Overview

Resources and Energy Quarterly December 2019

Australia's mining sector

Accounted for **35%** of Australia's GDP growth in 2018–19

8.5% of GDP in 2018 –19

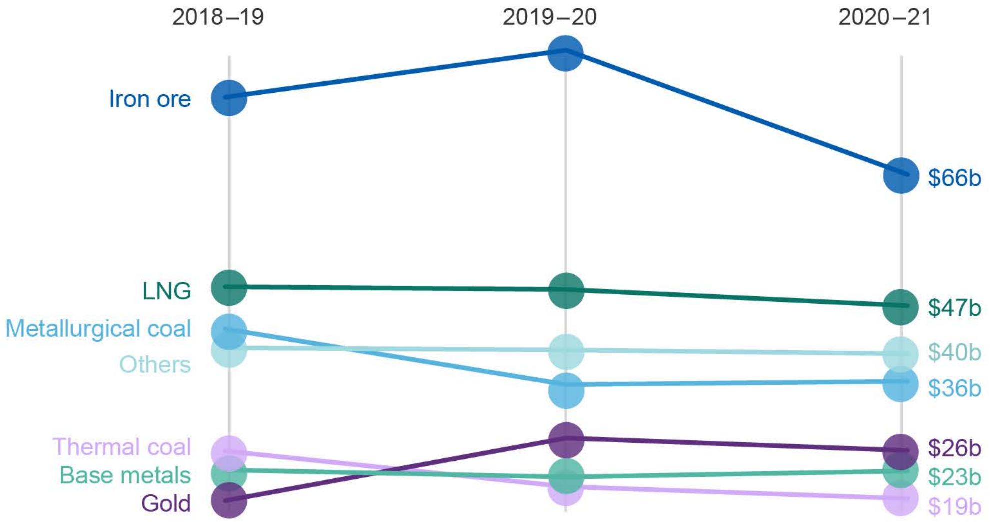
58% of Australia's goods and services exports in 2018–19*

73% of Australia's goods exports in 2018–19*

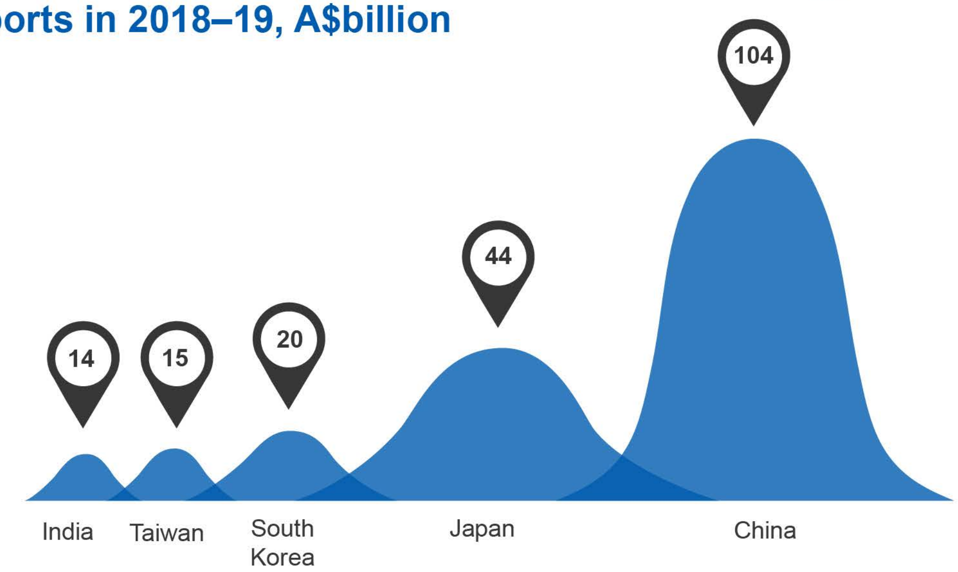
over **230,000** people employed (as at October 2019)

*Export figures are for resources and energy (broader than mining sector)

Australia's resources and energy exports, A$billion



Major markets for Australia's resources and energy exports in 2018–19, A$billion



1.1 Summary

- The global industrial production slowdown and rising supply has seen the prices of Australia's major resource commodity exports fall from the 7-year highs set in the September quarter 2019. Prices are likely to drift down further over the outlook period, due to rising supply.
- Iron ore prices are drifting down from high levels, as supply steadily recovers. Coal prices have fallen as supply rises and demand drops. Base and precious metal prices have wavered (in opposite directions), on the changing likelihood of a resolution of US-China trade tensions.
- Offsetting the impact of weaker prices, both higher export volumes and a lower-than-expected Australian dollar are likely to see Australia's resource and energy export earnings in 2019–20 set a record $281 billion (Figure 1.1). A stronger Australian dollar and price falls are likely to drive earnings down to $256 billion in 2020–21.

1.2 Export values

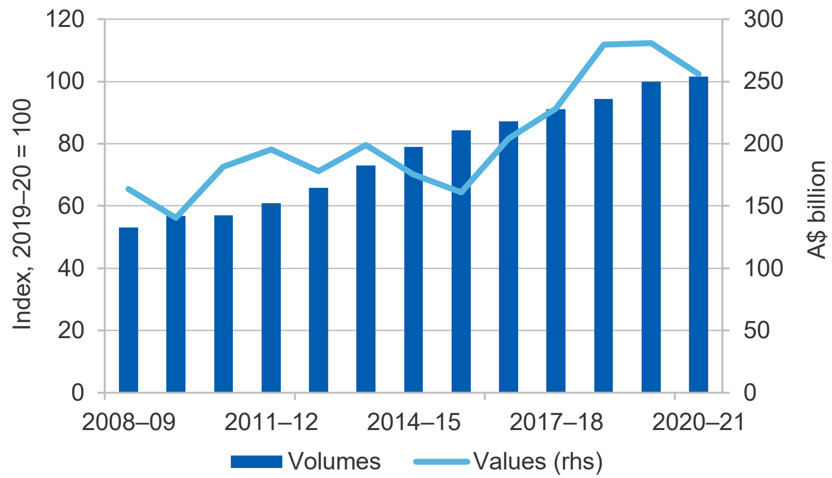
Australia's export values forecast to be $280 billion in 2019–20

The Office of the Chief Economist's (OCE) Resources and Energy Export Values Index fell by 1.5 per cent in the year to the December quarter 2019. A 4.0 per cent rise in volumes was more than offset by a 5.3 per cent fall in prices. In 2019–20, resource and energy exports are forecast to rise from last year's record of $279 billion, as a 5.9 per cent rise in volumes is largely offset by a 5.3 per cent fall in prices. In 2020–21, while export volumes are expected to rise by a further 1.6 per cent, a forecast lift in the Australian dollar and weaker commodity prices (down 10.8 per cent) are forecast to drive a 9 per cent fall in earnings to $256 billion (Figure 1.2).

Ongoing weakness in the Australian dollar is helping to boost earnings

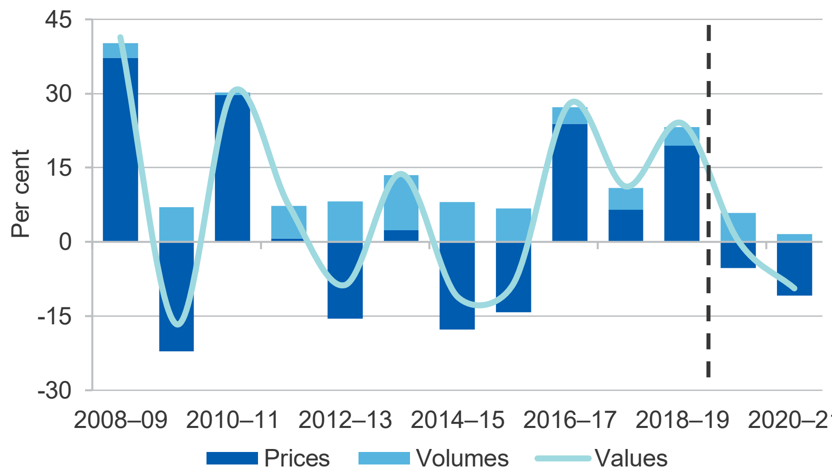
In Australian dollar terms, the OCE's Resources and Energy Commodity Price Index fell by 12.8 per cent (preliminary estimate) in the December quarter, and was 5.3 per cent higher than a year ago. In US dollar terms, the index fell by 12.2 per cent in the quarter, and was 8.9 per cent lower than a year before. An index of Australian dollar prices for resource commodity exports fell by 15.5 per cent in the December quarter, while an index of prices of energy commodities fell by 9.0 per cent (Figure 1.3).

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



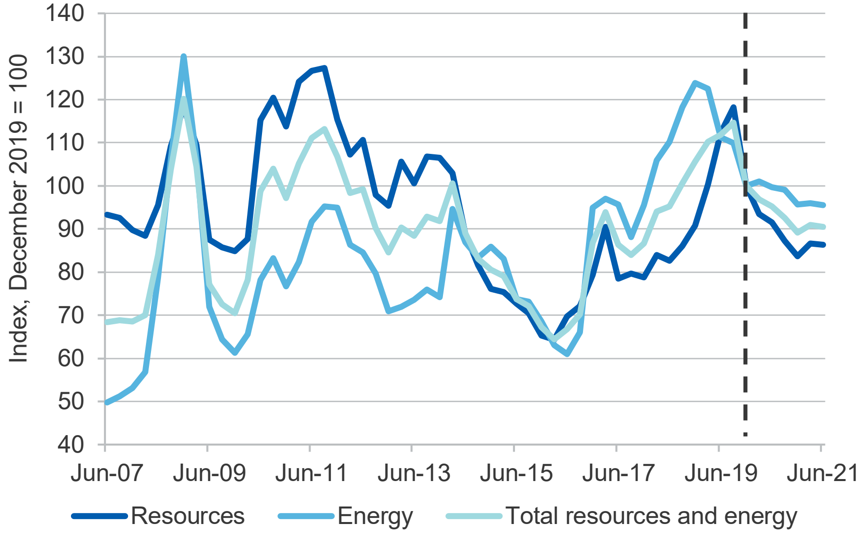
Source: ABS (2019) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2019)

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



Source: Source: ABS (2019) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2019)

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 (2019) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2019)

1.3 Macroeconomic, policy, trade and weather factors

The past quarter has seen signs that the slowdown in world economic activity may have troughed. Growth in world trade contracted noticeably over 2019, as the fallout from US-China trade friction increased. The contraction contributed to global industrial production growth slowing almost to zero. A more stimulatory monetary stance by some of the major central banks and targeted fiscal and industry policy measures by China (to prevent further declines in economic growth), appear to be helping stabilise the global economic cycle. An easing of US-China trade tensions is expected to assist economic growth in 2020 and 2021.

Currency moves appear to have helped some countries weather the slowdown; however, the converse is that the sectors of the US economy exposed to foreign trade have been hurt by the strength of the US dollar.

The Chinese economy appears to have steadied at a lower pace of growth in the December quarter, as the impact of a series of carefully targeted measures — aimed at offsetting the impact of the initiation and/or escalation of US tariffs on Chinese goods — comes through. The Chinese authorities have adopted a more stimulatory monetary policy stance in recent months, and will likely loosen further if economic growth weakens significantly in the near term. However, Chinese officials remain focused on deleveraging the economy amidst comparatively high debt levels.

The Eurozone has slowed noticeably in 2019, as Chinese import demand falls and new vehicle emission standards cause a fall in vehicle sales. At the time of writing, the United Kingdom's (UK) parliamentary general election appears to have given the Conservative Government a clear mandate to leave the European Union. Brexit could be expected to aid business/consumer sentiment in the UK. Economic activity in the Middle East has deteriorated further, as oil prices settle at low levels and regional tensions persist. Iran's economy is feeling the impact of US sanctions.

A noticeable feature of the last few months has been the weakness in global coal markets. Strong Chinese and Indian imports — the latter due to a strong and extended monsoon season — have been unable to prevent price declines, as global coal supply increases. Supply has been boosted as currency weakness in some nations, such as Australia and Russia, helps their producers to maintain profits. Central bank actions to push interest rates down have lowered the opportunity cost of holding gold.

Some equity markets have rallied to record highs in recent weeks, in anticipation of the successful negotiation of a Phase One US-China trade deal. South Korea and Japan have resumed trade talks, after tit-for-tat measures impacted on trade between the two countries. However, the major risk to world growth over the outlook period remains a further escalation of protectionist trade measures between China, Europe, Japan, South Korea and the US.

The northern hemisphere winter is not expected to be colder or warmer than normal at this stage, suggesting that energy commodity usage may be close to average.

1.4 Prices

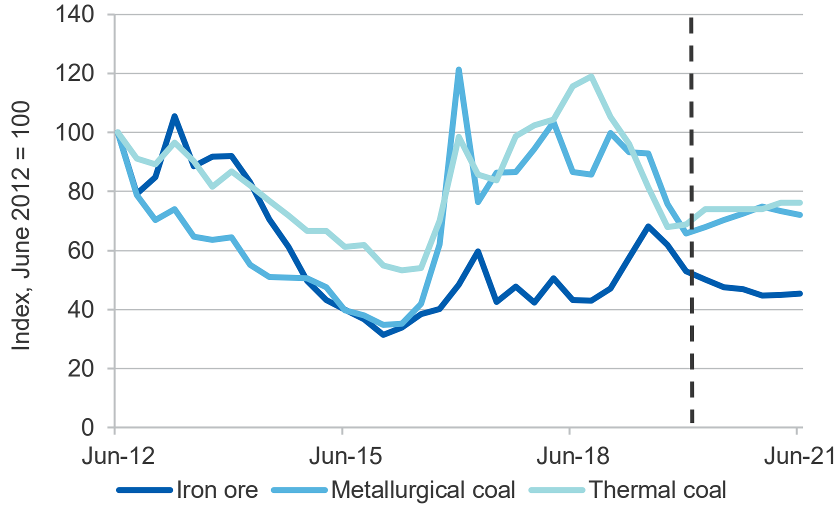
After reaching US$120 a tonne earlier in the year, the iron ore price has consolidated in US$75-95 a tonne range since the September 2019 *Resources and Energy Quarterly*. Bouts of restocking by Chinese steel mills have helped support the price as global supply steadily recovers from the impact of the fallout of a tailings dam collapse in Brazil in early 2019. The price is forecast to fall during 2020 (Figure 1.4), as growth in Chinese steel output eases and iron ore supply recovers further.

The prices of metallurgical and thermal coal fell (further) in the December quarter. The metallurgical coal price was impacted by rising supply and weak OECD demand, but is likely to stage a modest recovery over the outlook period, as expansions are put on hold and high-cost miners cut production (Figure 1.4). Rising supply and softer demand has put pressure on the thermal coal price. Low spot LNG prices have also encouraged coal-to-gas switching adding to weak OECD coal demand. Prices are likely to remain subdued over the outlook period, as oversupply persists.

Oil prices have steadied in a relatively narrow band over the past quarter, as signs of OPEC+ supply discipline lower worries about rising global inventories. On the expectation that the benchmark Brent price holds above the US$60 a barrel mark over the outlook period, Australia's growing oil, condensate and LNG exports (of which, the vast majority are linked to oil prices) should drift lower as the Australian dollar strengthens.

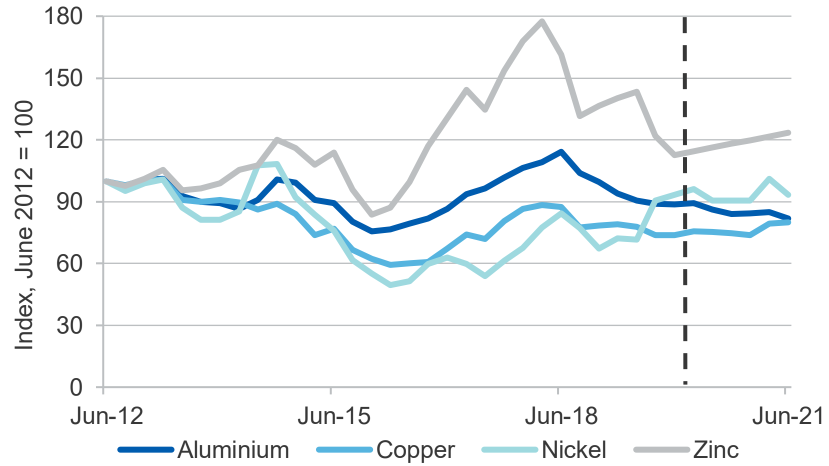
The gold price reversed some of the year's strong gains in early November, as funds flowed towards bond and equity markets. Price dips over the coming year are likely to attract strong central bank, investor and jewellery demand. Base metal prices have been flat (aluminium and copper) to significantly higher (nickel and zinc) over the past quarter, as worries over supply add to some optimism about a US-China trade deal. Nickel has been the standout, as the Indonesian government brought forward an export ban and the long term outlook for battery demand strengthened. Base metals should generally hold relatively buoyant levels over the outlook period (Figure 1.5), as the world economy steadies and base metal supply remains relatively constrained.

Figure 1.4: Bulk commodity prices



Notes: Prices are in US dollars, and are the international benchmark prices
Source: Bloomberg (2019)

Figure 1.5: Base metal prices



Notes: Prices are in US dollars, and are the international benchmark prices
Source: Bloomberg (2019)

1.5 Export volumes

Export volumes to grow, driven by growing energy exports

The OCE's Resources and Energy Export Volumes Index (preliminary estimate) declined by 0.8 per cent in the December quarter from the September quarter 2019 record. Energy commodity volumes rose by 3.0 per cent and resource commodity volumes rose by 5.5 per cent over the year. Volumes are expected to show solid growth (largely across-the-board) in 2019–20, but much more tepid growth in 2020–21.

1.6 Contribution to growth and investment

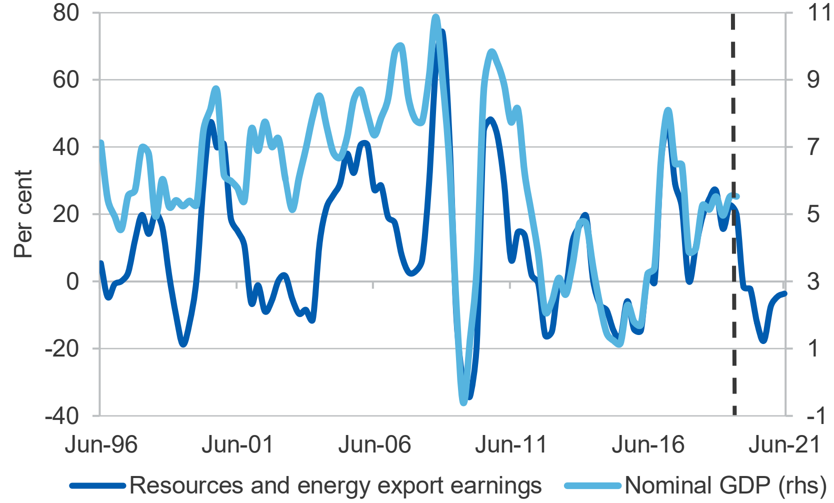
Mining industry continues to support overall economic growth

Australia's real Gross Domestic Product (GDP) grew by 0.4 per cent in the September quarter 2019, and by 1.7 per cent over the year. The mining industry directly accounted for over a third of the growth in Australia's GDP in the year to the September quarter 2019. Mining value-added rose by 0.7 per cent in the September quarter to be 7.4 per cent higher over the year, driven by growth in oil and gas extraction and bulk commodity mining.

Oil and gas extraction has been the largest contributor to mining industry value-added growth in the last few years, propelled by growing export volumes associated with the LNG export boom. In the coming few years, it is likely that this sector will make a much smaller contribution to GDP, as the fruits of the expansion of the 2010's diminish in size.

Since the global financial crisis, swings in Australian resource and energy export earnings have correlated very closely with swings in nominal GDP (Figure 1.6). The rising share of resource and energy commodity export earnings in Australia's nominal GDP — driven by favourable gains in our terms of trade and the fruits of the resource commodity investment boom — appears to have made resource and energy exports a significant swing factor in the economy. With growth in resource and energy export values having topped out in the second half of 2019, if the correlation persists, a sharp slowing in resource export earnings growth could have significant implications for nominal GDP growth.

Figure 1.6: Australia's nominal GDP vs resource and energy commodity export earnings, annual per cent change



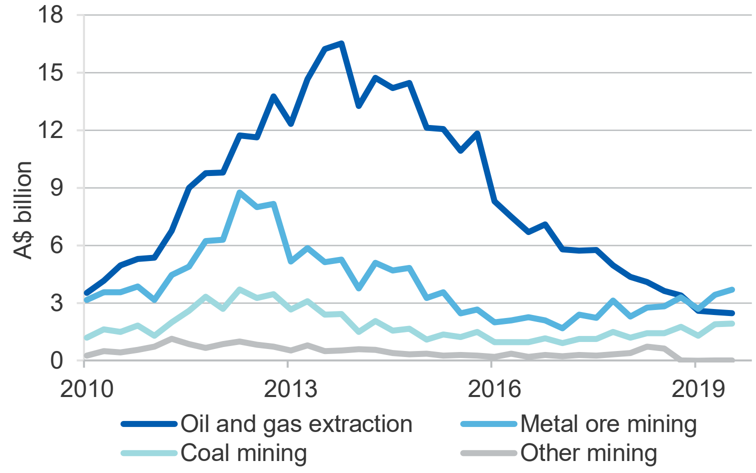
Source: Department of Industry, Innovation and Science (2019), ABS (2019)

Mining investment is picking up

The ABS Private New Capital Expenditure and Expected Expenditure survey shows that investment by Australia's mining industry was $8.7 billion in the September quarter 2019, up 3.4 per cent over the year. Total investment for 2018–19 has been revised down marginally, to $33 billion. This amounted to a fall of 8.3 per cent — the smallest fall in more than five years. However, investment remains well below its recent peak of $95 billion at the height of the LNG boom in 2012–13.

Higher commodity prices in the past two years appear to have encouraged miners in Australia to replace ageing plant and equipment and to expand their fleets. Increased capital expenditure (capex) in the September quarter 2019 was driven by higher investment in metal ores and coal mining (Figure 1.7). Buildings and structures edged up in the September quarter, while plant and equipment spending continues to recover strongly, with capex at a 5-year high in the September quarter 2019 (Figure 1.8).

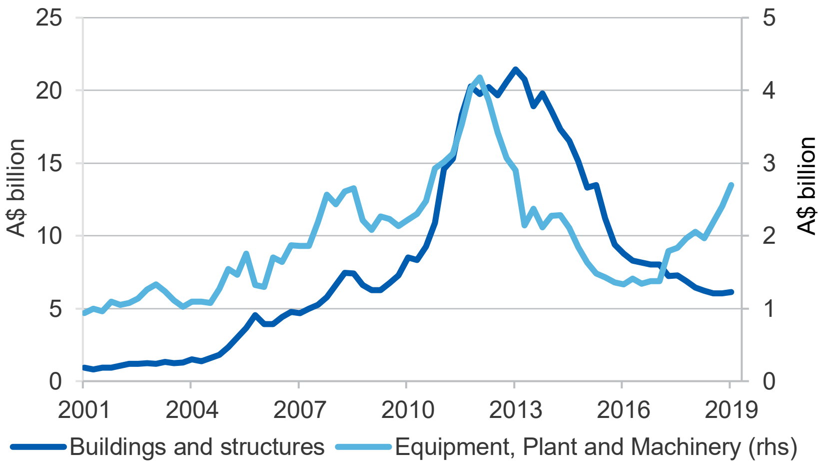
Figure 1.7: Mining industry capital expenditure by commodity



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 (2019) Private New Capital Expenditure and Expected Expenditure, 5625.0

Figure 1.8: Mining industry capital expenditure by type, quarterly

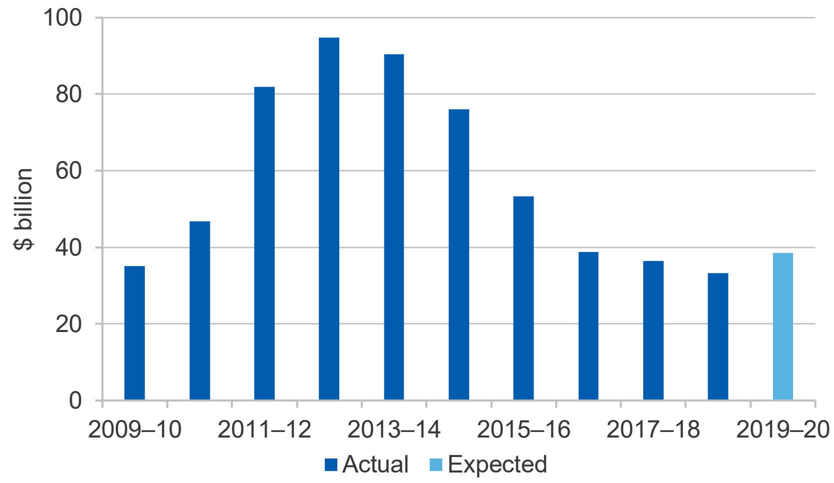


Notes: Chart data is in nominal terms

Source: ABS (2019) Private New Capital Expenditure and Expected Expenditure, 5625.0

Forward expectations (Figure 1.9) suggest that mining companies generally expect investment over 2019–20 to lift by about 15 per cent, to an estimated $38 billion for the year. Actual spending for the September quarter 2019 — the first quarter of the 2019–20 financial year — is trending slightly above what previous estimates suggested. Growth in prices for gold, iron ore and other minerals are leading to new investment plans, including re-opening of mines previously closed. However, investment in new greenfield projects remains well below the levels of early this decade (see the *Major Projects* chapter).

Figure 1.9: Mining industry capital expenditure, fiscal year

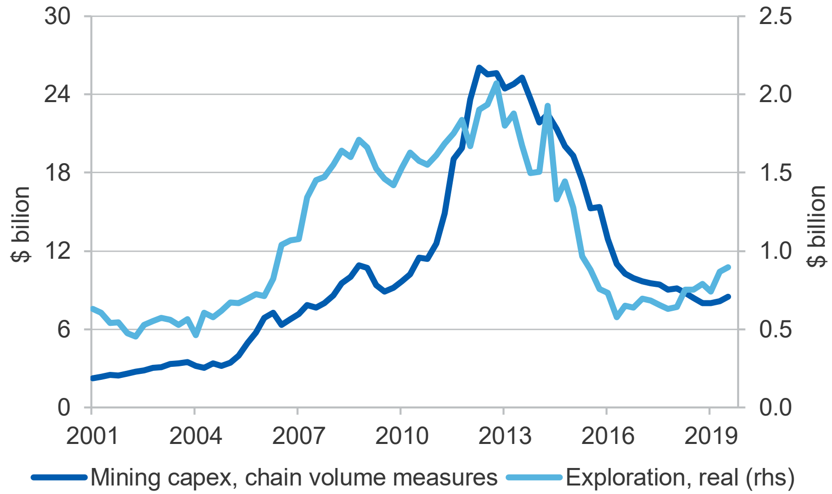


Notes: Chart data is in nominal terms

Source: ABS (2019) Private New Capital Expenditure and Expected Expenditure, 5625.0

Data on exploration spending (adjusted for inflation) suggests that a recovery in mining capital expenditure is underway (Figure 1.10). Exploration spending for all commodities grew by 19 per cent through the year, to reach $897 million in the September quarter. More information on the future pipeline for investment in the mining sector can be found in this edition's *Major Projects* chapter.

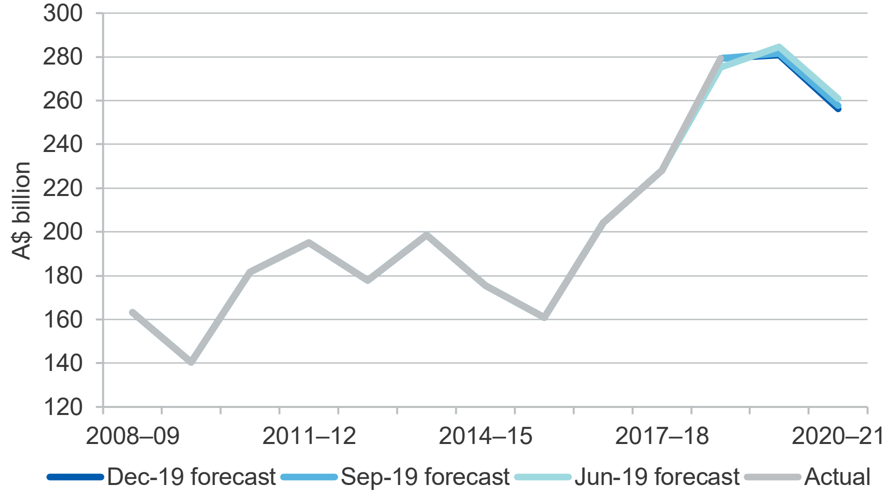
Figure 1.10: Mining capital expenditure vs exploration, quarterly



Notes: Chart data is in real terms

Source: ABS (2019) Private Capital Expenditure Survey, Mining, Chain Volume measure, 5625.0

Figure 1.11: Resource and energy exports, by forecast release



Notes: Chart data is in nominal terms

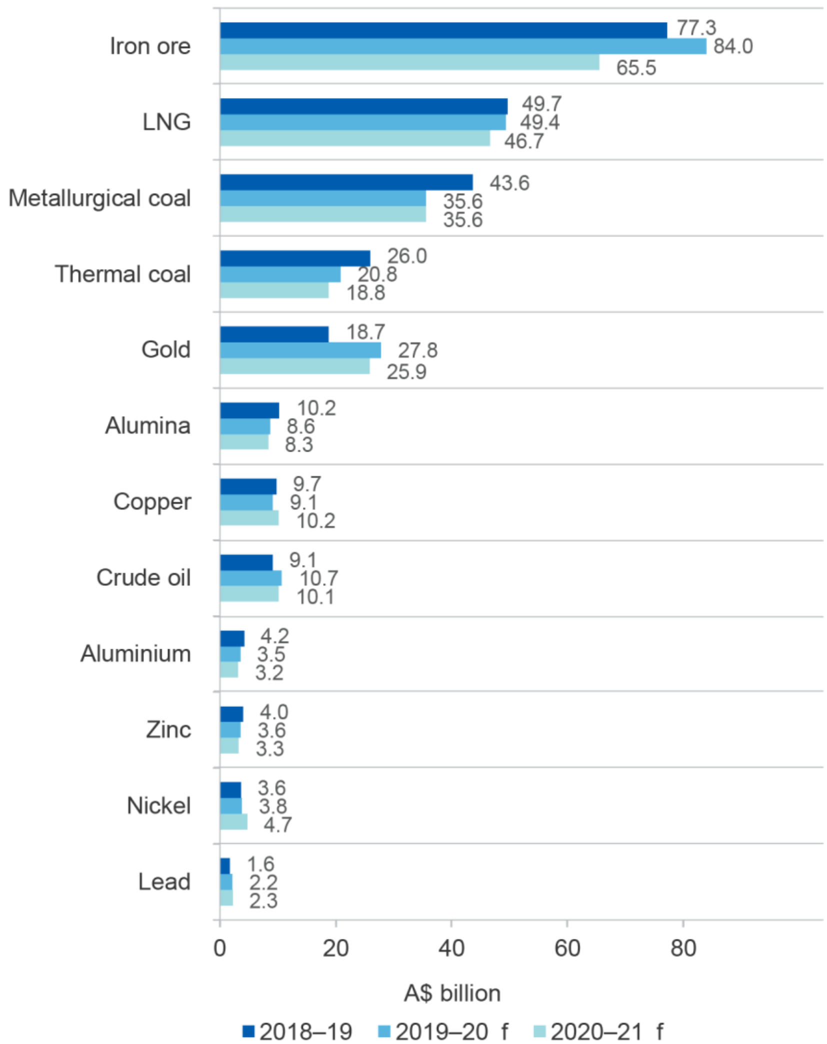
Source: Department of Industry, Innovation and Science (2019)

1.7 Revisions to the outlook

At $281 billion, the new forecast for Australia's resources and energy export earnings in 2019–20 is down $1 billion from the forecast in the September 2019 *Resources and Energy Quarterly* (Figure 1.11). Most resource and energy commodity prices have weakened noticeably, and the impact of that decline has only been partially outweighed by both forecasts of stronger volumes and the adoption of a weaker exchange rate profile (of the Australian dollar against the US dollar) than encapsulated in our September 2019 forecasts.

In 2020–21, weaker prices — virtually across the board — and a rising exchange rate, will drive a noticeable fall in export earnings. Export earnings are now forecast to be $256 billion, down from $258 billion forecast in the September 2019 *Resources and Energy Quarterly*.

Figure 1.12: Australia's major resource & energy commodity exports



CAGR per cent change from 2018–19

	2019–20[f]			2020–21[f]		
	volume	EUV	value	volume	EUV	value
Iron ore	5	4	9	3	-11	-8
LNG	9	-8	-1	4	-7	-3
Metallurgical coal	2	-20	-18	4	-13	-10
Thermal coal	1	-21	-20	1	-16	-15
Gold	24	20	48	10	7	18
Alumina	1	-17	-16	1	-11	-10
Copper	1	-7	-6	4	-1	2
Crude oil	21	-3	18	10	-4	6
Aluminium	-6	-10	-16	-3	-11	-13
Zinc	6	-15	-10	3	-12	-9
Nickel	-7	12	4	10	4	14
Lead	-1	36	34	-2	20	17

Notes: f forecast.

Source: ABS (2019) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2019)

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

Exports (A$m)	2017–18	2018–19	2019–20f	2020–21f	Annual per cent change 2018–19	2019–20f	2020–21f
Resources and energy	228,027	279,367	280,814	256,100	22.5	0.5	–8.8
– real[b]	235,794	284,200	280,814	251,338	20.5	–1.2	–10.5
Energy	101,958	132,707	121,318	115,819	30.2	–8.6	–4.5
– real[b]	105,431	135,003	121,318	113,665	28.0	–10.1	–6.3
Resources	126,068	146,660	159,454	140,282	16.3	8.8	–12.0
– real[b]	130,363	149,197	159,454	137,673	14.4	6.9	–13.7

Notes: **b** In 2019–20 Australian dollars. **f** forecast.
Source: ABS (2019) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2019)

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

	Prices				Export volumes				Export values, A$b		
	Unit	2018–19	2019–20f	2020–21f	Unit	2018–19	2019–20f	2020–21f	2018–19	2019–20f	2020–21f
Iron ore	US$/t	72	71	61	Mt	819	859	869	77	84	66
Metallurgical coal	US$/t	205	154	162	Mt	184	187	197	44	36	36
LNG	A$/GJ	12.6	11.5	10.9	Mt	75	81	81	50	49	47
Thermal coal	US$/t	95	67	71	Mt	210	212	214	26	21	19
Gold	US$/oz	1,264	1,474	1,466	t	326	403	396	19	28	26
Alumina	US$/t	437	328	314	Mt	17,619	17,862	17,898	10.2	8.6	8.3
Copper	US$/t	6,151	5,865	6,055	Kt	932	937	1,001	9.7	9.1	10.2
Oil[a]	US$/bbl	69	63	63	Kb/d	254	308	308	9.1	10.7	10.1
Aluminium	US$/t	1,920	1,747	1,657	Kt	1,451	1,362	1,374	4.2	3.5	3.2
Zinc	US$/t	2,658	2,241	2,328	Kt	1,325	1,401	1,412	4.0	3.6	3.3
Nickel	US$/t	12,352	15,907	16,112	Kt	225	210	270	3.6	3.8	4.7
Lithium	US$/t	758	552	532	Kt	1,338	1,576	1,859	1.6	1.4	1.6
Uranium	US$/lb	27	27	31	t	7,933	7,095	6,500	0.7	0.6	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 (2019) 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, Innovation and Science (2019)