World Gold Council: Gold Market Update

Presented by John Reade November 2019



World Gold Council members

26 companies; 500+ projects; 100+ productive mines; operations in 45+ countries





















































The World Gold Council

Leading industry authority on gold for 30+ years





Strategic case for gold

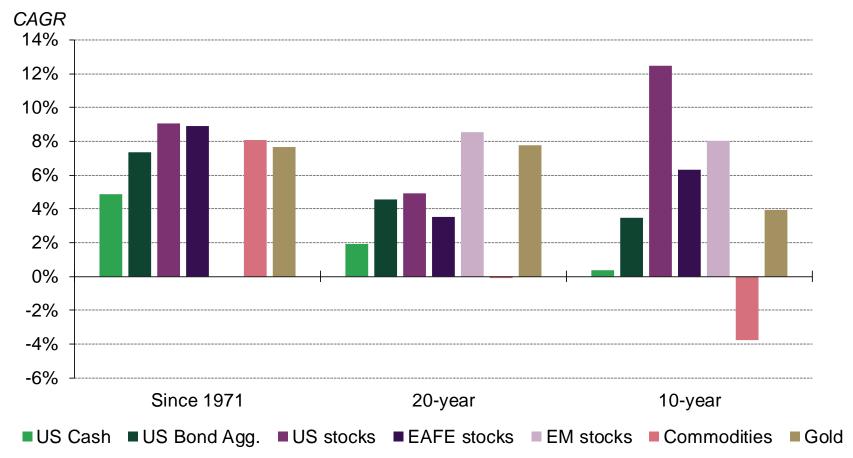


The Strategic Case for Gold

- 1. A source of returns over the long term, not just in crises or inflation
- 2. Diversification that works, especially when you need it
- 3. Gold's impact on portfolios
- 4. The more gold (2-10%) in a portfolio, the better the risk adjusted return
- 5. Not as volatile as often perceived
- 6. A deep and liquid international market
- 7. Outperforms and/or outlasts fiat currencies

The strategic case for gold: returns

Gold's long-term performance compared to other financial assets*



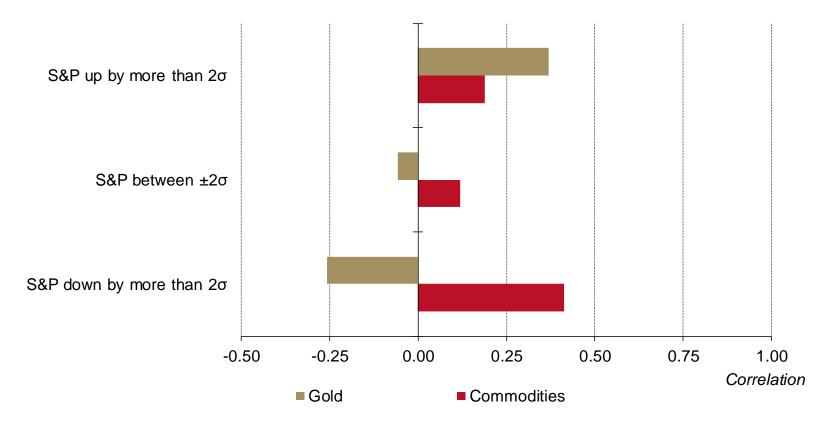
^{*}As of 31 December 2018.

Based on total returns indices including MSCI US, MSCI EAFE net, MSCI Emerging Markets net, JPMorgan 3-month US cash, Bloomberg Barclays US Bond Aggregate, Bloomberg Commodity Index. Gold performance based on the LBMA Gold Price.

Source: Bloomberg, ICE Benchmark Administration, World Gold Council

The strategic case for gold: diversification

Correlation of US stocks versus gold, commodities*



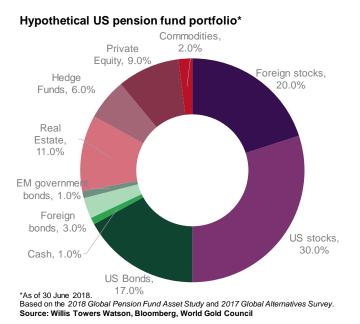
^{*}Based on weekly returns of the S&P 500, LBMA Gold Price and the S&P Goldman Sachs Commodity Index using data between 1 January 1987 and 31 December 2018.

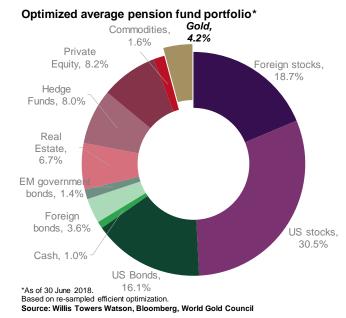
Source: Bloomberg, ICE Benchmark Administration, World Gold Council

The strategic case for gold: portfolio impact

10-year analysis of a hypothetical pension fund portfolio

5.6%	Return	5.7%
13.1%	Volatility	12.1% 👢
-43.5%	Max Drawdown	-38.9% 🖊

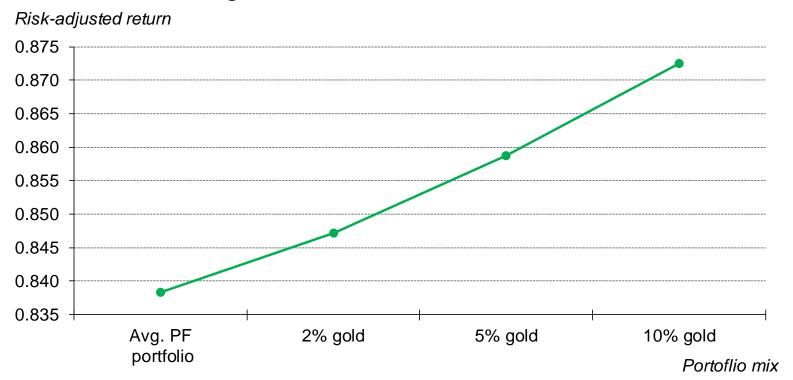




^{*}Willis Towers Watson provides analysis of typical portfolio allocations of global pension funds as of December 2018

The strategic case for gold: portfolio impact

Risk-adjusted return of a hypothetical average US pension fund (PF) portfolio with various allocations to gold*

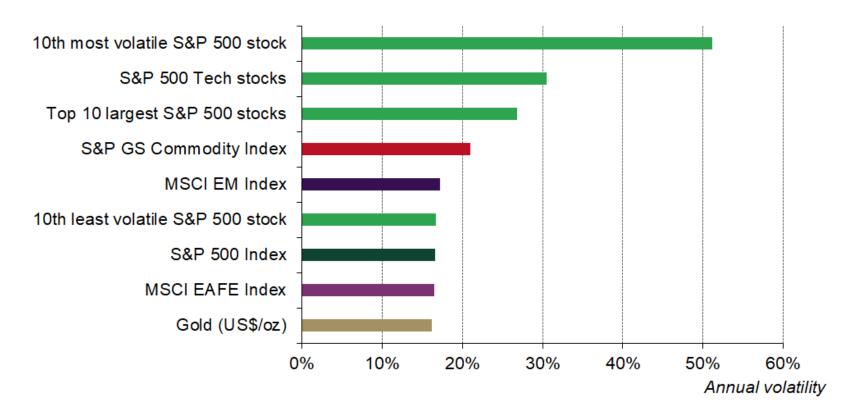


^{*}Risk-adjusted return computed by dividing portfolio return with annualised volatility based on total return indices and benchmarks listed below, using data from December 2008 to December 2018 and assuming quarterly rebalancing. The composition of the hypothetical average PF portfolio is based on Willis Tower Watson Global Pension Assets Study 2018 and Global Alternatives Survey 2017. It includes a 50% allocation to stocks (30% Russell 3000, 20% MSCI ACWI ex US), 25% allocation to fixed income (22% Barclays US Aggregate, 1% Barclays Global Aggregate ex US, 1% JPMorgan EM Global Bond Index and 2% short-term Treasuries), and 25% alternative assets (9% FTSE REITs Index, 7% HFRI Hedge Fund Index, 7% S&P Private Equity Index and 2% Bloomberg Commodity Index). Gold based on the LBMA Gold price and the respective 2%, 5% and 10% portfolio allocations come from proportionally reducing all other assets.

Source: Bloomberg, ICE Benchmark Administration, World Gold Council

The strategic case for gold: volatility

Gold's volatility sits below that of individual stocks and stock indices*



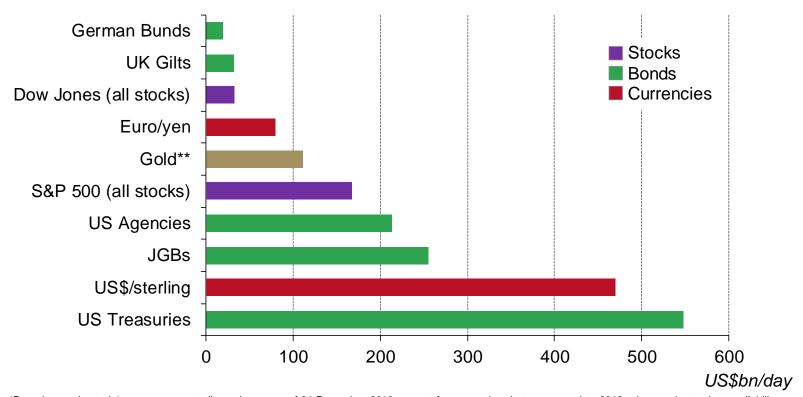
^{*}Annualised volatility based on daily returns between 1 Jan 2009 and 31 Dec 2018. Only stocks and indices with ten years worth of data are included.

Source: Bloomberg, ICE Benchmark Administration, World Gold Council

The strategic case for gold: liquidity

Gold trades more than many other major financial assets

Average daily trading volumes in US\$*



^{*}Based on estimated 1-year average trading volumes as of 31 December 2018, except for currencies that correspond to 2016 volumes due to data availability.

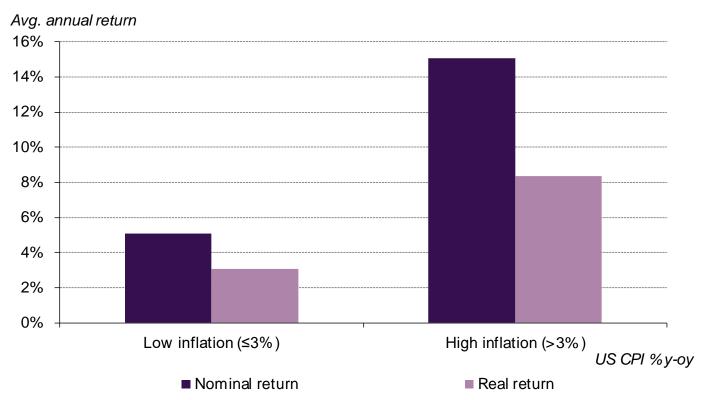
**Gold liquidity includes estimates on over-the-counter (OTC) transactions, and published statistics on futures exchanges, and gold-backed exchange-traded products.

Source: BIS; Bloomberg; Germany Finance Agency; Japan Securities Dealers Association; LBMA; UK Debt Management Office (DMO); World Gold Council

Gold and capital preservation: inflation

Gold and inflation

Gold returns as a function of annual inflation*



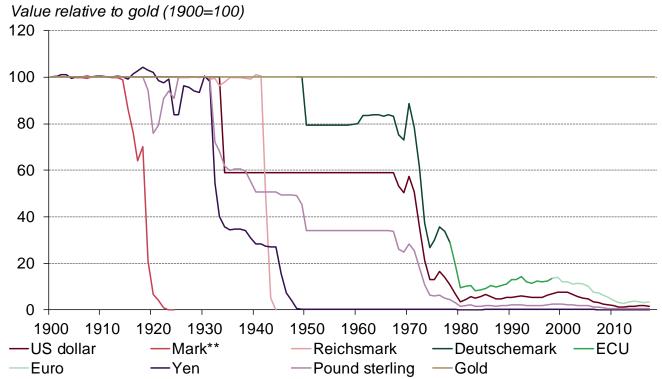
^{*} Inflation computed using annual US CPI year-on-year changes between 1970 and 2018.

^{**} For each year on the sample, real return = (1+nominal return)/(1+inflation)-1. Source: Bloomberg, Bureau of Labor Statistics, ICE Benchmark Administration, World Gold Council

Gold and capital preservation: currency

Gold and currency depreciation

Relative value between major currencies and gold since 1900*



^{*}As of 31 December 2018. Based on the annual average price of a currency relative to the gold price.

Source: Bloomberg; Harold Marcuse – UC Santa Barbara; World Gold Council

^{**}The 'Mark' was the currency of the late German Empire. It was originally known as the Goldmark and backed by gold until 1914. It was known as the Papermark thereafter.

Real World Examples



Asset Owner investment challenges

Case Study: inflation protection



- Investor: Large defined benefit plan with a desire to protect plan assets against inflation
- Challenge: Looking for efficient ways to protect against inflation while diversifying
- Request: Reached out to the World Gold Council to better understand:
 - drivers of gold
 - performance in various inflation environments
 - correlation to other assets
 - best ways to implement

Solution: Upon committee approval, allocated ~2% to gold as part of a broader inflation hedging program

The Strategic Case for Gold

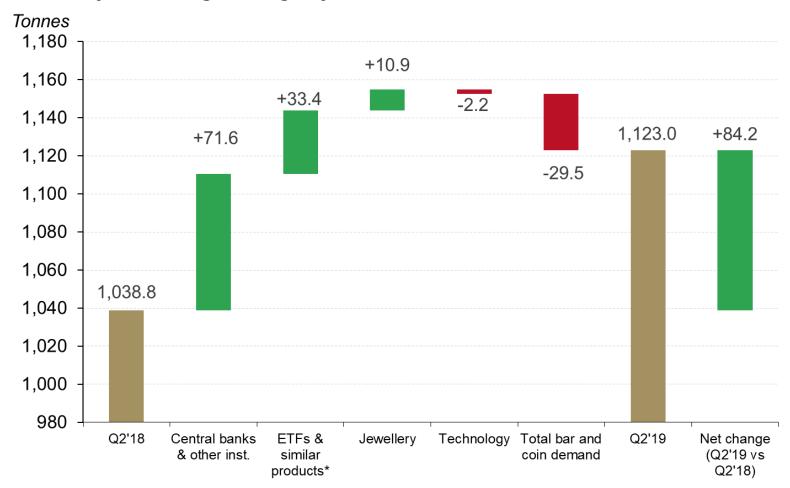
□ University of Texas (UTIMCO)
 □ 1.5% allocation to gold as part of Real Assets Strategy
 □ The Following pensions funds disclose they hold gold – no details
 □ State of Arizona Public Safety; \$11B plan
 □ Pennsylvania Public Schools; \$57B plan
 □ Texas Teachers Retirement System; \$156B plan
 □ Some European Funds
 □ No disclosure

Central Banks the strongest story in gold



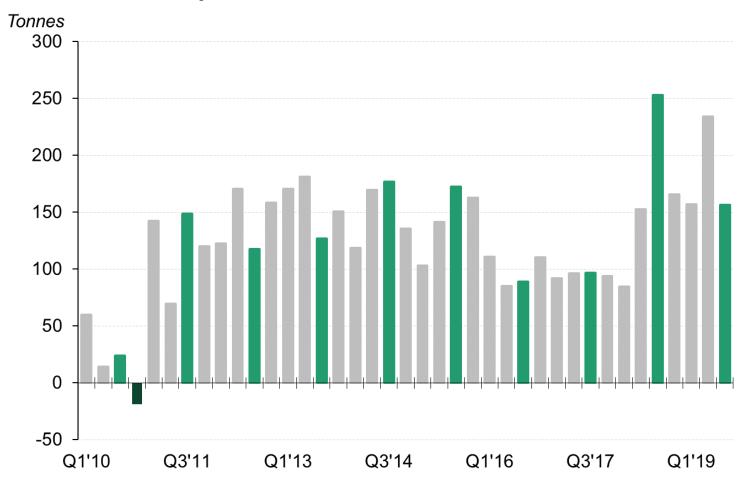
Central bank buying key positive demand driver in Q2-19

Year-on-year tonnage change by sector



Strong central bank purchases continued in Q3-19

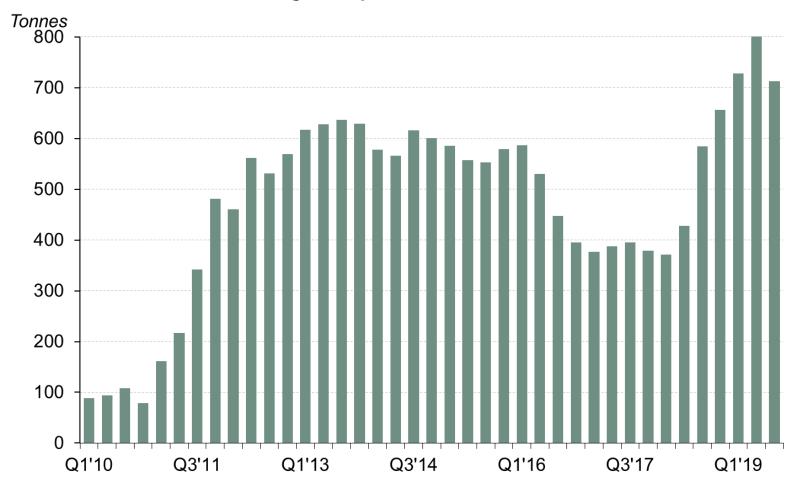
Central bank activity



Source: Metals Focus; Refinitiv GFMS; World Gold Council World Gold Council | Market Update | November 2019

Rolling 12m retreated slightly in Q3-19

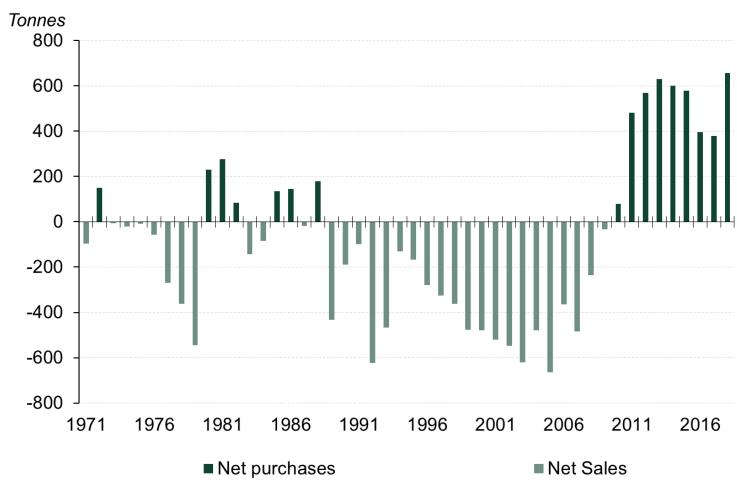
Central bank demand - rolling four quarters



Source: Metals Focus; Refinitiv GFMS; World Gold Council World Gold Council | Market Update | November 2019

CB buying the most since Nixon closed the 'window'

Central bank demand in 2018 was the highest since Nixon closed the gold window

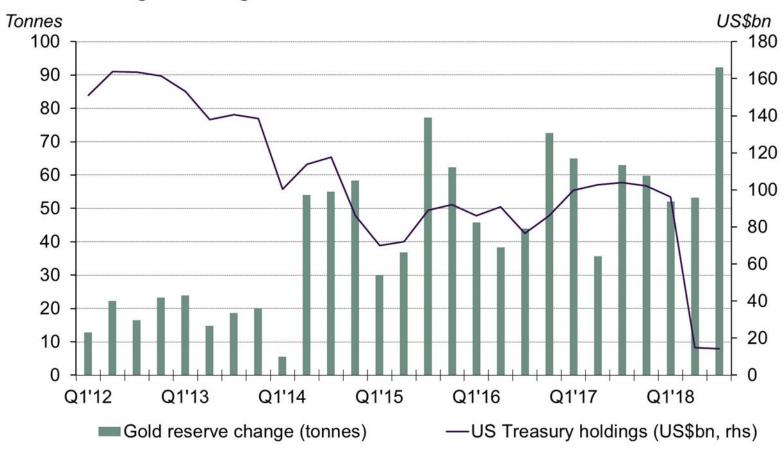


What is driving current central bank demand?

- 1. Foreign exchange reserves are growing.
- 2. De-dollarization for political reasons.
- 3. Re-emergence of gold as a strategic asset.
- 4. Structural changes in the international monetary system.
- 5. Policy related growth Turkey's growth is partly related to other policies.

De-dollarization driving Russian purchases

Russian foreign exchange reserves

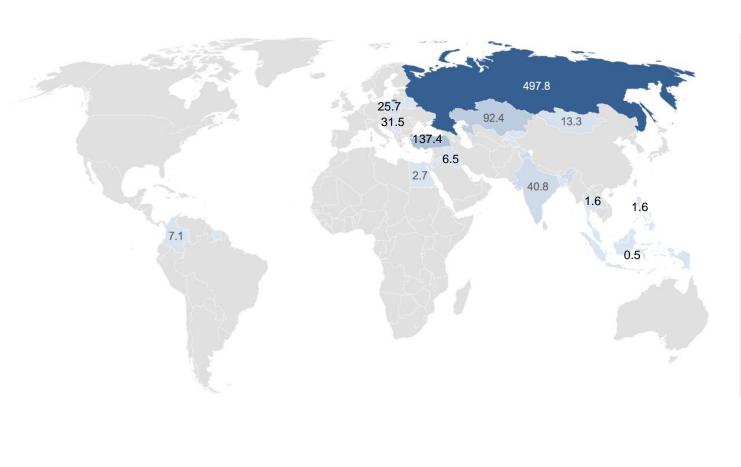


Source: Bloomberg, IMF IFS, World Gold Council

Structural changes in the IMS?

Increase in gold reserves (tonnes)

•	•
Russia	497.8
Turkey	137.4
Kazakhstan	92.4
India	40.8
Hungary	31.5
Poland	25.7
Mongolia	13.3
Tajikistan	7.7
Colombia	7.1
Iraq	6.5
Kyrgyz Republic	6.3
Egypt	2.7
Jordan	2.2
Philippines	1.6
Qatar	1.6
Serbia	1.6
Thailand	1.6
Belarus	8.0
Malaysia	0.6
Suriname	0.6
Indonesia	0.5
Bangladesh	0.2



Source: IMF, World Gold Council. Data reflects cumulative net purchases amongst select central banks from January 2017 to February 2019 Poland's figure includes all announced gold purchases, although only approximately half of those purchases are reflected in official reporting. Turkey data reflects gold purchases outside of the Reserve Option Mechanism programme

Certain countries are excluded because their gold accumulations were the result of accounting changes, or because changes were the result of regular swap activity

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