

Central Banks: As Good as Gold?

This document is not intended for members of the public or retail investors. Full audience information is available at the bottom of the page.

09

Summary

Gold Rush!

Gold is taking on a life of its own, delinking from historical valuation drivers such as the US dollar and real interest rates, as private investors buy bars/coins, and central banks add monetary gold to official reserves, due to fears of inflation, public-debt and geopolitical tensions.

Gold Bugs?

Returning to gold-backed domestic or global currencies is unlikely, given the scale of financial systems. But some countries may be developing gold-based alternatives to a dollar-centric international transactions to avoid sanctions, protect foreign trade and retain sovereignty.

As Good as Gold...

We believe policymakers should manage the risk of financial fragmentation posed by geopolitical/geoeconomic tensions reflected in the resurgence of gold, while investors should expect further strong performance, due to price-insensitive official gold demand.

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Introduction

Gold is taking on a life of its own, rising even as the US dollar and real yields rise, and has outperformed many financial assets through lowflation, "high-flation", disinflation, crisis, quiet periods, and now war and rising geopolitical tensions. Conflicts in Europe and the Mid-East and geopolitical tensions in the Indo-Pacific are fanning doubts about Pax Americana: Is the United States overextended in geopolitical, geographic, military, fiscal or technological dimensions?

Even if not, the US may be turning inward, given Trump's tariffs, trade war and challenges to allies; the Bidenomics of industrial policy and a "foreign policy for the middle class"; and all as the politicisation and polarisation of foreign policy and support for allies call into question US reliability as a trade, investment or security partner.

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Figure 1: As good as gold – outperforming financial asset classes through cycles and crises



Note: Total return index, 1998=100. Source: Bloomberg, Morgan Stanley, Macrobond, Invesco. Daily data to 26 April 2024. Past performance does not predict future returns.

For non-allied countries, freezing Russia's official international reserves, debate about legalizing the seizure of the reserves or their income to fund Ukraine and widening use of economic and financial sanctions all increase geopolitical risks associated with the US-centric international order. Even if rules-based and multilateral, the system may be turned against them, and money weaponized.²

Indeed, central banks and private purchases of gold bars and coins are driving rising gold demand. The latter may be "Gold Bugs", fearing the worst excesses of state intervention, money printing and bond emission. The central-bank gold rush may reflect disgruntlement with the dollar's dominance of international finance, in the absence of clear fiat-currency alternatives.

History shows that high politics is a major, if not determinant driver in global currency leadership: Leading global currencies have almost always been the domestic currencies of leading economic, technological, financial and military powers, with few exceptions. Furthermore, all leading global currencies have been backed by gold – except for the Dutch guilder in the 1600s and the dollar today.

Yet, central bank gold purchases are highly concentrated in handful of central banks in major emerging market economies – especially Russia and China, as rivals to the US. Meanwhile, other central banks are accumulating dollar reserves on a running basis and sometimes accumulating gold (e.g., India, Turkey). These changes raise questions about the role of gold and the competition with the dollar in the global economy and financial system, and in central bank and private portfolios.

Our analysis of trends in the gold market – valuations, supply/demand dynamics and the scale of gold reserves relative to other monetary aggregates – suggests both traditional and alternative roles for gold in central bank portfolios. Diversification away from the dollar for portfolio management purposes, a long-standing conventional driver, probably remains an important factor. Domestic macro-financial stability objectives are probably important for countries such as India, Turkey and China where gold plays an important role in household savings and asset portfolios.

The scale of monetary gold purchases and holdings cannot be large enough to return to gold-backing for domestic or international currencies – at least not without a drastic devaluation of financial asset values relative to the gold price. Instead, an alternative system of international trade supported by gold, gold swaps, tokenization and eventually central bank digital currencies may well be taking shape. This in turn suggests policymakers should consider limits to sanctions and the risks of fragmentation, while both private and official investors should expect continued outperformance as price-insensitive demand persists.

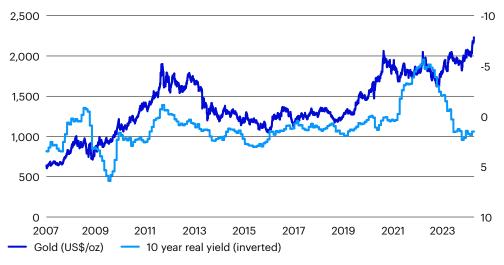
* Bloomberg Global Inflation-Linked Total Return Index Value Unhedged USD.

Valuation: Gold Takes on a Life of its Own

Gold historically rose when US real yields were low and falling, and the dollar soft. As a zero-yield/cashflow asset, with meaningful costs for storage/transport in physical form, gold tends to suffer from rising global growth, inflation and interest rates.

Gold and real yields

Figure 2: Gold has decoupled from US 10-year real bond yields (RHs) since the Russia-Ukraine war



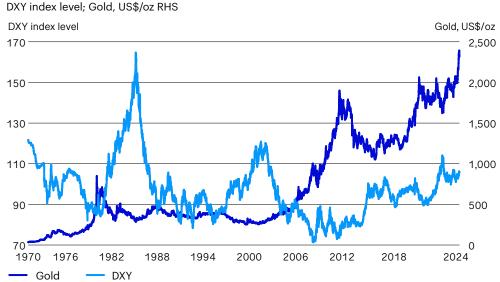
Source: Bloomberg, Macrobond, Invesco. Weekly data through 12 April 2024.

Since 2022, however, gold and US real yields began decoupling just after half of Russia's official reserves held in the West were frozen by the US and allies in retaliation for the invasion of Ukraine. That said, it's not just gold that is decoupling from the dollar and real yields. The commodity complex is experiencing sustained appreciation alongside the dollar for the first time since the Soviet collapse.

Gold and the Dollar

Gold's relationship with the dollar also appears to be changing. In the past, gold would not tend to rally when the dollar was strong. Since the 2008 Global Financial Crisis, however, gold has delinked from the dollar and has often appreciated even when the dollar was on a rising trend.

Figure 3: Gold and the dollar are both trending up

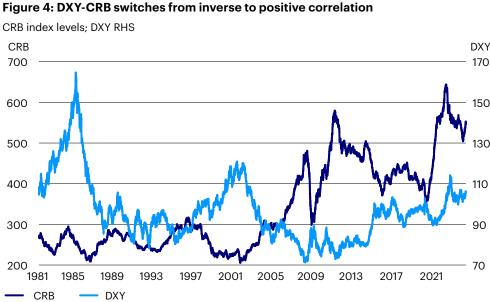


Note: DXY is a nominal dollar effective exchange rate index, trade-weighted, not inflation adjusted. The BIS Broad Effective Exchange Rate dollar index shows similar behaviour. Source: Bloomberg, Macrobond, Invesco. Daily data to 26 April 2024.

Commodities and the US Dollar

26 April 2024.

The dollar-commodities relationship seems to have switched from inversely to positively correlated, like the switch in the gold-dollar relationship, but for different reasons with different implications. In the heyday of globalization - the two decades between the Soviet Collapse and the Global Financial Crisis and Eurozone Crisis, national barriers to trade and investment fell. Many emerging markets - commodity importers and exporters alike - were dollar pegged. When Fed policy was easy and the dollar soft, dollar-pegged EMs imported easier monetary conditions. Commodity importers enjoyed a stronger real exchange rate, better terms of trade with higher growth and lower inflation than otherwise. Commodity-rich economies enjoyed higher dollar-terms commodity export prices, improving external balances and capacity to service hard-currency debt.



Note: CRB is the Commodity Research Bureau spot all commodity index, left hand side. DXY is the US dollar

nominal effective trade-weighted index, right-hand side. Source: Bloomberg, Macrobond, Invesco. Daily data to

Now, however, many EM countries have substantially de-pegged from the dollar, adopting inflation targets and managed floats. Those with managed floats still tend to focus on their dollar exchange-rate cross, but some maintain resident capital controls (notably China and India) and so have much more monetary autonomy than if they had retained dollar pegs or opened their capital accounts. Many also still have administered domestic commodity prices with fiscal subsidies. This policy mix helps sustain commodity demand despite dollar strength, especially if external balances are solid (China has a current account surplus; India's deficit has shrunk sharply; both have high reserves).

But perhaps the most important change is a partial China-US role-reversal in commodity markets. In the glory days of globalization, China bought commodities for immediate use and buffer stocks. Even now, China remains the world's top commodity importer, followed by the US and India at a distance.

The evolving US role in commodity markets is arguably changing the dollar-commodity relationship structurally - though perhaps less so when it comes to gold. As well as soft commodities, the US is now a major exporter of energy-crude oil, liquefied natural gas. Energy independence arrived some years before the Ukraine war prompted a rise in US energy exports to Western Europe.

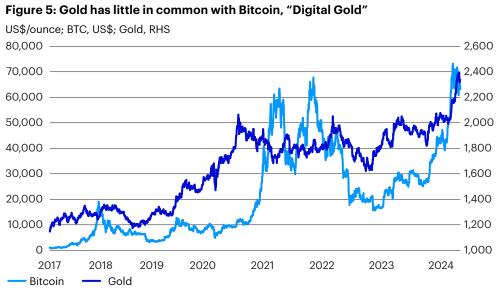
Thus, rising food/energy prices offer a terms-of-trade support for the dollar. Plus, the US is once again stepping up imports of industrial commodities and base metals, given industrial policies and protectionism, in order to reindustrialise, rearm, invest for the green transition and compete with rivals. That said, the US continues to import gold for jewelry, bars and coins and industrial applications, but as we shall see, all this is small compared to the incremental increase in gold demand from EM central banks.

Gold and Bitcoin ("Digital Gold")

Another interesting consideration is the emergence of so-called "digital gold" – bitcoin, the leading cryptocurrency. Bitcoin was engineered after the Global Financial Crisis, when trust in fiat currency, the financial system, and central banks' capacity to achieve financial and economic stability was in doubt, as a technologically-determined alternative to physical gold and fiat currency.

Bitcoin must be "mined" using technology and energy. "Proof of Work" is needed to legitimise ownership. "Halving" may enable somewhat more "democratized" ownership – like stock splits or low-denomination gold coins (as opposed to weightier, larger, pricier bars). Perhaps most like gold, bitcoin supply is limited; it is no one's liability; and a would-be currency without a country.³

There the similarities may end, however. After all, gold has been used for millennia among people, firms and states as a unit of account, store of value, medium of exchange or proxy for all of these. Monetary gold is still recognized by the IMF when central banks hold title and carry it in reserves. Bitcoin is almost certain not to be recognized by the IMF or most central banks: As a private currency with fixed supply outside their control, it would undercut economic and financial management.



Source: Bloomberg, Macrobond, Invesco. Daily data to 26 April 2024

The price of bitcoin and gold show at best a limited relationship. There have been some periods when gold and bitcoin moved up or down together – though in very different orders of magnitude. Equally there have been periods with no such relationship, such as from 2019-2022. Gold, reflecting the lack of yield and its cost of carry, is notoriously highly volatile – yet bitcoin is far more volatile.

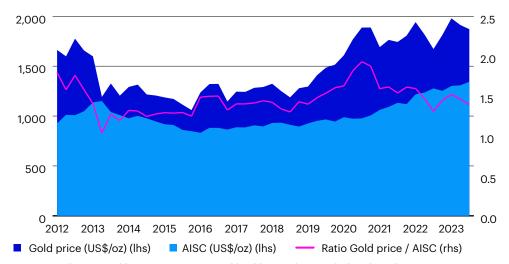
Bitcoin might be dismissed as "digital snake oil", perhaps precisely because it represents a claim on nothing and no one and is not yet used extensively like fiat currencies and lacks historical legitimacy. Gold too has no yield, is no one's liability yet is in principle anyone's asset. But unlike bitcoin, it has a legacy, a past, present and future as a store of value that is well-known, acknowledged and shared.

Perhaps someday, bitcoin will share all these features, but it does not yet, and there is at least a good chance that governments, central banks of most economies will never recognize it as legal tender. As such, bitcoin may be the purest form of speculative asset. This is not to deny that it might have a role in financial portfolios as an alternative asset – but it is to deny that it can play a major role as a reserve asset for most central banks, unlike gold.

The Cost of Gold

The cost of production is rarely the only, or even the main, determinant of the price of a commodity, but it is a factor. The "all-in sustaining cost" (AISC) of gold, an estimate of the total cost of producing an ounce of gold has been trending up and is near record highs around US\$1,700 an ounce.

Figure 6: The cost of producing gold is trending up



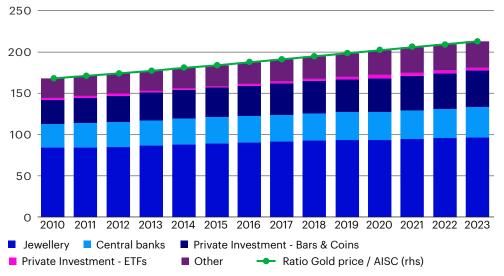
Source: Metals Focus Gold Mine Cost Service, World Gold Council, quarterly data through 3Q-2023 as at 31 March 2024. All-in Sustaining Cost (AISC) reflects the full cost of keeping a mine operational and includes all direct cash costs associated with the production of an ounce of gold, including mining, processing, and capital expenditures.

It seems likely that as gold continues to be extracted, given a finite global supply, the cost of production is likely to rise further over time. Unless there is a significant sustained fall in one or more components of the demand for gold, it seems likely that the price of gold will also rise further.

Gold Supply and Demand Gold Demand

Figure 7: Steady rise in gold holdings by central banks

1000s of metric tonnes above-ground stocks



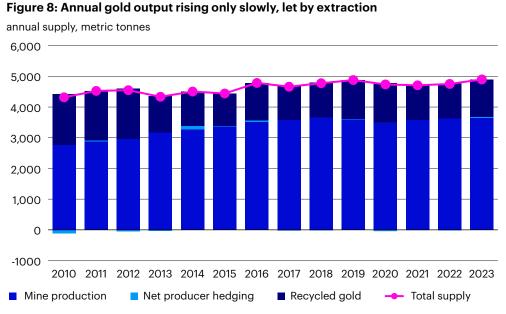
Source: Metals Focus, LSEG, ICE Benchmark Administration, World Gold Council, Invesco. Annual data as at 31 March 2024.

Gold holdings have been rising steadily over many years, across several different categories:

- **Jewelry:** Still the largest single use of all gold that has been mined, but has been relatively stable, year-in, year-out, slowly rising to just below half of the world's total estimated usage of gold.
- Private Investment: Two categories ETFs and Bars and Coins.
 - ETFs have not made much headway. Interestingly, "democratization" of gold via easily accessible and tradable ETFs has not taken off as fast as say technology or investment-style ETFs. Perhaps private investors and central banks prefer physical gold to ETFs due to concerns about financial stability or sanctions.⁴
 - **Bar & Coin** demand has been steadily rising, however, suggesting that those who see gold as having an intrinsic value and as no one's liability that can serve as anyone's asset continue to be major buyers of gold.
- Central Banks: Monetary Gold defined by the IMF as gold to which central banks have title and hold as a reserve asset. Central banks used to be net sellers, with sales limited by successive Gold Agreements in Europe and the US, to avoid excessive downward pressure on the gold price. But after the Global Financial Crisis, developed market central banks stopped selling, and emerging market central banks became buyers. The latter increased after the annexation of Crimea, and again after the invasion of Ukraine (see Figure 9 below for more).
- Other: Consumption of gold by industry and services, including technological, dental and official purchases of gold not carried out by central banks, including sovereign wealth funds or other state-controlled entities. We note that industrial use of gold amounts to only about 10% of annual gold production and tends to be relatively stable over time.

Gold Supply

Gold supply has been generally trending up over the years, but fairly slowly, having risen by a bit less than 20% over the last decade. Hedging by producers is fairly minimal and recycled supplies are fairly steady. The supermajority of annual gold production comes from mines.



Source: Metals Focus, Refinitiv GFMS, ICE Benchmark Administration, World Gold Council, annual data as at 31 March 2024.

Central Bank Gold Rush

Central-bank net purchases more than doubled after Russia's invasion of Ukraine and the West's freezing of its reserves to over 1,000 metric tonnes per annum, from a run rate of about 400 tonnes over previous decade. Central banks have thus absorbed over a fifth of annual supply in the last few years, evidently driving much of gold's outperformance (Figure 1). Gold purchases have proliferated among many, mainly emerging market central banks, e.g., UAE, Hungary and others, following the annexation of Crimea in 2014, as well as COVID and the invasion of Ukraine in an apparent effort to diversify reserves and probably to self-insure against geopolitical risks.

1.200 1,000 800 600 Metric tonnes 400 200 0 -200 -400 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 ■ China ■ Russia India Turkey Others (Reported) Unreported

Figure 9: Emerging Market central banks lead gold purchases, notably China, Russia, "unreported"

Note: Estimated central-bank net buying. Source: World Gold Council, IMF, Macrobond, Invesco. Annual data through 2023.

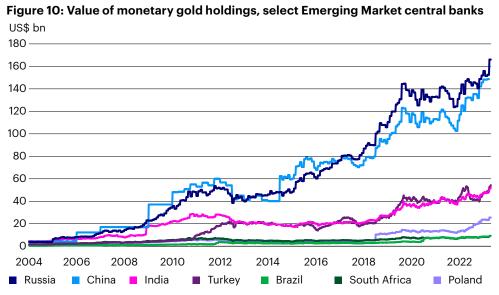
What's more, reported monetary gold purchases have been concentrated in Russia and China. Russia was a major buyer after the 2014 annexation of Crimea and the first wave of US sanctions, as part of its well-documented "de-dollarisation" drive. Russia, as one of the world's largest gold producers, may well have purchased monetary gold onshore since the sanctions but could not account for a meaningful share of the surge in unreported gold purchases in 2022-23, given the sanctions.

The People's Bank of China also became a major buyer after the Global Financial Crisis and as pressures mounted on the RMB leading up to the devaluation in 2015. It is also important to note that the PBoC acknowledged significant, previously unreported gold purchases in the half-decade before 2015. Hence, specialists believe that China probably accounts for much of the unreported gold buying in 2022-23.

Central Bank Gold Bugs?

So, a modern gold rush of sorts is underway, led by central banks and private buyers of bars and coins, due to concerns about inflation, public debt and domestic political uncertainty. Private-sector "Gold Bugs", who tend to believe that gold is the only reliable basic form of money and basis of credit may well be coming out of the woodwork due to rising policy and geopolitical uncertainty.

But for central banks, the story must be different, including emerging market central banks, the Bank of Russia and People's Bank of China in particular. Guarding financial and price stability, stewarding fiat currencies with large, complex, growing financial systems; often with capital controls and barriers to the use of cryptocurrency, they are likely to buy gold only for a few reasons. One is portfolio diversification of FX reserves, given high exposure to only a few liquid core markets such as the US dollar and Treasuries – especially China. A rising gold price that is decoupling from US real interest rates and the US dollar, of course, helps to diversify portfolio risk and return trade-offs.



Source: World Gold Council, Macrobond, Invesco. Weekly data to 18 March 2023.

Some central banks manage economies with significant domestic gold savings, such as Turkey and India. It has been estimated, for example, that about two-thirds of all the gold ever mined is held privately in India.⁵ Having a meaningful gold allocation can help instill domestic confidence, and gold has sometimes been used indirectly for intervention to shore up the domestic currency and confidence, for example by Turkey.

Even so, by far the most relevant proximate trigger in 2022, must be geopolitics, following Russia's invasion of Ukraine and the West's freezing of Russia's reserves. Poland's surge in gold holdings might be due to a combination of diversification and geographic proximity to the front lines. Geopolitics might lead countries to hoard gold in different ways. Poland, firmly in NATO seems content to hold its gold offshore, consistent with standard international practice. Hungary, also a NATO and EU member, prefers to hold its gold onshore, perhaps reflecting a more complicated relationship with the West.

But for China and Russia as the major buyers of monetary gold, the question becomes whether hoarding gold can make enough of a difference to protect the value of reserves that cannot be undercut by freezing, seizure or valuation changes, as much or more than physical location. Is there is something more fundamental at work?

Russia now holds monetary gold worth US\$175bn; China about US\$150bn. This is significant for Russia, representing almost half of what the West froze, a quarter of pre-war gross reserves of US\$600bn+. China's gold reserves, however, are less than 5% of gross international reserves of US\$3.25 trillion, 0.3% of its US\$42tn M2 or 11% of its US\$17tn monetary base.

For China, these amounts are not de minimis; like most asset allocators, with "neutral" gold portfolio weights deemed in the low-mid single-digit percentages, enough to add some cushion in a crisis. Yet to fully absorb a severe global or domestic crisis, China would see drastic contractions of financial asset values, themselves financially destabilizing, or current PBoC gold holdings increased sharply.

History Rhymes

So why are some central banks adding gold in such an apparently price-insensitive manner, if the scale is insufficient for either central bank assets or liabilities – significant portfolio diversification of international reserves, or support greater domestic financial and economic stability?

It seems likely that some governments are moving not just to diversify reserves, to ensure against seizure, but also to maintain their international economic relations and trade. Indeed, the very same features of gold – that it is no one's liability yet widely accepted as a store of value and historically has served as a medium of exchange, or at least the basis for all of the above – are precisely the characteristics that would make it useful to as a foundation for international trade in the face of sanctions and financial fragmentation. Many conversations with central bankers as policymakers and reserve managers around the world, as well as with fiscal policymakers confirm that this is a major concern – and shared by both reserve-holding and issuing countries.

The movement since the Ukraine War and seizure of Russia's reserves into a multi-currency payment system is well underway. China's trade and payments are moving rapidly to RMB, with Russia-China trade reportedly taking place in RMB and Russia-India trade in INR. At the 2023 BRICS Summit in Johannesburg, South Africa, the membership decided on a feasibility study for a BRICS currency – oddly enough choosing not to use the RMB though it is already part of the IMF's SDR basket of major international currencies, along with the US dollar, euro, pound sterling, yen.

It seems clear that the even the BRICS are not ready to use their own currencies, let alone coalesce around one of them, across all their own trade, let alone to use their currencies for trade with third countries. All retain some form of capital controls and each very likely wants to be able to manage its own domestic financial affairs and system without recourse to the others. China and India have deep-seated tensions and occasional flare-ups in a multi-decade border conflict, for example.

Figure 11: China/India-Russia trade deficits surge after Ukraine sanctions

Current US\$bns

6
3
0
-3
-6
-9
-12
-15
-18
-1992
1996
2000
2004
2008
2012
2016
2020

Source: IMF Direction of Trade Statistics, Macrobond, Invesco. Quarterly data through 4Q-2023.

A more fundamental problem, however, is the challenge of macro imbalances when using non-convertible currencies to settle international transactions. Russia today runs a sizeable trade surplus with India, accumulating rupee balances as a result, perhaps the best use of which is to buy Indian goods and services exports. This is the opposite imbalance that prevailed for much of the Soviet era, when India exported more in Bollywood films, tea and textiles to the USSR than it imported in MIGs and weaponry, accumulating Soviet transfer ruble balances in the process. When the USSR collapsed, India was left holding the bag, as the ruble crashed to a small fraction of its original value. Russia has also been running a large surplus with China, whose recent narrowing the US seems to attribute to China's export of dual-use and military-use items to Russia, and which might be subject to sanctions.

Of course, the valuations of Russian, Indian or Chinese currencies are much more market-determined than in the era of central planning. Yet the presence of capital controls and risk of sanctions (reality in the case of Russia), implies that trade/investment partners are accumulating credit (or debit) balances that could pose severe balance sheet problems over time.

What if such cross-border transactions were conducted with gold or financed with gold swaps today, or tokenized gold across interoperable Central Bank Digital Currency payment rails in future? Both balance-sheet exposure and exchange-rate risk could be reduced or even eliminated – without recourse to the US/Western financial system and the associated sanctions risk.

Furthermore, from the point of view of major emerging market countries undergoing rapid economic transformation like China and India, or under extreme pressure from sanctions like Russia, resorting to a gold basis for global transactions could enable them to insulate domestic economies, banks and capital markets from ordinary macro/financial and geopolitical shocks like sanctions.

Conclusion: As Good as Gold?

We believe the central bank gold rush has important implications for policymakers and official and private portfolio investors. First, it seems likely that price-insensitive demand from central banks in economies with concerns about Western sanctions will continue. Protecting and diversifying reserves as well as finding ways insulate trade from sanctions is likely to remain a top priority for Russia, probably China and possibly some other major economies especially in Emerging Markets. This prospect implies that other central banks, institutional investors and even smaller investors should consider overweighting gold relative to their own neutrals – even though gold is already expensive relative to traditional valuation metrics such as the dollar or US real interest rates. Anecdotal evidence suggests investor piggybacking on central bank gold demand is already underway, including in China, in addition to the desire for alternatives to underperforming equity and real estate markets.

Second, US and allied policymakers should consider the real possibility that tightening financial sanctions, especially reserve freezes and seizures will encourage further diversification away from Western payments systems and perhaps reserve currencies. We doubt that such a shift can be swift or comprehensive, leading to full-blown de-dollarisation of reserves as a store of value or in the pricing or perhaps invoicing of transactions. That said, payments are easier to de-dollarise, arguably more so if backed by gold. Significantly higher gold holdings would enable at-risk central banks to conduct trade settlement using gold certificates, swaps or other financial instruments without having to cede authority over domestic currencies, financial systems or economic management to the markets, to potentially adversarial governments or even to each other as trade/investment partners.

Notes

- Reserve Advisory & Management Program, World Bank, Washington, DC, providing advisory services to membercountry central banks on managing official international reserves.
- ² Arnab Das, Jennifer Johnson Calari, Franco Passacantando, "The Weaponisation of Money", working paper Instituto de Affari Internationale, Rome and Invesco white paper, forthcoming.
- We would not expect cryptocurrencies to be widely adopted. Governments are likely to reject it on the basis that it would diminish their ability to manage the economy and financial system, and could contribute to financial instability, systemic crashes and deep economic downturns, even depressions, as often happened during the era of free banking and private currencies in the United States in the 1800s. And private agents are unlikely to shift portfolios or transactions to crypto if they are not endorsed as legal tender and used by governments in collecting taxes or making payments.
- Gold ETFs in many cases are backed by physical gold; others are managed against gold futures. Tokenised gold would need to be vaulted and managed in the same way as physical gold-backed ETFs. Gold tokenised and ETF gold in Western jurisdictions are subject to the same sanctions regime as other financial products. Indeed, Russian gold refineries have been delisted. This could be another reason for some countries to shift to alternative gold-based international financing arrangements in jurisdictions beyond US/Western reach.
- Sanjeev Sanyal, Chief Economic Advisor to Prime Minister Modi of India, Indian Renaissance, Penguin & Amazon, 2015.
- ⁶ Arnab Das, Jennifer Johnson Calari, "De-Dollarisation Dilemmas", Invesco white paper, Central Banking Reserve Management Series, October 2023.

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

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