Overview

Resources and Energy Quarterly December 2018

Resources and energy sector

18% of Australia's GDP growth in the September quarter of 2018

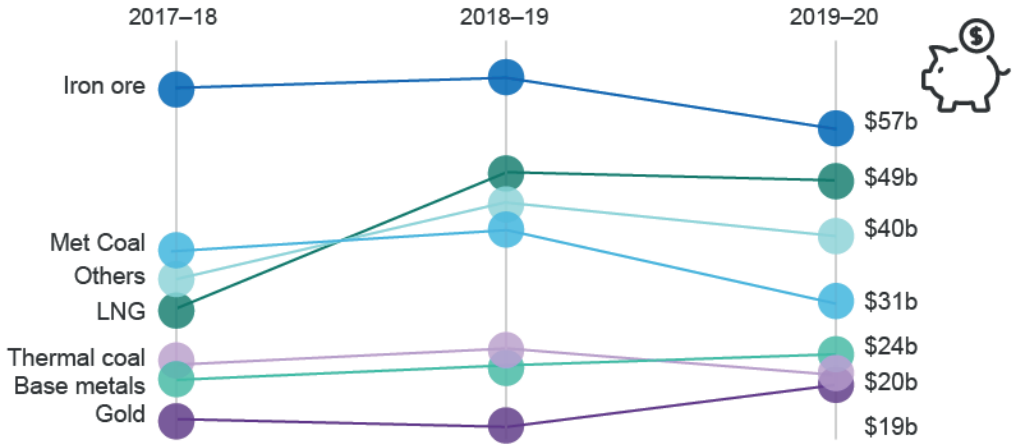
8.2% of GDP in 2017–18

55% Australia's goods and services exports in 2017–18

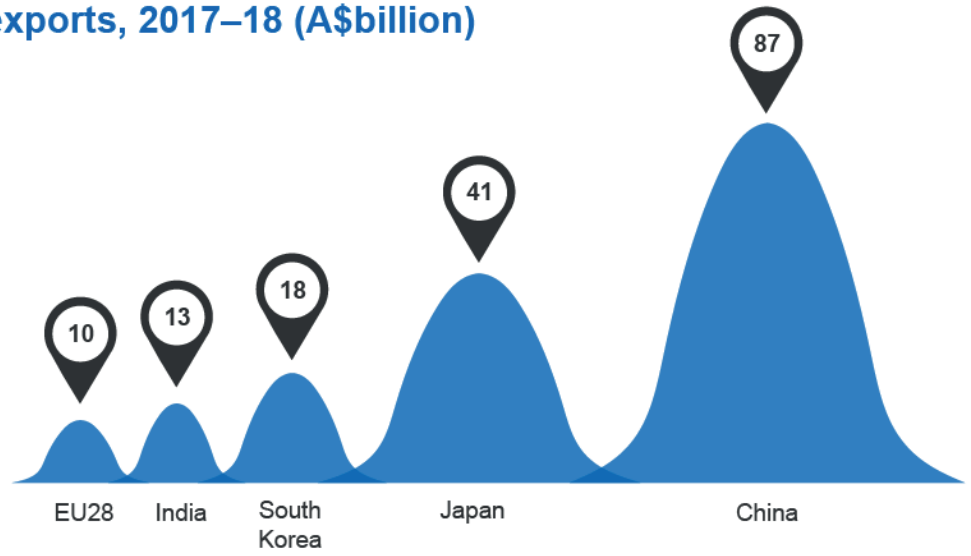
70% of Australia's exports of goods in 2017–18

242,600 people employed (as at August 2018)

Australia's resources and energy exports, A$billion



Major markets for Australia's resources and energy exports, 2017–18 (A$billion)



1.1 Summary

- Helped by a weaker Australian dollar in 2018–19, Australia's resource and energy exports are likely to hit a new record high of $264 billion, before falling back to $241 billion (still the second highest on record) in 2019–20.
- Australia's resources and energy export volumes are expected to show firm growth over the outlook period. The prices of Australia's major resource commodities have been high, but are expected to drift lower in 2019–20 because of moderating demand and rising supply.
- The world industrial production cycle appears to have peaked in 2018. The extent of the expected down cycle in resource commodities depends on whether China can maintain economic growth as the US-China trade dispute impacts.

1.2 Export values

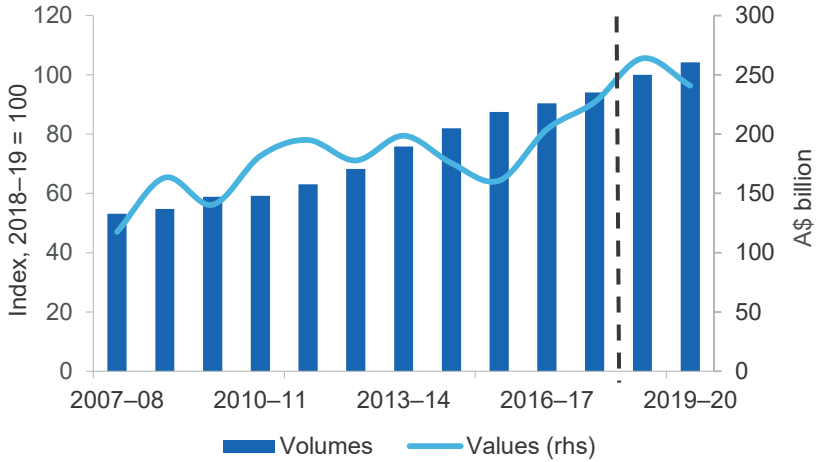
Australia's export values expected to be $264 billion in 2018–19

The Office of the Chief Economist's (OCE) Resources and Energy Export Values Index (preliminary estimate) rose by 29 per cent in the year to the December quarter 2018. This was due to a 23 per cent rise in prices and a 6.4 per cent rise in volumes. Figure 1.2 shows that in 2018–19, a forecast 10.4 per cent rise in prices will add to the impact of a 6.3 per cent rise in export volumes. The value of resource and energy exports is thus forecast to rise by 16.3 per cent to a record $264 billion. 2019–20 is forecast to see export values drop by 8.7 per cent to $241 billion, as a 12.5 per cent fall in prices more than offsets the impact of a 4.3 per cent rise in volumes.

The ongoing weakness in the AUD/USD is boosting commodity returns

In Australian dollar terms, the OCE's Resources and Energy Commodity Price Index grew by 7.1 per cent (preliminary estimate) in the December quarter to be 23.0 per cent higher than a year earlier. In US dollar terms, the index grew by 5.4 per cent in the quarter, to be 15.2 per cent higher than a year earlier. Figure 1.3 shows that prices for resource commodities rose by 6.8 per cent in the December quarter, while prices of energy commodities grew by 7.4 per cent in the quarter in Australian dollar terms.

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

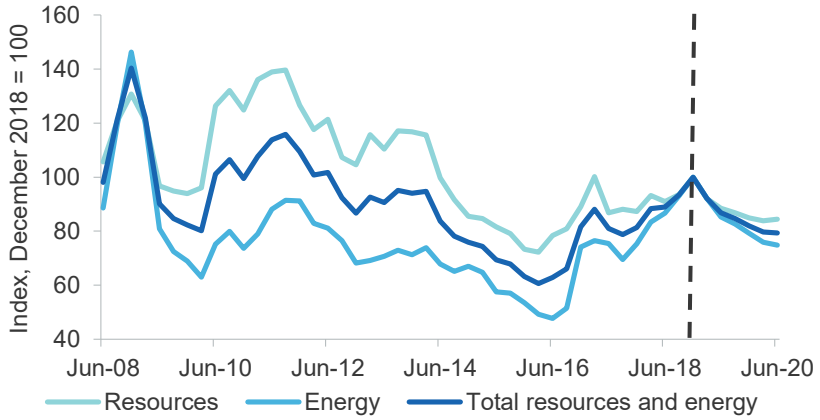


Source: ABS (2018) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2018)

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

Source: Source: ABS (2018) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2018)

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 (2018) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2018)

1.3 Macroeconomic and trade tension influences

There is evidence that the peak of the current global economic cycle has passed, raising doubts over the strength of demand for resource and energy commodities over the outlook period. Leading indicators of industrial activity continue to weaken, and monetary conditions in most economies are not as stimulatory as they were 3 months ago. US dollar strength is still drawing liquidity out of nations with fiscal/debt woes, and is also helping to hold down resource commodity prices, especially metals.

The US economy continues to growing strongly, but the impact of the 2018 tax cuts will gradually dissipate. Following the November 2018 mid-term elections, US fiscal policy is unlikely to prove as stimulatory in the forecast period as it has been in the past year. The Democratic Party — set to take control of the US House of Representatives in the first week of 2019 — is likely to favour higher infrastructure spending and the preservation of health care and welfare programs at the expense of further tax cuts and increased spending on both defence and a wall on the Mexico border. The Republican-controlled Senate is unlikely to back increased infrastructure spending if it requires tax hikes and/or increased debt issuance.

Chinese economic growth is unlikely to rise, as stimulatory policy merely tries to offset the impact of US trade measures. The rest of the world is growing at or above trend pace, and low inflation in all major economies except the US continues to provide scope for easy monetary conditions to continue.

Foreign trade measures have been a central focus of resource and energy commodity markets over the past quarter. While a new trade agreement between the US, Canada and Mexico has removed worries of a North American trade conflict, a new concern is whether US barriers on auto imports are raised, sparking retaliatory measures from the likes of the Eurozone and Japan. The US and China have not managed to resolve the disagreements on trade that have seen tit-for-tat tariff measures imposed over the past eight months. And the concern is that the US demands are so damaging to China's technological and industrial ambitions that it is unlikely the Chinese Government will accede to them fully. However, our analysis on the US-China trade tensions (see the next chapter) suggests that the impact on Australia to date is very limited. In fact, the fall in the AUD/USD over the past 10 months has more than offset the likely adverse impact of the US tariffs on imports from China.

Chinese steel production continues to grow strongly. This strength is likely the result of recent Chinese government efforts to ensure that growth does not slow too much as the US import tariffs start to impact on Chinese exports. These efforts include some relaxation of monetary policy and increased infrastructure spending. The winter production curbs that characterised last year in particular, may be relaxed modestly this winter. Such a relaxation would help maintain steel sector employment and ensure the supply of steel for infrastructure projects.

World equity markets have seen some sharp corrections over the past few months, suggesting concerns over the economic outlook. Chinese equities have continued to decline since our last report, and have now lost all of the gains of 2017. US equities have lost ground recently, after a strong start to

2018; rising US interest rates and concerns over US-China trade tensions have contributed to the falls. Strength in early 2018 came as many US companies used tax cuts and the profit repatriation holiday (granted to US companies with overseas operations) to buy back shares, announce higher dividends and reduce debt issuance. There has been concern that using their funds this way has come at the expense of investment in new production capacity — and hence economic growth continued low inflation.

1.4 Prices

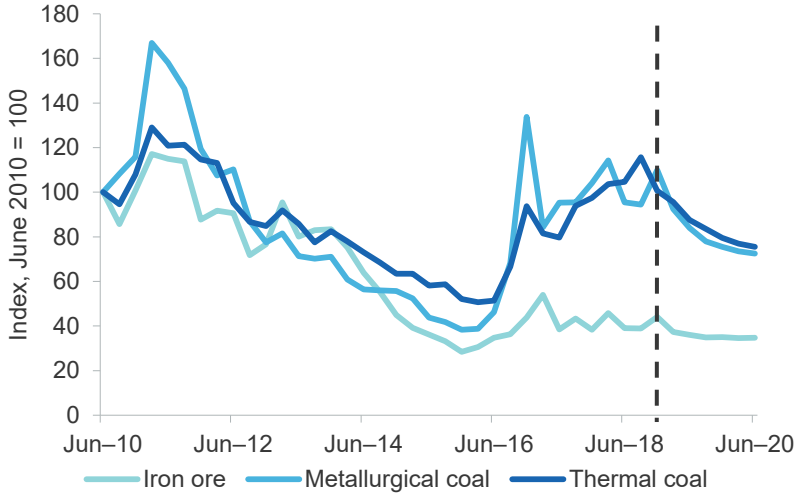
The iron ore price has been supported by the (unexpected) ongoing strength in China's steel market. Winter cutbacks were delayed, and the BHP train derailment in Western Australia briefly raised fears of shortages. The iron ore price is forecast to decline modestly over the next two years (Figure 1.4), as Chinese steel output eases and world supply grows.

Metallurgical coal spot prices rebounded back over the US$200 a tonne mark in the December quarter, as supply concerns hit the market. The price is likely to ease back over the forecast period. Low energy thermal coal prices have declined much more sharply than high energy thermal coal prices. Thermal coal prices are expected to ease through 2019 and 2020, as supply rebounds and demand moderates (Figure 1.4).

Oil prices declined sharply in the December quarter, which has flow-through implications for LNG revenues over the next few months. However, with oil prices expected to stabilise at about US$72 a barrel, Australia's growing oil, condensate and LNG volumes should result in petroleum and LNG revenues holding at relatively high levels.

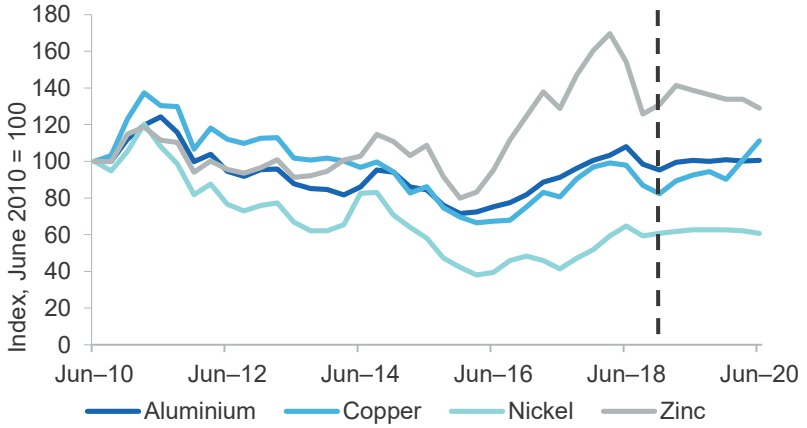
Gold has recovered some of its September quarter losses, despite a significant rise in real bond yields and a further gain in the US dollar against most currencies. A rebound is expected when the US dollar finishes its rise some time in 2019. Base metal prices declined in the December quarter (Figure 1.5) but most are expected to hold up or even rise (in the case of copper) from here.

Figure 1.4: Bulk commodity prices



Notes: Prices are in US dollars, and are the international benchmark prices
Source: Bloomberg (2018)

Figure 1.5: Base metal prices



Notes: Prices are in US dollars, and are the international benchmark prices
Source: Bloomberg (2018)

1.5 Export volumes

Export volumes to grow, driven by growing energy exports

The OCE's Resources and Energy Export Volumes Index (preliminary estimate) rose by 6.4 per cent year-on-year in the December quarter 2018, taking the index to a new record high. Resource commodity volumes rose by 0.4 percent, and energy commodity volumes rose by 12.2 per cent.

Surging LNG and crude oil exports drove annual growth in overall resources and energy export volumes in the December quarter. The deliberate derailment of a runaway iron ore train by BHP appears likely to have a minor impact on iron ore exports in 2018–19. Port maintenance and mine problems are likely to inhibit growth in metallurgical coal exports in 2018–19, but better supply to the seaborne market is likely in 2019–20.

1.6 Contribution to growth and investment

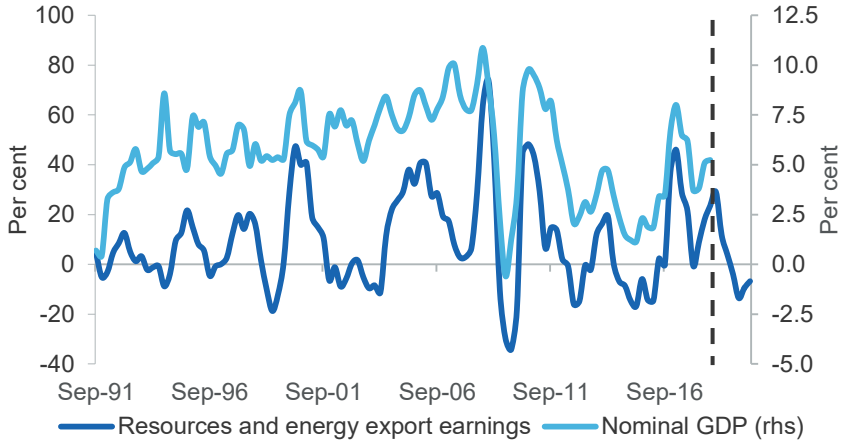
Mining industry continues to support overall economic growth

Australia's real Gross Domestic Product (GDP) grew by 0.3 per cent in the September quarter 2018. The mining industry directly accounted for 18 per cent of the growth in Australia's GDP in the September quarter. Since the global financial crisis, swings in resource and energy export earnings have correlated closely with swings in nominal GDP. Figure 1.6 suggests that with growth in resource and energy export values likely having peaked in late 2018, if the correlation persists, nominal GDP growth could soon weaken from recent rates.

Mining value-added edged back marginally in the September quarter, as a result of falls in the value-add of coal and iron ore. Partly offsetting this, oil and gas extraction grew strongly in value-added terms, with the sector now benefiting from the completion of several major infrastructure projects.

Oil and gas extraction and iron ore mining have been the largest contributors to mining industry value-added growth in the last few years, propelled by growing export volumes. In the coming few years, it is likely that slowing export growth and relatively low investment will see a smaller contribution to Australia's GDP growth from the oil and gas production sector.

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



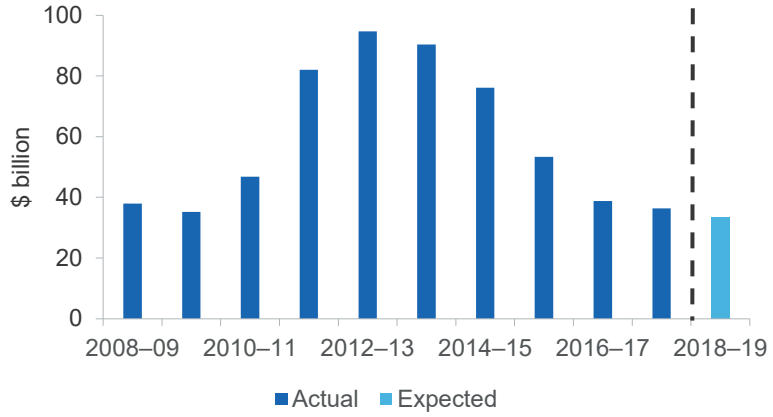
Source: Department of Industry, Innovation and Science (2018), ABS (2018)

Mining investment has fallen slightly further but could begin to rebound

Investment in Australia's mining industry stood at $36 billion in 2017–18 — a 6 per cent decline from 2016–17 (see Figure 1.7). Investment continued to edge down year-on-year in the September quarter. The major driver was the oil and gas sector, where investment has been falling steadily since 2013 (Figure 1.8). The fall in investment in oil and gas reflects the completion of large projects such as Wheatstone in Western Australia and Ichthys in the Northern Territory.

Falls in oil and gas investment were partially offset by a lift in investment in coal mining, metal ore mining and other mining. This lift in investment activity — just as the wind down in oil and gas investment is concluding — suggests that the bottom of the mining investment cycle is approaching. The feature chapter on Resources and Energy Major Projects in this edition of *Resources and Energy Quarterly* paints a similar picture of mining investment trends: while investment has fallen over the past few years, there is significant potential for a rebound in the value of committed projects from 2018 onwards.

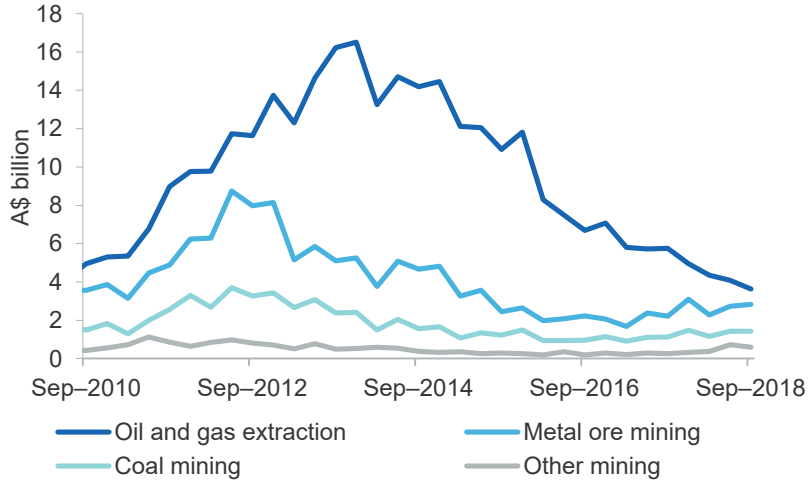
Figure 1.7: Mining industry capital expenditure, fiscal year



Notes: Chart data is in nominal terms

Source: ABS (2018) Private New Capital Expenditure and Expected Expenditure, 5625.0

Figure 1.8: Mining industry capital expenditure by commodity



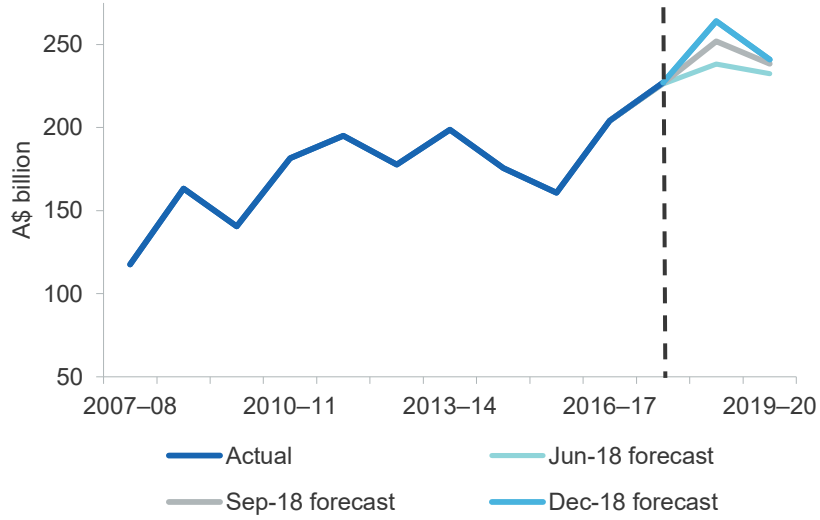
Notes: Other mining includes non-metallic mineral mining and quarrying and exploration and other mining support services; chart data is in nominal terms

Source: ABS (2018) Private New Capital Expenditure and Expected Expenditure, 5625.0

1.7 Revisions to the outlook

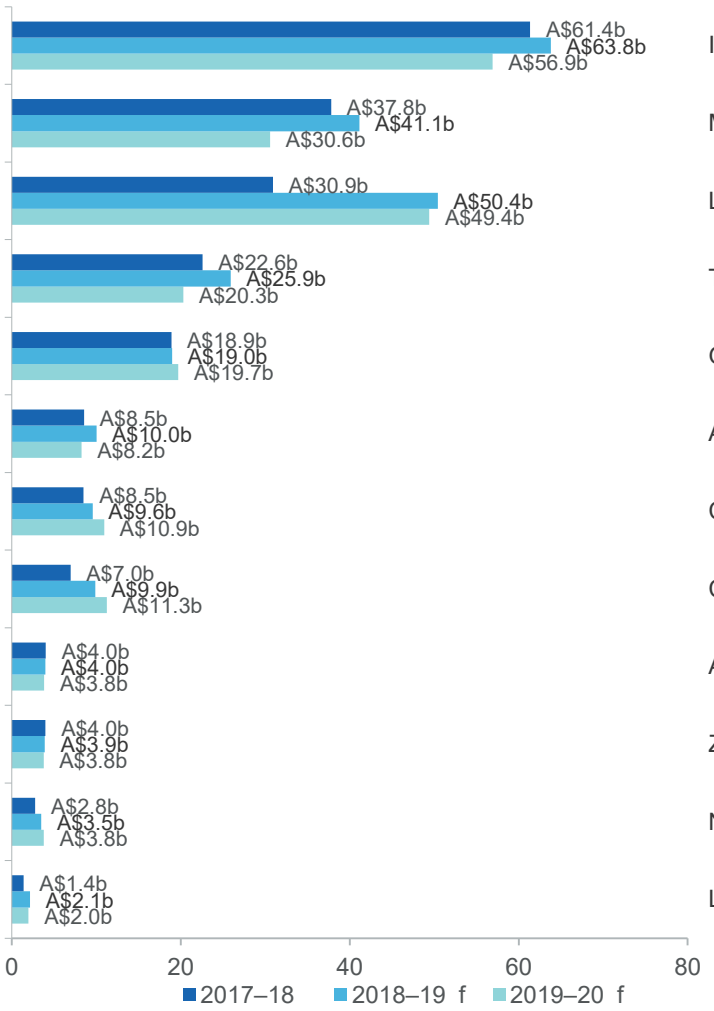
The outlook for Australia's resources and energy export earnings in 2018–19 has been revised up by around $12.1 billion from the September 2018 *Resources and Energy Quarterly*. The weaker AUD/USD factored into our forecasts is estimated to add $7.4 billion to export values, while higher-than-expected metallurgical coal and iron ore prices account for the rest of the forecast gain. The forecast for Australia's resources and energy export earnings in 2019–20 has been revised up by $2.6 billion, reflecting the weaker outlook for the AUD-USD exchange rate, particularly in the latter half of 2019.

Figure 1.9: Revisions to the outlook



Source: Department of Industry, Innovation and Science (2018)

Figure 1.10: Australia's major resource & energy commodity exports



CAGR per cent change from 2017–18

	2018–19[f]			2019–20[f]		
	volume	EUV	value	volume	EUV	value
Iron ore	→ 0	▲ 4	▲ 4	▲ 2	▼ –5	▼ –4
Metallurgical coal	▲ 4	▲ 5	▲ 9	▲ 3	▼ –13	▼ –10
LNG	▲ 21	▲ 34	▲ 63	▲ 13	▲ 12	▲ 26
Thermal coal	▲ 3	▲ 12	▲ 15	▲ 2	▼ –7	▼ –5
Gold	▼ –1	▲ 1	→ 0	▲ 2	▲ 1	▲ 2
Alumina	▼ –2	▲ 20	▲ 17	▼ –1	▼ –1	▼ –2
Copper	▲ 10	▲ 3	▲ 13	▲ 7	▲ 6	▲ 14
Crude oil	▲ 17	▲ 22	▲ 42	▲ 19	▲ 7	▲ 27
Aluminium	▼ –4	▲ 3	▼ –1	▼ –2	▼ –1	▼ –2
Zinc	▲ 25	▼ –21	▼ –2	▲ 16	▼ –16	▼ –3
Nickel	▲ 11	▲ 12	▲ 25	▲ 11	▲ 5	▲ 17
Lead	▲ 44	▲ 6	▲ 52	▲ 24	▼ –5	▲ 19

Notes: Nominal terms; per cent change is compound annual growth (CAGR) from 2017–18 to the specified year; f forecast.

Source: ABS (2018) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2018)

Table 1.1: Outlook for Australia's resources and energy exports

	Unit	2016–17	2017–18	2018–19[f]	2019–20[f]	Annual percentage change 2017–18	2018–19[f]	2019–20[f]
Resources and energy	A$m	204,130	227,130	264,001	240,956	11.3	16.3	–8.7
– real[b]	A$m	212,854	232,318	264,001	235,250	9.1	13.6	–10.9
Energy	A$m	85,328	101,957	132,399	117,037	19.5	29.9	–11.6
– real[b]	A$m	88,974	104,302	132,399	114,265	17.2	26.9	–13.7
Resources	A$m	118,802	125,138	131,603	123,919	5.3	5.2	–5.8
– real[b]	A$m	123,879	128,016	131,603	120,985	3.3	2.8	–8.1

Notes: **b** In 2018–19 Australian dollars. **f** forecast.
Source: ABS (2018) International Trade in Goods and Services, 5368.0; Department of Industry, Innovation and Science (2018)

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

	Prices				Export volumes				Export values A$b		
	Unit	2017–18	2018–19[f]	2019–20[f]	Unit	2017–18	2018–19[f]	2019–20[f]	2017–18	2018–19[f]	2019–20[f]
Iron ore	US$/t	61	57	51	Mt	849	852	879	61	64	57
Metallurgical coal	US$/t	205	191	150	Mt	179	187	190	38	41	31
LNG	A$/GJ	9.5	13	12	Mt	62	75	78	31	50	49
Thermal coal	US$/t	99	99	78	Mt	203	208	209	23	26	20
Gold	US$/oz	1,297	1,246	1,291	t	348	345	359	19	19	20
Alumina	US$/t	418	440	358	kt	17,746	17,400	17,511	8.5	10	8.2
Copper	US$/t	6,746	6,166	6,959	Kt	894	979	1,030	8.5	10	11
Crude oil[a]	US$/bbl	64	74	72	Kb/d	226	264	319	7.0	9.9	11
Aluminium	US$/t	2,133	2,057	2,099	Kt	1,431	1,372	1,383	4.0	4.0	3.8
Zinc	US$/t	3,183	2,745	2,700	Kt	1,164	1,456	1,565	4.0	3.9	3.8
Nickel	US$/t	12,466	13,667	13,875	Kt	196	218	240	2.8	3.5	3.8
Lithium	US$/t	795	837	780	Kt	1124	1347	1529	0.9	1.1	1.2
Uranium	US$/lb	21	27	28	t	8,118	6,743	7,240	0.6	0.7	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 (2018) 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 (2018)