Metallurgical coal

Resources and Energy Quarterly September 2017

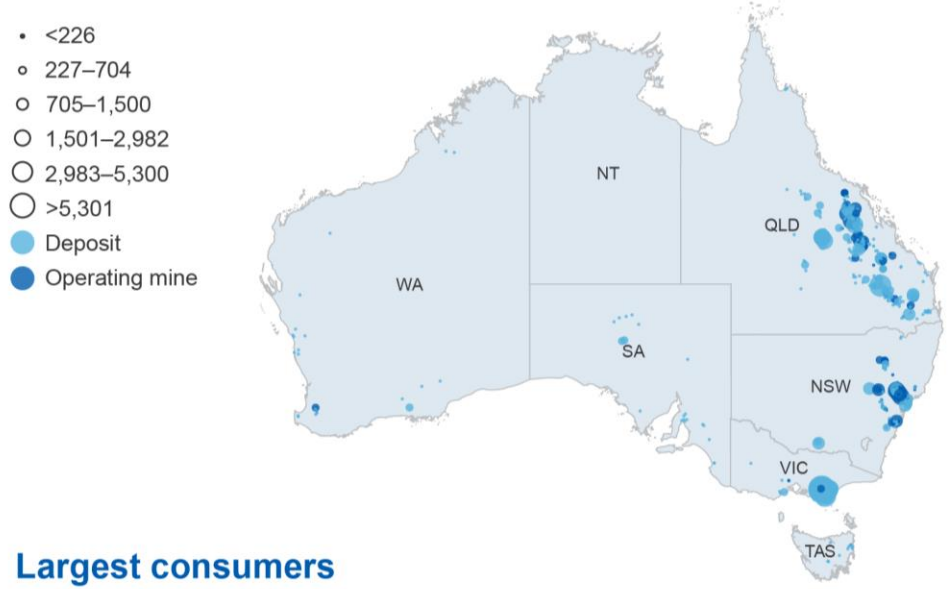
98%
Australia's metallurgical coal production is exported

189.3
million tonnes exported in 2016

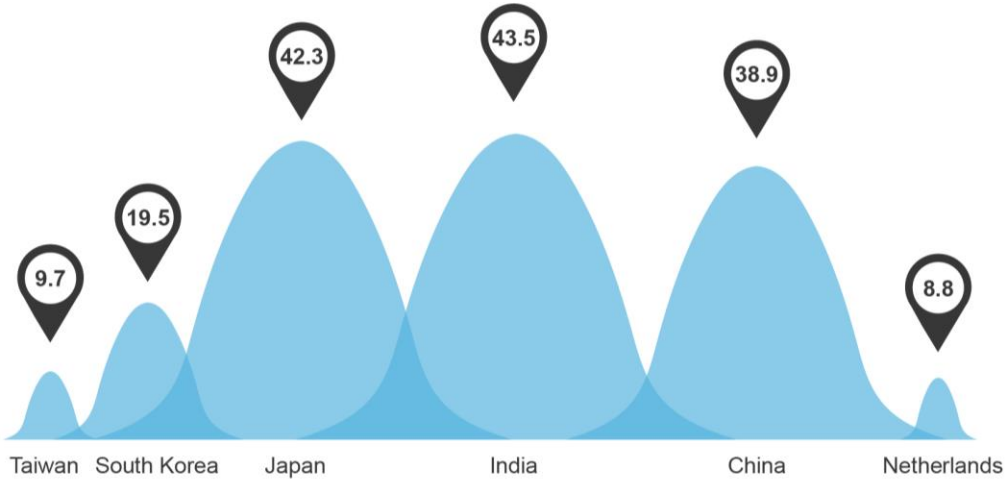
18%
of world metallurgical coal production is in Australia

1st
Australia is the largest exporter of metallurgical coal the world

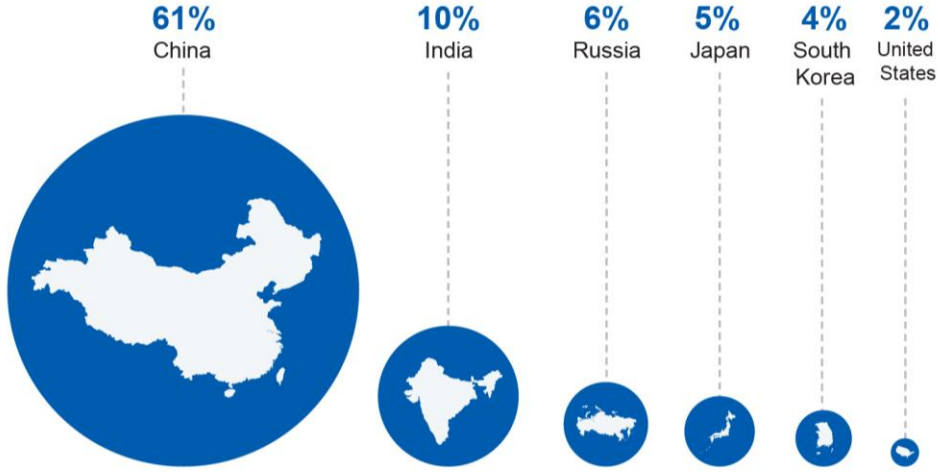
Major Australian black and brown coal deposits (Mt)



Australian metallurgical coal importers (million tonnes)



Largest consumers



Market summary

- Global metallurgical coal spot prices are estimated to have risen to an average of around US$190 a tonne in the September quarter, due to both production disruptions in Australia and China and strong import demand from China.
- Over the outlook period, prices are forecast to decline, as operations return to normal.
- Export earnings for 2016–17 hit a record $35 billion, driven by high prices.
- Robust prices are expected to contribute to continued strong export earnings in 2017–18, but moderating prices thereafter are expected to result in declining earnings in 2018–19.

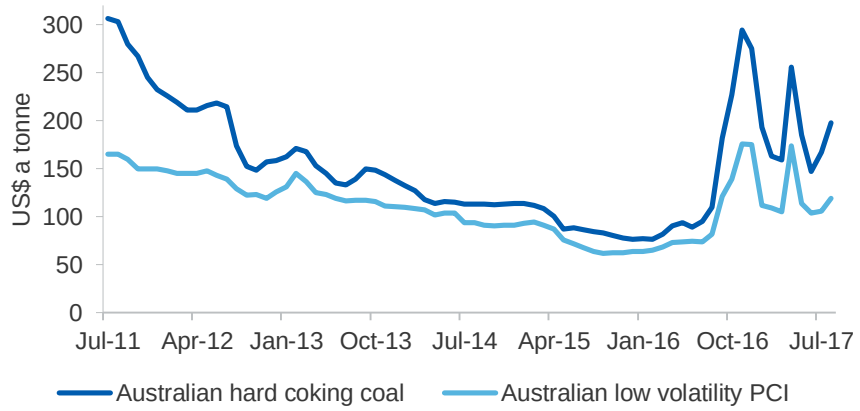
Prices

Spot prices spiked again in August

Spot prices rose sharply in August, taking the estimated average premium Australian hard coking coal price in the September quarter to around US$190 a tonne, similar to the June quarter. The strong price was largely driven by production disruptions in Australia, which reflected industrial action at Glencore's Oaky North mine, a temporary closure of South 32's Appin mine, as well as temporary closures of Chinese mines (due to safety concerns). Spot prices are expected to decline over the remainder of the year. However, the extent of the decline could be constrained by temporary closures and slower than expected re-starts of mines in China's coal rich Shaanxi region.

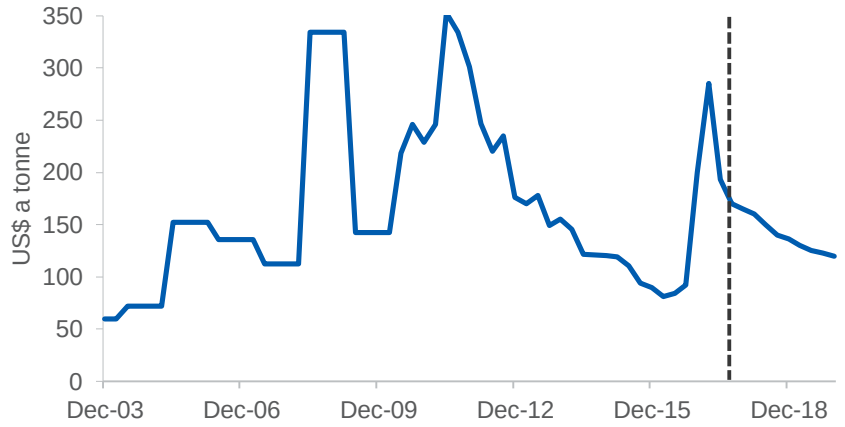
There was no formal settlement on June quarter benchmark contract prices paid to Australian metallurgical coal producers by Japanese steel producers. Reports suggested that in lieu of a contract price, producers and consumers adopted a pricing index approach (based on spot prices) to value sales in the June quarter. This index price is reported to be around US$193 a tonne.The September quarter contract price was also negotiated through a pricing index approach in mid-September — reported to be around US$170 a tonne (lower than the prevailing spot price for the quarter).

Figure 5.1: Monthly spot prices



Source: Platts Steel Analyzer (2017)

Figure 5.2: Benchmark contract prices for Australian metallurgical coal



Source: Department of Industry, Innovation and Science (2017)

Australian benchmark metallurgical coal contract prices are forecast to average US$203 a tonne in 2017 — a 78 per cent increase from 2016. This reflects the high March quarter contract price of US$285 a tonne and strong June quarter price of US$193 a tonne. Australian benchmark metallurgical coal contract prices are forecast to decline by 28 per cent in 2018, to US$147 a tonne. A further decline of 15 per cent, to $US125 a tonne, is forecast in 2019, as import demand and supply normalise. China will be a large contributor to the global supply and demand re-balance, as its metallurgical coal production increases, possibly slowing import demand. However, given any slower than expected re-launch of capacity in China, there is potential for the decline in the forecast metallurgical coal price to be less severe. Spot prices are expected to follow the same trend as contract prices, with an increase in price in 2017 followed by declines in 2018 and 2019.

Premium hard coking coal spot prices are forecast to increase by 26 per cent in 2017 to US$180 a tonne. In 2018, premium spot prices are forecast to decline by 22 per cent to US$141 a tonne, and decline a further 16 per cent to US$119 a tonne in 2019.

World trade

World metallurgical coal trade is forecast to increase by 20 per cent in 2017 to 377 million tonnes, as import demand from China strengthens. In 2018, trade is forecast to decline by 10 per cent to 339 million tonnes, as Chinese import demand softens. In 2019, world trade is forecast to decline at a slower rate than in 2018, down by 3.0 per cent to 329 million tonnes, as growing demand from India and ASEAN economies partly offset the impact of lower Chinese import demand.

World imports

China's metallurgical coal imports grew in the first half of 2017

China is estimated to be the world's largest metallurgical coal consumer, the world's second largest importer, and the fourth largest consumer of Australian metallurgical coal. China's metallurgical coal imports rose by 9.1 per cent year-on-year in the three months to August 2017.

The increase in imports was driven by strong domestic steel production and demand. Metallurgical coal imports are forecast to stay strong over the remainder of the year, with imports in 2017 expected to increase by 25 per cent year-on-year to 74 million tonnes. Growth in imports is expected to be driven by continued strong steel production and lower domestic metallurgical coal production — due to stringent safety inspections at coal mines in the Shaanxi province (a major coal producing region) because of safety concerns.

China's metallurgical coal imports are forecast to decline by 20 per cent in 2018 to 59 million tonnes, and by a further 10 per cent in 2019 to 53 million tonnes. The outlook for metallurgical coal imports in China is expected to be impacted by changing Government priorities, with strong signalling by the authorities that there could potentially be a suite of measures introduced — both to improve financial stability in the economy and to manage financial risks amidst slowing activity in the construction and industrial sectors.

India's metallurgical coal imports are forecast to increase

India is the world's largest importer of metallurgical coal. It is also the largest consumer of Australia's high quality metallurgical coal, and is expected to remain so over the outlook period. India's metallurgical coal imports increased by 3.5 per cent year-on-year in the June quarter. Imports over the remainder of the year are expected to remain stable, taking the total to 49 million tonnes in 2017, up by 1.5 per cent . The increase in imports is expected to be underpinned by an increased need for metallurgical coal for domestic steel production, which is expected to grow rapidly as steel producers expand and add new capacity. Government import duties on steel and increased infrastructure spending, should also support demand for domestically- produced steel and the metallurgical coal needed to produce it.

India's metallurgical coal imports are forecast to increase by 3.5 per cent to 50 million tonnes in 2018, and by a further 5.0 per cent to 53 million tonnes in 2019.

Japan's metallurgical coal imports hold steady

Japan is the third largest importer of metallurgical coal and the second largest consumer of Australian metallurgical coal. Despite maintenance and other issues at steel mills in the June quarter, Japan's metallurgical coal imports increased by 3.2 per cent year-on-year in the June quarter. This follows a year-on-year decline in the March quarter. Japan's metallurgical coal imports in 2017 are forecast to remain similar to 2016 levels, at 51 million tonnes, supported by steady steel production.

Japan's metallurgical coal imports are forecast to increase by 3.0 per cent to 53 million tonnes in 2018, and stay at a similar level in 2019. Growth in imports is expected to be supported by growing Japanese steel production and exports of steel-intensive goods.

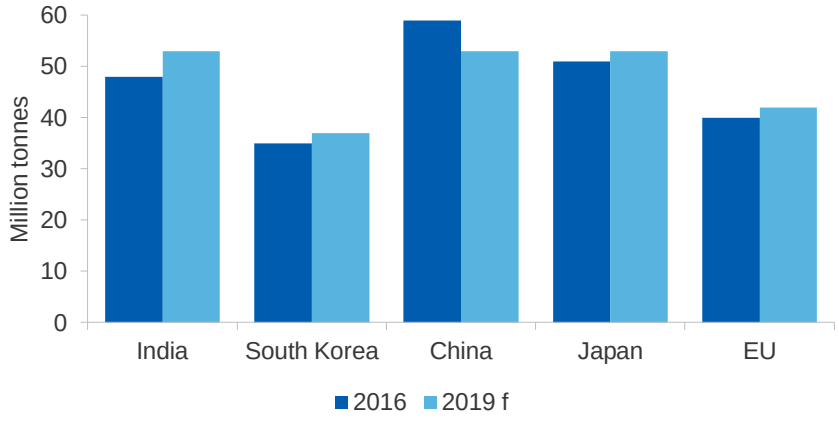
World exports

United States exports surge

The United States was the second largest metallurgical coal exporter in the world after Australia in 2016, making up around 12 per cent of the seaborne market. United States metallurgical coal exports increased by 43 per cent year-on year in the three months to July, as producers utilised latent capacity in response to higher metallurgical coal prices. In 2017, exports are forecast to increase by 25 per cent to 46 million tonnes, driven by both relatively high metallurgical coal prices and US producers' ability to meet rising demand at profitable prices.

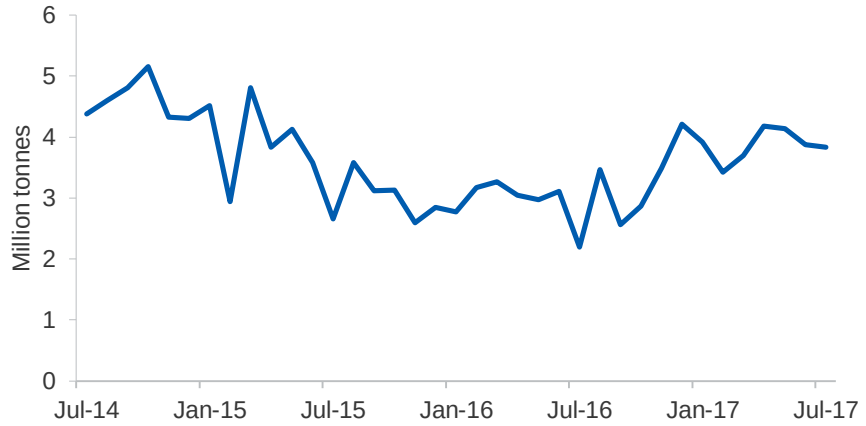
US metallurgical coal exports are forecast to decline by 22 per cent to 36 million tonnes in 2018, and by a further 3.0 per cent to 35 million tonnes in 2019. Declines will be underpinned by softer import demand from China and falls in the metallurgical coal price, which is likely to deter high-cost producers.

Figure 5.3: Major importers



Source: International Energy Agency (2017); Department of Industry, Innovation and Science (2017)

Figure 5.4: US monthly metallurgical coal exports



Source: IHS (2017)

Australia's production and exports

Australia's export earnings hit record high

Australia's metallurgical coal export volumes declined by 6.1 per cent to 177 million tonnes in 2016–17. The decline was due to export delays in the June quarter — caused by damage from Cyclone Debbie. Transport problems in the Bowen Basin (which is the world's largest metallurgical coal producing region), caused by Cyclone Debbie, more than offset the expected increase in export volumes induced by higher prices. Transport of tonnage for export to the Dalrymple Bay coal terminal (a major metallurgical coal export terminal in Australia) were affected by the temporary closure of the Goonyella rail line, which was damaged by flooding associated with Cyclone Debbie. Affected mines included Hail Creek, South Walker Creek, Isaac Plains, Carborough Downs, Caval Ridge, Peak Downs and Foxleigh.

Some of the export tonnage affected by the transport problems are expected to be distributed over the September and December quarters as delayed cargoes. However, the increase in export volumes expected in the September quarter — as Cyclone Debbie backlogs are cleared — are estimated to have been offset by the production disruptions at the Oaky North and Appin mines.

In 2017–18, Australia's export volumes are forecast to increase by 10 per cent from 2016–17 levels, to 195 million tonnes, underpinned by strong import demand from China and delayed cargoes from the previous financial year. Export earnings in 2017–18 are forecast to remain similar to 2016–17, as the impact of lower prices in the first half of 2018 — outweighs higher export volumes.

Table 5.1: World metallurgical coal trade

						Annual percentage change		
World	**Unit**	**2016**	**2017 f**	**2018 f**	**2019 f**	**2017 f**	**2018 f**	**2019 f**
Metallurgical coal imports								
– European Union 28	Mt	40	41	41	42	1.0	1.0	1.0
– Japan	Mt	51	51	53	53	-0.2	3.0	1.0
– China	Mt	59	74	59	53	25.0	-20.0	-10.0
– South Korea	Mt	35	36	37	37	4.0	2.0	1.0
– India	Mt	48	49	50	53	1.5	3.5	5.0
Metallurgical coal exports								
– Australia	Mt	189	180	194	194	-5.0	7.7	0.0
– Canada	Mt	28	28	29	29	1.2	1.2	1.2
– United States	Mt	37	46	36	35	25.0	-22.0	-3.0
– Russia	Mt	22	24	25	26	10.0	5.0	3.0
World trade	Mt	314	377	339	329	20.0	-10.0	-3.0

Notes: ***s*** *Estimate;* ***f*** *Forecast*

Source: IEA (2017) Coal Information 2017; Department of Industry, Innovation and Science (2017)

Export volumes in 2018–19 are forecast to decline by 1.1 per cent to 193 million tonnes, as China's import demand softens. Despite the decline in volumes, Australia's metallurgical coal exports are forecast to remain robust in historical terms , supported by import demand from traditional consumers including India and Japan, as well as from ASEAN economies. Export earnings in 2018–19 are forecast to decline by 22 per cent to $27 billion, as a result of falling export volumes and prices.

The forecast for export values has been revised up

Forecast export values have been revised up by around $3 billion in 2017–18 from the June *Resources and Energy Quarterly*. Upward revisions reflect a more favourable outlook for metallurgical coal prices, especially with a spike in prices in the September quarter 2017.

Australia's production to stay robust

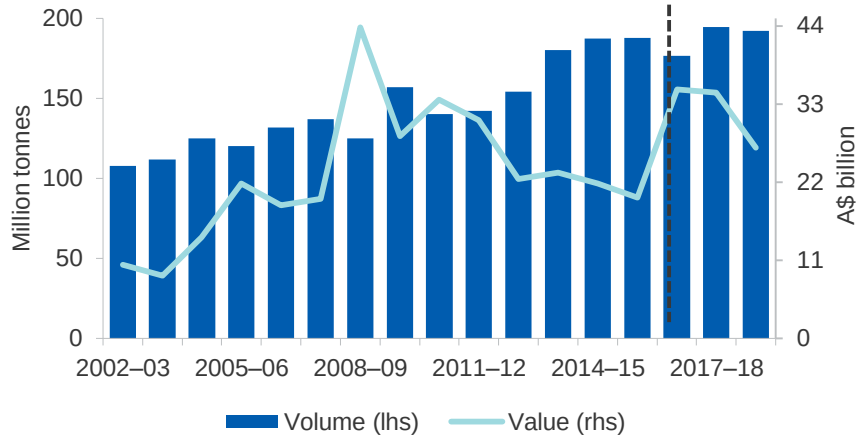
Australia's metallurgical coal production remained broadly unchanged in 2016–17, at 190 million tonnes, supported by strong metallurgical coal prices and import demand from China.

In 2017–18, production is forecast to increase by 3.0 per cent to 196 million tonnes, as production disruptions in the September quarter are outweighed by the impact of increased production at other mines — in response to strong import demand from China. Industrial action at Glencore's Oaky North mine — as well as the temporary shutdown of South 32's Appin mine due to gas leakages over most of the September quarter — were the main causes of production disruptions in the September quarter.

The Appin mine is now up and running, and industrial action pressures on the Oaky North mine are not expected to be sustained much further into 2017–18.

In 2018–19, Australia's metallurgical coal production is forecast to increase by 1.4 per cent to 199 million tonnes, as ramp-ups in production from Byerwen (3.5 million tonnes capacity) and the start-up of operations at Eagle Downs (1.4 million tonnes) — both in Queensland — take effect.

Figure 5.6: Australia's metallurgical coal export volumes and values



Source: IEA (2017); Department of Industry, Innovation and Science (2017)

Table 5.1: Australia's metallurgical coal outlook

						Annual percentage change		
World	**Unit**	**2016**	**2017 f**	**2018 f**	**2019 f**	**2017 f**	**2018 f**	**2019 f**
Contract prices e								
– nominal	US$/t	114.4	203.3	146.5	124.5	77.8	-28.0	-15.0
– real d	US$/t	116.7	203.3	143.5	119.3	74.2	-29.4	-16.8
Spot prices g								
– nominal	US$/t	143.5	180.4	140.7	119.0	25.7	-22.0	-15.5
– real d	US$/t	146.5	180.4	137.9	114.0	23.2	-23.6	-17.3
Australia	**Unit**	**2015–16**	**2016–17**	**2017–18 f**	**2018–19 f**	**2016–17 s**	**2017–18 f**	**2018–19 f**
Production		189.3	190.0	195.7	198.5	0.4	3.0	1.4
Export volume	Mt	188.0	176.6	194.7	192.5	-6.1	10.3	-1.1
– nominal value	A$m	19,790	35,044	34,556	26,831	77.1	-1.4	-22.4
– real value i	A$m	20,566	35,806	34,556	26,206	74.1	-3.5	-24.2

Notes: ***d*** *In 2017 US dollars;* ***e*** *Contract price assessment for high-quality hard coking coal;* ***i*** *In 2017–18 Australian dollars;* ***f*** *Forecast;* ***g*** *Hard coking coal fob Australia east coast ports;* ***s*** *Estimate*

Source: ABS (2017) International Trade in Goods and Services, Australia, 5368.0; Department of Industry, Innovation and Science (2017); Platts Steel Analyzer (2017)