CIBC Asset Management

March 2021

WHERE GOLD FITS IN PORTFOLIOS

By Michael Sager & Giuseppe Pietrantonio[1]

1. Summary

- Gold is a traditional safe haven asset that offers diversification to core equity risk within Balanced portfolios.
- It is particularly useful as a hedge against the risk of capital losses during periods of equity market stress. It also represents a hedge against upside inflation risk, should this materialize in coming years.
- We consider that a strategic allocation to Gold makes sense, particularly as low yields render sovereign Developed Market (DM) bonds less effective as a hedge against future periods of equity market stress.

2. Introduction

Gold is widely considered a highly liquid, defensive safe haven asset that investors can use to mitigate the risk of severe capital drawdowns during periods of equity market stress, and the risk of rising inflation and inflation uncertainty.

There are no perfect hedges. We assess the portfolio role of Gold against a range of criteria. Our conclusion is that Gold—like most other assets—scores well against some criteria, and less well against others.

Overall, we consider Gold a valuable addition to a well-constructed investment portfolio, from both a strategic and tactical perspective.

Does Gold protect against inflation?

When investors think about Gold's role in portfolios, one attribute often highlighted is its ability to protect against inflation. The probability of a sustained strong increase in inflation in the next 1-2 years is low, but rising. And so inflation remains a relevant consideration for long-horizon investors seeking to construct a well-balanced portfolio. We can examine Gold's inflation hedging ability from two perspectives.

The (really, really) long-term view

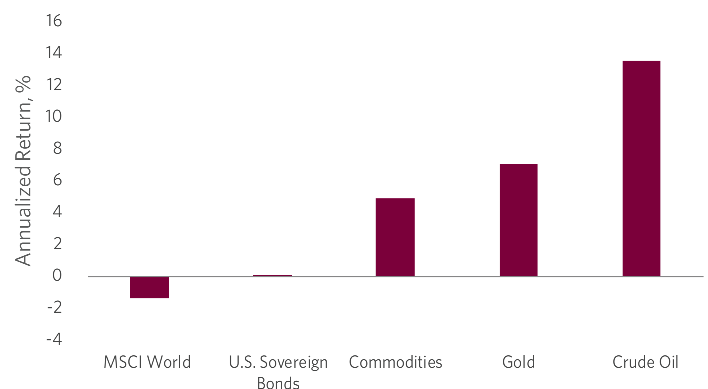
Gold is not the new kid on the block. As reported by Erb and Harvey (2013), back in 546 BC in the Neo-Babylonian empire, one ounce of gold could purchase 350 loaves of bread. Fast forward to today. Dividing the current spot Gold price of $1697 per fine troy ounce by 350 gives a price of $4.86, which is a pretty typical cost of an artisan loaf.[2] In aggregate over this long sample, Gold has retained its value in real terms. A good start for an inflation hedge.

A more relevant investment horizon

An analysis of Gold's ability to maintain its real value over 3000 years provides very long term context. But it is not particularly practical from the perspective of an investor building a well-constructed portfolio today.

We can examine a more relevant, and recent, period: the 45 years since 1975.[3] We divide this sample into months with rising inflation, versus months for which inflation was either falling or relatively benign.[4] During periods of rising inflation, equities have typically underperformed, and sovereign DM bonds have not provided much hedging protection, on average. Gold has strongly outperformed (Figure 1).

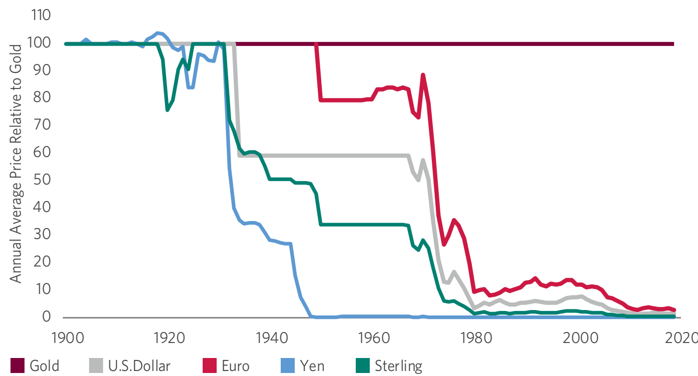
Figure 1 – Gold has outperformed during periods of rising inflation



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Sample March 1975 – October 2020, except Oil (January 1981-October 2020). Data as at November 29th, 2020. Rising inflation is defined as months when the monthly change in the U.S. consumer price index was >=0.30%.

Gold has also outperformed over the long term against fiat currencies often considered to be safe haven assets, such as the U.S. dollar and the Japanese yen (Figure 2). To be clear, there have certainly been prolonged periods when Gold did not outperform fiat currencies or maintain its real value— during much of the 1980s and 1990s, for instance. But over the long term it has.

Figure 2 – Gold has outperformed paper currencies over the long-term, even those considered safe havens



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: World Gold Council (2020). Sample: 1900 - 2019. Annual data. Data as at November 29th, 2020. Deutschemark used as a proxy for Euro prior to 1999.

Gold is not the only hedge against inflation. Returning to Figure 1, and based on our sample, other commodities, including Crude Oil, have historically performed this function well. The downside to Crude Oil is that its beta to equity and broad macroeconomic growth risk is higher (0.23) than Gold (0.11).[5] So Gold may help hedge a broader set of risks.

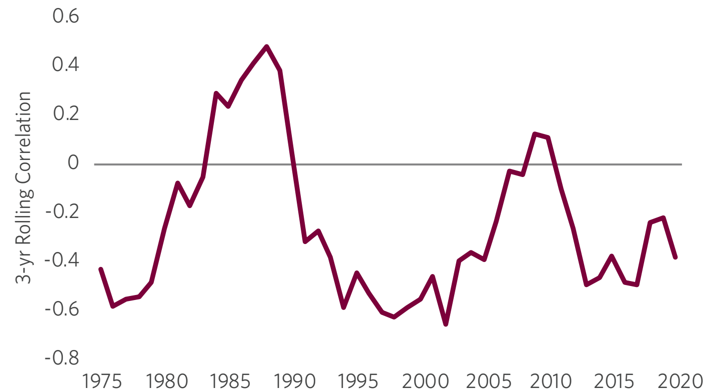
Can Gold protect against inflation uncertainty?

Yes. Rising inflation volatility increases uncertainty with respect to future expected returns on assets that are not directly linked to inflation. This uncertainty is expected to increase demand for real assets that do have an explicit link—for instance, infrastructure—or assets such as Gold that have demonstrated an ability to maintain their real value in the face of inflation and inflation uncertainty.

Does Gold provide portfolio diversification?

Yes. The correlation of returns to Gold with equities, the cornerstone of most investment portfolios, is attractive, and suggests that a persistent diversification benefit accrues from a strategic allocation to Gold (Figure 3).

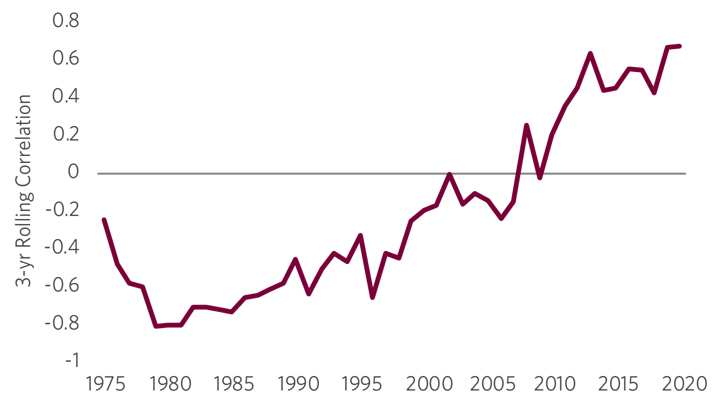
Figure 3 - Gold has typically exhibited a negative correlation to equities



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Sample: 1975-2020. Annual data. Data as at December 2020.

The correlation of Gold with DM sovereign bonds has trended higher during our sample, as bonds became an increasingly effective equity hedge in portfolios (Figure 4). Unlike Gold, which has demonstrated its hedging pedigree over the very long term, the effectiveness of the hedge provided by DM sovereign bonds is likely to wane in coming years, due to the low level of, and asymmetric outlook for, current yields.

Figure 4 – Gold's correlation to U.S. Treasuries has trended higher. The asymmetric outlook for Treasury yields suggests this trend may wane



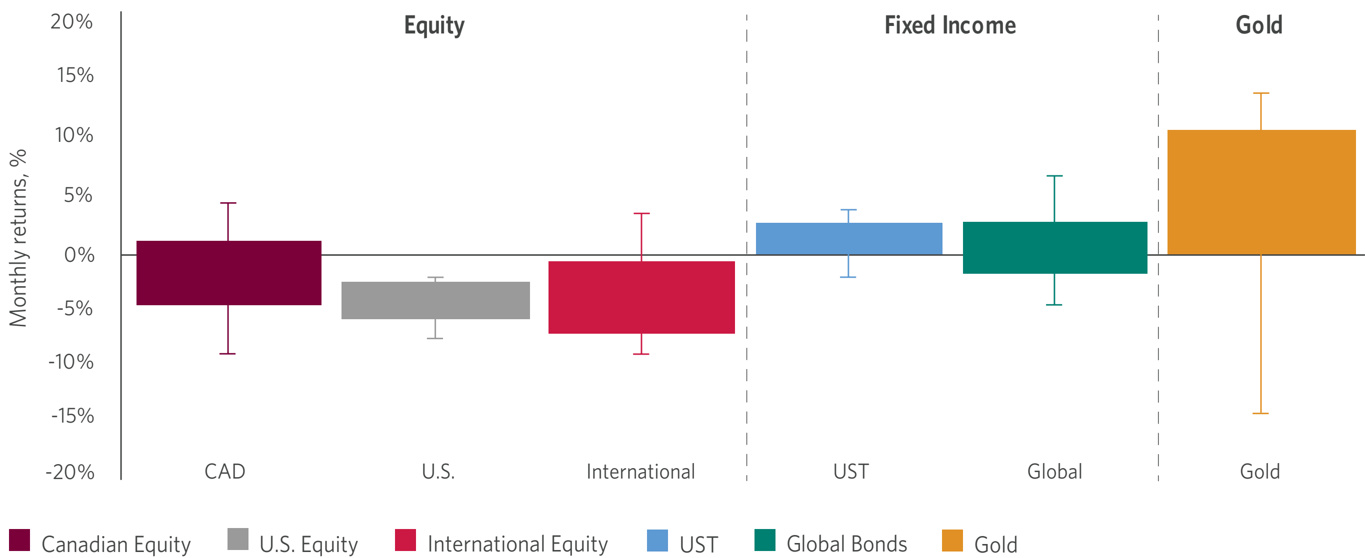
Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Sample: 1975-2020. Annual data. Data as at December 2020.

Does Gold protect against periods of negative equity returns?

Yes, with caveats. As well as average betas and rolling correlations, it important to consider evidence of outperformance during periods of equity market stress & relatively high market uncertainty. This is one of the key attributes expected of safe haven assets.

Gold outperformed in 71% of months since 1990 when the S&P500 index experienced a significant negative return (Figure 5). Over this period, Gold has been a better hedge than U.S. Treasuries, on average, in terms of its ability to mitigate capital losses in equities.[6]

Figure 5 - Asset return dispersion when US equity returns are significantly negative



Source The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Data sample: January 1990 to November 2020. Monthly Data. Data accessed as at December 20th, 2020. UST = 10-year U.S. Treasury.

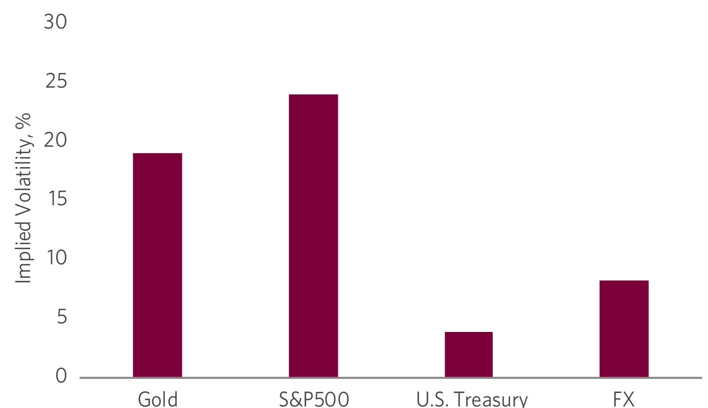
But there are noteworthy exceptions. At the beginning of most recessions, the price of Gold has initially fallen, as market participants move to price disinflation, before recovering thereafter. In the 2008 Global Financial Crisis (GFC), the price of Gold declined 25% between March and November 2008. In March 2020, Gold initially fell as market participants again priced disinflation, but also scrambled for liquidity.

So Gold has proven to be a pretty good, but not perfect, mitigant of downside equity risk. We recommend pairing a strategic allocation to Gold with allocations to other assets and strategies that can be expected to alleviate the periodic impact of equity markets stress on portfolio performance. These include liquid absolute return macro strategies, and Fixed Income market segments and strategies.

Is Gold a volatile asset?

Yes. It is certainly more volatile than typically expected of a safe haven asset. Current implied volatility is similar to equity indexes, and higher than DM sovereign bonds and the U.S. dollar (Figure 6).

Figure 6 – Gold is more volatile than other safe assets



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Data as at December 31st, 2020. FX = FX Volatility Indicator (Bloomberg mnemonic: CVIX)

What is Gold's expected return?

Investors are typically willing to pay for safety. They do this by foregoing expected return, relative to assets that exhibit positive correlation to the economic cycle and market risk appetite. Over the past century or so, the historical return to Gold has ebbed and flowed; its average has been broadly comparable with the return realized on real assets, as proxied by U.S. real estate (Figure 7).

Figure 7 – Historical returns to Gold have been comparable to real assets

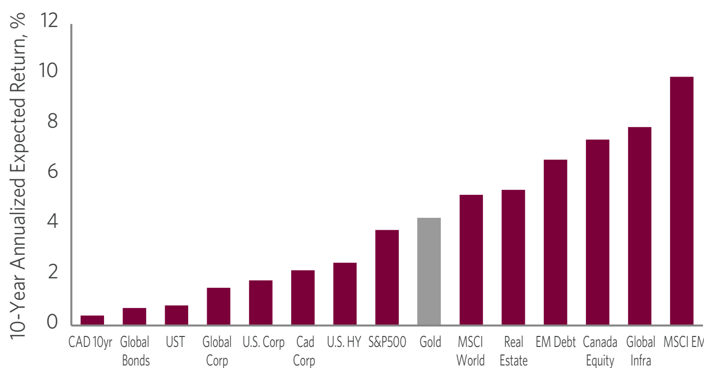
Annualized returns

Time period	Gold	S&P500	UST	U.S. housing
1927-2019	3.49%	9.71%	4.88%	3.74%
1970-2019	5.70%	10.66%	6.80%	4.65%
2000-2019	7.74%	6.86%	4.62%	3.29%
2010-2019	0.73%	13.29%	3.66%	4.50%

Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Aswath Damodaran. Data as at December 31st, 2020.

For the next 10 years, the annualized return to Gold is expected to outperform sovereign DM Fixed Income (Figure 8). It will broadly match the S&P 500, in our opinion, but not Canadian or Emerging Market (EM) equity indexes, or EM debt. Overall, this expected return allied to its correlation and hedging features, makes a strategic, long-term allocation to Gold attractive.

Figure 8 – The annualized expected return to Gold is similar to U.S. equity, and better than DM sovereign fixed income



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC, Refinitiv Datastream, JP Morgan Asset Management. Data as at January 25th, 2021.

How liquid is Gold as an investment asset?

Antagonists of Gold often caricature it as a cumbersome, illiquid asset. In this telling, the only way to transfer ownership of Gold from one person to another is by transporting a bar or two to one's local High Street bank.[7] In reality, Gold is a very liquid asset, with daily trading volume of $145bn in futures, OTC derivatives, and ETFs;[8] this is approximately equivalent to the S&P500, and substantially higher than UK Gilts, U.S. Corporate bonds, and German Bunds.

What explains trends in the price of Gold?

In addition to market stress and inflation volatility discussed above, a number of fundamental and microstructural factors can help explain Gold price trends.

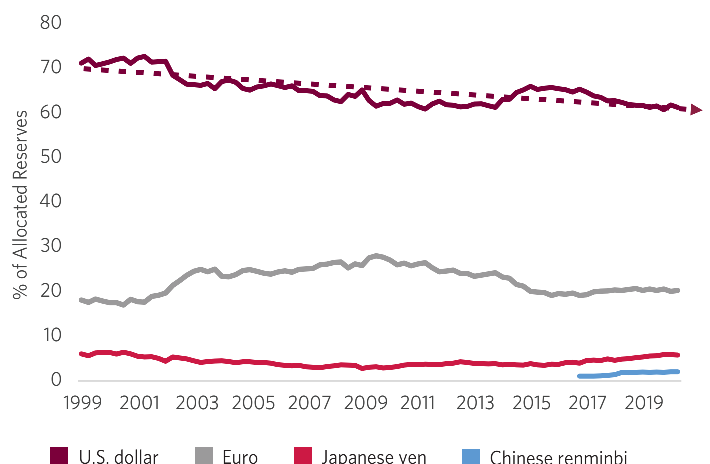
U.S. dollar outlook

There are at least two reasons to expect a negative relationship between the dollar and Gold. First, Gold and other commodities are typically priced in dollars.[9] Mechanistically, when the dollar strengthens (weakens), commodity prices tend to weaken (strengthen), all else equal.

Second, the U.S. dollar is widely recognized as the pre-eminent global reserve currency. This status quo has persisted for an unprecedented eight decades.

A gradual, permanent weakening in the status of the dollar is now underway (Figure 9). Evidence suggests the embryonic emergence of a multi-currency reserve system. Credible long-term rivals to the dollar include the euro, renminbi, and Gold. This long-term shift in the global financial system will encourage less confidence in the dollar as a store of value, and stimulate demand for Gold.

Figure 9 – A gradual erosion of the dollar's global status has begun, with long-term implications for Gold

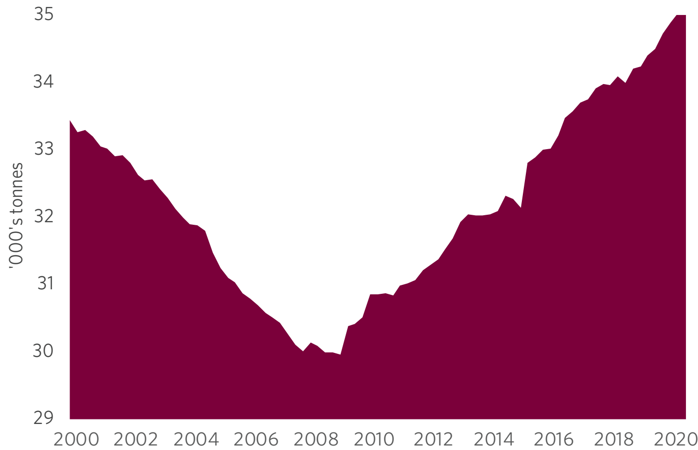


The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: IMF COFER. Data as at November 23rd 2020.

Central bank demand

An ebb in the status of the dollar is being encouraged in part by a U.S. policy of 'weaponizing' the currency. This has the effect of incentivizing governments, as well as private individuals and corporations, in other countries to diversify away from the dollar and dollar-denominated assets such as U.S. Treasuries, into rival safe haven assets, including Gold. This trend appears very clear in central bank Gold purchases (Figure 10).

Figure 10 – Central bank Gold purchases

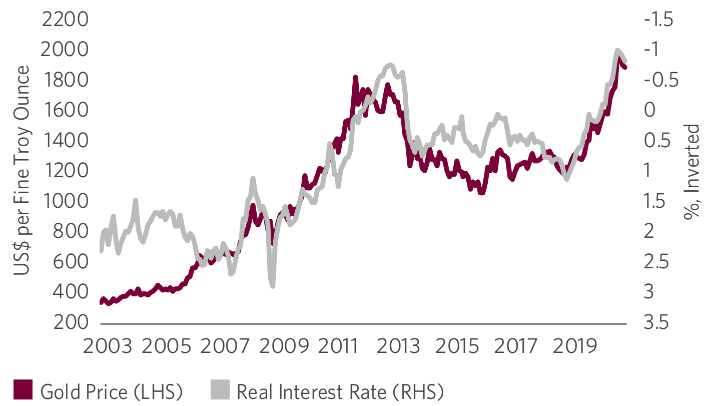


Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: World Gold Council. Sample: January 2000 – September 2020. Quarterly data. Data accessed as at December 20th, 2020.

U.S. real interest rates

Gold has historically exhibited strong inverse co-movement with U.S. real interest rates (Figure 11).[12] Rising real rates are consistent with an expansionary growth environment. In turn, growth is generally positive for risk appetite (assuming nominal rates do not rise abruptly). When risk appetite is positive, investors typically have less demand for safe havens such as Gold.[13]

Figure 11 – Gold & real interest rates exhibit inverse co-movement



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Federal Reserve Bank of St. Louis. Sample: January 2003 – November 2020. Monthly data. Data as at December 20rd 2020.

Supply of Gold

The move away from the U.S. dollar as the dominant reserve currency is also being encouraged by U.S. domestic macroeconomic policy. Fiscal policy is moving to the forefront of government attempts to stimulate and sustain economic recovery, as it is in much of the world economy. The stock of outstanding U.S. government debt is growing strongly. Concurrently, the Federal Reserve has adopted an Average Inflation Target (AIT) policy framework, which embodies an explicit bias in favour of persistently higher inflation than realized in the past decade, outside of financial prices.

Targeting higher inflation requires looser policy than otherwise would be the case. Looser policy can be thought of in terms of price (policy interest rates) and quantity (of money and credit in circulation). The U.S. broad money (M2) supply has grown by an annualized 6.1% during the past 20 years, with a marked acceleration in 2020.[10] We expect it to continue growing relatively robustly for the foreseeable future, even if the rate of increase slows from the heady pace of last year.

By contrast, the supply of Gold has grown by an annualized 1.6% during the past 20 years.[11] A persistent relative scarcity of one asset—Gold—versus another—the U.S. dollar—is positive for valuation. U.S. macroeconomic policy will remain supportive for the price of Gold.

Falling U.S. real interest rates often trigger a weaker dollar, which, as discussed above, is consistent with a stronger Gold price, other things equal. Lower real interest rates also lower the opportunity cost of holding a zero yield asset such as Gold, boosting demand.

Current loose-for-long U.S. macroeconomic policy suggests interest rates are likely to remain negative in real terms for an extended period. By itself, this is positive for Gold (Figure 12).

Figure 12 – The performance of Gold is impacted by the level of real interest rates

Interest rate level	Long-term average	Low (<0%)	Moderate (0%-2.5%)	High (>2.5%)
Annualized Gold return	3.32%	9.92%	6.88%	-5.33%

Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Sample: January 1975 – November 2020. Data accessed at December 20th 2020.

Retail demand

Since the launch of a retail Gold ETF in the mid-2000's, the correlation between retail demand and Gold has been high (Figure 13). Retail flows often exhibit persistent momentum, which suggests the possibility that the price of Gold could periodically over- or undershoot the level justified by its fundamental determinants, depending upon the relative importance of retail flows within the aggregate demand for Gold.

Figure 13 – Gold & ETF demand

Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Sample: January 2005 – November 2020. Data accessed at December 20rd 2020.

How are CIBC multi-asset portfolios currently positioned in Gold?

Multi-asset portfolio positioning encompasses a mix of strategic and tactical positioning to Gold. The sizing of these two components varies through time, depending upon the fundamental macroeconomic outlook, market positioning, investor risk appetite, and our Multi-Asset team's investment conviction and expected return for Gold.

We have been positioned long Gold for a number of quarters. The position's magnitude was trimmed in recent months. What remains is the strategic component of our allocation. This accounts for approximately 5% of multi-asset strategy risk.

Our long position is motivated by the outlook for real interest rates, expected demand for Gold, and our outlook for the U.S. dollar. We consider it a useful defensive counterweight to the pro-cyclical exposure we have elsewhere in the portfolio. A long strategic Gold position is also an important hedge against the risk of a rise in inflation uncertainty in coming quarters.

Please refer to the CIBC Multi-Asset Absolute Return Strategy fund profile for further details. And for thoughts on the optimal allocation to Gold within an investment portfolio, please refer to our companion paper on the role of alternatives, including Gold, in portfolio construction.

Conclusion

Assets are included in investor portfolios for a mix of strategic and tactical reasons. From a strategic perspective, Gold is not a perfect hedge. But it is a pretty good one. Its correlation to equities and bonds has been attractive, on average and during periods of either very poor risk appetite or relatively high inflation and inflation uncertainty.

Its ability to hold its value over the very long term relative to paper currencies makes it an attractive safe haven asset. And its expected return lies somewhere between DM sovereign bonds and equity.

In an environment of low bond yields we see an important strategic role for assets that can help provide portfolios with defensive cover during periods of equity market stress. Gold fits the bill.

3. References

- Erb, C.B., & C.R. Harvey (2013). The Golden Dilemma. NBER Working Paper # 18706.
- World Gold Council (2020), The Relevance of Gold as a Strategic Asset. May.

Let's connect

Should you have any questions about this report or anything else, please do not hesitate to connect:

Michael Sager, Ph.D.
Vice-President, Multi-Asset and Currency
Institutional Asset Management
michael.sager@cibc.com
416 980-6301

[1] Michael Sager is Vice President, Multi-Asset & Currency, and Giuseppe Pietrantonio is an Associate, Multi-Asset & Currency. Both are members of the CIBC AM (CAM) Institutional Asset Management Team.

[2] Sources: spot Gold price, Bloomberg LLC; price of loaf, Cobs Bread, https://order.cobsbread.com/. Data as at March 4, 2021.

[3] U.S. private citizens were freely allowed to own Gold again starting in 1975.

[4] Rising inflation is defined as months when the monthly change in the U.S. consumer price index was >=0.30%.

[5] Equity betas calculated using MSCI World and sample from January 1981 – October 2020. The magnitude of negative roll yields on futures contracts has historically represented another important obstacle to a return-enhancing strategic investment in commodities other than Gold.

[6] U.S. Treasuries generated a positive return in more of the months of significant losses to the S&P500 during this period than did Gold (93% versus 71%), but the size of these returns, as highlighted by Figure 3, was typically smaller than those to Gold.

[7] Avid proponents of private cryptocurrency often propose a variant of this argument, as a way to provide support to crypto's case to be considered a mainstream, and potentially, safe haven investment asset.

[8] World Gold Council (2020). Data refer to December 2019.

[9] There are some exceptions, including Carbon, which is denominated in Euro. And Renminbi futures contracts are available for Gold, as well as crude oil.

[10] Federal Reserve Bank of St. Louis. Data as at November 28th, 2020.

[11] World Gold Council (2020).

[12] The real interest rate is defined as the nominal 10-year U.S. Treasury constant maturity yield minus the 10-year Breakeven Inflation rate. We could equally frame our discussion in terms of the supply of money, instead of its price.

[13] This effect will be mitigated by rising jewelry demand for Gold from consumers experiencing growing disposable incomes, and via its use in the technology sector.

The views expressed in this document are the personal views of authors and should not be taken as the views of CIBC Asset Management Inc. This document is provided for general informational purposes only and does not constitute financial, investment, tax, legal or accounting advice nor does it constitute an offer or solicitation to buy or sell any securities referred to. Individual circumstances and current events are critical to sound investment planning; anyone wishing to act on this document should consult with his or her advisor. All opinions and estimates expressed in this document are as of the date of publication unless otherwise indicated, and are subject to change.

Certain information that we have provided to you may constitute "forward-looking" statements. These statements involve known and unknown risks, uncertainties and other factors that may cause the actual results or achievements to be materially different than the results, performance or achievements expressed or implied in the forward-looking statements.

®CIBC Asset Management and the CIBC logo are registered trademarks of Canadian Imperial Bank of Commerce (CIBC), used under licence.

The content of this presentation is proprietary and should not be further distributed without prior consent of CIBC Asset Management.

1161 | 03/2021