PREPARING FOR RAINY DAYS

THE POTENTIAL ROLE OF GOLD IN INVESTMENT PORTFOLIOS

LW ADVISORS

FALL 2021

SUMMARY

Gold can be a risk management tool for a well-balanced investment portfolio. Its role as a portfolio diversifier, with low correlations to traditional assets such as equities and fixed income, can potentially provide investors not only downside protection during periods of market turmoil, but also a hedge to inflationary pressures, as well as the debasement of the U.S. dollar from the ballooning budget deficit. Additionally, with global interest rates near historic lows and in many cases negative, the decreased opportunity cost of holding gold, which pays no yield, also attracts investors hunting for a safe-haven asset.

Currently, yields on bonds are meager. According to Reuters, “as much as 75% of eurozone sovereign bonds carried negative yields late last year.” Central banks across the globe have signaled a low interest rate environment for the foreseeable future. As such, bonds will likely not serve the traditional role of the past, thus making gold a potential complement to the defensive allocation of a portfolio.

A small allocation to gold could have a meaningful impact to overall portfolio volatility and performance for long-term investors who seek stability in negative market environments and exogenous shocks to the capital markets.

Will gold shine in rainy days? In some ways, gold is the mirror image of the world’s trust in the Federal Reserve. This shiny metal has been cherished by people around the world for thousands of years as a store of value, being universally exchangeable and essentially perpetual in its shelf life. At one time, all currencies were backed by gold; the so-called gold standard linked the value of a dollar to that of gold until President Franklin D. Roosevelt disconnected the dollar’s ties with gold in 1933 to help combat the Great Depression (1929-1939). Such policy change enabled the government to pump money into the economy and lower interest rates, resulting in rapid economic expansion.

Despite the removal of the gold standard, gold has remained a highly sought-after and valuable commodity. The limited amount of new production continues to keep supply from flooding the markets, and its durability allows it to store value for many centuries. Its diverse sources of use in jewelry, dentistry, technology, and other areas keep gold in high demand. Its established history and physical qualities have helped turn gold into a resilient commodity that for investors functions as a diversifier in portfolios. These diversification properties are evidenced by the low correlation to traditional capital market investments. However, gold is not an investment suitable for everyone. Whether gold fits into one's unique portfolio should be assessed in context with the investor's risk tolerance and investment objectives.

Chart 1 illustrates the performance of gold in periods of negative equity market volatility. Gold, generally thought of as a "safe haven" asset, has historically performed well, especially during downturns and financial crises when riskier assets such as equities underperform. Accordingly, the past relationships between gold and risk assets (i.e., equities) suggest that investors who seek to generate uncorrelated returns to equities, with downside protection during periods of market turmoil, may benefit from having an allocation to gold.

CHART 1: GOLD'S PERFORMANCE VS. S&P 500 DURING MARKET TURMOIL EVENTS

(Source: Bloomberg Finance, L.P., State Street Global Advisors.)

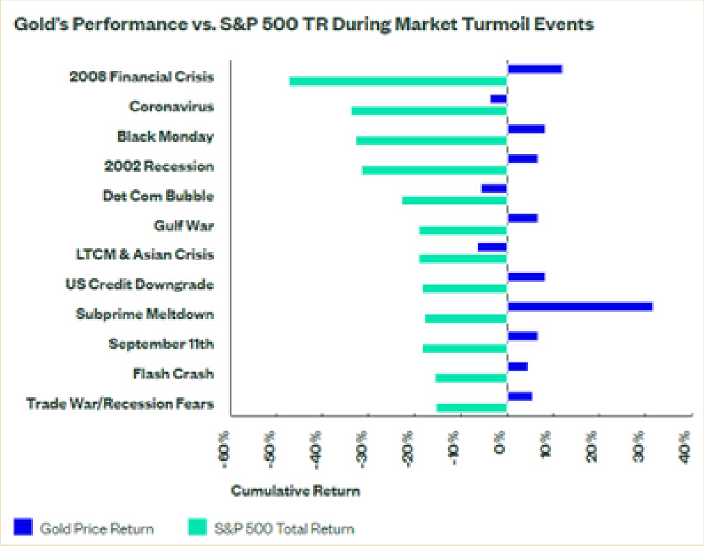


Table 1 is a correlation matrix of the gold spot exchange rate against the US dollar index with the major U.S. equity index (S&P 500) and U.S. fixed income index (Barclay's U.S. Aggregate Bond). The low ratios – 0.04 and 0.14, respectively – suggest gold has little to no correlation to traditional assets, illustrating the potential role of gold as a portfolio diversifier that may reduce the overall risk in a portfolio.

However, there have been concerns about the effectiveness of the hedge to equities that gold provides. Gold has not effectively hedged portfolios during every stock market decline. Most recently, in March of 2020, gold fell alongside stocks as well as most other asset classes during the market panic. Investors look to the yellow metal to be a diversifier that rises in value to cushion the loss when the stock market falls. In this regard, what was observed in March was disappointing to many. Investors holding gold were left wondering why it fell with the equity markets, when one possible reason they were holding gold was to hedge equity risk.

In fact, the primary reason for the fall was due to the COVID-19-induced bear market that created fear among investors and the resulting indiscriminate panic sell-off across most asset classes, including even what many consider to be safe-haven assets such as gold, US long-dated treasuries, and investment grade corporate bonds. Governments and central banks around the world quickly intervened in the markets to give appropriate support to ameliorate the negative sentiments and stabilize the markets. The responses, fiscal and monetary stimuli, did enhance the level of confidence in markets, but at the same time they created a new set of problems for long-term investors arising from the ballooning debt: risk of long-term inflation, the debasement of the U.S. dollar, and reduced ability for fixed income to play its traditional defensive role.

TABLE 1: GOLD'S CORRELATION MATRIX WITH MAJOR ASSET CLASSES FROM 1/1/1980 TO 12/31/2020

(Source: Bloomberg Finance, L.P.)

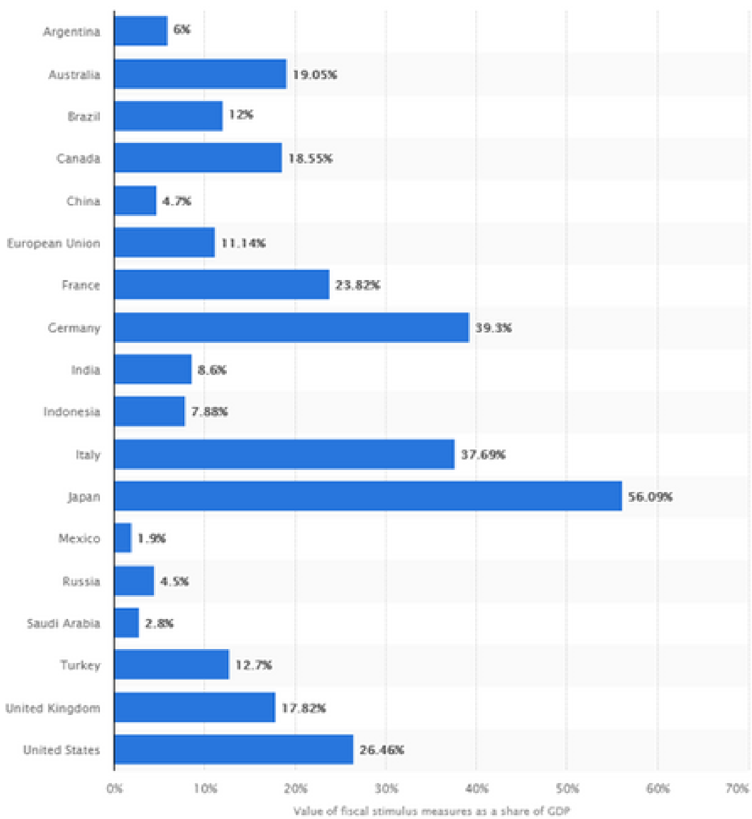
	Gold Spot Rate	*S&P 500*	*US Aggregate Bond*
Gold Spot Rate	1.00		
S&P 500	0.04	1.00	
US Aggregate Bond	0.14	0.17	1.00

Nevertheless, the drawdown in gold prices was short-lived. The price action of gold during the sell-off and subsequent recovery showed different characteristics when compared to the equity markets. While the S&P 500 and MSCI ACWI (global equity index) plummeted roughly 34% during the sell-off, gold only fell 13%. The magnitude of the drawdown and subsequent recovery are worth highlighting. Specifically, it took gold less than one month to recover to its pre-crisis level. In addition, gold breached $1,900 in July 2020, overtaking the previous all-time closing high of $1,891.90 that was reached in August 2011. In contrast, the S&P and MSCI ACWI index did not reach their pre-crisis level until 5 months after the March 23, 2020 bottom. As of December 31, 2020, the year-to-date performance of gold, measured by the gold spot closing prices, was up 25.1%, outperforming the S&P index by 6.7% and the MSCI ACWI index by 8.8%. (Source: Bloomberg)

IMPLICATIONS OF GLOBAL GOVERNMENTS AND CENTRAL BANKS' RESPONSES TO PANDEMIC FOR GOLD

CHART 2: VALUE OF COVID-19 FISCAL STIMULUS PACKAGES IN G20 COUNTRIES AS OF MAY 2021, AS A SHARE OF GDP

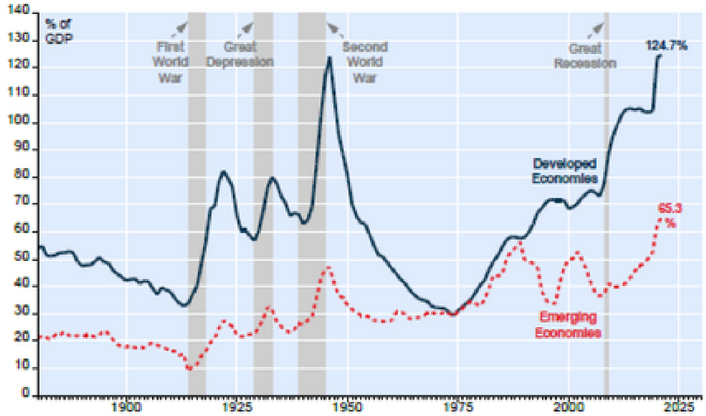
(Source: Statista)



IMPLICATIONS OF GLOBAL GOVERNMENTS AND CENTRAL BANKS' RESPONSES TO PANDEMIC FOR GOLD

CHART 3: GOVERNMENT DEBT AS PERCENTAGE OF GDP

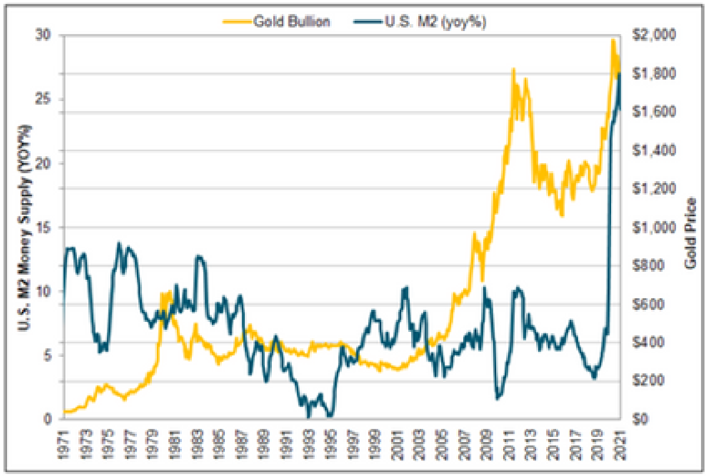
(Source: Sprott Asset Management; data from IMF, NBF Economics and Strategy)



The potential economic ramifications of COVID-19 stoked investors' fears, and prices across nearly all financial markets plummeted. The responses from global governments were swift and aggressive. Trillions of dollars' worth of stimulus was printed and quickly poured into the economy to calm the markets. Chart 2 shows the size of COVID-19 fiscal stimulus packages in G20 countries relative to GDP. As a result of the massive stimulus, government debt as percentage of GDP for G20 countries increased significantly in 2020 and early 2021. Furthermore, this upward trend in debt level for global governments is expected to continue for years to come as illustrated in Chart 3.

CHART 4: U.S. M2 MONEY SUPPLY VS. GOLD PRICE AS OF MAY 2021

(Source: Sprott Asset Management, Bloomberg Finance, L.P.)



Although some may disagree, we believe the aggressive global fiscal stimulus and easy monetary policy staved off a long and deep recession. That said, the long-term effects remain uncertain, particularly relating to inflation, as money supply and inflation are closely related. This may provide an ideal backdrop for a bull market in commodities such as gold, facilitating a sharp rebound in price. A similar phenomenon was observed during the 2008 Global Financial Crisis as can be seen in Chart 4, which demonstrates the relationship between the U.S. M2 money supply and the price of gold. The fear that bond purchasing by the central banks around the world would lead to hyperinflation propped up the price of gold sharply. Gold was up 20.5% from August 2008 to March 2009, while the S&P plummeted -47.3% during the same period.

The relationship between gold and inflation has been a hot topic because it is quite tricky. Investors may think it is logical to expect the price of gold to rise when inflation goes up. However, analysis shows that there is no direct correlation between inflation and the price of gold. Nonetheless, gold can still act as a hedge against inflation. How is this even possible? Inflation is a rise in the overall price of goods and services such as food, transportation, and clothing. It can be prompted by the money supply increasing at a rate faster than the growth in real output, resulting in a reduction in the purchasing power per unit of money. Consequently, as the supply of gold remains relatively constant, gold can still act as an inflation hedge. According to research by the World Gold Council, there were eight years between 1974 and 2008 when U.S. inflation exceeded 5%, while gold outpaced traditional assets with an average annualized return of 14.9% year-over-year.

CHART 5: INVERSE RELATIONSHIP BETWEEN GOLD AND REAL INTEREST RATES AS OF APRIL 2021

(Source: Reuters Eikon, Incrementum AG)

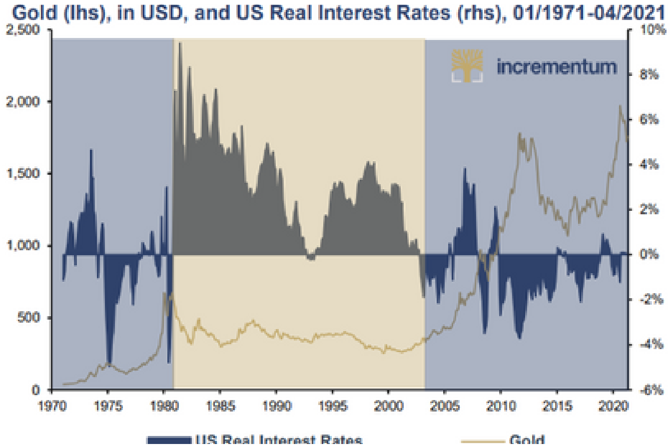
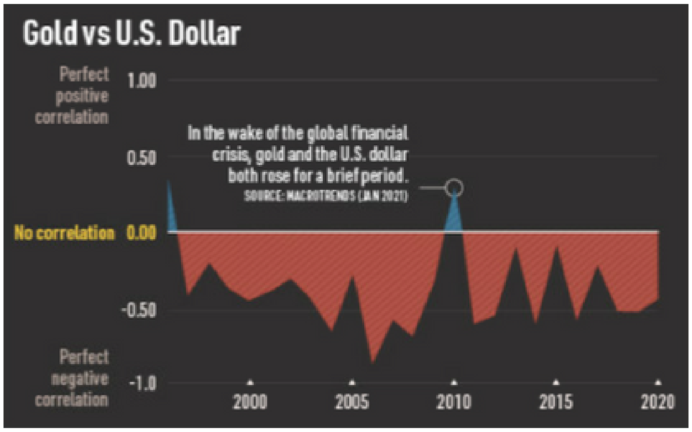


CHART 6: NEGATIVE CORRELATION BETWEEN GOLD AND THE U.S. DOLLAR

(Source: New York Life Investments)



In addition to easy global monetary policy, the commitment of the major central banks around the world to suppress interest rates near zero for the foreseeable future to support and rejuvenate the pandemic-hit global economy could be another positive sign for gold. A drop in expected real rates - the measure of interest rates adjusted for inflation – supports the price of gold over longer periods. In a low-interest rate environment, gold can become more attractive. Defensive assets, such as bonds, will likely not serve the traditional role of the past. As a result, the decreased opportunity cost of holding bullion may attract investors hunting for safe-haven assets despite the fact that gold does not produce any cash flow. This point is well summarized in Chart 5. Clearly, there is an inverse relationship between gold and real interest rates. During the periods when real interest rates were low, the price of gold tended to spike up.

Moreover, an allocation to gold can potentially protect portfolios from the depreciation or debasement of the U.S. dollar. Simply put, there exists a negative correlation between the two. Consider Chart 6 – since 2000, there was only one period when a positive correlation was observed. That means when the dollar is up, gold tends to perform poorly, and vice versa. In 2020, an explosive current account deficit, expected rise in inflation, and a low interest rate policy set the stage for a weaker dollar - an environment positive for gold price fundamentals.

Finally, we are living in a world full of uncertainties and geopolitical tensions. There are still people suffering from COVID-19, supply shortages, ongoing armed conflicts, and tensions between the two largest world economies - the U.S. and China. The trade war with China, coupled with the unexpected consequences of COVID-19, helped push the metal up over 50% from late 2018 to late 2020. In this regard, gold may provide meaningful upside return potential and create a buffer to portfolios when many uncertainties clouding the long-term investment horizon exist.

RISKS OF INVESTING IN GOLD

Despite positive prospects for gold, just like any other asset, an investor must also consider the downside risks. It is important to note that historically as a crisis receded, so did the price of gold. The value of gold has appreciated significantly and rapidly during times of crisis and subsequently plummeted when the uncertainties faded into the distance. We have observed several of these boom-and-bust cycles in the past. Therefore, as important as it is to know the potential portfolio benefits of a gold investment, disciplined investors should also identify and evaluate any risks that are present now or expected to materialize in the future that could impact the investment. Here are some of the major risks associated with investing in gold.

RISKS OF INVESTING IN GOLD

#1

Gold does not have intrinsic value. Intrinsic value for traditional assets is generally estimated by a traditional valuation method called discounted cash flow (DCF) which discounts the future cash flows into a present value. However, gold does not generate cash flows - no dividend or yield. The only source of gain is the price appreciation. What really drives the price then? Its value depends mostly on the dynamics of global supply and demand from multiple global interests – in essence, the whims of the investors. This makes it difficult to determine optimal entry/exit points and calculate the expected return of gold.

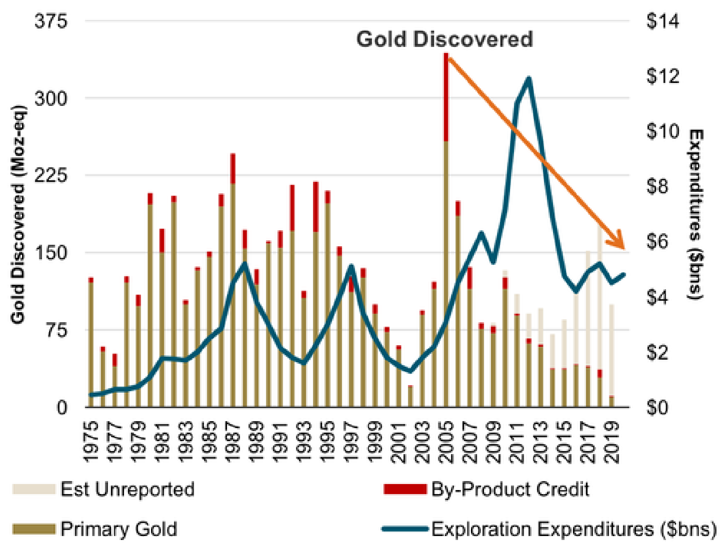
RISKS OF INVESTING IN GOLD

#2

As noted, the price of gold is largely dependent on global supply and demand dynamics. This means that discovery of large gold reserves around the world can depress the price with a flow of new supply, assuming the demand will remain constant. However, we believe this is a minor risk. According to BBC, experts have recently started talking about peak gold, as gold mine production in 2019 was 1% lower than in 2018. This is the first annual decline in production since 2008. **Chart 7** and **Chart 8** below show the decline in major gold discovery and production, respectively, and further support the point.

CHART 7: MAJOR GOLD DISCOVERIES HAVE DECLINED SIGNIFICANTLY

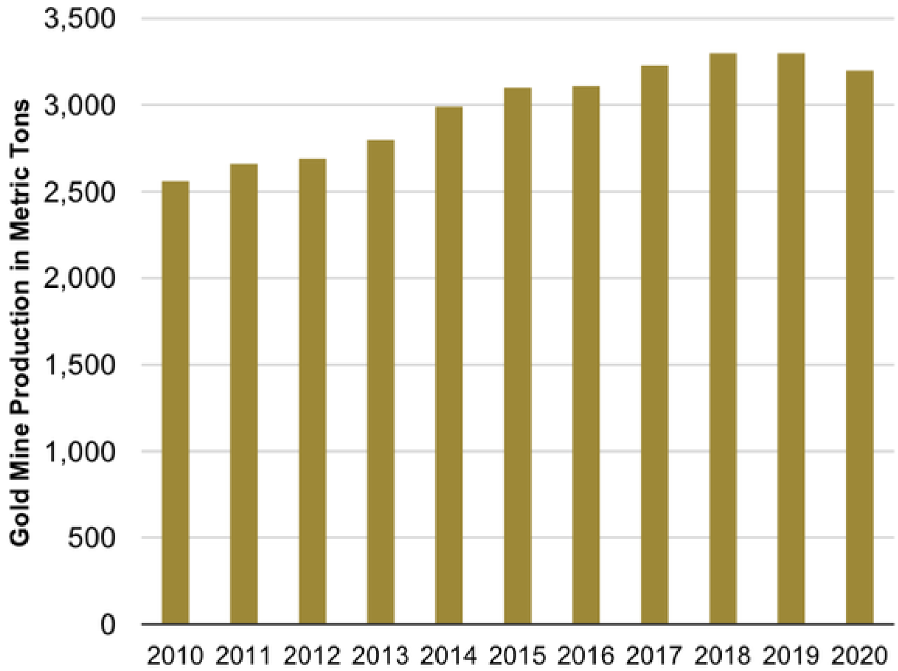
Discovery (1975-2019) and Exploration (1975-2020)



Data from 2009 onwards have been adjusted for unreported discoveries

CHART 8: ANNUAL GOLD PRODUCTION (2010-2020)

(Source: World Gold Council. Copyright by SNL Metals & Mining 2020. All rights reserved. USGS Mineral Commodity Summaries 2021.)



"While the growth in mine supply may slow or decline slightly in the coming years, as existing reserves are exhausted, and new major discoveries become increasing rare, suggesting that production has peaked may still be a little premature."

HANNAH BRANDSTAETTER, SPOKESPERSON FOR THE WORLD GOLD COUNCIL

RISKS OF INVESTING IN GOLD

#3

Moreover, contrary to popular belief, gold is very volatile. **Table 2** shows gold prices have experienced higher volatility than have large cap US stocks. During the period from January 1980 through December 2020, the annualized standard deviation of gold was 17.5%, exceeding that of S&P 500 by 2.4%. This means gold investors should be disciplined and expect a bumpy ride. Impulsive investors tend to reach for gold during bear markets and later lose faith because the market price of gold had already been discounted to reflect such fears amid market drops.

TABLE 2: PERFORMANCE STATISTICS FROM 1/1/1980 TO 12/31/2020

(Source: Bloomberg Finance, L.P.)

	Annualized Return	*Annualized Standard Deviation*
Gold Spot Rate	3.3%	17.5%
S&P 500	12.0%	15.1%

CONCLUSION

Being a true diversifier with its historically low correlation to stocks and bonds, gold may add value for disciplined investors by further diversifying portfolios and managing risk in an environment where fixed income is debased by artificially low rates and concerns about rising inflation. Nevertheless, gold may be more range bound or experience price weakness in the short run, as investors shift gears to finance reflation positioning trades, as the global economy recovers from the pandemic, and as the positive vaccine news creates excitement in the global market. The underlying fundamentals seem to remain favorable for gold from a historical perspective due to the unprecedented fiscal and monetary support by the governments and central banks around the world.

As with any investment, investing in gold also involves numerous risks, despite its reputation as a safe-haven asset. Difficulty of determining optimal entry/exit points, pricing largely dependent on the whims of global investors, and high volatility are some notable risks associated with a gold investment. Investors should thoroughly examine any risks and concerns beyond the few identified here when considering an allocation to gold.

As always, long-term investors should look beyond the present and prepare for rainy days. Whether gold has a place in your portfolio and what the proper weighting might be will depend on your unique risk profiles and investment objectives. LVW Advisors can help assess your risk tolerance, time frame, and goals, utilizing our industry network and extensive research capability.

Different Ways to Access Gold

	PROS	CONS
PHYSICAL BULLION	• MOST CONVENTIONAL AND DIRECT WAY TO INVEST IN GOLD • DENOMINATIONS MAY BE EXPENSIVE FOR BULLION BARS • POPULAR OPTION FOR GIFTING • INTERNATIONAL MARKET	• EXPENSIVE ROUTE THAT ATTRACTS A NUMBER OF COSTS (E.G., DEALER COMMISSIONS, STORAGE COSTS, INSURANCE PREMIUMS, SECURITY COSTS, ETC.) • RELATIVELY ILLIQUID OPTION WITH LARGE BID-ASK SPREADS • NOT TAX-EFFICIENT WITH GAINS TAXED AS COLLECTIBLES • NOT A PASSIVE INCOME ASSET
EXCHANGE TRADED FUND	• STRAIGHTFORWARD WAY TO PARTICIPATE IN THE GOLD BULLION MARKET VIA BROKERAGE • HIGHLY LIQUID; MORE READILY EXCHANGEABLE FOR CASH AT THE MARKET PRICE • GAINS FROM INVESTMENTS HELD MORE THAN ONE YEAR ARE TAXED AS LONG-TERM CAPITAL GAINS, SO INVESTORS CAN AVOID PAYING THE COLLECTIBLE RATE • LESS VOLATILE THAN INDIVIDUAL GOLD MINING STOCKS • LOW MINIMUM COMMITMENT & LOW EXPENSE RATIO • MINIMAL TRANSACTION CHARGES WITH TRANSPARENT PRICING	• UNREDEEMABLE FOR PHYSICAL GOLD • VALUE FLUCTUATIONS IN ETFS THAT WON'T MATCH UP EXACTLY WITH THOSE OF PHYSICAL GOLD • NOT A PASSIVE INCOME ASSET
EXCHANGE TRADED CLOSED-END FUND	• LONG-TERM INVESTMENTS IN NON-U.S. CEFS ARE TAXED AS LONG-TERM CAPITAL GAINS RATHER THAN AS COLLECTIBLES, WHICH CAN INCREASE AFTER-TAX RETURNS • ACTIVELY MANAGED BY PROFESSIONAL INVESTORS WITH A GOAL OF OUTPERFORMING PASSIVELY MANAGED INDEX FUNDS • REDEEMABLE FOR PHYSICAL GOLD	• MORE COMPLEX FEDERAL TAX REPORTING FOR NON-U.S. CEFS AS THEY ARE PASSIVE FOREIGN INVESTMENT COMPANIES • HIGHER BROKERAGE CHARGE THAN ETFS • NOT A PASSIVE INCOME ASSET

Different Ways to Access Gold

	PROS	CONS
GOLD MINERS	• GREATER UPSIDE POTENTIAL WITH MORE RISKS AS THE BET IS NOT ONLY ON THE PRICE OF GOLD BUT ALSO ON THE OWNERS OF THE BUSINESS • A PASSIVE INCOME ASSET AS INVESTORS MAY RECEIVE DIVIDENDS FROM MINERS • GAINS FROM INVESTMENTS HELD MORE THAN ONE YEAR ARE TAXED AS LONG-TERM CAPITAL GAINS • CAN EASILY BE PURCHASED ON STOCK EXCHANGE • HIGHLY LIQUID AS ETFS	• A MORE COMPLICATED INVESTMENT OPTION WHICH DOESN'T TRACK THE PRICE OF GOLD BUT RATHER THE RISE AND FALL OF THE MINING COMPANY STOCKS, SO MORE DUE DILIGENCE WORK IS NEEDED TO UNDERSTAND THE COMPANY • TYPICALLY MOVE IN RELATION TO GOLD PRICES BUT ALSO INFLUENCED BY OTHER FACTORS SUCH AS PRODUCTION, BORROWING COSTS, LABOR STRIKES, ETC. • MOST VOLATILE AMONG THE INVESTMENT OPTIONS LISTED • POTENTIAL TO LOSE ALL VALUE IN CASE OF BANKRUPTCY

GOLD TAX TREATMENT

- CAPITAL GAINS ON PRECIOUS METALS HELD MORE THAN ONE YEAR BEFORE SELLING ARE SUBJECT TO LONG-TERM CAPITAL GAINS TAX TREATMENT OR ARE SUBJECT TO THE HIGHER MAXIMUM COLLECTIBLES RATE OF 28%. THE LATTER GENERALLY APPLIES TO PHYSICAL GOLD. THIS LEVEL OF TAX IS SIGNIFICANTLY HIGHER THAN THE AVERAGE NET CAPITAL GAINS OF 15% FOR MOST TAXPAYERS.

- SHORT-TERM CAPITAL GAINS FOR PRECIOUS METALS ARE SUBJECT TO ORDINARY INCOME TAX TREATMENT, AS IS THE CASE WITH MOST TYPES OF INVESTMENT SHORT-TERM CAPITAL GAINS. HOWEVER, THE TAX TREATMENT FOR THESE ETFS CAN VARY DEPENDING ON HOW MUCH OF THE FUND IS INVESTED IN PHYSICAL GOLD VERSUS SOME ASSET THAT IS TIED TO THE PRICE OF GOLD.

- EXPOSURES TO GOLD THROUGH AN INDIVIDUAL RETIREMENT ACCOUNT (IRA) CAN SIGNIFICANTLY INCREASE AFTER-TAX RETURNS FOR INVESTORS.

SOURCES

Chart 1: Bloomberg Finance, L.P., State Street Global Advisors. Data from August 25, 1987 to December 31, 2020. Date ranges for the time periods noted are: 2008 Financial Crisis: 08/11/08 - 03/09/09; Coronavirus: 02/19/20 - 03/23/20; Black Monday: 08/25/87 - 12/04/87; 2002 Recession: 03/19/02 - 07/23/02; Dot Com Bubble: 09/29/00 - 04/04/01; Gulf War: 07/16/90 - 10/11/90; LTCM & Asian Crisis: 07/17/98 - 08/31/98; US Credit Downgrade: 07/07/11 - 10/03/11; Subprime Meltdown: 10/09/07 - 03/10/08; September 11th: 08/24/01 - 09/21/01; Flash Crash: 04/23/10 - 07/02/10; Trade War/Recession Fears: 09/21/18 - 12/26/18. US Equity represented by S&P 500 Total Return. Gold = gold spot price. Index returns are unmanaged and reflect peak to trough returns for the stated period. Index returns do not reflect the deduction of any fees or expenses)

Chart 2: Statista as of October/31/2020

Chart 3: Sprott Asset Management, Bloomberg Finance, L.P. Data as of May 31, 2021

Chart 4: Sprott Asset Management; data from IMF, NBF Economics and Strategy

Chart 5: Reuters Eikon, Incrementum AG

Chart 6: New York Life Investments

Chart 7: World Gold Council. Copyright by SNL Metals & Mining 2020. All rights reserved. USGS Mineral Commodity Summaries 2021.

Chart 8: World Gold Council. Copyright by SNL Metals & Mining 2020. All rights reserved. USGS Mineral Commodity Summaries 2021.

Table 1: Bloomberg Finance, L.P.

Table 2: Bloomberg Finance, L.P.

DISCLOSURE