

Commodities: Portfolio Benefits. Is there a real black gold?

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SUMMARY

- Of the two most commonly cited commodities, oil and gold, we believe oil serves a special and important purpose.
- Oil is more relevant as a pure commodity and thus better accomplishes goals of a commodity cycle investment, inflation protection, and diversification versus producer equities.
- The current gold-to-oil ratio indicates that oil has potential strong timing characteristics.
- Recent analysis illustrates that despite an outperforming equity market vis-à-vis commodities, adding both gold and oil provides beneficial diversification to typical equity portfolios (see other Auspice research).
- We believe the most opportune play in oil is the type that the US and China are short and dependent on and thus import, discounted heavy oil from Canada.

INTRODUCTION

There are two markets that receive more attention than all other commodities - gold and oil. While long the domain of institutional investors, both have become popular with retail investors as instruments were created that make investing easier such as ETFs (exchange traded funds).

Investors of all types are now looking for diversification from traditional stocks and bonds. This is especially true as volatility has increased recently after a decade of rising equity markets and low interest rates. Commodities have long been accepted as diversifiers with a low correlation to stocks over time - but the question is which one? While we believe the best solution is a tactical strategy across a diverse basket of all major commodities (see Auspice Research published), individual commodities often dominate the discussion.

There is an age-old belief the people should hold gold in their portfolio. Historically there are many relevant reasons for this: Up until almost 100 years ago, the "gold standard" was used to value currencies for

exchange, although this was virtually abandoned in the 1930's during the Great Depression in favor of fiat money. From this time and with the advent of technology, gold transitioned into a more classic commodity in many discussions. However, under a free-market system, gold is much more of a currency than a commodity and we often joke "we are not sure what gold is..." More recently, gold has been viewed as a store of value, proxy for the commodity market as a whole or inflation hedge. However, there is little evidence that gold is a good inflation hedge in a modern economy. Typically as rates rise, gold suffers as has been the case in the last few years. Moreover, in times of crisis, we see little benefit that gold is a shelter from the storm. During the financial crisis, gold dropped in value while conversely hitting new highs as the market got back on track a few years later.

While some advocates call for 10% plus gold weighting in a portfolio, we believe this is too high for a single commodity. Moreover, we believe there is a commodity that should be included alongside gold for diversification.

When we look at commodities, we realize the need for oil and gold are simply not the same. Oil is mission critical to running our modern society, economy and trade. It is truly the lifeblood of global economies and the most important energy source. It is important to understand its use goes beyond classic transportation and heating to chemicals, plastics, medicines countless other uses.

Reasons to include oil include:

- Diversifier and thus volatility reducer
- Reduced stock market risk and correlation
- Inflation protection
- Crisis protection
- Timing related to the commodity cycle
- Long term appreciation
- "Pure Play" versus resource equity producer stocks

As with all commodities, there is volatility to contend with. It is truly a commodity with a value based on supply and demand and required input into almost everything. But does its price relate to inflation?



Inflation Hedge in Oil?

Given that commodities are the raw materials of real assets they tend to rise in price as demand for goods that require their input increases. This is why commodities are one of the few asset classes that can be considered an inflation hedge. This has been become a more topical issue recently as central banks have demonstrated concerns in the last couple years raising rates for the first time in over a decade.

Given commodities and headline inflation are highly correlated, there is little doubt that strategic investments in real assets such as commodities could help protect investors (Louie and Burton 2010). However, given inflation hasn't appeared significantly in so long, most have not been overly concerned. Perhaps this is understandable given we haven't seen much in 40 years and the last time can largely be blamed on an "oil crisis" as witnessed in Figure 1 in the 1970's. From this we began to understand the role energy plays in inflation and consumer pricing. Per the Federal Reserve Bank of San Francisco regarding the direct and indirect relationship:

- Rising oil prices tend to affect the overall consumer price index (CPI) directly by raising its energy cost component, which includes the prices of energy-related items, such as household fuels, motor fuels, gas, and electricity. Among these, gasoline and fuel oil are directly derived from crude oil, so their prices follow oil prices very closely.
- Rising oil prices tend also to affect the core portion of the CPI indirectly, because energy prices represent a considerable portion of the production cost for many of the items in it, such as transportation services.

Figure 1 OIL AND INFLATION 1963 TO CURRENT



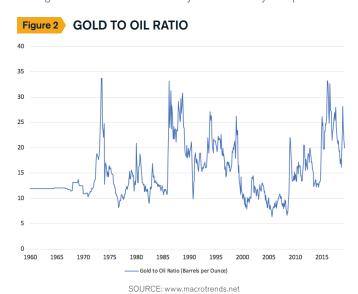
Consistent with the Federal Reserve Bank of San Francisco comments, the chart illustrates that oil has historically been a catalyst for inflation and thus an appropriate hedge to hold in a portfolio.

Recently, as rates started to rise in late 2015 thru 2018, oil also rallied while gold was flat to lower.

Timing - Two parts TIMING PART ONE: OIL VERSUS GOLD

One of the benefits of the commodity sector is the wide diversity. This in itself creates unique diversification benefits within a sector that adds additional benefits for a portfolio. While gold and oil are often used as proxies of the entire sector, as evidenced below in Figure 2, the two star commodities behave very differently.

The Gold to Oil ratio shows extreme swings and as we entered the new millennium, the Gold value was relatively low versus oil. However, the last 18 years has seen this trend in the other direction. Currently Gold is very high relative to Oil. Given the cycles from low to high extremes often last 5-10 years, we believe the timing of adding oil to the critical commodity asset mix may be upon us.



TIMING PART TWO: COMMODITY CYCLE

While the pricing of commodities appears out of sync with global demand and supply cycles we also note a very obvious cycle that has emerged several times in history in Figure 3. As we entered the new millennium and experienced the "Dot Com" boom, the Commodity to Equity ratio was stretched to the downside and it would appear the market is currently in a similar place. While exact timing is always challenging, the current low ratio offers nsight into the cycle, its length and the potential upside long-term.

Figure 3 COMMODITY TO EQUITY RATIO

GSCI TR Index / S&P500 Ratio

Oil Crisis 1973/74

Oil Crisis 1990

Oil Crisis 1973/74

Oil Crisis 1990

Pre-financial Crisis 2008

250000

200000

AUSPICE

Dos Com Tech Bubble FOMO
From mid 1560's

AUSPICE

Dos Com Tech Bubble FOMO
FOMO
FOMO
S00000

200000

200000



PORTFOLIO DIVERSIFICATION BENEFITS

Despite a challenging period for most commodities over the last few years, along with outperformance in equities, including the asset class has proved historically accretive over the long-term. To illustrate this benefit as it pertains to oil and gold despite the environment, we have looked at the benefit of adding Gold and Oil to a typical 60/40 portfolio.

Referring to Table 1, the typical "60/40" equity to fixed income base case portfolio (column 1) generates 8.12% annualized return and 1.27 Sharpe with a 7% pullback at 6.5% volatility. The concern is that this portfolio has a 96% correlation to the S&P500 itself along with a negative skew (this means that downside volatility is higher than upside).

By adding commodity diversification through a typical 10% allocation to Gold (column 2), there is a slight reduced correlation to the equity market, however it comes at the cost of reduced returns. The next step, we replace gold with WTI oil. However, this brings the correlation to the equity market right back up and deteriorates other risk metrics.

Taking it a step further, we switch WTI oil for heavy oil as represented by the Canadian Crude ETF (CCX) which tracks the CCI (Canadian Crude Index). This provides a much better result where adding a 10% allocation decreases the equity correlation significantly while increasing returns and flipping the skew to positive (higher upside volatility than downside), a very desirable outcome.

The final column simply splits the 10% allocation with gold and this top performing oil market. In this case, adding a 5% allocation to CCI (not WTI) alongside Gold provides a lower correlation than gold alone along with a higher historical return.

Table 1 ADDING OIL AND/OR GOLD TO A PORTFOLIO

JAN 2016 - FEB 2019	60/40 (Without Commodities)	With GOLD GLD ETF	With WTI OIL USO ETF	With CCI OIL CCX ETF NPU	With GLD and CCX OIL Combined 5%+5%
Commodity Allocation	0%	10%	10%	10%	10%
Annualized Portfolio Return	8.12%	7.97%	7.67%	8.23%	8.13%
Volatility	6.46%	5.99%	7.40%	9.40%	7.29%
Correlation to S&P500	0.96	0.89	0.93	0.80	0.88
Max Drawdown	-7.0%	-5.7%	-10.6%	-12.8%	-9.3%
Sharpe	1.27	1.35	1.06	0.91	1.14
Sortino	2.07	2.35	1.68	1.52	1.90
Skew	-0.64	-0.44	-0.49	0.12	-0.13

To further clarify the choice of gold or oil, we believe the best choice is both. For stock heavy portfolios, or those with a high correlation to stocks regardless of make-up, oil and gold can both be considered alternatives to even out the volatility. The correlation of both markets to stocks (S&P500) is low over the long term (see Table 2). Moreover, the correlation of Gold and Oil is low (less than 0.00), meaning they are accretive together as to the portfolio as a whole and the typical portfolio is better off with both.

Table 2 CORRELATION OF MONTHLY RETURNS TABLE

Component	uso	GLD	60/40 Portfolio	S&P 500	CCX NPU	Portfolio
USO	1.000	-0.234	0.360	0.444	0.735	0.544
GLD	-0.234	1.000	-0.019	-0.204	-0.128	0.027
60/40	0.360	-0.019	1.000	0.959	0.279	0.930
S&P 500	0.444	-0.204	0.959	1.000	0.281	0.880
CCX NPU	0.735	-0.128	0.279	0.281	1.000	0.598
Portfolio	0.544	0.027	0.930	0.880	0.598	1.000

WHY CANADIAN OIL?

Beyond the portfolio benefits illustrated above, it is important to note that while gold is the same everywhere in the world, oil is not. If your long-term view is that oil will appreciate or that it will perform better than gold given the Gold to Oil ratio, it makes sense to buy low cost oil. As such, we suggest the oil with the greatest demand by the world's largest buyer and the cheapest price. Moreover, heavy oil (CCI) has a lower correlation to stocks than WTI (see Table 2). Would you rather own \$60 oil or \$45 oil? The answer is simple. There is one product available for investors to access the much sought after Canadian heavy oil market - the Canadian Crude Index ETF (CCX.TO).

CLOSING

Timing all markets is challenging and adding individual commodities like gold or oil perhaps more so. As such we believe a portfolio approach is warranted with the goal of diversification. The evidence illustrates that commodities as a whole are well positioned given the global growth potential including massive growth in developing world markets like China and India.

However, using gold as the proxy for all commodities is a common mistake that is illustrated by providing a muted benefit in equity correlation stand alone. Including oil, and specifically and oil with lower correlation to equities than WTI along with a vital importance and discounted price provides the improvement we are looking for.

We believe Canadian Crude oil should be included in all portfolios to provide not only portfolio diversification benefits, but also a better solution to participate in the commodity cycle, normalizing of the gold to oil ratio and inflation protection. Black gold.

The views and opinions reflected in this paper are those of the author and do not necessarily reflect that of Auspice Capital Advisors, its affiliates or its employees as a whole.

REFERENCES

Louie, Nelson and Burton, Christopher: 2010. How Commodities Can help investors face the uncertainty of the Inflation / Deflation Debate. Credit Suisse Asset Management White paper



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PERFORMANCE NOTES

The Equity benchmarks used in this material are intended to reflect the general equity market performance. They are shown to illustrate the noncorrelated attributes versus other assets. Adding non-correlated assets within a portfolio has the potential to reduce portfolio volatility and drawdowns.

DETAILS OF INDICES AND MARKETS REPRESENTED

GLD ETF: The SPDR Gold Shares is the largest physically backed gold exchange traded fund representing a way to invest in gold for all investors.

USO ETF: The United States Oil Fund is an exchange traded security designed to track the price movements of WTI (West Texas Intermediate) light sweet crude oil, available to all investors.

CCX ETF: The Canadian Crude Index ETF tracks the performance of the benchmark Canadian Crude Index (Excess Return). This is the only ETF globally representing the price of heavy oil and the Canadian Oil benchmark, the largest import barrel to the USA.

CCX NPU: Represents the published NAV (Net Asset Value) of the CCX ETF.

S&P 500 is an index of 500 stocks chosen for market size, liquidity and industry grouping, among other factors. The S&P 500 is designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe. Excess Return data is used (not including dividends).

S&P Goldman Sachs Commodity Index (Total Return) (S&P GSCI TR), is a composite index of commodity sector returns representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. Total Return (TR)

Indexes include collateral return.

60/40 Portfolio: The benchmark 60/40 portfolio uses 60% S&P500 and 40% Bloomberg Barclays US Aggregate Bond Index, rebalanced annually.

Bloomberg Barclays US Aggregate Bond Index: Total Return Value Unhedged USD. The Bloomberg Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

Auspice Broad Commodity Index (Excess Return) or "ABCER!" represent returns calculated and published by the NYSE. The index does not have commissions, management/incentive fees or operating expenses.

BCOM: Bloomberg Commodity Index (Total Return) (BCOM ER), is a broadly diversified index that allows investors to track 19 commodity futures through a single, simple measure. Excess Return (ER) Indexes do not include collateral return.

