# BULK COMMODITIES OUTLOOK

## APRIL 2017

### *Short term spike in coking coal masks softer trend for bulks*

- Metallurgical coal prices have spiked following supply disruptions in Queensland following Tropical Cyclone Debbie. Rail infrastructure will gradually return to normal after 26 April – bringing spot prices back to levels around US$150 a tonne.
- Spot prices for iron ore have exhibited considerable volatility in recent months – having risen strongly between October 2016 and February 2017 (rising from around US$55 a tonne to around US$96 a tonne for benchmark 62% ore) before retreating sharply. At the time of writing, spot prices were around US$65 a tonne – around a third lower in the space of two months.
- We argue that two different factors contributed to these trends. The initial rising trend in spot prices was driven by the shift in Chinese consumer preference for higher grade ore. In contrast, we suggest that speculative pressure has driven the sharp retreat.
- Market fundamentals don't appear supportive of a rebound in spot prices, given strong iron ore supply that has driven Chinese stockpiles to record levels, while demand is expected to soften, as Chinese construction activity begins to wane.
- The rapid decline in spot iron ore prices – and limited upside potential on ample supplies and a weak demand outlook – means that we have revised our forecasts lower, with a flatter profile trending around US$60 a tonne across the second half of 2017 and 2018.

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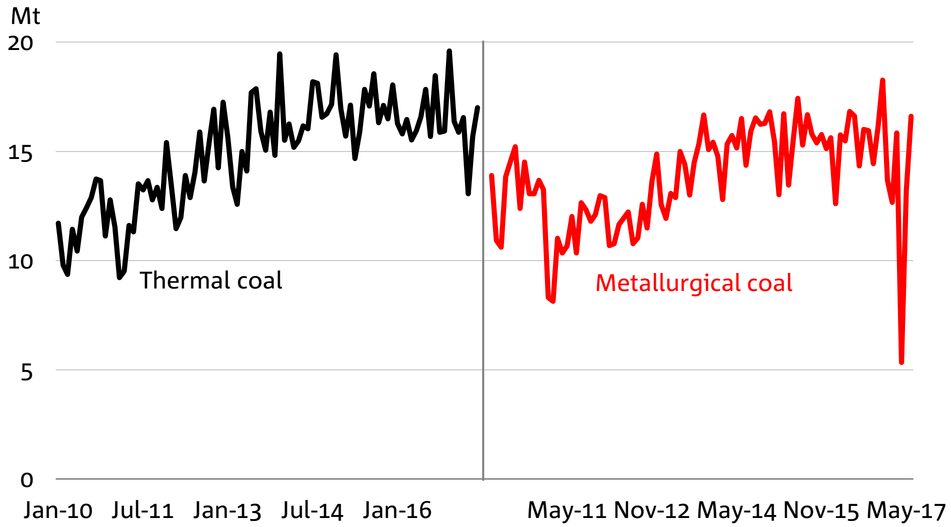
NAB Group Economics

# QUEENSLAND COAL DISRUPTION

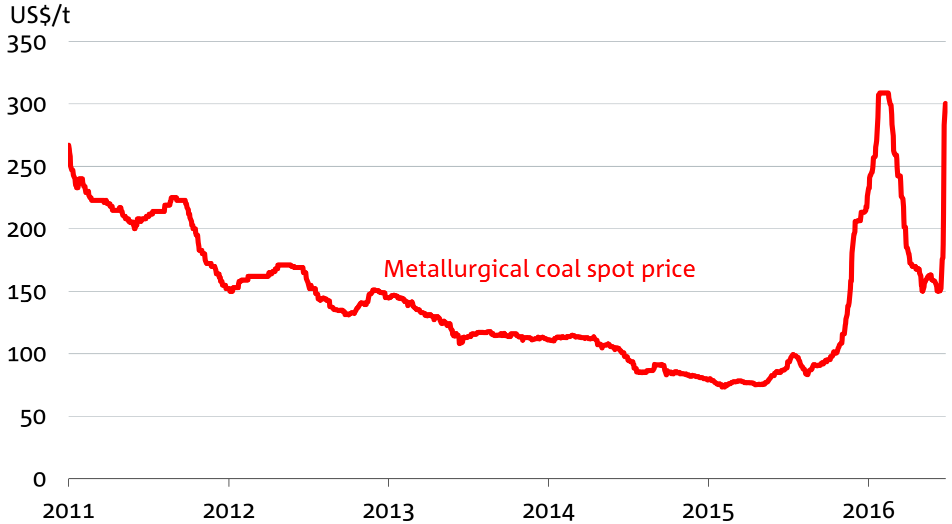
*Cyclone Debbie causes short term supply shortfall – prices to spike*

## AUSTRALIAN METALLURGICAL COAL EXPORTS TO PLUNGE




Source: Bloomberg, NAB Economics

## MET COAL SPOT PRICES HAVE RAPIDLY SPIKED, BUT WILL FALL




Source: Bloomberg, NAB Economics

- Cyclone Debbie struck central Queensland in early April, with flooding and landslides damaging rail transport infrastructure between the coal mines of the Bowen basin and ports. Rail operator Aurizon estimate closures will vary across the network, with the longest delay being the Goonyella system that supplies the Hay Point and Dalrymple Bay ports at Mackay. Initial estimates suggested that the system would be closed for five weeks, however this was revised in mid-April to three and a half weeks, with the reopening scheduled for 26 April (albeit with speed restrictions and reduced capacity).
- According to Aurizon, the rail disruption will result in a shortfall of between 19 and 21 million tonnes of coal – with the majority of this to be metallurgical coal (which accounts for around three-quarters of Queensland's total coal exports).
- This will have a significant short term impact on metallurgical coal markets – as steel mills seek alternative supplies – which are extremely limited in the case of hard coking coal. Reports suggest that mills in Japan and South Korea are running particularly low on inventories – having anticipated further downward pressure on spot prices (away from the peaks of late last year).
- It is likely that metallurgical coal exports from New South Wales will rise in the short term – with a widening price differential between thermal and semi-soft coking coal providing producers an incentive to upgrade their product to semi-soft (by washing of thermal coal to reduce ash and increase energy content), however there will be a short term shortfall of premium hard coking coal – which has driven prices higher.
- At the time of writing, spot prices for hard coking coal were around US$290 a tonne – up from around US$150 a tonne at the end of March, but around US$25 below its mid-April peak, having apparently lost momentum. The announced reopening of the Goonyella rail system may reduce the upside pressure to spot prices.
- We expect the current price spike to be short lived – with prices returning to previous levels near US$150 a tonne once the disruptions to rail infrastructure are fully cleared. Further downward pressure is expected – with prices forecast to trend back towards US$100 a tonne by the end of 2018.



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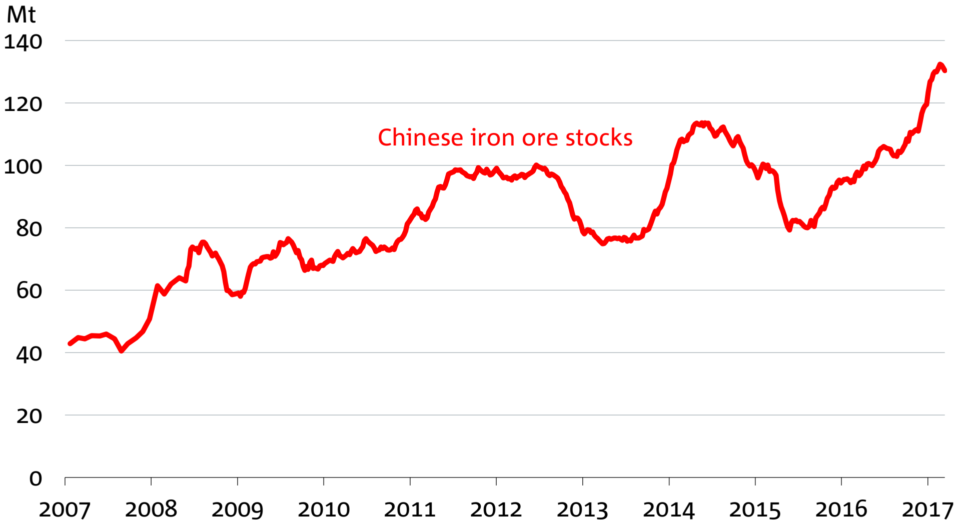
# CHINA'S IRON ORE INVENTORIES POINT TO AMPLE SUPPLY

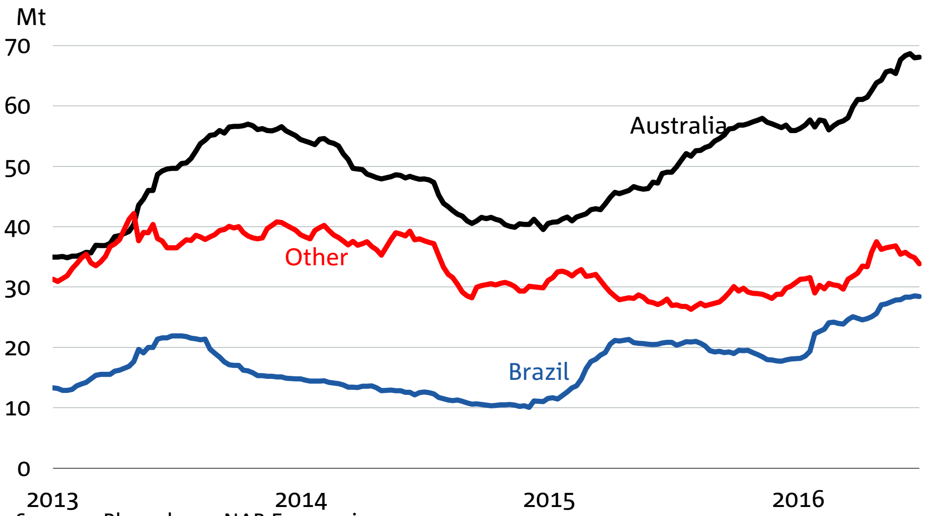
## *Spot ore prices have risen, even as inventories rise to record levels*

### CHINESE PORT STOCKS HAVE SURGED SINCE LATE 2015




Source: Bloomberg, NAB Economics

### AUSTRALIAN ORE ACCOUNTS FOR THE BULK OF PORT STOCKS




Sources: Bloomberg, NAB Economics

- Iron ore supply in China has appeared plentiful in recent months – with the total volume of iron ore stocks at Chinese ports rising from around 80 million tonnes in mid-2015 to record levels around 130 million tonnes in April 2017 – roughly equivalent to the monthly usage of the country's blast furnaces in 2016.

- Despite the strong increase in stockpiles, iron ore spot prices have generally trended higher – rising from cyclical lows near US$40 a tonne at the start of 2016 to over US$90 a tonne in February 2016 before falling more recently (see Iron Ore Prices).

- The counter-intuitive rising price and stocks outcome suggests a shift in preferences among Chinese steel mills. According to anecdotal reports from Chinese commodity traders, steel producers have switched towards higher grade iron ore (62% iron content and above), while the majority of stocks are of lower grade.

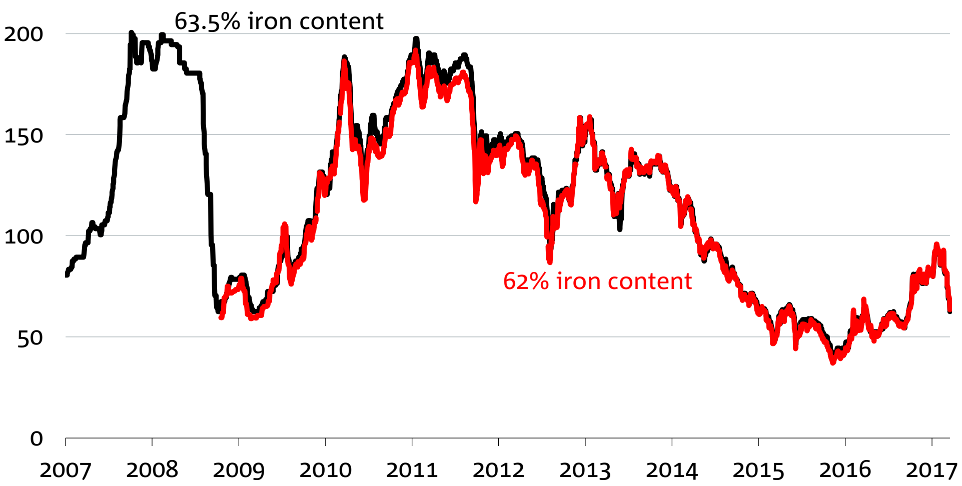
- While we have little data to verify this suggestion, price movements do suggest a preference shift (see Iron Ore Prices). In addition, we do have data around the source of the stockpiles – with over 68 million tonnes (just over half the total) having come from Australia. Stockpiles of Australian iron ore rose from around 43 million tonnes at the start of 2016. The increase in these stocks over the period was equivalent to around 3% of the total imports of Australian ore (747 million tonnes).

- As a general rule, Australian iron ore is high grade – data from the Department of Industry shows that the average iron content of Australian exports in 2016 was 61.9% - however a number of producers export material of a much lower grade – which may be inflating stockpiles at the present time.

# IRON ORE PRICES

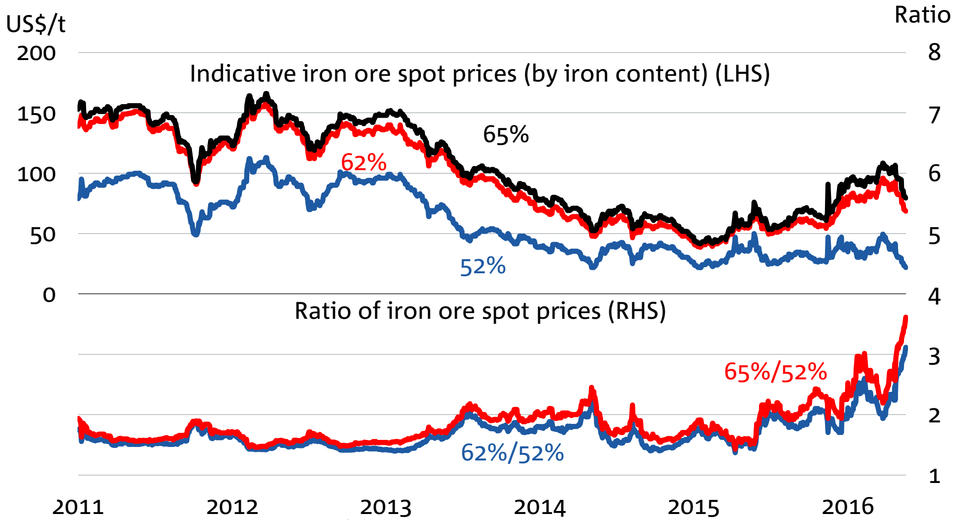
## *Widening differentials point to shift in consumer preferences*

### SPOT PRICES HAVE RETREATED SHARPLY FROM FEB PEAKS




Source: Datastream, NAB Economics

### HIGHER GRADES RECORD STRONGER PRICE GROWTH




Sources: Datastream, NAB Economics

- Spot prices for iron ore have exhibited considerable volatility in recent months – having risen strongly between October 2016 and February 2017 (rising from around US$55 a tonne to around US$96 a tonne for benchmark 62% ore) before retreating sharply. At the time of writing, spot prices were around US$65 a tonne – around a third lower in the space of two months.

- We argue that two different factors contributed to these trends. The initial rising trend in spot prices was driven by the shift in Chinese consumer preference for higher grade ore. In contrast, we suggest that speculative pressure has driven the sharp retreat (see Futures Markets).

- The shift in consumer preferences appears evident in recent price trends for different grades of iron ore. Since the cyclical low of US$39 a tonne in late 2015, benchmark 62 % iron ore landed in China rose by around 140% to a peak in February. In contrast, the indicative price of 52% ore rose by just 97%.

- The ratio of 62% ore to 52% typically trended between 1.5 and 2.0 over the period from 2011 to 2015. However, since the start of 2016, this ratio has climbed steeply, to around 3.1 in mid April

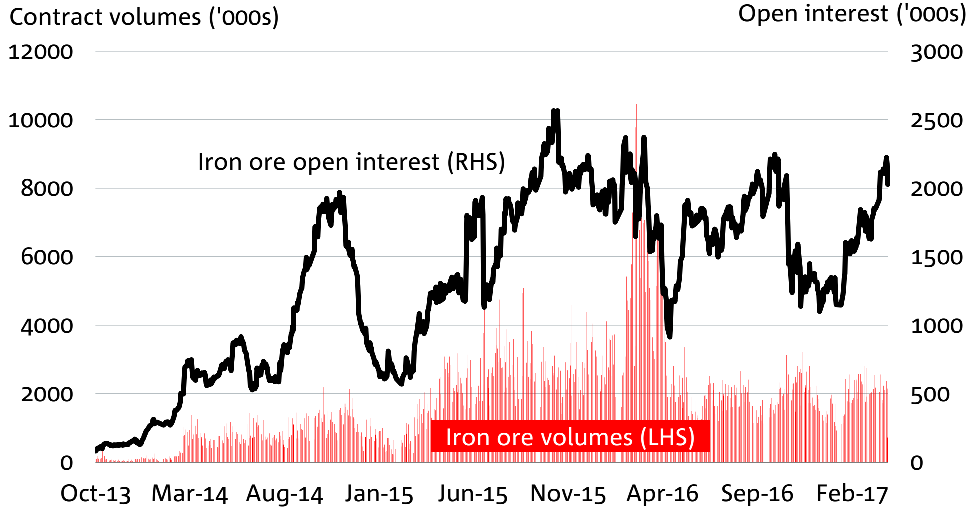
- There are a few reasons why Chinese steel mills may have altered their preferences. First is environmental concerns, as higher grade ores require less processing and can more easily be converted into steel. Second is changes to the composition of steel output – favouring larger coastal mills (which prefer higher grades) to older facilities in land that are scheduled for closure. Third, some observers have argued that higher profits for mills also encourages consumption of higher grades (although profitability has also sharply fallen in recent weeks).

- That said, if the differential widens enough, it would quickly become more profitable for mills to use lower grade ores – reversing this preference shift and adding downward pressure on higher grade prices. This may have started already – given recent spot market trends.

# FUTURES MARKETS

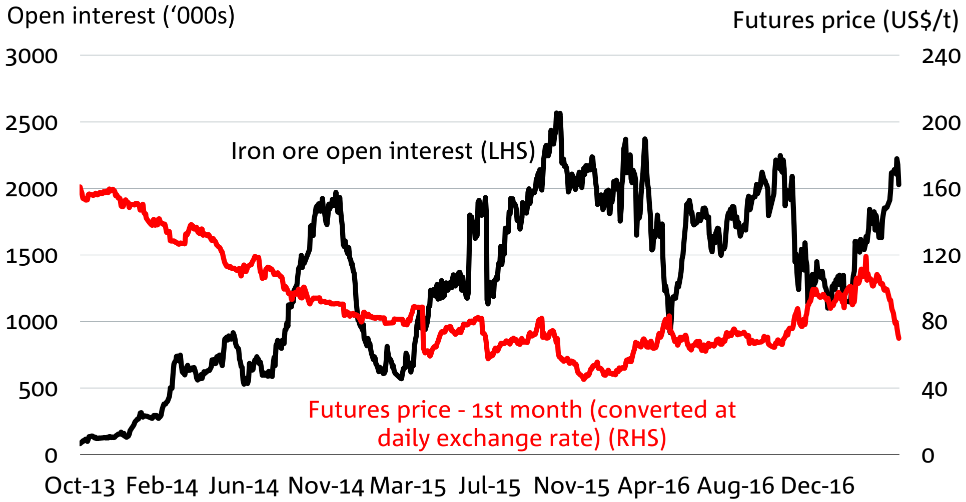
## *Speculators may be driving the decline in spot prices*

### FUTURES ACTIVITY LESS EVIDENT POST MID-16 CRACKDOWN




Source: Bloomberg, NAB Economics

### RECENT SURGE IN OPEN INTEREST AS PRICES FALL




Source: Bloomberg, NAB Economics

- Compared with long running markets for base metals and energy, futures markets for bulk commodities have a far shorter history – introduced on China's Dalian Commodity Exchange in 2013. Data related to these markets is also limited (compared with other resources), with no distinction between commercial and non-commercial (speculative) market participants – making it difficult to identify speculative pressure on prices.

- That said, there was a clear speculative surge in iron ore futures markets between February and April 2016 – with trading volume spiking in March. This prompted a tightening in regulations around the market – including increasing margin rates and transaction fees as well as a step up in supervision. Subsequently trading volumes have been relatively stable.

- In contrast, there was little to suggest speculative pressure drove the upward trend in prices between October 2016 and February 2017. Open interest on the Dalian exchange fell (from around 2.2 million contracts to 1.3 million) and trading volumes slowed over this period as prices started to climb – consistent with the view that preference for higher grade ores was the major price driver.

- Following the February peak in prices, open interest has climbed rapidly (from around 1.5 million contracts to 2.2 million in mid-April). This increase has coincided with a plunge in the futures price – down 41% at the time of writing, a larger fall than the spot price.

- That speculative pressure – rather than underlying fundamentals – appears to be driving prices at the present time and increases the risk of price volatility in the short term.



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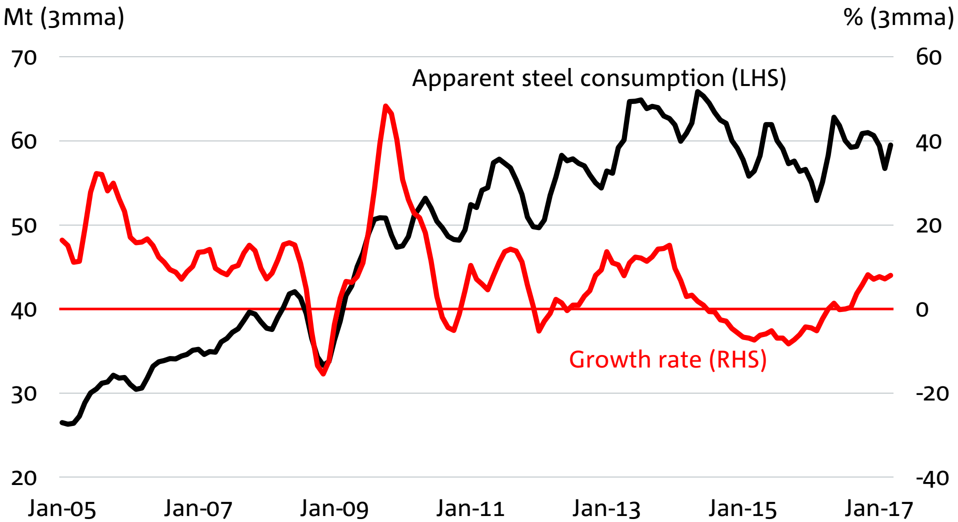
# STEEL SECTOR

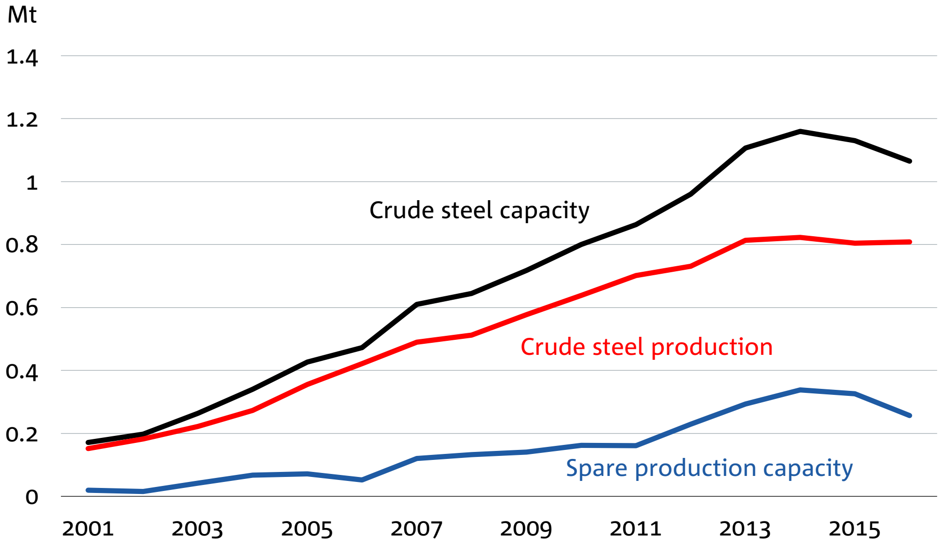
## *China's demand set to soften as tighter policy curbs construction activity*

### RECENT CONSUMPTION GROWTH, BUT BELOW EARLIER PEAKS



Sources: CEIC, Bloomberg, NAB Economics

### CUTS HAVE TRIMMED CHINA'S VAST STEEL OVERCAPACITY



Source: CEIC, Reuters, NAB Economics

- A credit boom in the early part of 2016, and fiscal stimulus across the second half of the year, supported a surge in construction activity and steel consumption (given that construction accounts for just over half of China's steel demand). Despite the recent growth in steel consumption (that has continued in early 2017), it is worth noting that the overall levels remain below those recorded across 2013 and 2014.

- New construction activity slowed considerably across 2014 and 2015 – as the previous property bubble deflated – however it began to accelerate in early 2016, following an uptick in property prices that continued across the year. That said, the bulk of price growth has occurred in China's largest tier 1 cities – Beijing, Shanghai, Guangzhou and Shenzhen. In March 2017, prices for new houses in tier 1 cities were 41% above the previous cycle peak, while prices in tier 2 cities were only 11% higher and tier 3 city prices were still 1.5% below.

- The rate of price growth has slowed in recent months, as policy changes have tightened housing markets. These have included increased down payment requirements, limits on the number of houses individuals can purchase and instructions from the People's Bank of China to banks to tighten mortgage lending.

- Despite the slowing price growth, construction activity has continued to grow strongly – with residential construction starts rising by 22% yoy in March. Further policy tightening is expected in coming months – which should flow through to weaker construction activity and steel demand.

- The China Iron and Steel Association argues that the country's steel demand peaked in 2014 and is now in an 'era of reduction'. The organisation expects China's steel consumption to fall by 1.9% in 2017, with further falls in following years.

- Chinese authorities are also expected to continue the closures of excess steel mill capacity in 2017. Estimates suggest around 65 million tonnes was closed last year, and a further 50 million tonnes will close this year. The majority of this capacity is likely to be non-producing, meaning that this will not directly impact demand for iron ore, however it will improve the overall health of the steel industry (where excess capacity was estimated to exceed 300 million tonnes in 2015).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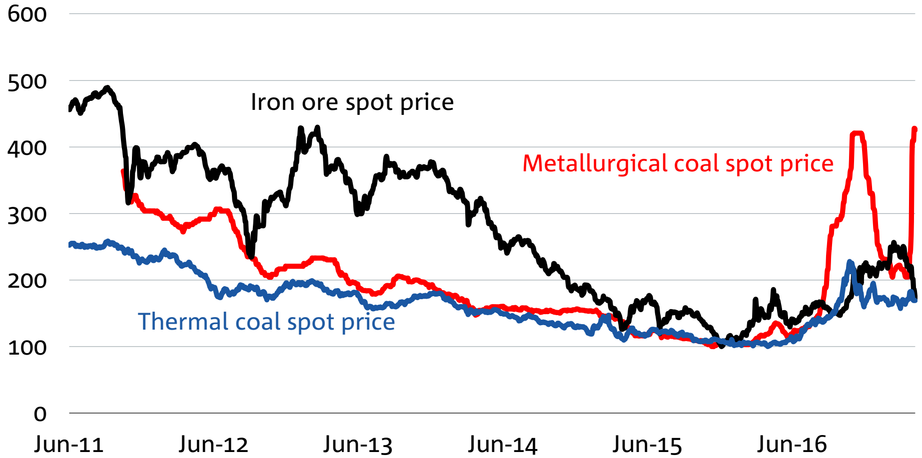
# BULK COMMODITY PRICES

## *Following the coking coal spike, broad trend for bulks is lower prices*

### IRON ORE PRICES IN RETREAT; MET COAL SPIKE TEMPORARY




Source: Bloomberg, Datastream, NAB Economics

- Prices for metallurgical coal have risen sharply since the start of April – following the impact of Tropical Cyclone Debbie. While the impact on spot prices is expected to be short term, it is likely to flow into higher contract prices – we have revised our forecasts for the June 2017 quarter higher, while the remaining profile is unchanged. Negotiations around this contract have been delayed until the full impact of the cyclone is known.
- Similarly, negotiations for the Japanese financial year contract for thermal coal have been prolonged. While no official benchmark has been concluded, there are reports of some settlements ranging between US$80-83 a tonne. We have revised our 2017 contract price accordingly, to US$81 a tonne.
- The rapid decline in spot iron ore prices – and limited upside potential on ample supplies and a weaker demand outlook (particularly over the medium-term) – means that we have revised our forecasts lower, with a flatter profile trending around US$60 a tonne across the second half of 2017 and 2018.

### BULK COMMODITY FORECASTS

| | | *Dec-16* | *Mar-17* | *Jun-17* | *Sep-17* | *Dec-17* | *Mar-18* | *Jun-18* | *Sep-18* | *Dec-18* |
|---|---|---|---|---|---|---|---|---|---|---|
| Iron ore (spot) | US$/t | 70 | 86 | 65 | 61 | 60 | 58 | 60 | 62 | 60 |
| Hard coking coal* | US$/t | *200* | *285* | *210* | *160* | *140* | *120* | *110* | *105* | *100* |
| Semi-soft coal* | US$/t | 130 | 210 | 153 | 114 | 101 | 87 | 79 | 76 | 72 |
| Thermal coal* | US$/t | *62* | *62* | *81* | *81* | *81* | *81* | *65* | *65* | *65* |

* 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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