

# Overview

## Australia's mining sector



Around 10% of GDP

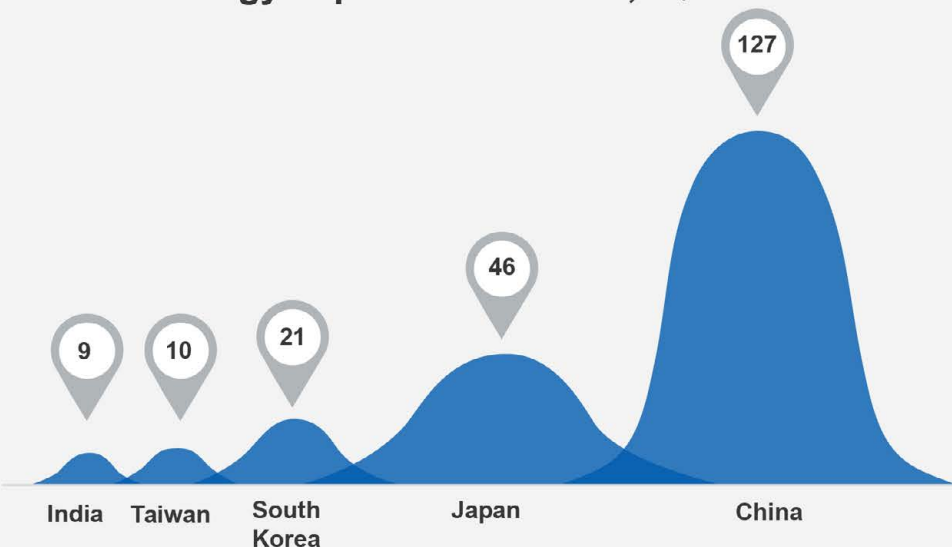


Makes up more than **half of Australia's** total exports

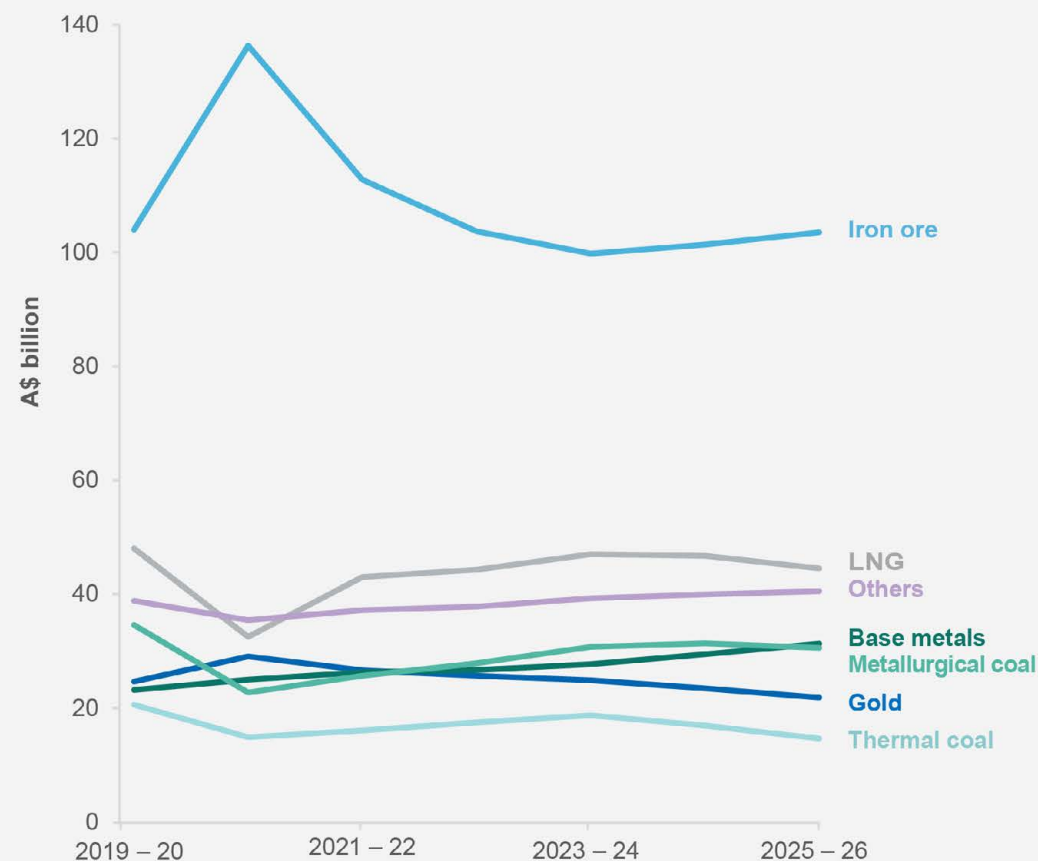


**Directly employs** around a quarter of a million people

## Major markets for Australia's resources and energy exports in 2019–20, A\$billion



## Australia's resources and energy exports



## 1.1 Summary

- The outlook for Australia’s mineral exports continues to improve, as the world economy rebounds from the impact of the COVID-19 pandemic. Australian miners have found their product in high demand, helped by the impact of government and central bank measures abroad.
- In 2020–21, export earnings are forecast to be a record \$296 billion, slightly higher in real terms than the record set in 2019–20. Earnings will fall modestly (down 3% to \$288 billion) in 2021–22, and then steady at about that level over the rest of the outlook period (to 2025–26).
- Australia’s resource sector is set to capture the growth in demand for resources from new and low emission technologies.

## 1.2 Export values

Australia’s export values are estimated at about \$296 billion in 2020–21

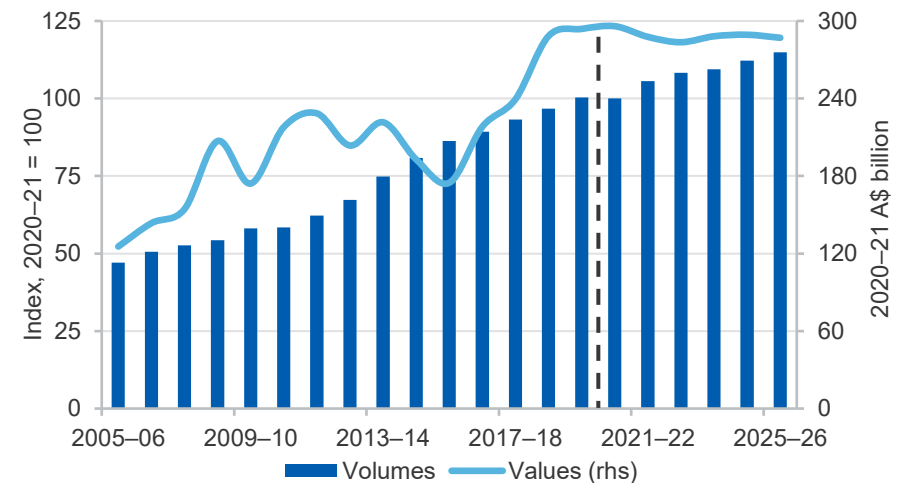
In the March quarter 2021, the Office of the Chief Economist’s (OCE) Resources and Energy Export Values Index rose 11.8% cent from March quarter 2020; a 1.8% rise in prices added to a 10% cent gain in volumes.

In the outlook period, exports are forecast at a record \$296 billion in 2020–21 (up slightly in real terms from 2019–20) and \$288 billion in 2021–22, where they will broadly stay over the rest of the outlook period (Figure 1.1). With volumes growing modestly, price swings will determine much of the change in earnings (Figure 1.2). These price swings seem likely to be much less sharp than in the past seven years.

### Rising Australian dollar constrained some of the surge in earnings

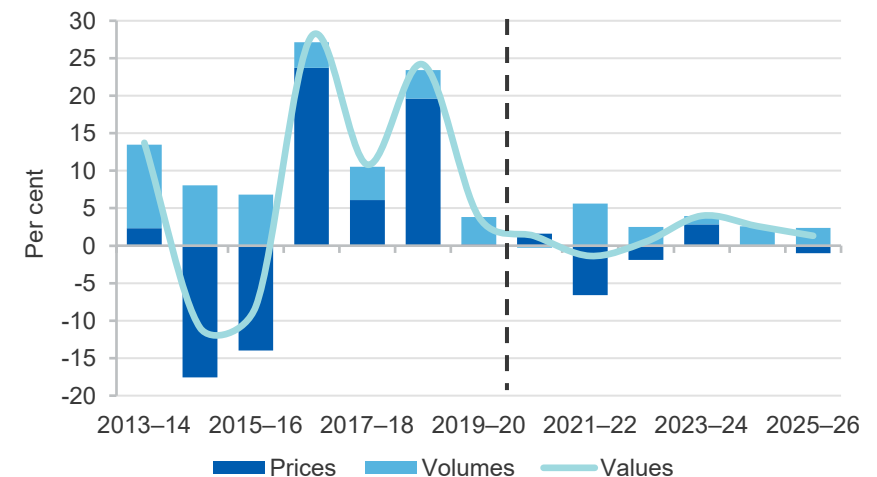
In Australian dollar terms, the OCE’s Resources and Energy Commodity Price Index rose by 18.5% (preliminary estimate) in the March quarter 2021 to be up 3.0% on a year ago. In US dollar terms, the index rose by 23.1% in the quarter, and was 18.9% higher than a year ago. The index of prices for resource commodity exports (Australian dollar terms) rose by an estimated 24.8% in the year to the March quarter 2021, while energy commodity prices fell by 28.4% (Figure 1.3). The surge in iron ore prices to nine-year highs drove the surge in the resource commodity price index.

Figure 1.1: Australia’s resource and energy export values/volumes



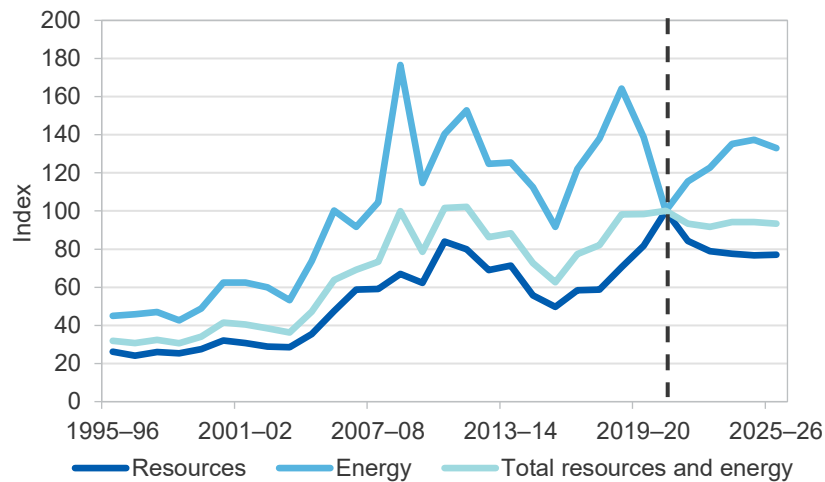
Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

Figure 1.2: Annual growth in Australia’s resources and energy export values, contributions from prices and volumes



Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

**Figure 1.3: Resource and energy export prices, AUD terms**



Notes: The export price index is based on Australian dollar export unit values (EUVs, export values divided by volumes); the export price index is a Fisher price Index, which weights each commodity's EUV by its share of total export values.

Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

### 1.3 Macroeconomic, policy, trade and other factors

With fresh waves of COVID-19 infections in some nations, world economic activity has recovered less rapidly than expected in recent months, but is still expected to rise strongly in 2021. Renewed containment measures in a number of major economies have hurt economic activity and (particularly energy) commodity demand. A colder than normal Northern Hemisphere winter raised energy demand. The outlook is for a strong economic recovery in the first half of the outlook period, once vaccines are rolled out more broadly across the world's major economies. The rebound will be partly fuelled by government stimulus measures and reducing supply chain vulnerabilities in their nations.

COVID-19 infections are falling sharply in many nations, as vaccines are rolled out and containment measures impact. A concern is the risk of COVID-19 mutations and how these might play out in years to come.

With air and land-based travel still impacted by border restrictions and COVID-19 containment measures, oil demand is weak but recovering. Vaccine 'passports' could help drive a recovery in international air travel, and hence jet fuel demand. Until air travel recovers, land based travel should provide a partial offset to oil demand.

The Chinese economy continues to expand at a relatively good pace. Travel restrictions imposed over the Chinese New Year period meant that production was stronger than normal, adding to input consumption. Appreciation pressures on the RMB have helped contain inflation and helped lift import demand. China's property sector has cooled, in response to modest government measures.

The US Government has passed a significant US\$1.9 trillion fiscal stimulus package to boost the US economy. President Biden has signed an Executive Order re-joining the Paris Climate Accord, with potential implications for future global resources and energy trade.

The most recent IMF forecasts put world GDP growth at 5.5% in 2021, after a contraction of 3.5% in 2020. The IMF forecasts world GDP growth to then moderate towards more typical levels in 2022. Over the rest of the outlook period, growth is assumed at 3-3.5%. Commodity demand should thus be healthy over the outlook period.

The extent of further official and unofficial Chinese government restrictions on imports of some Australian resource and energy commodities poses a downside risk to the forecasts. Australian exporters of coal and copper concentrates and ores have been able to pivot to other markets; a colder-than-normal Northern Hemisphere assisted thermal coal exporters in this pivot. At present, a high degree of uncertainty exists around the extent to which China's informal import restrictions will persist through the outlook period.

Our projections suggest that by the end of the outlook period (2025-26), a surge in exports earnings of metals used in technologies central to the world energy transition — copper, lithium and nickel — will replace the fall in thermal coal earnings arising from that transition.

## 1.4 Prices

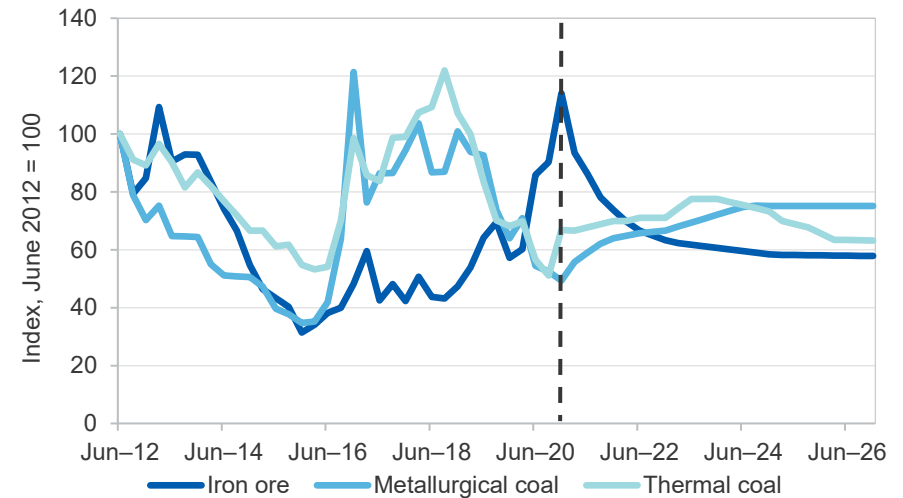
The iron ore price has remained strong since the December 2020 *Resources and Energy Quarterly*, currently at a 9-year high. A recovery in demand in some of the advanced industrialised nations has added to strong Chinese demand, to keep prices high in a market still heavily constrained by low Brazilian supply (Figure 1.4). Prices are expected to ease by 2022, as Brazilian supply recovers and world demand moderates.

Australian metallurgical coal prices have regained some of the losses incurred as a result of China's informal import restrictions. Australia's dominant position in the seaborne market has meant that our exporters have sold coal to replace the (mainly North American and Russian) cargoes bought by China typically sold elsewhere. A price lift is likely in the forecast period, as ex-Chinese usage recovers further. Winter demand from Asian coal-fired power utilities combined with output cuts to help lift thermal coal prices to pre-COVID-19 levels. Prices are likely to be flat in the outlook period, as supply matches demand (Figure 1.4).

Oil prices have regained all of the sharp declines of the first four months of 2020. Production cuts have combined with a recovery in demand to remove some inventory from the market. In the March quarter 2021, demand is likely to be impacted by renewed COVID-19 containment measures introduced in some nations. The price seems likely to be capped at US\$60-70 a barrel over the outlook period, as re-opened production matches higher demand. Spot LNG prices are forecast to be flat as new supply enters the market.

The gold price has declined, as US real bond yields rise and news of several effective COVID-19 vaccines pushes investment flows away from precious metals. A recovery in scrap supply will offset improved jewellery demand over the outlook period. Further out, the price is likely to fall, as equity markets rise further and real bond yields rise. Base metal prices have more than recovered their COVID-19 losses, largely on the back of the Chinese economic rebound (Figure 1.5). Base metal demand should rise, as world industrial activity recovers further from COVID-19 restrictions and the world energy transition continues.

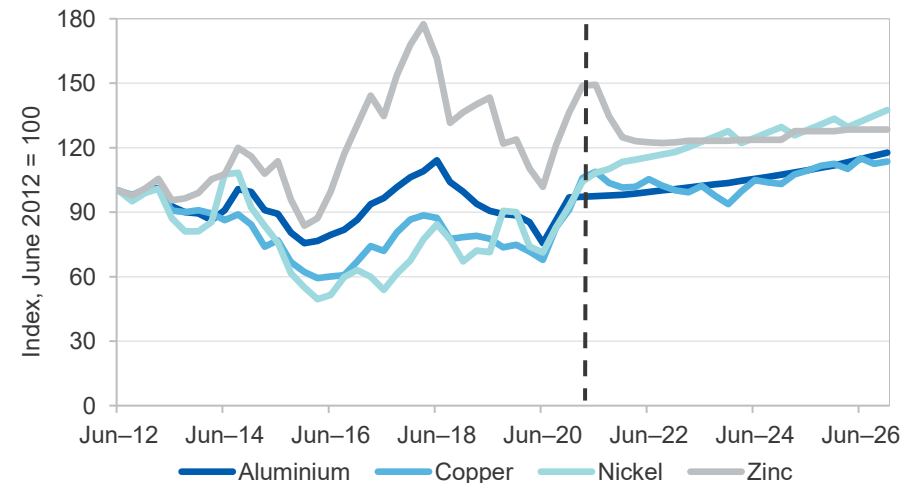
Figure 1.4: Bulk commodity prices



Notes: Prices are in US dollars, and are the international benchmark prices

Source: Bloomberg (2021); Department of Industry, Science, Energy and Resources (2021)

Figure 1.5: Base metal prices



Notes: Prices are in US dollars, and are the international benchmark prices

Source: Bloomberg (2021); Department of Industry, Science, Energy and Resources (2021)

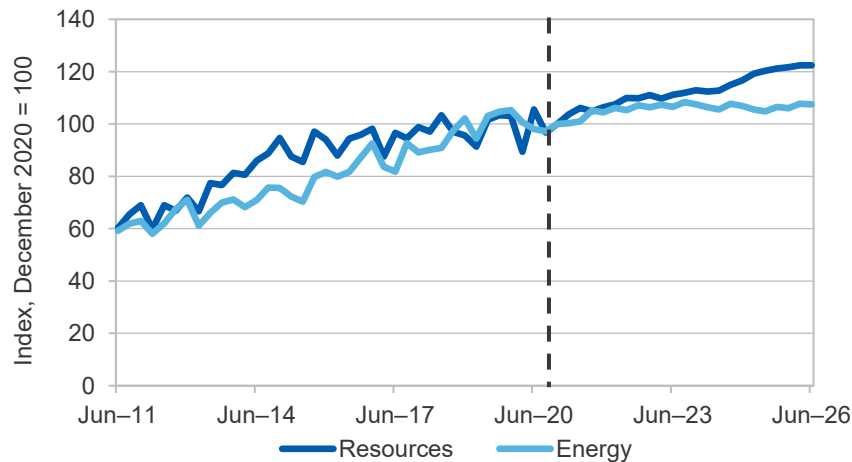
## 1.5 Export volumes

### Weaker Australian export volumes, driven by resource exports

The OCE's Resources and Energy Export Volumes Index (preliminary estimate) rose by 2.8% in the March quarter 2021 from the December quarter, and was 8.9% higher than a year before (Figure 1.6). Within this total, resource commodity volumes rose by 15.9% in the year to the March quarter 2021, while energy commodity volumes fell by 0.4%. The volume of energy exports was affected by the slowdown in Asian economic activity (due to COVID-19) and China's informal import restrictions on our coal.

In volume terms, resources exports are likely to show further significant growth over the outlook period. Economic growth and industrial production is rebounding amongst our main trading partners, increasing their demand for our ferrous and non-ferrous metals. The global energy transition will also see strong demand for new technology commodities such as copper, lithium and nickel. Energy export volumes are forecast to recover pandemic losses during 2021, and then tend to level out. However, this volume recovery will likely not be sufficiently strong to offset lower energy prices and thus see export earnings surpass pre-COVID-19 levels.

**Figure 1.6: Resource and energy export volumes**



Source: Department of Industry, Science, Energy and Resources (2021)

## 1.6 Contribution to growth and investment

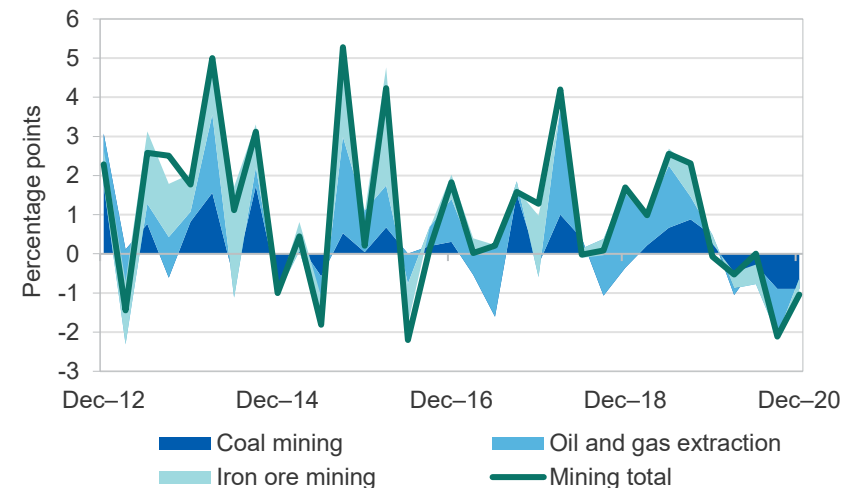
### Mining industry contracted, but by much less than the rest of the economy

Australia's real Gross Domestic Product (GDP) rose by 3.1% in the December quarter 2020, but was down 1.1% through the year since the December quarter 2019.

Mining value-added fell by 1.0% in the December quarter, to be down 3.6% over the previous twelve months.

In the coming year, it is likely that the iron ore sector will make a significant contribution to GDP growth, as high prices and margins drive growing volumes. The coal sector is likely to make only a modest contribution to growth in the first half of the outlook period. Gas production is likely to make a positive contribution to growth, on the back of stronger LNG demand and a recovery in prices.

**Figure 1.7: Contribution to quarterly growth, by sector**

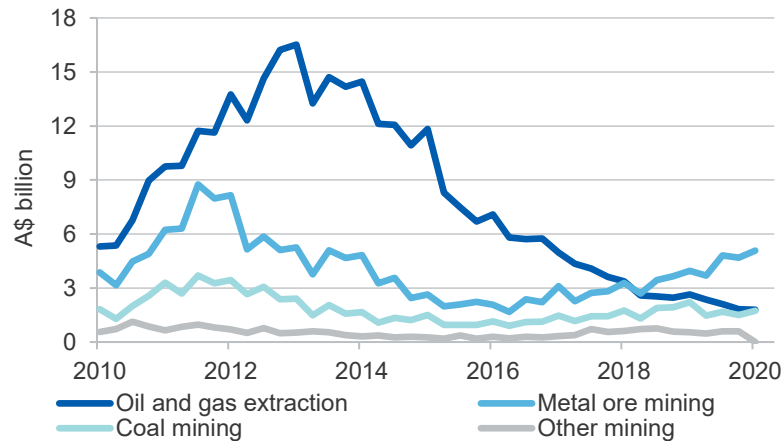


Source: ABS (2021) Australian National Accounts, 5206.0

### Mining investment is picking up

The ABS Private New Capital Expenditure and Expected Expenditure survey for the December quarter 2020 shows that Australia's mining industry invested \$9.3 billion in the quarter. This is up by 7.7% in the quarter, but down 0.8% from the December quarter 2019. In recent quarters, growth in investment by the metal ore mining sector has been strong, with strong growth in the December quarter (Figure 1.8). This likely reflects the surge in iron ore prices.

**Figure 1.8: Mining industry capital expenditure by commodity**

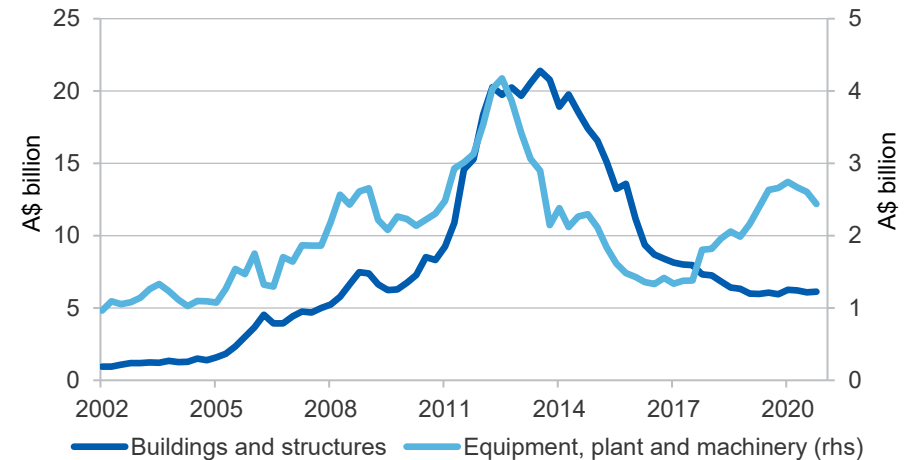


Notes: Other mining includes non-metallic mineral mining and quarrying and exploration and other mining support services; chart data is in nominal terms

Source: ABS (2021) Private New Capital Expenditure and Expected Expenditure, 5625.0

Expenditure on buildings and structures rose in the December quarter 2020, however spending on machinery and equipment fell (Figure 1.9). However, the latter remains well above its average level of recent years. Mining companies invested \$35 billion in 2019–20, with forward expectations suggesting that investment in 2020–21 will be slightly higher (Figure 1.10). Strong prices for gold, iron ore and other minerals are leading to new investment plans, including the re-opening of mines. However, investment in new greenfield projects remains well below the levels of the previous decade.

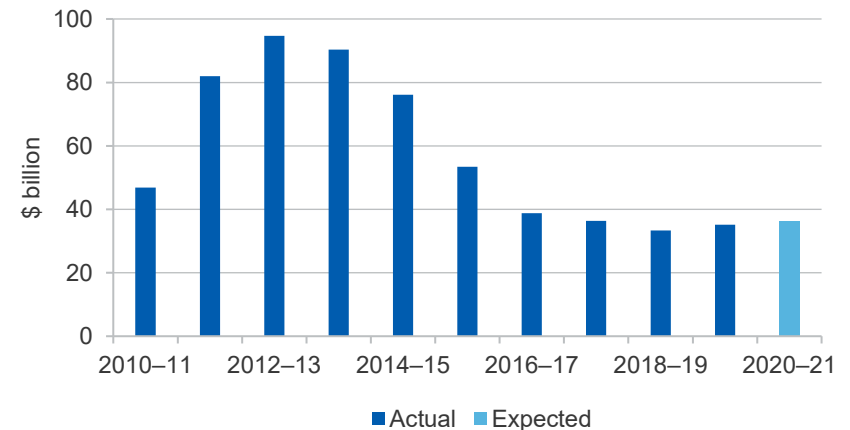
**Figure 1.9: Mining industry capital expenditure by type, quarterly**



Notes: Chart data is in nominal terms

Source: ABS (2021) Private New Capital Expenditure and Expected Expenditure, 5625.0

**Figure 1.10: Mining industry capital expenditure, fiscal year**

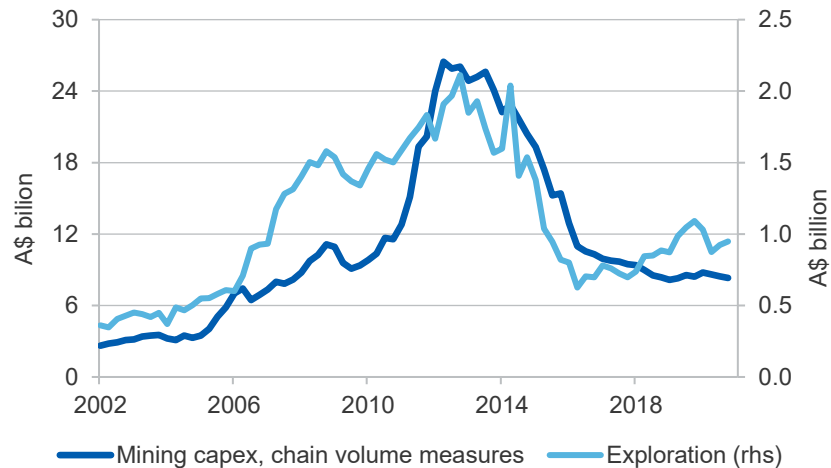


Notes: Chart data is in nominal terms

Source: ABS (2021) Private New Capital Expenditure and Expected Expenditure, 5625.0

Data on exploration spending (adjusted for inflation) suggests that mining capital expenditure is recovering at a marginal pace following falls in early 2020 (Figure 1.11). Exploration spending edged up in the December quarter, with spending for all commodities rising to \$947 million.

**Figure 1.11: Mining capital expenditure vs exploration (real), quarterly**



Source: ABS (2021) Private Capital Expenditure Survey, Chain Volume measure, 5625.0

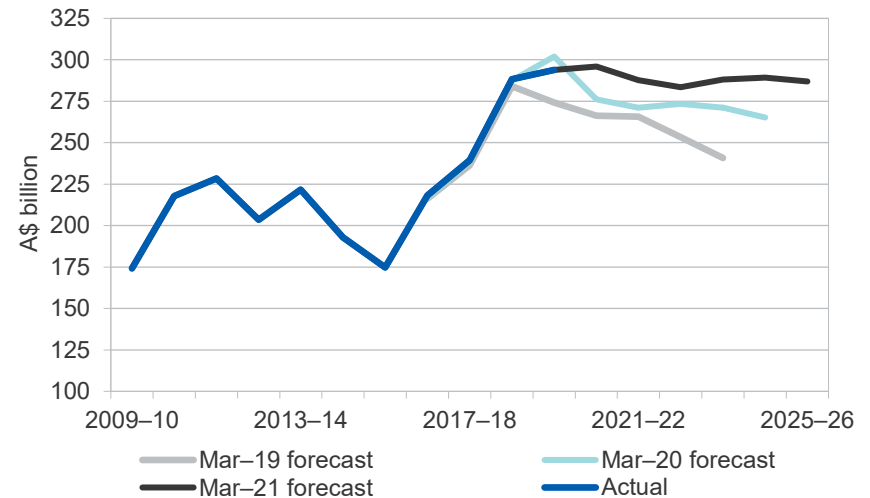
## 1.7 Revisions to the outlook

At \$296 billion in 2020–21 and \$292 billion in 2021–22, Australia’s resources and energy exports in nominal terms are up \$17 billion and \$28 billion, respectively, from those contained in the December quarter 2020 *Resources and Energy Quarterly*. Compared to March 2020, earnings are now forecast to hold up much better in the out years (Figure 1.12).

Stronger metal (mainly iron ore) exports have driven the upward revisions.

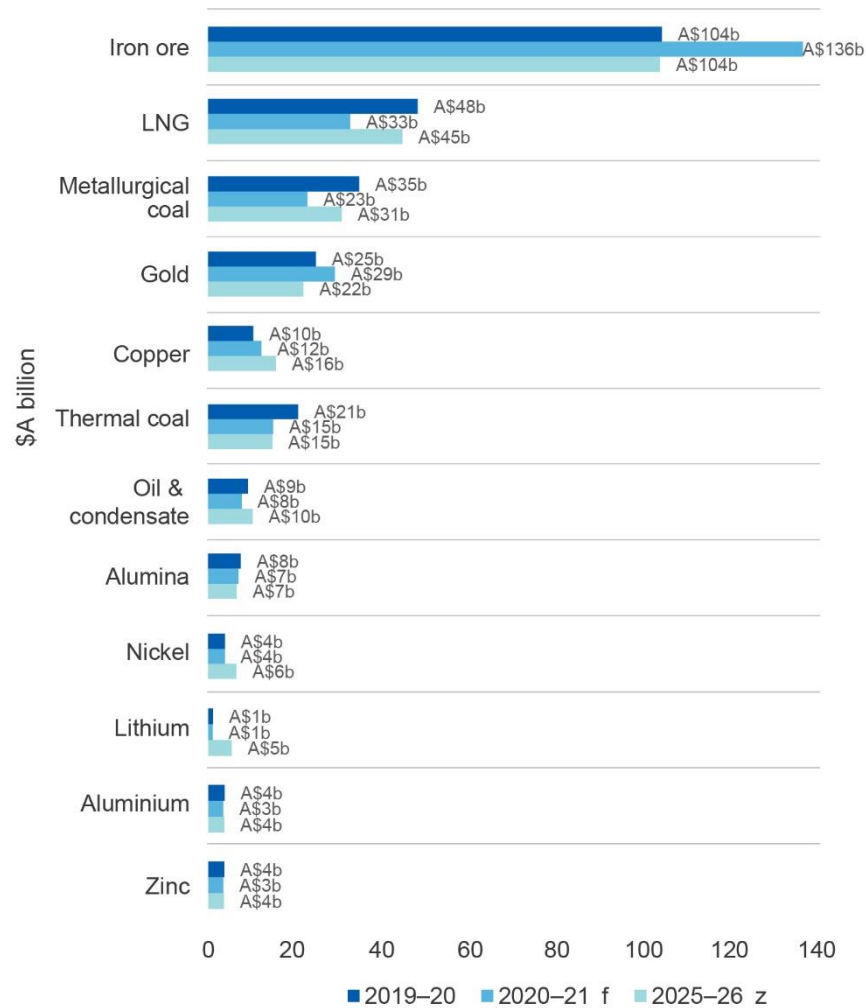
The stronger rise in the Australian dollar now forecast has offset a small amount of the gains from higher export volumes.

**Figure 1.12: Resource and energy exports, by forecast release**



Source: Department of Industry, Science, Energy and Resources (2021)

**Figure 1.13: Australia's major resources and energy commodity exports, 2020–21 dollars**



**CAGR % change from 2019–20**

	2020–21			2025–26 z		
	volume	EUV	value	volume	EUV	value
Iron ore	▲	▲	▲	▲	▼	→
	4	26	31	4	-4	0
LNG	▼	▼	▼	→	▼	▼
	-2	-31	-32	0	-2	-1
Metallurgical coal	▼	▼	▼	▲	▼	▼
	-2	-33	-34	1	-3	-2
Gold	▼	▲	▲	▲	▼	▼
	-2	20	18	3	-5	-2
Copper	▼	▲	▲	▲	▲	▲
	-1	20	18	1	6	7
Thermal coal	▼	▼	▼	▲	▼	▼
	-3	-25	-28	1	-7	-5
Oil & condensate	▲	▼	▼	▲	→	▲
	3	-18	-16	2	0	2
Alumina	▲	▼	▼	▲	▼	▼
	2	-9	-7	1	-3	-2
Nickel	▼	▲	▼	▲	▲	▲
	-13	14	-1	1	8	9
Lithium	▲	▼	▼	▲	▲	▲
	10	-19	-11	17	11	30
Aluminium	▼	▼	▼	▼	→	→
	-4	-3	-7	-1	0	0
Zinc	▼	▲	▼	▲	▼	→
	-7	2	-5	2	-3	0

Notes: f forecast. EUV is export unit value. Per cent change is from 2019–20.

Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)



**Table 1.1: Outlook for Australia's resources and energy exports in nominal and real terms**

Exports (A\$m)	2019–20	2020–21 <sup>f</sup>	2021–22 <sup>f</sup>	2022–23 <sup>z</sup>	2023–24 <sup>z</sup>	2024–25 <sup>z</sup>	2025–26 <sup>z</sup>	CAGR <sup>r</sup>
Resources and energy	290,778	295,981	292,457	294,324	306,618	315,705	321,118	1.7
– real <sup>b</sup>	293,855	295,981	287,665	283,545	288,167	289,346	287,006	-0.4
Energy	115,532	81,816	99,844	107,666	118,631	119,826	116,773	0.2
– real <sup>b</sup>	116,755	81,816	98,208	103,723	111,492	109,822	104,368	-1.9
Resources	175,245	214,165	192,613	186,658	187,987	195,879	204,345	2.6
– real <sup>b</sup>	177,100	214,165	189,457	179,822	176,675	179,525	182,638	0.5

Notes: **b** In 2020–21 Australian dollars; **f** forecast; **r** Compound annual growth rate; **z** projection.

Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

**Table 1.2: Australia's resource and energy exports, selected commodities**

	Unit	Prices			Unit	Export volumes			Export values (real 2020–21 terms), A\$b		
		2019–20	2020–21 <sup>f</sup>	2025–26 <sup>z</sup>		2019–20	2020–21 <sup>f</sup>	2025–26 <sup>z</sup>	2019–20	2020–21 <sup>f</sup>	2025–26 <sup>z</sup>
Iron ore	US\$/t	91	128	77	Mt	858	893	1,097	104	136	104
LNG	A\$/GJ	11	8	12	Mt	79	78	81	48	33	45
Metallurgical coal	US\$/t	145	119	166	Mt	177	173	191	35	23	31
Gold	US\$/oz	1,562	1,841	1,364	t	350	344	418	25	29	22
Thermal coal	US\$/t	63	60	61	Mt	213	206	231	21	15	15
Copper	US\$/t	5,666	7,649	8,837	Kt	924	919	992	10	12	16
Crude oil	US\$/bbl	52	53	66	Kb/d	291	299	327	9.1	7.7	10.2
Alumina	US\$/t	282	275	338	Mt	17,876	18,254	18,438	7.5	7.0	6.6
Nickel	US\$/t	13,982	16,663	22,566	Kt	231	201	246	3.8	3.8	6.5
Zinc	US\$/t	2,206	2,677	2,469	Kt	1,530	1,419	1,747	3.6	3.4	3.5
Aluminium	US\$/t	1,675	1,883	2,227	Kt	1,430	1,372	1,387	3.7	3.5	3.7
Lithium	US\$/t	561	440	712	Kt	1,503	1,647	3,855	1.1	1.0	5.4
Uranium	US\$/lb	27	30	50	t	7,195	6,486	5,800	0.7	0.5	0.7

Notes: **a** Export data covers both crude oil and condensate; **f** forecast. **Price information:** Iron ore fob (free-on-board) at 62 per cent iron content estimated netback from Western Australia to Qingdao China; Metallurgical coal premium hard coking coal fob East Coast Australia; Thermal coal fob Newcastle 6000 kc (calorific content); LNG fob Australia's export unit values; Gold LBMA PM; Alumina fob Australia; Copper LME cash; Crude oil Brent; Aluminum LME cash; Zinc LME cash; Nickel LME cash; Lithium spodumene ore.

Source: ABS (2021) International Trade in Goods and Services, Australia, Cat. No. 5368.0; LME; London Bullion Market Association; The Ux Consulting Company; US Department of Energy; Metal Bulletin; Japan Ministry of Economy, Trade and Industry; Department of Industry, Science, Energy and Resources (2021)