

# BULK COMMODITIES OUTLOOK

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National  
Australia  
Bank

## *All eyes on China's steel sector*

- China's steel production and consumption has surged to record levels in recent months – supported by strong profitability for steel mills. Steel prices have been elevated due to strong demand from the construction sector and speculative inflows into futures markets.
- That said, Chinese authorities have ordered large scale capacity closures over the period from November to March (due largely to environmental concerns) – which is likely to have a major impact on demand for bulk commodities over the period. Weaker construction activity is expected to slow steel demand beyond this period.
- Iron ore prices have retreated rapidly in recent weeks – dropping by 20% across September. This appears to be linked to Chinese steel mills cutting orders ahead of the capacity closures, along with speculative pressures in futures markets. We see the spot price trending around the US\$60 a tonne mark across the next year, given ample supply in global markets.
- Metallurgical coal prices are expected to ease from levels near US\$200 a tonne over coming months, as weaker Chinese steel production impacts demand, heading down to US\$100 a tonne by the end of 2018.

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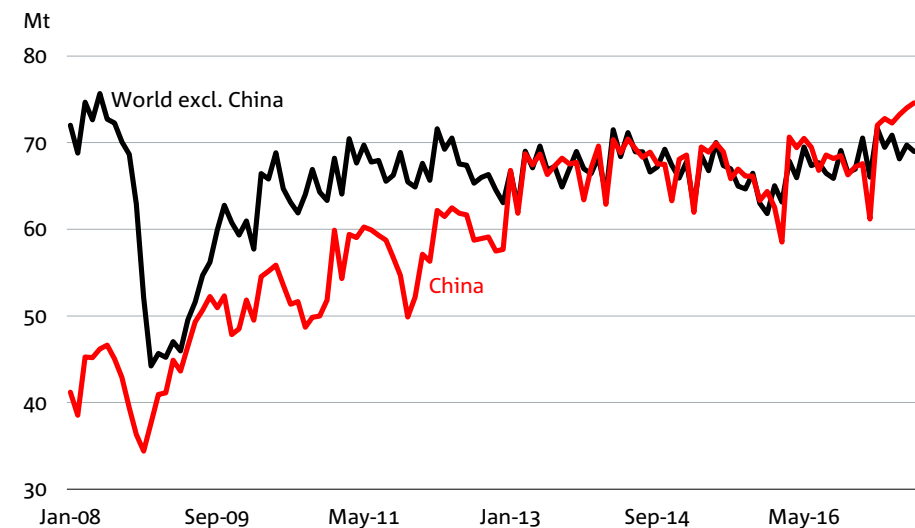
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# CHINA'S STEEL OUTPUT REACHES NEW RECORDS IN 2017

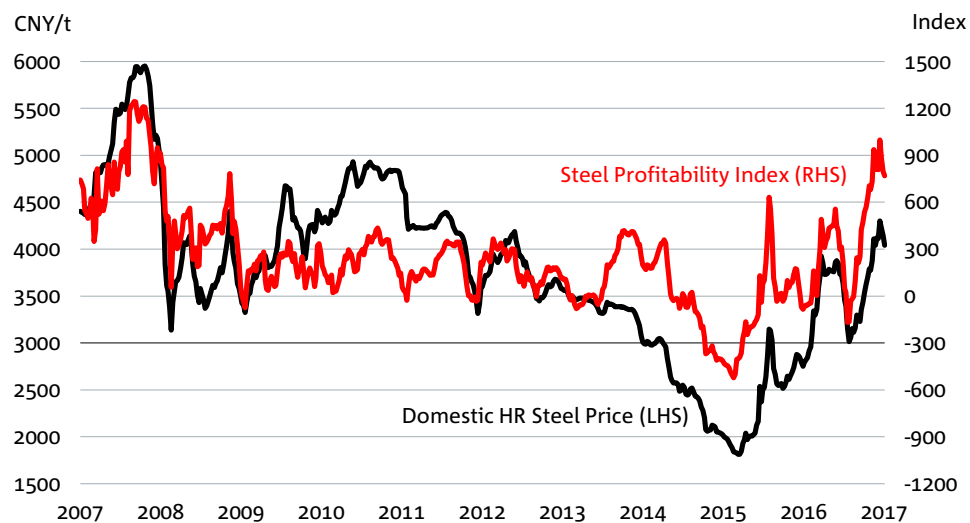
*Surging profitability driving production*

## CHINA'S STEEL PRODUCTION MOVES TO NEW RECORDS



Source: World Steel, NAB Economics

## STEEL MAKER PROFITABILITY AT DECADE LONG HIGHS



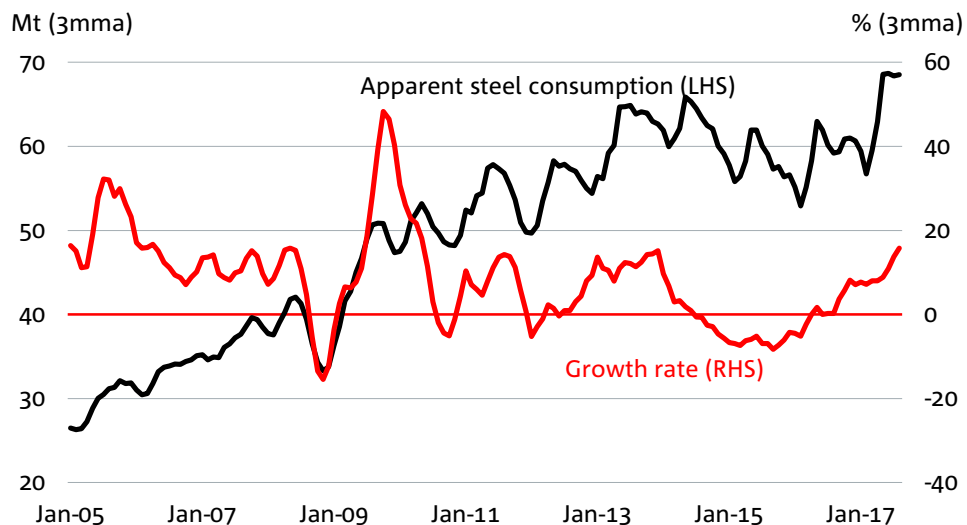
Sources: Bloomberg, NAB Economics

- The recent history of China's rapid industrialisation has seen the country come to dominate the global steel industry. At the turn of the century, China accounted for around 15% of global output, however this share rapidly rose – to just over 50% in 2016.
- After output stabilised from early 2013, China's steel production has risen to record levels in recent months – up to 74.6 million tonnes in August. This was counter to many expectations, including the China Iron and Steel Association, which had argued that production has peaked and will decline in coming years.
- One factor driving the stronger output trend has been surging profitability for steel mills. The steel profitability index – which is based on the domestic price of steel and the prices of raw materials – rose to its highest level in a decade. The strength of steel prices reflects both demand and speculative pressures.
- Industry wide profitability has also been supported by efforts to reduce excess capacity. In 2016, Chinese authorities cut around 65 million tonnes of annual capacity (well above the targeted 45 million tonnes set by the National Development and Reform Commission). Over the five years to 2020, as much as 150 million tonnes of steel capacity is scheduled for elimination. Depending on the level of production and in the absence of new capacity being developed (something prohibited in 2016 by China's State Council), this could bring capacity utilisation from around 70% in 2015 to 80% – a level generally viewed as the global breakeven rate.
- Some of the surge in output may also represent production being brought forward. Production is set to fall in coming months, with authorities in Beijing ordering capacity closures (as much as 50% of the total) in 28 northern cities to reduce pollution over the key heating months from November to March.

# CHINESE STEEL CONSUMPTION AT FRESH PEAKS

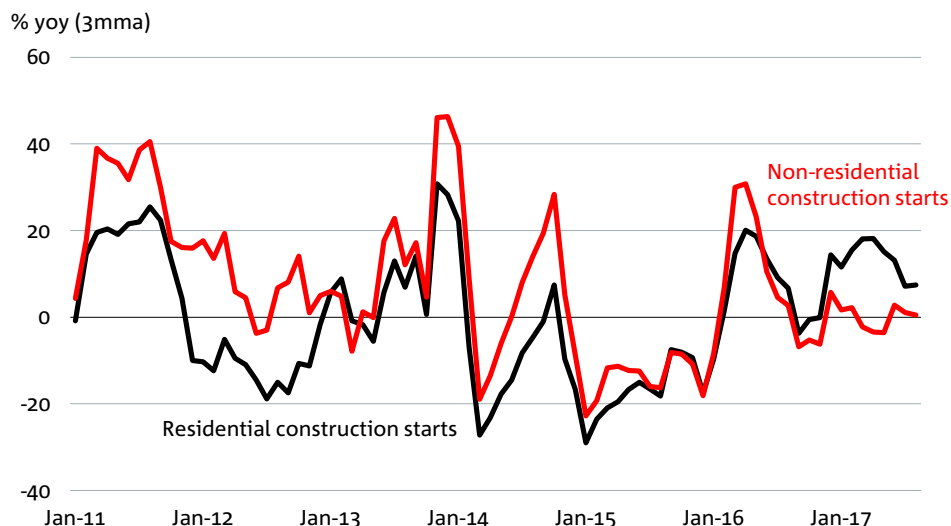
*Construction demand the key driver but is expected to slow*

## APPARENT CONSUMPTION HAS RISEN TO NEW RECORDS



Sources: CEIC, Bloomberg, NAB Economics

## RESIDENTIAL CONSTRUCTION HAS BOOMED SINCE 2016



Source: CEIC, NAB Economics

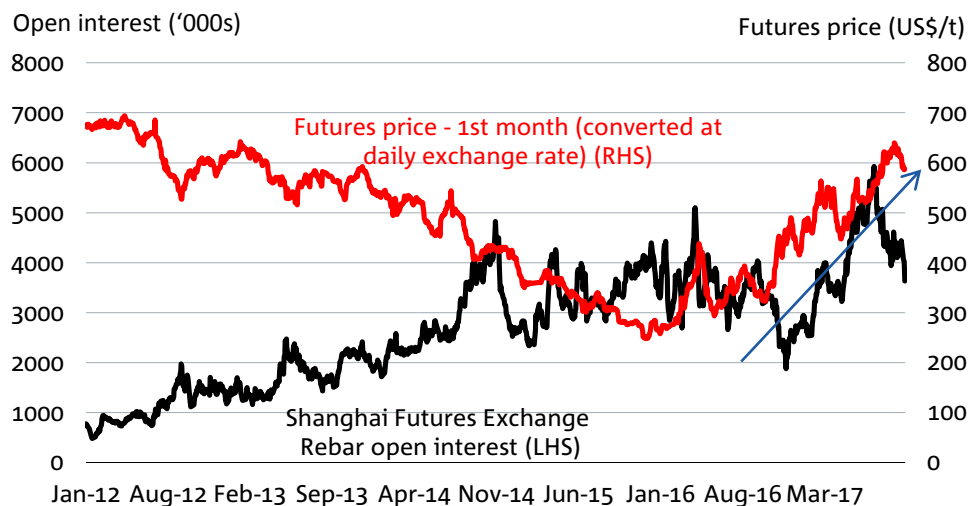
- A contributor to the surge in Chinese domestic steel prices has been the upturn in demand, however this trend is expected to weaken as construction activity slows in coming months.
- China's apparent steel consumption has accelerated in recent months, having remained well below the previous peak levels recorded across 2013 and 2014 until mid-year. From May onwards, apparent consumption – which takes into account steel production, trade and changes in stockpiles – pushed above 68 million tonnes a month – compared with the previous high of around 65 million tonnes in mid 2014.
- The construction sector is China's major steel consumer – at around 54% of the total in 2015 – followed by machinery & equipment (at 20%) and automobiles (7%) (MIPRI).
- In order to support the economy in 2016 – as it transitioned away from an investment led growth to a consumption based model – Chinese authorities allowed a debt fuelled property and construction boom to provide stimulus. Mortgages accounted for 38% of total bank lending in 2016 and around 27% in the first half of 2017 – far above the normal trend.
- From early 2016, Chinese construction activity accelerated – having declined across much of 2014 and 2015 as the previous property bubble deflated. Residential construction starts increased strongly across most of 2016 and the first half of 2017, while non-residential construction activity has stalled this year.
- More recently, house price growth has slowed significantly and construction activity may be cooling. Chinese authorities have tightened policies across a range of cities – including tighter eligibility requirements for purchasers and stricter lending policies. Should this policy be successful in slowing construction activity, this will substantially slow steel demand.



# STEEL FUTURES MARKETS

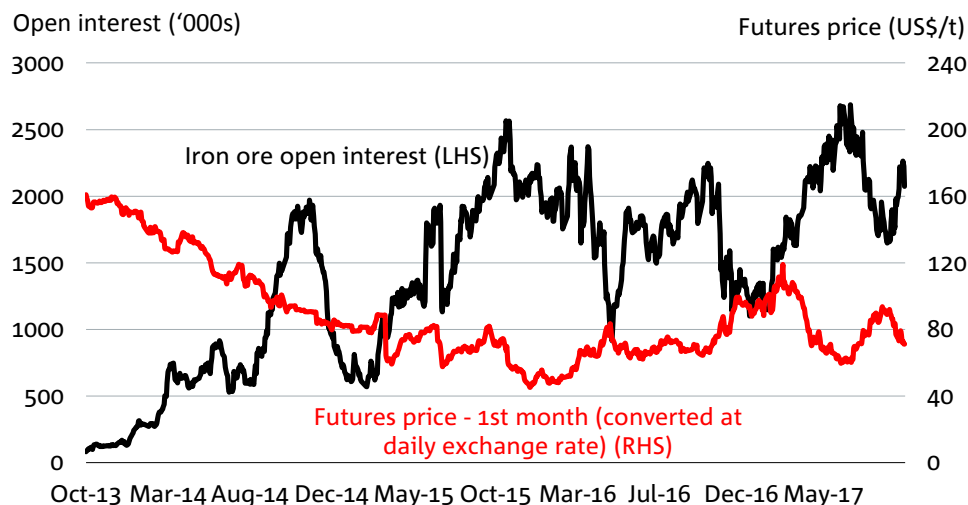
*Large inflows may have contributed to surging steel prices*

## LARGE INFLOWS INTO STEELS FUTURES MARKET



Source: Bloomberg, NAB Economics

## SPECULATORS APPEAR TO BE ON IRON ORE'S SELL SIDE



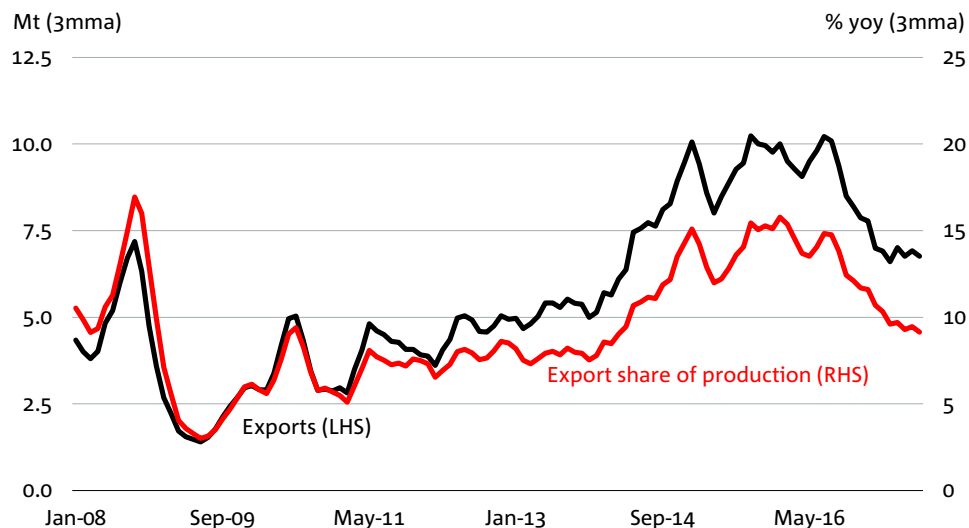
Source: Bloomberg, NAB Economics

- Another potential contributor to the increase in China's steel prices has been speculative inflows. China's futures markets for commodities have a far shorter history than global markets for base metals and energy. For example, trading of steel rebar on the Shanghai Futures Exchange (SHFE) commenced in March 2009. Data from these markets are also more limited – with no distinction between commercial and non-commercial (speculative) market participants – limiting the capacity to identify speculative pressure on prices.
- Between November 2016 and July 2017 there was a rapid increase in open interest for the steel rebar contract on the SHFE – rising from 1.9 million contracts to 5.9 million. The first month contract price rose steadily over this period – from just over US\$400 a tonne to around US\$580 a tonne – and continued to climb until September (by which time open interest had pulled back to around 4.4 million – a level that is still historically high).
- In contrast, it appears that speculators have been on the sell side of iron ore since early 2017 – with increases in open interest in the first half of the year aligned to falling prices on the Dalian Commodity Exchange, while the recent increases in iron ore prices (between July and early September) corresponded with a decline in open interest.
- The rapid fall in iron ore prices across September came as sell side speculators appeared to return to the market. This likely coincided with weaker orders from Chinese steel mills ahead of the upcoming capacity closures between November and March, placing downward pressure on spot prices.

# CHINA'S STEEL TRADE

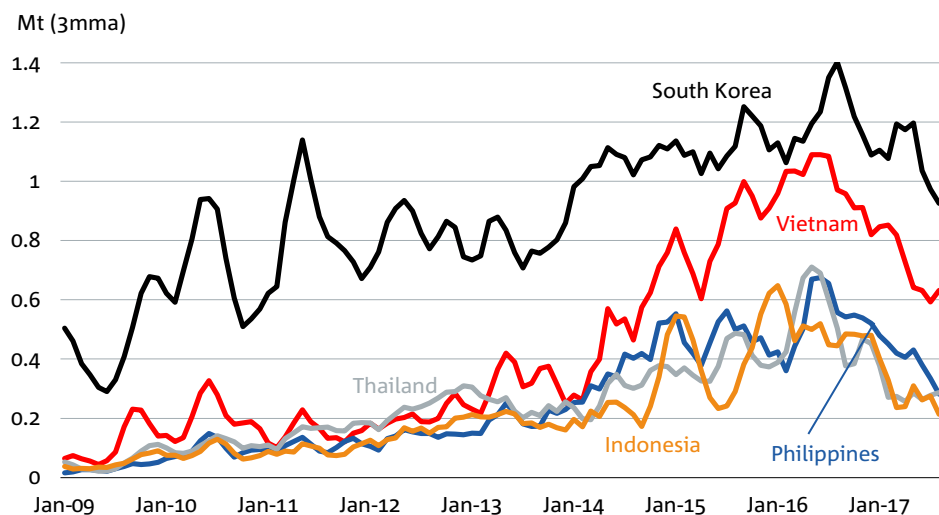
## Export markets offer limited opportunity for Chinese producers

### STEEL EXPORTS FALLING FROM RECENT PEAKS



Source: CEIC, NAB Economics

### EXPORTS HAVE FALLEN ACROSS A RANGE OF KEY MARKETS



Source: CEIC, NAB Economics

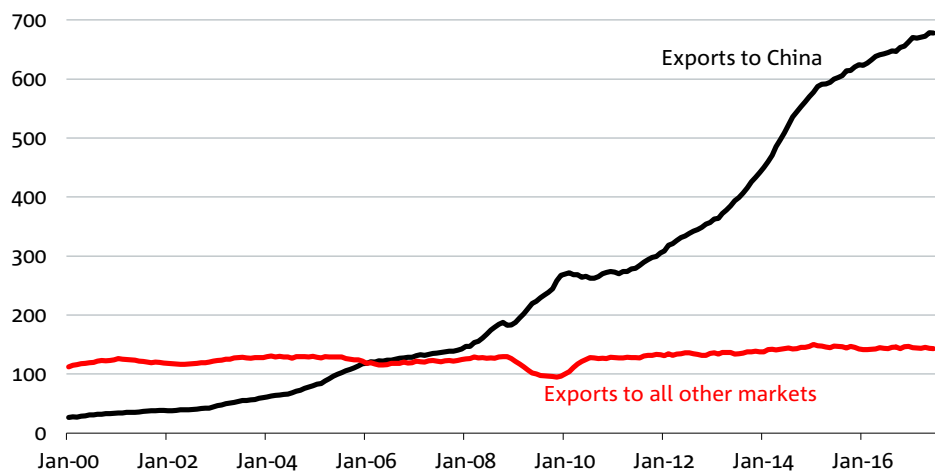
- Steel exports have become a source of geopolitical tension in recent years – with various countries accusing China of anti-competitive dumping into global markets as exports rapidly rose. In both 2015 and 2016, China's total steel exports exceeded the domestic output of Japan – the world's second largest steel producer.
- In the first eight months of 2017, China's steel exports have dropped sharply – totalling 54.5 million tonnes – a year-on-year fall of 29%. While some of this trend may reflect strength in domestic consumption, it may also reflect the impact of protectionist trade measures.
- The most high profile trade restrictions have come from the United States and Europe. In March 2016, the United States imposed a 266% tariff on some Chinese steel products, and President Trump is thought to be considering broader action under the national security grounds of Section 232 of the Trade Expansion Act. Similarly, the European Union imposed a 74% tariff on Chinese steel imports last year.
- That said, there was limited significance to these moves – as both markets are comparatively small consumers of Chinese steel. In contrast, markets in East Asia are China's largest market – with export volumes declining from mid-2016 onwards. That said, the ramp up in export volumes since 2013 has also raised trade tensions in this region.
- In March, Vietnam imposed a 21.3% border tax on steel ingots and long steel products – primarily targeted against China, which it argues had flooded its domestic market and harmed local steel producers. Indonesia and Thailand have been investigating trade measures as well, having implemented some anti-dumping measures in 2014.
- This suggests that export markets would be unable to absorb excess Chinese steel in the event of a slowdown in domestic demand.

# AUSTRALIAN RAW MATERIAL EXPORTS

## Iron ore producers highly reliant on China

### IRON ORE EXPORTS OVERWHELMING CHINA FOCUSED

Exports (Mt, rolling twelve month total)

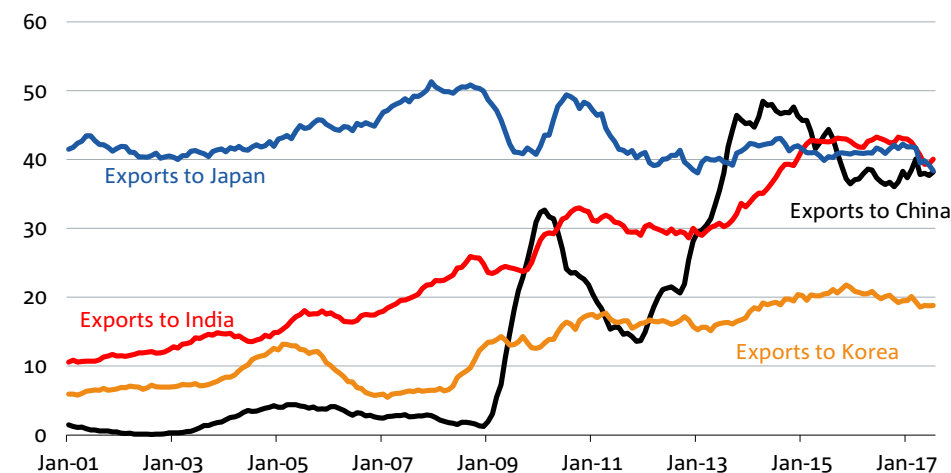


Sources: Bloomberg, NAB Economics

- Australian exports of iron ore accelerated rapidly over the past decade – driven almost solely by growing demand from China’s steel mills. In the twelve months to July 2017, almost 83% of Australia’s iron ore exports were delivered to China – compared with 53% for the same period in 2007 and around 20% at the turn of the century.
- In the first seven months of the 2017, iron ore exports increased by just 2.3% yoy (compared with double digit rates over most of the period between 2012 and 2015). We expect only modest growth potential in the short term – given the outlook for Chinese steel.
- In contrast, Australia’s metallurgical coal exports are far more diverse – with China’s share of the twelve months to July 2017 at around 19%, having peaked at around 25% in 2013. Exports to India have ramped up significantly over recent years – as the country has started to develop its steel industry. While India has sizeable reserves of iron ore, it lacks high quality metallurgical coal necessary to produce steel.

### METALLURGICAL COAL EXPORTS ARE MORE DIVERSE

Exports (Mt, rolling twelve month total)



Sources: Bloomberg, NAB Economics

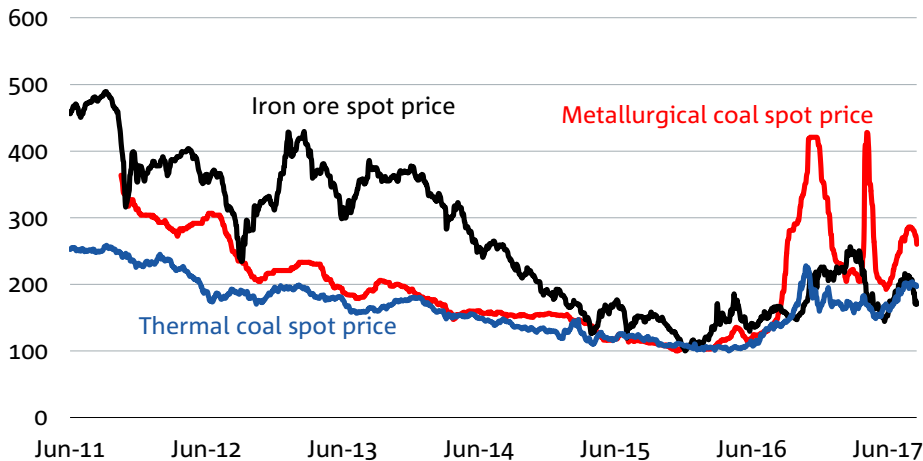
- The more diverse nature of metallurgical coal exports suggests that iron ore producers would be hit more significantly by a slowdown in China’s steel sector than coal producers.
- Metallurgical coal exports fell by almost 12% yoy in the first seven months of the year – due largely to the impact of Tropical Cyclone Debbie. We expect exports to recover in 2018 – back towards the levels recorded in 2016, however China’s steel outlook will constrain further growth.

# BULK COMMODITY PRICES

## Prices set to decline on weaker Chinese steel output

### BULK PRICES VOLATILE – LED BY METALLURGICAL COAL

Index (100 = late 2015 cyclical low)



Source: Bloomberg, Datastream, NAB Economics

- Prices for metallurgical coal have been incredibly volatile over the past twelve months – spiking due to Chinese domestic coal restrictions in late 2016 and cyclone related disruptions in Queensland in early 2017. Prices are expected to ease from levels near US\$200 a tonne over coming months, as weaker Chinese steel production impacts demand, heading down to US\$100 a tonne by the end of 2018.
- Spot prices for thermal coal have remained above the 2017 Japanese financial year contract price (US\$85 a tonne) in recent months. Reflecting the strength of these markets, we have revised our forecast for the 2018 contract to US\$80 a tonne (from US\$65 a tonne previously).
- Iron ore prices have retreated rapidly in recent weeks – dropping by 20% across September. This likely reflects slowing purchases from Chinese mills ahead of the November-March capacity shutdown. We see the spot price trending around the US\$60 a tonne mark across the next year, given ample supply in global markets.

### BULK COMMODITY FORECASTS

		<i>Mar-17</i>	<i>Jun-17</i>	<i>Sep-17</i>	<i>Dec-17</i>	<i>Mar-18</i>	<i>Jun-18</i>	<i>Sep-18</i>	<i>Dec-18</i>
Iron ore (spot)	US\$/t	86	64	72	62	60	62	61	60
Hard coking coal*	US\$/t	285	194	189	160	140	120	105	100
Semi-soft coal*	US\$/t	210	142	135	115	101	87	76	72
Thermal coal*	US\$/t	62	85	85	85	85	80	80	80

\* Data reflect NAB estimates of US\$/ tonne FOB quarterly contract prices (thermal coal is JFY contract). Actual data represent most recent final quarterly contract price.

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