Gold

Resources and Energy Quarterly June 2017

290 tonnes

of gold produced by Australia in 2016–17

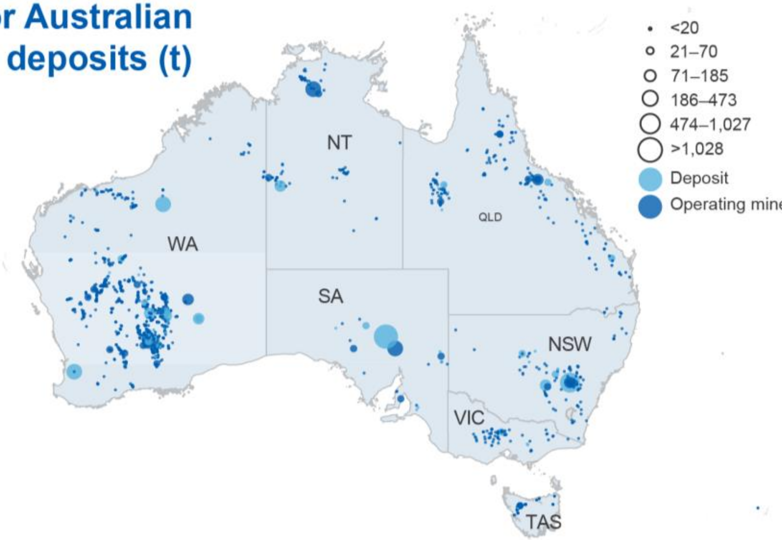
8.9%

of world mine gold supplied by Australia in 2016–17

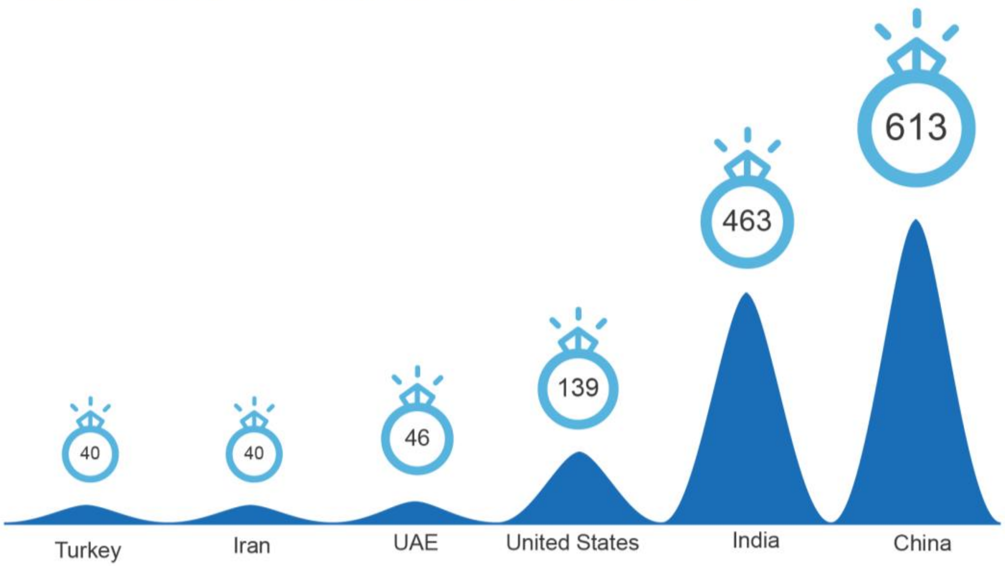
world record find

Australia holds the record for the world's largest gold nugget weighing 72 kg, found in Victoria in 1869

Major Australian gold deposits (t)



Key jewellery consumer markets (tonnes)



Global uses of gold

47% jewellery

24% gold coins and bars

12% gold backed Exchange Traded Funds

8.7% Central Bank Reserves

7.1% electronics and Industrial

0.4% dental and medical

Market summary

The gold price is forecast to average US$1,254 a troy ounce in 2017 — revised higher from the March *Resources and Energy Quarterly,* due to larger than expected safe-haven demand and a weaker than expected US dollar over much of 2017. Australian dollar gold prices have continued to rise in 2017, favouring local producers. Australian production was lower than expected in the March quarter, as heavy rainfall interrupted several mine operations. However, forecasts for export volumes remain mostly unchanged from the March 2017 *Resources and Energy Quarterly,* while export values have been revised higher, due to higher than expected world gold prices. Australia's exports of gold are forecast to stay relatively unchanged at 334 tonnes in 2018–19, worth over $17 billion.

Prices

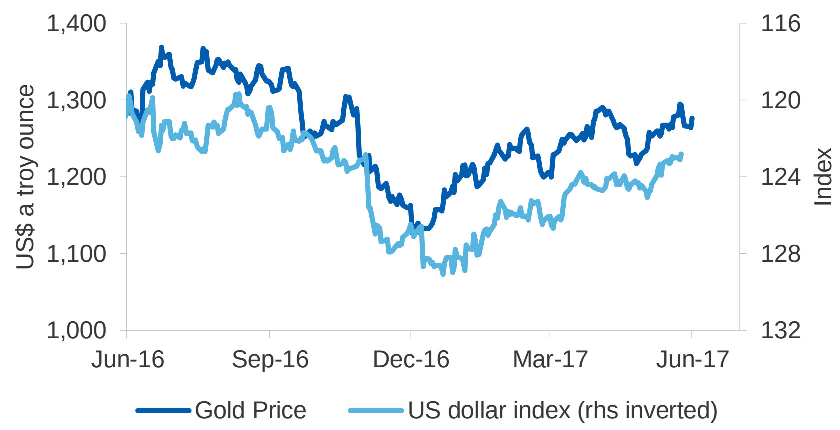
Gold prices rose steadily in first half of 2017

The London Bullion Market Association (LBMA) gold price increased by 9.1 per cent between January and June this year, to average US$1,238 a troy ounce. The rise in gold prices was supported by a weaker than expected US dollar, low real US treasury yields, and geo-political concerns.

Several events over the first half of 2017 have been supportive of gold as a safe haven asset. US and Russian relations came under pressure in late March, due to greater US involvement in the Syrian conflict. Gold prices rallied in late March, reaching a year-to-date peak of $1,290 per ounce in mid-April. Further uncertainty was caused by the French Presidential election, as well as by heightened tensions on the Korean peninsula.

Investor demand was flat in the June quarter, as political concerns were offset by anticipation of tighter monetary policy by the US Federal Reserve — which raised the target range for the Fed Funds rate by 25 basis points up to 1–1.25 per cent in June. US official interest rates are expected to rise further this year, which will improve the yield on US securities and tend to put downward pressure on gold prices. When real yields rise, investors prefer to hold US Treasuries — which offer a higher near default-free risk return— and the opportunity cost of holding gold rises.

Figure 10.1: Gold prices and the US dollar



Source: LBMA (2017) Gold Price PM; Thompson Reuters (2017) US dollar index

Notes: The US dollar index is a weighted average of the foreign exchange value of the US dollar against the currencies of a broad group of major US trading partners

Figure 10.2: Gold prices and US Treasury Yields

Source: LBMA (2017) Gold Price PM; Thompson Reuters (2017) US Treasury Income Protected Securities 10 year yield

Gold prices have been higher than forecast in the March *Resources and Energy Quarterly*. The average gold price in 2017 has been revised higher, to account for a weaker than expected US dollar and ongoing political concerns; gold is forecast to average US$1,254 a troy ounce. The gold price is forecast to decrease by 3.9 per cent in 2018 to average US$1,205 per troy ounce, as higher real bond yields and a forecast appreciation in the US dollar weigh on gold prices.

World consumption

Global gold consumption declined by 18 per cent year-on-year in the March quarter, falling from a historically high March quarter 2016. The decline was due to lower central bank purchases and investor demand. World consumption is forecast to increase by 1.8 per cent in 2018, to 2,484 tonnes. The consumption figure is lower than forecast in the March *Resources and Energy Quarterly*, due to data revisions.

Jewellery consumption improves in the March quarter

Gold jewellery consumption had a positive start to the year, and was up by 1.6 per cent year-on-year in the March quarter. The modest rise was led by India, where higher sales in the run up to the March wedding season were boosted by favourable currency movements. India's gold industry continues to recover from the demonetisation of high-value Indian currency notes and weak rural incomes, which led to historically low gold sales in 2016.

Jewellery consumption — which accounts for 80 per cent of total fabricated demand — is expected to increase over the outlook period. However, gold sales in India will likely be restrained by the introduction of a goods and services tax, that came into effect on 1 July. Continued economic growth in India and China — the world's two major jewellery markets — will support higher discretionary spending on gold. Jewellery consumption is forecast to increase by 3.5 per cent, in 2017.

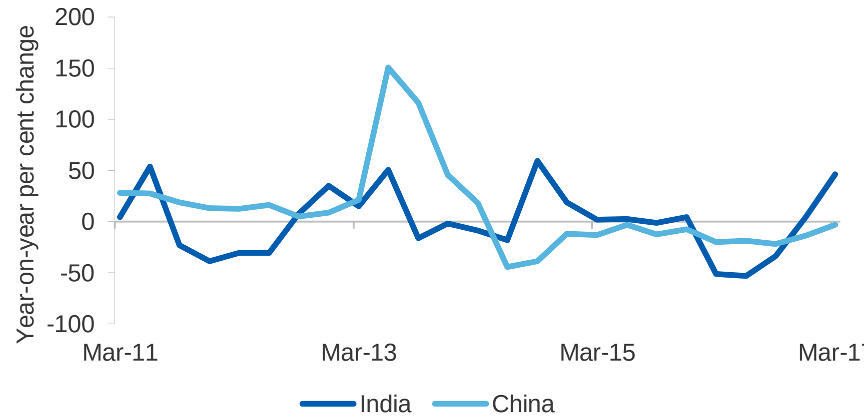
Gold consumption in electronics increased by 3.7 per cent year-on-year in the March quarter. The growth in electronics consumption has been driven by wireless technology used in smartphones, as well as demand for gold bonding wire. Gold used in electronics is forecast to increase by 2.2 per cent in 2017 to 261 tonnes.

Investor demand falls as further US rate increases remain key headwind

Investment demand increased in the March quarter, but was 34 per cent lower year-on-year. Demand for bullion-backed Exchange Traded Funds (ETFs) increased by 109 tonnes in March 2017 quarter. ETF holdings are expected to decline slightly over the next two years, as US interest rates are expected to rise to 2.0 per cent by the end of 2018, putting downward pressure on gold prices.

Central bank demand for gold declined by 27 per cent in the year to the March quarter. China's central bank — one of the world's largest purchasers in recent times — has been noticeably absent from the market since late last year. Russia continues to add gold to its foreign reserves, as the relatively low Ruble provides an opportune moment to buy from domestic producers. Central bank demand is expected to taper off over the outlook period, as Chinese and Russian demand slows.

Figure 10.3: Gold jewellery consumption in India and China



Source: Thompson Reuters (2017) quarterly jewellery consumption

World production

Mine production remains steady while recycling falls

Total gold supply decreased by 12 per cent year-on-year in the March quarter 2017. World mine production was virtually unchanged, while recycled supply fell by 21 per cent year-on-year. World mine production is forecast to increase by 1.5 per cent in 2017 to 3,305 tonnes. Looking further out, world mine production is expected to plateau over the next three years. Maintaining the current level of world supply will depend on new projects reaching commercial production.

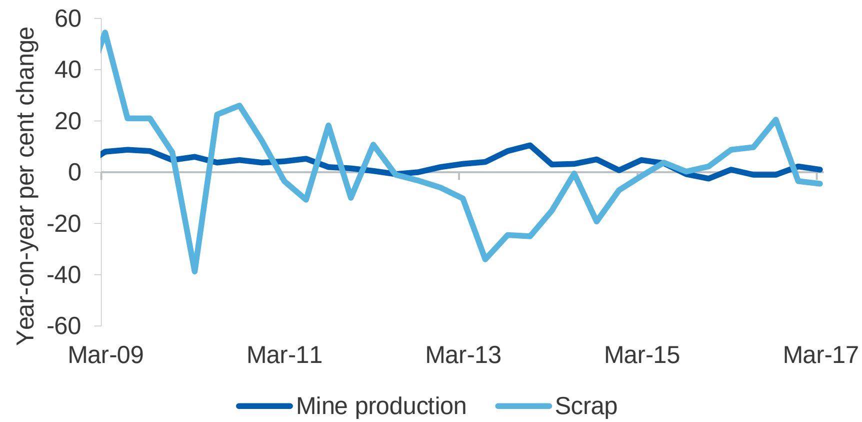
In the March quarter, world mine production benefited from several new projects in the US and Suriname, which offset a large decline of 8 tonnes from Grasberg in Indonesia. Production at Grasberg was impacted adversely by restrictions on the export of unrefined metal. Newmont's Merian operations in Suriname, which commenced production late last year, remains on track to achieve company guidance of around 15 tonnes in 2017.

World mine supply is forecast to increase by 2.3 per cent in 2018 to 3,380 tonnes, and reach a peak of 3,414 tonnes in 2019. Several new projects are expected to add up to 50 tonnes to world mine supply in 2017 — contributed mostly by new gold projects in Canada. Looking further out, an additional 75 tonnes is expected to be added to world mine supply in 2018, and a further 34 tonnes in 2019. Much of the expected additional supply comes from new projects, with only a small number of expansion projects in the pipeline.

Lower start to the year for recycled supply

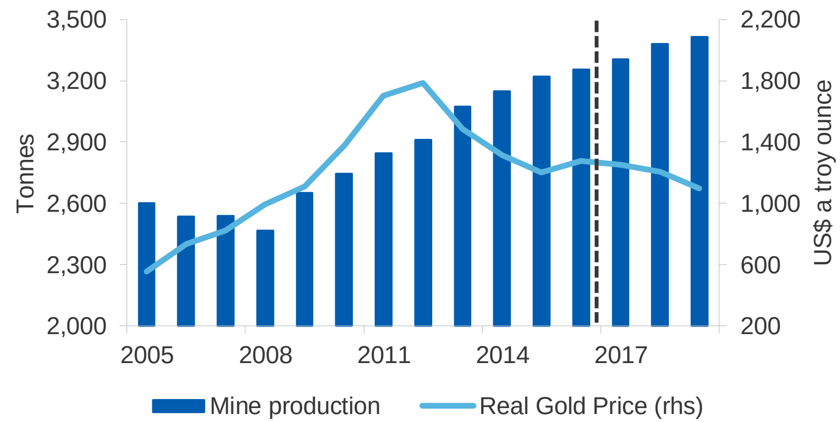
World recycled supply declined by 21 per cent year-on-year in the first quarter of 2017 to 283 tonnes. The decline is largely due to the exceptional start to 2016, when rising gold prices encouraged greater recycled supply. Recycled supply is expected to contribute 1,243 tonnes to world supply in 2017, and to increase by 1.5 per cent to 1,266 tonnes in 2018.

Figure 10.4: Growth in world gold supply



Source: Thompson Reuters (2017)

Figure 10.5: World mine supply and real gold price



Source: Thompson Reuters (2017); Department of Industry, Innovation and Science (2017)

Australia's production and exports

Exploration expenditure continues to improve

Australia's gold exploration expenditure increased by 30 per cent year-on-year to $155 million in the March quarter 2017. Expenditure on gold exploration projects accounted for 46 per cent of Australia's total minerals exploration expenditure in the March quarter. Gold exploration expenditure was supported by higher world gold prices and the favourable exchange rate. Western Australia remains the largest centre of gold exploration activity in Australia, attracting 75 per cent of total national gold exploration expenditure.

Wet weather dampens production in the first quarter

The estimate for Australia's gold mine production in 2016–17 has been revised lower, due to worse-than-expected production in the March quarter. Australia's gold mine production is estimated to have increased by 0.7 per cent in 2016–17 to 287 tonnes. The forecast for mine production in 2017–18 remains at 304 tonnes.

Australia's gold production decreased by 1.3 per cent year-on-year in the March quarter 2017. The decline in production was due to heavy rainfall disrupting operations at several mines in the northern region of Western Australia and parts of the Northern Territory. Record rainfall during January restricted operations at Newcrest's Telfer mine, where production fell 32 per cent quarter-on-quarter. Production at Newmont's Tanami mine also declined due to wet weather, however, expansionary work on the mine is expected to maintain annual gold production at around 14 tonnes over the next five years.

Production at Newcrest's Cadia Valley was 14 per cent less than previously forecast — falling to 5.2 tonnes in the March quarter — as work was done to proactively manage cave draw and optimise the cave shape. Newcrest's guidance for Cadia Valley remains unchanged at 23 – 26 tonnes in 2016–17.

Production at Newmont's Boddington mine — Australia's largest gold mine — increased by 7 per cent year-on-year to 6.3 tonnes in March, as higher ore grades offset lower mill throughput and recovery. Fosterville — which is Victoria's largest gold mine — increased production by 54 per cent year-on-year in the March quarter, and is expected produce over 6 tonnes in 2017.

Export volumes expected to peak in 2018–19

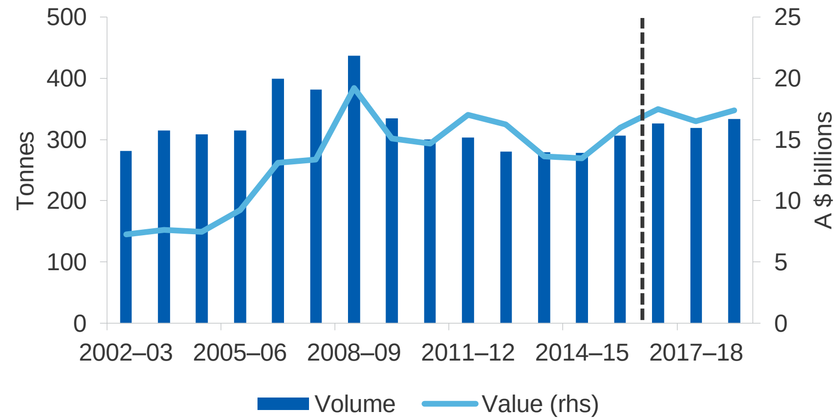
In 2017–18, export volumes are forecast to decline by 2.1 per cent to 319 tonnes. The decline in 2017–18 is from an exceptionally high 2016–17, which benefited from unexpectedly high imported doré (to be refined in Australia) in the September quarter 2016. Export volumes are estimated to be 326 tonnes in 2016–17.

In 2018–19, export volumes are forecast to increase by 4.5 per cent and reach a peak of 334 tonnes, due to higher domestic production.

In real terms, the value of Australia's gold exports is forecast to total $16.5 billion in 2017–18 and $17 billion in 2018–19, with higher production forecast to offset the impact of lower gold prices.

The value of Australia's gold exports increased by 8.0 per cent year-on-year to $3.9 billion in the March quarter of 2017. The increase was due to higher production and higher domestic gold prices. Export volumes increased by 7.9 per cent over the same period, to 75 tonnes.

Figure 10.6: Australia's gold exports



Source: ABS (2017) International Trade, 5464.0; Department of Industry, Innovation and Science (2017)

Table 10.1 Gold outlook

						Annual percentage change		
World	**Unit**	**2016**	**2017 f**	**2018 f**	**2019 f**	**2017 f**	**2018 f**	**2019 f**
Total demand	t	4,315	4,155	3,913	3,832	-3.7	-5.8	-2.1
– Fabrication consumption b	t	2,364	2,440	2,484	2,493	3.2	1.8	0.4
Mine production	t	3,255	3,305	3,380	3,414	1.5	2.3	1.0
Price c								
– Nominal	US$/oz	1,248	1,254	1,234	1,148	0.4	-1.6	-6.9
– Real d	US$/oz	1,276	1,254	1,205	1,096	-1.8	-3.9	-9.0
Australia	**Unit**	**2015–16**	**2016–17 s**	**2017–18 f**	**2018–19 f**	**2016–17 s**	**2017–18 f**	**2018–19 f**
Mine Production	t	285	287	304	318	0.8	5.9	4.5
Export volume	t	306	326	319	334	6.4	-2.1	4.5
– Nominal value	A$m	15,687	17,467	16,858	18,129	11.3	-3.5	7.5
– Real value e	A$m	15,961	17,467	16,503	17,366	9.4	-5.5	5.2
Price								
– Nominal	US$/oz	1,602	1,709	1,642	1,690	6.7	-3.9	2.9
– Real e	US$/oz	1,630	1,709	1,607	1,618	4.8	-5.9	0.7

*Notes: **b** Includes jewellery consumption and industrial applications; **c** London Bullion Market Association PM price; **d** In 2017 calendar year US dollars; **e** In 2016–17 financial year Australian dollars; **f** Forecast; **s** estimate.*

Source: ABS (2017) International Trade, 5465.0; London Bullion Market Association (2017) gold price PM; World Gold Council (2017); Department of Industry, Innovation and Science.