



Metallurgical coal | Resources and Energy Quarterly June 2022

Carbon Metallurgical coal

Trade map | June 2022



5.1 Summary

- Metallurgical coal prices remain at historic highs, pushed up by supply disruptions and market uncertainties as a result of fallout from the Russian invasion of Ukraine. The Australian premium hard coking coal price is forecast to average over US\$420 a tonne in 2022, but is expected to fall by almost half as supply conditions normalise. Prices are ultimately expected to reach around US\$220 a tonne by 2024.
- Higher production in NSW and Queensland is expected to push Australia's exports up from 171 million tonnes in 2020–21 to 174 million tonnes by 2023–24 (see Australia section).
- Australia's metallurgical coal export values are forecast to track with price movements, rebounding from \$23 billion in 2020–21 to peak above \$60 billion in 2022–23, before falling back to \$41 billion by 2023–24.

5.2 World trade

Conditions in metallurgical coal markets remained unstable in the June quarter, with disruptions continuing and prices becoming increasingly erratic. Average daily price moves were above US\$15 a tonne through April, well above the typical level of under \$1 per day. Inventories remain tight, and steelmaking remains subject to significant geopolitical uncertainties in Europe and COVID-induced shutdowns in China.

Australian supply recovered in April, but renewed rains in May disrupted operations in parts of NSW and Queensland. Producers in the US and Australia have previously pushed to expand output and restart paused mines, with some of this effort now paying off.

Russian coal continues to reach Europe, though with less reliability than before. This flow of metallurgical coal is expected to largely cease by August, when the full sweep of EU sanctions takes effect.

On the demand side, renewed outbreaks of the COVID-19 pandemic in China have reduced growth expectations for steel production and industrial activity. With lockdowns occurring unpredictably, there is potential for further impacts on steelmaking and manufacturing hubs. Global automotive manufacturing appears to have flattened, most notably in Europe where disruptions to trade flows with Russia have flowed on to automotive supply chains. A sharp fall in output of Ukrainian automotive products (which include cables and control switches) has also affected automotive manufacturing. This development has exacerbated the impact of longer-term chip shortages, which were affecting global carmakers before the Russian invasion of Ukraine.

These disruptions are expected to cut steel demand in Europe and steel production in China, leading to falls in metallurgical coal imports in the last half of 2022. However, growth conditions are expected to return in 2023.

On balance, world metallurgical coal trade is forecast to increase from 317 million tonnes in 2021 to 331 million tonnes by 2024. The bulk of the growth in trade is expected in the 2023 and 2024, as global steelmaking and industrial activity pick up (Figure 5.1).

Figure 5.1: Metallurgical coal imports



Notes: f forecast

Source: IHS (2022); Department of Industry, Science and Resources (2022)

5.3 World imports

Chinese metallurgical coal imports are trending down

Chinese metallurgical coal imports edged back in the first half of 2022, constrained by falling construction activity and COVID-19 disruptions. After an earlier surge in dwelling construction and real estate speculation, China now appears to have excess capacity in parts of its residential property market, with substantial vacancy levels apparent in many cities. Real estate markets have softened in recent quarters, and dwelling construction is expected to remain relatively soft over the outlook period. The recent easing in dwelling construction has cut steel usage, exacerbated in recent months by repeated outbreaks of COVID-19. China has responded to such outbreaks with stringent containment measures that have shut down cities and industrial hubs, including Tanghsan (a large steel making province).

Despite this, data suggest some growth in steel output over recent months, as winter production cuts ended. Many Chinese mills have also commenced restocking. Supply from Mongolia has lifted, following the completion of recent upgrades to transport infrastructure.

Responding to potential declines in its growth outlook, the Chinese Government has announced plans to invest in infrastructure as a stimulus measure. Details about the type and quantity of investment are yet to be released, but previous infrastructure packages have involved the high use of steel. Risks remain that future COVID-19 lockdowns could disrupt infrastructure rollouts, by shutting down construction zones or by paralysing the supply chains needed to support them.

Chinese steel production edged down by 3% in 2021; output was curbed by policy interventions intended to dampen steel production in line with energy consumption and environment/emissions controls, but also amidst record iron ore and metallurgical coal prices.

Chinese domestic metallurgical coal prices have fallen by around a third since the renewed wave of COVID-19 containment measures. However, import prices have remained high, and rising imports in March and May (following unusually low imports in January and February) contributed.

India's metallurgical coal imports are recovering

Indian steel production has been strong, with more than 10 million tonnes produced in each month of the March quarter of 2022. Recent growth in steel production has been largely met from domestic output of metallurgical coal, which was around one-third higher in the March quarter of 2022 relative to the same period in 2021. Supply disruptions linked to COVID-19 appear to have eased.

Imports of metallurgical coal have been largely steady, but there are signs of success in India's ongoing effort to diversify its supply sources. Australia accounted for almost three-quarters of Indian metallurgical coal imports in 2021, while import shares from Canada and the US slumped to 3% and 5%, respectively. However, heavy rainfall and COVID-19 issues disrupted Australian supply to India in the first half of 2022. Efforts are underway to source more metallurgical coal from Russia, and expansions in rail capacity between Russia and India continue to progress.

India's metallurgical coal needs are likely to grow over the next two years. Indian steelmakers have US\$11 billion worth of projects announced, some of which are timetabled for completion by the mid-2020s. Indian metallurgical coal imports — already the largest in the world — are expected to grow further over the outlook period (Figure 5.1). However, progress has also been made in recent efforts to unlock domestic coal supply.

Japanese imports are picking up faster

Japanese steelmaking has partly recovered from COVID-19 related declines, supported by strong consumer white goods sales. Imports rose in 2021 and are expected to grow again (marginally) in 2022. However, a gradual closure of steelmaking plants is likely to slow Japanese metallurgical coal demand over the longer term.

5.4 World exports

Global metallurgical coal supply is recovering as disruptions related to weather events and COVID-19 ease. However, the market continues to face elevated risk premiums and high freight costs. The EU ban on Russian coal may add further volatility from August, when the policy takes full effect.

COVID-19 impacts are hampering US efforts to capitalise on strong prices

US metallurgical coal exports have not managed to scale up significantly, despite several quarters of unusually high prices. Production has been affected by longwall moves and delays in bringing idled mines back into production. Labour issues have also affected US mining companies, though these effects are expected to ease somewhat in the second half of 2022, allowing exports to edge higher (Figure 5.2).

US transport infrastructure remains under high pressure, with rail networks still affected by maintenance issues and parts shortages. Several barges have also faced maintenance problems, further constraining inland coal transit. An explosion caused by accumulated coal dust severely affected CSX's Curtis Bay Piers in December 2021, with repairs yet to be finished.

Russia has maintained exports, but with a fall in prospect

Russian exports remained steady at the time of writing, supported in part by increased interest from China, which has strong freight infrastructure connections with Russia. China may benefit from the price penalty beginning to accrue to Russian metallurgical coal following recent announcements by the EU of an impending ban.

Some Russian shipments to Europe have already been stalled or curbed by ad-hoc port closures and decisions by individual companies. However, the full formal ban is not yet in effect. There has been an increase in Russian imports to a number of European jurisdictions, which has helped build inventories ahead of the ban. Russia previously exported around 10 million tonnes of metallurgical coal to Ukraine every year, another 7 million tonnes to the EU, and 5 million tonnes to Japan. Flows to Ukraine have already halted, and flows to Europe are expected to cease by August. The Japanese Government has also committed to a ban on Russian coal exports, but has not yet committed to a formal timetable. Imports from Russia are likely to fall towards zero as the ban comes into effect over subsequent quarters.

Redirection is not likely to absorb the full 22 million tonnes cut loose from European and Japanese markets. China has raised its Russian exports somewhat, but has also met some of its needs from higher domestic production. Further growth in metallurgical coal trade flows between the two countries is likely to be somewhat modest. India could draw in up to half of the displaced Russian supply, with Vietnam and other Asian countries potentially absorbing further flows. However, at least 5 million tonnes of Russian is expected to withdraw from the world market by mid 2023.

Figure 5.2: Metallurgical coal exports



Notes: f forecast

Source: IHS (2022); Department of Industry, Science and Resources (2022)

Mongolia's exports have stopped falling, as COVID-19 impacts peak

Mongolian exports are expected to expand over time (Figure 5.2), with Chinese investment helping to develop the previously minimal freight rail links between the two countries. Mongolian metallurgical coal exports have historically been dominated by truck shipments, but the launch of three railway lines in 2022 should underpin a more efficient and stable transportation system. Mongolian exports are forecast to increase by almost a third between 2021 and 2024.

Exports from Canada are set to rise, as a new mine ramps up

Canadian metallurgical coal exports are expected to lift slightly in 2022, driven by the restart of Canada Coal's Grand Cache mine (which has historically produced about 2 million tonnes of coal annually). The mine was shut down in 2020, after the outbreak of the COVID-19 pandemic. While the restart may take some time (given an eighteen month period of care and maintenance), it is expected to complete as 2023 begins.

The return of production at Grand Cache, and generally strong conditions for Canadian exporters, are expected to see exports remain solid through to the end of the outlook period (Figure 5.2).

Exports from Africa are recovering

Mozambique's exports fell sharply to 4 million tonnes in 2020, as low prices severely affected the nation's relatively high cost producers. Exports are forecast to recover to 7 million tonnes by 2024. This growth is expected to be driven by Vale's Moatize mine — where work has finished on a preparation plant upgrade — and by upgrades to the Nacala logistics corridor rail line and port. Higher output at the Moatize site may be temporarily affected by seasonal heavy rainfall, but growth to over 8 million tonnes of metallurgical coal (annually) is expected over the longer term.

South African exports have been affected by repeated disruptions of rail transport, with the owners announcing that coal export production will not be fully transportable until the end of 2022. This has led to reduced output and rising stockpiles at some sites.

5.5 Prices

Metallurgical coal prices are expected to ease gradually

Metallurgical coal prices have risen by around US\$120 atonne (to more than US\$520 a tonne) in the wake of the Russian invasion of Ukraine (Figure 5.3). Price pressures softened in April, as disruptive weather conditions in Australia eased momentarily, allowing some extra supply to enter markets. However, renewed flooding in May and June is affecting Australian coal output again.





Source: IHS (2022). Low vol = low volatile coking coal.

Prices are expected to ease over the forecast period, with volatility also expected to decline. However, price and volatility are both likely to remain above typical levels through the outlook period. A range of factors (weather events, potential COVID disruptions, import bans from China and Europe, and the conflict in Ukraine) will all play out in unpredictable ways over the next two years. Risks remain mostly on the supply side, with low inventories likely to exacerbate the impact of any further supply disruptions in 2022.

5.6 Australia

Metallurgical coal export earnings have risen despite supply issues

Australian metallurgical coal exports and prices have lifted recently (Figures 5.4 and 5.5). The rise has been driven by strong growth in demand in several major markets, including Japan, Taiwan, and South Korea. Brazil, typically a minor market, has seen rapid growth in recent months. Exports to Europe rose by almost 25% in the year to March 2022.

Work on unlocking additional capacity continues, with QCoal's Cook mine now operational. This mine is one of several small restarts and expansions, with most expected to take effect over coming months.

Weather conditions eased in April, as the La Niña period weakened. However, renewed floods in the Bowen Basin have again affected output, flooding several mines. Rains have exceeded 250mm in some mining pits, with pit owners currently assessing their options for resuming mining. At this stage, no declarations of force majeure have been made, though dewatering is expected to take several weeks. Flooding has also affected port and rail facilities, with the Abbot Point coal terminal reporting that moisture levels for their coal stockpiles are now near the maximum limit allowable for shipping.

Ongoing weather issues represent the primary risk to Australian production at present, with labour and shipping issues caused by the COVID-19 pandemic now easing. Over the longer term, renewed stimulus measures around the world are expected to offset some of the risk associated with potential further waves of the COVID-19 pandemic, though the timing of this remains unclear (see *Macroeconomic chapter*).

Changes in consumption patterns (as countries seek to reduce carbon emissions) could have unpredictable effects, with risks on the demand side.On balance, Australian export earnings are expected to remain well above pre-COVID levels through the early part of the outlook period, despite some short-term constraints on volumes. Higher demand from India is expected to support Australian exports, though buyers in Japan, South Korea and Taiwan have also expressed interest in higher supply.





Source: Platts (2022); Department of Industry, Science and Resources (2022)

Figure 5.5: Australia's metallurgical coal export values, monthly



Source: ABS (2022) International Trade, Australia 5454.0

Metallurgical coal export earnings were \$23 billion in 2020–21 (Figure 5.6). Prices are set to deliver a large windfall to metallurgical coal producers in 2022–23, with export values estimated to rise to over \$60 billion. A decline to a (still-high) \$41 billion is expected by 2023–24, as seasonal and short-term supply issues pass and supply and demand come into balance.

Figure 5.6: Australia's metallurgical coal exports



Source: ABS (2022) International Trade, Australia 5454.0; Department of Industry, Science and Resources (2022)

Coal exploration expenditure has declined

Australia's coal exploration expenditure decreased to \$43 million in the March quarter, to be 15% off the level of March 2021. Prices have risen markedly for Australian coal in recent months, but thermal coal producers face issues with finance, insurance and social licence. Exploration is thus likely to be dominated by metallurgical coal in future (Figure 5.7).





Source: ABS (2022); IHS (2022); Platts (2022)

Revisions to the outlook for Australian metallurgical coal exports

The forecast for export earnings has been revised up by around \$20 billion (nominal terms) in aggregate over the forecast period. Revisions reflect recent large price movements and growing disruptions linked to unusually severe weather events and the Russian invasion of Ukraine.

Table 5.1: World trade in metallurgical coal

						Annual percentage change			
	Unit	2021	2022	2023 ^f	2024 ^f	2022	2023 ^f	2024 ^f	
World trade	Mt	317	306	330	331	-3.4	7.8	0.3	
Metallurgical coal imp	orts								
China	Mt	53	49	47	48	-7.5	-3.5	1.1	
India	Mt	73	68	73	73	-6.8	7.3	0.7	
Japan	Mt	48	49	48	48	2.1	-2.0	0.0	
European Union 28	Mt	35	35	34	34	-0.6	-1.5	-0.8	
South Korea	Mt	37	38	39	40	2.7	2.6	2.6	
Metallurgical coal exp	orts								
Australia	Mt	167	164	173	177	-1.8	5.5	2.2	
United States	Mt	40	41	41	39	2.5	0.0	-4.9	
Canada	Mt	29	29	29	26	0.0	0.0	-10.3	
Russia	Mt	32	30	33	33	-6.3	10.0	0.0	
Mongolia	Mt	22	22	26	30	0.0	18.2	15.4	
Mozambique	Mt	5	6	7	7	20.0	16.7	0.0	

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

Source: IEA (2022) Coal Information; IHS (2022); Department of Industry, Science and Resources (2022)

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Table 5.2: Metallurgical coal outlook

						Annual percentage change		
World	Unit	2021	2022	2023 ^f	2024 ^f	2022 ^f	2023 ^f	2024 ^f
Contract prices ^e								
– nominal	US\$/t	205	423	293	220	106.4	-33.1	-22.3
- real ^d	US\$/t	221	423	285	209	91.6	-34.9	-24.0
Spot prices ^g								
– nominal	US\$/t	224	435	273	219	94.6	-37.4	-19.7
- real ^d	US\$/t	241	435	265	208	80.6	-39.1	-21.5
Australia	Unit	2020–21	2021–22 ^s	2022–23 ^f	2023–24 ^f	2021–22 ^s	2022–23 ^f	2023–24 ^f
Production	Mt	171	170	184	186	-0.6	7.9	1.1
Export volume	Mt	171	161	171	174	-5.9	6.2	1.8
 nominal value 	A\$m	23,187	58,151	60,090	40,896	150.8	3.3	-31.9
– real value ⁱ	A\$m	24,192	58,151	57,402	37,819	140.4	-1.3	-34.1

Notes: d In 2022 US dollars. e Contract price assessment for high-quality hard coking coal. i In 2021–22 Australian dollars. f Forecast. g Hard coking coal fob Australia east coast ports. s Estimate. Source: ABS (2022) International Trade in Goods and Services, Australia, 5368.0; Department of Industry, Science and Resources (2022); Platts (2022)

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