



Malabar Resources Ltd

(Unlisted, Market Cap A\$1.08bn at A\$1.80/share)

Valuation now A\$6.05/share with a modest increase in coking coal price assumptions.

- Malabar's Maxwell and Spur Hill projects are located in the Upper Hunter coalfield of NSW and represent two of the last semi-soft coking coal-dominated deposits of size in the area. With a low operating cost structure, long mine life and with expansion options, we judge the project to be truly Tier 1 in status. Importantly, the project is fully permitted for coal sales of 5.5-6.5mtpa.
- The Maxwell and Spur Hill Mineral Resource combined is an impressive 1.4bn tonnes. Maxwell Ore Reserves alone total some 144mt within 4 seams so sufficient to support a +20-year mine life at a sales rate of around 6mtpa. We see potential for an additional 20 years of mine life from other seams, both coking and thermal products.
- A separate bord and pillar mine exploiting shallow thermal coal (the Whynot Seam) is already in production. Construction of the main Maxwell/Woodlands Hill longwall mine is well advanced.
- Key to the success of the Maxwell project has been the low-cost acquisition of plant and infrastructure from the Drayton mine (with perhaps a \$500m replacement value in the current inflationary environment, we estimate). This will have resulted in a project capital intensity perhaps half the coal sector average.
- Capital and operating cash costs are forecast to be very competitive, well within the first cost quartile for thermal coal and with high margins forecast for a semi-soft coking coal product.
- At steady state around 75% of the mine's production (by volume) will be semi-soft coking coal (SSCC), a well-regarded Hunter blending coal. The balance will be either low ash, high energy (6,300-6,400kcal)/ low sulphur thermal coal and potentially a PCI product for steel making. The project has access to world class transport infrastructure and access to a skilled workforce.
- A decision has been made to bring forward construction of the Woodlands Hill 300m longwall to accelerate production to take advantage of attractive coal prices and to optimise the capital spend. To achieve this an additional \$180m of additional funding was undertaken at a share price \$1.80/share.
- We have estimated a post-tax NPV₈ for the Maxwell mines of approximately A\$3.2bn based on what we believe to be realistic coal price assumptions, with an attractive project IRR of 46%.
- Our fully funded valuation for Malabar is now A\$6.05/share (previously A\$5.90) diluting for the February equity raise (ca. 100m new shares issued, against our previous assumption of 89m). We have also edged our SSCC price up a little, from US\$135/t to US\$140/t (75% of our forecast premium hard coking coal price) which has seen the Maxwell project NPV₈ increase from A\$2.9bn to \$3.2bn.
- We continue to believe Malabar will have the capacity to pay dividends from 2027 (our estimate is 18c/share, unfranked), with a strong lift in payout as the company passes peak capital spend (2025/2026) and as the mine achieves full production into 2028 and beyond.



FINANCIAL SUMMARY



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Malabar Resources Limited

| | | |
|-------------------------|--------|-------|
| Share Price | A\$/sh | 1.80 |
| Shares on Issue | m | 602 |
| Market Cap (A\$m) | A\$m | 1,084 |
| Net Cash (A\$m) | A\$m | 139 |
| Enterprise Value (A\$m) | A\$m | 945 |

Note. This model includes an equity raise of \$180m completed in February 2024 at a price of \$1.80/share to fund the accelerated Woodlands Hill longwall mine. The "net cash" assumption is based on the 12/23 balance sheet plus the new equity raised less the company's debt position.

| Profit & Loss | Units | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|------------------------|-------|-----------|-------------|------------|------------|------------|
| Sales and Other Income | A\$m | 7 | 42 | 136 | 449 | 653 |
| Expenses | A\$m | (3) | (46) | (111) | (277) | (381) |
| EBITDA | A\$m | 5 | (4) | 25 | 172 | 272 |
| D&A | A\$m | (1) | (1) | (6) | (18) | (25) |
| EBIT | A\$m | 4 | (5) | 20 | 154 | 246 |
| Interest | A\$m | 3 | (9) | (21) | (18) | (14) |
| Tax | A\$m | 9 | - | - | - | - |
| NPAT | A\$m | 16 | (14) | (1) | 136 | 233 |

| Cashflow | Units | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|--|-------|--------------|--------------|--------------|------------|-------------|
| Cash From Operations | A\$m | 2 | (4) | 25 | 172 | 272 |
| Interest | A\$m | 4 | 6 | 36 | 31 | 26 |
| Tax | A\$m | - | - | - | - | - |
| Working Capital | A\$m | - | (30) | (50) | (50) | (50) |
| Net Cash From Operations | A\$m | 6 | (28) | 12 | 153 | 248 |
| Capex | A\$m | (136) | (174) | (168) | (112) | (106) |
| Exploration | A\$m | (1) | (1) | (1) | (1) | (1) |
| Acquisitions / Investments | A\$m | 3 | - | - | - | - |
| Free Cash Flow | A\$m | (128) | (203) | (157) | 40 | 140 |
| Borrowings | A\$m | 23 | 55 | 159 | (43) | (43) |
| Equity | A\$m | 242 | 180 | - | - | - |
| Dividend | A\$m | (11) | - | - | - | (108) |
| Other | A\$m | (13) | - | - | - | - |
| Net Increase / (Decrease) in Cash | A\$m | 114 | 32 | 2 | (3) | (11) |

| Balance Sheet | Units | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|--------------------|-------|------------|------------|------------|--------------|--------------|
| Cash | A\$m | 143 | 151 | 152 | 150 | 139 |
| Receivables | A\$m | 3 | 3 | 11 | 36 | 53 |
| Inventory | A\$m | 7 | 4 | 13 | 44 | 65 |
| PP&E | A\$m | 297 | 470 | 633 | 728 | 810 |
| Other | A\$m | 43 | 43 | 43 | 43 | 43 |
| Assets | A\$m | 492 | 671 | 853 | 1,002 | 1,110 |
| Creditors | A\$m | 18 | 3 | 11 | 36 | 53 |
| Borrowings | A\$m | 52 | 106 | 265 | 222 | 180 |
| Other | A\$m | 65 | 84 | 104 | 104 | 104 |
| Liabilities | A\$m | 135 | 194 | 380 | 363 | 337 |
| Net Assets | A\$m | 358 | 477 | 473 | 639 | 773 |

| Liquidity & Leverage | Units | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|---|-------|---------|---------|---------|---------|---------|
| Borrowings | A\$m | 52 | 106 | 265 | 222 | 180 |
| Net Debt / (Cash) | A\$m | (91) | (44) | 113 | 73 | 41 |
| Gearing: Net Debt / (Net Debt + Equity) | % | -34% | -10% | 19% | 10% | 5% |
| Net Debt / EBITDA | x | (19.2)x | 11.3x | 4.5x | 0.4x | 0.2x |
| EBIT Interest Cover | x | n/a | n/a | 0.9x | 8.8x | 17.7x |

| Per Share Data | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|---------------------------------|--------|---------|---------|---------|---------|
| Shares Out (m) | 502 | 602 | 602 | 602 | 602 |
| EPS (¢) | 3.3¢ | (2.5¢) | (0.2¢) | 22.6¢ | 38.6¢ |
| Dividend (¢) | - | - | - | - | 18.0¢ |
| Payout Ratio (%) | 0% | 0% | 0% | 0% | 47% |
| Book Value (A\$/share) | 0.71 | 0.79 | 0.78 | 1.06 | 1.28 |
| Operating Cash Flow (A\$/share) | 0.01 | (0.05) | 0.02 | 0.25 | 0.41 |
| Free Cash Flow (A\$/share) | (0.25) | (0.34) | (0.26) | 0.07 | 0.23 |
| EBITDA (A\$/share) | 0.01 | (0.01) | 0.04 | 0.29 | 0.45 |

| Valuation Metrics | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|--------------------|--------|----------|---------|---------|---------|
| P/E (x) | 54.3x | - | - | 7.9x | 4.7x |
| Dividend Yield (%) | 0.0% | 0.0% | 0.0% | 0.0% | 10.0% |
| EV / Sales | 129.5x | 22.4x | 6.9x | 2.1x | 1.4x |
| EV / EBITDA | 199.7x | (240.6)x | 37.3x | 5.5x | 3.5x |
| EV / EBIT | 250.5x | (177.4)x | 47.9x | 6.1x | 3.8x |
| FCF Yield (%) | -14.1% | -18.7% | -14.5% | 3.7% | 13.0% |

| Operating Metrics (%) | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|-----------------------|--------|---------|---------|---------|---------|
| EBITDA Margin | n/a | -9% | 19% | 38% | 42% |
| EBIT Margin | n/a | -13% | 14% | 34% | 38% |
| Net Profit Margin | n/a | -33% | -1% | 30% | 36% |
| ROIC | n/a | -1% | 3% | 22% | 30% |
| Return on Assets | n/a | -2% | 0% | 14% | 21% |
| Return on Equity | n/a | -3% | 0% | 21% | 30% |
| Effective Tax Rate | n/a | 0% | 0% | 0% | 0% |

| Key Assumptions | Jun-23 | Jun-24e | Jun-25e | Jun-26e | Jun-27e |
|--------------------------------|--------|---------|---------|---------|---------|
| Semi-Soft Coking Coal (US\$/t) | 140 | 150 | 150 | 140 | 140 |
| Thermal Coal (US\$/t) | 100 | 130 | 110 | 110 | 100 |
| AUDUSD | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Coal Sold (mt) | - | 0.2 | 0.8 | 2.6 | 3.6 |

| Valuation | A\$m | Equity | Risk | A\$m | A\$/share |
|-----------------|--------------|--------|------|--------------|-------------|
| Maxwell Mine | 3,213 | 100% | 100% | 3,213 | 5.31 |
| Spur Hill | 893 | 100% | 25% | 223 | 0.37 |
| Other Assets | 138 | 100% | 100% | 138 | 0.23 |
| Corporate Costs | (63) | 100% | 100% | (63) | (0.10) |
| Net Cash (Debt) | 139 | 100% | 100% | 139 | 0.23 |
| Total | 4,320 | | | 3,650 | 6.05 |

| | |
|--------------------------|------------|
| WACC | 8.0% |
| FPO Shares | 602 |
| Options | - |
| Performance Rights | 2 |
| Fully Diluted SOI | 605 |

INVESTMENT SUMMARY

- The Maxwell project is characterised by scalable production, low cash costs, low capital intensity, ready access to world class transport infrastructure and access to a skilled workforce.
- With a combined resource of over 1.4 billion tonnes and with prospective sales of 5.5-6.5mtpa of mainly semi-soft coking coal, we believe it is appropriate to classify this as a Tier 1 project.
- A decision has been taken to immediately expand Maxwell's Woodlands Hill longwall to maximise productivity. An additional ca. A\$180m in equity capital has been completed to achieve this and has been funded by the recent capital raise. The first year of full production is scheduled for 2028.
- As the Woodlands Hill longwall approaches full production, Malabar's P/E for 2027e is forecast at 4.7x (at a \$1.80 share price) dropping to 3x in 2028e, and EV/EBITDA of around 3.5x, declining to under 2x in 2028.
- These metrics combined with a ca. 70% discount to our NAV estimate for the company confirms that Malabar remains inexpensive. We can see the progressive rerating of the underlying valuation of the company as critical milestones are passed. These include the completion of project construction, commissioning and the move to full production.
- It is hard to fault the work of Malabar's experienced board and management team. There have been few greenfield coal projects permitted and constructed in NSW in the last 10 years due to permitting difficulties.
- Following the February equity raise the New Hope Group now own 19.9% of Malabar and has one board seat. Other board members directly or representing founders hold a further 40.0%.

COMPANY UPDATE

Production from the Whynot Bord and Pillar operation

Production from Maxwell's first mine, a bord and pillar underground operation accessing the Whynot seam, is underway, with first shipments already made to power utilities in Japan. We understand that some 25kt of a low ash (ca. 8-9%), high CV (ca. 6,400kcal) washed coal was shipped to customers in the March quarter.

Production remains scheduled to ramp up to full capacity (we estimate equivalent of 650ktpa) over the next six months with the recent introduction of a second continuous miner.

(These estimates are a little lower than our previous model and we have adjusted our forecasts for 23/24 and 24/25 slightly. The impact on earnings and cashflow is negligible. No change to valuation).

We understand that high energy coal of this quality is eagerly sought by Asian buyers, and a 8-10% premium to Newcastle benchmark pricing is currently obtained.



As we discuss below, there appears to be a continuing shortfall in high energy coals, prompting firm pricing. Might this encourage Malabar to consider additional production from the Whynot development with the introduction of a third continuous miner? To us it looks like a very attractive opportunity.

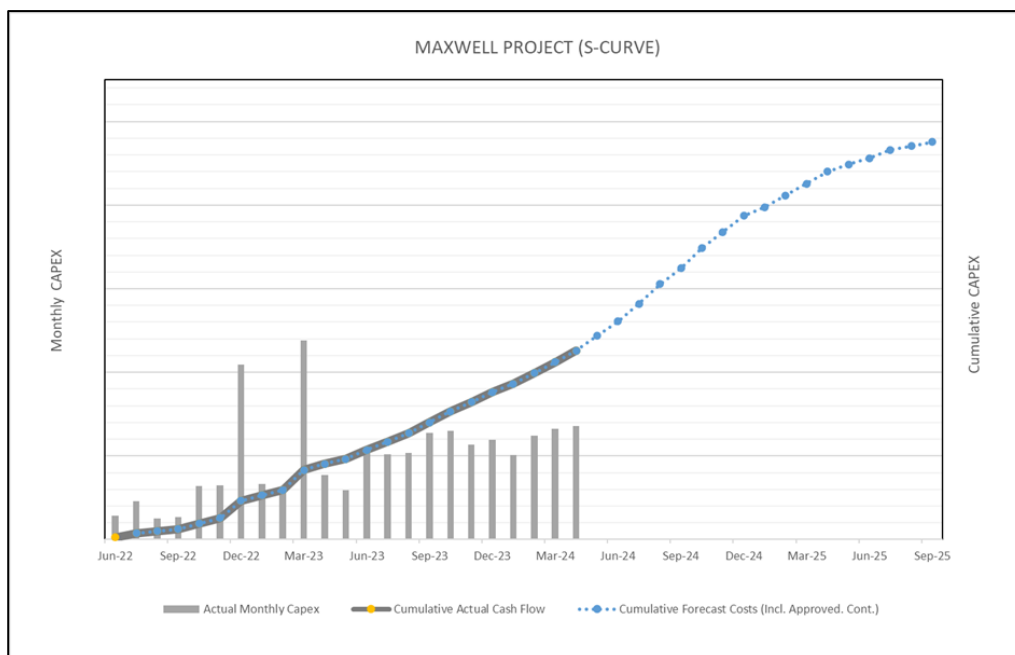
No change to our production and cost outlook. We estimate sales of 800kt of thermal coal in 2024/25, dominantly from the Whynot underground, with a small component of development coal from the Woodlands Hill mine from next year.

Our US\$100/t long term price assumption for high CV thermal coal is currently under review, with spot prices reported by Whitehaven at US\$136/t in the March quarter. A 10% increase in our long term price assumption results in a modest increase in long term cashflows and therefore our appraised NPV (our NPV₈ increases from \$6.05/share to \$6.27/share with a 10% increase in thermal coal pricing).

See commentary below.

Longwall Development

The Woodlands Hill longwall mine development is well advanced and is progressing as scheduled with construction around at around the 40% mark of the project's "S Curve".



The company notes that the slope of the S Curve is not as steep as would normally be expected as the coal preparation plant and coal load-out facilities are already in place.

As reported by Malabar in its March quarterly, the following activities were undertaken:

- *“Completion of the portal ramp concrete works and sump at the longwall mine portal,*
- *Construction of longwall ventilation shaft infrastructure commenced,*

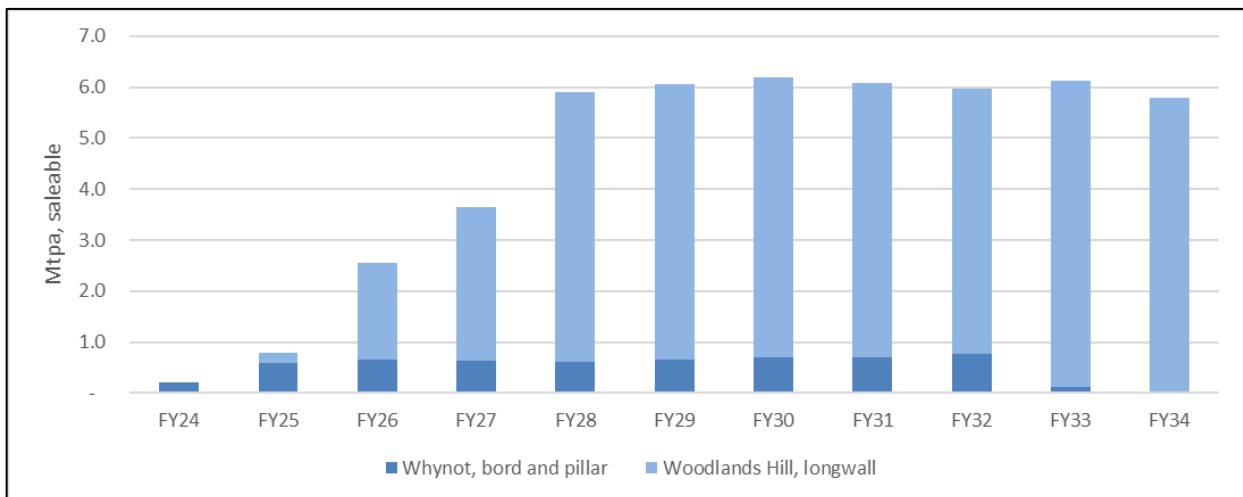
- *Surface to seam “declines” drivage continues with over 1,300m completed,*
- *Longwall equipment manufacture is well progressed. Inspections carried out in Europe and China by Maxwell technical teams.”*

Discussions with the company confirm that the drifts (or declines) are scheduled to be completed in October. This will then allow the introduction of continuous miners to start development mining prior to the installation of longwall units. The recent A\$180m capital raise has allowed the company to proceed with the installation of a 300m width longwall face, thereby advancing the project’s full capacity (see our February 2024 report for further detail).

Longwall equipment manufacture is well advanced (ZMJ in China, HBT in Europe and Ampcontrol in Australia) and delivery of the first three longwall supports is imminent.

Importantly, we understand the development remains on capex budget (ca. A\$620m), with the bulk of the major items now delivered or on order.

As discussed above, we have made minor changes to our near-term forecasts, but no change to the rate of production build-up of the longwall.



Source: Malabar guidance, BSCP estimates

As we discuss below, we have edged up our long term semi-soft coking coal (SSCC) price assumptions, now US\$140/t, previously US\$135/t. This has seen our project NPV₈ move up from A\$2.9bn to A\$3.2bn. This is now our base case estimate.

COMMODITY UPDATE

Our commodity and currency forecasts are as follows, with a modest lift in pricing of SSCC.

| | | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|-----------------------------------|--------|------|------|------|------|------|------|------|
| Semi-Soft Coking Coal | US\$/t | 135 | 135 | 150 | 140 | 140 | 140 | 140 |
| Thermal Coal (Realised) | US\$/t | 100 | 100 | 130 | 110 | 110 | 100 | 100 |
| Thermal Coal (Benchmark NEWC6000) | US\$/t | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| AUDUSD | : | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |

At the time of writing thermal coal prices are quoted at around US\$140-145/t (6,000 kcal/kg, FOB Newc). We expect Maxwell thermal coal to achieve a pricing premium to benchmark pricing with its higher energy content. Our estimates, we believe, are quite conservative.

The A\$/US\$ has traded in a 0.64-0.69 range over the past 2 years. No changes to our assumptions.

Regarding coking coal, Whitehaven in its March 2024 quarterly makes the following observations:

- The metallurgical coal market outlook is positive, although some softening of metallurgical coal index prices occurred in the quarter. In the March quarter, the Platts PLV HCC index averaged US\$308/t compared with the December quarter average of US\$333/t, in part reflecting weaker Chinese economic activity.
- India's economic growth is driving underlying demand growth for metallurgical coal. With a doubling of GDP over the past decade, the Reserve Bank of India forecasts India's GDP to grow by a further 7% over 2024-25 driven by continued industrialisation, which in turn is driving increased steel production and underpinning metallurgical coal price sentiment.

With an emerging structural shortfall between metallurgical coal production and metallurgical coal demand, several brokers reassessed their modelled coal price decks over the past few months resulting in a strengthening of longer-term consensus prices.

For this report have assumed a long-term pricing (real terms) of US\$140/t (FOB) for semi-soft metallurgical coal sold to Asian steelmakers, representing a 20-25% discount to long term hard coking coal pricing of US\$186/t, as described below. This is up modestly on our previous assumption (US\$135/t).

Note that Whitehaven achieved an impressive price of US\$216/t for its SSCC byproduct which represents only 9% of its product mix. This equates to a 20% discount to Queensland premium hard coking coal.

Again, we consider our SSCC pricing forecasts as quite conservative.

Commodity summary

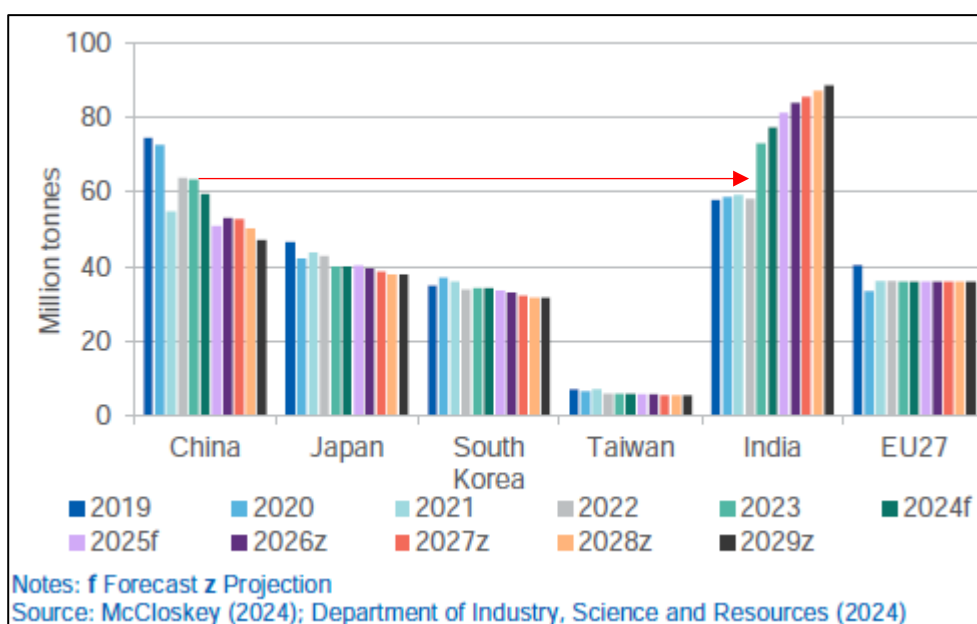
The Office of the Chief Economist has recently prepared a detailed review of coal markets and the outlook for coal demand and pricing. These views are broadly aligned with our thoughts on the sector. The March 2024 report is summarised below, with additional input from BSCP.



World trade

Global demand for metallurgical coal reached 317 million tonnes in 2023, growing by 8% from 2022. India and China drove the majority of this growth, with China drawing in rapidly growing coal flows from Mongolia via recently upgraded rail links. In 2023, India overtook China as the world's number one importer of seaborne metallurgical coal, though China still retains top spot for overall (land and sea) metallurgical coal imports.

Metallurgical coal imports – projections to 2029



Demand from other markets was broadly stable through 2023, with South Korea, Taiwan, and Europe totals similar to their 2022 volumes. Demand from Japan was subdued, falling to 40 million tonnes in 2023 from 43 million tonnes in 2022.

China has imposed import tariffs of 3% on metallurgical coal, in order to protect its domestic industry. Indonesia and Australia are exempt from these tariffs under Free Trade Agreements. Russia and Mongolia are not expected to be exempt, however, import volumes from these countries are unlikely to be affected given the limited alternatives.

World metallurgical coal demand is projected to rise from 317 million tonnes in 2023 to 331 million tonnes by 2029.

Numerous Asian countries continue to progress ambitious steel plans, and despite some delays associated with the pandemic and multiple geopolitical problems, it is likely that the pace of steel production in the region will pick up over time. Metallurgical coal imports are thus expected to grow in a range of Asian nations especially India, with other areas including the European Union also holding up relatively strongly (see table below).

China's seaborne imports of metallurgical coal will continue to be influenced by its domestic steel production and by government industry policy. China imposed cuts on steel production in 2021 and 2022 to meet decarbonisation goals, but subsequently relaxed them in 2023. The targets could stay



relaxed in 2024 to mitigate the impact of slower economic growth. Many of China’s steel mills are undergoing upgrades to use ultra-low emissions technology: this should improve efficiency and reduce the impact of stricter emissions policies.

China’s steel output is projected to decline modestly out to the end of the decade, which should flow through to metallurgical coal imports. Seaborne metallurgical coal imports are expected to fall from 64 million tonnes in 2023 to 47 million tonnes by 2029.

India has been investing heavily in steel production capacity in recent years; the Government is looking to double steel production capacity to 300 million tonnes by 2030. Hence, steel production (and consumption) is expected to increase significantly over the outlook period (by 1.3% per year and 6.5% per year, respectively). India’s imports of metallurgical coal grew by 25% to an estimated 73 million tonnes in 2023.

As its steel production has expanded, India has surpassed China as the world’s largest importer of seaborne metallurgical coal in 2023. Growth is expected to continue through to 2029, driven by India’s manufacturing and construction sectors. While India is also increasing its production of metallurgical coal, this increase is not expected to keep pace with demand. Seaborne metallurgical coal imports are expected to increase from 73 million tonnes in 2023 to 89 million tonnes in 2029, with most of this additional supply drawn from Russia and Australia.

Table 5.1: World trade in metallurgical coal

| | Unit | 2023 | 2024 ^f | 2025 ^f | 2026 ^f | 2027 ^z | 2028 ^z | 2029 ^z | CAGR ^z |
|-----------------------------------|------|------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| World trade | Mt | 349 | 334 | 335 | 340 | 339 | 335 | 333 | -0.8 |
| Metallurgical coal imports | | | | | | | | | |
| China | Mt | 64 | 59 | 51 | 53 | 53 | 50 | 47 | -4.8 |
| India | Mt | 73 | 77 | 81 | 84 | 86 | 87 | 89 | 3.3 |
| Japan | Mt | 40 | 40 | 40 | 39 | 39 | 38 | 38 | -0.9 |
| European Union | Mt | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 0.0 |
| South Korea | Mt | 34 | 34 | 34 | 33 | 32 | 32 | 32 | -1.3 |
| Metallurgical coal exports | | | | | | | | | |
| Australia | Mt | 151 | 173 | 176 | 181 | 180 | 176 | 174 | 2.4 |
| United States | Mt | 43 | 42 | 43 | 44 | 44 | 43 | 42 | -0.3 |
| Canada | Mt | 29 | 28 | 28 | 27 | 27 | 26 | 26 | -1.8 |
| Russia | Mt | 44 | 41 | 41 | 42 | 42 | 42 | 42 | -0.7 |
| Mongolia | Mt | 48 | 40 | 35 | 35 | 35 | 35 | 35 | -5.1 |
| Mozambique | Mt | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0.0 |

Notes: f Forecast; z Projection.

Source: IEA (2024) Coal Information; IHS (2024); Department of Industry, Science and Resources (2024)

World exports

World exports are expected to decline over the outlook period, albeit from a high baseline in 2023. Global trade in 2023 reached 349 million tonnes, almost 12% above 2022. World exports are expected to fall to 333 million tonnes by 2029. The market remains dominated by Australia contributing over 50% of seaborne supply of metallurgical coal to the global steel industries.

US metallurgical coal exports are expected to remain stable. The closure of the Port of Baltimore following the collapse of the Francis Scott Key Bridge has temporarily halted all shipping traffic, including about 28% of US coal exports. The closure, however, is not thought to have a significant impact on physical coal pricing. Most exports from Baltimore are of thermal coal.



Metallurgical coal exports from the US were strong in 2023 at 43 million tonnes. Seaborne metallurgical coal exports from the US are expected to be flat out to the end of the decade.

The US has a relatively small project pipeline. There are currently two new projects and one expansion project planned for metallurgical coal, with all expected to come online by 2025. The combined production capacity for these projects is just under 8 million tonnes per annum. The US government is investing in upgrading transport infrastructure which should help resolve previous supply chain disruptions. Labour force shortages continue to be a challenge for US producers, posing particular issues for new and expanding mines.

Exports of **Canadian** metallurgical coal are expected to decline over the balance of the decade, falling from 29 million tonnes in 2023 to 26 million tonnes by 2029. Canada currently has eleven new metallurgical coal projects and one expansion project in its pipeline but many are suffering major permitting delays.

Mongolia's exports of metallurgical coal more than tripled in 2023, rising from just 14 million tonnes in 2022 to 48 million tonnes. Improved rail links to China were the main driver, helped by record prices from 2022.

Mozambique's exports are expected to be steady at 4 million tonnes per year through to the end of the decade. Mozambique remains a high-cost producer with low washery yields. A good portion of production capacity sits above the 90th percentile total cash cost. When prices fell in 2020 (due to the pandemic), some of Mozambique's high-cost miners exited the market. With prices expected to decline over the outlook period, risks for Mozambique exports remain weighted to the downside.

Russia's metallurgical coal exports were strong in 2023, increasing to 44 million tonnes compared to 37 million tonnes in 2022. The majority of this increased output was exported to India and China. Russian exports to Europe dropped to almost zero in 2023, with exports to Japan experiencing the largest drop outside of Europe. Other countries, including Malaysia, South Korea, Turkey and Vietnam, increased their imports from Russia, but this is likely to have been restricted due to trade sanctions with Russia.

Over the outlook period, Russian seaborne metallurgical coal exports are expected to experience a small decline, dropping from 44 million tonnes in 2023 to 42 million tonnes by 2029. Exports will be impacted by global trade sanctions and access to capital.

Australia

Metallurgical coal production has seen exports constrained in recent years by bad weather and logistical problems. But demand factors have also played a role, including relatively soft steel production among some regional importers, and sustained low exports to China even following the removal of trade restrictions.

Recovering global supply will bring seaborne metallurgical coal prices down. Falling prices (and production issues) have affected Bowen Coal's Bluff project, which has now paused having previously been restarted.



Other mines continue to produce at the lower end of their production guidance ranges. Further price falls could potentially affect the outlook for new projects, though key prospects such as Olive Downs and Maxwell are expected to continue ramping up in the near-term.

Capital spending also remains subject to concerns over environmental factors and social licence. These pressures have been mainly directed against thermal coal, but metallurgical coal is also being affected.

Labour force shortages in coal mining has eased slightly. According to ABS labour force data, total persons employed in coal mining in 2023 averaged 47,000. This is a minor improvement on the previous year of 44,300, however is still below the pre-pandemic average in 2019 of 53,000.

Supply constraints are expected to ease to some degree. Some supply constraints reflect disruptions caused by weather and logistics, and so are inherently short-term and capable of rapid resolution. However, others such as labour and capital shortages could be sustained, with potential to worsen over the next five years.

There are a range of Australian projects which could commence, ramp up or restart production. These prospects include Bowen's Bluff mine, Burton and Broadmeadow East projects, Pembroke's Olive Downs complex, Anglo American's German Creek (where output is already ramping up), Fitzroy's Ironbark No. 1, Vitrinite's Vulcan mine, Malabar's Maxwell mine, Q Coal's Cook project, Sojitz's Crinium mine, and Futura's Wilton and Fairhill deposits. Whitehaven's large Winchester South deposit may see the start of construction later in the decade.

Although the fundamentals remain favourable, there are risks. Increased electric arc furnace (EAF) and green steel production may harm the demand for metallurgical coal from steel mills using blast furnaces. The pace of the roll-out of this technology at an economical scale in major steel producing nations remains unclear. Prices represent another risk — they are currently on an easing path which could leave them below the level required to incentivise increased output. Australia accounts for just over half of global export volumes and has cost and scale advantages over other producers. It thus retains an important role in balancing global markets.

At this stage, assuming profit margins can be sustained, capital and labour shortages are not considered sufficient to prevent growth in output. Most of the potential capacity is expected to proceed, although with potential for further delays as markets find their equilibrium. Higher production in New South Wales and (especially) Queensland is expected to lift Australia's exports from a weather-affected 156 Mt in 2022–23 to 175 Mt by 2028–29. Metallurgical coal export earnings are expected to ease from \$64 billion in 2022–23 to \$35 billion by 2028–29 (real terms, Figure 5.6), with higher volumes only partly offsetting the impact of falling prices.

Prices

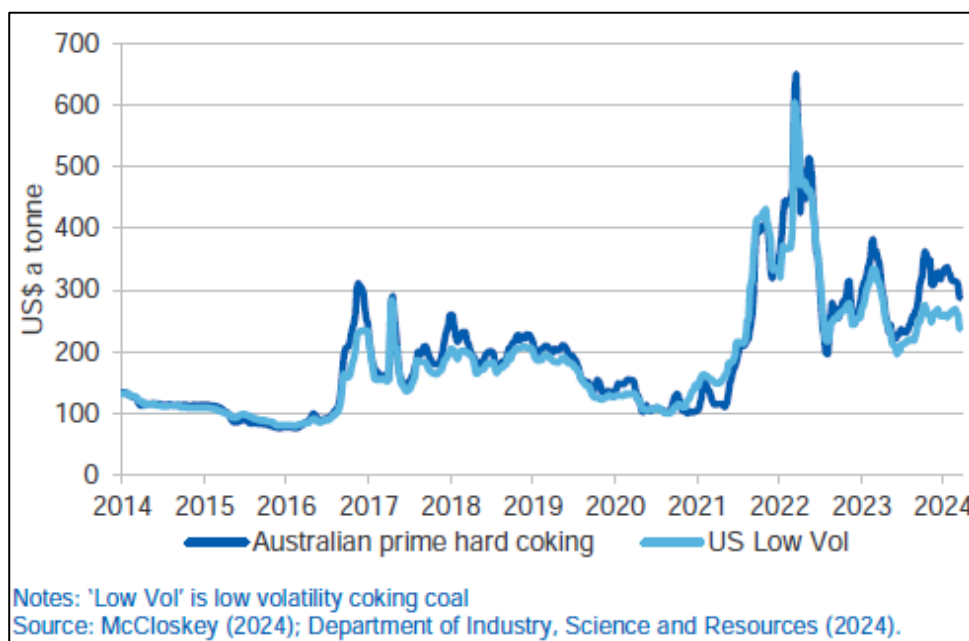
The Australian prime hard coking coal price averaged US\$294 a tonne in 2023. While this was significantly lower than the 2022 average of US\$360 a tonne, prices continued to experience volatility as a result of supply side issues (Figure 5.3). Prices appeared to be stabilising around the middle of the year, but climbed back up in September when supply from Australia's BMA's Peak Downs mine in central Queensland was suspended after two truck sliding incidents.



Prices held at high levels towards the end of the year due to additional supply disruptions — including Cyclone Jasper and the associated long queues at Queensland ports. Vessel queues remained high in January 2024, but showed some signs of easing in February. Prices are expected to broadly trend downwards in 2024, averaging US\$277 a tonne for the year. Prices will likely experience volatility in the latter half of 2024 due to the likelihood of a new La Niña cycle and associated disruptions.

Prices for metallurgical coal fluctuated sharply again in 2023, mostly due to disruptions in Australian supply (linked to safety incidents, cyclones, and delays due to port queues). Over the outlook period, prices will be driven by the length and severity of weather disruptions from La Niña. The last La Niña cycle lasted three years, if a similar length occurs supply could experience disruptions out to 2026. There is also upside risks from potential escalation in the Russia-Ukraine conflict which could further reduce Russian exports. In real terms, prices are expected to fall to US\$185 a tonne by 2029.

Met coal prices, Australia and US (FOB)



The following are price assumptions out to 2029 provided by the Office of the Chief Economist. As discussed above we have assumed a long-term pricing (real terms) of US\$140/t (FOB) for semi-soft metallurgical coal sold to Asian steelmakers, representing a 20-25% discount to hard coking coal. This is up on our previous assumption of US\$135/t.



Table 5.2: Metallurgical coal outlook

| World | Unit | 2023 | 2024 ^d | 2025 ^e | 2026 ^e | 2027 ^e | 2028 ^e | 2029 ^e | CAGR ^e |
|------------------------------|--------|---------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------|
| Contract prices ^a | | | | | | | | | |
| – nominal | US\$/t | 289 | 282 | 231 | 208 | 210 | 210 | 206 | -5.5 |
| – real ^d | US\$/t | 295 | 282 | 226 | 200 | 198 | 194 | 186 | -7.4 |
| Spot prices ^g | | | | | | | | | |
| – nominal | US\$/t | 292 | 277 | 226 | 208 | 210 | 210 | 205 | -5.7 |
| – real ^g | US\$/t | 298 | 277 | 221 | 199 | 198 | 194 | 185 | -7.7 |
| Australia | Unit | 2022–23 | 2023–24 ⁱ | 2024–25 ^f | 2025–26 ^e | 2026–27 ^e | 2027–28 ^e | 2028–29 ^e | CAGR ^e |
| Production ^b | Mt | 167 | 173 | 178 | 181 | 188 | 182 | 180 | 1.3 |
| Export volume | Mt | 156 | 161 | 174 | 177 | 184 | 177 | 175 | 2.0 |
| – nominal value | A\$m | 61,922 | 55,715 | 49,498 | 41,747 | 42,061 | 41,246 | 40,228 | -6.9 |
| – real value ^h | A\$m | 64,411 | 55,715 | 47,975 | 39,376 | 38,704 | 37,028 | 35,233 | -9.6 |

Notes: ^d In 2024 US dollars. ^e Contract price assessment for high-quality hard coking coal. ^f In 2023–24 Australian dollars. ^g Forecast. ^h Hard coking coal FOB Australia East Coast ports. ⁱ Projection.
Source: ABS (2024) International Trade in Goods and Services, Australia, 5368.0; Department of Industry, Science and Resources (2024)

Thermal Coal

Thermal coal markets have been relatively stable recently. The 6,000 kcal Newcastle benchmark has averaged \$US127 a tonne during the early months of the year, compared with \$US135 a tonne in the December quarter 2023. In the near term, seaborne thermal coal imports are expected to be subdued by high inventories across several markets and by decreased demand from China — impacted by Chinese New Year holidays. There is also the high likelihood of a La Niña weather event reappearing in 2024, bringing with it heavy rainfall likely to be generally unfavourable to coal production and transport in Australia and Indonesia.

Trade in thermal coal is expected to broadly decline over the next five years, though with significant variance between nations (Figure 6.1). The pace of this decline is still uncertain with industry experts predicting a wide range of scenarios driven by varying energy transition plans and the pace of renewables uptake. Slowing demand is expected to remove some price pressure over time.

World demand for thermal coal is still expected to be dominated by Asia. China and India are expected to remain the largest importers of seaborne thermal coal over the next five years. However, a noticeable rise in China’s domestic thermal coal production and the expansion of renewable power generation, is expected to result in a decrease in its seaborne imports.

Long-term changes in thermal coal usage are linked to the scale of existing and proposed coal plants. There are currently 6,550 coal plants in operation, with over 75% in Asia. A quarter of ex-Asia coal plants are expected to shut in the outlook period, against just 3% in Asia.

The majority of coal plant projects in the pipeline are also concentrated in Asia, with China accounting for 63% of the total projects (by number), India for 10%, and Indonesia accounting for 6%. Much of the planned capacity in China is replacement capacity or capacity intended to support renewables. Demand for coal in India is expected to rise over the next five years, but higher domestic output is forecast to meet most of this demand. Other Asian markets expect to see higher or steady demand over the outlook period include Japan, South Korea, Vietnam, and the Philippines.

As the share of coal plants in Asia continues to grow, the policy and administrative decisions of governments in the region will become increasingly important to coal markets.



Price volatility for most thermal coal types has eased as prices corrected from the extraordinary peaks of 2022. The average price for 6,000kc NAR thermal coal dropped to US\$135 a tonne in the December quarter 2023 and eased further in early 2024, averaging US\$127 a tonne. In the absence of further disruptions from global conflicts and extreme weather, prices are expected to decline gradually, as falling demand slightly outpaces falling supply. However, with the high likelihood of a La Niña cycle developing in the latter half of 2024, prices are vulnerable to volatility, though high global inventories (especially in China) should provide some buffer. In 2029, 6,000kc NAR thermal coal is expected to average US\$105 a tonne in real terms.

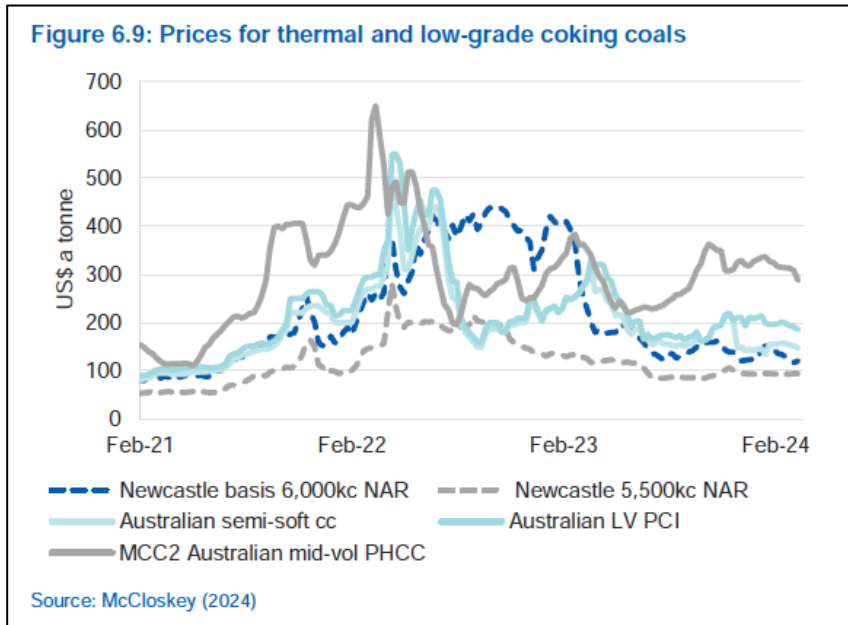
Prices remain subject to mostly upside risks over the foreseeable future. Any escalation of Russia's invasion of Ukraine could remove Russian supply from the market. Escalations in the Hamas-Israel conflict will likely not have an immediate effect on prices, as only about 3% of global supply is shipped through the Red Sea region. However, an escalation would likely increase the price of oil and flow through into LNG contract pricing, which could in turn lead to a lagged rise in coal prices.

Prices are not expected to decline to below US\$100 a tonne over the outlook period. A range of structural price pressures, such as low capital availability, labour shortages, rising freight costs, and increased insurance premiums, are likely to persist. The 90th percentile cash cost has been increasing over the last few years, from US\$70 a tonne in 2019 to US\$92 a tonne by 2023.

These issues will likely see prices remaining elevated compared to their historical averages. However, there is some capacity to bring down costs through productivity improvements. Technological advancements such as automation of high-risk jobs, electrification of mine sites, and emissions reduction technology all have the capacity to reduce operating costs – although capital costs may increase over the short term. The advancement of artificial intelligence could also assist in areas such as exploration, transportation, and safety.

Prices may also experience increased volatility over the outlook period, beyond that expected from La Niña. Thermal coal has traditionally been the base fuel source for electricity generation, with energy from renewables dependent on availability, and gas often filling the gap between the two. As the transition to clean energy accelerates, the shift will likely involve nuclear, renewables, and batteries supplying base power, with carbon-intensive fuels like coal and natural gas providing dispatchable power.

In this scenario, demand for coal could become more volatile and a higher share of transactions could move away from long term contracts towards spot markets.



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Dr Chris Baker, an authorised representative of BSCP, certifies that the advice in this report reflects his honest view of the company. He has over 30 years investment experience in wholesale capital markets. He worked as a mining analyst for brokers BZW and UBS for 11 years and has a further 16 years' experience as a mining analyst and portfolio manager with Colonial First State and Caledonia Investments. He now provides independent financial advice on a part time basis. He may own securities in companies he recommends but will declare this when providing advice. He currently owns shares in Malabar. He is remunerated by BSCP but is not paid a specific fee for providing this report. BSCP, its directors and consultants may own shares and options in Malabar and may, from time to time, buy and sell the securities of Malabar.



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Appendix 1

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