Investment Overview

- We recommend long-term investors avoid gold and other precious metals and limit broad-based natural-resource investments to no more than 5% of their portfolios.

- It is hard to imagine a more perfect time to be a "gold bug" than the past decade, but it’s the next 10 years that we care about. We believe the tailwinds gold has enjoyed (low real rates, weak dollar) are now turning into headwinds.

- We attribute gold’s strong performance since 2002 to an extended period of accommodative monetary policy, global financial instability, central-bank-buying activity, increased investor participation, and the perception that at some point inflation will start picking up.

- One of our key concerns is related to understanding the true economic value of the commodity itself. The lack of cash flows, dividends and industrial uses make gold a very hard asset to value with any level of precision or confidence. As a result, prices are significantly influenced by changes in investor sentiment, which can result in higher levels of volatility.

- Since the financial crisis, gold has become much more of an investor-driven market. Investment demand (ETFs, gold bars, coins) made up over 35% of the market in 2016, up from 15% in 2005. Investment demand fell substantially in 2015 to only 20% of the market, putting downward pressure on gold prices. We believe a larger portion of investment demand opens the door for increased volatility.

- Over time gold and other precious metals have had periods of outperformance, but in our view are not good long-term investments given their volatility, lack of any income stream, and the unpredictability of returns.

- While a small allocation of gold in a broadly diversified portfolio has historically provided a slightly higher return, this excess return was driven by two extended gold up-cycles and thus is very time dependent. A similar allocation to a broad-based commodities index (i.e., the GSCI Index) has provided an even better return and lower standard deviation without taking on the risk of owning a single commodity.
Over the past decade, gold has performed exceptionally well. After reaching a 20-year low of $252.80/oz. in 1999, gold prices rallied to nearly $1,900/oz. in 2011 and are now trading at $1,270/oz. We attribute this to an extended period of accommodative monetary policy, global financial instability, central-bank-buying activity, and increased investor participation.

**How Did We Get Here?**

**Dovish Monetary Policy Put Upward Pressure on Gold Prices**

We believe the start of the gold rally can largely be traced back to dovish (accommodative) monetary policy decisions made in the mid-2000s. Global liquidity (which we define as foreign-exchange reserves plus the U.S. monetary base) started to increase very rapidly in the early 2000s and has yet to be reined in. Since the financial crisis of 2008, central banks around the world have taken unprecedented actions to further increase the money supply in order to keep interest rates low and encourage capital investment (See Figure 1). This excess liquidity has supported a bullish call on gold largely due to fears of higher future levels of inflation and a severe devaluation in the dollar.

**Central Banks Have Become Net Buyers of Gold**

Central banks across the world hold gold as a reserve asset along with other foreign currencies, most notably the dollar and euro. We believe the way central banks look at reserve management has changed considerably over the past couple of years. Prior to 2008/2009, central banks across the world were net sellers of gold, which effectively increased the supply base of gold. However, as the global financial crisis began to take hold in 2008, central banks reversed course and became net buyers of gold in order to reduce exposure to foreign currencies and diversify their holdings (See Figure 2). Traditional reserve currencies (U.S. dollar) have become less attractive due to the rapidly expanding money supply and large government budget deficits, both of which devalue the dollar. This fundamental shift in central-bank buying patterns has served as a positive catalyst for gold prices.

**Investment Demand Driving Prices Higher**

Traditionally, the primary source of demand for gold came from consumer purchases of gold jewelry, which represented roughly 80%-90% of demand, while investment and industrial uses made up the rest. Jewelry demand has been falling for several years due to weak economic growth, higher taxes in India, and elevated prices, while investment demand has increased significantly. Since the financial crisis, gold has become much more of an investor-driven market. Investment demand (exchange-traded funds [ETFs], gold bars, coins) made up over 35% of the market in 2016, which was up from just 15% in 2005 (See Figure 3 on the next page). The popularity of gold ETFs, such as the GLD, pushed prices higher over the past couple of years. However, investment demand fell substantially in 2015 to only 20% of the market, causing gold prices to fall. We believe the role of investment demand opens the door for increased volatility should gold fundamentals turn less positive and should flows into gold continue to subside.
Past performance does not assure future results.

Where Are We Today?

Peak of the "Fear Trade" Is Likely Behind Us

In general, gold is a good barometer for fear and, more broadly, global economic and political uncertainty. An investment in gold can potentially help investors protect their wealth during periods of global and economic uncertainty as it is largely viewed as a safe-haven asset. Investors often buy gold as a "store of value," meaning that they expect the price of gold to rise or at least not fall during times when they expect other assets (e.g., stocks) to lose value. That said, it shouldn't be all that surprising that gold has done well over the past 10 years, but it's the next 10 years that we care about. We offer up a quote from legendary investor Warren Buffett:

"Gold is a way of going long on fear, and it has been a pretty good way of going long on fear from time to time. But you really have to hope people become more afraid in a year or two years than they are now. And if they become more afraid you make money, if they become less afraid you lose money, but the gold itself doesn't produce anything."

We have just survived one of the most uncertain and volatile periods since the Great Depression, which included the collapse of major financial institutions, a housing and credit crisis, a U.S. debt downgrade, and a deep and protracted recession in Europe. It's hard to imagine a more volatile period over the next decade, especially considering that global economic growth is starting to show signs of life, while at the same time inflation remains in check. As a result, we believe the "fear" trade is a hard sell and will likely pressure gold prices in the future as people look to more pro-growth assets such as equities.

Inflation Remains Within Desired Range

Despite a significant increase in the money supply, fears about a spike in inflation appear largely misplaced at this point. Conventional wisdom says excess liquidity (dollars in circulation) often leads to higher rates of inflation, but inflation today remains very low by historical standards. If we look at the Personal Consumption Expenditures Index (the Fed’s preferred measure of inflation - Figure 4), inflation remains within the Federal Reserve’s comfort zone, which we attribute to below-trend economic growth and lack of money velocity. Velocity can be thought of as the rate of turnover in the money supply or number of times one dollar is used to purchase final goods and services. It appears clear to us that commercial banks are fine with holding onto excess reserves, thus limiting the risk of a near-term spike in inflation. Furthermore, the output gap (difference between actual economic output to full output) remains wide, and labour costs remain in check, which should likely keep a lid on inflation in the near term.

What’s It Worth?

One of our key concerns is related to understanding the true economic or fundamental value of the
commodity itself. Gold doesn't produce cash flow or pay dividends, which makes it very difficult to value. Furthermore, unlike other commodities, gold is driven largely by currency movements, changes in interest rates, and central-bank activity, all of which are very difficult to forecast. Other commodities such as oil, copper and coal are driven off of general levels of supply and demand as well as end-market demand. For example, after oil is discovered and extracted, it is consumed, while all of the gold ever mined remains in circulation today. Gold is accumulated and stored as opposed to being consumed.

At a very fundamental level, an enterprise or asset's value is equal to the discounted value of all future cash flows. Companies like Coca-Cola produce a product, sell it and recognize cash flow or profits related to that sale. They expand operations, acquire new businesses, and create new products, all of which, over time, are done with the goal of increasing shareholder value (i.e., a higher stock valuation). Coca-Cola's theoretical value is the present value of all of those future cash flows. The lack of cash flows and industrial uses make gold a very hard asset to value with any level of precision or confidence. Without fundamental indicators to rely on, gold prices ebb and flow based on currency movements, inflation expectations, and events that cause panic and uncertainty, all of which are difficult to forecast.

**Does Gold Add Value to a Portfolio?**

In an effort to answer this question, we created hypothetical portfolios and looked at performance over the past 40 years to better understand the role (if any) gold plays in the context of a diversified portfolio. We examined three main portfolios, one with an allocation of simply stocks and bonds, one with a 5% allocation to gold, and one with a 10% allocation to gold. Over the 40-year time period from 1973 – 2013, we found the portfolio with a 10% allocation to gold had slightly higher returns as compared with the stock and bond portfolio and also had a lower standard deviation (a measure of volatility). So, looking historically, a small ownership position in gold has provided a slightly more competitive return as compared with a portfolio of simply stocks and bonds.

However, a closer look reveals this excess return was largely driven by two extended gold up-cycles, and thus very time dependent. For example, over the same 40-year period, the stocks and bonds portfolio outperformed the 10% gold portfolio nearly 75% of the time. We think guessing the right time to buy and sell is very difficult, and unless you guess correctly, gold's long-term returns have been poor.

Short-term gains can be impressive, but they are unpredictable. Furthermore, as mentioned earlier we see significant headwinds for the gold markets over the next couple of years, including the possibility of higher interest rates, a stronger dollar, and decreased fund flows into gold and gold-related investments. We believe any diversification benefit would be more than offset by negative price performance should these headwinds materialize.

**Other Precious Metals**

While gold is certainly the most familiar of the precious metals, we also took the opportunity to look at silver, platinum and palladium (the other main precious metals). If we look historically, all of the precious metals tend to be fairly correlated with one another (Figure 5). However, we found silver, platinum and palladium prices were significantly more volatile compared with gold prices. In the case of silver and palladium, they were roughly twice as volatile (as measured by standard deviation) as gold going back to 1996. We don't view any of the precious metals as good long-term investments, and we recommend long-term investors avoid gold and precious metals and limit broad-based natural-resource investments to no more than 5% of their portfolios.

**A Better Alternative**

In performing the same exercise as described above, we found that a similar allocation to a basket of broad-based commodities, such as those present in the S&P GSCI (Standard & Poor's Goldman Sachs Commodities Index), yielded an even better return and a lower standard deviation without taking on the

![Figure 5](source: Bloomberg. Past performance does not assure future results.)
risk of owning a single volatile commodity (i.e., gold). The GSCI serves as one of the best benchmarks for investments in commodity markets and as a measure of overall commodity performance. The GSCI is a diversified index with positions in many different commodities including energy (oil & gas); agriculture (wheat, corn, soybeans, coffee, sugar, cocoa and cotton); livestock (hogs, cattle); industrial metals (aluminum, copper, lead, nickel, zinc); and precious metals (gold and silver). Commodity and stock market cycles rarely overlap, which allows for additional diversification and the potential for better long-term returns. Diversification is one of the best ways to help reduce risk in a portfolio and protect against large portfolio swings in the event of weakening economic fundamentals. Given the low correlation with the broader markets and competitive returns, a small allocation to commodities has proven over time to improve portfolio returns and lower standard deviation, especially during inflationary periods.

Conclusion

We don't believe gold or other precious metals are good long-term investments, and we recommend investors avoid them. Over time gold has periods of outperformance, but in our view it is not a good long-term investment vehicle given the high volatility, lack of any income stream (gold does not pay a dividend), and unpredictability of returns. We think guessing the right time to buy and sell is very difficult, and unless you guess correctly, gold’s long-term returns have been poor.

Furthermore, we believe many of the tailwinds gold has enjoyed over the past decade will likely turn into headwinds over the next couple of years, pressuring prices and limiting any potential diversification benefits. As an alternative, we believe owning a diversified basket of commodities has the potential to improve returns and lowers portfolio risk. However, we would limit broad-based natural-resource investments to no more than 5% of your portfolio.

Required Research Disclosures

Analyst Certification

I certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers; and no part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in the research report.

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