

# Overview

## Australia's mining sector



Around 10% of GDP

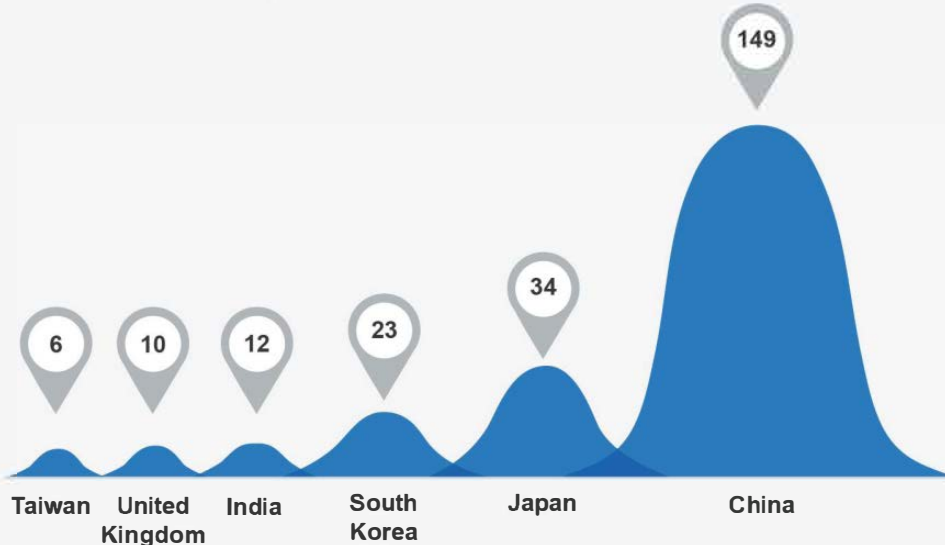


Makes up more than half of Australia's total exports

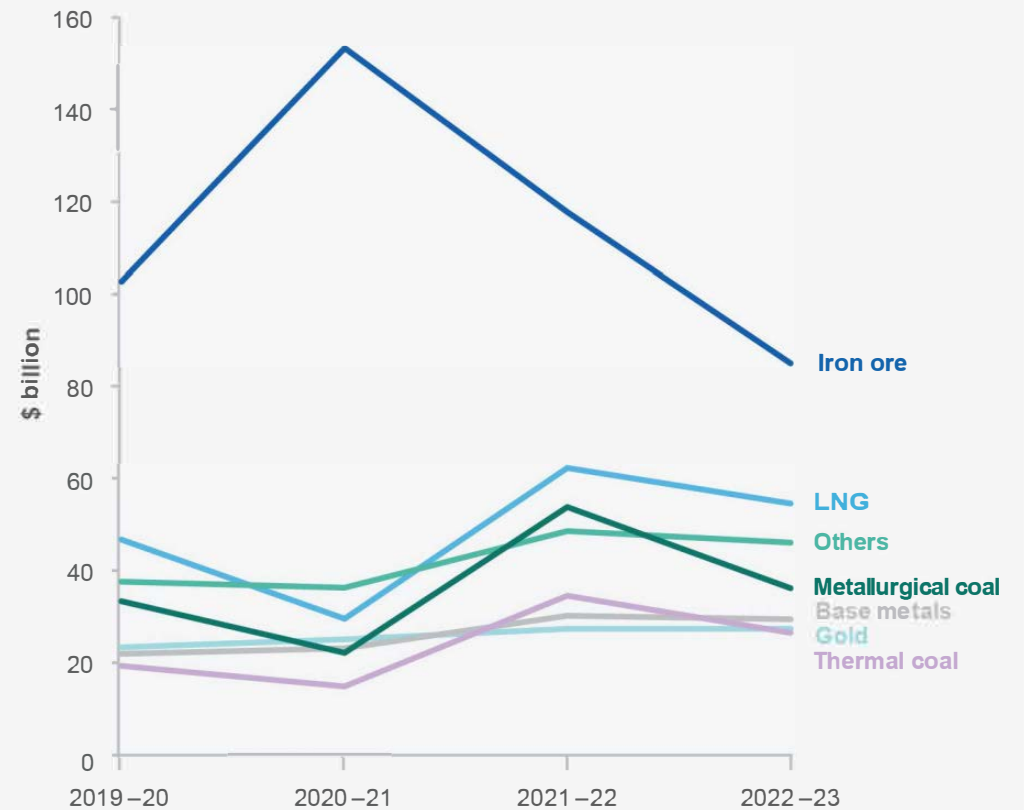


Directly employs around a quarter of a million people

## Major markets for Australia's resources and energy exports in 2020-21, A\$billion



## Australia's resources and energy exports



## 1.1 Summary

- The outlook for Australia’s mineral exports remains strong, as the world economy rebounds from the impact of the COVID-19 pandemic and energy shortages persist. High prices, good volume growth and a weak Australian dollar are driving a surge in export earnings. Some decline in prices is likely in 2022, as supply rises and demand growth moderates.
- Export earnings are expected to rise by 22% to a record \$379 billion in 2021–22, before declining to \$311 billion in 2022–23.
- Iron ore prices have continued to decline, but remain at very profitable levels for most Australian miners. Coal and LNG prices have spiked, driven by ongoing shortages and strong demand.

## 1.2 Export values

Australia’s export values are estimated at about \$380 billion in 2021–22

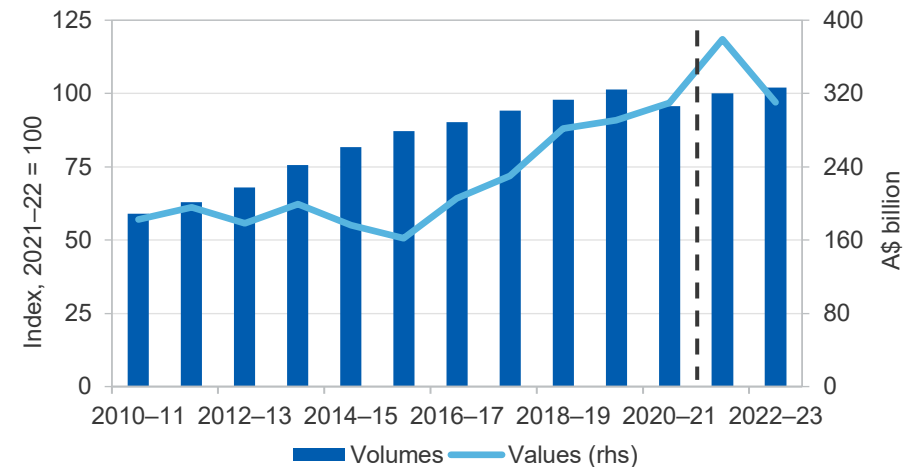
In the December quarter 2021, the Office of the Chief Economist’s (OCE) Resources and Energy Export Values Index rose 34% from December quarter 2020; a 1% rise in volumes added to a 33% gain in prices.

Exports are forecast to reach a record \$379 billion in 2021–22, up from \$310 billion in 2020–21 (Figure 1.1), but then fall back to \$311 billion in 2022–23. With volumes growing modestly, price movements are expected to determine much of the change in earnings (Figure 1.2). Commodity prices are set to fall once demand growth slows and global supply rises.

### Weaker Australian dollar to help boost earnings

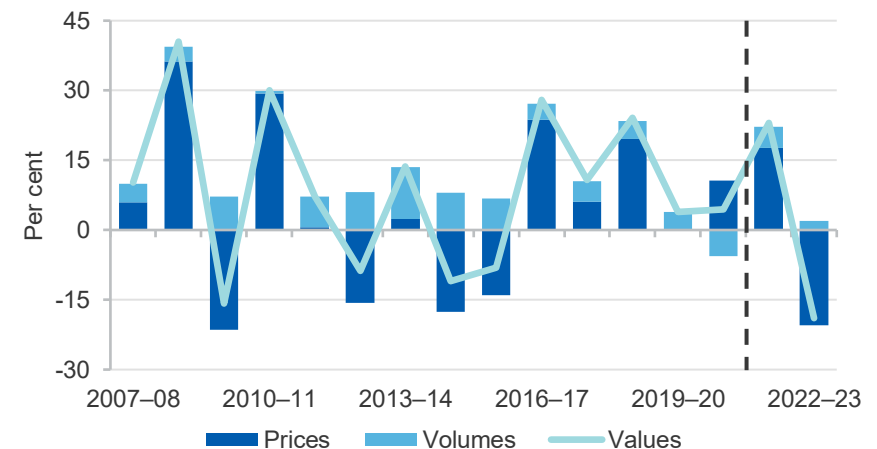
In Australian dollar terms, the OCE’s Resources and Energy Commodity Price Index fell by 4% (preliminary estimate) in the December quarter 2021, but was up 33% on a year ago. In US dollar terms, the index fell by 5% in the quarter, but was 32% higher than a year ago. The index of prices for resource commodity exports (Australian dollar terms) fell by an estimated 16% in the year to the December quarter 2021. Energy commodity prices rose by 155% (Figure 1.3) from December quarter 2020 — which was near the COVID-19 crisis lows.

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



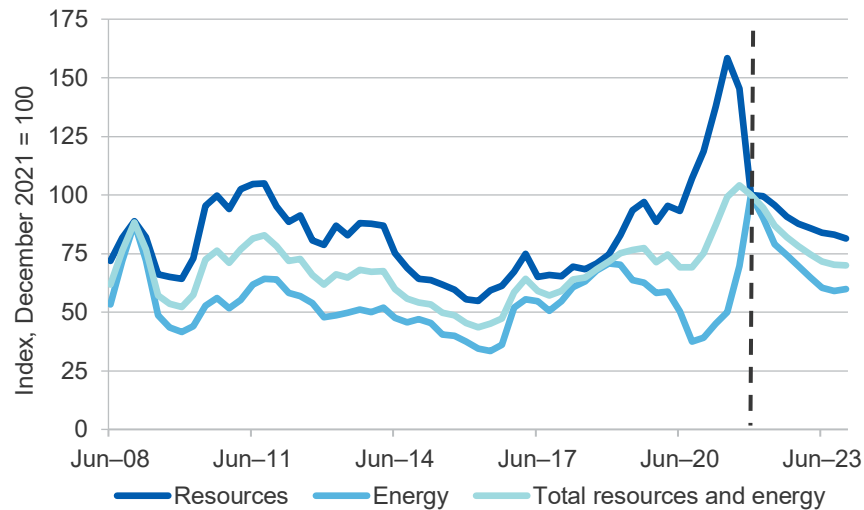
Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

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

The recovery in world economic activity continues to be hampered by new COVID-19 outbreaks and the fallout from previous outbreaks. Developing nations lag developed nations noticeably in the COVID-19 vaccine rollout, but some of the latter are also encountering problems with infections amongst unvaccinated parts of their populations. New drugs aimed at treating those with COVID-19 may help reduce the impacts from infection. However, fresh significant COVID-19 outbreaks remain a risk.

After mid-year policy action to bring down iron ore prices, in October 2021, the Chinese Government instructed the country's coal miners to increase output and imposed a ceiling on the price of thermal coal. The measures helped to bringing prices down from historical highs, but the weather and the COVID-19 pandemic could easily see the market re-tighten.

The outcome of the COP26 Climate Change summit is unlikely to impact short term thermal coal usage. However, medium/long term supply may be affected as some miners reassess plans for new and expanded capacity.

The outlook is for strong growth in the world economy over 2022 and 2023, as vaccination rates rise. The latest IMF forecasts put world GDP growth at 4.9% in 2022 and 3.6% in 2023, after growth of 5.9% in 2021. The Chinese economy has slowed, as a result of problems amongst some highly leveraged property developers. However, there are signs that the government is acting to stabilise property markets; the People's Bank of China cut the bank required reserve ratio in early December, and state-owned developers are buying land and building projects. Chinese industrial activity is likely to pick up after the Beijing Winter Olympics end. The Chinese government and the central bank continue to vary different policy instruments to try to limit significant fluctuations in economic growth.

Japan's government passed a large fiscal stimulus package in November. The US Congress has passed an infrastructure spending package worth more than a trillion dollars in the same month. Another multi-trillion US budget measure could also pass Congress soon. The package(s) will have a stimulatory effect on the US economy during the outlook period (in 2022 and 2023) and beyond. The US Federal Reserve appears likely to move towards a neutral monetary policy stance as the US economic recovery gathers pace.

Commodity demand should thus show significant growth over the outlook period. Australian coal exporters are enjoying high prices, on the back of shortages in Asia and Europe. However, as global coal supply lifts and demand cools, prices are likely to decline noticeably from current levels.

Our projections suggest that resource and energy export earnings will reach \$381 billion in 2021–22, but then fall back to around \$310 billion in 2022–23. The extent of any further slowing in Chinese economic growth will impact on commodity demand and supply. Higher global interest rates — in response to persistent inflation — pose a downside risk to global economic activity and hence the resource and energy export forecasts.

## 1.4 Prices

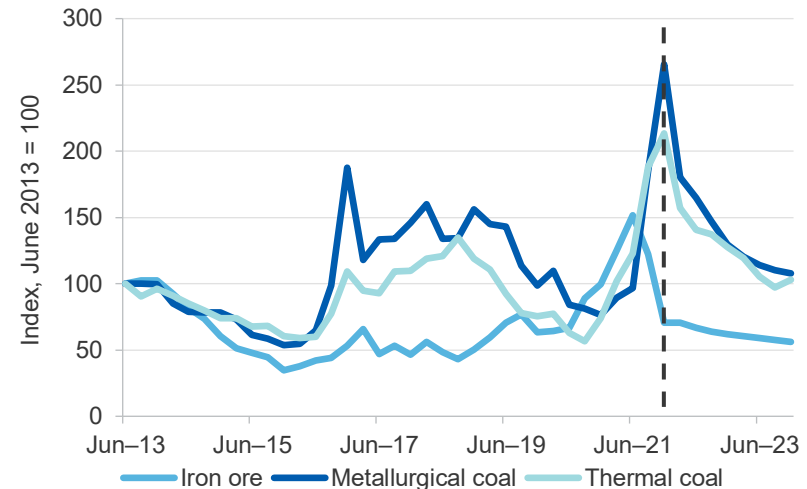
Since the September 2021 *Resources and Energy Quarterly*, the iron ore price has retreated further from the decade high of May 2021. Strong demand in some of the advanced industrialised nations has been unable to offset the impact of weaker Chinese demand (Figure 1.4). Prices are expected to ease further over the outlook period, as Brazilian supply recovers and growth in world demand slows further.

Australian metallurgical coal prices hit record highs in October/November despite the sharp downturn in iron ore prices. Australia's dominant position in the seaborne market has meant that China has been forced to compete vigorously for non-Australian cargoes. Moreover, the thin price differential between low grade metallurgical coal and thermal coal appears to have seen miners dump unwashed metallurgical coal into thermal coal markets. Prices are expected to ease over the outlook period, as supply rises. Thermal coal prices spiked in October, before China's move to raise its production and cap prices saw a retreat. With rebounding economic activity and the Northern Hemisphere winter under way, power utilities are scrambling to rebuild stocks. Prices are likely to hold at relatively strong levels, as supply struggles to keep up with winter demand (Figure 1.4).

Oil prices have more than regained the sharp falls of the COVID-19 pandemic. The oil price seems likely to be capped at US\$85 a barrel over the forecast period, as a further recovery in usage is matched by rising supply. Contract LNG prices are forecast to ease, as oil prices settle.

The gold price held the US\$1,750 an ounce mark in early October, and then rose impressively over the next month, topping out at over US\$1,870 an ounce as real bond yields fell back. The price is likely to fall over the outlook period, as real bond yields rise on the back of withdrawal of central bank stimulus. In mid November 2021, all six metals traded on the London Metal Exchange were in backwardation — where spot prices exceed some/all prices further out the futures curve. Stockpiles have declined, as supply chain disruptions have added to the impact of strong demand (following the rebound in economic activity). Base metal usage should rise as world industrial activity recovers and as the energy transition continues.

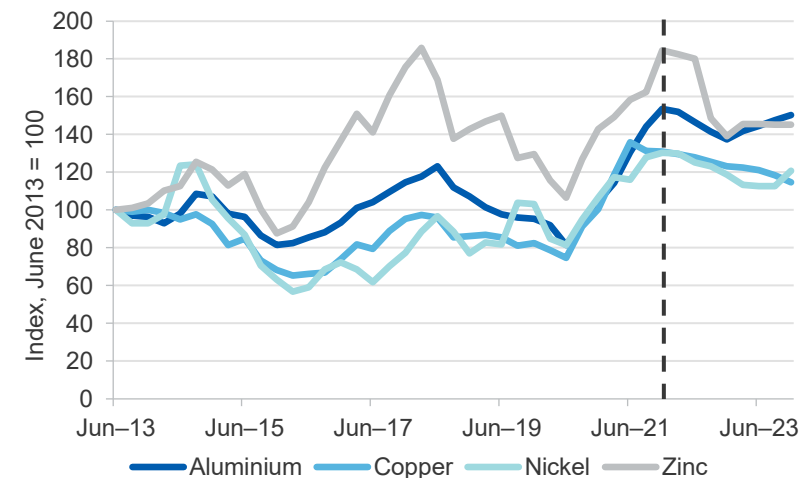
Figure 1.4: Bulk commodity prices



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)

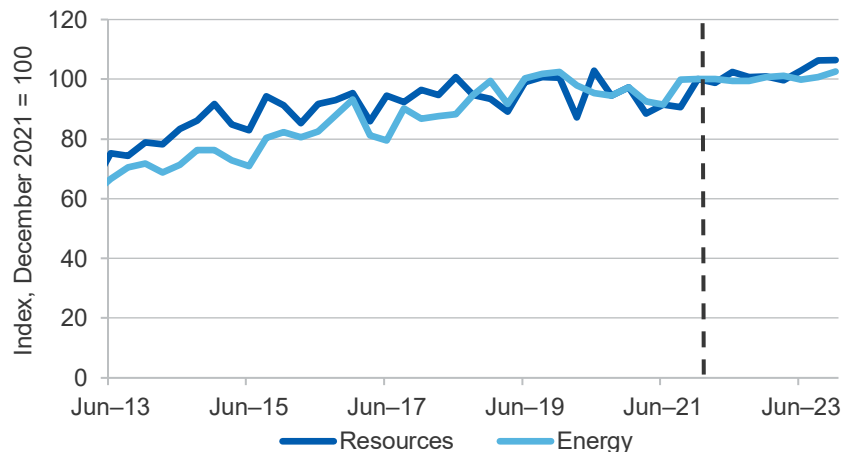
## 1.5 Export volumes

### December quarter export volumes rose, driven by energy exports

The OCE's Resources and Energy Export Volumes Index (preliminary estimate) rose by 5% in the December quarter 2021 from the September quarter, and was 3% higher than a year before (Figure 1.6). Within this total, resource commodity volumes rose 3% in the year to the December quarter 2021, while energy commodity volumes also rose by 3%. The improvement in energy exports was driven by the rebound in demand, as energy stockpiles were replenished and the world economy (and thus power demand) gradually recovered from the impact of COVID-19.

In volume terms, resource exports are likely to show further significant growth over the outlook period. Economic growth and industrial production continues to recover amongst our main trading partners, increasing demand for our ferrous and non-ferrous metals. The production of electric vehicles and new energy technologies will see growing demand for commodities such as copper, aluminium, lithium and nickel. The volume of energy exports is forecast to show only minor growth during the outlook period. High prices will impact adversely on near-term demand.

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



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

## 1.6 Contribution to growth and investment

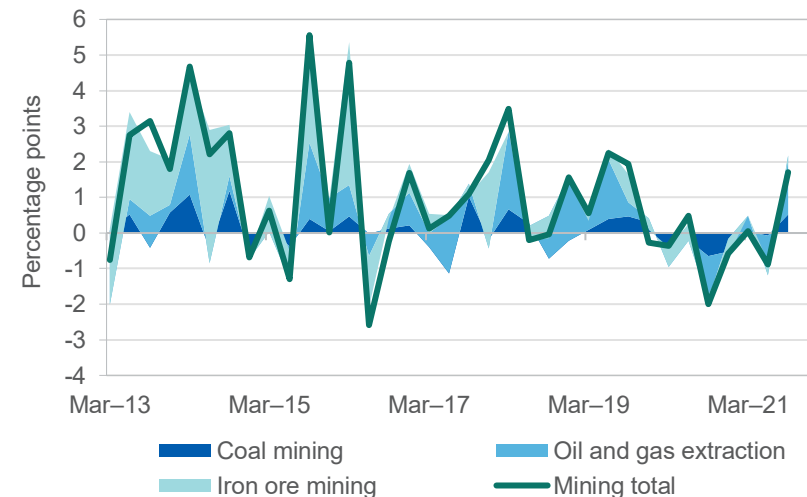
### Mining industry expanded while the overall economy contracted

Australia's real Gross Domestic Product (GDP) fell by 1.9% in the September quarter 2021, but was up 3.9% over the year since the September quarter 2020.

Mining value-added rose by 1.7% in the September quarter, and was up 0.3% over the previous twelve months.

In the coming two years, it is likely that the resources and energy sectors will make a significant contribution to real GDP growth, as producers lift output and exports in response to high prices and margins. Absent a repeat of the operational problems that have beset gas production over the past year, the LNG sector is likely to make a significant contribution to growth in the outlook period, on the back of strong LNG demand and high prices.

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

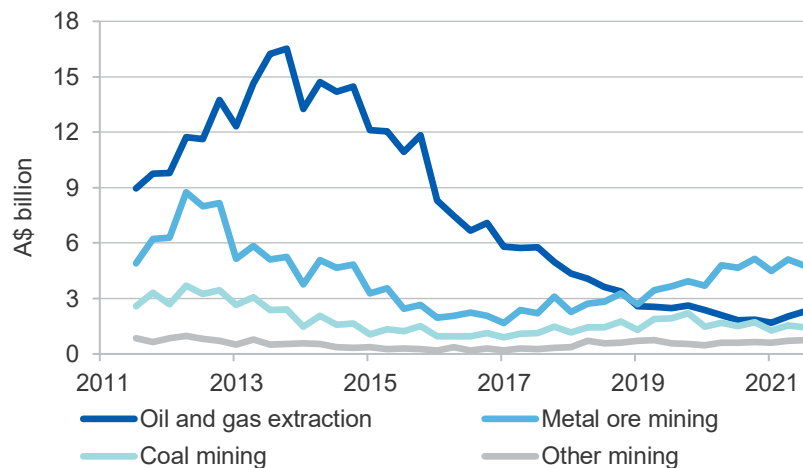


Source: ABS (2021) Australian National Accounts, 5206.0

### Mining investment is picking up

The ABS Private New Capital Expenditure and Expected Expenditure survey of September quarter 2021 shows that Australia's mining industry invested \$9.3 billion in the quarter. This was down by 1.7% in the quarter (seasonally adjusted), but up 7.6% from the September quarter 2020. Strong iron ore prices has supported growth in investment by the metal ore mining sector during 2021, though this is now easing back (Figure 1.8) with growth shifting now to the oil, gas and non-metallic minerals sectors.

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

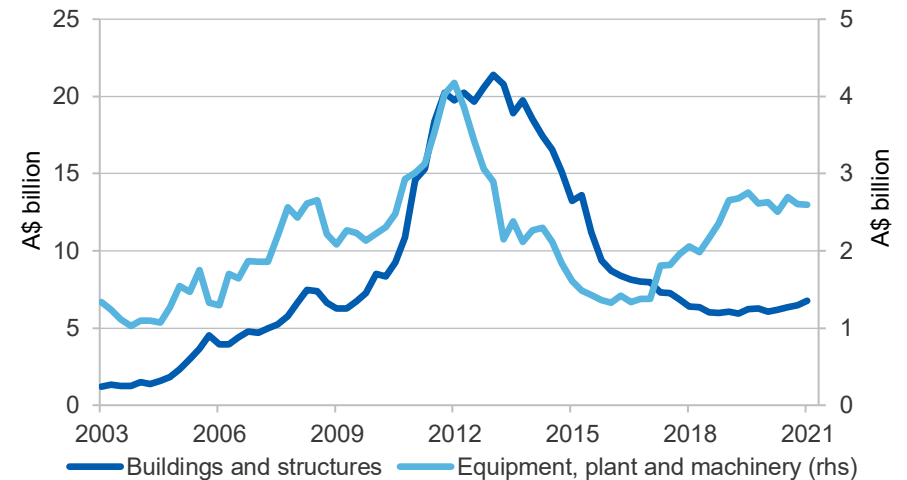


Notes: Other mining includes non-metallic mineral mining and quarrying and exploration and other mining support services; chart data is in nominal, original terms

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

Expenditure lifted slightly for buildings and structures, while holding steady for machinery and equipment in the September quarter 2021 (Figure 1.9). Spending on plant and equipment remains well above its average level of recent years, though the reverse trend has been evident in buildings and structures. Forward expectations suggest that investment in 2021–22 will be slightly higher than in 2020–21 (Figure 1.10). Strong prices for gold and various minerals used in low-emissions energy have been leading to new investment plans, including the re-opening of mines.

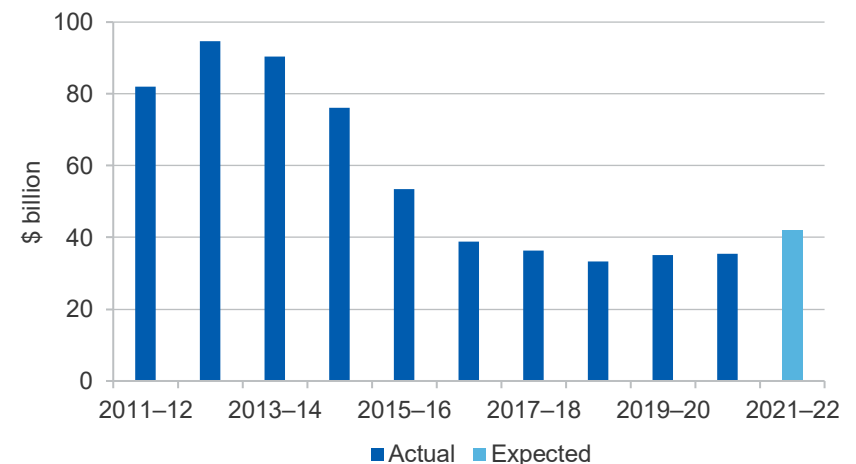
**Figure 1.9: Mining industry capital expenditure by type, quarterly**



Notes: Chart data is in nominal terms, seasonally adjusted.

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

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



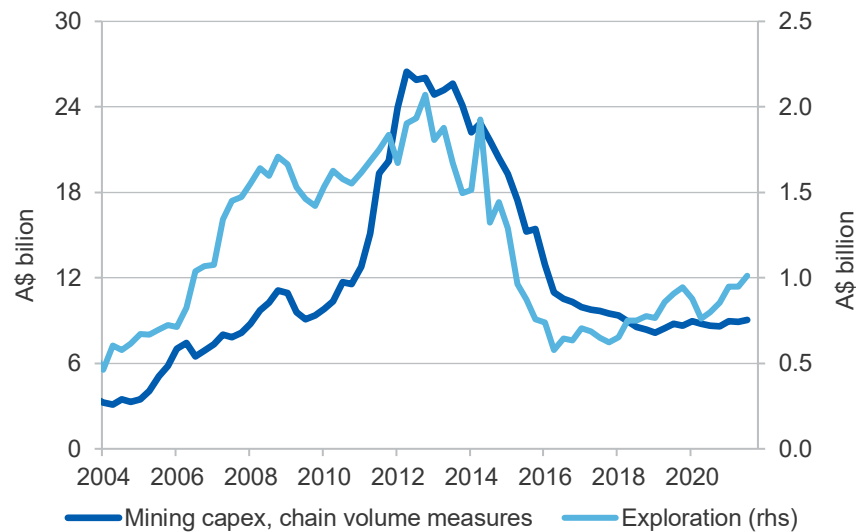
Notes: Chart data is in nominal terms

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



Data on exploration spending (adjusted for inflation) suggests that mining capital expenditure continues to build up (Figure 1.11). Exploration spending rose from \$949 million in the June quarter to \$1,011 million in the September quarter. This was the fifth consecutive quarterly rise, representing a sustained lift from the recent low of \$761 million in the June quarter 2020.

**Figure 1.11: Mining capital expenditure vs exploration, quarterly**



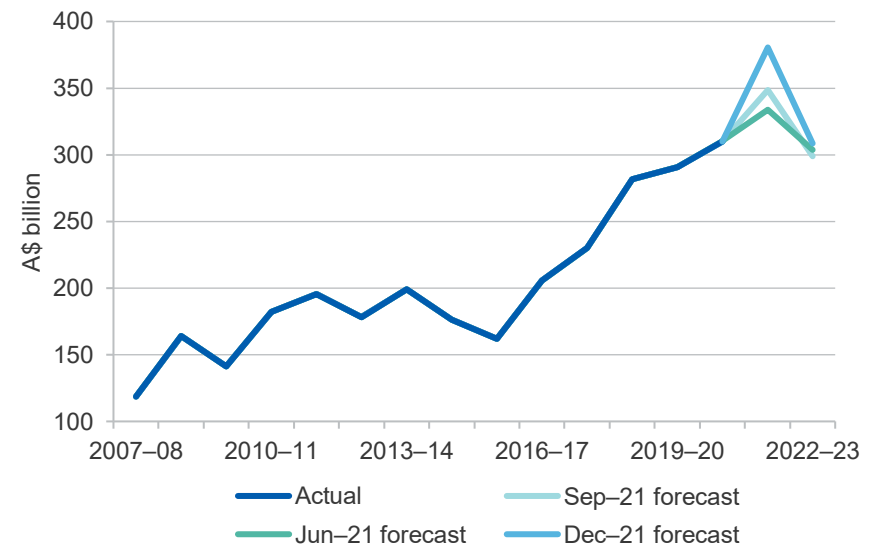
Source: ABS (2021) Private Capital Expenditure Survey, Chain Volume measure, 5625.0

## 1.7 Revisions to the outlook

At \$379 billion, the forecast for Australia's resources and energy exports in 2021–22 is \$31 billion higher (in nominal terms) than those contained in the September quarter 2021 *Resources and Energy Quarterly* (REQ). An unprecedented surge in coal prices, and stronger oil and base metal exports, have more than offset downward revisions to iron ore earnings in 2021–22.

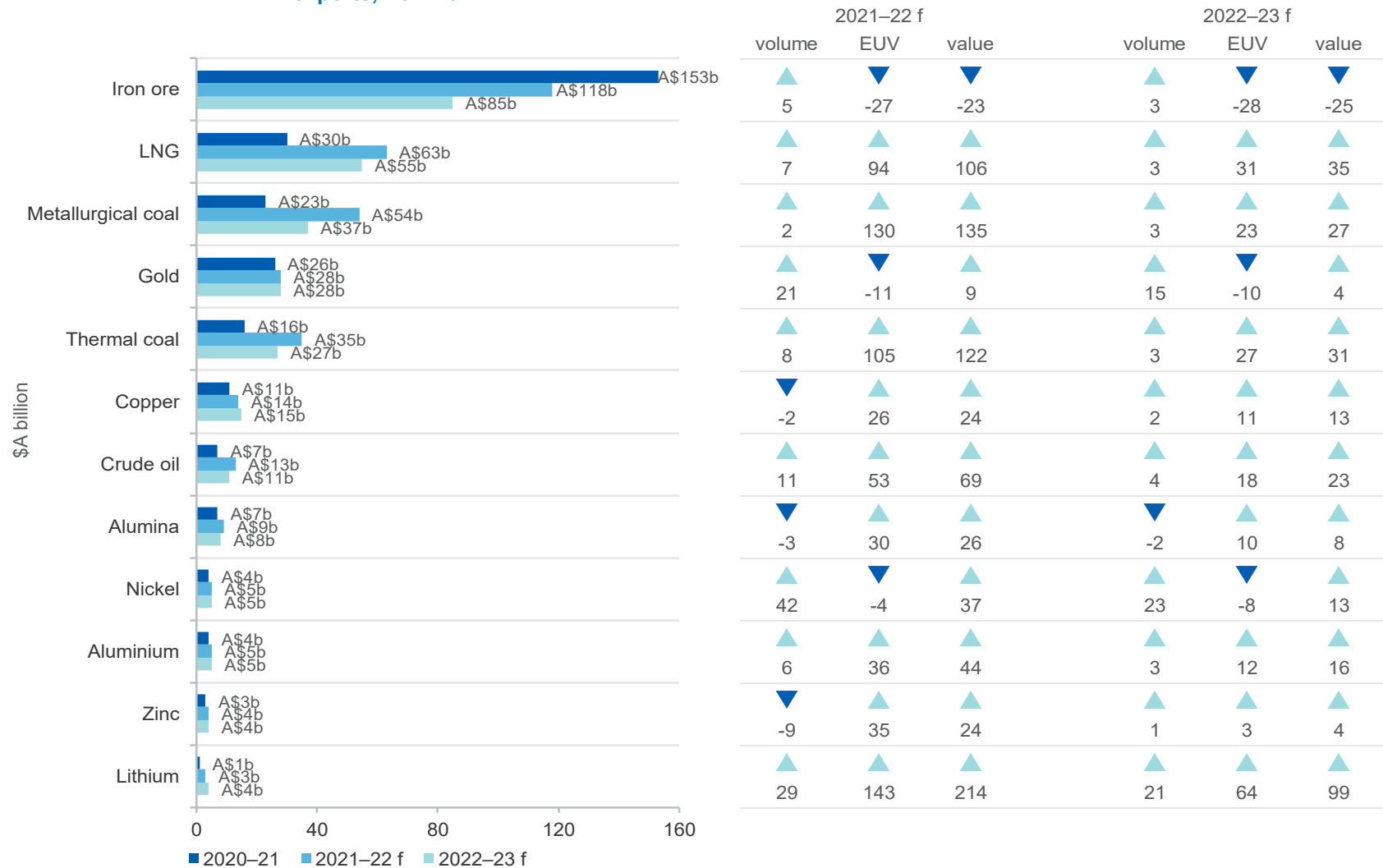
The forecast for \$311 billion in export earnings in 2022–23 is up \$12 billion from the September quarter 2021 REQ. Downward revisions to iron ore prices (and hence earnings) have been more than offset by the impact of improved energy earnings in 2022–23.

**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, nominal**



Notes: f forecast. EUV is export unit value. Per cent change is from 2020–21.

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	2021–22 <sup>f</sup>	2022–23 <sup>f</sup>	Annual percent change			
					2019–20	2020–21	2021–22 <sup>f</sup>	2022–23 <sup>f</sup>
Resources and energy	290,686	309,999	379,179	310,647	3.2	6.6	22.3	–18.1
– real <sup>b</sup>	302,553	317,508	379,179	304,085	1.8	4.9	19.4	–19.8
Energy	115,532	81,178	170,689	136,106	–12.9	–29.7	110.3	–20.3
– real <sup>b</sup>	120,249	83,144	170,689	133,231	–14.1	–30.9	105.3	–21.9
Resources	175,154	228,821	208,490	174,541	17.6	30.6	–8.9	–16.3
– real <sup>b</sup>	182,304	234,364	208,490	170,854	16.0	28.6	–11.0	–18.1

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, A\$b		
		2020–21	2021–22 <sup>f</sup>	2022–23 <sup>f</sup>		2020–21	2021–22 <sup>f</sup>	2022–23 <sup>f</sup>	2020–21	2021–22 <sup>f</sup>	2022–23 <sup>f</sup>
Iron ore	US\$/t	140	100	74	Mt	867	911	920	153	118	85
LNG	A\$/GJ	7.5	14.4	12.7	Mt	77	82	82	30	63	55
Metallurgical coal	US\$/t	123	284	183	Mt	171	175	181	23	54	37
Thermal Coal	US\$/t	76	149	105	Mt	192	208	204	16	35	27
Gold	US\$/oz	1,850	1,791	1,738	t	283	344	377	26	28	28
Copper	US\$/t	7,971	9,278	8,793	Kt	898	880	934	11	14	15
Crude oil	US\$/bbl	54	75	70	Kb/d	276	306	300	7.4	13	11
Alumina	US\$/t	284	359	339	Kt	18,600	18,065	17,888	6.9	8.8	8.2
Aluminium	US\$/t	2,029	2,736	2,593	Kt	1,357	1,438	1,452	3.8	5.4	5.1
Nickel	US\$/t	16,267	19,197	17,516	Kt	181	257	272	3.8	5.2	4.8
Zinc	US\$/t	2,657	3,264	2,663	Kt	1,392	1,273	1,409	3.3	4.1	3.6
Lithium	US\$/t	452	1,044	1,085	Kt	1,714	2,215	2,515	1.1	3.3	4.2
Uranium	US\$/lb	30	43	47	t	5,830	4,871	5,480	0.6	0.5	0.6

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)