Gold's Role In A Portfolio

Jun. 29, 2017 4:12 AM ET

InvestETF ETF investing, Value, Momentum, gold

Summary

- Gold has a low correlation of annual return to both stocks and bonds.
- While it is known that gold is a good hedge for stocks, can it also hedge a stock/bond portfolio?
- A small position in gold improved the performance of a 60/40 stock/bond portfolio.

Modern portfolio theory teaches us that, even if an investment has a low return, it can improve the performance of a portfolio if it has a low correlation to the other investments in the portfolio. In this article, we will discuss how gold's low correlation to both stocks and bonds make it an ideal portfolio diversifier.

In the 48 years from 1969 through 2016, the S&P 500 has returned 9.6% compared to 7.0% for intermediate term U.S. government bonds. While stocks outperformed bonds, they did so at much greater risk with a volatility of return of 17.2%. Consequently, the Sharpe ratio for bonds was higher than it was for stocks. But because stocks and bonds have a low correlation, they could be combined in a portfolio to produce an even higher Sharpe ratio. An old investing rule of thumb (and followed by Vanguard Balanced Index Fund (MUTF:VBIAX)) suggests a portfolio allocation of 60% stocks and 40% bonds. Over the time period studied, this portfolio had a Sharpe ratio of 0.39 and equates to 95% of the return of the all stock portfolio but only 63% of the volatility. This result is due in part to the low correlation between stocks and bonds. Given the good results of this portfolio, could gold possibly have anything to add?

During the time period, gold returned 7.0%, about the same as bonds, but with much greater volatility than stocks. Gold's utility becomes evident when we take a look at correlations. While stocks and bonds had a correlation of annual return of only 6% during the period, gold had a negative correlation to both stocks and bonds. To examine gold's role in a 60/40 stock/bond portfolio, we added a 10% position in gold and reduced the weighting in stocks to 54% and bonds to 36%. This three asset portfolio had a Sharpe ratio of 0.45. That is higher than the Sharpe ratio of the 60/40 stock/bond portfolio. Stated another way, the three asset portfolio had 97% of the return of an all stock portfolio but with just 55% of the risk.

Summary of Annual Returns 1969-2016

	S&P 500	Intermediate-Term Bonds	Gold	60/40 Stocks/Bonds	54/36/10 Stocks/Bonds/Gold
Annualized Return	9.6	7.0	7.0	9.16	9.32
Volatility %	17.2	6.6	28.3	10.80	9.52
Sharpe Ratio	0.26	0.35	0.06	0.39	0.45

The returns quoted above are nominal returns. When examining gold, it is also important to look at inflation adjusted returns because gold does well during periods of rising inflation expectations. In the 48 year span we studied, when the S&P 500 had a negative year, it fell on average 14.8% in inflation-adjusted terms. During those years, bonds rose by 1.8% adjusted for inflation while gold rose 7.8%. Likewise, when bonds had a negative real return, they fell by 3.2% on average in inflation adjusted terms. In those years, stocks gained 4.8% but gold gained 12.1%. So over the past 48 years, gold held up better than stocks when bonds got hurt.

In summary, a small position in gold's low correlation to both stocks and bonds helps it improve the performance of a stock/bond portfolio. For those looking to add a position in gold, SPDR Gold Shares (GLD) is an efficient way to access gold bullion.

Disclosure: I am/we are long GDX. I wrote this article myself, and it expresses my own opinions. I am not receiving compensation for it (other than from Seeking Alpha). I have no business relationship with any company whose stock is mentioned in this article.