Commodities: An Inflation Defense

Bryan Decker
Managing Director, Chief Investment Strategist

Marlo Palumbo
Research Analyst

DESPITE STRONG HISTORICAL EVIDENCE TO SUPPORT A STRATEGIC ALLOCATION TO COMMODITIES, THEY REMAIN AN UNDERALLOCATED ASSET WITHIN MOST INSTITUTIONAL PORTFOLIOS. THE SHORT-TERM OUTLOOK APPEARS TO US TO BE VERY ATTRACTIVE, THUS MAKING COMMODITIES A COMPELLING INVESTMENT TO CONSIDER IN 2010.

EXECUTIVE SUMMARY

We believe an allocation to commodities can be an important component of a well diversified asset allocation policy, since it exhibits very distinct characteristics with unique payoff patterns. Commodities, when added to a portfolio, provide:

- Attractive returns
- Low or negative correlation to traditional investments
- A hedge against inflation, particularly during periods of elevated and unexpected price increases

Commodity investing is not without its issues, though. Commodities are extremely volatile, and when viewed on a stand-alone basis, can be the source of anxiety during periods of significant price declines. We believe the current economic and market weakness, coupled with our view toward higher than expected inflation, creates an attractive buying opportunity in the near term.

BACKGROUND

While we encounter commodities during the course of our everyday activities - filling the car with gasoline, buying corn at the supermarket, having a hamburger for lunch – investors typically fail to think about these real assets as part of a diversified investment program.

Real assets, unlike financial assets, physically exist. Real assets include:

- Real Estate – Land & Buildings
- Infrastructure – Roads, bridges, airports, etc.
- Timberland – Forests
- Commodities – Energy, Metals, Grains, Livestock, etc.

In the case of commodities, they are tangible goods or materials that can be consumed or utilized in production processes. Commodities are the raw materials that go into many of the goods we buy or consume. Therefore, commodities have a fungible value that is predicated on supply and demand variables, and represent a store of wealth that can be traded. More importantly, because they have supply and demand functions that are not tied to the demand of financial assets, they tend to exhibit unique performance patterns over time: a key ingredient for portfolio diversification.

While one could consider any consumable product, or any raw material that goes into the production of finished goods, a commodity, we are specifically talking about those products and materials that are traded on a global exchange via futures contracts. This definition limits the universe to those things that are most needed or used in the global society.

COMMODITY INDICES

While there are a number of established commodity futures-based indices, the two most commonly used for benchmarking and investment implementation are the S&P Goldman Sachs Commodity Index (S&P GSCI) and the Dow Jones-UBS Commodity Index (DJ-UBS). The constituents of the S&P GSCI and DJ-UBS are very similar but the weighting difference between the two is vastly different. Specifically, the DJ-UBS Index has fewer constituents but is more diversified than the S&P GSCI, with Agriculture, Energy and Metals each accounting for approximately a third of the index versus a heavy concentration in Energy for the S&P GSCI.

Detailed below is a comparison of the constituent mix and respective weightings for the S&P GSCI and the DJ-UBS.

S&P GSCI		DJ-UBS	
Energy (76.8%)	**Agriculture (14.9%)**	**Energy (30.8%)**	**Agriculture (35.7%)**
Crude Oil	Cocoa	Crude Oil	Coffee
Gas Oil	Coffee	Gasoline	Corn
Gasoline	Corn	Heating Oil	Cotton
Heating Oil	Cotton	Natural Gas	Lean Hogs
Natural Gas	Feeder Cattle		Live Cattle
	Lean Hogs	**Indu. Metals (21.1%)**	Soybeans
Indu. Metals (6.4%)	Live Cattle	Aluminum	Soybean Oil
Aluminum	Soybeans	Copper	Sugar
Copper	Sugar	Nickel	Wheat
Lead	Wheat	Zinc	
Nickel			
Zinc		**Prec. Metals (12.4%)**	
		Gold	
Prec. Metals (1.9%)		Silver	
Gold			
Silver			

Data as of 10/31/09

Selection of a certain commodity index is primarily driven by the constituent mix, the weighting of those constituents and the level of industry assets benchmarked to the indices.

Both indices are exclusively comprised of commodity futures, specifically the spot month futures contract. To maintain exposure, spot month contracts are rolled shortly before expiration to the following month contract. This "futures roll" occurs during a specified window of days prior to expiration.

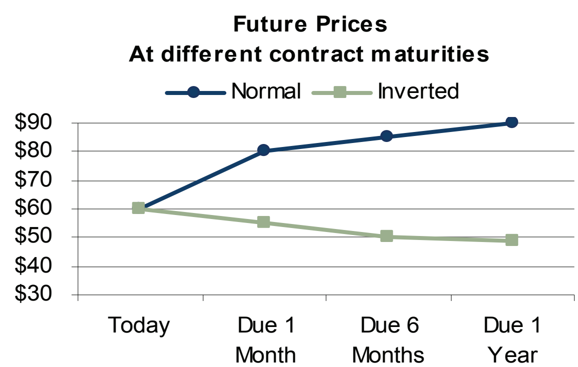
For commodity investors it is important to understand the various sources of return that go into the commodity indices. The returns are a combination of: (1) the spot month price changes of the commodity futures, (2) the "futures roll" yield associated with moving from spot contracts to next month contracts near expiration, and (3) the return derived from cash management. These sources of return are discussed in greater detail below:

I. Spot Month Price Change

This is the return derived from the change in value of the near term month futures contract. Prices are typically influenced by changes in near term supply and demand variables.

II. Futures Roll Yield

Depending on the shape of the futures curves, commodity indices may be, in aggregate, in a Normal or Inverted state. In Normal conditions, the roll yield will be negative, while during periods of inversion the roll yield will be positive. The Normal state, as the name implies, tends to exist more often than Inverted, which implies a natural headwind (negative roll yield) by owning commodity indices. It is typical for commodity futures curves to trade in an ascending price structure as time to expiration increases. This is due primarily to carrying costs associated with storing commodities over time. The longer you have to store it, the greater the cost. Therefore, theory holds that future prices should be higher than the spot price. The Normal commodity futures curve is shaped like the dark blue-colored, upward sloping curve on the chart below.



Source: Investopedia

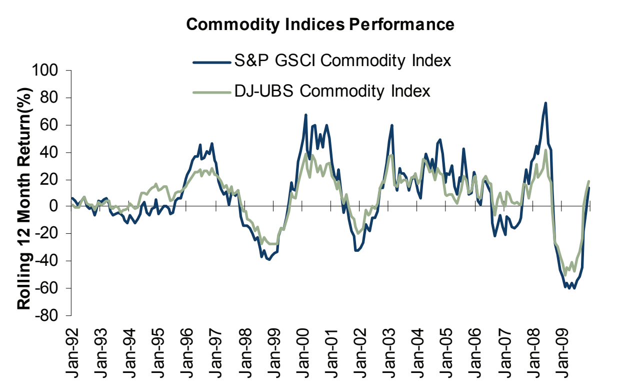
This type of curve is said to be Normal or in a state of Contango. The implication - as the commodity contracts are rolled from spot month to future month, there is a cost associated with shifting the contracts from a low cost to a higher cost futures contract. This "futures roll" yield in this instance would be a cost, or a drag on performance. The reverse type of futures curve also exists during certain periods. A futures curve that trades at cheaper levels as you go farther out into the future is said to trade Inverted or in a state of Backwardation, and is represented by the lighter colored line in the above chart. This phenomenon can arise when demand for immediate access to commodities overwhelms the carrying costs associated with holding the commodity over longer periods. When commodity futures trade on an inverted basis, the roll yield is actually positive, as the spot month is rolled from a higher price to a lower price. Then, over the course of the month, the price will tend to revert back to a higher level than the next available futures contract, thus allowing for the same sell high/buy low roll to occur the subsequent month. Therefore, the shape of the futures curve for each commodity can greatly influence the total return of any commodity index built on futures contracts.

III. Cash Component & Management

Commodity exposure via futures can be implemented utilizing a small percentage of the total capital exposure. For instance, only 5% of the dollar exposure of the futures needs to be maintained as margin. The excess cash can then be managed to generate excess returns over the cash return calculated in the indices. As mentioned earlier, this has typically been done by modestly extending maturity and duration, or by introducing credit exposure in the mix. It is important that investors fully understand how excess cash is being managed and what explicit risks are being taken to generate excess returns.

RISK & RETURN

The following chart provides a rolling one-year look at the performance of the two most common commodity indices. The inception date of the chart is the early 1990's and corresponds to the inception of the DJ-UBS predecessor index.



Source: Bloomberg and S&P

Commodities are extremely volatile and tend to exhibit periods of sustained positive and negative price trends. As the chart above shows for the 1998 and 2001-2002 time period, commodity indices were down anywhere from 20% to 40% over a one-year time period. The past few years were the most extreme, however, with a sharp increase in commodity prices in late 2007 and early 2008 driven primarily by oil prices climbing to $140 per barrel, followed by a precipitous decline in commodity prices, with oil again contributing significantly by falling to below $40 per barrel in early 2009.

The following table summarizes the since inception characteristics of the two indices, with the inception date for the S&P GSCI being 1970.

Performance since Inception

	S&P GSCI (Jan 70 - Dec 09)	DJ-UBS (Feb 91 - Dec 09)
Ann. Return	10.01%	5.87%
Ann. Std Dev	19.97%	14.52%

Source: Bloomberg

REASONS TO OWN COMMODITIES

We believe allocating to commodities from a strategic perspective has merit. From the long-term viewpoint, the benefits include portfolio diversification and potential inflation hedging characteristics.

Diversification Benefit

Commodities are real assets, and, as such, tend not to exhibit performance characteristics typical of financial assets such as equities or bonds. Therefore, commodities can provide attractive diversification properties in a broad portfolio context. This diversification benefit shows up as minimal or even negative correlation (over shorter periods) to equity and bond investments as seen in the table below.

February 1991 through December 2009

Monthly Correlation	S&P GSCI	DJ-UBS
S&P 500	0.16	0.23
MSCI EAFE	0.28	0.37
BC Aggregate	0.05	0.07
CPI-U	0.32	0.25

Quarterly Correlation	S&P GSCI	DJ-UBS
NCREIF Property	0.26	0.26
NAREIT	0.29	0.32
NCREIF Timber	-0.11	-0.08
ML US TIPS (Inception 4/97)	0.28	0.32

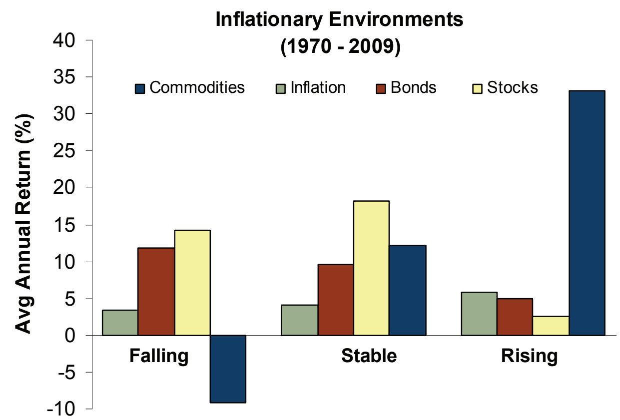
Source: Bloomberg

The correlations between the commodity indices and equity and fixed income investments over this time period, the inception of the DJ-UBS Index, are quite low. In addition, the correlation of commodities to other real assets and alternative investments is also (and somewhat surprisingly) low. Thus, the diversification power of commodities appears very attractive.

In part, it is the very composition of the total returns of the commodity indices, i.e. the three sources of return, which create uncorrelated patterns. Since the roll yield is a function of the shape and slope of commodity futures curves, that portion of the return should not be correlated with other financial instruments. Therefore, commodities have a key component of their total return that is derived from uncorrelated sources.

Inflation Protection

Aside from serving as a diversifying allocation in the context of an equity and bond portfolio, commodities also appear to represent reasonable inflation hedges over time, particularly during periods of elevated and unexpected inflation. Commodities tend to outperform other asset classes during these annual periods as seen below.

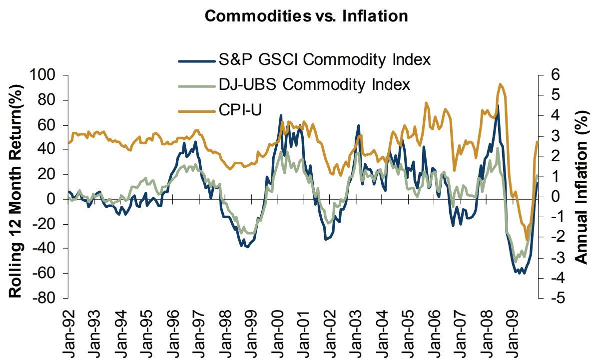


Source: Bloomberg
Indices: CPI (Inflation), BC Agg (Bonds), S&P 500 (Stocks), GSCI (Commodities)

Falling, Stable and Rising annual periods are defined as follows:

- Falling inflation: CPI Change < -0.10%; 12 years
- Stable inflation: -0.10% < CPI Change < +0.10%; 14 years
- Rising inflation: CPI Change > +0.10%; 14 years

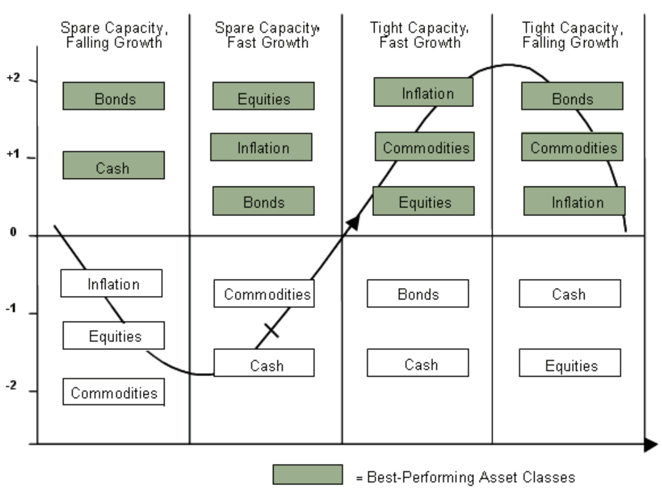
This relationship also becomes evident when looking at rolling one-year performance across measures of inflation and commodity indices. Commodity returns have typically been highest when inflation is highest. The following chart highlights this relationship.



Source: Bloomberg

Supply & Demand Fundamentals

Aside from the strategic reasons, we believe near term fundamentals also make commodities attractive. Commodity returns tend to be driven by underlying supply and demand fundamentals, which are heavily influenced by the prevailing economic environment. From this perspective, they exhibit performance characteristics that make them distinct from other asset classes. Conceptually, commodities will typically outperform best during certain market cycles as seen in the stylized chart below.



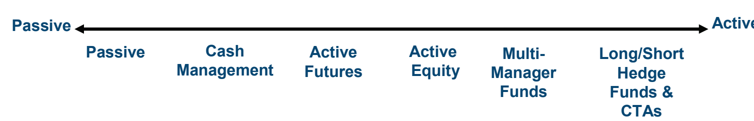
Source: Goldman Sachs and Evaluation Associates, LLC

Using this framework, we believe commodities represent a near term opportunity. Given current economic conditions, we are likely in the late stages of the Spare Capacity/Falling Growth part of the cycle. We expect, however, that the massive level of liquidity that has been injected into the financial system may lead to elevated levels of price inflation sooner than might normally be expected given the stage of the economic cycle. In other words, inflation could surprise to the upside, and we believe commodities represent an attractive hedge to protect against this type of environment.

IMPLEMENTATION APPROACHES

There are a variety of ways for institutional investors to invest in commodities. One way, which is not commonly adopted, is to actually own physical commodities. For example, you could buy bushels of corn, wheat or soybeans, barrels of crude oil, heating oil or gasoline, ounces of gold, platinum or aluminum. This is generally not practical. Agriculture can spoil from age and other products need a place to be stored. Generally only producers who require the commodity as a raw material or businesses that need the commodity in their operations hold and actively trade the physical. The primary alternative to owning the physical is to own a derivative such as futures, options on futures or SWAPs that provide exposure to commodities. For example, futures contracts provide the right to buy (or sell if sold short) certain commodity amounts at a certain price at a future time. These can be continuously rolled and closed out so delivery never occurs. But this only begins to explain one approach that can be used to gain exposure to commodities. Futures and other derivatives represent the purest way to implement exposure to changes in commodity prices. Other investment options, including Natural Resource stocks, MLP's and private oil & gas partnerships also provide exposure to commodity prices, albeit on a more indirect basis.

Assuming the focus is on commodity exposure via futures, other derivatives, and potentially equities, there are actually a variety of different solutions that could be utilized by investors to implement a commodity allocation. The graphic below represents the spectrum of commodity investment solutions that we believe could be considered by institutional investors, ranging from passive/index exposure on the left to full active, long/short hedge fund products on the right. These approaches are described in more detail below.



a) **Passive** – Investment in a commodity index such as the S&P GSCI, DJ-UBS or most other commodity indices, can be accomplished either through futures, Exchange Traded Funds (ETF), swaps or commingled and separate account management. In our view, a passive allocation to commodities is not the ideal approach, as active traders can take advantage of considerable alpha generating opportunities.

b) **Cash Management** – This category provides commodity exposure to an index but enhances returns, typically through active fixed income management of the excess cash not utilized to cover the margin on the futures contracts. Most managers look to enhance returns by extending duration or introducing credit risk in hopes of delivering incremental return, although other alpha generating approaches can be used.

c) **Active** – Active portfolio management through equity or futures is another option that we believe is attractive. Managers actually manage commodity allocations differently from the index in order to benefit from relative price movements. The active approach creates tracking error, but also the potential for enhanced returns. As alluded to earlier, most active managers also utilize other mechanisms to generate excess returns, including different timing on future contract rolls, and better positioning on the futures curve to mitigate the affect of negative roll yield**.**

Timing of Contract Rolls - Active managers will deviate from the stated roll period when the commodity indices are, by rule, forced to transition their commodity contracts from spot to next available month. This roll period typically ranges from 5 to 9 days prior to expiration. As a result of the level of passive money invested in the commodity indices, vast sums of capital tend to roll in unison with the indices. Active managers can take advantage of these "naïve" rolls and look to roll at different periods where contract pricing and spot/future relationships may be more advantageous.

Futures Curve Positioning - Active managers will position their commodity exposure at different points on the futures curve. This is designed to reduce the roll yield drag that can be dramatic at the front end of the futures curve. Futures curves tend to be flatter the farther out in time they extend; a flatter curve implies less roll impact. The downside to this approach is the fact that liquidity is best in the futures contracts nearest to the spot month. The farther out in time an investor goes on the futures curve, the less liquid the futures contacts.

d) **Absolute Return and Long/Short –** These managers and funds typically abandon the long-only constraint with the hope of providing an overall better return/risk profile that is benchmark agnostic. A sub-set of these types of managers are called Commodity Trading Advisors (CTAs) who attempt to add value by implementing commodity positions on both a long and short basis. These managers do not care about the construction of the commodity indices, and are focused solely on generating absolute returns. While this long/short orientation may lead to higher returns during a variety of commodity cycles, it tends to nullify the inflation hedging characteristics of a long-only commodity portfolio. CTAs, due to their shorting ability, are typically considered hedge funds, and are often included among the manager rosters of hedge fund of funds. Historically, most managers in this category have employed trend following models, although more recently there has been an increase of managers focused on commodity allocation decisions derived from fundamental views.

The following table summarizes the different active tools that are utilized by the above spectrum of approaches.

	Passive	Cash Mgmt.	Active Futures	Active Equity	Multi-Mgr	Long/Short
Cash Mgmt.		√	√		√	√
Roll Timing			√		√	√
Curve Positioning			√		√	√
Weights			√	√	√	√
Equities			√	√	√	√
Shorting					√	√
Leverage					√	√

Different managers will utilize different alpha generating techniques based on their stlye and approach. It is important to understand how each manager is attempting to add value, and to make the right benchmark and peer group comparisons when evaluating performance results.

SUMMARY

We believe an allocation to commodities can be an important component of a well diversified asset allocation policy. Long-only commodities, when added to a portfolio, provide:

1. Equity-like returns
2. Low or negative correlation to traditional investments. We believe commodities represent an important investment opportunity set given distinct characteristics with unique payoff patterns.
3. Hedges against inflation, particularly during periods of elevated and unexpected inflation.

The choice of how to implement an allocation to commodities will be determined by the objectives for the allocation. For example, if the objective is to hedge inflation, then a long-only allocation makes the most sense. If return maximization across different market cycles is the goal however, a long/short approach utilizing CTAs and commodity hedge funds are the better solution. Obviously, this choice is specific to the needs and demands of individual investors.

Commodity investing is not without its issues, though. Commodities are extremely volatile, and when viewed on a stand-alone basis, can be the source of anxiety during periods of significant price declines. In addition, there are clearly periods during an economic and business cycle when inflation is low or falling, and commodities would be expected to perform poorly. Investors need to be mindful of rebalancing and operate with a shorter-term and more tactical mindset when thinking about long-only commodities.

In summary, we believe the current economic and market weakness has created an attractive buying opportunity over the near term. Long-only commodities have performed well during periods of strong economic growth and elevated inflation levels. We believe commodities are also likely to perform well due to long-term structural demand increases from emerging markets, including China and India, as well as elevated consumption trends across many markets. For investors considering commodities as an inflation hedge, we suggest the following:

1. A long-only solution would best meet the desire to hedge inflation. A long/short structure via a CTA or other hedged commodity program, would not serve as an effective, systematic inflation hedge in the portfolio, but could be considered as an absolute return generating allocation.
2. Given the structure of commodity indices and the sources of return (e.g. cash management, spot price change and roll yield), we believe an active approach provides the greatest flexibility for enhanced return over the commodity indices, all while maximizing inflation hedging characteristics.

Bryan Decker is the Managing Director at Evaluation Associates and serves as the firm's Chief Investment Strategist.

Marlo Palumbo is a Research Analyst at Evaluation Associates.

Evaluation Associates, LLC
200 Connecticut Avenue,
Suite 700
Norwalk, CT 06854
Tel +1 203 855 2200
Fax +1 203 855 2301 www.evaluationassociates.com