Aluminium, Alumina, Bauxite (AAB)

Australia's AAB sector

11%

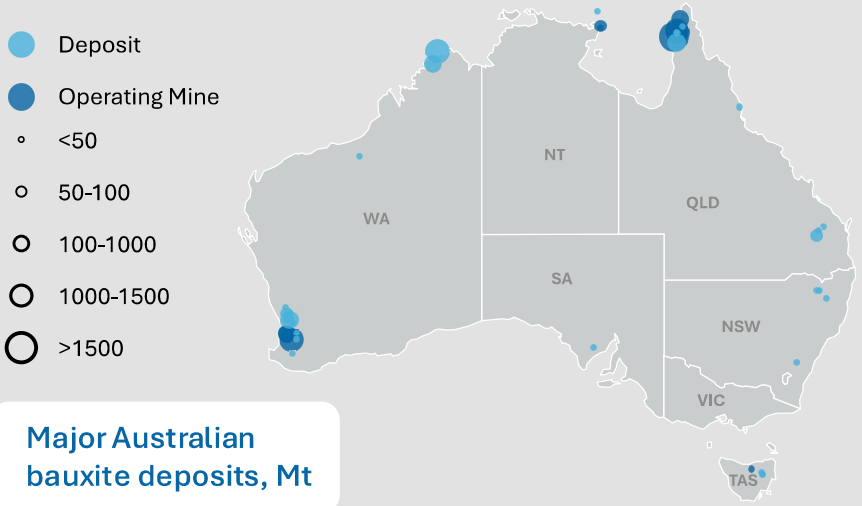
of global primary aluminium exports are Australian

$23 billion

of AAB exported in 2024–25

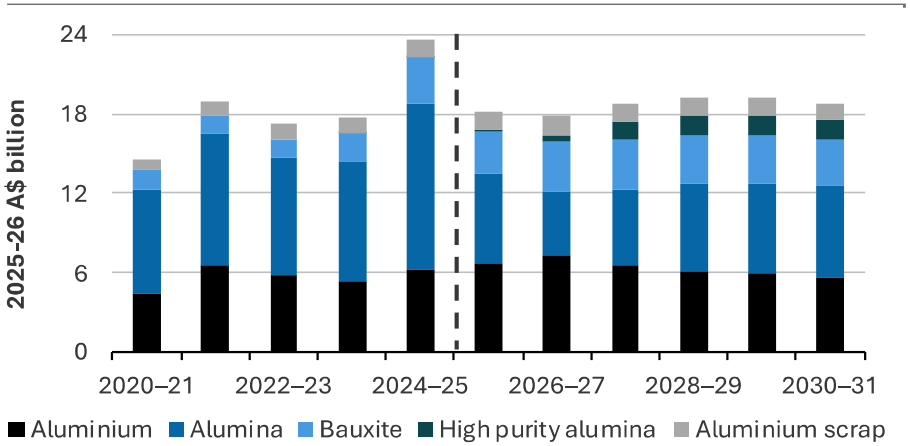
92%

of Australian bauxite exported to China



Major Australian bauxite deposits, Mt

Australian AAB exports

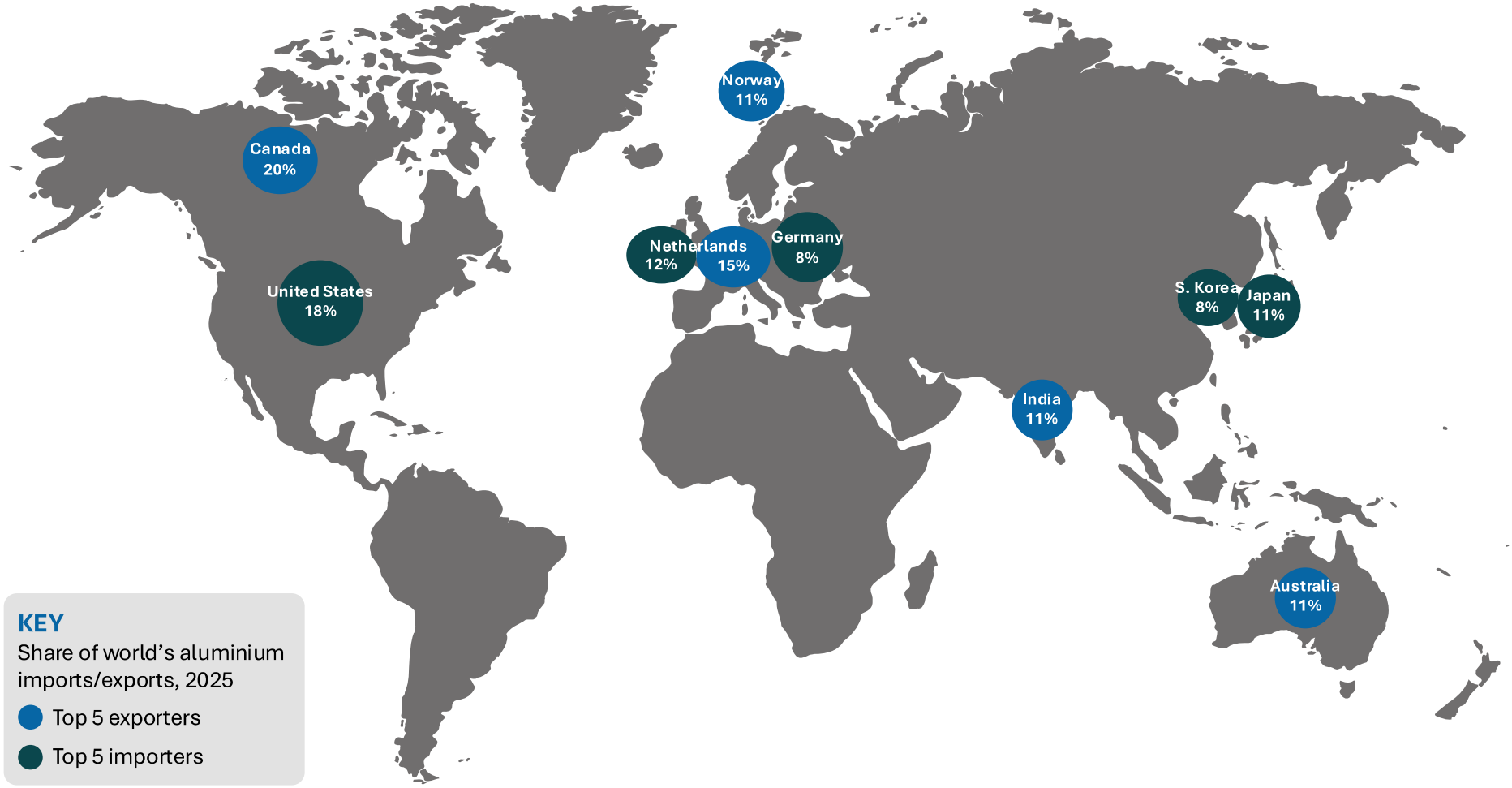


Outlook

- Aluminium prices expected to remain elevated
- AAB export earnings to be steady at $19 billion a year in real terms
- Australian primary aluminium export to be over $7 billion in 2026–27
- Alumina prices expected to be sluggish in 2026

Source: Geoscience Australia, Department of Industry Science and Resources

Aluminium trade map



Source: WBMS; ABS

10.1 Summary

- Tight aluminium supply is forecast to keep the aluminium price high at US$3,425 a tonne in H2 2026. Further out, the price will be supported by higher world demand driven by the global energy transition. The aluminium price is projected to average US$2,900 a tonne in real terms in 2028-2031.
- Disruptions to aluminium smelters in the Middle East (ME) have curbed the demand for alumina and caused the price of alumina to soften. After 2026, output cuts in China and Australia's Yarwun refinery are set to tighten supply and support the alumina price. The Platts FOB alumina price is projected to be over US$360 a tonne in real terms over the outlook period.
- Australia's AAB export earnings are projected to be steady at $19 billion in real terms over the outlook period, as elevated aluminium prices and export values offset sluggish alumina prices and export values. Australia's primary aluminium output is likely to steady at 1.7 Mt per annum over the outlook period.

10.2 The Middle East conflict

The Middle East conflict has significantly affected the global aluminium industry. The Middle Eastern nations that produce aluminium are Bahrain, Oman, Qatar, Saudi Arabia, the United Arab Emirates (UAE) and Iran. Together, they account for 9.4% of global primary aluminium output, 21% of global alumina imports, and 3% of global alumina output. The conflict reduced the region's ability to import bauxite and alumina, and export alumina and aluminium, with global effects on demand, supply and pricing.

To assess the impacts of the Middle East conflict on aluminium and alumina prices and Australia's AAB exports, two scenarios are constructed. Under the central scenario, around 2.5 Mt of curtailed primary aluminium capacity (or 36% of the Middle East smelting capacity) is assumed to be offline for 12 months, as damage is repaired and potlines are gradually restarted. Under a downside scenario, 80% of the Middle Eastern aluminium smelting capacity is assumed to be offline until July 2027 (see Overview Chapter, Box 1.1 for the downside scenario results).

Supply and demand impacts

The Middle East region has a structural mismatch: large aluminium smelting capacity to take advantage of local energy supplies but high reliance on alumina and bauxite imports — which leaves its aluminium production heavily exposed to trade disruptions. Local aluminium smelters consumed 13.4 Mt of alumina (or 9.3% of global usage) in 2025. 4.4 Mt of alumina were sourced from local refineries (2.2 Mt from imported bauxite), and 9 Mt of alumina were imported from outside.

The Middle East conflict has caused considerable damage to smelting facilities in the region. It is estimated that around 2.5 Mt of primary aluminium have been curtailed. EGA's 1.6 Mt a year Al Taweelah aluminium smelter in the UAE was damaged by a missile strike in March 2026 and is highly likely to stay offline for a year. The 1.6 Mt a year Alba aluminium smelter in Bahrain initiated a controlled shutdown of 19% (equivalent of 308,000 tonnes) of its annual capacity in March 2026. The 650,000 tonnes a year Qatalum aluminium smelter in Qatar has idled 40% (or 256,000 tonnes) of its capacity, due to gas supply constraints. In Iran, multiple aluminium smelters — with a combined capacity of 780,000 tonnes a year — are operating at 50% of their combined annual capacity.

Alba Aluminium's March quarter 2026 primary aluminium production was down by 14% year-on-year to 339,734 tonnes. During the Middle East conflict, Alba used multiple ports and various transport routes in the region to maintain imports of alumina and exports of primary aluminium. Around 60% of its aluminium was exported through the Saudi port of Jeddah.

Offsetting the fall in Middle Eastern primary aluminium production has been higher Chinese production. Primary aluminium production in China in April 2026 rose to 3.9 Mt, up by 3.1% year-on-year and 0.5% month-on-month.

Global automotive and aerospace manufacturers are accelerating aluminium stockpiling since they face potential production cuts if disruptions persist to Middle Eastern production. Some automakers are considering importing aluminium from Russia.

Japan's primary aluminium imports increased by 6.6% year-on-year or 16% month-on-month in March 2026 to 89,497 tonnes. Aluminium premiums in Japan, the US and Europe are at elevated levels. Japanese aluminium buyers agreed to pay premiums of US$350 a tonne — the highest premiums in 11 years — for shipments between April and June 2026. The Platts US Midwest aluminium premium reached a record high of US114.45 cents a pound on 1 May 2026.

China has suspended its sulphuric acid exports from May to end 2026. This export ban is likely to impact the global primary aluminium output as sulphuric acid is used for surface finishing, material purification and by-product recovery.

Global alumina supply fell by 7.8% year-on-year, but remained unchanged month-on-month in March 2026 to nearly 12 Mt. In line with the global alumina supply, the Middle East's alumina supply fell by 4.0% year-on-year but remained unchanged month-on-month in March 2026 to 370,000 tonnes.

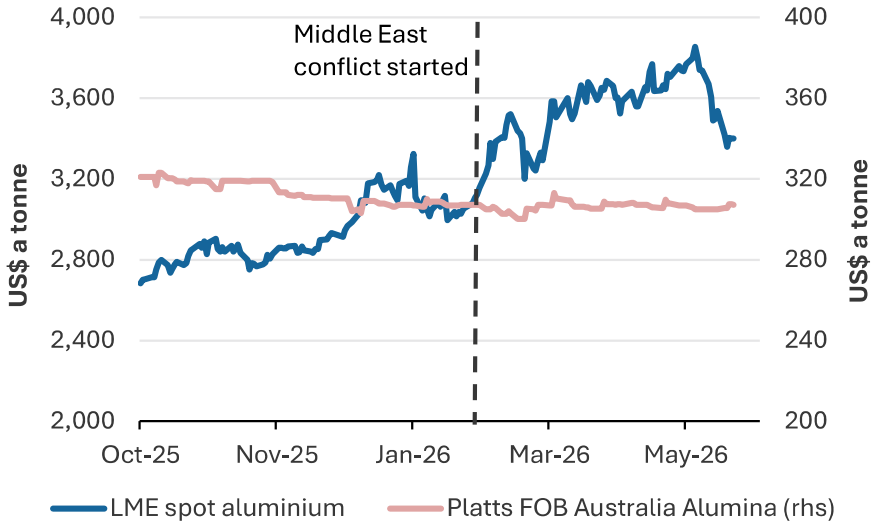
The Middle East conflict has had no impacts on global bauxite supply, which has continued to increase. In March 2026, world bauxite supply increased by 6.7% year-on-year or 7.9% month-on-month to 42 Mt, driven by a large rise in Guinean bauxite production.

Price impacts

In late 2025 and early 2026, aluminium prices rose to multi-year highs on the back of China's 45 Mt a year production cap and higher aluminium demand from the energy transition sectors. The price has risen further as the Middle East conflict resulted in damage to the region's aluminium manufacturing infrastructure and disrupted global alumina trade. The London Metal Exchange (LME) aluminium spot price has so far risen by 7.8% since the start of the conflict on 28 February 2026, to US$3,405 a tonne on 22 June 2026 (Figure 10.1).

Over the same time, there has also been a shift in where global exchange reserves of aluminium are located. LME aluminium stocks have fallen by 32% since February (Figure 10.2). By the end of May 2026, Russian aluminium accounted for around 93% of total primary aluminium available in the LME warehouses. Most Russian aluminium was on-warrant in LME warehouses prior to 13 April 2024. The US and UK banned Russian-produced aluminium from entering Western exchange warehouses after 13 April 2024. In contrast, less aluminium is being used and aluminium stocks are building on the Shanghai Exchange, which have risen by 48% since the start of the Middle East conflict.

Figure 10.1: Recent aluminium and alumina price movements



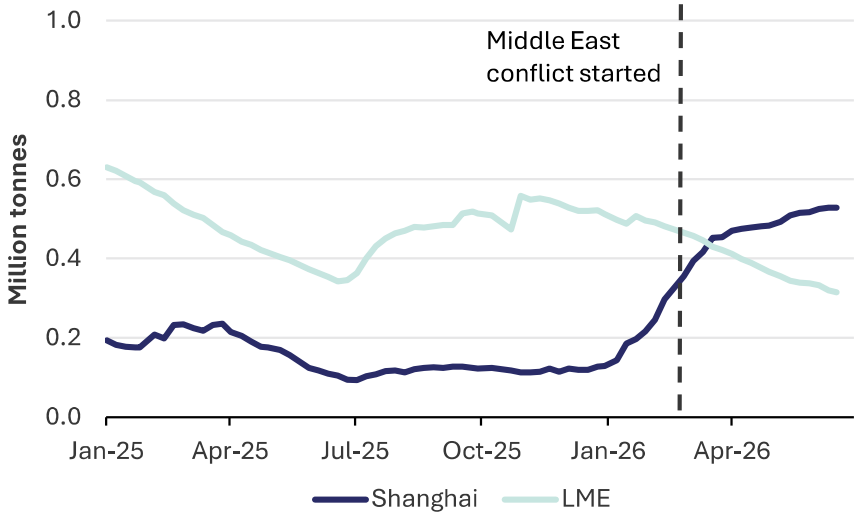
Source: Bloomberg (2026)

The Chicago Mercantile Exchange (CME) Group has also recently expanded its base metal warehouse facilities to include locations in Hong Kong and Taiwan. The expansion is to capture rising aluminium trade flows from the Middle East market to the Asian market.

Alumina prices have held above US$300 a tonne in recent months, as lower than expected Chinese alumina output offset reduced demand caused by smelter disruptions in the Middle East. The Platts FOB Australia alumina price has been flat since the start of the conflict, trading at US$307 a tonne on 22 June 2026 (Figure 10.1).

Looking forward, tight supply is likely to keep the aluminium price elevated in H2 2026 and 2027, as the global aluminium market moves further into deficit (Figure 10.3).

Figure 10.2: LME and Shanghai aluminium stocks



Source: Bloomberg (2026)

The LME aluminium spot price is forecast to average US$3,387 and US$3,308 a tonne in 2026 and 2027, respectively (Figure 10.4).

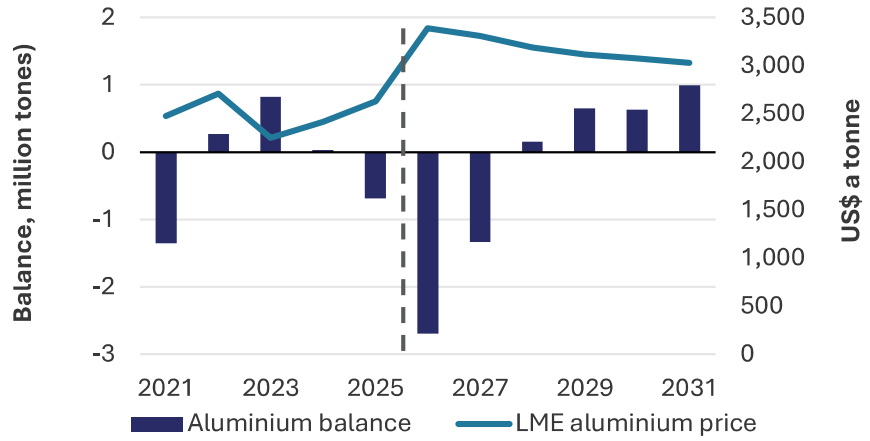
High supply and lower demand for alumina will likely keep the alumina price under pressure in H2 2026 and 2027. The Platts FOB Australia alumina price is forecast to average US$290 and US$295 a tonne in 2026 and 2027, respectively (Figure 10.4).

Trade impacts

Aluminium

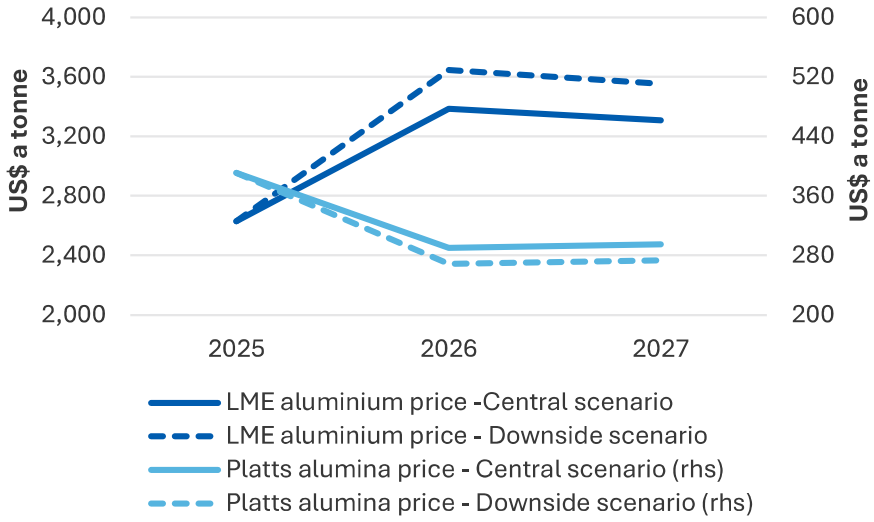
The Middle East conflict has notably altered the global primary aluminium supply chain. Since the start of the conflict, less primary aluminium has been shipped from the Middle East, but more has been shipped from China and Indonesia.

Figure 10.3: Aluminium market deficit to widen in 2026



Source: Refinitv (2026); Wood Mackenzie (2026); Department of Industry, Science and Resources (2026)

Figure 10.4: Aluminium and alumina prices under scenarios



Source: Department of Industry, Science and Resources (2026)

The Middle East region exported 5.3 Mt of primary aluminium in 2025, accounting for 18% of global ex-China aluminium exports. About 23% (or 1.2 Mt) of ME primary aluminium output was exported to the European 27 and the United Kingdom, 15% (or 795,000 tonnes) to the US, 14% (or 742,000 tonnes) to Turkiye, 10% (or 530,000 tonnes) to Japan, and 38% (or 2.0 Mt) to other destinations.

In March 2026, China exported 27,417 tonnes of primary aluminium, a 106% month-on-month rise. Indonesia exported 88,554 tonnes of primary aluminium in March 2026, a rise of 164% month-on-month. Indonesia is shipping its primary aluminium to the US market, which is traditionally supplied by the ME aluminium smelters.

Alumina

Shipment disruptions linked to the Middle East conflict have also altered global alumina trade. Less alumina is being shipped to the Middle East region, diverted instead to China. Weaker alumina prices gave Chinese aluminium smelters the incentive to import more alumina.

Since the start of the conflict, the Middle East region has imported less alumina, while China and other countries have imported more alumina. As at the end May 2026, the Middle East's share of global alumina imports declined to 24% from 26% prior to the conflict. China's share of global alumina imports rose from 5% pre-conflict level to 11% (Figure 10.5).

In line with the change in global alumina trade, Australia has exported less alumina to the Middle East region and more alumina to China and other nations. As at the end May 2026, China's share of Australia's total alumina exports rose from 14% pre-conflict level to 28%. The Middle East's share of Australia's

alumina exports fell from 28% pre-conflict level to 16% (Figure 10.6).

Adding further pressure to trade of AAB (and other commodities) is rising fuel costs, freight rates and insurance premiums. Vessels are taking longer routes and therefore extended timeframes to reroute from the Middle East to other regions.

Bauxite

The Middle East conflict has had little impact on global bauxite trade levels. China has continued to be the largest bauxite importer with its share of global bauxite imports remains steady at 86%. As the end of May 2026, the Middle East's share of global bauxite imports remained small at around 2%.

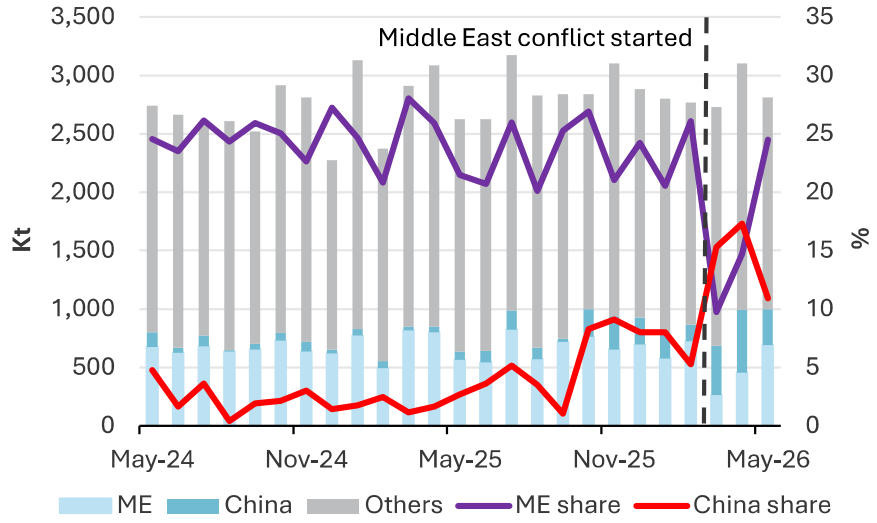
Australia has diverted its bauxite exports from the Middle East to China. As at the end of May, China's share of Australia's total bauxite exports rose from 95% pre-conflict level to 99%. The Middle East's share of Australia's total bauxite exports fell from 3% pre-conflict level to zero.

Impact on Australian AAB earnings

Australia is the world's largest alumina's exporter, second largest alumina producer, bauxite producer and exporter, and third largest primary aluminium exporter. The Middle East is Australia's largest alumina export market, accounting for 47% of Australia's total alumina exports and 6.3% of Australia's total bauxite exports.

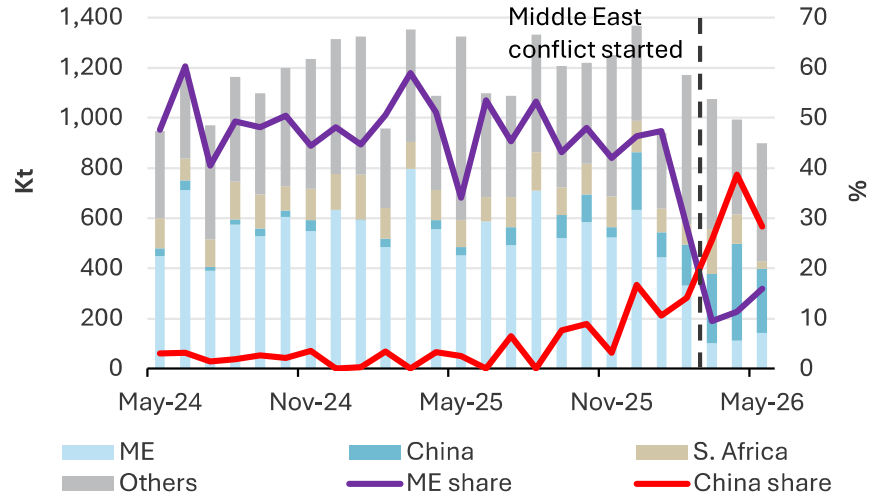
In the central scenario, the Middle East conflict is likely to have a positive impact on Australia's primary aluminium exports, which are estimated to experience a rise of $1.0 billion in 2025–26 and a further rise of $0.5 billion in 2026–27. However, the conflict is likely to adversely impact Australia's alumina exports, which are

Figure 10.5: World alumina imports, monthly



Source: Kpler (2026)

Figure 10.6: Australian alumina exports, monthly

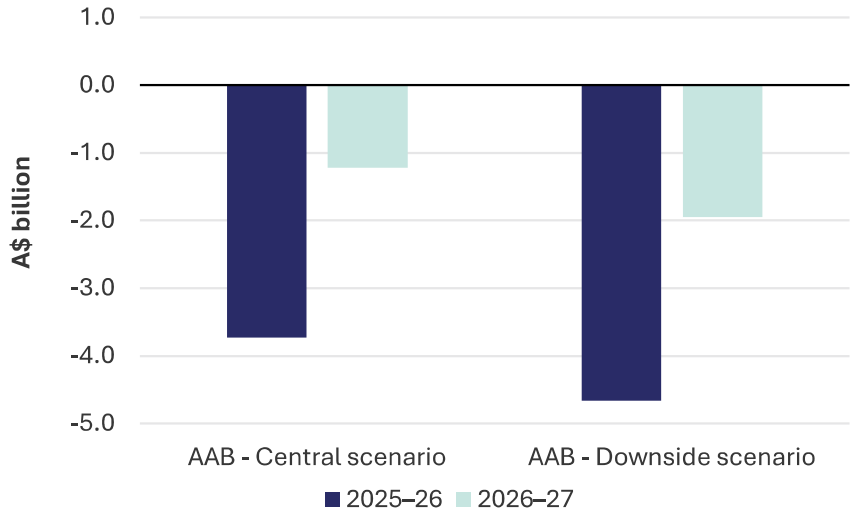


Source: Kpler (2026)

estimated to experience a decline of $5.1 billion in 2025–26 and a further decline of $2.1 billion in 2026–27. The net declines in Australia's AAB export earnings are estimated at $3.7 billion (2025–26) and $1.2 billion (2026–27) (Figure 10.7).

In the downside scenario explained in Box 1.1, Australia's export earnings from AAB would decline further due to reduced earnings on alumina offset by higher earnings on aluminium exports.

Figure 10.7: Net effects of the ME conflict on Australia's AAB exports



Note: The downside scenario is explained in Box 1.1
Source: Department of Industry, Science and Resources (2026)

10.3 World demand

High aluminium prices reduced global aluminium purchases in Q1 2026

Strong demand from the energy transition sector led to a 1.8% year-on-year rise in global primary aluminium purchases to 19 Mt in the March quarter 2026. Over this period, China's primary aluminium demand increased by 2.3% year-on-year, driven by higher aluminium demand from the renewable energy sector.

Reduced availability of primary aluminium and rising aluminium premiums due to the Middle East conflict, have led to increased use of recycled aluminium and helped to push secondary aluminium demand up by 4.7% to 7 Mt in the March quarter 2026.

Reduced global smelter capacity flowed through to a fall in alumina demand as an input to aluminium production of 0.8% year-on-year to 35 Mt in the March quarter 2026.

Lower alumina production reduced demand for bauxite by 0.4% year-on-year to 93 Mt in the March quarter 2026.

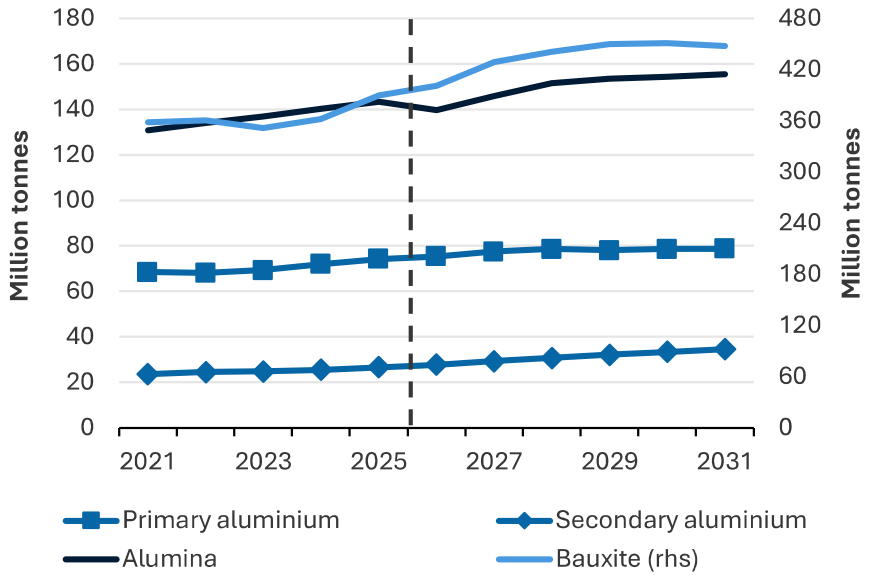
Renewables roll out and growth in EV production will support demand for aluminium over the outlook period

A rapid buildup of renewable energy infrastructure is expected to boost global aluminium demand from 75 Mt in 2026 to 79 Mt in 2031 (Figure 10.8). China and Europe have already announced their intention to increase spending on infrastructure and new technology to offset the negative impact of higher US tariffs on their exports. This initiative is likely to lead to stronger demand for aluminium.

Offsetting this trend to a degree, the Chinese Government's 'anti-involution' policy — introduced in July 2025 to stop companies from engaging in aggressive price wars and overproduction — has impacted aluminium end-use sectors such as the solar panel sector.

Rising primary aluminium prices and growing demand for low-carbon aluminium are expected to boost the demand for secondary aluminium over the outlook period. Recycled aluminium demand is projected to increase from 28 Mt in 2026 to 35 Mt in 2031 (Figure 10.8). The International Aluminium Institute noting that recycled aluminium is 95% less energy-intensive than primary aluminium.

Figure 10.8: World primary aluminium, alumina and bauxite demand



Source: Department of Industry, Science and Resources (2026); World Bureau of Metal Statistics (2026); Wood Mackenzie (2026); CRU (2026).

Alumina and Bauxite demand

Constrained aluminium production in both 2026 and 2027, due to the Middle East conflict, is set to drive lower demand for alumina in the short term. Growth in alumina demand is expected to resume in the medium term, as ME primary aluminium production recovers, although a preference shift toward secondary aluminium will impact demand for primary aluminium at the margin. World alumina demand is projected to fall from 143 Mt in 2025 to 140 Mt in 2026 before rising to 155 Mt in 2031 (Figure 10.8).

A forecast rise in Indonesian and Indian alumina production is likely to increase global bauxite demand over the outlook period; usage should rise to 441 Mt by 2031 (Figure 10.8).

The short-term downside risk to the demand assessment is economic conditions in Europe and China. In Europe, economic growth prospects have worsened amidst high energy prices and weak business and consumer sentiment.

Demand for traditional end uses rising at a slower pace

Aluminium demand from sectors such as packaging and building and construction is also expected to be strong (Figure 10.9). Global demand for aluminium from the construction sector is projected to rise from 21 Mt in 2025 to 23 Mt in 2031, accounting for around 21% of global aluminium demand by 2031. Low demand from this sector reflects a slowdown in housing activity in China and other major economies since 2021 and 2022.

As the installation of renewable energy infrastructure accelerates, existing grids will use more high voltage aluminium cables for long distance transmission. The demand for

aluminium from the global electrical cable sector is projected to rise from 12 Mt in 2025 to nearly 17 Mt in 2031 (Figure 10.9). It will account for over 14% of global aluminium demand by 2031.

With the rising use of aluminium in EVs, the demand for aluminium from the global transport sector is projected to rise from 29 Mt in 2025 to 33 Mt in 2031 (Figure 10.9). It will account for 29% of global aluminium demand by 2031.

Aluminium is expected to continue to be used widely in packaging given its recyclable nature. Demand for aluminium from the global packaging industry is projected to increase from 16 Mt in 2025 to nearly 17 Mt in 2031. Packaging will account for nearly 15% of global aluminium demand by 2031.

Aluminium is widely used in consumer goods such as appliances, cookware, furniture and fixtures, due to its lightweight, durability and corrosion resistance. The demand for aluminium from the consumer goods manufacturing sector is projected to increase from 4.1 Mt in 2025 to 4.6 Mt in 2031. It will account for around 4% of global aluminium demand by 2031.

Aluminium is widely applied in the manufacture of machinery and equipment. Its lightweight reduces the energy costs of running and transporting machinery/equipment. Its thermal conductivity and resistance to corrosion are ideal for industrial storages and heat exchangers. The demand for aluminium from the machinery and equipment manufacturing sector is projected to increase from 8.0 Mt in 2025 to 9.1 Mt in 2031. It will account for around 8.0% of global aluminium demand by 2031.

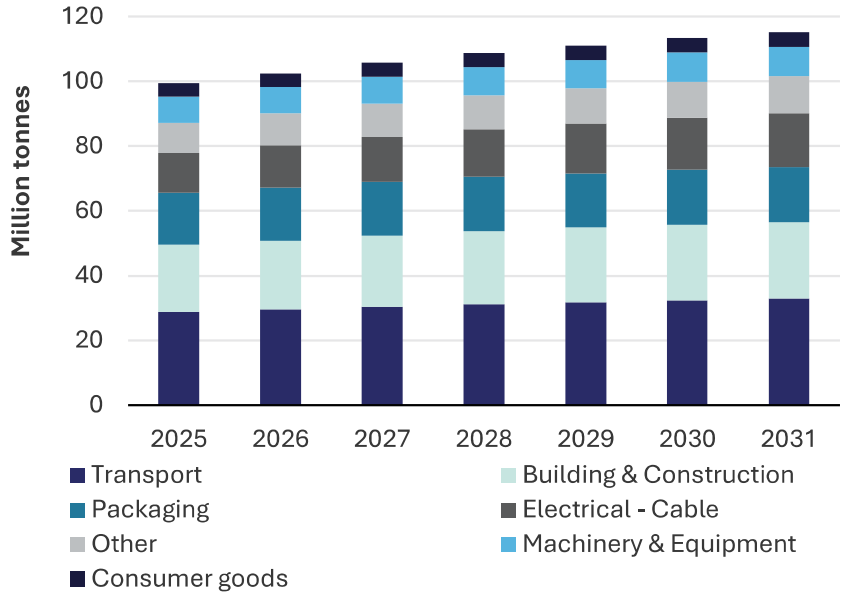
10.4 World supply

World aluminium output reduced slightly in Q1 2026

The global primary aluminium output fell by 0.1% year-on-year in the March quarter 2026, to over 18 Mt, as higher Chinese output offset lower output from the Middle East.

The Middle East conflict reduced global secondary aluminium supply by 3.3% year-on-year in the March quarter 2026, to 8.5 Mt.

Figure 10.9: World aluminium demand by end-use



Note: Aluminium includes primary and secondary aluminium

Sources: Wood Mackenzie (2026); Department of Industry, Science and Resources (2026).

Lower alumina output in Australia — the world's second largest alumina producers — led to a 0.8% fall in global alumina output to 37 Mt in the March quarter 2026.

Higher bauxite output from Guinea boosted global bauxite output by 11% year-on-year to 129 Mt in the March quarter 2026.

Global AAB supply capacity set to rise, mainly ex-China

Aluminium

There is a convergence of different forces occurring in the global aluminium supply chain: aluminium smelters in China are operating at close to their capacity cap, Western aluminium smelters are affected by power and maintenance costs, and aluminium smelters in the Middle East are facing operational disruptions.

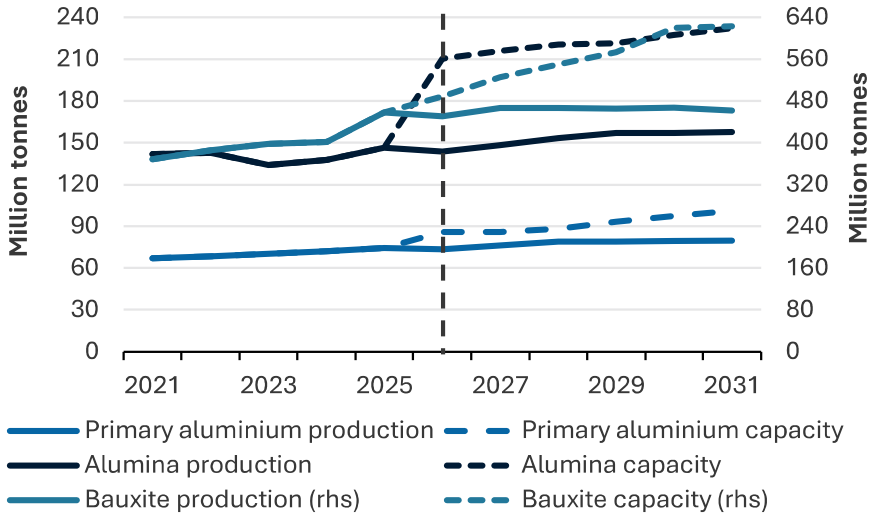
With prices high in the near term and good long-term demand prospects, the global aluminium industry is set to witness a rapid rise of production capacity driven by ex-China nations. Global primary aluminium supply capacity is projected to increase from 86 Mt in 2026 to 101 Mt in 2031 (Figure 10.10).

Outside China, Alcoa recently restarted its 228,000 tonnes a year San Ciprian aluminium smelter in Spain with an expected full production capacity by mid-2026. In Vietnam, Nhan Co's 150,000 tonnes a year aluminium smelter — the first aluminium electrolysis plant in the country — is expected to commence operations in June 2026.

Indonesia's primary aluminium capacity is projected to increase from 1.3 Mt in 2026 to 5.3 Mt in 2031.

In Finland, Rio Tinto's 610,000 tonnes of primary aluminium a year Arctial aluminium smelter is expected to come online in 2029 (subject to a final investment decision in 2027).

Figure 10.10: World AAB production and capacity



Note: Capacity includes base case output, probable projects and possible projects.

Source: Department of Industry, Science and Resources (2026); World Bureau of Metal Statistics (2026); Wood Mackenzie (2026); CRU (2026).

In Egypt, Egyptian Aluminium Company and Metallurgical Industries Holding signed an agreement in May 2026 to build a 300,000 tonnes a year aluminium smelter. At the time of writing, the completion date is unknown.

India's primary aluminium capacity is projected to rise from 4.9 Mt in 2026 to 9.7 Mt in 2031.

In contrast, the Mozal aluminium smelter in Mozambique (with an annual production capacity of 240,000 tonnes) ceased production on 15 March 2026.

China's primary aluminium capacity is also projected to rise from 49 Mt in 2026 to over 50 Mt in 2031. This projected capacity is significantly higher than the Chinese Government's annual production cap of 45 Mt.

Alumina and Bauxite

Rising capacity from Indonesia, India and Greece is expected to lift global alumina capacity up from 210 Mt in 2026 to 232 Mt in 2031 (Figure 10.10).

Rising capacity in Guinea, Australia and Brazil is expected to lift global bauxite capacity from 488 Mt in 2026 to 623 Mt in 2031 (Figure 10.10).

Increasing capacity may not translate into one-for-one increases in production

The increases in capacity described above may not translate fully into production level increases. Western smelters have been affected by rising power and maintenance costs, and face competition for power from data centres to undertake energy intensive activities.

About 2.5 Mt of global primary aluminium capacity is expected to be offline for at least a year, due to the ME conflict. Global aluminium supply is set to rise after 2027, as high aluminium prices encourage producers to lift capacity utilisation. It is projected that global primary aluminium supply will increase from 73 Mt in 2026 to 80 Mt in 2031 (Figure 10.10).

In China, primary aluminium output is projected to increase from 44 Mt in 2026 to near 45 Mt in 2031. The projected production will closely reach the capacity cap of 45 Mt a year introduced by the Chinese Government in 2017.

Indonesia's primary aluminium supply is projected to increase from 1.3 Mt in 2026 to 2.9 Mt in 2031. India's primary aluminium supply is projected to rise from 4.4 Mt in 2026 to 5.3 Mt in 2031.

Driven by increased supply from the Netherlands, India, and Thailand, global recycled aluminium supply is projected to increase from 39 Mt in 2026 to 41 Mt in 2031.

Alumina and Bauxite

The global alumina market is expected to be in surplus until 2027, as less alumina is demanded from the Middle East, and more alumina is supplied from ex-China nations such as Indonesia and India. With a healthy investment pipeline from Indonesia, higher alumina supply is likely after 2027. In Guinea, three alumina projects with a combined planned capacity of 4.8 Mt are currently being constructed. World alumina supply is projected to rise from 143 Mt in 2026 to 158 Mt in 2031 (Figure 10.10).

In its Action Plan for 2025–2027, the Chinese Ministry of Industry and Information Technology set down a stricter approval process with the potential to limit any rise of alumina production in China. Projects in heavily polluted regions will not be approved. Refineries must align planned production with bauxite mining rights and are required to prove the utilisation of red mud.

Higher supply from Guinea, Australia and Indonesia is expected to increase global bauxite output over the outlook period. World bauxite supply is projected to increase from 451 MT in 2025 to 461 Mt in 2031 (Figure 10.10).

Indonesia set to expand production along the AAB supply chain

With heavy interest and investment from Chinese investors, Indonesia's primary aluminium and alumina capacity is likely to rise over the outlook period.

Indonesia is expected to soon pass Australia in terms of primary aluminium capacity. If full production capacity is utilised, Indonesia would overtake Australia as the world's seventh largest primary aluminium producer by 2027.

Indonesia is also expanding alumina capacity. It is projected that around 22 Mt of new alumina refining capacity will be added to global capacity over the outlook period, with Indonesia likely to contribute at least 50% of these additions.

Indonesia holds around 3 billion tonnes of bauxite ore reserves that support long term supply expansion. It is projected that Indonesia's bauxite production will reach 22 Mt by 2031. While Indonesia's alumina production may grow rapidly, the supply of bauxite could turn out to be a major constraint. To reach full alumina production capacity, Indonesia would need at least 24 Mt of bauxite by 2031.

10.5 World trade

The ME conflict hurt global aluminium and alumina trade in Q1 2026, with China filling lost ME supply

Aluminium

The disruptions in the Middle East contributed to lower global primary aluminium exports in the March quarter 2026, down 25% year-on-year to 3.3 Mt. China's primary aluminium exports rose by 20% year-on-year in the March quarter 2026.

Trade disruptions cut global secondary aluminium exports by 6.9% year-on-year to 780,000 tonnes in the March quarter 2026.

Alumina and Bauxite

Higher alumina exports from Indonesia and India led to a 3.1% rise in world alumina exports to nearly 11 Mt in the March quarter 2026. In the year to March quarter 2026, Australia — the world's largest alumina exporter — exported 3.3 Mt of alumina, down 6.5% year-on-year.

Higher bauxite exports from Guinea (up 31% year-on-year) increased global bauxite exports by 19% year-on-year to 62 Mt in the March quarter 2026.

Strong demand from China raised global alumina and bauxite imports in Q1 2026

The Middle East conflict reduced global primary and secondary aluminium imports by 7.2% and 1.4% year-on-year in the March quarter 2026 to 4.4 Mt and 1.4 Mt, respectively.

Lower imports from the Middle East led to a 9.0% year-on-year fall in global alumina imports in the March quarter 2026. Over this period, China imported 0.8 Mt of alumina, up 640% year-on-year, as more alumina shipments were rerouted from the Middle East to China.

Preliminary shipping data from Kpler shows a consistent rise in global bauxite imports in April and May 2026. Total global imports of bauxite were 23 Mt and 25 Mt in April and May 2026, respectively, up 20% and 29% from imports in the month of February 2026.

Higher imports from China led to a 24% year-on-year rise in global bauxite imports in the March quarter 2026. Over this period, China imported 58 Mt of bauxite, up 23% year-on-year.

The US imported 0.6 Mt of bauxite in the March quarter 2026, down by 18% year-on-year. The decline in bauxite imports in the US reflects the virtual demise of its domestic alumina refining industry. US alumina refining capacity has fallen from 5 Mt a year in 2000 to around 600,000 tonnes a year in 2026.

Rising US tariffs affect global trade and US consumers

In June 2026, the US amended its Sections 232 tariffs to lower duties on specific agricultural machinery (combines and harvesters) and mobile industrial equipment (bulldozers and forklifts) containing steel, aluminium or copper from 25% to 15%. The amendment also lowers the domestic metal content threshold from 95% to 85% by weight. The changes took effect on 8 June 2026 and will remain in place until 31 December 2027.

In the US, a structural deficit in primary aluminium (i.e. imports account for 83% of US primary aluminium usage) is likely to push up aluminium prices for US consumers. Canada, the US' largest supplier of primary aluminium, is expected to export less aluminium to the US. The US Midwest primary aluminium premium is likely to rise, as US consumers catch-up with replacement costs from importing Canadian aluminium. Impact on Australia's aluminium exports will be lower; Australia exported 38,000 tonnes of primary aluminium to the US in 2025, with a value of $180 million, accounting for just 2.6% of Australia's total primary aluminium exports.

However, impacts of US tariffs on Australia's exports of bauxite and alumina exports may be higher than on aluminium exports. Aluminium is a versatile material and is used in numerous goods to which US tariffs now apply. While the full indirect effects of the US tariff increases are not yet apparent, there is potential for global aluminium trade to slow and prices to fall in the short term. China is a major producer, consumer and trader of primary aluminium, alumina and bauxite. Given that more than 92% of all Australian bauxite exports are purchased by China, any decline in China's primary aluminium and alumina demand is likely to have an adverse impact on Australian bauxite exports.

EU CBAM set to change global exporters' strategies

The European Union (EU) Carbon Border Adjustment Mechanism (CBAM) commenced on 1 January 2026. The CBAM — the world's first carbon tax on imports — applies to EU imports of iron ore, steel, aluminium, cement, fertiliser, electricity and hydrogen. The EU CBAM will penalise imports of high carbon aluminium in favour of secondary aluminium imports with a low carbon footprint.

The short-term impact of CBAM comes from the regulatory burden imposed on exporters/importers. Exporters of aluminium to the EU are likely to incur significant costs to meet the administrative and reporting requirements. The costs also fall on EU aluminium consumers such as the construction industry and automotive manufacturers. Facing higher aluminium prices, they will have to pass on costs to other industries and consumers.

In the medium term, the CBAM may lead to a change in trade patterns; aluminium exporters with low-carbon production are likely to take advantage of the regulations to raise their market share in the EU. The CBAM is likely to have only minimal impacts on Australia's primary aluminium exports: in 2025, the EU took just $31 million (0.5%) of Australia's primary aluminium exports.

10.6 Prices

Tight supply keeps aluminium prices elevated, but alumina prices remain softer

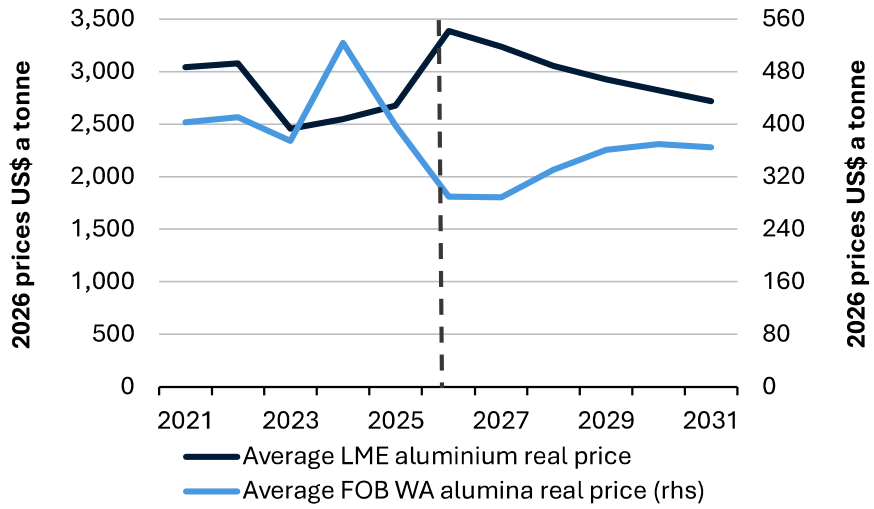
Constrained supply from major aluminium producers is expected to keep aluminium prices elevated in the short term. The LME aluminium price is forecast to average US$3,390 and US$3,310 a tonne in 2026 and 2027, respectively.

After 2027, growing global demand for new, energy-efficient cars and technologies and increased electrification efforts are expected to support global aluminium demand. The LME primary aluminium price is projected to average US$2,900 a tonne in real terms in 2028-2031 (Figure 10.11).

The rise in copper prices is also an upside risk to the aluminium price assessment: aluminium is the primary alternative to copper for electricity transmission.

Any future removal of sanctions against Russian producer Rusal is a downside risk to the price forecast. Accounting for 9% of global primary aluminium output, the return of Rusal would raise global aluminium supply and lower the aluminium price.

Figure 10.11: Primary aluminium and alumina real prices



Source: Bloomberg (2026); Department of Industry, Science and Resources (2026)

Alumina prices are expected to remain relatively sluggish in H2 2026 and 2027, as global supply rises and global demand falls.

After 2027, an expected recovery in global aluminium production will boost alumina demand and prices. As a result, the FOB WA alumina price is projected to rise in real terms (Figure 10.11).

10.7 Australian exports and production

Lower alumina and bauxite exports reduced Australia's AAB export earnings in Q1 2026

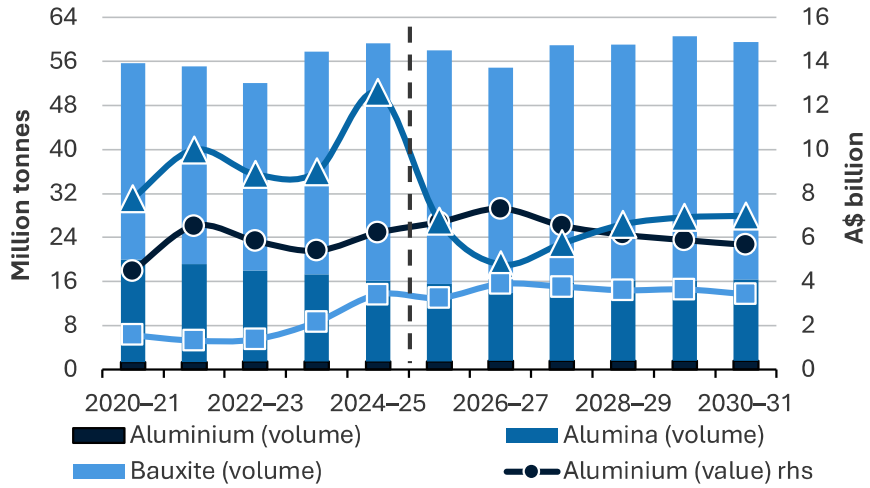
The geopolitical tensions in the Middle East led to a 36% year-on-year decline in Australia's AAB export earnings in the March quarter 2026, at $3.9 billion. Over this period, Australia exported 3.3 Mt of alumina (down 6.5% year-on-year), 7.8 Mt of bauxite (down 12% year-on-year) and 334,000 tonnes of primary aluminium (up 0.9% year-on-year).

In value terms, primary aluminium export earnings were up by 6.4% year-on-year in the March quarter 2026 to $1.6 billion. Alumina export earnings decreased by 57% year-on-year to $1.5 billion in the March quarter 2026. Bauxite export earnings decreased by 39% year-on-year to $500 million in the March quarter 2026.

Higher aluminium export values offset falling alumina export values

Sluggish alumina prices in 2026 are likely to cut Australia's AAB export earnings to $18 billion in 2025–26, down 21% year-on-year. After 2025–26, Australia's AAB exports are projected to be steady at $18-19 billion a year (in real terms) over the outlook period, as rising aluminium export values offset falling alumina export values (Figure 10.12). On average, Australia will export 1.6 Mt of primary aluminium, 14 Mt of alumina and 42 Mt of bauxite each financial year (Figure 10.12).

Figure 10.12: Australian aluminium/alumina/bauxite exports



Note: Excluding high purity alumina and aluminium waste and scrap exports.
Source: ABS (2026); Department of Industry, Science and Resources (2026).

Australia's alumina and bauxite output fell in Q1 2026

Weather disruptions (heavy rainfall in January and February 2026 and Cyclone Narelle in March 2026) in Queensland impacted Rio Tinto's alumina and bauxite operations in the region. Production at the Weipa bauxite mine and Yarwun alumina refinery decreased by 12% and 5.4% year-on-year in the March quarter 2026, respectively. As a result, Australia's alumina and bauxite output fell by 2.2% and 4.8% year-on-year in the March quarter 2026 to 4.2 Mt and 22 Mt, respectively.

Australia's alumina output expected to fall over the outlook period

Australia's primary aluminium output is projected to be about 1.7 Mt a year. In December 2025, the Commonwealth announced a plan to work with the NSW Government and Tomago Aluminium to keep the Tomago aluminium smelter open beyond 2028, including work towards securing a long-term fixed price power purchasing agreement. On 24 March 2026, the Commonwealth and Queensland Governments announced they will each invest $1 billion over ten years to support the Boyne aluminium smelter in Gladstone Queensland. The owners of this smelter, Rio Tinto will underwrite close to $7.5 billion of investment in new energy generation and transmission in Central Queensland, to secure the long-term future of the smelter.

Driven by higher aluminium prices, Alcoa's Portland aluminium smelter in Victoria has restarted its idled capacity. Rio Tinto is considering the options to restart idled capacity at its 500,000 tonnes a year Boyne Island aluminium smelter in Queensland, to lift output by 5% a year.

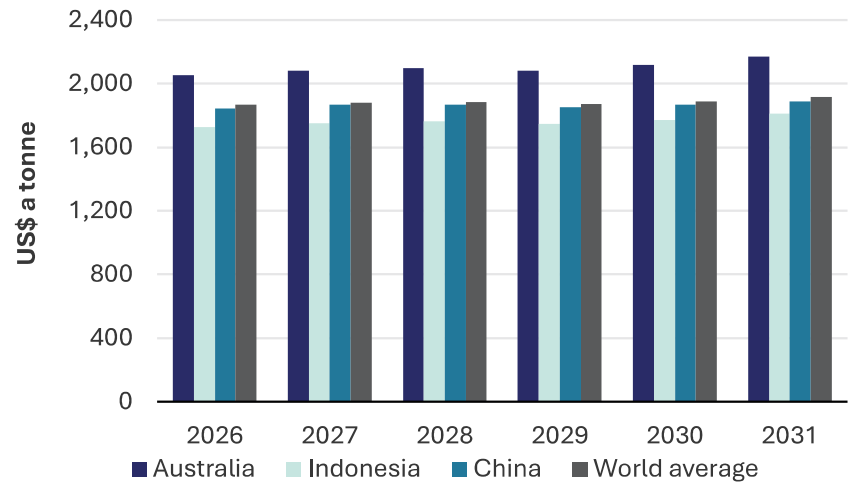
A production cut of 40% at Rio Tinto's Yarwun alumina refinery in Queensland from October 2026 is set to reduce Australia's alumina output to 16 Mt over the outlook period.

Australia's bauxite output is likely to be maintained by strong economics and projects with long remaining mine lives. The majority of mines have a life expectancy of 10–20 years, however Rio Tinto's Gove bauxite mine in the Northern Territory is set to close by the end of the decade as the mine's reserves are exhausted. Australia's bauxite output is expected to be steady at above 100 Mt a year with two expansions at Rio Tinto's Amrun bauxite mine in Queensland — the Norman Creek expansion expected to first produce in 2027, followed by a 20 Mt a year increase from the Kangwinan expansion in 2029.

Australian bauxite miners have comparatively low costs

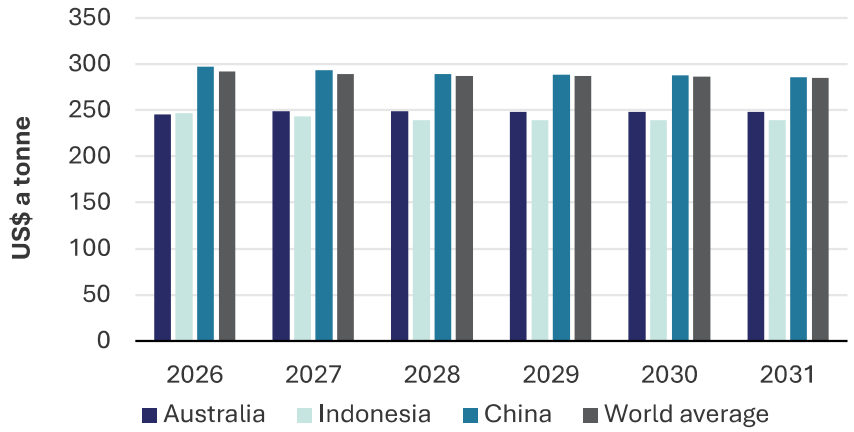
Figure 10.13, Figure 10.14 and Figure 10.15 show operating cash costs of aluminium smelters, alumina refineries and bauxite

Figure 10.13: Aluminium operating cash costs, selected countries



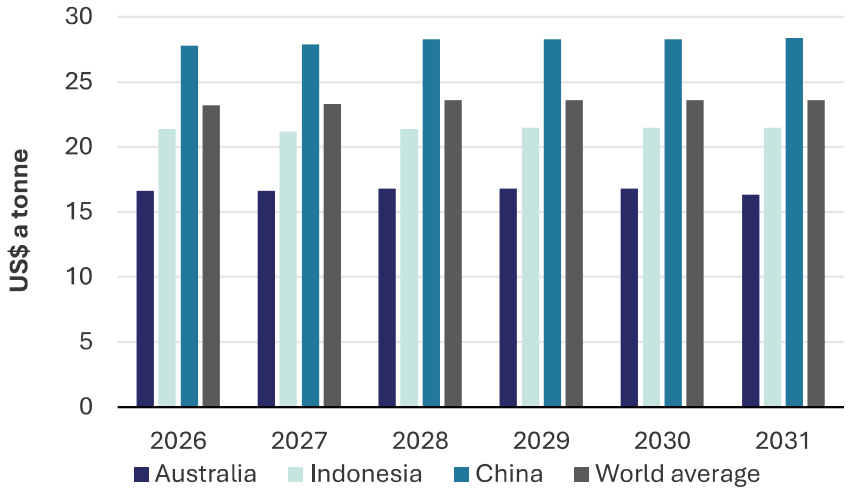
Note: Average operating cash costs (C1) include average delivered alumina, other raw material, energy, labour, and other costs.
Source: Wood Mackenzie (2026).

Figure 10.14: Alumina, operating cash costs, selected countries



Note: Average operating cash costs (C1) include bauxite, freight, caustic/lime/limestone, energy, labour, and other costs.
Source: Wood Mackenzie (2026).

Figure 10.15: Bauxite, operating cash costs, selected countries



Note: Average operating cash costs (C1) include diesel, residual fuel, labour, consumables, R&M materials, services, bauxite levy, royalties and taxes.
Source: Wood Mackenzie (2026).

mines in Australia, Indonesia, China and the world. Australian operating cash costs for miners and alumina refiners are below the world average, Indonesia and China. However, aluminium smelters' costs are above them. Australia's bauxite output is projected to lift over the outlook period, helped by low operating costs.

Other marginal and high-cost primary aluminium producers include Germany, Sweden, the UK, Romania, Greece, France, the US, New Zealand, Cameroon and Ghana.

Marginal and high- cost alumina refiners include Guinea, Russia, Spain, the US, Germany and Canada.

Marginal and high-cost bauxite miners include Ghana, Greece, China and Guinea.

Strategic moves beyond AAB: Gallium and HPA

Gallium — an important component of semi-conductors — is found for the most part in bauxite deposits and produced primarily as a by-product of alumina refining. The global supply of semiconductors is expected to barely keep up with the global demand, as the transition to net zero accelerates and artificial intelligence usage booms.

Australia's first gallium project was announced by Alcoa Australia in August 2025. The company entered into a Joint Development Agreement with the Japanese Government and Sojitz Corporation to establish the gallium plant at its Wagerup alumina refinery in Western Australia. The Australian and US governments have since partnered to support the project, with all parties to contribute capital to a special purpose vehicle (SPV) in return for proportional gallium offtake. The plant is targeting a capacity of 100 tonnes a year with a final investment decision expected in 2026.

The addition of high purity alumina (HPA) to Australia's critical minerals list in 2022 reflects its growing economic and strategic importance. HPA is used in the aerospace and automotive sectors and is an important component of high-performance electronics and optics. HPA is also a key input for ensuring the stability of lithium-ion batteries.

As the world's second-largest producer and the world's largest exporter of smelting grade alumina, Australia is well placed to build capacity in HPA. Alpha HPA in Queensland commenced production at Stage 1 of its HPA First Project in late 2022. The construction of Stage 2 of First Project started in H2 2024. Once completed in 2027, the expansion will boost the plant's production to 10,000 tonnes of HPA a year and make Alpha HPA the world's largest HPA production facility.

Other HPA projects are in the development pipeline include Lava Blue's HPA Project in Queensland — targeting small scale commercial production of 500 tonnes a year from their demonstration plant in 2026–27, and working with local companies to produce HPA using LavaBlue technology, targeting 25,000 tonnes a year by 2028 — and Impact Minerals' 10,000 tonnes a year Lake Hope's HPA Project in Western Australia, expected to come online in 2027.

Revisions to the outlook

The forecast for Australia's AAB export earnings in 2025–26 has been revised down from the December 2025 *Resources and Energy Quarterly* (REQ) by $28 million. The downward revision reflects a larger-than-expected fall in alumina exports in the first half of 2026. Earnings forecast for 2029–30 (in nominal terms) has been revised up by 2.8% to $21 billion from the March 2025 REQ. This reflects the impact of higher primary aluminium prices.

Table 10.1: Aluminium, alumina and bauxite outlook

World	Unit	2025	2026[s]	2027[f]	2028[z]	2029[z]	2030[z]	2031[z]	CAGR[r]
Primary aluminium									
Supply	kt	73,489	72,707	76,084	78,738	78,705	79,193	79,738	1.4
Demand	kt	74,176	75,397	77,418	78,577	78,054	78,564	78,744	1.0
Prices aluminium [c]									
- nominal	US$/t	2,630	3,387	3,308	3,188	3,118	3,076	3,029	2.4
- real [d]	US$/t	2,674	3,387	3,238	3,054	2,923	2,823	2,720	0.3
Prices alumina									
- nominal	US$/t	391	290	295	345	385	403	406	0.6
- real [d]	US$/t	398	290	289	331	361	370	365	-1.4
Australia	**Unit**	**2024–25**	**2025–26[s]**	**2026–27[f]**	**2027–28[f]**	**2028–29[z]**	**2029–30[z]**	**2030–31[z]**	**CAGR[r]**
Supply									
Primary aluminium	kt	1,573	1,599	1,670	1,670	1,670	1,670	1,670	1.0
Alumina	kt	17,216	17,382	16,498	16,204	16,204	16,204	16,458	-0.7
Bauxite	Mt	101	102	110	109	112	115	107	1.0
Demand									
Primary aluminium	kt	168	176	136	136	136	136	136	-3.5
Exports									
Primary aluminium	kt	1,461	1,476	1,587	1,587	1,587	1,587	1,587	1.4
- nominal value	A$m	6,011	6,694	7,560	6,930	6,658	6,547	6,468	1.2
- real value [e]	A$m	6,226	6,694	7,313	6,538	6,129	5,879	5,666	-1.6
Alumina	kt	14,718	14,055	12,342	14,188	14,584	14,584	14,812	0.1
- nominal value	A$m	12,155	6,766	4,932	6,071	7,170	7,702	7,976	-6.8
- real value [e]	A$m	12,589	6,766	4,771	5,728	6,600	6,916	6,988	-9.3
Bauxite	kt	43,168	42,455	40,973	43,202	42,855	44,392	43,090	0.0
- nominal value	A$m	3,293	3,252	4,018	3,992	3,914	4,055	3,907	2.9
- real value [e]	A$m	3,411	3,252	3,887	3,766	3,603	3,642	3,423	0.1
Total value									
- nominal value	A$m	22,870	18,190	18,419	19,882	20,824	21,385	21,432	-1.1
- real value [e]	A$m	23,686	18,190	17,817	18,759	19,168	19,205	18,777	-3.8

Notes: Total nominal and real values of Australian exports include primary aluminium, aluminium waste and scrap, alumina, high purity alumina and bauxite. c LME cash prices for primary aluminium; d In 2026 calendar year US dollars; e In 2025–26 financial year Australian dollars; f Forecast; r Average annual growth between 2025 and 2031 or 2024–25 and 2030–31; s Estimate; z Projection;

Sources: ABS (2026) International Trade in Goods and Services, 5368.0; Bloomberg (2026); CRU (2026); London Metal Exchange (2026); Department of Industry, Science and Resources (2026); World Bureau of Metal Statistics (2026); Wood Mackenzie (2026).