What is Gold Worth?

By Deitec Bank & Trust

What is Gold Worth?

For centuries gold has been the tool countless investors have turned to in the hopes of protecting their wealth from inflation and chaos. There have been several models with which gold has been valued in the past though today there are more modern methods both viable and accurate in predicting where the price will go in the short to medium term. We will go through some of these models and see what they predict for today’s gold price, before discussing how they may change going forward due to the COVID-19 crisis and the virtually unlimited printing of the US dollar. We want to at least answer whether or not gold is selling at a discount ... or is it overpriced? This depends on the chosen model, and what you choose to believe is most important.

Campbell Harvey, a professor of finance at Duke University’s Fuqua School of Business, said (http://postman.mynewsdesk.com/ls/click?upn=2wpLJe32RfKgjg-2fCtkrdjo7NkO75jVtPq7oUlkptQUowd317V-2fHAKTOzCwFq7LjeJgMhqnZn3R4zWwr3spFV1wWfXNhs7Kf3wfftTD5efOxbmwQLDRONW5MD4vijiKfvalCH8F8tvIq2MD1WmWiGRepq2hQqogvOvg4UgOiU27nUo4svIcgqhCVHalijCT72ZMwC76QeoHQKmtC72GOnO-2BogYu2O9mnzaKb7SY4ctOCmnmN8xtRtzamM-2FBqokKxOy-2fCNwHeh2Pd9XmL-2FyQkw-2Br7DBynTeVeVRFK1NYwZlEceDIBcqcX1mEdG-2E2eEcbHHW-2EvrjUXbd7y9pF0-3CVWht_qq2787rQ0ssZwQgjoO6ZqhFoHIdmon55mvqgrvp090fajnxSm6dOeEglmnOijXmN6RveB6tD-2Bs6OA1m77eEr68KohYJGarL-2fArrxmumuf6c8SXwPzoFp022K2gurty4Hyykcpwl5Dv6U3DBPjGF05BrxMysVYER5QeesG1-2BtfKvNueer2sMuybFFLr9CQqOhowa2mEvClMCWmNHBqZ1tvQtbX0a6jig0975F5Mr77MrIRy5fVY5HOCZo7mp-2BlvkQtbTXW81Qla-2BdhQryjcFD0W7-2Fdh011QkplD1UjBooY2B5NoDtd6B8cA9CvlpAumYznWpZY-2BSiyh-2F6xtQnQGDF5hBlXICO3sCeCB8RklkijCPQYOeqs3VksEw0ilLKMczVEn NasptnEtFVikfZ3ds3D) of gold valuation, “Gold is poorly understood. There are many forces driving the price of gold, and the importance of those forces changes through time.” This is at the heart of valuation. No model is always the best. Many of the forces measured with models have ever-changing importance to gold’s valuation. People use gold for different reasons, and their three major uses each lead to a different valuation:

- Inflation hedge. Gold’s price will often, but not always, increase with inflation.
- Geopolitical hedge. It’s often used as a hedge against political or financial uncertainty as its price will usually increase alongside stock market declines or increased volatility. Many believe that if there is a global financial, political or societal collapse (for example a zombie apocalypse), gold will maintain or even increase its value. But if the world is stable this effect is subdued.
• Portfolio diversifier. This is an asset allocation tool useful when two highly volatile investments placed together generate higher returns with lower overall volatility, than either could achieve individually. Gold is used to improve risk-adjusted stock returns.

All three clear and do make gold desirable. What further confuses us is: approximately 40% of gold
(http://postman.mynewsdesk.com/is/clik?upn=z3wPLe32RF8Kiyjg-2FICFOuulwnnQGlEcMs7XK4ObDcta2hjXo38CjSne9OilUA-2BeH-2FNo4R7zh3sNT0DLug-3D3DjRwM_JqJ-2B7RjTQszsWeZqj06ZqfoHfHmnm5msvagryp090fajnXnNdOEyGlmm0IXnZfRUncB6tD-2B5oaU1m77fcrE68KohYjJGEL2-2Fargmmu6c85XPzqMXps0fnZKZgurty4HYy/kpLWv5Dv6U3DBPJg05BcmYssYRERSQqesiGl1-2BfKnnuer2sMuybfTajxWovcugw7Hy80-2BxXr01D9hRtx1DGqoSgDgt4F1Beaua2Vc identities are negligible for valuation.

Inflation Hedge

Investors may consider gold as their hedge against inflation. The idea makes sense as we know of the scarcity of gold, or its limited total supply alongside its constant demand. This gives us an assumption it’s inflation proof. Let’s take a look at what factual data from history has to say.

Reviewing the past 45 years of inflation-adjusted gold prices (prior to 1975 it was illegal (http://postman.mynewsdesk.com/is/clik?upn=z3wPLe32RF8Kiyjg-2FICFOuulwnnQGlEcMs7XK4ObDcta2hjXo38CjSne9OilUA-2BeH-2FNo4R7zh3sNT0DLug-3D3DjRwM_JqJ-2B7RjTQszsWeZqj06ZqfoHfHmnm5msvagryp090fajnXnNdOEyGlmm0IXnZfRUncB6tD-2B5oaU1m77fcrE68KohYjJGEL2-2Fargmmu6c85XPzqMXps0fnZKZgurty4HYy/kpLWv5Dv6U3DBPJg05BcmYssYRERSQqesiGl1-2BfKnnuer2sMuybfTajxWovcugw7Hy80-2BxXr01D9hRtx1DGqoSgDgt4F1Beaua2Vc identities are negligible for valuation.

The Real Price of Gold

(http://postman.mynewsdesk.com/is/clik?upn=z3wPLe32RF8Kiyjg-2FICFOuulwnnQGlEcMs7XK4ObDcta2hjXo38CjSne9OilUA-2BeH-2FNo4R7zh3sNT0DLug-3D3DjRwM_JqJ-2B7RjTQszsWeZqj06ZqfoHfHmnm5msvagryp090fajnXnNdOEyGlmm0IXnZfRUncB6tD-2B5oaU1m77fcrE68KohYjJGEL2-2Fargmmu6c85XPzqMXps0fnZKZgurty4HYy/kpLWv5Dv6U3DBPJg05BcmYssYRERSQqesiGl1-2BfKnnuer2sMuybfTajxWovcugw7Hy80-2BxXr01D9hRtx1DGqoSgDgt4F1Beaua2Vc identities are negligible for valuation.

Notes: The real price of gold is the nominal U.S. dollar price of an ounce of gold divided by the U.S. Consumer Price Index. The average real price of gold is the equally weighted average of the real price of gold at each month's end (monthly observations).
If an investor is considering gold as an inflation hedge for the very long-term, they can invest in it as a means to this end. When we review a different study also done by Claud Erb, where he analyzed more than 1,500 years of gold prices—part of which against UK's retail price index (RPI)—we find the following:

Note: Data from Measuringworth.com [http://postman.mynewsdesk.com/is clicked?u=3wPLie3ZFR88YkJg8-2FicTJAW2U/eetxhpb/A10iN-2B1ixoog5nSNahvqjvYfip3tCupjwxF/nbEZ-2B5WdGRC-2B5WdGRCmlzDUt22Cm2d4pOkGr9m6WyjIjDqaaYmyly2A-2EZF8amjhrQDU7/pfY5d4yfKk5j1Ay475xw35GwhFCWMNdbs8Qj3jI7xIaF9b99qh6205YhmzIc9IF-2FnNJusDSX82dQ5S-2Bp32V$sqJlNaCncoN3$KovzHX56dU0/jA3qPbM61qNgY9fOeF10-2BFrig5kCtV0cgAeXms3qy/5wePF75XseFfHgms6BdhUgS85NHZ2NXLQ1LbBQz0E94L5TTrF2tW3twElWcr8zjAdoPBAzupuWkcv0d20xa35/3Lvt/3Ea8pEBISQGbuGr1nq0jp-2BM/4UVGk2HhcC775-2BDivsdQHm1-lgOj-2B77rIQssWsZqbo6ZSghFolHm605mYqvrj0p09afajnxSnI6D0EyGlmOMxNZrWucB6tD-2BSoAVU1m7feEr68KhoyYJGEL2-2FarxmunUofc8S8xPzq8x/sF0FnZKzgury45Hy/LwpW5Dv6U3DBPjG0Sbcm/vsYYERSQrQegS11-2BFsKfn6uerS2MysFbYnZm1tAzIqqLmMG5V206pOk8vZ-2Fp3j-2FS3eALPmlSvwn2EfxrFtyE5lSj-2FLv5/wTCed7bVZdNG5k08Z74c8Ncb-2BdSMGp54ZIt/hE1EpYelsZBpCeHrNsbbw5BmyANNp9jWgdxrRtCxt-2BD-2B95Mh8a68/Xldh0Y9eD8hH8tEAlOISXR7Qa8R3HSPwqgp1hy/LJNBY1HYzmrC3FfvRq2wh3vEt-3D] of 9%.

Remember that price changes are the causes of returns in gold investments. These returns have varied greatly, with long periods allowing for real money doubling from the beginning of the graph (1257) to the year 1500. Unfortunately in that time you (and in fact several generations of your family) would have seen paper losses of nearly 50% after King Edward’s Edict of Expulsion. Other periods (from the early 1500s to 1800) you could have lost 80% of your money in real terms. Erb’s study in totality covers 3,000 years (back to the pharaohs and King Tutankhamun), and he found a real return for gold of only 0.5 to 2.0%. Not exactly stellar.

Some super wealthy oligarchs may consider this part of their strategy, but for the rest of us, it is not so good. In contrast, over the past 150 years, US stocks have given an average annual return (http://postman.mynewsdesk.com/is clicked?u=3wPLie3ZFR88YkJg8-2FicTJAW2U/eetxhpb/A10iN-2B1ixoog5nSNahvqjvYfip3tCupjwxF/nbEZ-2B5WdGRC-2B5WdGRCmlzDUt22Cm2d4pOkGr9m6WyjIjDqaaYmyly2A-2EZF8amjhrQDU7/pfY5d4yfKk5j1Ay475xw35GwhFCWMNdbs8Qj3jI7xIaF9b99qh6205YhmzIc9IF-2FnNJusDSX82dQ5S-2Bp32V$sqJlNaCncoN3$KovzHX56dU0/jA3qPbM61qNgY9fOeF10-2BFrig5kCtV0cgAeXms3qy/5wePF75XseFfHgms6BdhUgS85NHZ2NXLQ1LbBQz0E94L5TTrF2tW3twElWcr8zjAdoPBAzupuWkcv0d20xa35/3Lvt/3Ea8pEBISQGbuGr1nq0jp-2BM/4UVGk2HhcC775-2BDivsdQHm1-lgOj-2B77rIQssWsZqbo6ZSghFolHm605mYqvrj0p09afajnxSnI6D0EyGlmOMxNZrWucB6tD-2BSoAVU1m7feEr68KhoyYJGEL2-2FarxmunUofc8S8xPzq8x/sF0FnZKzgury45Hy/LwpW5Dv6U3DBPjG0Sbcm/vsYYERSQrQegS11-2BFsKfn6uerS2MysFbYnZm1tAzIqqLmMG5V206pOk8vZ-2Fp3j-2FS3eALPmlSvwn2EfxrFtyE5lSj-2FLv5/wTCed7bVZdNG5k08Z74c8Ncb-2BdSMGp54ZIt/hE1EpYelsZBpCeHrNsbbw5BmyANNp9jWgdxrRtCxt-2BD-2B95Mh8a68/Xldh0Y9eD8hH8tEAlOISXR7Qa8R3HSPwqgp1hy/LJNBY1HYzmrC3FfvRq2wh3vEt-3D] of 9%.

Which brings us to the question: how is gold doing with inflation today? Erb’s research discovered a golden (http://postman.mynewsdesk.com/is clicked?u=3wPLie3ZFR88YkJg8-2FicTJAW2U/eetxhpb/A10iN-2B1ixoog5nSNahvqjvYfip3tCupjwxF/nbEZ-2B5WdGRC-2B5WdGRCmlzDUt22Cm2d4pOkGr9m6WyjIjDqaaYmyly2A-2EZF8amjhrQDU7/pfY5d4yfKk5j1Ay475xw35GwhFCWMNdbs8Qj3jI7xIaF9b99qh6205YhmzIc9IF-2FnNJusDSX82dQ5S-2Bp32V$sqJlNaCncoN3$KovzHX56dU0/jA3qPbM61qNgY9fOeF10-2BFrig5kCtV0cgAeXms3qy/5wePF75XseFfHgms6BdhUgS85NHZ2NXLQ1LbBQz0E94L5TTrF2tW3twElWcr8zjAdoPBAzupuWkcv0d20xa35/3Lvt/3Ea8pEBISQGbuGr1nq0jp-2BM/4UVGk2HhcC775-2BDivsdQHm1-lgOj-2B77rIQssWsZqbo6ZSghFolHm605mYqvrj0p09afajnxSnI6D0EyGlmOMxNZrWucB6tD-2BSoAVU1m7feEr68KhoyYJGEL2-2FarxmunUofc8S8xPzq8x/sF0FnZKzgury45Hy/LwpW5Dv6U3DBPjG0Sbcm/vsYYERSQrQegS11-2BFsKfn6uerS2MysFbYnZm1tAzIqqLmMG5V206pOk8vZ-2Fp3j-2FS3eALPmlSvwn2EfxrFtyE5lSj-2FLv5/wTCed7bVZdNG5k08Z74c8Ncb-2BdSMGp54ZIt/hE1EpYelsZBpCeHrNsbbw5BmyANNp9jWgdxrRtCxt-2BD-2B95Mh8a68/Xldh0Y9eD8hH8tEAlOISXR7Qa8R3HSPwqgp1hy/LJNBY1HYzmrC3FfvRq2wh3vEt-3D] of 9%.

When Americans were allowed to invest in gold again on January 1, 1975, the price was $185 per ounce. In June 2016, the inflation-adjusted fair value constant was $839.63 (41 years and 6 months later), indicating an average increase of $1.3145 per month. If continued till today (June 2020), our fair value is $63.10 higher, or $902.73 in 2016 dollars, with a 1.66% yearly inflation average.

With this valuation model, gold is greatly overvalued.

Geopolitical Hedge

Looking at gold from a geopolitical hedge viewpoint is reasonable to some gold buyers, at least on an intuitive sense. The problem is that previously, this idea could not be confirmed statistically. There was no way to quantify geopolitical uncertainty. This has changed with the work of three professors of finance from Northwestern, Stanford and the University of Chicago who created Economic Policy Uncertainty (EPU) Indexes. The EPU Index offers a way to quantify geopolitical uncertainty. The index is based on the frequency of words related to economic policy in the speeches of the US president and the Federal Reserve Chair. The index ranges from 0 to 100, with higher values indicating higher uncertainty. The index has been shown to be a useful tool for predicting economic outcomes, including the gold price.

When the EPU Index rises, gold tends to rise as well. This is because gold is often used as a hedge against geopolitical uncertainty. When there is high uncertainty, people tend to seek safe havens, such as gold, as a way to protect their wealth. The EPU Index provides a way to quantify this uncertainty, allowing investors to make more informed decisions about their gold investments. The index has been used to explain a wide range of economic phenomena, including stock market performance, inflation, and economic growth.

In summary, the gold price is influenced by a variety of factors, including inflation, the strength of the US dollar, and geopolitical uncertainty. By analyzing these factors, investors can make more informed decisions about their gold investments.
2FuL6vJ1haOxay05hWdC0VDeOksEVel5FIQvKKN3K3k45P38yGlazbV472f56yWdhxA8yTUr3MGWmismv6UFWOghppHfuCD-2BpnCTZ6HP3233ntVMAeHYk81ZFTkA97rrHr1Qqahj5HgjHLGUnj7HCvrbDDU1-2BzehO4W23HXS061h34-3D) for each country as well as a global index.

**Monthly Global Economic Policy Uncertainty Index**

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Chart courtesy of [https://www.policyuncertainty.com](https://www.policyuncertainty.com) (http://postman.mynewsdesk.com/ls/click?upn=3wPLie3ZfRYg8-2FICTBRRnp7-2BynZvYNK2b1k7xKH1yAKtiiETk3CcuNpOlKXmt_lgQJ-2B77reqzssVzqjO6ZqHfoHhmm055mvgrvjs090fajnXsnNdOeyGlmmOixNzRvucB6td-2B5oVAU17fCer68koYJyGEL2-2Farxmnuf6fc8SXpzmXps02ZKgurty45HyypCLW5vD5U3DBPJDf05BcmYssYRERSQesGI-2BtFkkn6uer2sMuybFUIrSCNPXcan-2FDQ071lAlcOY9f9Asf6ip4FmbozEwwsc-2BnIcWH2r0v1v-2FvEYI/OdGtw0uONF-2Bso924hi7CldC-2BskfZ9gibd-2FtRadUs25-2EZfGpsWwe9-ZF087P5b4gbfyl.e1477p7E3CFINml-2BD1aESt5n9QPds-2BywtFaQvg3ul-2BHWxr1DWxb25-2BsmfdAQa9oxoKRB-2BtZt6vtj4z-2F7MVC3koanLCoVPLk-3D)

In their research paper ([http://postman.mynewsdesk.com/ls/click?upn=3wPLie3ZfRYg8-2FICTBRRnp7-2BynZvYNK2b1k7xKH1yAKtiiETk3CcuNpOlKXmt_lgQJ-2B77reqzssVzqjO6ZqHfoHhmm055mvgrvjs090fajnXsnNdOeyGlmmOixNzRvucB6td-2B5oVAU17fCer68koYJyGEL2-2Farxmnuf6fc8SXpzmXps02ZKgurty45HyypCLW5vD5U3DBPJDf05BcmYssYRERSQesGI-2BtFkkn6uer2sMuybFUIrSCNPXcan-2FDQ071lAlcOY9f9Asf6ip4FmbozEwwsc-2BnIcWH2r0v1v-2FvEYI/OdGtw0uONF-2Bso924hi7CldC-2BskfZ9gibd-2FtRadUs25-2EZfGpsWwe9-ZF087P5b4gbfyl.e1477p7E3CFINml-2BD1aESt5n9QPds-2BywtFaQvg3ul-2BHWxr1DWxb25-2BsmfdAQa9oxoKRB-2BtZt6vtj4z-2F7MVC3koanLCoVPLk-3D)](http://postman.mynewsdesk.com/ls/click?upn=3wPLie3ZfRYg8-2FICTBRRnp7-2BynZvYNK2b1k7xKH1yAKtiiETk3CcuNpOlKXmt_lgQJ-2B77reqzssVzqjO6ZqHfoHhmm055mvgrvjs090fajnXsnNdOeyGlmmOixNzRvucB6td-2B5oVAU17fCer68koYJyGEL2-2Farxmnuf6fc8SXpzmXps02ZKgurty45HyypCLW5vD5U3DBPJDf05BcmYssYRERSQesGI-2BtFkkn6uer2sMuybFUIrSCNPXcan-2FDQ071lAlcOY9f9Asf6ip4FmbozEwwsc-2BnIcWH2r0v1v-2FvEYI/OdGtw0uONF-2Bso924hi7CldC-2BskfZ9gibd-2FtRadUs25-2EZfGpsWwe9-ZF087P5b4gbfyl.e1477p7E3CFINml-2BD1aESt5n9QPds-2BywtFaQvg3ul-2BHWxr1DWxb25-2BsmfdAQa9oxoKRB-2BtZt6vtj4z-2F7MVC3koanLCoVPLk-3D) examining the correlation between the index and gold, they said the following:

“The results show that the effects of global economic policy uncertainty (GEP) shock on gold prices change over time. The changes were positive during 2006–2008 and 2013–2017, while the impacts were negative during 2009–2012, implying that the efficiency of gold as a safe haven is not stable and depends on economic conditions.”

Campbell Harvey from Duke University’s Fuqua School of Business added that from his research, “Gold shows a modest historical correlation with the global version of the EPU.” Although which he conceives is “modest”.

A further group of researchers expanded beyond the EPU (http://postman.mynewsdesk.com/is/click?upn=z3wPlie32fR8KYjg8-2FICTNg74-2Fmg957btt2Qj2EAyR-2F9v-2Fq3TEhXNzc6wyljRuRq9r7YPYmpf6GzogjYFXnziCsXzh4376Vlr-2FDuIq-3DIkd1C_IgQj-2B7RjtQsszVesZqjo06ZqhFoHHmon5Smvgqrjvp090aJnXsnNd6OEyGlmnOixNZrVucB6td-2B5oAU1m7fcEr68KohYJGEL2-2Fuxxmuf6fc85XPzqMXps0Fn2ZKZgurty45HycpLW5Dv6U3DBPJGfo5BcmYssYRERS5qesGl1-2BtFkn6uer2sMuybFyTMVFWCu7QRoHDEAb6zoNH5OwOwree30Kw0hiWQ8X-2B7-2B4dFFgyvjaboKOP3kROoObCMqyzcejV1C2-2Bb1E4XqenUIosOHHFwPyONNNlNevsDdKqd16weH3U-2FUtSkG4868keqkK6Q61hRihmJXZbwtcPSokyabST9853eWu13Nglmd10M94nd3rmj5m2CiH-2BTtBr1bdZFG70N2spaK6Vp5WhX-2FsGw0q3Dsp6WeFXpK-3D) with 3 additional indexes: volatility (VIX), skewness (SKEW) and partisan conflict (PC). They found two interesting results with regards to gold:

“The nonlinear autoregressive-distributed lag (ARDL) model is used to investigate the asymmetric effect of uncertainty measures on gold prices. The results show that rising economic policy uncertainty contributes to increases in the price of gold. By contrast, gold prices are less likely to fall when economic policy conditions are improved.” So, people buy when there is uncertainty and perhaps they remain weary, and never sell.

With the modest correlation between gold and EPU, this translates into a bullish forecast for gold. Currently, the global EPU index is at an all-time high of 361.31 (see the graph above), while gold is trading at $1,710, 11% below its record high of $1,925 an ounce in 2011 (that is $2,194 in today’s dollars, or 28% over $1,710).

Here, gold is definitely undervalued.

**Portfolio Diversifier**

Many financial planners will say the reason to invest in gold is for its ability to diversify clients’ portfolios. The reason and claim: gold moves atypically to other investments. When the stock market crashes gold stays strong and when it shoots up, so does gold, but not by as much. Talk and conjecture are fine, but what is more important, is to look at the actual returns on gold.

Professor Erb studied this relationship between stock returns and gold prices over the last three decades.
Gold and the S&P 500, 1975-2012

![Graph showing Gold and the S&P 500, 1975-2012](image)

**2nd Quadrant**
20% of observations

**3rd Quadrant**
Not A Safe Haven:
17% of observations

**4th Quadrant**
32% of observations

Data source: Bloomberg


- **1st Quadrant**: 31% of observations. This quadrant shows that gold is a good investment when the S&P 500 is going down but not when it's going up.
- **2nd Quadrant**: 20% of observations. Here, gold and the S&P 500 move in the same direction.
- **3rd Quadrant**: 17% of observations. This quadrant indicates that gold is not a safe haven, as it performs similarly to the S&P 500.
- **4th Quadrant**: 32% of observations. This quadrant shows that gold is a good investment when the S&P 500 is going up but not when it's going down.

What we see in the end is a mixed and undecisive relationship. Dots in the first quadrant, 31% of the time, show gold rising alongside the S&P. 46% of the time (17/30+17), gold falls with the S&P. To be a reliable hedge, we would prefer a lesser percentage closer to 0. How effective is halfway there?

In an interview (http://postman.mynewsdesk.com/is/click?upn=3wPli3zZFR8KYlg8-2FICTkRddGg07Nk0X75yITPq70ulkpQUz2wd3i7V-2FHNACTzCwFoQ7Lk8KgMq6n3n3n2W3sFV1jwWFXNHe/s7KFi3wFTQD5eFoBmQcLDRQw5SMDv4jKFrFval8FXW8tvQ2MDtWmWigR-eqtv2hqQ4cnVOnv6uWgOIU2N7uO4vskgjyCWHALjC7Ti2iMwC776QeoHQKmtC2Q2Gon0-2BQgYu2O9nmzak0MtCz5Y4ct0mmnN8xRtaznM-2FBQoKxOy-2FCXwHen2Pd9Xmi-2FjQKw-2B7DbymTeVsVGRFK1NYwZ1xEceDiCqCkX1mEdG-2EZwEChW2-EvxrUXs7y9PfXO-3DINY6_igQj-2B7ItQszzWqjoO6ZqhFoHmonS5mvgqynjo09fSaJXnNdOEyGimmDiXNZwCuB6hD-Bs5oVAU1n7m7er67KohYJGEL2-2Fxrmmuf6fc8XZpSx0FzrZKzuuryt45HyyYcplW5D6xU3DBPjGOf5BcmmxYSSR5QxesG11-2BtFw6uer2sMuybFQNZB4m-2B1UqL25XyeNnaXxQjkRk-2FkaKGPb0d2zIANXd2-2B1yS4wBfnjA7P6oq21x5i4a8ysDhvshUhr5NkWpLyAS-2BLy-2Fbid51BgyhMpdezASWwaAhurR9P5nSnCfuryCldl8x9IhGrbORkDv45XSnPT43aiC6-2Bq2CSmcwHq8n2hhGIL0EUN97CqvP1XRPWbaH49u-2BqquBvSmvKIGGQ-2BR9P-2F72aTm3D) with the Wall Street Journal, Erb cautioned: “On those occasions over the past three decades in which the financial markets suffered their worst returns, gold was more or less evenly divided between rising and falling.”

If we wish to value gold in light of it being a tool for portfolio diversification, look no further than the market’s current price. There is no advantage to diversifying with it, nor does it lower a portfolio’s risk.

**Valuing Gold as a Bond**

Charlie Morris, Head of Multi-Asset at UK investment manager Atlantic House Fund Management, which has £1.14 billion ($1.44 billion) under its control, devised a unique though time-tested way to value gold. Morris also found that the difficulty with gold is the dear lack of any conventional and consistent method to measure or assess it, rather than simply regarding it as a very-long-term store of value.

Paradoxically we do know how gold behaves. Gold likes it when real interest rates are falling along with the currency it’s being measured in (in our case the US dollar). This means the best possible environment for gold is when:

1. Interest rates are falling
2. Inflation is rising
3. The dollar is weakening

In other words, the times we are in today. The post-COVID world.

Morris realized this was the case. He wanted to first quantify and then determine how much the gold price should rise when conditions are in its favor, or vice versa. He did this by considering gold as a bond with five attributes:

1. Zero-coupon (pays no interest)
2. Long duration (lasting forever)
3. Inflation-linked (as historic purchasing power has demonstrated over the long term)
4. Zero credit risk (assuming gold is held in physical form)
5. It was issued by God (or Mother Nature if that suits you better)

He then created the following formula to value gold in US dollars, which views it as a hypothetical zero-coupon Treasury Inflation-Protected Security (TIPS):

\[
\text{Gold fair value} = \text{Historic CPI} \times 4 \times \frac{(20\text{ year break-even})^{20}}{(20\text{ year real rates})^{20}}
\]

Where real rates = 20-year bond yield – 20-year break-even

The “4” after the “Historic CPI” component is a calibration. It enables the best fit when using a regression model. The 20-year duration derives from a volatility match with treasury bonds of the same term. Gold’s long-term average volatility has been found to be similar to 20-year Treasuries, more volatile than the 10s, but less so than the 30s. Taking this model and comparing it to gold’s price seems to explain its trend, fair value and medium-term movements. And it’s more accurate the closer we come to the present.

Prior to the crisis of 2008 this formula said gold was undervalued. Then after the crisis it switched places and has been a consistent indicator of future prices. At the end of 2019 an ounce of gold was worth $1,476 while the model predicted $1,376. Since then (graph below), the price rose until March 6th, fell, rose again, and now stands at $1,704 an ounce.
So let's look at the current price valuation with this model:

- The 20 year bond yield is -0.04%
- The 20-year break-even is 1.38%
- Our real bond rate is 1.34%
- And CPI is 1.77%
20 year bond real yields

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<th>0.00</th>
<th>0.50</th>
<th>1.00</th>
<th>1.50</th>
<th>2.00</th>
<th>2.50</th>
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<td>4.00</td>
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<td>4,610</td>
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<td>1.50</td>
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<td>571</td>
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</table>

This 1.34% real yield currently puts us between $1,545 and $1,708, or exactly $1,598 per ounce. Gold is overvalued.

Summary

When we look at the four models together we find the following:

<table>
<thead>
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<th>Model</th>
<th>Valuation</th>
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<td>Inflation Hedge</td>
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<tr>
<td>Geopolitical Hedge</td>
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<tr>
<td>Portfolio Diversification</td>
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<tr>
<td>As a Bond</td>
<td>$1,598</td>
</tr>
<tr>
<td>Average</td>
<td>$1,615</td>
</tr>
<tr>
<td>June 3rd Price</td>
<td>$1,704</td>
</tr>
<tr>
<td>Difference (Overvalued)</td>
<td>$89</td>
</tr>
</tbody>
</table>

If we give equal weight to the four models, we find an average of $1,615—against a June 3rd gold price of $1,704—making gold overvalued by $89 per ounce, or by approximately 5%. If you believe there will be further geopolitical unrest due to the COVID-19 crisis, the recent racial tensions, and the November 2020 presidential election in the US, then a geopolitical-based prediction could likely increase that valuation well beyond 5%.

As with fiat currencies (e.g., USD), the gold price can change drastically anytime governments print money. During the recent COVID-19 pandemic this printing has already gone into overdrive and created the potential for the gold price to jump. Governments are following an extreme of what one may call: "Maximum Monetisation". However, what must also be remembered is that this injection has largely been put...
into the stock market so to avoid a complete sell-off. According to a recent article from Market Watch: “As the experiment with quantitative easing in 2008 and thereafter showed, the Fed is content to just inflate the stock market and wait for the economy to catch up many years later.” This may keep money in the market and dampen a flight to gold.

All of these issues must be considered if you wish to invest in gold. That said, if you decide it’s worthwhile, exchange-traded funds (ETFs) are usually the least expensive way to do so. There are ETFs which will enable you to invest in the physical metal itself, the largest being SPDR Gold Trust (GLD), or to invest in gold mining companies, the largest being VanEck Vectors Gold Miners ETF (GDX).

Good luck in your golden ventures!

Disclaimer: The author of this text, Chairman Chalopin, is a global business leader with a background encompassing banking, biotech and entertainment. Mr. Chalopin is also Chairman of Deltec International Group. www.deltecbank.com (http://postman.mynewsdesk.com/ls/click?upn=x-2FwEhXloFzmz-2Blnry-2BBk35Yo4T1vNUReSdtHo-2Bo8VjntwMoRUeyUWmq5-2Bbpt-2FyBjnUr-lgQj-2B7RljqsSwzqo06ZqhfoHlmon0Smvqgvjr09ofajnXsnNd0EYglnm0IXNZrRuCB6tD-2B8oAU1m7fcEr868koyHJgEL2-2Farsxmnuf6fc8SXPXsop0Fz2ZkGurty45HyyTCPW5Dv6U3DBPJG605BCm0ysYERSQQes0G1-2BtfVnUe2rsMuyRFeFqCbr2N5jasKBQN4lc8w-2FCQj25R3-2B8CCChdkAv0kHNCelCTyjAfb0nRILuP71kWqPlPkh9yFliAfbVPLeL4R4C7DHKnSP-2Ft4zGHR4D4UYBkysU72ZeKhHXwZVZeoQaoGnhwW6fq3NsvMoFfF7crjM5o0xplGkKFIAMt9qiU-2FIAleaTqhoFxwbeOMD-2BaZ5o4Swhbg93wNyb2fydje(9WI-3D).

The co-author of this text, Robin Trehan, has a bachelor’s degree in economics, a master’s in international business and finance, and an MBA in electronic business. Mr. Trehan is a Senior VP at Deltec International Group, www.deltecbank.com (http://postman.mynewsdesk.com/ls/click?upn=x-2FwEhXloFzmz-2Blnry-2BBk35Yo4T1vNUReSdtHo-2Bo8VjntwMoRUeyUWmq5-2Bbpt-2FyBjnUr-lgQj-2B7RljqsSwzqo06ZqhfoHlmon0Smvqgvjr09ofajnXsnNd0EYglnm0IXNZrRuCB6tD-2B8oAU1m7fcEr868koyHJgEL2-2Farsxmnuf6fc8SXPXsop0Fz2ZkGurty45HyyTCPW5Dv6U3DBPJG605BCm0ysYERSQQes0G1-2BtfVnUe2rsMuyRFeFqCbr2N5jasKBQN4lc8w-2FCQj25R3-2B8CCChdkAv0kHNCelCTyjAfb0nRILuP71kWqPlPkh9yFliAfbVPLeL4R4C7DHKnSP-2Ft4zGHR4D4UYBkysU72ZeKhHXwZVZeoQaoGnhwW6fq3NsvMoFfF7crjM5o0xplGkKFIAMt9qiU-2FIAleaTqhoFxwbeOMD-2BaZ5o4Swhbg93wNyb2fydje(9WI-3D).

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