GOLD OUTLOOK TO Q4 2023:

Gold Could Hit a Nominal High…But a Real High Looks Out of Reach

Nitesh Shah, Head of Commodities & Macroeconomic Research, Europe

Gold's fortunes appear to be turning in early 2023. Using consensus economic forecasts, our model indicates gold could easily reach a new 'nominal' high this year (last reached in 2020). However, reaching a 'real' high (accounting for erosion due to inflation) looks out of reach. Even in our bull case, gold will be shy of those levels and some 11% below the real high reached in 1980. In a scenario where inflation falls drastically (Siegel case) and the Federal Reserve (Fed) makes an early pivot, gold prices stand to do well as bond yields decline more than in the consensus scenario (and using a lower level of inflation, the real value of gold is less discounted).

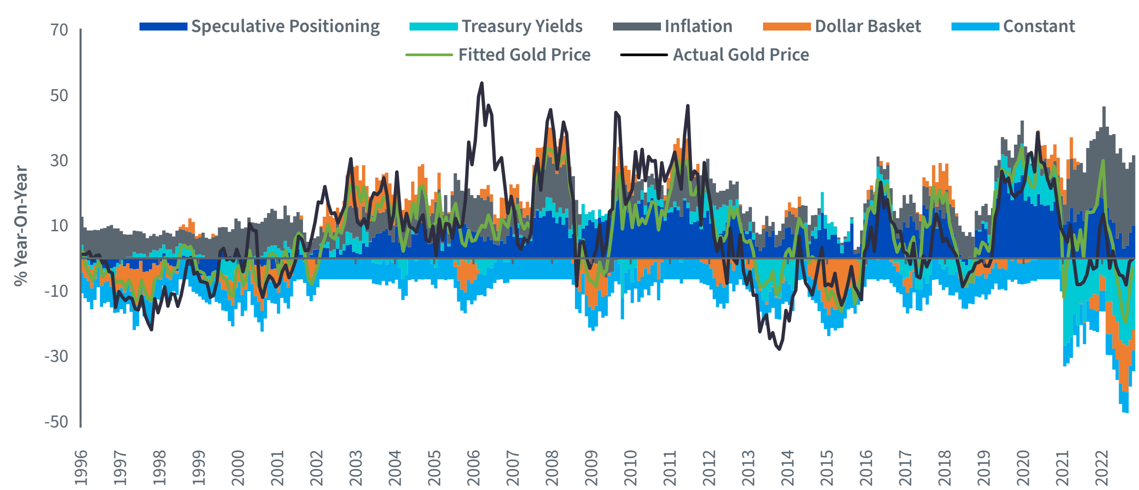
Figure 1: Real Gold Prices

Source: WisdomTree Model Forecasts, Bloomberg Historical Data based on the London Bullion Market Association (LBMA) and Bureau of Labor Statistics data, January 1947 to December 2022. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

TOUGH TIMES FOR MODELS

2021 and 2022 proved to be some of the toughest times to forecast gold. Even inputting the known outcomes for inflation, bond yields, exchange rates, and investor sentiment into our model, residuals (difference between model and actual outcomes) were greater than normal. Between May 2021 and May 2022, our model overestimated gold prices and between May 2022 and December 2022, it underestimated gold prices. But, by the end of 2022, our model and reality were closely aligned.

Figure 2: The Impact of Each Variable — Attribution of Fitted Results vs. Actual Price



Source: Bloomberg, WisdomTree price model, data as of December 2022. The fitted gold price is the price the model would have forecast. The constant does not have economic meaning, but is used in econometric modeling to capture other terms. It can be thought of as how much gold prices would change if all other variables are set to zero (although that would be unrealistic). **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

Looking forward, there is great uncertainty as to the path of the U.S. dollar, bond yields, and inflation, so forecasting will not be any easier, but the model has been quite effective at understanding the key drivers of gold.

HEADWINDS REMOVED AND TAILWINDS PRESENT

In 2022, gold experienced tremendous headwinds from rising bond yields and an appreciating U.S. dollar. So, despite inflation running at a multi-decade high, gold performance was, essentially, flat.

In the opening weeks of 2023 (and the tail end of 2022), these headwinds began to reverse. The U.S. dollar has been depreciating and bond yields look to have peaked out in October 2022, giving gold some breathing room.

Additionally, and possibly most importantly, investor sentiment towards gold has turned the corner and is improving markedly. Sentiment had fallen to the lowest levels since April 2019 in September 2022.

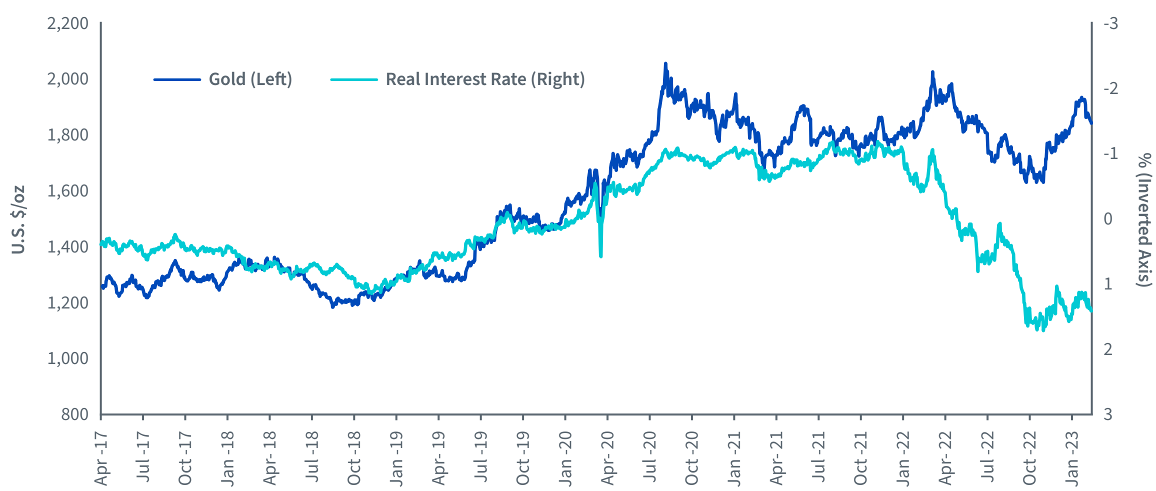
While inflation seems to have peaked in 2022, it is elevated and possibly could remain above central bank targets for the remainder of this year (supporting gold).

Investors recognising the extent of uncertainty and potential for policy missteps of either over-tightening (and inducing a recession) or not tightening enough (and having inflation remain above target for an even more protracted period of time) are seeking financial hedges with their trusted asset: gold.

GOLD IS OUTPERFORMING BONDS

In 2022, real bond yields rose from -1.1% at the beginning of the year to 1.6% at the end of the year, marking the most aggressive bond sell-off in decades. Gold, meanwhile, held flat (-0.3% year-on-year), although intra-year it had peaked above US$2000/oz and fallen close to US$1600/oz. The extent of the bond sell-off has, however, weighed on gold. The metal would be trading much higher on account of elevated inflation were it not for the rising real rates. Now that real rates have started to fall once again (since October 2022), one headwind has been removed off gold.

Figure 3: Gold vs Real Rates (Treasury Inflation-Protected Securities Yield)

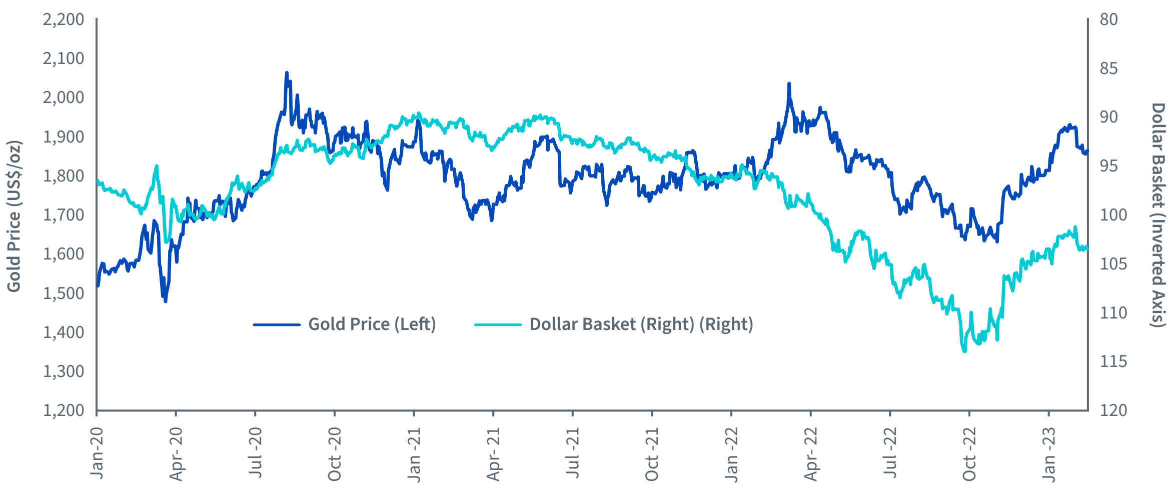


Source: WisdomTree, Bloomberg. April 2017 – January 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

U.S. DOLLAR DEPRECIATION IS NOW HELPING GOLD

Through most of 2022, U.S. dollar appreciation weighed on gold prices in U.S. dollar terms. However, since October 2022 the U.S. dollar has been depreciating, aiding gold prices higher. Bond and U.S. dollar trends indicate markets believe we are closer to the end of the Fed tightening cycle and there is potential for a 'pivot' towards a looser monetary setting some time this year.

Figure 4: Gold and Dollar Basket



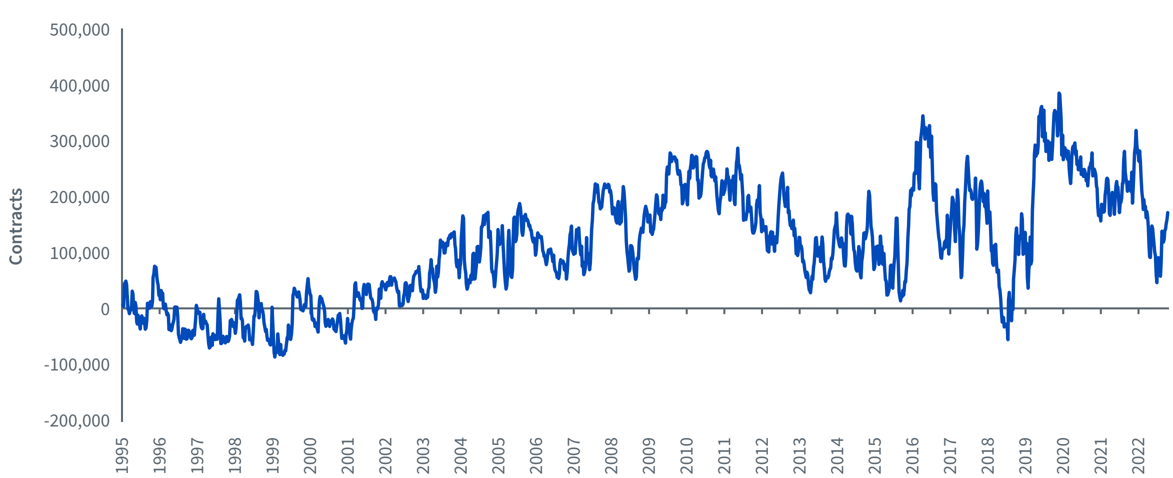
Source: WisdomTree, Bloomberg. April 2017 – January 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

INVESTOR SENTIMENT TOWARDS GOLD IS RECOVERING RAPIDLY

Sentiment towards gold, measured by speculative positioning in gold futures, had fallen to the lowest levels since April 2019 in September 2022. Under the weight of rising bond yields and an appreciating U.S. dollar, gold did not appear to offer much reprieve against the highest inflation reading since 1981, nor the sharpest equity sell-offs since the Global Financial Crisis.

However, as bond and U.S. dollar headwinds lessened, we moved past peak bearishness in the metal. Digital assets – which were often compared to gold as pseudo currency assets – had a terrible year in 2022. It's clear that gold and digital assets behave very differently. We believe that they should be considered complementary rather than competing assets. As FTX imploded in November 2022, sentiment towards gold fired up. Although net speculative positioning in gold is still far from the (trailing 1-year) high of 321k reached in March 2022 (shortly after the start of the Ukraine war) it is rebuilding rapidly. While investors are more optimistic about a pivot in central bank policy, they realise such an outcome is far from certain and recession risks loom if they tighten too far. Gold is often seen as a defensive hedge.

Figure 5: Net Speculative Positioning in Gold Futures



Source: WisdomTree, Bloomberg. April 1995 – January 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

GOLD OUTLOOK USING WISDOMTREE'S FORECASTS MODEL

CONSENSUS

Our consensus scenario takes Bloomberg Survey of Professional Economists' average views on inflation, U.S. dollar and Treasury yield forecasts. Consensus is looking for inflation to continue to decline (although above central bank target), U.S. dollar to depreciate, and bond yields to continue to fall.

Without a consensus forecast on gold speculative positioning, we input a conservative base case here of 100k, which is close to the long-term average. The risk is clearly to the upside this year if a recession materialises. Gold is a highly sought-after asset in times of economic and financial stress, and so a recession could drive sentiment for the metal even higher.

In the consensus case scenario, gold reaches US$2082/oz by Q4 2023, piercing through previous all-time nominal highs (US$2061/oz on 7 August 2020). However, in real terms this does not reach an all-time high, which was reached in January 1980. In fact, it would be 19% below that level; and in real terms it is still 11% below the 2020 high.

SIEGEL CASE

Professor Jeremy J. Siegel of Wharton Business School, and an advisor to WisdomTree, believes current Fed hawkish is not warranted and inflation is already falling faster than published figures suggest (see My Bottom-Line Year-Ahead Outlook). Moreover, he expects the Fed to recognise what he deems to be a mistake and cut interest rates to 2-3% by year end and that 10-year yields will fall 2.9%. Even if the Fed cuts rates later this year, given long lags between policy choices and inflation outcomes, we could see inflation fall to 2% by end of year. That is basically at Fed target.

If we go back to monetary expansion, central bank largesse will no longer be curtailed, and we can see a strong case for investors holding more gold exposure. In this case we keep positioning in gold futures at 150k net long (only slightly down from today's level of 170k).

In this scenario, gold rises to US$2135/oz, aided by falling bond yields.

BULL CASE

This scenario is broadly the same as the Siegel case, with the main difference being the inflation outcome. In this alternate case, the Fed is genuinely convinced by the arguments put forth by Professor Siegel (housing market softer than Consumer Price Index (CPI) methodology calculations, money growth falling fast etc.) and, seeing the visible impact of monetary tightness on the economy, decides to cut rates. However, inflation doesn't fall as much as they feared because price shocks (for example, another energy crunch or China re-accelerating faster than expected) keep prices of globally traded goods higher. In this scenario, inflation finishes the year higher at 4%. The U.S. dollar softens more than in the consensus scenario as monetary conditions are loose relative to inflationary outcomes.

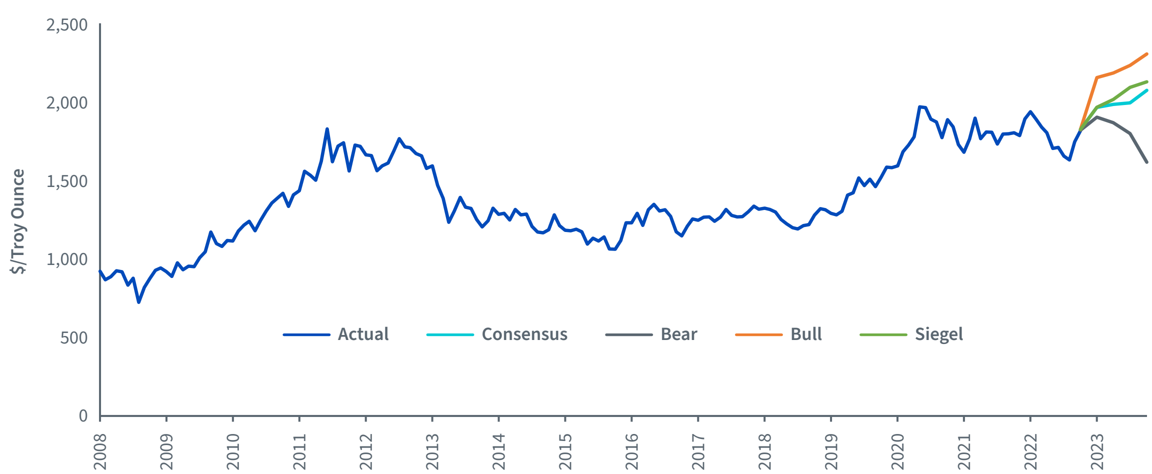
In this scenario, gold could reach US$2314/oz. Despite piercing the all-time nominal high by 11.5%, it is still shy of the all-time real high by 11% and 2% below the nominal high of 2020 (in real terms).

BEAR CASE

In the bear case, CPI inflation falls to 2.0%, that is, the same as the Siegel case. However, the Fed does not respond in the manner Siegel hopes and maintains a hawkish line. Bond yields and the U.S. dollar reverse course once again and present headwinds for gold in a similar fashion to 2022, but the metal no longer has inflation as a source of support. With investors neither looking for an inflation hedge or worried about central bank largesse, speculative positioning for the metal falls, reaching similar lows to those observed in September 2022.

In this scenario, gold could reach US$1616/oz, retracing prices back to March 2020 levels.

Figure 6: Gold Price Forecasts



Source: WisdomTree Model Forecasts, Bloomberg Historical Data, data available as of close 31 December 2022. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

	Consensus Q1 2023	Consensus Q2 2023	Consensus Q3 2023	Consensus Q4 2023
Inflation forecast	5.6%	3.8%	3.2%	2.9%
Nominal 10-year yields forecast	3.69%	3.65%	3.55%	3.42%
US$ exchange rate forecast (DXY)	104	102	101	99
Speculative positioning forecast	100k	100k	100k	100k
Gold price forecast	US$1970/oz	US$1990/oz	US$2000/oz	US$2080/oz

Source: WisdomTree. Bloomberg Survey of Professional Economists. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

	Siegel Q1 2023	Siegel Q2 2023	Siegel Q3 2023	Siegel Q4 2023
Inflation forecast	4.8%	3.5%	2.8%	2.0%
Nominal 10-year yields forecast	3.5%	3.2%	3.0%	2.9%
US$ exchange rate forecast (DXY)	104	102	101	99
Speculative positioning forecast	150k	150k	150k	150k
Gold price forecast	US$1970/oz	US$2020/oz	US$2100/oz	US$2135/oz

Source: WisdomTree. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

	Bull Q1 2023	Bull Q2 2023	Bull Q3 2023	Bull Q4 2023
Inflation forecast	6.0%	5.5%	4.5%	4.0%
Nominal 10-year yields forecast	3.5%	3.2%	3.0%	2.9%
US$ exchange rate forecast (DXY)	100	98	96	94
Speculative positioning forecast	150k	150k	150k	150k
Gold price forecast	US$2160/oz	US$2190/oz	US$2240/oz	US$2314/oz

Source: WisdomTree. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

	Bear Q1 2023	Bear Q2 2023	Bear Q3 2023	Bear Q4 2023
Inflation forecast	4.8%	3.5%	2.8%	2.0%
Nominal 10-year yields forecast	3.7%	3.9%	4.1%	4.3%
US$ exchange rate forecast (DXY)	104	106	108	110
Speculative positioning forecast	90k	80k	75k	50k
Gold price forecast	US$1910/oz	US$1875/oz	US$1804/oz	US$1616/oz

Source: WisdomTree. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

REAL GOLD PRICES, EVEN UNDER THE BULL CASE, FALL SHORT OF 2022, 2011, AND 1980 LEVELS

Though this repeats the point we started with, it is worth emphasising that, while our forecasts may provide a 'sticker shock' to the value of gold by the end of the year (in consensus, Siegel, and bull cases), in real terms the values are not that shocking. That is a story about just how aggressive inflation has been in recent years.

Figure 7: Real Gold Prices

Source: WisdomTree Model Forecasts, Bloomberg Historical Data based on LBMA and Bureau of Labor Statistics data, January 1947 to December 2022. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

Glossary

Bear market: A sustained downturn in market prices, increasing the chances of negative portfolio returns. Bond yield: Refers to the interest received from a bond and is usually expressed annually as a percentage based on its current market value. Bull market: A market in which share prices are rising, encouraging buying. Consumer Price Index (CPI): A measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. The CPI is calculated by taking price changes for each item in the predetermined basket of goods and averaging them; the goods are weighted according to their importance. Changes in CPI are used to assess price changes associated with the cost of living. Core CPI excludes food and energy costs. Digital assets: Anything digital that has value, established ownership, and is discoverable. Federal Reserve (Fed): The Federal Reserve System is the central banking system of the United States. FTX: A cryptocurrency exchange that promotes the liquidity and transacting of coins and tokens. Gold futures: Standardized, exchange-traded contracts in which the contract buyer agrees to take delivery, from the seller, a specific quantity of gold at a predetermined price on a future delivery date. Hawkish: Description used when worries about inflation are the primary concerns in setting monetary policy decisions. Real rate: A real rate, or real interest rate, is the interest rate that takes inflation into account. Treasury Inflation-Protected Securities (TIPS): Bonds issued by the U.S. government. TIPS provide protection against inflation. The principal of a TIPS increases with inflation and decreases with deflation, as measured by the Consumer Price Index. When a TIPS matures, you are paid the adjusted principal or original principal, whichever is greater. Yield: The income return on an investment. Refers to the interest or dividends received from a security that is typically expressed annually as a percentage of the market or face value.