Embargo: Not for release before 11 August 2016, 05.00 hrs BST

Gold Demand Trends
Second quarter 2016

August 2016

Key changes

Tonnes	Q2 2016 Year-on-year	Year-to-date
Gold demand	↑ **15%**	↑ **18%**
Jewellery	↓ -14%	↓ -17%
Technology	↓ -3%	↓ -3%
Investment	↑ 141%	↑ 127%
Central banks and other institutions	↓ -40%	↓ -23%
Supply	↑ **10%**	↑ **8%**

Source: Metals Focus; World Gold Council

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Second highest H1 for gold demand on record

Gold demand in Q2 followed the trends from the prior quarter: huge ETF inflows counterbalanced by anaemic jewellery demand amid rising prices. Investment was the largest component of gold demand for two consecutive quarters – the first time this has ever happened.

Key themes (more detail pages 2-7)

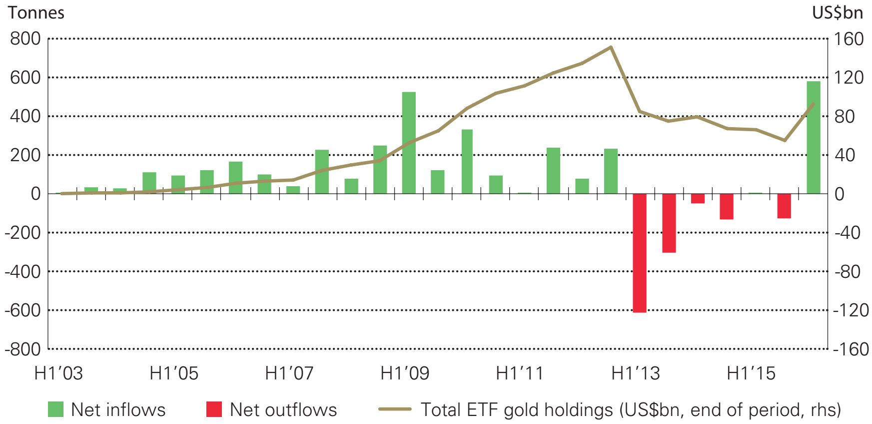
Record H1 investment – 16% higher than H1 2009: US and European investors clamoured for gold bars, coins and especially ETFs.

Gold price continued its climb: the US$ gold price rose 25% – the best H1 since 1980 – albeit with a few dips along the way.

Jewellery depressed: barring a few exceptions, conditions were unfavourable for consumers in most markets.

Featured chart

H1 2016 inflows into gold-backed ETFs were the strongest on record



Note: For monthly summary data and charts of gold-backed ETF holdings, please visit: http://www.gold.org/statistics

Source: Respective ETP providers; ICE Benchmarks Administration; World Gold Council

Key themes

Record H1 for gold investment

Investment demand of 1,064 tonnes (t) accounted for almost half of overall gold demand during the first six months of 2016. Western investors generated the bulk of this investment.

Investment has witnessed exceptional growth this year: record H1 demand of 1,063.9t is 16% higher than the previous H1 high from 2009, when the market was in the midst of the global financial crisis. Consequently, for the first time on record, investment has been the largest component of gold demand for two consecutive quarters. And this has been in no small part due to demand from Western investors across the spectrum, from retail to institutional and for bars, coins and ETFs.

Table 1: Data highlights for Q2 2016 demand (see *Gold demand statistics* for full details)

	Tonnes				US$mn			
	Q2'15	Q2'16	5-year average	Year-on-year change	Q2'15	Q2 '16	5-year average	Year-on-year change
Demand								
Gold demand	910.4	1,050.2	1,123.4	↑ 15%	34,899.4	42,530.6	51,076.4	↑ 22%
Jewellery	513.7	444.1	584.4	↓ -14%	19,691.7	17,983.1	26,194.8	↓ -9%
Technology	83.3	80.9	90.8	↓ -3%	3,194.1	3,276.1	4,146.2	↑ 3%
Investment	186.1	448.4	308.6	↑ 141%	7,134.5	18,157.5	14,437.6	↑ 155%
Total bar and coin	209.1	211.6	323.0	↑ 1%	8,017.4	8,569.4	14,867.4	↑ 7%
ETFs and similar products	-23.0	236.8	-14.4	- -	-883.0	9,588.1	-429.8	- -
Central banks and other institutions	127.3	76.9	139.5	↓ -40%	4,879.1	3,114.0	6,297.8	↓ -36%
Consumer demand in selected markets								
India	159.8	131.0	218.7	↓ -18%	6,127.2	5,304.7	9,942.1	↓ -13%
China	214.1	183.7	251.3	↓ -14%	8,208.7	7,439.5	11,282.1	↓ -9%
Middle East	72.2	57.4	79.1	↓ -20%	2,767.5	2,326.4	3,573.3	↓ -16%
United States	38.0	50.7	45.2	↑ 33%	1,455.5	2,052.1	2,043.2	↑ 41%
Europe ex CIS	59.8	59.3	81.4	↓ -1%	2,291.1	2,401.2	3,724.7	↑ 5%
Supply								
Total supply	1,041.7	1,144.6	1,115.6	↑ 10%	39,935.2	46,354.0	50,482.2	↑ 16%
Total mine supply	774.4	816.9	770.2	↑ 5%	29,685.8	33,083.7	34,481.1	↑ 11%
Recycled gold	267.4	327.7	345.5	↑ 23%	10,249.4	13,270.3	16,001.1	↑ 29%
Gold price								
LBMA Gold Price (US$/oz)	1,192.4	1,259.6	-	↑ 6%	-	-	-	-

Source: Metals Focus; GFMS, Thomson Reuters; ICE Benchmark Administration; World Gold Council

The speed of the upswing in investment was in no small part due to the scale of pent-up demand that had built in Western markets. We noted this phenomenon in *Gold Demand Trends Q1 2016*, commenting that '*… inflows are from investors initiating or rebuilding strategic, long-term holdings after the wash-out of positions since early 2013. … latent demand among investors who have been looking for an opportunity to re-enter the market was a key factor* [driving ETF demand].' And the trend continued in the second quarter. Investors who had been awaiting a catalyst to enter (or re-enter) the market found they had reason enough to do so.

A number of factors turned the attention of the western investor community towards gold in the opening months of the year…and brought it even more sharply into focus in the second quarter. Global monetary policy remained front and centre. Negative interest rate policies (NIRP) in Japan and Europe, combined with expectations of a slowdown in the cycle of US rate hikes, underpinned investors' gold-positive sentiment, as did a growing optimism that gold's long term downtrend had come to an end. Heightened uncertainty has further focussed their minds.

2016 has unleashed a variety of events creating economic and political uncertainty, compounded by NIRP and further highlighting gold's role as a high-quality, liquid asset. The US election, the UK referendum on EU membership and possible implications of the 'Brexit' outcome, the increasingly parlous state of Italy's banking sector; these have proved a potent combination as far as gold investors are concerned. Add to that continued geopolitical unrest in the Middle East and the investment case for gold was cemented.

Smaller-scale investors have been very much in evidence in many Western markets: demand for US gold Eagle coins has jumped 84%[1] so far this year. And the UK's Royal Mint has registered a sharp rise in profits, which it attributes partly to the launch last year of 'Signature Gold', an online offering allowing investors to make fractional purchases of gold bars.[2] The Mint also revealed a huge spike in demand for this product after the result of the UK referendum. Similarly, smaller-scale investors came out in droves in other European markets, although this was countered by some substantial profit-taking in June as the euro-denominated gold price rallied to a two-year high.

1 Volume of Eagle gold coins in ounces to end-June 2016 (year-on-year): 501,000oz vs 273,000oz in H1 2015.

2 *http://www.royalmint.com/aboutus/news/a-golden-year-for-britains-oldest-manufacturer-as-annual-results-reveal-a-silver-lining*

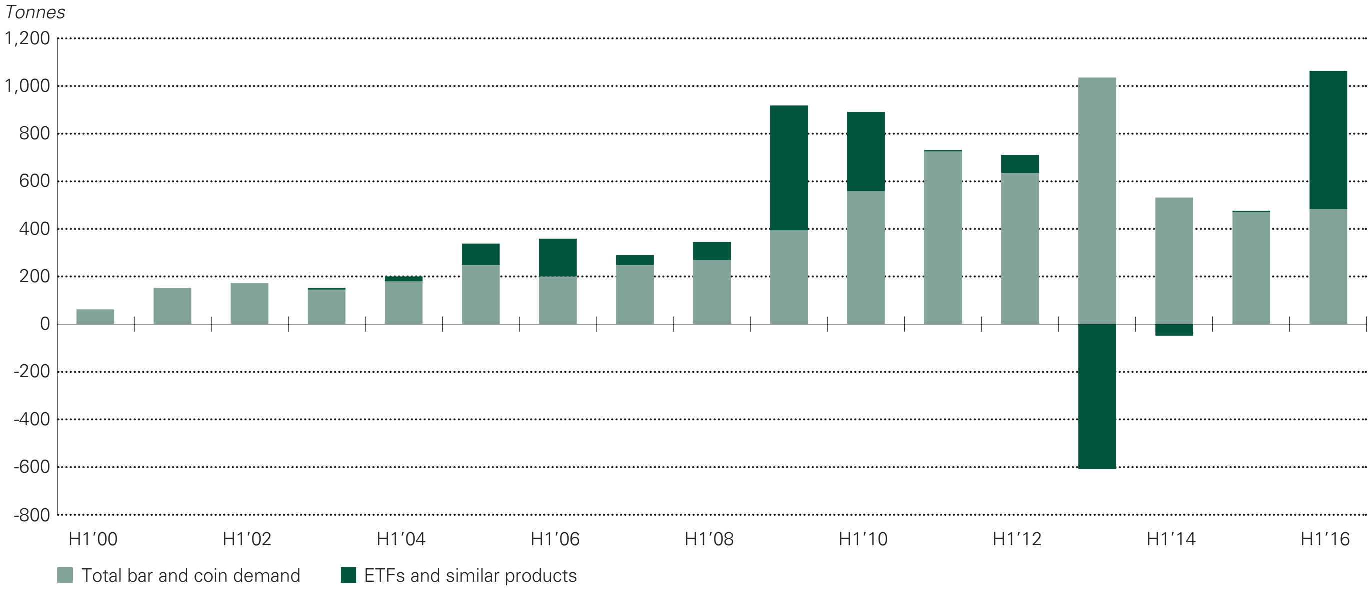
But it is the ETF space that has seen the most dramatic change (**Chart 1**). The growth in demand for gold-backed ETFs has eclipsed all other sectors in the first half. Demand for ETFs reached almost 580t, exceeding even H1 2009 when the sector saw inflows of over 458t in a single quarter. And ETFs have proved to have appeal beyond Western borders. Chinese investors continue to add to their investments in these products, taking holdings to 24.4t by the end of June – an almost four-fold increase since the end of last year. In value terms, Chinese gold-backed ETF holdings grew from US$215mn to over US$1bn in the first six months of 2016.

Although there is currently no indication that demand will come to a halt, there is evidence of profit-taking and it would be prudent to assume that recent momentum may be difficult to sustain. Nevertheless, the positive shift in attitudes among large-scale Western investors in particular, appears to have solid foundations. And we should see demand build on those during the quarter ahead.

In particular, the after-effects of the UK Brexit decision are likely to be reflected in Q3 data, given that the referendum itself came right at the end of the second quarter. Those effects are likely to be global. In the seven days after the vote, the search index for the keyword "Gold" compiled by China's search engine Baidu surged 44% year-on-year. And on the very day of the referendum, the index increase threefold. Similarly, Google Trends reported a more-than 500% spike in searches for the term 'buy gold' on the day of the referendum.

Chart 1: Record investment demand in H1 driven by geopolitical and economic concerns

- H1 investment broke previous levels, responding to rising levels of global uncertainty…
- …which in turn were driven by negative interest rates, the UK's referendum on EU membership and the prospect of a divisive US election campaign.
- Latent demand in Western markets further fuelled the rapid investment upswing.



Source: Metals Focus; GFMS, Thomson Reuters; World Gold Council

Gold up 25%: strongest H1 price gain since 1980

Thanks to unbridled investment inflows, the gold price has surged since the end of 2015. But so has volatility, which has had mixed results for consumer demand.

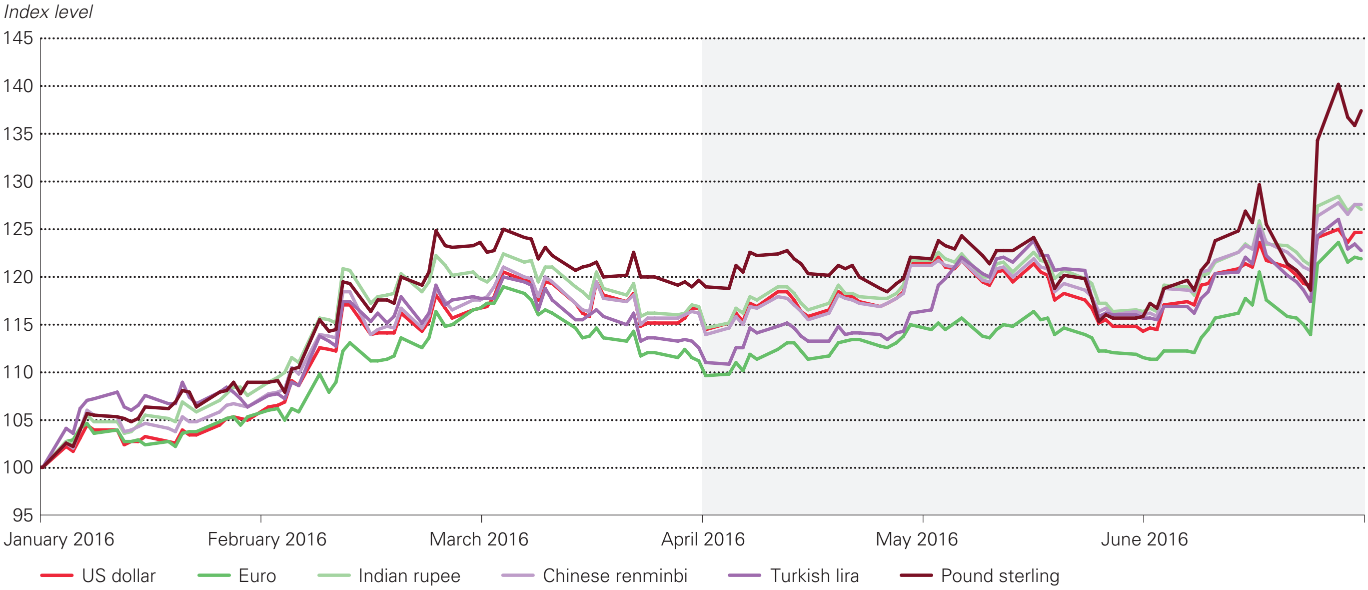
After starting the year with a stellar 17% Q1 gain, the gold price climbed further in the second quarter to set the seal on the strongest H1 performance for more than 35 years. In US$ terms, gold was one of the best performing investments in a basket of commodities that we monitor, behind only Brent crude (which burst higher on improving prospects for its supply dynamics)[3] and silver.

And given that the US dollar has strengthened against a number of currencies this year, gold's H1 performance when denominated in other currencies has been better still (**Chart 2**). Notable among these have been gains in the gold price expressed in pounds sterling (+37%), Indian rupees (+27%), Chinese renminbi (+27%) and Egyptian pounds (+41%).

But gold did not trace a smooth upward path: it had some pullbacks in May and June. Volatility ticked higher as a result, reaching 19.2%[4] for H1 compared with the long-term average of 18%.[5] While this played into the hands of some investors (notably in the US market, where the response has been to buy on price dips), it discouraged jewellery consumers in a number of markets. In fact, high, rising and fluctuating gold prices – at a time of fairly fragile consumer sentiment in many markets – resulted in a widespread dampening of jewellery demand.

Chart 2: Gold's impressive price rise in a range of key currencies in H1 2016 (index 100=01/01/2016)

- The 25% rise in the US dollar price of gold was exceeded by gains in local prices in some of the major gold consuming markets, including China, India and Europe.
- The sharp drop in the British pound following the Brexit vote caused a sharp spike in the sterling gold price in the closing week of June.



Source: ICE Benchmark Administration; Datastream; World Gold Council

3 Brent crude has since fallen back by around 20%.

4 6-month annualised daily return volatility in US$ for the period 31/12/2015 – 30/06/2016.

5 5-year annualised daily return volatility in US$ to 30/06/2016.

Jewellery demand lacks sparkle

The high price level has taken its toll on the jewellery sector; conversely recycling has sparked into life.

Jewellery consumers have faced a tough environment in 2016 so far. Steep price rises have done little to attract demand in the more price sensitive markets. (Indian consumers in particular are notoriously wary of price instability and this year has proven to be no exception.) Challenging geopolitical and economic conditions continue to hamper the Middle Eastern markets. And China has battled with poor consumer sentiment, a sluggish economic environment and onerous hallmarking regulations. While there have been improvements in a few markets (most notably, the US and Iran), at the global level jewellery has suffered.

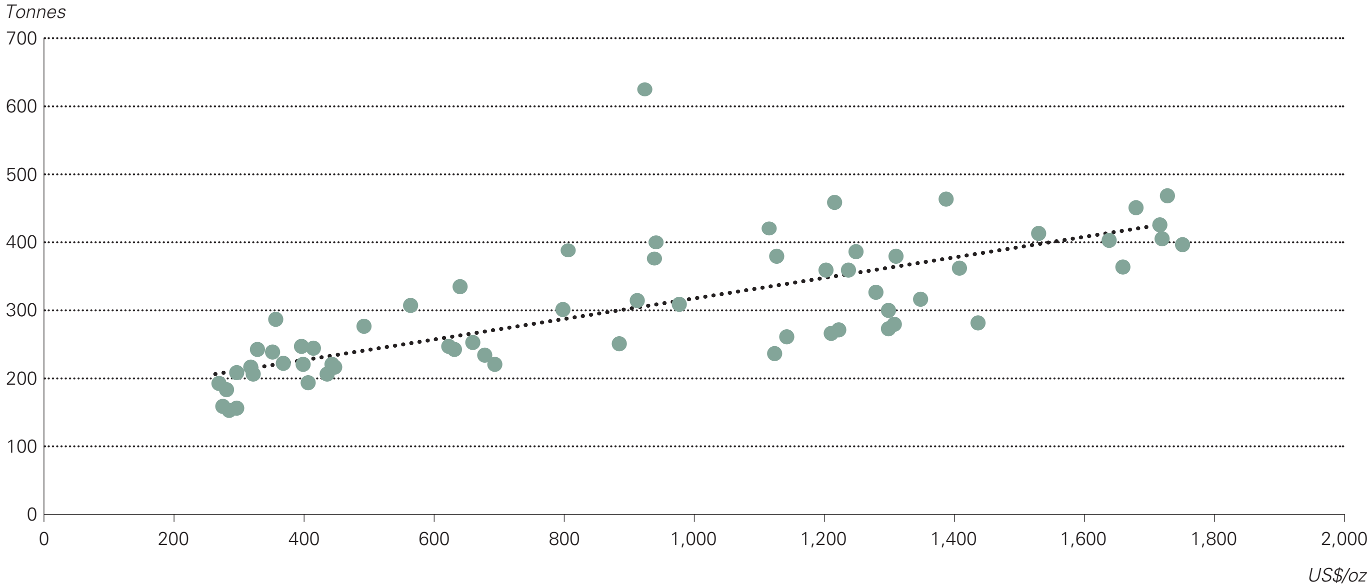
This is reflected in the data: the US dollar value of first half global jewellery demand (US$36.3bn) was the lowest since 2010. In volume terms, demand so far this year has lurked well below its five-year average – by around 20%.

The flip side to lower jewellery demand has been a rise in recycling activity. Recycling – selling gold jewellery for cash – is an important element of supply: in H1 it generated almost a third of the gold supplied to the market. It helps with the smooth functioning of the gold market and is responsive to a number of factors, one of the most important being the gold price.

Intuitively, higher prices boost recycling (**Chart 3**). While this is by no means the only factor affecting recycling, there is a strong correlation between the two: econometric analysis reveals that a 1% rise in the gold price will lead to a 0.6% increase in the annual supply of recycled gold.[6]

Chart 3: Higher price levels elicit higher recycled gold supply

- There is a strong correlation between the gold price and levels of recycling.
- Consumer research confirms this relationship – gold owners in India and China are more likely to sell their gold jewellery due to a high price than for any other reason.



Note: Tonnage levels are quarterly totals; price levels are quarterly averages based on the LBMA Gold Price PM (US$/oz).

Source: Metals Focus; GFMS, Thomson Reuters; ICE Benchmark Administration; World Gold Council

6 'Price changes account for around 75% of annual changes in gold recycling once we account for major economic crises. For every 1% increase in price in a year, the supply of recycled gold will increase 0.6%.' Boston Consulting Group and World Gold Council, *The Ups and Downs of Gold Recycling*, March 2015.

Consumer research also backs up this finding. We recently conducted a large-scale survey,[7] in which high gold prices were cited as the most important factor influencing the decision to recycle gold jewellery. Among the respondents in India and China who had ever sold gold jewellery, a high gold price was the most common reason cited for doing so (27% and 43% respectively).

And price volatility can further magnify this effect. A sharp rise in prices can result in a jump in recycling in order to take advantage of unexpectedly higher prices. So it is not surprising to see that recycling grew in the first half of 2016, generating 686.7t of supply. This is the highest first half total since 2012, which was a time when distress-selling by Western consumers in the wake of the financial crisis was still high, and near-record gold prices were a strong incentive.

After a troubled first half of the year, the prospects are for jewellery demand to recover as we progress through the second half. India's key festivals of Dhanteras and Diwali, together with the Q4 holiday season in the west, should inject support. That being said, any optimism needs to be tempered by some of the headwinds that remain in place in a number of markets, such as economic slowdown in China, pressured rural incomes in India and a troubled geopolitical climate in the Middle East. Recycling will continue to respond to prices – as well as economic growth – and will remain a significant source of gold supply over the remainder of 2016.

7 On behalf of the World Gold Council, TNS interviewed jewellery consumers in China, India and the US and investors in China, India, the US and Germany. Total sample size: 14,000.

Market commentary

Jewellery

The high price level has taken its toll on the jewellery sector; conversely recycling has sparked into life.

Tonnes	Q2'15	Q2'16	Year-on-year change	Year-to-date change
World total	513.7	444.1	↓ -14%	↓ -17%
India	122.1	97.9	↓ -20%	↓ -32%
China	169.0	143.5	↓ -15%	↓ -16%

As discussed in *Key themes*, the high and volatile price of gold – in a wide range of currencies – has hit jewellery consumers across the globe. Coming at a time when consumer confidence is at low levels in many markets has exacerbated its impact. India and China had the most influential impact on demand, although demand across many markets was subdued. Only a handful of countries have witnessed an improvement so far this year.

At just 444.1t, demand for jewellery in Q2 was the lowest quarterly total since Q2 2010. Jewellery demand in H1 2016 fell by 185.5t from the previous year – 149.4t of which was due to combined weakness in India and China.

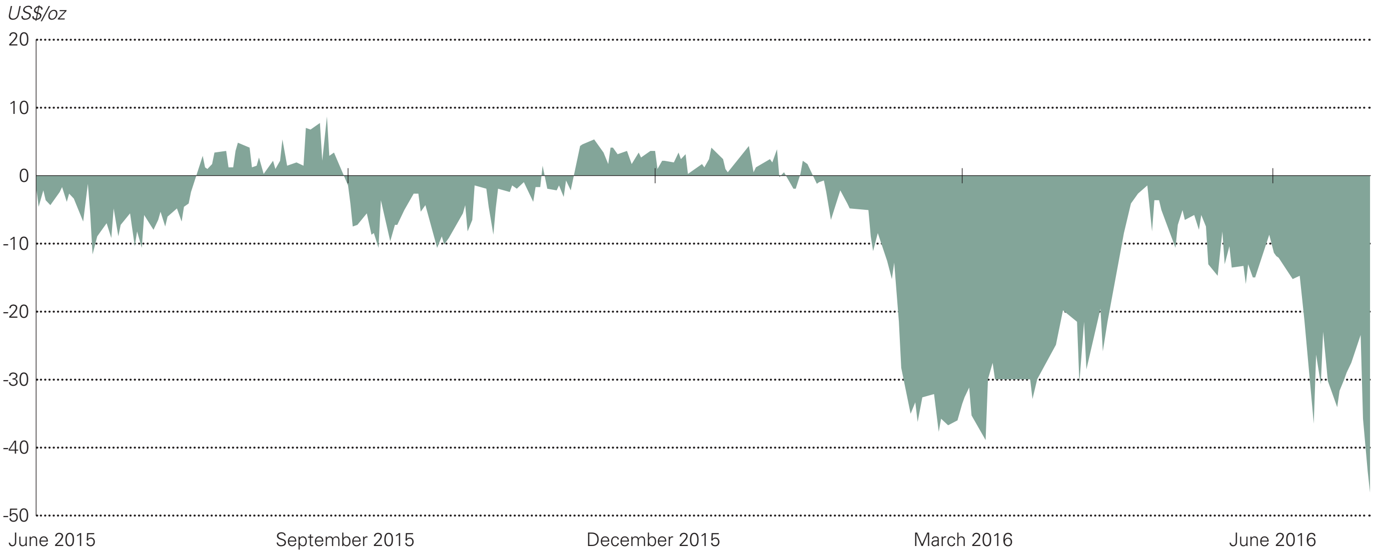
Indian jewellery demand continues to struggle

India did not experience the expected bounce back in jewellery demand in the second quarter. Paltry import numbers and steep local discounts were omens of a disappointingly weak quarter. Official imports of gold halved to below 100t (the lowest quarterly imports since Q4 2013). And the local price was in discount for the whole of Q2 – moving out as wide as US$46/oz below the London benchmark price by the end of the quarter (**Chart 4**). Although Akshaya Tritiya sales provided a brief boost to demand in May, this was insufficient to prevent a severe Q2 contraction. The market faced three key issues:

- A sharp jump in the gold price
- Weaker rural incomes
- Government regulation

Chart 4: Indian gold price remains in discount due to subdued demand

- Jewellery demand for H1 was the lowest since 2009 at just 186.3t.
- After the national jewellers' strike ended in April, demand remained under pressure, not least due to gold prices hitting their highest levels since August 2013.
- Rural incomes have come under pressure, which further undermined gold jewellery consumption.



Source: GFMS, Thomson Reuters; Multi Commodity Exchange of India; World Gold Council

The national strike by jewellers which had effectively closed the market for six weeks, came to an end in mid-April. But there was no relief rally. Consumers were unprepared for the huge jump in the gold price when the market re-opened. Despite the discount, domestic prices pushed their way up to – and above – Rs30,000/10g, a significant psychological barrier for Indian consumers and the highest domestic price for more than two and a half years. Consumers were not only put off by the high cost, but also by the belief that such a price level would prove only temporary. Aside from essential purchasing and gifting around Akshaya Tritiya, demand was largely put on hold awaiting lower prices as a buying opportunity.

Lower spending by rural Indians was another blow to demand. The rural population accounts for more than half of India's jewellery demand, so any difficulty in this sector has a material impact on demand. Two consecutive years of deficient monsoon rainfalls have taken their toll on rural incomes. This is clear in other sectors, too. Poor rural spending has been cited as a reason for weak car sales and demand for consumer goods. Commenting on disappointing Q2 revenue figures for Hindustan Unilever Ltd, CEO Sanjiv Mehta said that *'The continued pressure on areas with deficient monsoon are manifest from the fact that …rural growth [has] lagged urban for another quarter…'*[8] While IHS Automotive analyst Anil Sharma noted that *'Cars …derive a lot of volumes from… rural markets. What we see… is a reflection of rural stress, stemming from rainfall deficit in the last two years.'*[9]

Lastly, the market continued to feel the reverberations from government regulation. The introduction of an additional 1% excise duty (which prompted the jewellers' strike in Q1) and the requirement that purchases above Rs200,000 need a Permanent Account Number (PAN) card have acted as headwinds to the industry, impacting demand in the organised sector most notably. An unintended side-effect has been to increase the flow of unofficial gold into India – in part as the trade attempts to find ways around the legislation. Despite demand remaining weak, an estimated 44t of smuggled gold entered the market during the quarter. This is in line with our 2016 full-year forecast range of 140–160t, up from around 120t last year.

Faced with these regulatory challenges and the increase in smuggling, India's bullion sector continues to make moves to formalise its business, with the intention that this will also encourage the jewellery sector to do the same. The large national and regional jewellery chains do not oppose the implementation of the excise duty. But smaller, independent and family-based retailers, who prefer to use cash-based transactions, are opposed to the duty and the additional administrative and financial burden it creates. The 'Bullion Federation of India', an industry body composed of 50 leading bullion dealers across 17 states, was created amid a groundswell of intention to conduct their business in a transparent way, avoiding any unaccounted money and fully complying with tax requirements and regulation.

High prices and low economic growth weigh on Chinese consumer sentiment

Gold jewellery demand in China was similarly weak, but – with the exception of the high gold price – the reasons were somewhat different. Q2 demand fell 15% to 143.5t. Following on from the disappointing first quarter, this resulted in the lowest first half total for Chinese jewellery since 2012 (322.5t). Weak consumer confidence was the backdrop to this picture.

In China, the relatively high volatility in the gold price proved to be off-putting for many who were concerned that the swift price rise may just as quickly be reversed. This also helps to explain the jump in recycling activity during Q2, which reached a 9-quarter high.

The broader background to the slow jewellery environment was China's continued general economic slowdown. GDP growth held steady at a relatively weak 6.7% in Q2 2016 and this continued to weigh on consumer sentiment.

Changing consumer tastes in China are also having a continued impact on demand volumes. A shifting preference for fashionable, unique, highly-designed 18k or gem-set pieces has come at the expense of traditional 24k jewellery. This trend may continue, given the younger profile of 18k gold jewellery customers as highlighted by our consumer research. Our survey showed that, of the more-than 1,000 respondents who had bought gold in 2015, 18–30 year olds were more likely to buy 18k jewellery than 24k (39% vs 25%).

8 Comment made during HUL Q2 2016 Earnings call, 18 July 2016; *https://www.hul.co.in/Images/jq-16-transcript_tcm1255-484738_en.pdf*

9 *http://asia.nikkei.com/Business/AC/India-car-sales-fall-in-May-on-weak-rural-demand*

That said, there is continued (albeit small) growth in the 99.99% (4-nines) purity bracket, but absolute volumes here remain small. The product mix appears to be shifting, with higher-designed 18k/gem-set jewellery and 4-nines jewellery seeing growth.

The jewellery industry continued to face disruption caused by the hallmarking legislation introduced in May. The requirements presented many retailers and manufacturers along the supply chain with a costly logistical and administrative burden, eating into already very thin margins and distracting attention from 'normal' business. The industry continues to consolidate, allowing those who best adapt to the changing consumer environment to benefit in the longer term.

Some of the smaller markets in the SE Asian region were, on the face of it, positive in Q2. But this was largely reflective of the weakness of demand in Q2 2015. For the most part, demand for gold jewellery was relatively muted due to the sharply higher gold price and consumers' attention turned instead to recycling existing jewellery holdings. First half demand across all regional markets was subdued compared with 2015, registering single-digit percentage changes.

Middle Eastern demand weak; Iran again the exception

Demand across the Middle East was, unsurprisingly, poor given the environment of high gold prices, relatively low oil prices and continued geopolitical unrest. Demand in Egypt hit a record low in our series of 5.3t. The domestic currency remains very weak, following the devaluation in March making local gold prices punitively high for many consumers.

In contrast to the surrounding markets, demand in Iran continued to improve on the wave of optimism sparked by the removal of sanctions last year. Demand grew 10% in Q2 (to 8t), taking half-yearly demand to 17.9t.

In Turkey, Q2 demand equalled the meagre 8.7t from the previous quarter (-25% year-on-year) with the result that H1 demand fell to a low of 17.4t. This is just ahead of the average quarterly volume over the last five years (16.3t). Ongoing political tensions, reduced tourism, rising unemployment, together with collapsing export revenues from Russia affected local sentiment towards gold.

Seven-year high in US H1 jewellery demand

Although the market was somewhat subdued ahead of the forthcoming Presidential elections, Mother's Day sales helped US jewellery demand to its 10th consecutive quarter of year-on-year growth (+1% to 25.9t). Demand for the first half year of 48.6t was the strongest since 2009. Growth in jewellery and watch sales comfortably outstripped that of general retail sales for much of the year-to-date, although the comparison was slightly flattered by weak gains in early 2015. Consistent, if moderate, economic growth and improving employment levels are supporting demand, although enthusiasm in the sector can be expected to wane over the coming months as the elections draw nearer.

Demand in Europe stabilises

European jewellery markets have also been relatively subdued so far this year. Despite the higher gold price, stabilisation or modest growth was the norm as economies continue to recover and the high-end of the market continues to grow. France was an exception; demand slipped marginally to 2.5t (-2%) as consumers continued to shift from gold to silver.

Demand in the UK grew marginally to reach 8.2t in the first half, the strongest H1 since 2010 as this market continues to build on the strong base established in the wake of the long-term secular downtrend from 2001 to 2012. The rolling 4-quarter average has hovered around 26t since the end of 2014, indicating the stability in the market.

Investment

Still-heightened levels of uncertainty boosted investment across Western markets; profit-taking in much of Asia and the Middle East tempered growth.

Total bar and coin demand				
Tonnes	Q2'15	Q2'16	Year-on-year change	Year-to-date change
World total	209.1	211.6	↑ 1%	↑ 4%
India	37.7	33.1	↓ -12%	↓ -22%
China	45.1	40.2	↓ -11%	↑ 11%

A 'perfect storm' of conditions in the gold market this year has pushed investment to historic levels. Demand of 448.4t was a near-record for second quarter investment, only lower than Q2 2010's stellar 606t. Consequently, demand for bars, coins and ETFs during the six months to end-June reached a first half record of 1,063.9t, worth a value of US$41.6bn.

But it was ETFs that really stole the show. Inflows into the sector have been exceptional: 579.2t in the space of six months, compared with cumulative outflows of 616.1t over the preceding 10 quarters. The value of gold-backed ETF AUM increased by +69% (US$38.1bn) in the first half of 2016 to reach US$93bn, their highest level since Q3 2013.

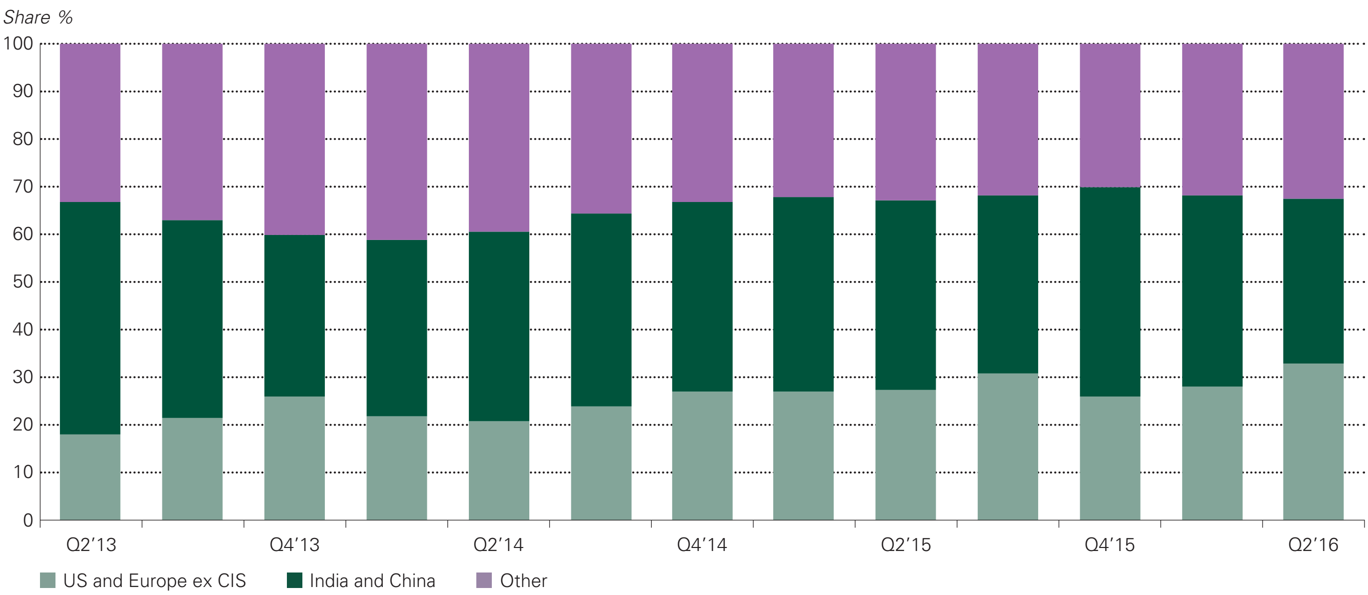
Key themes considers the main reasons behind this positive shift, but to recap: heightened uncertainty has triggered the release of substantial pent-up demand among western investors (**Chart 5**). And that uncertainty has been generated by:

- unparalleled loosening of global monetary policy (including widespread negative interest rates) to combat economic fragility;
- western political developments – namely, the UK voting to leave the EU and the looming US election;
- the slowing pace of US interest rate hikes (and consequent slowdown in US dollar strength).

The apparent end to the downtrend in the gold price has been a further cause (as well as an effect) of improved investor sentiment.

Chart 5: Western investors take a greater share of bar and coin demand in the second quarter

- Pent-up demand among US and European investors has fuelled much of the upsurge in investment in 2016 so far.
- Global uncertainty remains elevated, which should continue to underpin investment demand.



Source: Metals Focus; GFMS, Thomson Reuters; World Gold Council

Demand for gold bars and coins in Q2 (211.6t) was marginally firmer year-on-year. This took H1 investment to 484.7t, 17% down on the previous six-month period, but 4% higher than the first half of last year. Within this category, coin demand was the most robust while demand for medals and imitation coins deteriorated (the latter being almost a pure reflection of weak demand in India).

Positive sentiment in Western markets, combined with lacklustre demand in India and China, resulted in Europe being the largest market for gold bars and coins in Q2

After a solid start to 2016, European investment demand remained well supported in the second quarter – broadly stable at 44.7t (a figure that made it the largest gold retail investment market). For the first half-year, investment was fractionally ahead of 2015 at 104t. Intra-quarter trends reveal strong buying in April and May, which were largely cancelled out by a surge in profit-taking in June as the gold price jumped 9% in euro terms and 19% in pound sterling over the course of the month.

While the widely unexpected result of the referendum came too late in the quarter to materially impact European investment numbers for Q2, there was undoubtedly considerable interest in gold both in the run-up to, and aftermath of, the decision. This is supported by the Royal Mint, which stated that "one week on from the Brexit vote… [we] … continued to see strong activity from investors". Further evidence of this trend comes from online gold platform BullionVault's analysis, which in early July noted that although gold buying among private Western investors had "raced to the fastest pace in three years amid last month's Brexit referendum and financial shock," this was matched by profit-taking as gold "jumped in price like never before."

Within Europe, there were some slight differences across markets. The UK in particular showed heightened interest in gold investment products as the prospect of the referendum at the end of the quarter generated considerable caution among investors, although volumes remain small. Q2 demand jumped 65% to 3t. The H1 total reached a three-year high of 6.2t.

Contrastingly, in Germany, bar and coin demand for Q2 of 21.9t was 5% below Q2 last year. Two-way activity was healthy, but the heavy selling that kicked in after the sharp June price increase outweighed buying among retail investors.

US investors respond to sharp price moves

Investor behaviour in the US during the second quarter was a repeat of Q1: bar and coin investment closely mirrored the surge in demand for ETFs. First half demand for gold retail investment products was 75% higher than 2015, boosted by the sharp price increase. Sales of gold coins by the US Mint went through the roof. The number of 1oz Eagle coins sold in the first six months of 2015 more than doubled – to 405,000 from 198,500 in 2015 – and these coins were far more popular than smaller denomination (half- and quarter-oz) coins. Trade data also showed a huge influx in imports of gold coins from other countries.

Chinese investors see price rally as profit-taking opportunity

Chinese investment dropped off in the second quarter: demand halved from Q1 to 40.2t, an 11% year-on-year decline. Nonetheless, the H1 total of 121.4t was the strongest since 2013's exceptional surge.[10]

Profit-taking activity was boosted by price volatility: the spike in the price encouraged considerable liquidations, particularly as many expected a near-term correction to follow. A similar pattern was seen in activity in Gold Accumulation Plans (GAP), with a sharp increase in redemptions outweighing a healthy increase in gross inflows. A more detailed explanation of these products and the role they play in helping to meet investor needs is covered in the Focus Box *'China's commercial banks.'*

However, Chinese investors' appetite for gold products goes beyond just bars and coins. The sector has seen increasing competition from other products, as reflected in the sharp rise in gold-backed ETFs over H1 2016 from 6.3t to 24.4t.

Price volatility and weak rural incomes undermine Indian investment

India's gold market was very weak between January and June: imports plummeted as supply-led weakness was compounded by high and volatile gold prices. H1 bar and coin demand of 61.2t (-22%) was the lowest first half total since 2009. Notably, this is 9% lower than average *quarterly* demand over the last five years.

Demand in Q2 did not replicate the severe declines seen in Q1, but was weak nonetheless – down 12% year-on-year at 33.1t. Akshaya Tritiya offered some respite after the difficult start to the year, with the strike in the Indian jewellery sector (which restricted investment demand, due to the importance of the jewellery retail network as a distribution channel for gold investment products to the rural community in particular). But sharp, volatile gold price increases deterred investment-related purchases.

10 World Gold Council, *Gold market update Q2 2013* http://www.gold.org/search/research/market%20update

Incomes among the rural contingent are under pressure after two successive years of deficient monsoon rains. Additionally, rural inflation remains above urban inflation levels, further reducing the pool of funds available to rural investors. The weakness in the market was clearly reflected in the local price level, which remained at a sharp discount to the London benchmark price throughout the quarter.

Looking ahead, predictions are for an improved monsoon this year, which will boost rural incomes. And investment inflows are likely to resume as and when the gold price stabilises, even if that is at a higher level. But inventory levels throughout the supply chain remain elevated after such a subdued start to the year, so any uptick is not likely to be fully reflected in a rise in import levels until stock levels are at least partly run down.

Japan again the star performer among the smaller Asian markets

Investment across much of Asia remained very subdued in the second quarter; declines were widespread as the high gold price meant profit-taking weighed on net investment levels.

Vietnam extended the losses seen in the first quarter: Q2 demand fell 18% to 8.9t. First half demand of 20.3t was 19% below 2015's already weak H1 total. A combination of high gold prices, continued low inflation and a relatively stable exchange rate were the main factors keeping demand in check. However, inflation is starting to creep up and were it to break above the government's 5% p.a. cap that would act as an alert for domestic investors – particularly if the gold price stabilises.

A rise in Q2 bar and coin demand in Indonesia (+32% to 6t) was largely reflective of the low 2015 base period. Nevertheless, improvements in the domestic political climate and the surprise cut in domestic interest rates in June (in an attempt to spur economic growth against a benign inflation background) lifted demand.

Japanese investors have bucked the broad regional trend in 2016. Investment in bars and coins has swung from modest disinvestment to 9.3t of positive net new investment in H1 2016: the strongest first half for Japanese investment since 2005. Demand reached 5.8t in Q2 – marking the first time that Japan has had four consecutive quarters of positive net investment since the market switched to being a net seller in 2006.

A stronger yen made gold more affordable (the Yen price has increased by just 6% this year in comparison with US$ gold's 25% rise). Negative interest rates, Brexit, anxiety over global market conditions and distrust in Abenomics made it more appealing. The decision by Prime Minister Abe to postpone a planned sales tax hike in June (for a second time) raised further worries over the state of the Japanese economy and forced many to focus on gold for investment protection and wealth preservation. Tanaka (Japan's biggest bullion dealer) reported a strong surge in sales during June, particularly in the aftermath of the UK's 'out' decision.

And it was not just individual investors heading for gold. Reflecting the deterioration in the domestic macro environment and increasing global uncertainties, the number of pension funds invested in gold increased in the first half of 2016, and the gold investor base also expanded to include non-pension institutional investors.

The strength in the yen meant that the local price did not experience the rapid surges seen in other markets, thus existing holders did not have a strong incentive to take profits. The earthquakes that struck Japan in April, provided investors with a further motive for adding to their holdings.

Middle Eastern bar and coin demand slides to seven-year low

Iran was again the only bright spot in an otherwise very dismal picture for Middle Eastern investment demand. Demand in most markets across the region was affected by any or all of the following: the high and sharply rising gold price; ongoing political instability; continued pressure on revenue from relatively weak oil prices; and sliding tourist numbers. H1 bar and coin demand for the region as a whole – of 34.3t – was the lowest since 2009.

Iran managed to buck the trend, with a 2% increase in Q2 bar and coin demand to 7.2t. The market continued to benefit from the relief rally following last year's removal of international sanctions, and a cut in interest rates in response to slowing inflation further boosted demand.

First half-year investment in Turkey fell to an historic low of 8.8t – the lowest in our quarterly records back to 2000. High prices were the main reason, discouraging new purchases and instead resulting in some profit-taking.

Focus: China's commercial banks

In the past 10 years China has become the world's largest gold producer and consumer. It has also developed a vibrant gold banking sector. China's commercial banks are a vital hub in the country's gold industry. And they have developed a range of gold-related businesses, significantly pushing up their gold holdings since 2009.

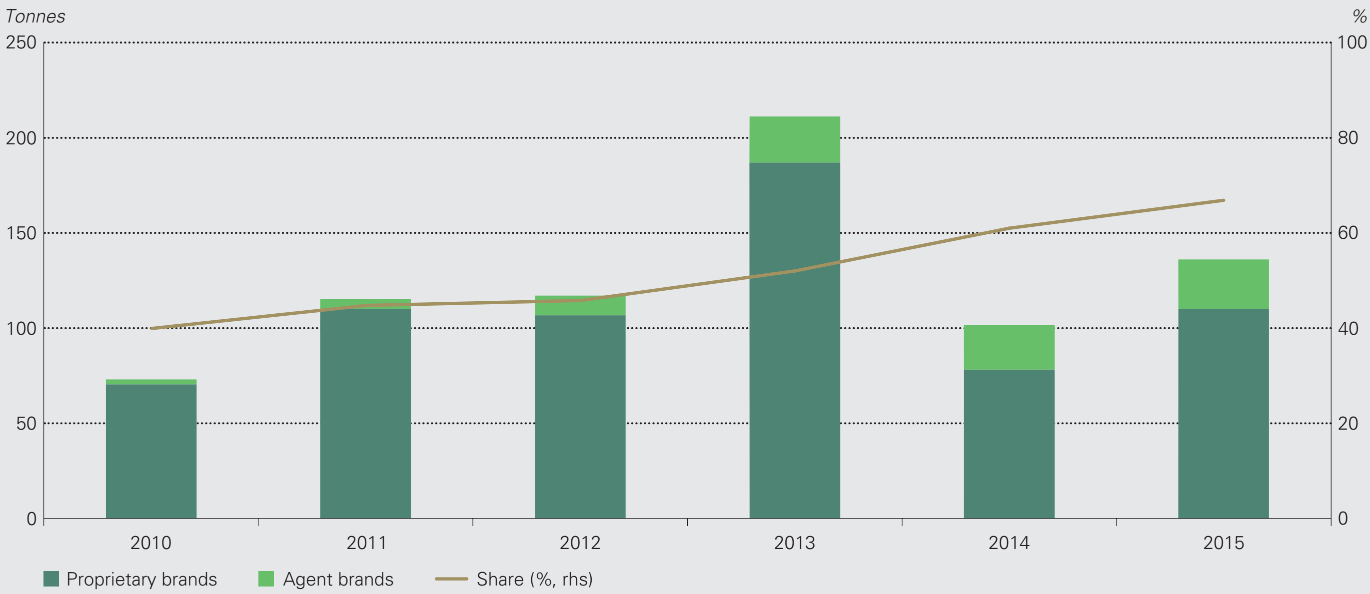
Commercial Banks propel physical investment
More than 60% of investment demand – sales of gold bars of a kilogram or smaller – is met through commercial banks' nationwide network of easily accessible branches. (**Chart 6**)

Large banks, such as the Industrial and Commercial Bank of China (ICBC) and China Construction Bank (CCB), dominate the retail market. They typically sell gold bars bearing the bank's own brand *(proprietary brands).* A good example is ICBC's *"Ruyi"* gold. In addition, banks also sell brands other than their own (also known as *agent brands*). For example, banks sell Panda Gold Coins issued by the People's Bank of China (PBoC).

In recent years, smaller banks have entered the market, attracting customers by offering a broader range of gold investment products. These are usually lighter in weight and have higher profit margins. For example, Ping An Bank launched a gold bar for the Year of Monkey in late 2015 which incorporated state-of-the art craftwork. These bars have the pattern of the Monkey stamp issued back in 1992 and the production process was overseen by the designer of that stamp.

Chart 6: Commercial banks' sales of physical gold on the rise[11]

- Sales of physical gold to retail investors have remained strong.
- Commercial banks took a growing share in all investment demand.



Source: PBoC; Shanghai Gold Exchange; Metals Focus; GFMS, Thomson Reuters; World Gold Council

11 The remaining market share will be accounted for largely by sales from retailers such as China Gold and Chow Tai Fook.

Gold accumulation plans used as trading vehicles
Products such as Gold Accumulation Plans (GAP) have also witnessed robust activity, providing an efficient and flexible channel for investors to get exposure to gold.

The first GAP in China was launched by the World Gold Council and ICBC in 2010. Since then a range of similar products have been created, including automatic monthly gold investment plans. These products provide investors with direct exposure to the gold price backed by physical gold. Although many other banks have launched similar products, ICBC remains the market leader.

Annual GAP trading volume[12] exceeded 500t in both 2014 and 2015, as investors used the product to gain short- and medium-term, speculative exposure to gold. This trading mentality contrasts with retail bar and coin investors who typically invest for a longer period.

While GAPs have high trading volume, their impact on Chinese gold demand is modest. Net inflows into GAPs, including automatic monthly gold investment plans, was around 25t to 30t in 2014 and 2015. 2013 was an exception, with investments in GAPs nearing 100t according to data from the PBoC.

Gold leasing: a new market
Over recent years we have observed a rising number of commercial banks participating in the gold leasing market. Gold leasing has allowed companies, such as jewellery manufacturers, to reduce production costs, hedge against price fluctuations, and raise finance.

There are two gold leasing data sources available: i) the Shanghai Gold Exchange (SGE), and ii) the PBoC, which helpfully provides additional granularity by distinguishing between leasing between banks (interbank leasing) and leasing to corporate clients.

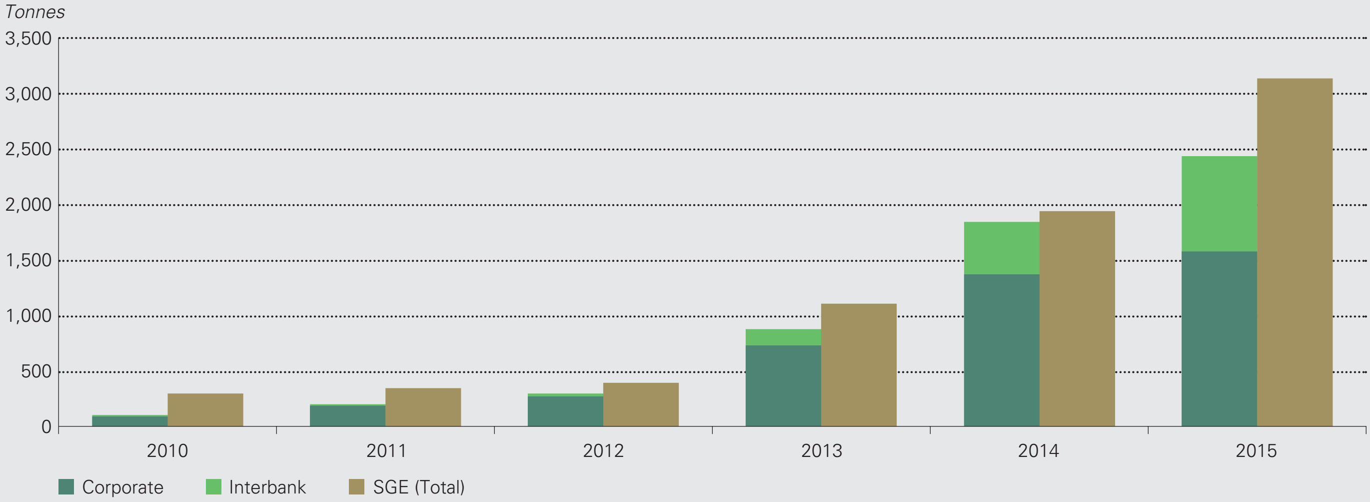
In 2015, SGE reported a 62% increase in gold leasing to 3,136t,[13] while the PBoC reported that leasing by commercial banks stood at 2,432t, up 32% from 2014. The PBoC further said leasing to corporate clients stood at 1,583t (+16%) and interbank leasing rose by 79% to 849t.

SGE's leasing estimate is usually larger than the PBoC's as it has a larger sample size. The PBoC's data just captures leasing by commercial banks' headquarters, while the SGE's also includes leasing by bank branches.

It's estimated that around 10% of the leased gold leaves the SGE's vaults. The majority is for financing purposes and is sold at the SGE for cash settlement.

Chart 7: China gold leasing momentum remained strong

- Official sources of gold leasing data report strong growth in leasing volumes in last three years.
- This partly reflects an increase in the number of commercial banks participating in the gold leasing market.



Note: Leasing to corporates and interbank leasing (light and dark green bars) are sourced from PBoC, and the figure of SGE (total) is sourced from Shanghai Gold Exchange.

Source: PBoC; Shanghai Gold Exchange; World Gold Council

12 The volume includes both investments into and redemptions of GAP.

13 This captures the total amount of gold leased in the reporting period, for example, if Commercial Bank A lends 1t to Jeweller B for three months and the Jeweller B returns it back for the Commercial Bank A to lend again to Bank C, a total of 2t of leasing volume will be recorded for the period.

Ambitious overseas activity
As well as developing their domestic market, China's banks have been active on the international stage.

After topping the notional 10,000t mark in 2014, overseas gold derivatives' trading volume by China's commercial banks continued to increase. According to PBoC data, China's commercial banks traded 13,930t (+34% YoY) of gold on overseas exchanges and OTC markets in 2015.

Some of the large banks' direct participation as LBMA market-makers has further enhanced China's role in the global gold market.[14] And ICBC Standard Bank's recent purchase of a precious metals vault in London is illustrative of China's banks' growing presence in the world's largest over-the-counter gold market.

Commercial banks' gold holdings have increased
To support these gold related businesses, commercial banks have increased their gold holdings.

Hard data on banks' tonnage holdings are hard to come by. But we have looked at a large sample of banks' annual reports which include the RMB value of their precious metals holdings. This sheds light on the growth of their gold businesses.

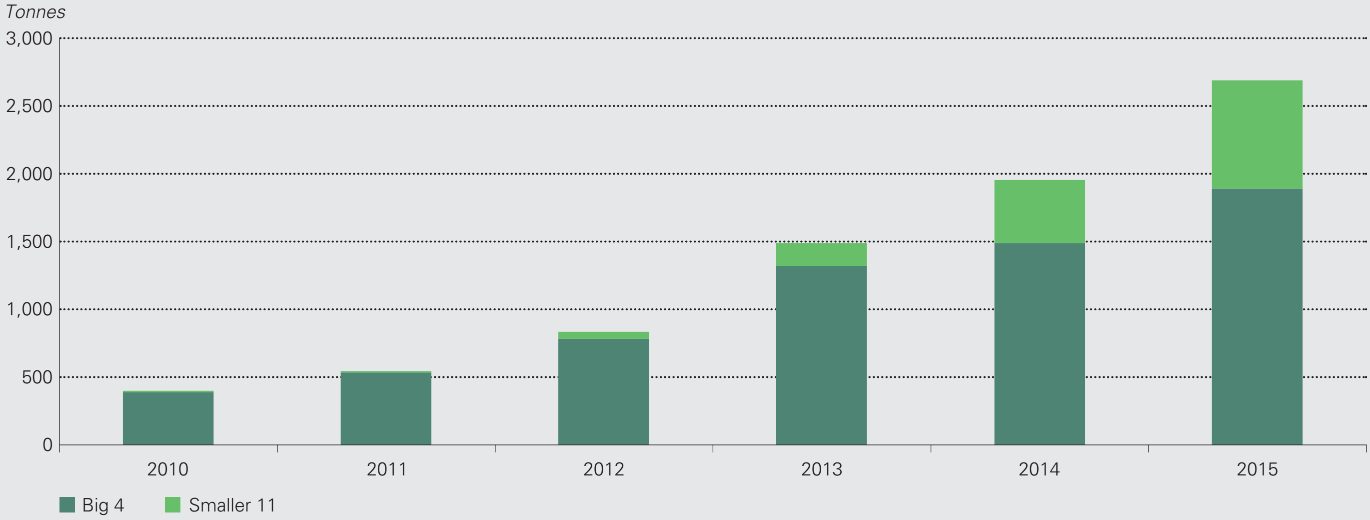
Assuming 100% of the precious metals assets held by commercial banks were gold, total holdings by the 15 commercial banks we track increased by 38% in 2015 to approximately 2,700t.[15] Holdings by the "Big Four" banks[16] (ICBC, ABC, BOC and CCB) were close to 1,900t (+27%).

A large portion of this growth is a result of the growth in the gold leasing market. And in recent years, smaller banks have been most active in this market. Holdings by the smaller 11 banks increased by 74% to around 800t in 2015.[17] Shanghai Pudong Development Bank, for example, attributed its 145% increase in its annual precious metal assets to the increase in leasing physical gold. In addition, a couple of banks were granted gold import licenses in 2015 and have pledged to further promote gold leasing and precious metals proprietary trading.

It is that clear commercial banks play a key role in China's gold market, and have developed exciting gold business both within China and, more recently, overseas. Given the radical pace of change within the industry, any observer of China's gold market should also follow developments in China's commercial banks' businesses.

Chart 8: Commerical banks have increased their holdings

- Volume of gold held on the balance sheet of commercial banks has multiplied in recent years.
- This helps support the growth in China's gold leasing market.



Source: Respective commercial banks; Bloomberg; World Gold Council

14 Bank of China (BoC), China Construction Bank (CCB), Industrial and Commercial Bank of China (ICBC) and Bank of Communications (BoCom) have all joined LBMA as market makers.

15 This is a big assumption; it is unlikely to be all gold. It will include platinum, silver and palladium too. But most of it is likely to be gold and the assumption allows us to easily analyse the data and understand the trends.

16 The Big Four banks are Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China and China Construction Bank.

17 These 11 banks are China Everbright Bank, China Minsheng Bank, Shanghai Pudong Development Bank, Ping An Bank, China Merchants Bank, Industrial Bank, Bank of Ningbo, Guangdong Development Bank, Evergrowing Bank, China Citic Bank and Bank of Beijing.

Central banks and other institutions

Uncertainty intensifies as Brexit adds to negative interest rate challenges; central banks continue to seek support in gold.

Tonnes	Q2'15	Q2'16	Year-on-year change	Year-to-date change
Central banks and other institutions	127.3	76.9	↓ -40%	↓ -23%

The second quarter saw central banks purchase – on a net basis – 76.9t. Net purchases year-to-date now total 185.1t. This represents year-on-year declines of 40% (Q2) and 23% (H1) respectively. But these declines have coincided with a 25% rise in gold prices over H1 2016, which has dramatically increased the value of central bank gold holdings. World official gold holdings of over 32,800t at the end of June were equivalent to approximately US$1.4trn – the highest value since Q1 2013, when average gold prices were around 30% higher than average Q2 levels.[18]

Russia (+38.4t), China (+25.9t) and Kazakhstan (+9.8t) remain the dominant driving forces behind this increase in global gold reserves. The quarterly total was impacted by China taking a pause in May, coinciding with a slowing in buying by Russia, before both resumed their recent rates of purchasing in June. Buying by other, predominantly emerging market, central banks were in more limited quantities over the quarter. Conversely, Jordan (-5.6t),[19] Belarus (-2.5t) and Ukraine (-2.2t) were net sellers during the quarter, while Germany sold 2.7t as part of its ongoing coin-minting programme.

The first six months of 2016 proved to be a uniquely challenging time for reserve managers. The unprecedented prevalence of global negative interest rates was compounded in the second quarter of the year by the equally unprecedented uncertainty surrounding Brexit. Continued central bank purchases proved again that reserve managers view gold as such an important reserve asset, especially with respect to portfolio diversification and capital preservation. Such an environment also helps to highlight that gold is a high quality, liquid asset with no intervention risk.

The UK's seismic decision to leave the EU sent shockwaves through financial markets at the end of the quarter. The British pound depreciated to its weakest level against the US dollar in 31 years, while Bank of England governor Mark Carney indicated UK monetary policy could be eased further in the face of a weaker economic outlook. The International Monetary Fund also revised lower its global growth forecast following the vote.[20]

18 IMF data for end-June not available at time of writing. Value calculated using estimated end-June global central bank holdings and end-June gold price.

19 Data for Jordanian gold reserves is only available for May at the time of writing.

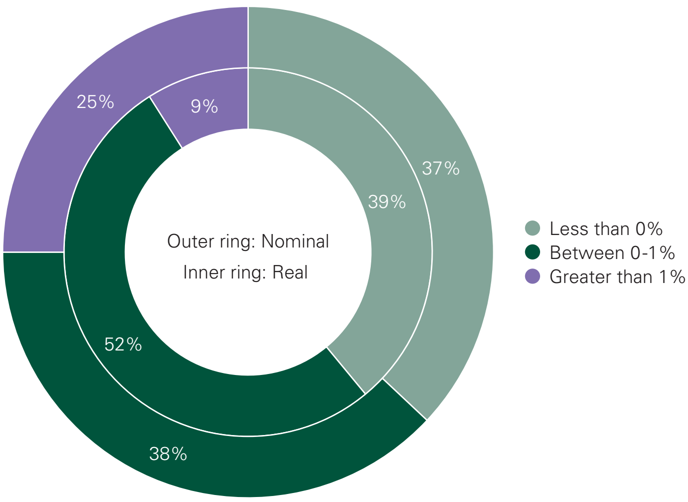
20 International Monetary Fund, *World Economic Outlook Update*, July 2016.

Importantly for reserve managers, the decision also weighed on global sovereign bond yields, further shrinking the pool of investible assets. As discussed in GDT Q1 2016, the shadow of low and negative interest rates continues to hang over central banks (**Chart 9**). At the end of June, Fitch Ratings[21] estimated that the pile of sovereign debt with negative yields has grown to a whopping US$11.7tn – increasing by US$1.3tn since the end of May alone.

Amid this growing prevalence of global negative interest rates, reserve managers are finding they have less room for manoeuvre. And recent currency interventions by the Swiss National Bank, following the Brexit vote, to halt the appreciation of the Swiss franc (considered a safe haven and key reserve currency) have served to compound the issue. Additionally, in mid-July, the Japanese yen – another key reserve currency – saw a steep depreciation against the US dollar after the suggestion of further accommodative monetary policies by the Bank of Japan (specifically the possible introduction of "helicopter money") caused market jitters.

Chart 9: Advanced Economy Sovereign Debt Outstanding (as of 27 July 2016)

- Central banks need to cast their net wider in the search for yield in an environment of negative interest rates.
- The UK's Brexit decision compounded uncertainty levels, putting both sterling and the Swiss franc under pressure.



Note: Sovereign debt from Australia, Canada, Denmark, Euro area (investment grade), Japan, Sweden, Switzerland, the United Kingdom and the United States. May not equal 100% due to rounding.

21 https://www.fitchratings.com/site/pressrelease?id=1008156

Technology

Gold volumes in the technology sector dwindle further with year-on-year declines across all uses from electronics to dentistry.

Tonnes	Q2'15	Q2'16	Year-on -year change	Year-to -date change
Technology	83.3	80.9	-3%	-3%
Electronics	65.7	63.9	-3%	-3%
Other Industrial	12.8	12.4	-3%	-3%
Dentistry	4.7	4.6	-4%	-4%

Demand for gold in technological applications totalled 80.9t in Q2, fractionally higher than the previous quarter, but down 3% year-on-year. Continued cost-saving – through substitution or thrifting – continued to weigh on the sector.

Electronics demand impacted by weaker device sales
Gold used in electronics dropped 3% year-on-year to 63.9t in Q2 2016, although it was unchanged from the first quarter. This keeps electronics demand at its lowest level since the fourth quarter of 2013. The rise in the gold price in the first six months of the year will have fueled further cost-saving drives by manufacturers. Despite the tough environment, growth in the wireless sector helped partially offset slackness in demand for gold bonding wire.

The wireless sector grew in Q2, as stronger sales for Android devices made up for weaker iPhone sales. However, gold's use in this sector faces some hurdles. As the smart-device market matures, previous double-digit gains will be difficult to replicate. One bright spot might be the continued interest in Internet-of-Things (IoT) applications, which may drive increased demand for certain devices.

Gold bonding wire demand continued to decline, as manufacturers substituted gold with cheaper alternatives. Palladium coated copper (PCC) wire was increasingly used by middle-to-low-end smartphone manufactures in China. Flip chip packaging (which continues to grow in importance and relevance given its advantages of lower cost, high electrical performance and reproducibility) also reduced gold wire consumption.

Dentistry and other industrial declined further
Other industrial demand in Q2 fell 3% year-on-year, from 12.8t to 12.4t. Declines were seen across a number of key Asian markets: China was 6% lower, while Taiwan and Korea dropped 7.5% and 2.7% respectively. Despite this weakness, industrial demand for gold is, in some areas, beginning to show signs of recovery.

Gold in dental applications continues to hover around the 4–5t mark, weakening by 4% to 4.6t in Q2, largely due to cosmetic considerations.

More new uses of gold uncovered
Scientists in the United States have developed a new super-hard alloy of gold and titanium.[22] This new alloy is the hardest metallic substance that is compatible with living tissues – four times tougher than titanium alone. This new material could have wide ranging applications in medicine and dentistry, overcoming the shorter lifespan of titanium implants (typically around 10 years) that are currently used in human joint-replacements.

In addition, Johnson Matthey continues to advance the manufacture of a new non-polluting commercial catalyst that uses gold. The aim is to replace traditional mercury-containing catalysts in the polyvinyl chloride (PVC) production process, as well as making it more cost effective. The project has won them a number of awards, including an International Impact Award.[23]

22 *http://advances.sciencemag.org/content/2/7/e1600319*

23 *http://www.innovation-network.org.uk/innovation-awards/awards/international-impact-award.aspx*

Supply

Higher recycling levels and further hedging outweigh plateauing production, boosting total supply by 10%.

Tonnes	Q2'15	Q2'16	Year-on-year change	Year-to-date change
Total supply	1,041.7	1,144.6	↑ 10%	↑ 8%
Mine production	789.6	786.9	↓ 0%	↑ 1%
Net producer hedging	-15.2	30.0	- -	- -
Recycled gold	267.4	327.7	↑ 23%	↑ 10%

In Q2, the total supply of gold increased by 10% year-on-year, amounting to 1,144.6t compared to 1,041.7t in Q2 2015. The primary driver of this increase was recycling (+23% year-on-year) which was boosted by the higher gold price in a number of price-sensitive markets. Mine supply rose 5% in the second quarter, but its two components saw contrasting fortunes: mine production was effectively flat year-on-year, while gold producers added 30t to the hedgebook.

Gold production plateaus as margins grow

The second quarter saw mine production reach 786.9t, virtually unchanged from the 789.6t seen in Q2 2015. Production levels continue to plateau, a consequence of cost management which has been the focus of the industry for the last couple of years. Higher production from existing and newer projects was more than offset by declines at larger projects.

Canadian mine output rose by 3t year-on-year in Q2, as continued ramp-up of the Eléanore and Cochenour projects added to increases at Canadian Malartic and Detour Lake. In Mexico, production from Fresnillo (+1.1t, +20%) again helped increase the country's year-on-year gold output, as did Torex Gold's El Limon-Guajes which entered commercial production at the end of Q1.[24] Increases from the newer Aurora and Karouni projects helped Guyana register a higher year-on-year output (+2t). Although recent mine start-ups have made a positive contribution to overall mine production, this will not have a significant effect. The project pipeline remains constrained, with 2016 output from new mines coming on stream expected to be around half of what it was in 2015.

Year-on-year output from Mongolia (-6t) and Indonesia (-12t) saw declines; production from both Oyu Tolgoi (-5.2t) and Grasberg (-4t) fell owing to mine sequencing.[25] In Peru, declines in production were once again led by Yanacocha, where production was 1.6t lower than in Q2 2015.

24 El Limon-Guajes is estimated to add a further 11t per year to overall mine production.

25 Mine sequencing is the process where ore and waste is mined in stages according to predetermined sections or blocks based on the geological model and mine plan.

Despite mine production being flat, gold producers have had a stellar six months. The focus on cost management in recent years has seen costs steadily fall since 2013. In Q2, year-on-year total cash costs and all-in sustaining costs fell 6% and 8% respectively. While further cuts will be increasingly difficult, costs are now at least under control. Coupled with the rise in gold prices during the first half, producer margins are now looking increasingly healthy. The all-in sustaining cost margin of US$479/oz in Q2 was at its highest since early 2013 (**Chart 10**). This breathing room has proved to be a boon for the industry, and gold mining equities continue to outperform the wider market.[26]

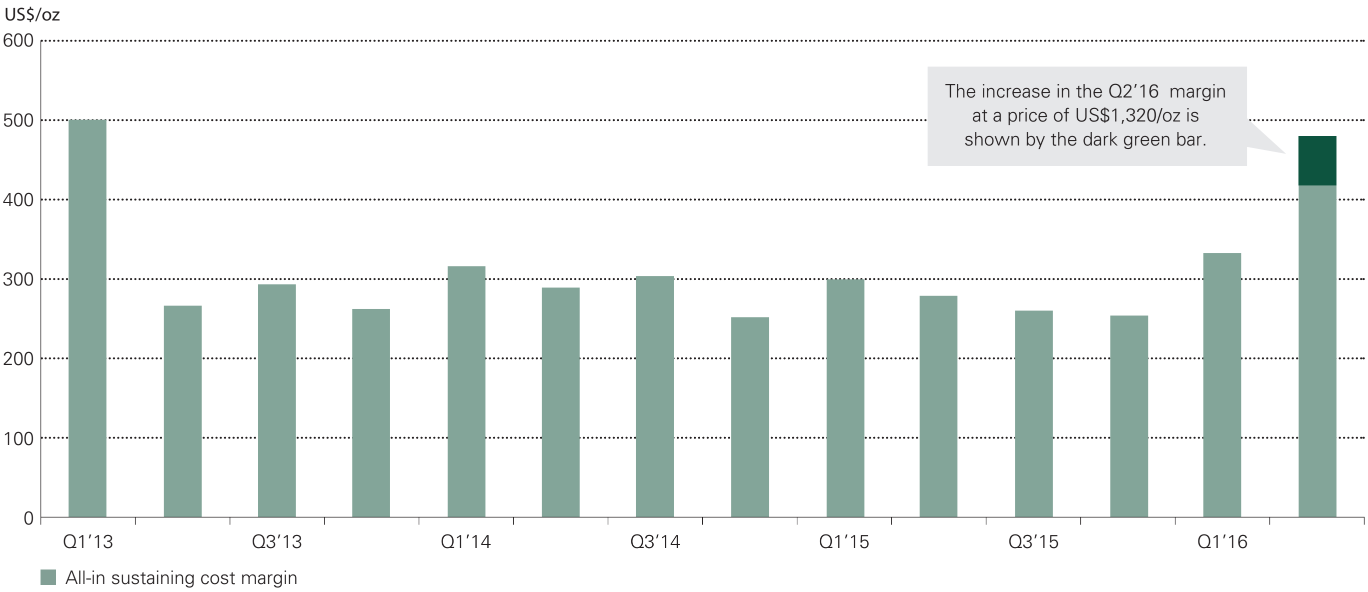
Hedgebook continues to edge up

Hedging – the selling forward of unmined gold – by gold producers has seen somewhat of a shift in the last year. We have now seen four consecutive quarters of modest hedging, totalling 113.8t. In the first half of 2016, net producer hedging reached 82.7t, up from the 17.7t of net de-hedging in the same period last year. The global hedgebook has risen to over 300t, its highest level since 2009. For perspective, this is still only a tenth of the level it was at 15 years ago.

The rationale behind recent hedging remains the desire to safeguard cash flow, whether that be to help manage or reduce debt levels, for investment in ongoing or future operations or to avoid volatility and exploit local currency advantages. This prudence is understandable given the upheaval in the industry in recent years. It should also be noted that those producers entering into, or expanding, hedging agreements have done so only partially – ensuring that they are still exposed to any further gains in the gold price.

Chart 10: Gold producers have seen margins increase in the first half of 2016

- The emphasis on cost reduction across the gold mining industry, combined with the recent price rise, has been a boon to producer profit margins.
- All-in sustaining costs were trimmed by 1% in Q2 from the previous quarter, signalling that further material reductions will be increasingly difficult.



Note: Margins are calculated using quarterly average gold prices; margin calculated for Q2'16 uses the most recently available (Q1'16) costs data. The dark green bar shows the increase in margin for Q2 when calculated using the end-June PM fix price of US$1,320.75/oz, compared with the margin calculated using the average Q2 quarterly price of US$.

Source: Metals Focus; World Gold Council

26 HUI Index increased 122% in H1 2016, exceeding returns from FTSE Gold Mines Index (+110%), S&P 500 Index (+3%) and MSCI ACWI Index (0%).

The price increase in 2016 has led to a number of producers to use this as an opportunity to lock in the price they will receive for their output. The gold price is 25% higher in US dollar terms, but at or above record levels in some other currencies such as the Australian dollar and South African rand (**Chart 11**). And it is in these regions where much of the recent hedging activity has been concentrated.

In Australia, Newcrest extended its hedge of Telfer production by a further 6.2t, while Oz Minerals (+5.3t) and Alkane Resources (+1.5t) were notable fresh positions. In Canada and the United States, the most notable hedges were 6.7t by Atlantic Gold and 5t by Alacer Gold respectively. Endeavour Mining – which operates in West Africa – hedged 12.4t (400,000oz) in Q2, 50% of its estimated gold production over the duration of the hedge. Shortly after the quarter had ended, South African producer Harmony Gold announced it hedged 20% of its FY17 and FY18 total production – 13.4t (432,000oz). This will help secure margins at some of the company's higher cost operations.

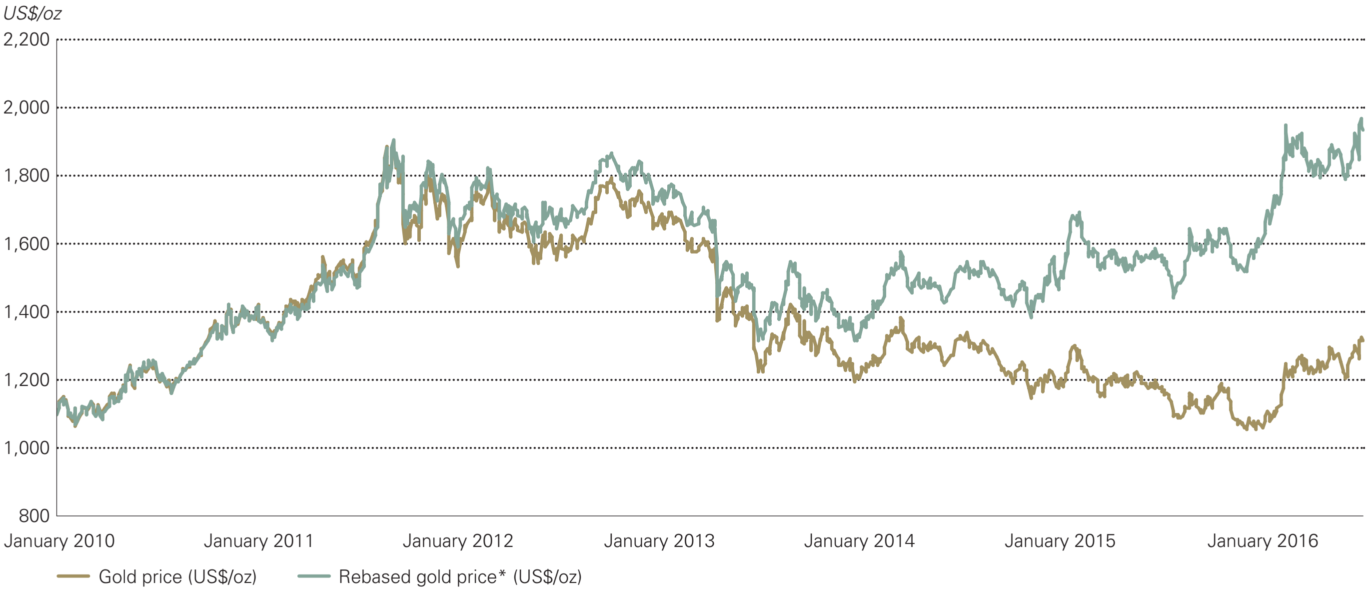
Our expectation remains that small-scale, sporadic hedging may occur should we see further price appreciation, but a sustained wave of large-scale hedging deals is unlikely.

Recycled gold jumps in response to higher prices

The supply of recycled gold saw a 23% year-on-year jump in Q2, from 267.4t to 327.7t. This increase is primarily a function of the dramatic price increase that has been witnessed so far in 2016. While the gold price increased by 25% in US dollar terms by the end of June, many price-sensitive markets actually saw much larger increases owing to currency movements. In the first half of the year, recycled gold supply was 686.7t, 10% higher than the 625.9t of recycling seen in H1 2015.

Chart 11: Gold producers "local" gold price is hitting new highs

- The US$ price rise has been more than matched by the price in key producer currencies.
- Weakness in the Australian dollar and South African rand in particular have benefitted the industry.
- This has been a key reason for the uptick in hedging as producers make the most of the opportunity to lock in a higher gold price.



*The rebased gold price has been adjusted for local currency movements for the largest 20 gold producing countries. Local currencies are indexed from January 2010, and weighted based on 2015 gold production volumes.

Source: Bloomberg; World Gold Council

In India, an increase in recycling was attributed to selling among rural consumers, rather than outright selling by jewellery consumers more broadly. Weather-related events in the past couple of years have impacted rural incomes, making gold a useful source of funds with which to finance the purchase of farming products – such as seeds – for the sowing season ahead.

The one key exception was Turkey, where recycling was significantly down quarter-on-quarter and marginally down year-on-year. However, this is similar to what was seen in both 2014 and 2015. The price appreciation at the start of the year brought a wave of selling back by consumers, eager to capitalise on their gains. In the second quarter, recycling fell back to more normal levels, despite further increases in the price level. Political uncertainty continues to plague the country, with this sense of unease being exacerbated by a number of terrorist-related incidents. As a result, many consumers may also opt to leave their gold "under the pillow."[27]

27 World Gold Council, *Turkey: gold in action,* January 2015.

Notes and definitions

All statistics (except where specified) are in weights of fine gold.

Notes

Revisions to data
All data is subject to revision in the light of new information.

Historical data series
Demand and supply data from Q1 2014 are provided by Metals Focus. Data between Q1 2010 and Q4 2013 is a synthesis of Metals Focus and GFMS, Thomson Reuters data, which was created using relatively simple statistical techniques. For more information on this process, please see *Creating a consistent data series* by Dr James Abdey (*http://www.gold.org/supply-and-demand/gold-demand-trends/back-issues/gold-demand-trends-q1-2015#package*)

Definitions

Central banks and other institutions
Net purchases (i.e. gross purchases less gross sales) by central banks and other official sector institutions, including supra national entities such as the IMF. Swaps and the effects of delta hedging are excluded.

Consumer demand
The sum of *jewellery* consumption and *total bar and coin investment* occurring within a country i.e. the amount (in fine weight) of gold purchased directly by individuals.

Electronics
This measures fabrication of gold into components used in the production of electronics, including – but not limited to – semiconductors and bonding wire.

Dentistry
The first transformation of raw gold into intermediate or final products destined for dental applications such as dental alloys.

ETFs and similar products
Exchange Traded Funds and similar products including, but not limited to: SPDR Gold Shares, iShares Gold Trust, ZKB Gold ETF, ETFS Physical Gold/Jersey, Gold Bullion Securities Ltd, Central Fund of Canada Ltd, Xetra-Gold, Julius Baer Precious Metals Fund – JB Physical Gold Fund, Source Physical Gold P-ETC, Sprott Physical Gold Trust. Over time, new products may be included when appropriate. Gold holdings are as reported by the ETF/ETC issuers and where data is unavailable holdings have been calculated using reported AUM numbers.

Fabrication
Fabrication is the first transformation of gold bullion into a semi-finished or finished product.

Gold demand
The total of *jewellery fabrication, technology, total bar and coin demand* and demand for *ETFs and similar products.*

Jewellery
End-user demand for all newly-made carat jewellery and gold watches, whether plain gold or combined with other materials. Excluded are: second-hand jewellery; other metals plated with gold; coins and bars used as jewellery; and purchases funded by the trading-in of existing carat gold jewellery.

Jewellery fabrication
Figures for jewellery fabrication – the first transformation of gold bullion into semi-finished or finished jewellery – are included in Table 4. Differs from jewellery consumption as it excludes the impact of imports/exports and stocking/de-stocking by manufacturers and distributors.

LBMA Gold price PM
Unless otherwise specified, gold price values from 20 March 2015 are based on the LBMA Gold price PM administered by ICE Benchmark Administration (IBA), with prior values being based on the *London PM Fix.*

London PM Fix
Unless otherwise specified, gold price values prior to 20 March 2015 are based on the London PM Fix, with subsequent values being based on the *LBMA Gold price PM* administered by ICE Benchmark Administration (IBA).

Medals/imitation coin
Fabrication of gold coins without a face value, produced by both private and national mints. India dominates this category with, on average, around 90% of the total. 'Medallion' is the name given to unofficial coins in India. Medals of at least 99% purity, wires and lumps sold in small quantities are also included.

Mine production
The volume (in fine weight) of gold mined globally. This includes an estimate for gold produced as a result of artisanal and small scale mining (ASM), which is largely informal.

Net producer hedging
This measures the impact in the physical market of mining companies' gold forward sales, loans and options positions. Hedging accelerates the sale of gold, a transaction which releases gold (from existing stocks) to the market. Over time, hedging activity does not generate a net increase in the supply of gold. De-hedging – the process of closing out hedged positions – has the opposite impact and will reduce the amount of gold available to the market in any given quarter.

Official coin demand
Investment by individuals in gold bullion coins. It equates to the fabrication by national mints of coins which are, or have been, legal tender in the country of issue. It is measured at the country of consumption rather than at the country of origin (for example, the Perth Mint in Australia, sells the majority of the coins it produces through its global distribution network) and is measured on a net basis. In practice it includes the initial sale of many coins destined ultimately to be considered as numismatic rather than bullion.

Other industrial
Gold used in the production of compounds, such as Gold Potassium Cyanide, for electro-plating in industrial applications as well as in the production of gold-plated jewellery and other decorative items such as gold thread. India accounts for the bulk of demand in this category.

Over-the-counter
Over-the-counter (OTC) transactions (also referred to as 'off exchange' trading) take place directly between two parties, unlike exchange trading which is conducted via an exchange.

Physical bar demand
Investment by individuals in small (1kg and below) gold bars in a form widely accepted in the countries represented within *Gold Demand Trends.* This also includes, where identifiable, gold bought and stored via online vendors. It is measured as net purchases.

Recycled gold
Gold sourced from fabricated products that have been sold or made ready for sale, which is refined back into bullion. This specifically refers to gold sold for cash. It does not include gold traded-in for other gold products (for example, by consumers at jewellery stores) or process scrap (working gold that never becomes part of a fabricated product but instead returns as scrap to a refiner). The vast majority – around 90% – of recycled gold is high-value gold (largely jewellery) and the remainder is gold recovered from industrial waste, including laptops, mobile phones, circuit boards etc. For more detail on recycling, refer to *The Ups and Downs of Gold Recycling,* Boston Consulting Group and World Gold Council, March 2015 (*www.gold.org/supply-and-demand*).

Surplus/deficit
This is the difference between *total supply* and *gold demand.* Partly a statistical residual, this number also captures demand in the OTC market and changes to inventories on commodity exchanges, with an additional contribution from changes to fabrication inventories.

Technology
This captures all gold used in the fabrication of electronics, dental, medical, decorative and other technological applications, with electronics representing the largest component of this category. It includes gold destined for plating jewellery.

Tonne (Metric)
1,000 kg or 32,151 troy oz of fine gold.

Total bar and coin investment
The total of *physical bar* demand, *official coin* demand and demand for *medals/imitation coin.*

Total supply
The total of *mine production, net producer hedging* and *recycling.*

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Published: August 2016