



A Better Way to Invest in Gold

By Geoff Considine, Ph.D.

September 14, 2010

When I last [wrote](#) about gold one year ago, I said that gold was sufficiently risky that an investor's best strategy would be to purchase at-the-money call options on GLD (the gold ETF) rather than to buy GLD directly.

At-the-money GLD options have appreciated by 69% since.

I did not go as far as to advocate a pure-option strategy – that would have been a massive, bullish bet on gold; instead, my recommendation for exposure to gold was a combination of a bond ETF and GLD call options.

As I will discuss, that strategy has performed well on an absolute and risk-adjusted basis.

Underlying gold prices have risen 24% since my previous article was written, leading to several important questions — including whether my advice of a year ago still holds today. I will look closely at how a direct investment in GLD performed as compared to the bond-plus-call-option strategy, and which conditions favor each strategy. Going forward, I will demonstrate that the gold-call-plus-bond strategy looks even more attractive today versus a direct investment in GLD.

The Case for Gold

A year ago, gold had already enjoyed a huge run-up in price, and it has appreciated even further since. In my previous article, I examined the strategic case for gold in a long-term asset allocation, and I concluded that some allocation to gold makes sense in a diversified portfolio. From a tactical perspective, though, gold already looked high-priced then, and today it appears even more so.

Gold is, of course, a favorite 'fear' asset class, and the deep and abiding uncertainty since the onset of the financial crisis in almost every risk asset class has fueled gold's run-up. Performance chasing has also played a role; investors are flocking to gold because it has delivered high returns in recent years. The three-year trailing average annual return for GLD was more than 22% per year.

Even last year, making the argument for gold as an inflation hedge was difficult – the huge gains in gold were far larger than gains in other assets that tend to rise with inflation (such as commodities). Today, this argument for gold as a tactical inflation hedge remains problematic for the same reason.



My thinking on gold is also shaped by the argument, made by both [Warren Buffett](#) and [Jeremy Grantham](#), that gold is inherently difficult to value. The price of gold is far more behaviorally driven than are prices of other asset classes.

Jeff Gundlach recently suggested that there is potential for additional upside in gold to the extent that investors become convinced that gold is an asset class that every portfolio should have at least some allocation to, although he is also concerned that gold has become too 'faddish.'

In my previous article, I said that the risk level associated with GLD was sufficiently high that the best strategy would be to purchase at-the-money call options on GLD rather than to buy GLD directly. By combining call options with bonds, it was possible to have exposure to the upside from a possible continued rally in gold while creating an absolute floor on loss in the event that gold declined.

Comparing strategies

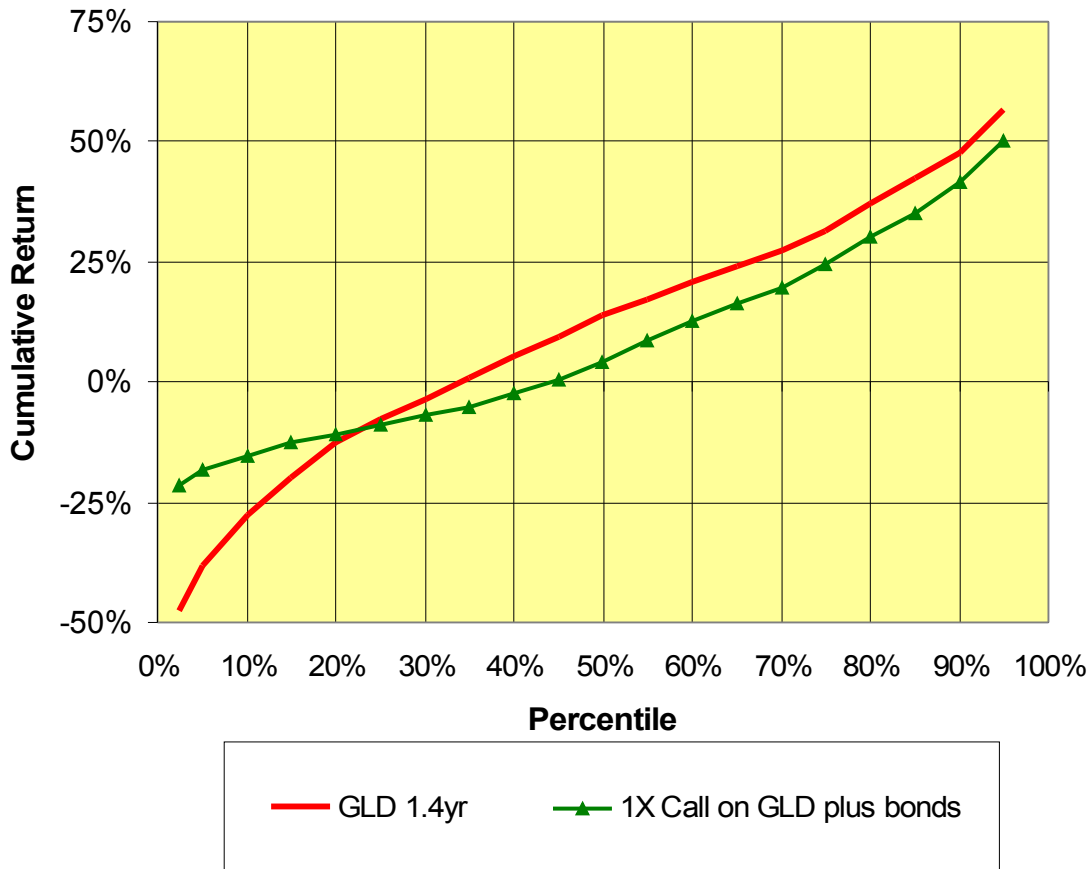
The [longest-dated options on GLD](#), expiring in January 2012, have an implied volatility of 25%-26%. This level of volatility is remarkably consistent with the projections for GLD in my original article of 27%. Using these volatility estimates, we can calculate the maximum loss that is possible over the next twelve months. In my original article, I forecast a long-term expected return for GLD of 8.7% per year. Assuming that returns are [normally distributed](#), there is a 2.5% chance (1-in-40) that GLD will have 12-month returns about -42% or worse over the next 12 months.

As a practical matter, the odds of a loss of this magnitude are higher because our models are far from perfect. Extreme events happen with more regularity than standard financial models, based on normal distributions, suggest. A more reasonable estimate of the maximum possible loss over a 12-month period is approximately -66%. This level of loss assumes a return is three standard deviations below the average. While this magnitude of event is estimated to happen with probability of 0.15%, three-standard-deviation events happen with greater frequency due to the imperfections of mathematical models. These loss estimates are very approximate, but provide the basis for discussion.

Back in September 2009, contemplating an investment in GLD, one would have estimated a potential loss of -40% as a 1-in-40 event. We face very similar risk levels today.

A useful way to visualize downside risk versus upside potential is using a Monte Carlo simulation. The chart below shows the current projected returns from a direct investment in gold (GLD) and from a portfolio that is invested in a Jan 2012 call option on GLD with a strike price of \$125 (the current price of GLD is \$122) and with the balance of assets invested in a bond fund (AGG). As of this writing, the call options are trading at \$13.70.

Gold vs. Bonds plus Call on Gold (end of Aug 2010)



The chart above looks at the projected outcomes over the lifetime of the longest-dated option on GLD (which expires in 1.4 years). Several features of this chart are notable. First, as would be expected, buying a call option on GLD and putting the balance of funds in the bond ETF (AGG) results in a portfolio with far less risk than a direct investment in GLD, while maintaining exposure to gold's upside.

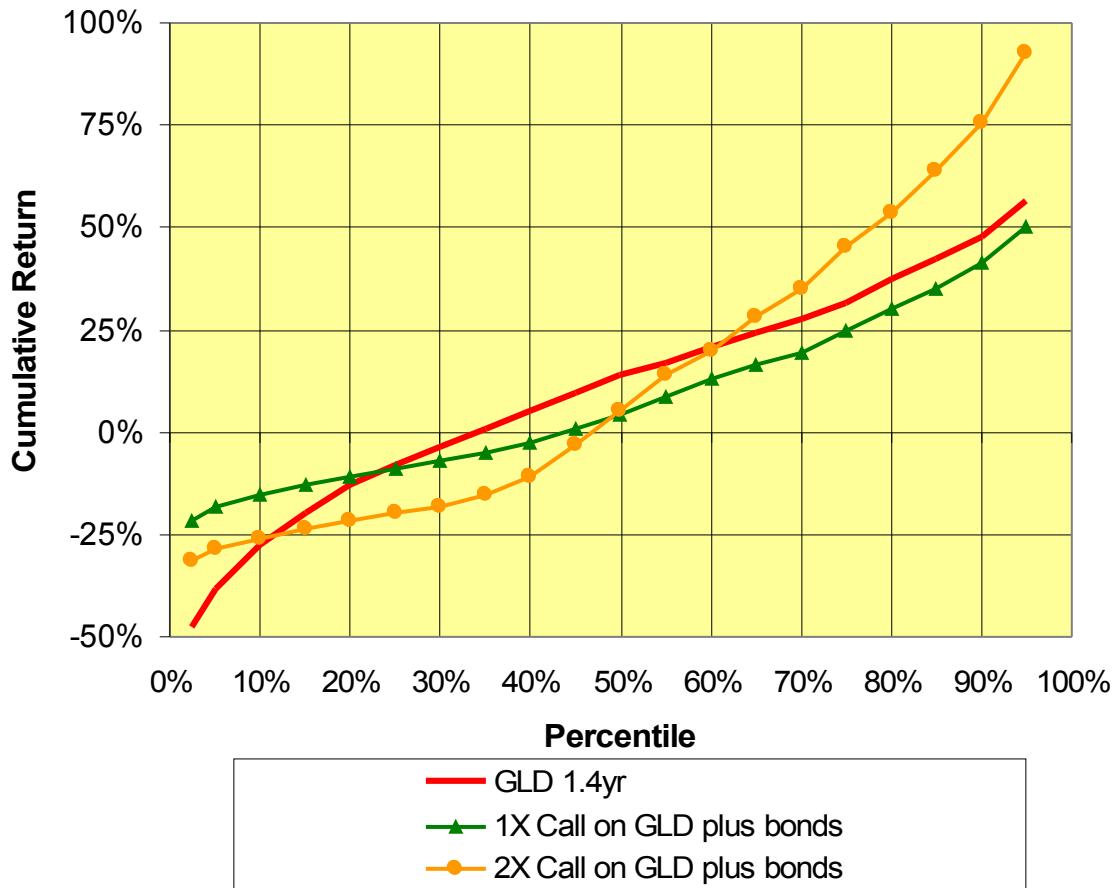
As a case in point, we can look at the performance of GLD versus bonds plus a single call on GLD over the past eleven months, using the options from the original article. GLD has returned 24% over this period, while the GLD calls plus bonds have generated a return of 15%. While the time period is only 11 months in this example, as contrasted with the 1.4 years in the chart above, we can see the qualitative similarity. Over any period with a substantial gain in gold, the combination of a single call plus bonds gives up some of the potential gains.

As I noted in my original article, there is no reason that an investor would choose to hold only a single call option on gold plus bonds – we can choose to make this strategy more aggressive. If we were to purchase two Jan 2012 \$125 call options on GLD and invest the



balance in bonds (I will call this the 2X strategy), our portfolio would provide considerably more upside than GLD while still maintaining less potential worst-case loss (see chart below).

Gold vs. 1X and 2X option positions plus bonds



Since I wrote my previous article, the 2X-call strategy has returned 23.3%, very close to the 24% return on a direct investment in GLD.

The difference in worst-case downside risk is enormous. A direct investment in GLD has a 1-in-40 worst-case loss over this period of -50%, while the 2X-call strategy has a 1-in-40 worst case loss of -30%. The 2X-call strategy is not inherently preferable for all investors, however. Between the 10th and 60th percentiles, the 2X-call strategy under-performs GLD. From the 10th percentile and down, and the 60th percentile and up, the 2X-call strategy outperforms GLD.

The out-performance of the 2X-call strategy in the very high and very low percentiles says that the 2X-call strategy will outperform GLD when gold either substantially out-performs or substantially underperforms its average expected return. The 2X-call strategy outperforms



a direct investment in gold in the event of very large price moves, but will underperform if gold is fairly stable.

Strategies for gold going forward

Over the last year, call-based strategies for investing in gold have behaved exactly as I would have expected them to during a continued rally in gold. Buying one call option on GLD and putting the balance of funds in a bond index (AGG) has underperformed a direct investment in GLD (+15% vs. +24% for GLD). In this case, 87% of the portfolio would have been invested in bonds, and the call option would have cost 13%. The value of the at-the-money call option has provided substantial participation in the gold rally. If an investor had purchased two at-the-money call options on GLD and invested the balance in bonds, he would have received a return of +23% in return, almost identical to simply investing in GLD, but the worst-case downside risk for the 2X-call strategy was far less pronounced than with a direct investment in GLD.

In September 2009, gold looked over-valued. As of September 2010, gold looks even more over-valued. The case for buying calls on GLD as opposed to being long GLD is even more compelling today than it was a year ago.

I cannot predict when gold will decline – that's not my intent. Enormous uncertainty surrounds global economic conditions and how such conditions will play to people in a state of panic. Gold, as [Jeremy Grantham notes](#), is "the last refuge of the desperate." Grantham has also noted gold "does not pay a dividend, it has no [inherent] value, and you can't work out what it should or shouldn't be worth." For both of these reasons, investors considering a position in gold are likely to be better off buying calls. A risky asset that is impossible to value on the basis of fundamentals and whose price is driven by extremes of emotion makes buying calls more attractive than buying the underlying asset.

The tactical and strategic considerations of gold investing can point to different actions. Harry Browne, for example, famously championed a substantial strategic allocation to gold as part of a permanent portfolio. My portfolio simulations supported an allocation to gold as a powerful diversifier, too. That part of the narrative has not changed. The problem is it is unclear what it is that's holding up very high gold prices (aside from subjective factors, such as fear of the unknown and momentum). For this reason, the tactical argument for a long position in gold is currently very difficult to make. For those who really want to take a tactical position on gold, however, call options continue to look like the best way to go.



Geoff Considine is the author of a new book, **Survival Guide for a Post-Pension World**, as well as the architect of **Quantext Portfolio Planner**. More information is available at www.quantext.com.

Geoff's firm, **Quantext** is a strategic adviser to FOLIOfn, Inc. (www.foliofn.com), an innovative brokerage firm specializing in offering and trading portfolios for advisors and individual investors.

www.advisorperspectives.com

For a free subscription to the Advisor Perspectives newsletter, visit:
<http://www.advisorperspectives.com/subscribers/subscribe.php>