Rocaton

INSIGHTS

Does Gold Belong in Your Portfolio?

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EXECUTIVE SUMMARY

- Gold has been used for thousands of years as a medium of exchange and as a store of wealth.
- There are many direct and indirect ways to invest in gold, including exchange-traded products (“ETPs”), closed-end funds, broad commodities strategies, gold futures or options, purchasing and storing physical gold, and public shares of gold mining companies.
- In the last 20 years, owning gold through GLD (a gold exchange traded fund) as part of a diversified portfolio improved total returns while dampening portfolio volatility.
- Cryptocurrencies, such as Bitcoin and Ethereum, are potentially financial industry disrupters and arguably could challenge gold’s historic role in finance. In 2017, the Chicago Board Options Exchange and CME Group opened Bitcoin futures exchanges, adding at least some institutional validity to the cryptocurrency.
- While investors may want to consider gold for their portfolios, we remind investors that the commodity is highly unpredictable and, we would argue, impossible to value.
- Economists and financial analysts have struggled to understand gold’s price movements for decades. Furthermore, we are not confident forecasting gold prices over the long-term. As such, the addition of gold to an investor’s portfolio may even raise the level of uncertainty.
- In our view, the strongest argument for using gold in a portfolio is its role as a currency and store of value that is not controlled by central banks or governments. In this view, gold serves as an alternative currency that proponents argue can protect its owners from “fiat” currency debasement. While we have some sympathy with this view, the historical long-term and unpredictable downdrafts in the value of gold leave us with little confidence that gold can reliably add value to diversified portfolios. Therefore, we suggest alternative investments to add diversification to a portfolio and to avoid direct exposure to gold.

Introduction

Should investors have an allocation to gold? Over the centuries gold has had various uses ranging from ornamental to scientific to economic. Gold’s medical applications date back to 700 B.C. when it was used in dentistry and still is today. Gold is also an efficient conductor of electricity and is found, in small amounts, in cell phones, televisions and many other electronic devices. However, even with gold’s widespread applications, gold is perhaps best known as an investment or form of currency, largely due to its scarcity. In two separate eleven-year periods an investment in gold was either significantly diminished or multiplied many times over. In early 2000 the price of gold was ~$283/ oz. and at its peak, in 2011, gold hit $1,826 before falling back to approximately ~$1,281 today. In January of 1980 gold was $2,148 and in 1991 gold hit $645. The ambiguous movements in the price of gold are challenging to understand; however, amid the price gain in gold over the last two decades, the question of whether an investor should own gold is even more difficult to answer. The balance of this paper will detail how investors might gain exposure to gold, why we believe gold is too uncertain to reliably add value to diversified portfolios and the disadvantages of investing in gold.

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How to invest in gold?

There are only a few practical ways for institutional investors to own gold. For example, investors of all sizes have the capability to own physical gold, whether it be gold bars or jewelry. However, there is a negative yield to owning gold in this form due to storage costs and, for this reason, many institutional investors rarely hold physical gold. An investment in a broad commodities strategy is generally a less-than-ideal way of having meaningful exposure to gold, as the weight in many of the popular commodities indexes is typically quite small (recently less than 4% in the S&P GSCI and 10% in the Bloomberg Commodity Index). However, there are other ways for investors to have exposure to gold in their portfolio through a variety of financial tools including exchange-traded funds ("ETFs") that track the Gold Bullion Index, ETFs that track baskets of stocks in gold miner indices like the NYSE Arca Gold Miners Index, or shares of individual publicly traded gold mining companies. Larger institutional investors can also trade gold futures on the New York Mercantile Exchange (NYMEX), either directly or through a third-party asset manager, or take positions in options on gold.

Figure 1:

Gold Investment Types

	Exchange Traded Product	Futures Contracts	Broad Commodities Futures Strategies	Gold Miner Equities
Trading	Trade on major stock exchanges; can be bought or sold anytime during the trading day	Traded on major futures exchanges; can be bought or sold anytime during the trading day	Daily for mutual funds and ETFs; potentially less liquid (monthly) for institutional vehicles	Trade on major stock exchanges; can be bought or sold anytime during the trading day
Costs	Bid-Ask spread and brokerage commission	Exchange/Clearing fees, NFA1 fee, data fees, brokerage commission	Investment management fees (typically 20-200 basis points)	Bid-Ask spread and brokerage commission
Minimum Investment	None	Minimum deposit in futures brokerage accounts is generally ~$500	Dependent on the vehicle, can be less than $1,000 for some mutual funds	None
Transparency	Generally disclose holdings daily	Price transparency which allows all parties insight into the transactions	Generally highly transparent through all vehicles	Transparency of holdings daily; management reporting through quarterly and yearly reporting
Pros	Direct exposure to the change in the price of gold with low minimum investment requirements	Direct exposure to change in price; can go long and short; very liquid	Broad diversification; available in many formats, including mutual funds	Liquid; easy to access; exposure to the processes surrounding gold
Cons	Subject to flows from retail investors; potential for bid/ask spread costs; fees can vary by ETF	More complex administratively	Gold is a small % of the commodity basket (<10%); active managers may decide to underweight gold further; return/risk profile likely to be driven by a broad set of factors	No direct exposure to change in the price of gold; subject to management risk; holdings will generally have equity market beta

Historical impact of owning gold

To quantify the effect of adding gold to a portfolio, we developed a sample portfolio which included various allocations to gold. In Figure 2, we added gold pro-rata to the portfolio at levels of 5%, 10%, 15% and 20%. The addition of gold to a broadly diversified portfolio was beneficial to total returns over longer time periods (the past 10 years and from 1997 to the present). More recently, gold has detracted from total portfolio returns given the decline in its price, while also decreasing overall portfolio volatility. Thus, while gold has not offered incremental return through all time periods, gold has lowered total portfolio volatility consistently from 1997 to 2017.

Despite gold's more recent benefits to either total return or portfolio volatility, the historical unpredictability of gold's price behavior over longer time periods makes it challenging to establish its utility in a portfolio going forward. As experienced historically, the price of gold has moved around in no apparent systematic manner. Figure 3 shows that gold can go through multi-decade periods of gains or losses

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Figure 2:

Sample Portfolios With and Without Gold Allocations

Total Return and Standard Deviation for Sample Portfolio With and Without Gold Allocation

	Annualized Return				Standard Deviation			
	3 Years	5 Years	10 Years	20 Years	3 Years	5 Years	10 Years	20 Years
Portfolio with 0% Gold	8.25%	9.29%	5.37%	6.85%	7.97%	7.65%	13.05%	11.94%
Portfolio with 5% Gold	8.04%	8.61%	5.44%	6.91%	7.56%	7.38%	12.55%	11.48%
Portfolio with 10% Gold	7.81%	7.93%	5.50%	6.96%	7.22%	7.20%	12.13%	11.08%
Portfolio with 15% Gold	7.58%	7.25%	5.55%	7.00%	6.97%	7.13%	11.79%	10.76%
Portfolio with 20% Gold	7.34%	6.56%	5.58%	7.03%	6.80%	7.15%	11.54%	10.52%

The sample portfolio is 75% MSCI ACWI Index, 20% Bloomberg Barclays Aggregate Bond Index and 5% BofAML HY Master II Constrained Index. Allocations to gold were then added to the portfolio on a pro-rata basis with monthly rebalancing. This sample portfolio was incepted in January 1997 and run through December 2017.

which seem to be unrelated to the direction of other macro indicators (such as inflation or interest rates) or capital markets (such as equity markets or oil). The drivers of gold (such as liquidity, physical supply, emerging markets economic growth, real interest rates, inflation, etc.) create an environment where discerning each calculated impact on the price of gold is nearly impossible. Given this feature, a tactically timed investment in gold is ill-advised. Furthermore, as we look forward, the introduction of decentralized cryptocurrencies may begin to take market share away from gold. In aggregate, these facts paint an ambiguous picture for the attractiveness of gold within a diversified portfolio.

Figure 3:

Historical Gold and Macro Factor Performance

Time Period	May 1920 - Jan 1934	Jan 1934 - Dec 1970	Dec 1970 - Apr 1974	Apr 1974 - Sep 1976
Gold (% Change)	167%	-65%	290%	-45%
S&P 500 (% Change)	N/A	725%	-2%	17%
U.S. CPI (% Change)	N/A	84%	10%	31%
Crude Oil (% Change)	N/A	204%	184%	37%
10 Year U.S. Treasury Yield (Rate Change)	N/A	+240 basis points	+116 basis points	-11 basis points

Source: Bloomberg & FRED. CPI data starts in February 1947. Crude Oil (West Texas Intermediate) data starts in January 1946. 10-Year Treasury Rates start in January 1962. Data shown in the chart above is cumulative.

Should investors have an allocation to gold?

Gold has existed as a widely accepted form of currency dating back to 8th century B.C. and also has more practical uses (industrial, fashion and medical, etc.). These uses of gold have also stood the test of time, as it continues to be used in all three fields. As alternative currencies enter the marketplace such as Bitcoin and Ethereum, gold may begin to lose its market share as an alternative store of long-term wealth. However, due to gold's multiple uses, we believe it will always retain some level of value even if it is abandoned financially. Although cryptocurrencies are threatening to disrupt financial markets, economist and financial analysts have found forecasting prices to be just as difficult as predicting gold prices. For decades, gold prices have defied predictability

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and there is no indication that this feature will change any time soon. Although, the addition of gold to a diversified portfolio would have reduced volatility in the past 20 years, such an allocation can raise the level of uncertainty in a portfolio given the difficulty understanding gold's drivers, and investors must approach the investment with such expectations.

In some cases, investors have viewed gold as a hedge (or "safe haven") against financial market volatility. One of several different reasons for this belief is based on gold's decentralization (i.e., if the world collapses, gold can still be used as a medium of exchange) and post-gold standard lack of involvement from governments and central banks. However, gold prices have done little to support this role. Based on historical observations, gold is not a reliable hedge when the U.S. equity market declines. As a result, we have limited confidence that gold would act as a sufficient portfolio hedge in the next equity market decline. Gold may always be a medium of exchange; however, in our opinion, the value of the medium is losing market share and historically has not sufficiently protected institutional portfolios during equity market corrections.

A Note on Cryptocurrencies

Cryptocurrencies are forms of digital currency created using Blockchain technology. These currencies are protected by cryptography, which is a process of securing information. The most popular and best-known cryptocurrency is Bitcoin, followed by Ethereum. Bitcoin has made headlines across the world for its immense rise in price, having risen over 15x in 2017. This rapid price appreciation has led some to compare Bitcoin to the Tulip Mania of the 1600's. On the flip side, cryptocurrencies have been viewed by some as "technological gold" due to its properties such as scarcity, absence of government control and decentralization. In the long-term, we believe blockchain technology could be disruptive to the broader financial services industry. However, governments have many incentives to regulate these currencies, the technology behind them is new and security around holding them is evolving. At this time, we do not advocate for institutions investing in cryptocurrencies.

Summary

In short, we generally do not recommend direct exposures to gold or related investments (gold miners) given that long-term drivers of gold demand are difficult to predict and have varied significantly through time. As a result, we do not feel confident forecasting gold prices over the long term, and as such have a difficult time estimating gold's impact on a diversified portfolio. In addition, in the early stages of the development of cryptocurrencies, we find the prospects for gold's use as a financial instrument further clouded.

While we are not enthusiastic about broad commodity futures strategies or "real asset" strategies, these types of strategies may be a more appropriate way to gain exposure to gold. If investors are looking for an asset class which might provide downside protection during an equity market decline, we typically suggest an allocation to long duration Treasuries. Should investors desire a direct allocation to gold, we would suggest keeping the allocation relatively modest (generally less than 5%). Exchange traded funds or direct futures contracts focused on gold are generally appropriate in these instances.

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APPENDIX

Brief history of gold in the United States

The gold standard, which the U.S. had used for 27 years, is a system in which the monetary value of a currency is derived from a fixed quantity of gold[1]. In the 1780s, Thomas Jefferson, Robert Morris and Alexander Hamilton recommended to Congress that the U.S. adopt a gold or silver standard. In 1785, the US agreed and adopted the silver standard. The gold standard was later adopted in the mid-1800s. However, the gold standard came into focus through the Bretton Woods agreement. In 1944, the United Nations Monetary and Financial Conference was held in Bretton Woods, New Hampshire. At this conference, the U.S. and many other countries fixed those countries' exchange rates to the U.S. dollar. Central banks of countries, which were part of this agreement, could exchange dollars for gold at a rate of $35 per ounce. However, in the 1960s, France started converting dollars to gold that made this conversion unsustainable. This led to economic strain on the U.S. and President Nixon ended the international exchange for gold on August 15, 1971. This action was only meant to be temporary but turned out to be permanent. Because it was not temporary, investors no longer could have exposure to gold by holding U.S. currency in their portfolio. It then became more difficult for investors to obtain gold exposure in their portfolio.

[1] There are three common types of gold standard systems: bullion, specie and exchange. Bullion is an agreement where circulating currency can be exchanged at a fixed price for gold held by the government. Specie is where the value of the monetary good is relative to the value of circulating gold coins. Exchange is when one country guarantees a fixed rate of exchanged to the currency of a different country, which has in place a gold standard (bullion or specie).

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