Gold

Resources and Energy Quarterly June 2018

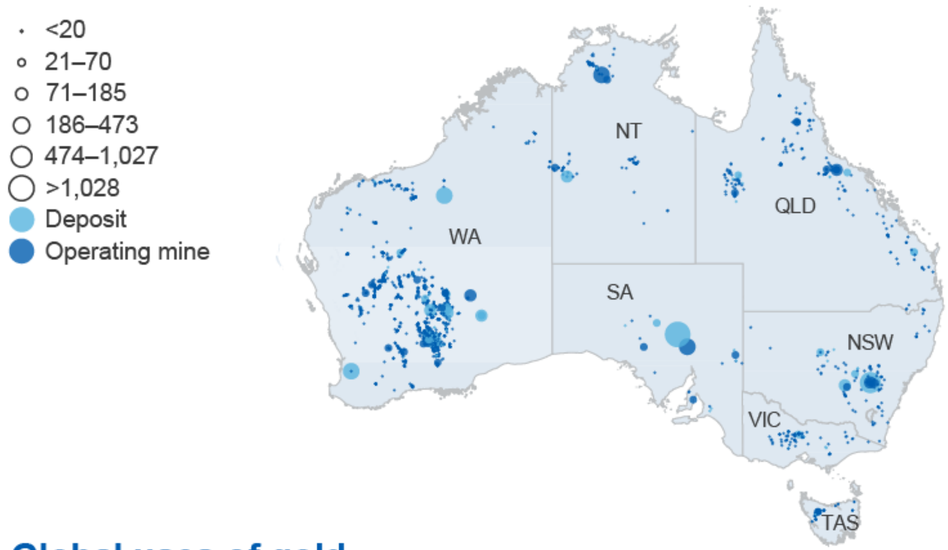
Australia is the **2nd largest** producer of gold in the world

288 tonnes
of gold produced by Australia in 2016–17

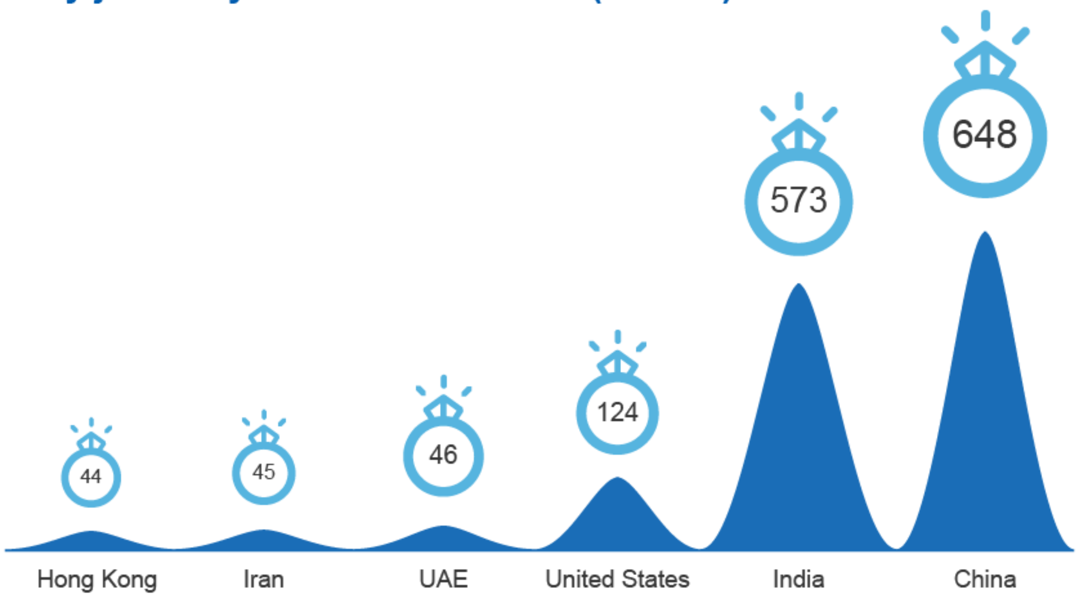
8.9%
of world mine gold supplied by Australia in 2016–17

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

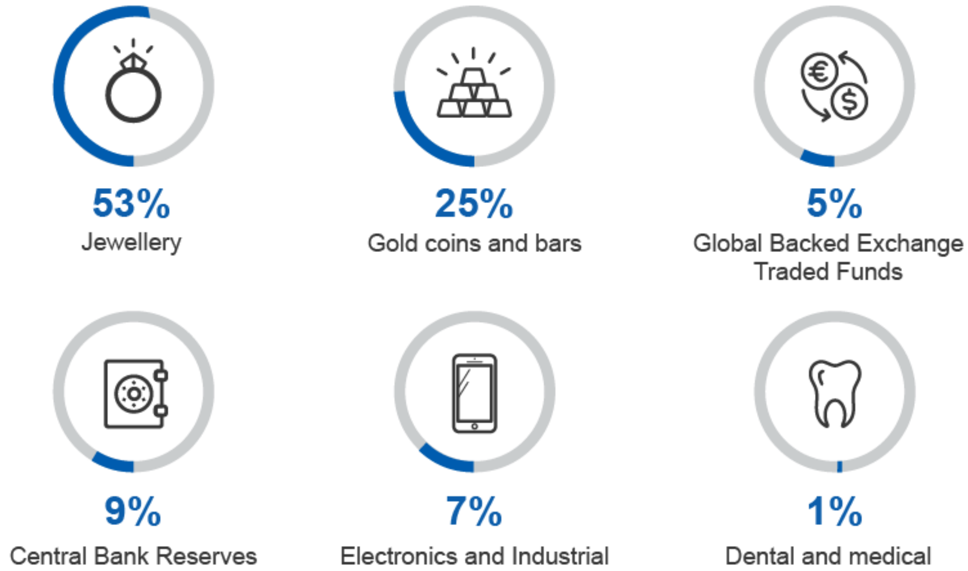
Major Australian gold deposits (t)



Key jewellery consumer markets (tonnes)



Global uses of gold



10.1 Market summary

- Geopolitical risks and trade tensions are likely to push gold prices up to an average of US$1,380 an ounce in 2019.
- The value of Australia's gold exports is forecast to grow through the outlook period, reaching a peak of $20 billion in 2019–20, propelled by increased production and export volumes (356 tonnes).
- However, a rising US dollar will limit the upside for the price of gold.

10.2 Prices

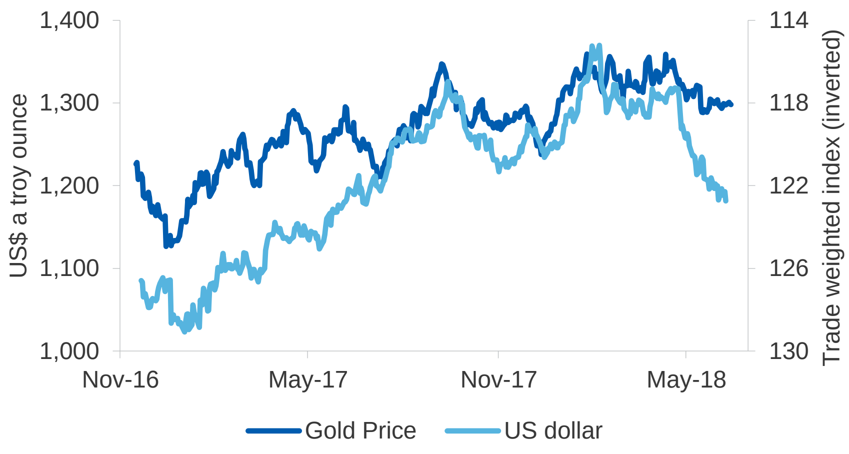
Gold prices rose steadily in first half of 2018

The gold price has recently dropped below the US$1,310–1,360 an ounce range traded since the early days of 2018. Gold had been supported by the weaker US dollar and rising US-China trade tensions. The scepticism of investors towards equities — following successive all-time highs and two sell-offs in early February and late March 2018 — was also a supporting factor. However, recent demand for gold has been constrained by strong economic growth across the major economies and the continued preference for equities by some investors. Rising US 10–year Treasury bond yields have also hurt gold, as has some easing in geopolitical tensions between the US and North Korea.

Gold continues to perform well in the short-term

Gold is expected to perform well in the second half of 2018 and the subsequent two years, as political uncertainty drives investment in bars and bullion-backed investment funds. Trade tensions between the US and China are expected to continue through to 2019, and possibly 2020. Geopolitical tensions in the Middle East — linked to the Gaza conflict, Syria's civil war and the possible failure of the Joint Comprehensive Plan of Action (JCPA) relating to Iran's nuclear materials programme — are yet another source of upside for gold. Any sustained overheating in the US economy would likely see inflation rise and gold demand rise, as investors seek an inflation hedge. Rising inflation would likely also push US Treasury bond prices down. Gold is likely to benefit in the short run, with

Figure 10.1: Gold price and US dollar



Source: LBMA (2018) Gold price PM; Thompson Reuters (2018) USD Trade Weighted Index.

the price likely to increase by around 8 per cent in 2018, to average US$1,352 an ounce. The price should rise to an average US$1,380 an ounce in 2019. Steadier US bond prices are forecast to cause the gold price to fall back in 2020, declining by 4.4 per cent to average US$1,320 an ounce.

10.3 Consumption

World gold consumption declined in the March quarter 2018

World gold demand fell by 7 per cent in the March quarter 2018 — the largest first quarter fall since 2008 — as gold prices stagnated, and the threat of rising interest rates led investors to seek higher returns elsewhere. Demand for bars and coins decreased by 14 per cent, driven by lower purchases in China, Germany and the US, where high equity valuations and strong economic growth dampened demand for gold.

Exchange traded funds (ETFs) holdings of gold dropped by 66 per cent year-on-year to 32 tonnes, from 96 tonnes in the March quarter 2017.

Jewellery fabrication declined by 2 per cent year-on-year, driven by weaker consumption in India.

Offsetting India's falling demand was a 7 per cent year-on-year rise in China's jewellery demand — its highest growth in three years. Demand from the official sector rose by 41 per cent year-on-year, to 116 tonnes in the March quarter 2018. Russia, Turkey and Kazakhstan accounted for the bulk of the reminder of the increase. Technology — a growing source of gold demand — also contributed through greater usage in electronic applications such as bonding wire and wireless chips.

World consumption forecasts to increase from 2018 to 2020

World gold consumption is forecast to increase at an average annual growth rate of 2 per cent from 2018 through to 2020, reaching 4,369 tonnes in 2020. The growth is expected to be largely driven by higher jewellery consumption from China and India.

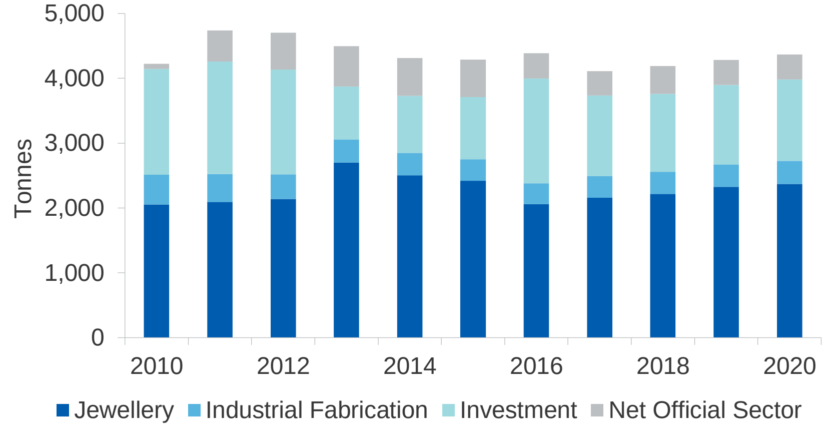
Chinese jewellery demand is forecast to grow at an average annual rate of 3.5 per cent, driven by new designs and gifting occasions rather than the bargain hunting that fuelled the spike in demand in 2013. In India, a strong demand growth forecast is propelled by robust economic growth, improved consumer sentiment and, paradoxically, rising gold prices.

Growth in global gold consumption is also expected to be driven by rising industrial demand and official sector purchases. Gold has long been central to innovations in electronics and can be used to create conducting plastics and specialised pigments. Electronics consumption rose 4.6 per cent year-on-year in the March quarter 2018, and is forecast to continue to grow over the rest of the outlook period.

The official or government sector is expected to remain a net buyer throughout the forecast period. The need to diversify central bank reserves is the key driver of many central banks' growing appetite towards gold.

Ongoing geopolitical risks are also providing support to higher demand. These centre on the Middle East, where a deterioration in US–Iran relations could spark a new tussle between the two countries.

Figure 10.2: World gold consumption



Source: World Gold Council (2018) Demand Trends; Department of Industry, Innovation and Science (2018)

10.4 Production

World gold supply rose by 3.1 per cent in the March quarter 2018, to 1,064 tonnes, mainly driven by an increase in world mine production. The new capacity additions in Russia and Africa offset the reduction in output from China. Lower output from China — the world's largest producer — reflects the impact of tighter environmental regulations, which led to the closure of several mines in early 2018. In Russia, Nordgold has produced the first gold from its 7.5 tonnes per annum Gross mine. In Burkina Faso, Endeavour Mining's 8.1 tonnes per annum Hounde mine also commenced production in the March quarter 2018.

The Lihir mine in Papua New Guinea (PNG) — Newcrest's biggest gold mine — has struggled to achieve its potential since being acquired in 2010, with regular failures and breakdowns within its ore processing plant. However, such breakdowns have been less common in recent years. Lihir produced 7.3 tonnes of gold in the March quarter 2018, and is well-placed to sustain annual gold production at about 31 tonnes in the next few years.

Figure 10.3: World gold production

Source: World Gold Council (2018) Supply Trends; Department of Industry, Innovation and Science (2018)

World gold production expected to rise in 2018 and 2019

World gold production is forecast to increase at an average annual growth rate of 2.1 per cent in 2018 and 2019 — reaching 4,631 tonnes in 2019 — before declining in 2020, to 4,530 tonnes. Supply growth in 2018 and 2019 is expected to be mainly driven by stronger scrap gold supply.

Global mine production is forecast to increase slightly in 2018, up 0.8 per cent from the previous year. Gains in Canada, Indonesia and Russia will be offset by falls elsewhere. In Canada, the ramp-up of Brucejack, Rainy River, Hope Bay and Moose River projects continues to drive growth. Production is forecast to rise by 21 tonnes in 2018. In Indonesia, the labour disputes and ore export ban have been resolved, and the final high grade phase of the Grasberg open-pit will support production growth. Chinese gold production is expected to continue to fall, as the Environmental Protection Tax Law takes full effect. Gold producers in South Africa are also facing cost pressures, leading to the closure of operations in Tau Tona, Savuka and Cooke.

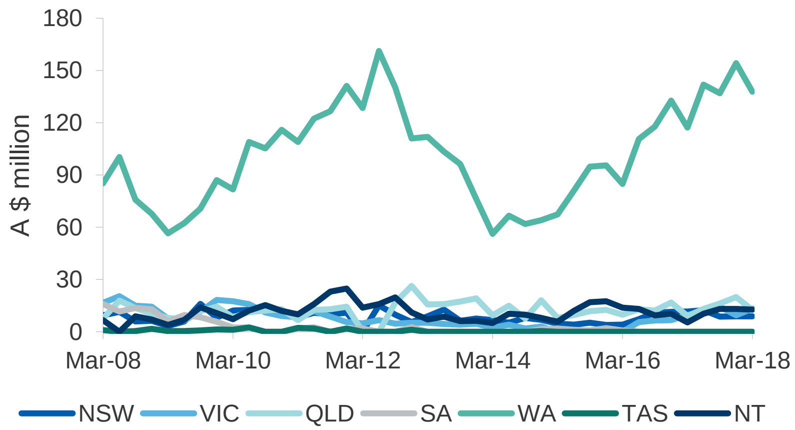
World mine production is forecast to reach a peak of 3,409 tonnes in 2019, but decline slightly in 2020, to 3,397 tonnes. Several new projects and expansions in Russia and Canada are expected to support higher mine supply in 2019, more than offsetting declining supply from the United States and Peru. Production in Canada is forecast to rise by 11 tonnes year-on-year in 2019. In contrast, gold production in the United States reached a ten-year high in 2017 of 246 tonnes, and is forecast to decline over the short and medium term, as long established mines reach the end of their production life. Russia's Natalka project is expected to reach full capacity in 2018 and produce 15 tonnes per year.

10.5 Australia

Exploration expenditure continues to increase in trend terms

Australia's gold exploration expenditure rose by 21 per cent year-on-year in the March quarter 2018, to $187 million, likely driven by higher gold prices in 2017. Western Australia remained the centre of gold exploration activity in Australia, accounting for 74 per cent (or 138 million) of total gold exploration expenditure.

Figure 10.4: Australia's gold exploration



Source: ABS (2018) Mineral and Petroleum Exploration (cat. no. 8412.0)

Australian gold production increased in the March quarter 2018

Australia's gold production increased by 8.2 per cent year-on-year in the March quarter 2018, to 74 tonnes, propelled by improved production in several large gold mines in Western Australia. AngloGold Ashanti's Sunrise Dam production increased by 46 per cent year-on-year, to 2.6 tonnes. Newmont's Tanami production rose by 57 per cent year-on-year, to 3.6 tonnes, driven by higher throughput and ore grade milled.

However, production at Newcrest's Cadia mine decreased by 15 per cent year-on-year in the March quarter 2018, to 4.4 tonnes, as one of the mine's two tailings dams suffered a wall slide on 9 March 2018. In April 2018, the company received approval from the NSW Department of Planning and Environment to use an old, nearby mine pit as a temporary tailings dam. Newcrest will forego up to 3 million ounces of unmined gold as part of its plan to deal with the tailings dam breach. The mine is expected to return to full production soon.

Newmont's Boddington gold mine production decreased by 19 per cent year-on-year in the March quarter 2018, to 5.1 tonnes, due to lower ore grades and lower recoveries.

Australian gold production forecast to grow in the short term

Australian gold production is estimated to have grown by 5.3 per cent in 2017–18. Production is forecast to grow by 3.7 per cent in 2018–19, and by 2.5 per cent in 2019–20 to reach 322 tonnes. The growth is driven by new mines expected to come online over the forecast period. Dacian's Mt Morgans poured first gold in March 2018 after an 11 month construction period. The mine is forecast to add at least 6 tonnes of gold to Australia's annual gold production. Gascoyne Resources's 3 tonnes per annum Dalgaranga mine produced its first gold at the end of May 2018. In addition, Gold Roads' Gruyere gold mine (annual production of 7 tonnes) is expected to come online in early 2019. While the Super Pit gold mine produced 5.3 tonnes of gold in the March quarter 2018, a rock fall incident in mid-May 2018 is estimated to have reduced the mine's production in the June quarter 2018.

Australian gold exports increased strongly in the March quarter 2018

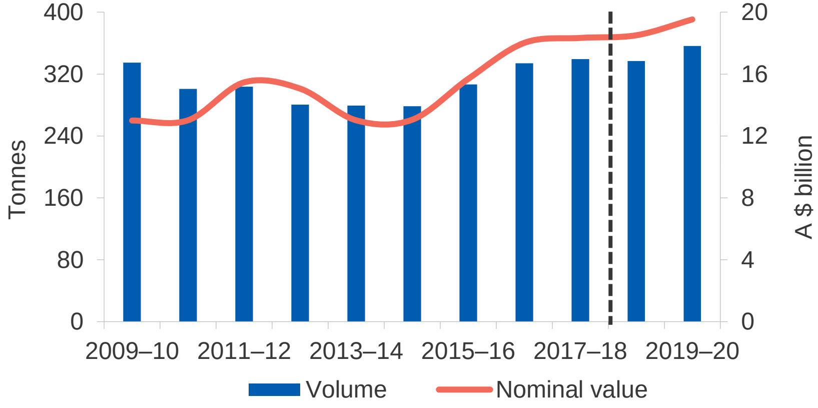
Australia's gold export earnings increased by 39 per cent year-on-year in the March quarter 2018 to $5.4 billion, propelled by higher production and export volumes. Over this period, export volumes rose by 32 per cent to 99 tonnes. The very large jump in exports was driven by increased local mine production and increased imports of gold dore from Papua New Guinea for refining — the Ok Tedi mine in PNG is ramping up production, which is shipped to Perth Mint for further processing and re-export.

Exports forecast to continue to grow until 2019–20

Australia's gold exports are forecast to grow through the outlook period, to a peak of $20 billion in 2019–20. This growth reflects expected rises in local gold production and export volumes.

The risk to this assessment is an upward movement in gold prices, due to geopolitical tensions in the Middle East, and political uncertainty in Europe. Similar events in the past have often led to greater demand for safe haven assets such as gold.

Figure 10.5: Australia's gold exports



Source: ABS (2018) International Trade, 5464.0; Department of Industry, Innovation and Science (2018)

Table 10.1: Gold outlook

						Annual percentage change		
World	**Unit**	**2017**	**2018[s]**	**2019[f]**	**2020[f]**	**2018[s]**	**2019[f]**	**2020[f]**
Total demand	t	4,109	4,192	4,286	4,369	2.0	2.2	1.9
Fabrication consumption[b]	t	2,493	2,556	2,671	2,725	2.5	4.5	2.0
Mine production	t	3,298	3,324	3,409	3,397	0.8	2.6	–0.4
Price[c]								
Nominal	US$/oz	1,257	1,352	1,380	1,320	7.6	2.1	–4.4
Real[d]	US$/oz	1,287	1,352	1,351	1,268	5.1	–0.1	–6.1
Australia	**Unit**	**2016–17**	**2017–18[s]**	**2018–19[f]**	**2019–20[f]**	**2017–18[s]**	**2018–19[f]**	**2019–20[f]**
Mine production	T	288	303	314	322	5.3	3.7	2.5
Export volume	T	334	339	337	356	1.6	–0.7	5.8
Nominal value	A$m	18,013	18,330	18,505	19,528	1.8	1.0	5.5
Real value[e]	A$m	18,366	18,330	18,081	18,641	–0.2	–1.4	3.1
Price								
Nominal	A$/oz	1,720	1,665	1,709	1,705	–3.2	2.6	–0.2
Real[e]	A$/oz	1,754	1,665	1,670	1,627	–5.0	0.3	–2.5

Notes: **b** includes jewellery consumption and industrial applications; **c** London Bullion Market Association PM price; **d** In 2018 calendar year US dollars; **e** In 2017–18 financial year Australian dollars; **f** Forecast; **s** Estimate.

Source: ABS (2018) International Trade, 5465.0; London Bullion Market Association (2018) gold price PM; World Gold Council (2018); Department of Industry, Innovation and Science (2018)