Gold Price Drivers

13 August 2020

Mining

The Icarus Strategy

Summary

- **Gold price appreciation the result of secondary "irrational exuberance"**
- **All currencies depreciate against gold over time**
- **Opportunity-cost of bullion is long-term storage, effectively cost-free**
- **No resource scarcity at current Gold prices**
- **1H20 jewellery demand has fallen 52%**
- **ETF demand up >300% primarily, from Western investors**

We are terming this current equity period as the "Disrupter Bubble", and gold and silver stocks are benefitting from secondary, not primary, irrational exuberance. Their correction, therefore, is entirely reliant on when these new connectivity business models "mean-revert"; at which point, when we put their gains against prior bubble-like curves, it suggests a tentative celestial zenith in early Q420. As observed in 2008/09, and more recently in March this year, all precious metals stocks collapsed with everything else. Which is logical, given their current appreciation is highly correlated with the overall market gains.

We remain secular gold bulls, demonstrating that all other currencies are fiat, and all depreciate in time. As a medium of exchange, its inherent value is recognised universally; and it is the only monetary medium that is not someone else's liability.

This recent pull back is temporary, and the long-term trend remains intact.

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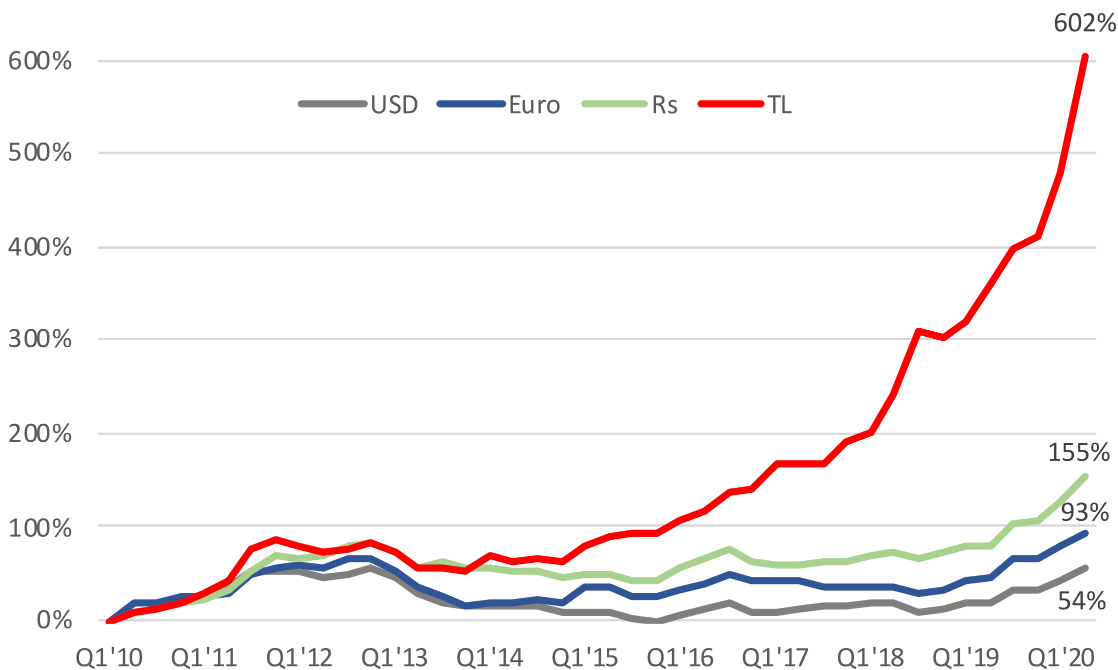
Gold as the Ultimate Currency?

What is Money? It's a topic that we have written on considerably over the past 18-months. The answer frames ones world-view. In our view, gold is a foil against economic mismanagement, which, if history is any guide, appears to afflict all currencies eventually.

Clearly gold is not portable or easily fractioned, however, its role is slowly evolving into a monetary medium as a store of intrinsic value. This becomes increasingly obvious when you compare a number of currencies using a set quantum of gold over time (see Figure 1). Since the 2008/09 recession, Europe has actively used the depreciation of the Euro in a beggar-thy-neighbour mechanism to encourage exports which has fuelled, in particular Germanys economy. As a result, the Euro has lost close to half its relative value. Since independence, India has seen a 21-fold deprecation against the USD, even more so against gold. As a developing nation, it has always imported more than it has exported, resulting in consistent payment deficits. The recent bout of depreciation, attributed to a deceleration in economic growth and an inflation surge. But the greatest example over the past decade of a major currency depreciating against gold is the Turkish Lira. Turkey has a large current account deficit, dwindling central-bank foreign reserves and substantial amounts of domestic sourced foreign debt (mostly denominated in USD). Add in Erdoğan's increasing authoritarianism, an unorthodox interest rate policy whereby real rates are significantly below zero, and you end up with the hallmarks of an impending hyperinflation event.

Figure 1 reconfirms a number of points we have previously made regarding gold as a medium of exchange, in that (i) it has inherent value which is recognised universally; (ii) it is the only monetary medium that is not someone else's liability; and (iii) it cannot be replicated or counterfeited.

FIGURE 1: SELECTION OF CURRENCIES PRICED IN GOLD PER OUNCE FROM Q110 TO Q220. BEING THE GLOBAL RESERVE CURRENCY, THE USD HAS APPRECIATED THE LEAST (54%), WHILST, AS A RESULT OF UNORTHODOX ECONOMIC POLICIES, THE TURKISH LIRA HAS DEPRECIATED THE MOST.

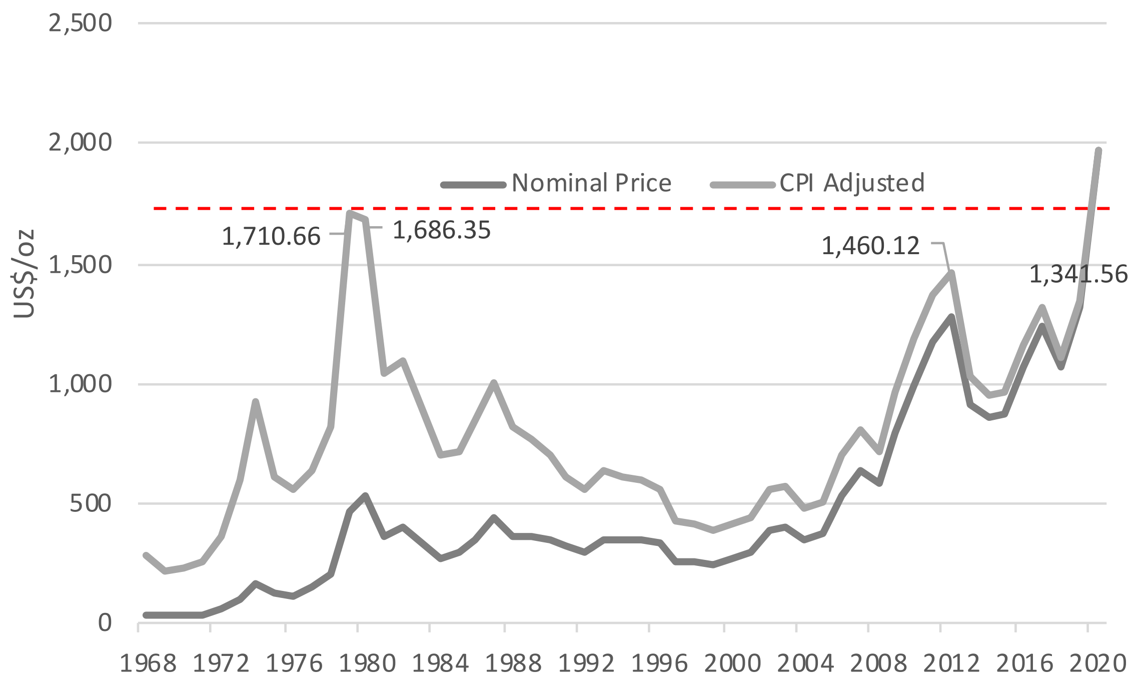


Source: FDC, WGC (2020)

Although not yet recognised as such, we believe gold will increasingly become a medium against which all other forms of monetary value will be measured, on a long-term basis. Buffett's biggest bullion gripe is that it doesn't pay a dividend, but

neither does cash! According to global bond market (tracked by ICE Data Services), 60% of global debt is now trading at yields less than one percent, which in most instances is substantially below the prevalent inflation rate.

FIGURE 2: ANNUALISED NOMINAL AND CPI ADJUSTED GOLD PRICE (US$/OZ) OVER TIME, FROM 1968 UP TO THE PRESENT. NOTE, BEFORE 1975 THE PRICE OF GOLD WAS EFFECTIVELY MANDATED. ALTHOUGH USING SMOOTHED DATA, THE CURRENT SPOT PRICE HAS BROKEN A LONG-TERM RESISTANCE LEVEL



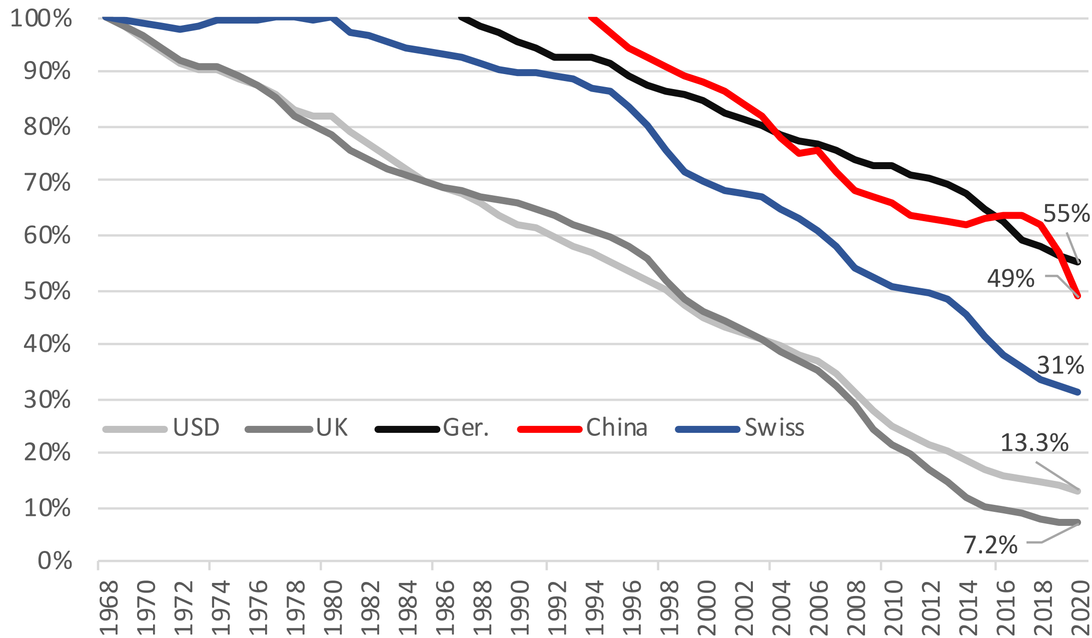
Source: FDC, S&P (2020)

The recent jump in gold price (in real terms) is approaching levels not seen since the late 1970s early 1980s, a period that was characterised by high inflation/stagflation, low/falling commodity prices, high unemployment and declines in economic output. That contrasts dramatically with the current situation which, until recently, has been associated with almost full employment, very low inflation (now outright deflation in many parts of the world), buoyant commodity prices, and unprecedented globalisation and distribution supply chains.

The two economic scenarios (inflation/deflation) are, in fact, two sides of the same coin, in part, addressing the concerns of the investor wanting to preserve purchasing power. As seen in Figure 3, every major currency depreciates, despite disparate economic histories, the slope of decline is remarkably similar (for reasons unknown), averaging ~14% per decade. In periods of high inflation, acquiring hard assets (whilst the purchasing medium degenerates), is a form of enforced savings; as observed in Venezuela reducing its citizens to buying used tyres, in an attempt to rid themselves of their worthless national currency.

The converse is also true, with over half of Europe now at negative rates and a demographic crisis about to envelope the region. Lower global interest-rates by the ECB is an attempt to stimulate export growth by inducing "beggar-thy-neighbour" policies. As a result, most European banks charge savers to store their monetary funds; the opportunity-cost for the saver, therefore, is to acquire an asset (i.e. gold) that cannot be duplicated, with long-term storage effectively cost-free. The irony being, that the largest growth in gold purchases is not from Developing Nations with depreciating currencies (e.g. India and China) but from low rate, negative interest rate regimes in Europe and increasingly, the US. Even the US President is actively advocating against his own Fed appointee to drop interest rates.

Figure 3: Currency depreciation over time, using USD, GBP and CHF over a 52-year period. Have included Germany from 1987 and China from 1994. On a long enough time-scale, currency depreciation resulting from inflation affects every currency, for example, the GBP only has ~7% of its purchasing power (in real terms) as it did back in 1968. By comparison, the CPI adjusted gold price over that same period, although relatively volatile, has retained its purchasing power without peer (see Figure 2).



Source: FDC, Inflationdata.com (2020)

Table 1: Top 10 physically-backed gold ETFs in tonnes and the growth of physically backed ETFs from Q215 to Q220

Fund	Country	Holdings Q220		y-o-y % change
SPDR Gold Shares	United States	1,178.5	▲	48.5
iShares Gold Trust	United States	455.8	▲	54.7
iShares Physical Gold ETC	United Kingdom	227.7	▲	86.1
Xetra-Gold	Germany	223.7	▲	15.1
Invesco Physical Gold ETC	United Kingdom	201.3	▲	41.1
WisdomTree Physical Gold	United Kingdom	144.7	▼	-9.6
Gold Bullion Securities Ltd	United Kingdom	83.0	▲	7.6
ZKB Gold ETF	Switzerland	74.8	▲	16.1
Sprott Physical Gold Trust	United States	72.1	▲	45.6
Xtrackers Physical Gold ETC EUR	Germany	68.0	▲	8.3
Global total		3,620.7	▲	1.4

Source: FDC, WGC (2020)

ETF holdings of gold are currently ~3.6kt (see Table 1), the largest buyers are not Central Banks or even Developing Nations, but Western investors! ECB lowered its base rate to -0.50%, announcing it will remain at those levels for some considerable period of time. The German 5-year bond is -0.73%, Netherlands 10-year -0.43%, Switzerland -0.57%, France -0.2%, the UK 0.09%. On that basis, the US 10-year yield (0.55%) looks unsustainable, with a core inflation rate ~ 1.2%, which suggests that real rates are currently ~-0.7% pa.

Moreover, we believe it is not an unreasonable assumption that if a “mean-reversion” event occurs before year’s end, the US will actively participate in more unorthodox MMT measures; the result being, in all likelihood, that US bond yields in 12-months’ time will be substantially below zero. The convexity in forward curve resulting in generous capital appreciation of the bonds values, the corollary being, a possible depreciation of the USD (highly dependent on other central bank actions).

The increasing probability of zero or below rates on US debt will, in our opinion, propel further lowering interest quotients on virtually all other global fixed income (even those with existing negative rates – especially the UK, EU and Japan) as beggar-thy-neighbour policies become a global phenomenon. As central banks continually attempt to debase their respective currencies (ignoring holding costs within a deflationary environment) any sort of economic recovery potentially risks substantial inflation/stagflation pulse. Although we think that possibility is years away, it is the reason why we remain long-term gold bulls.

Summary: Advocating a short-term trade, selling all precious metals stocks if a mean-reversion event occurs, taking into account global macroeconomic conditions. But the concept of setting inflation targets to mitigate debt holdings and actively debasing one’s currency over the long-term, will force investors into gold and other hard assets in an attempt to retain purchasing power.

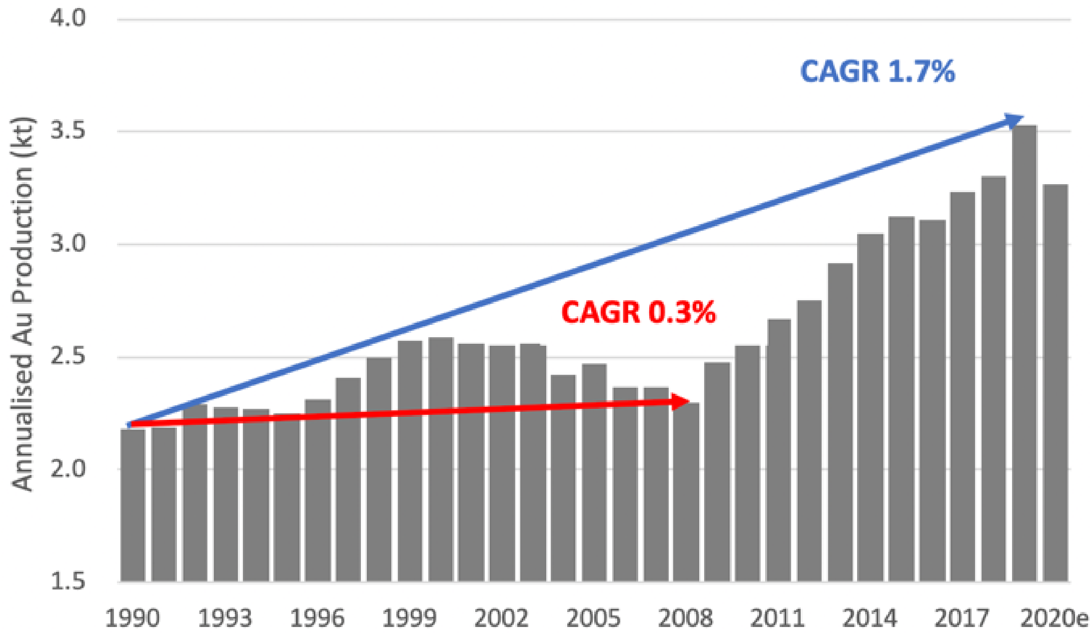
Resource Scarcity?

When discussing scarcity of any non-renewable resource, there are two key considerations; namely, the very nature of exploitation of a particular deposit type will ultimately result in physical mineral depletion. If depletion continues unchecked while other economic and technological conditions remain the same, resource scarcity will increase, causing real mineral prices to rise.

Secondly, ceteris paribus, the easier-to-find deposits will be located first, the more difficult later. This discovery depletion means that latter deposits are typically of a poorer quality than those in initial operating mines, in that their production costs per unit of output will typically continue to rise (e.g. gold mines become deeper and/or lower-grade). Interestingly, in the 1990s, the USGS estimated that 20-30% of base gold reserves (not included in the reserve numbers below) resided within large copper porphyry deposits, which contain ~65% of known Cu resources. Large, low-grade, often multi-metallic, the majority in production were discovered in the 1970s and 80s. Falling mine grades (Cu prices and cut-off grades are inversely related) and several decades of production, this estimate has more recently been revised substantially downward to contain only 10-15% of global gold resources.

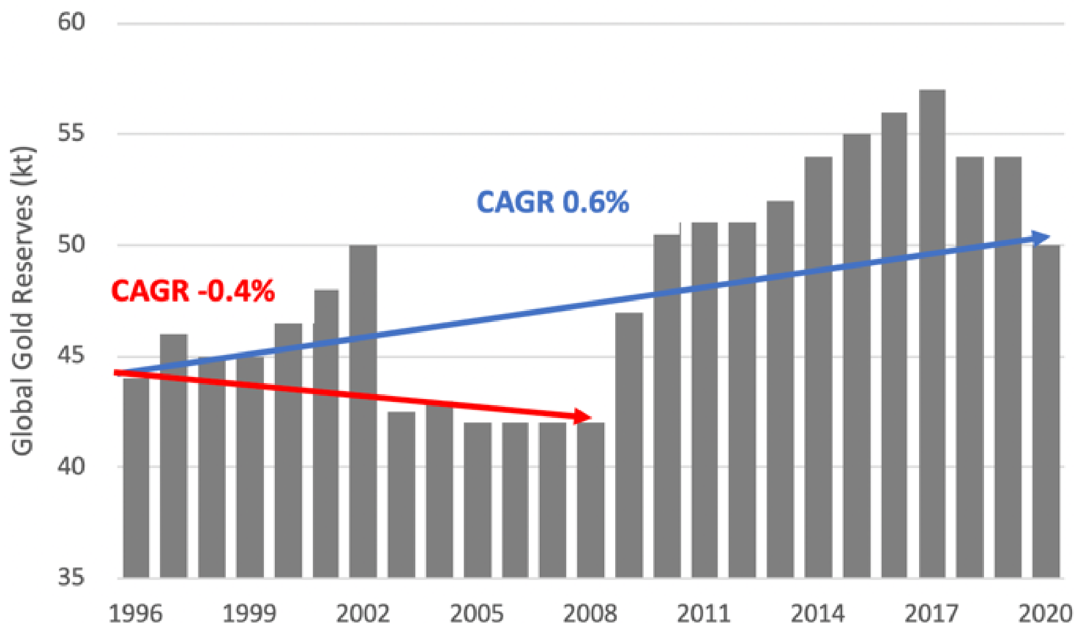
Despite stability in demand (see Figure 5), the declining in quality of resources is the result of geological constraints. Evidence for this, often quoted, is the general lack of success by major gold mining houses to replace current production via additional Resources. But we believe that this is more the result of Resource depletion than increasing scarcity. As Figure 8 demonstrates, the level of extraction in tonnage, over the Resource base, expressed as a percentage had remained largely unchanged over decades, ranging in a relatively tight range of 5-6%.

Figure 5: Growth in primary gold production globally, from 1990 to 2019. The 2020 estimate supplied by WGC, its relative decline to the pcp is the result of closures due to the Covid pandemic. The low CAGR (0.3% pa) in productive output prior to 2008 is directly correlated to low commodity prices. Note: A consistent variance between USGS and WGC primary production in the vicinity of 150 to 200t Au pa (5.2-7.1Moz Au). For consistency, we retain USGS figures as primacy.



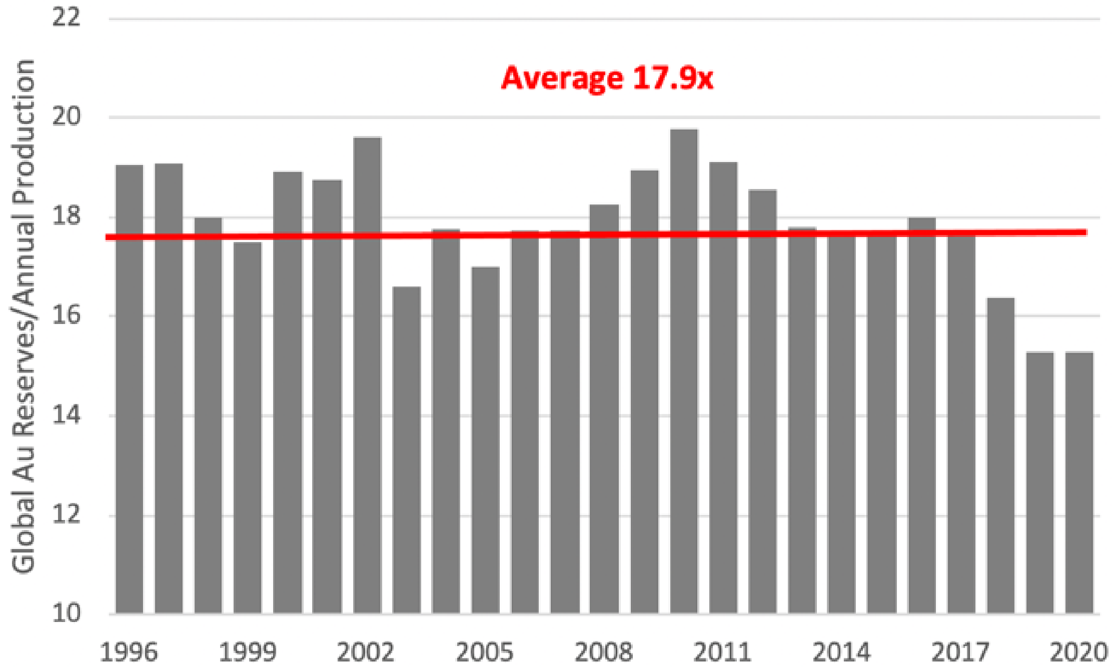
Source: FDC, USGS (2020), WGC (2020)

Figure 6: Growth in primary gold production globally, from 1990 to 2019. The 2020 estimate supplied by WGC, its relative decline to the pcp is the result of closures due to the Covid pandemic. The low CAGR (0.3% pa) in productive output prior to 2008 is directly correlated to low commodity prices.



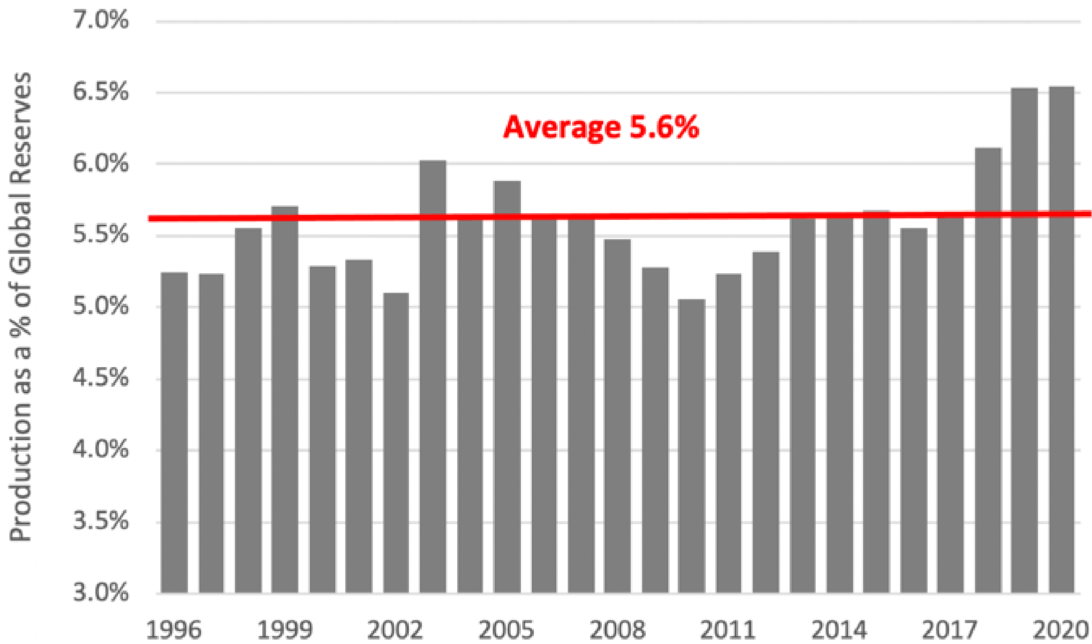
Source: FDC, USGS (2020), WGC (2020)

FIGURE 7: RESERVES DIVIDED BY ANNUAL PRODUCTION, A PE LOOKALIKE. THE LOWER THE RATIO, THE GREATER THE SCARCITY SHORTAGE AND HIGHER THE CONSEQUENT PRICES.



Source: FDC, USGS (2020)

FIGURE 8: ANNUAL GOLD PRODUCTION DIVIDED BY RESERVES. IT COULD BE ARGUED THAT IN THE PAST COUPLE OF YEARS, RESERVES ARE STARTING TO BE REPLACED MORE SLOWLY



Source: FDC, USGS (2020)

Inevitably, at some point, the supply of gold will become increasingly more inelastic and the price will be re-rated upward significantly. The above diagrams, in general, suggest with some degree of certainty that resource shortages are not

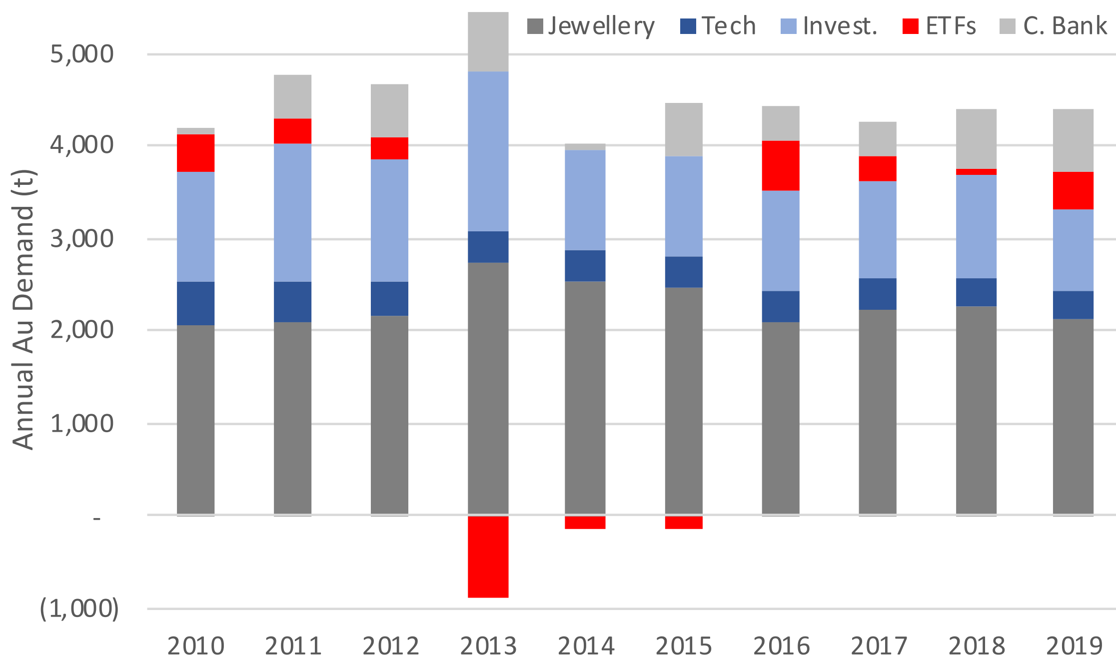
responsible for any recent price appreciation. Realistically it would take a decade of mining before shortages would become critical, by then, substantial funds would have been allocated to additional discoveries.

Moreover, resources are dictated by the prevalent commodity assumptions used, with long-term gold estimates and cut-off grades inversely related. Meaning that if the gold price increases dramatically, substantial known lower-grade resources will then become economic, fulfilling marginal demand growth, but at a price!

Segmental Gold Demand

Despite a >52% H120 decline in jewellery consumption, this fall was offset by large inflows into gold-backed ETFs (see Tables 2 & 3). The reason behind this relative strength in times of uncertainty, was demonstrated at the height of the 2008/09 financial crisis, when many asset classes had zero liquidity, bullion was highly liquid. This was a double-edged sword, because when so many other sectors became illiquid, fund managers were forced to sell bullion to meet margin calls, depressing its price further. As a monetary medium, gold allows investors to hedge their risk whilst providing a long-term storage option that is effectively cost-free. Enjoying a 36% appreciation in the past 12 months is also beneficial.

Figure 9: Annualised global segmental demand from 2010 to 2019. Note ETF drop in 2013!



Source: FDC, WGC (2020)

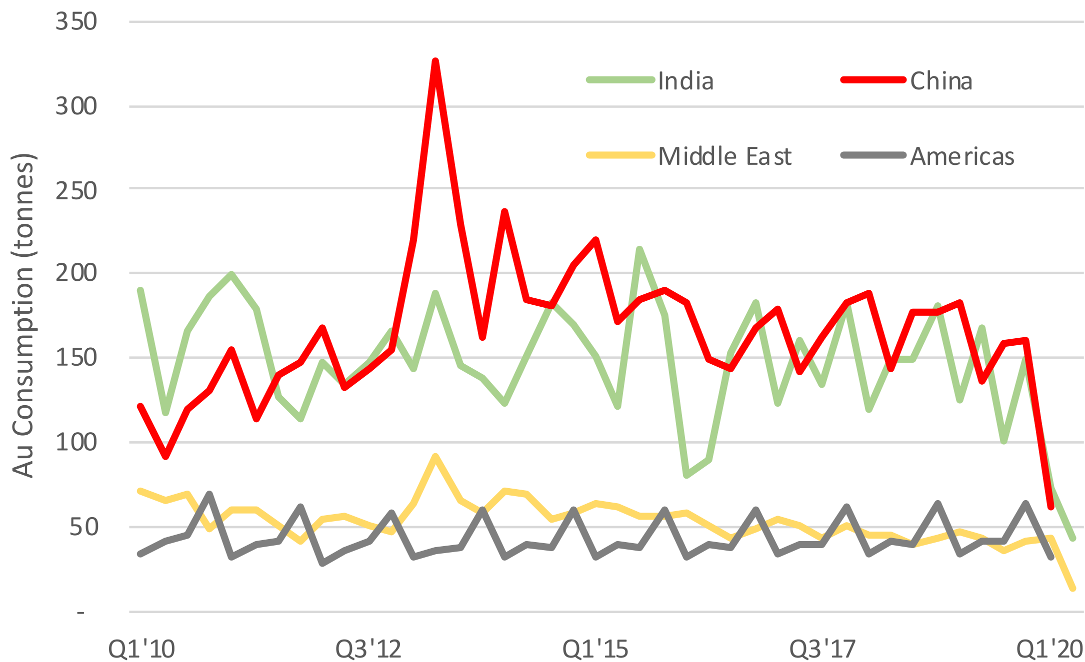
India & China – The Two Largest Demand Drivers

The largest segment of gold demand is jewellery, and within that segment, China and India are by far the largest consumers (see Figure 10). In absolute terms, China is the world's largest purchaser, at its peak in 2013 China accounted for ~939/t pa, slowly declining to 638/t (-32%) by 2019. Remarkably, given the effects of the Covid pandemic, Chinese H1 demand was only ~120/t, or at an annualised rate, representing less than a quarter of its peak consumption. India is often used as evidence for humanities eternal love for the yellow metal, but in reality, there appears to be a fundamental cultural change in attitude toward gold. Despite averaging 6.32% GDP growth over the past decade, jewellery demand (predominately used for dowries) has fallen 12% to ~545t pa Au.

We think the declines in consumption for both countries are for entirely different reasons. In India's case, gold's monetary shortcomings are now more self-evident, that despite greater generated wealth, real and nominal demand in India is diminishing. That doesn't necessarily translate that the average Indian's trust in bullion has lessened, rather its shortcomings as a medium of wealth are now evident; and will only be overcome when gold is fractionalised using ledger technology.

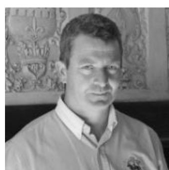
In China, investors consider Gold less as a monetary medium, holding it for capital appreciation only. It is no coincidence that the last peak of Chinese consumption coincided with the previous commodity high. Grounds for long-term change in attitude, however, is imminent. As demonstrated in Figure 3, the Yuan depreciation has been 48% over the past 26 years. China's continual support for its SOE's and enduring mercantile policies, demands that, in short order, it will decouple the Yuan from its current USD peg to maintain relative competitiveness. At which point, it is reasonable to assume the Chinese investor will resume consumption in an attempt to retain purchasing power.

FIGURE 10: ANNUALISED GLOBAL SEGMENTAL DEMAND FROM 2010 TO 2019. NOTE ETF DROP IN 2013!



Source: FDC, WGC (2020) NB: Americas – includes Canada, United States, Mexico and Brazil

Research Disclosures



Gaius L.L. King

Gaius L.L King has 25 years' experience in mining, exploration, corporate finance, mineral economics and as a resource analyst. As a geologist, he worked five years in various underground operations, and was involved in discovering and delineating ~2.6 Mt @ 3.5% Ni from a variety of ore bodies. Gaius has analysed fundamental supply and demand of iron ore, nickel, PGE, uranium, gold, REE, borate and lithium, among others. As an analyst, he has specialised in the mid-tier/junior sectors, covering mining stocks on the ASX and AIM.

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