2 tonnes of oil equivalent per person in 2016, less than half the average consumption level of advanced economies.

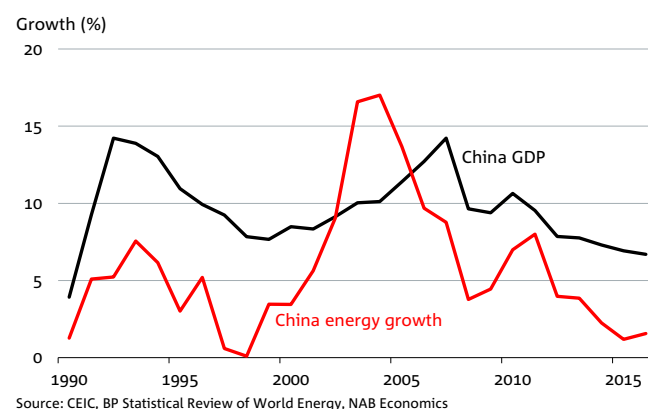
### CHINA THE LARGEST ENERGY CONSUMER But still lags behind in per capita terms



China’s energy consumption has continued to increase in recent years – there has long been an observable relationship between energy consumption and economic growth – however the patterns around Chinese energy consumption are changing. In 2016, China’s primary energy consumption rose by 1.6% – slightly higher than the rate in 2015 (1.2%), but well below the typical rates seen since the turn of the century. With the gradual evolution of China’s

growth model – away from energy intensive heavy industry toward much less intensive services – growth in energy consumption is likely to be more moderate in the future.

### ENERGY GROWTH IS SLOWING Service led growth less energy intensive

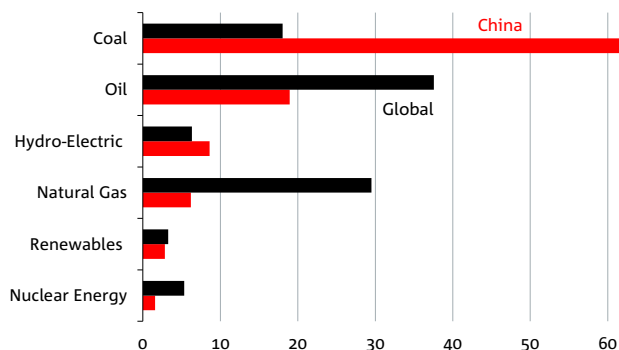


Coal remains the dominant fuel in China’s energy mix, accounting for around 62% of the country’s primary energy consumption (a share that has declined noticeably over the past decade). Over the past five years, the main contributor to the increase in energy consumption has been oil – reflecting the increase in automotive and aviation transport in recent years – with oil’s share of China’s energy mix rising from around 17% in 2011 to 19% in 2016. That said, this level is well below the global average of almost 38%. From a global perspective, it is oil, rather than coal, that is the main source of energy.

## COAL REMAINS THE NUMBER ONE FUEL

### But its share has fallen

Share of primary energy consumption (%)



Source: BP Statistical Review of World Energy, NAB Economics

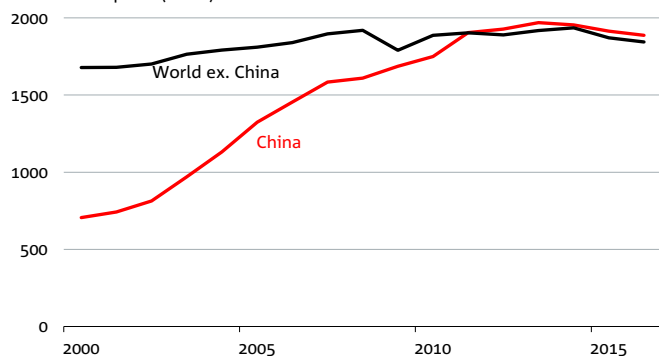
## THE GRADUAL DECLINE OF COAL

The role of coal in China’s economy has started to decline – with China’s coal production peaking in 2013 (at almost 4 billion tonnes) and has fallen since – down to 3.4 billion tonnes in 2016. Almost all of China’s coal production is consumed domestically. Despite the decline in coal use, China’s share of global coal consumption has remained virtually unchanged since 2013 – at around 62% – with global usage also in retreat, as environmental pressures favour alternatives such as natural gas and renewables.

## GLOBAL COAL CONSUMPTION

### China still burns half the world’s total

Coal consumption (Mtoe)



Source: CEIC, BP Statistical Review of World Energy, NAB Economics

The decline in China’s coal consumption in part reflects efforts to address the air pollution crisis which gripped the northeast region in late 2013 – while at the same time there has been increasing penetration of other technologies in the energy sector, particularly renewables.

Falling demand, chronic overcapacity and rising debt levels have put increasing pressure on China’s coal producers. In an attempt to improve profitability in the sector and eliminate the least efficient operations, the National Development and Reform

Commission (NDRC) introduced coal mining restrictions in 2016. Between April and November, mines were only permitted to operate for 276 days (on an annual basis), compared with 330 days previously – equivalent to a 16% cut in output. The restrictions forced consumers to seek alternative volumes in tight global markets – causing a spike in coal prices that ultimately ended the policy – highlighting the major impact that Chinese domestic policy can have on global commodity markets.

## WHAT DOES THE LONGER TERM PICTURE LOOK LIKE?

Chinese authorities are attempting to address issues in both the coal mining and power generation sectors by merging large state-owned firms, while continuing to cut overall mining capacity. An estimated 290 million tonnes of annual capacity was shutdown in 2016 – above the target set by the NDRC – against a broader capacity reduction goal of 800 million tonnes a year in the five years to 2020.

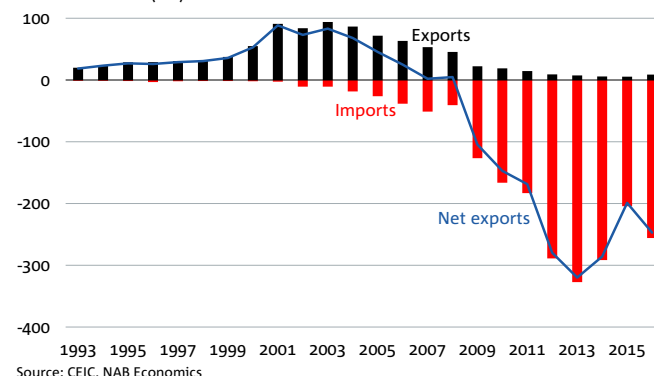
Under the current five year plan, coal’s share of China’s primary energy consumption is set to fall – from around 62% in 2016 to 58% in 2020. That said, under the plan, total energy consumption could rise by around 3% a year over the period – which would lead to a modest increase in absolute coal use (over current levels). We argue that this rate of growth is probably too high (given the lower energy intensity of service led growth), and that the downward trend in China’s coal consumption is likely to continue.

The decline of both Chinese domestic consumption and production could have a significant and uncertain impact on global coal markets – depending on which falls faster. In the past fifteen years, China has gone from being a major coal exporter to a major importer – fundamentally altering global markets. While imports accounted for just 7% of Chinese coal consumption in 2016, they accounted for almost 19% of global trade – highlighting China’s outsized impact on markets.

## CHINA’S IMPACT ON GLOBAL COAL TRADE

### Switch from exporter to major importer

China coal trade (Mt)



Source: CEIC, NAB Economics

## CONCLUSION

China's coal consumption has declined over the past few years, with further modest falls probable as the fuel's share of the energy mix continues to wane. However, China's outsized impact on global coal trade means considerable uncertainty for commodity markets – as relatively small changes in the domestic mix could have large scale impact on seaborne demand and prices.

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