Commodities are a hot asset class for investors. Over the past several years, both retail and institutional investors have become increasingly interested in establishing and building allocations to commodities within their portfolios.

In order to gain access to commodities, investors can choose from a variety of actively and passively managed funds, as well as structured products and other vehicles.

In our view, institutional investors may be interested in commodities for a variety of reasons. First, investors may be attracted to the diversification benefits of commodities. Also, investors may desire to use commodities as a hedge against inflation. Finally, investors may believe that commodity values are likely to appreciate due to the supply and demand imbalances caused by economic growth, particularly in emerging markets.

The J.P. Morgan Investment Analytics and Consulting team reviewed and analyzed the merits of the investment case for commodities. We analyzed the correlations of the major subsets of the commodities asset class relative to stocks and bonds. We compared commodities to other assets that may act as hedges to inflation. Finally, we reviewed and considered some of the macro-economic drivers of commodity prices. In all, we believe commodities may contribute important benefits to institutional portfolios.

Background - Commodities Markets

Commodities markets have seen major changes over the past two decades as market players and speculators have commanded an increasingly large portion of activity. Traditionally, commodity markets had been a space dominated by corporations and operating companies looking to hedge their supply/demand risk by locking in prices. This is changing as more institutional investors look to commodities for long and short-term investments. However, this has caused concern from the public. In its monthly Commitment of Traders reports, the Commodity Futures and Trade Commission (CFTC) closely monitors the breakdown in open interest between commercial, non-commercial, and nonreportable stakes in the open interest of
traded commodity related contracts, as we see in Exhibit 1.

In response to recent volatilities and price run-ups, the CFTC has held hearings over whether or not to impose limits on energy positions. The CFTC estimates that if the limits were adopted, no trader could hold more than 98,200 contracts, but would include exemptions for airlines and other major players that look to hedge for business purposes. The impact of such regulation on commodity-related funds and prices of such regulation on commodity-related funds and prices remains to be seen, particularly as commodities are increasingly viewed as an alternative asset class that may offer investment benefits.

Diversification Benefits

Modern portfolio theory supports the view that assets that are not perfectly correlated will offer diversification benefits. International stocks and bonds have been a popular way to enhance a portfolio’s diversification. However, the acceleration of globalization and cash flow across borders suggests that international and domestic equities have become very similar asset classes. What is worse, domestic and international securities tend to be even more highly correlated in times of market volatility.

According to J.P. Morgan estimates, commodities have been negatively correlated with bonds between 2000 and 2009 (-0.12). In a rising interest rate environment, commodities have the potential to perform well, even as bond prices may suffer. Commodities have been positively correlated with equities over the past 10 years (0.33 with large cap, 0.25 with small cap, and 0.35 with value), but this relationship is not always consistent.

We analyzed the correlations between energy, industrial metals, and precious metals to the S&P 500 over the past decade. In Exhibit 2, we illustrate the rolling one-year correlations.

We note that energy and industrial metals have become more highly correlated with stocks over the past two years. However, the
correlation of precious metals to U.S. stocks remained low in the financial market volatility of the past few years.

It remains to be seen how commodities will perform as equities recover and stabilize. After the cost cutting and inventory reduction in 2008 and 2009, investors may expect a rise in manufacturing production, inventory levels, and capital goods orders that could imply demand for basic materials for plant production.

**Inflation Hedge**

The potential for future inflation is a real concern for investors. Though sometimes subtle, inflation can pose a huge risk to investment returns over time. Historically, commodities and changes in the CPI have been positively correlated for the majority of years. However, commodities are certainly in competition with other investment vehicles that protect against inflation.

Treasury Inflation Protected Securities, or TIPS, are designed in a way that protects the coupon rate from inflation. They are considered a measure of implied expectations of inflation over short and long term durations. The “5yr breakeven” calculates implied inflation on 5- and 10-year TIPS at 3% as of January 2010.

While it is true that these securities, like commodities, can function as a hedge against inflation, the benefit does not translate to other investments in a broader portfolio. Further, changes in the yields on TIPS are tied to the Consumer Price Index. Therefore, a key assumption underlying an investment in TIPS is that the CPI accurately reflects changes in prices. It is possible that changes in the yields of TIPS could over or underestimate the impact of inflation across asset classes, consumers, and producers.

**Economic Drivers**

As emerging economies have heated up, their demand for metals and energy sources has ballooned. In 2009, China surpassed the U.S. in auto sales for the first time, indicating a growing need for manufacturing capacity and gasoline to fuel record sales growth. Growing demand for commodities in China, a vital trade partner for U.S. manufactured goods, may continue to drive prices higher over the short-term.

Though China is a major player in exports, it is sometimes overlooked that China is also importing goods at increasing amounts. Reuters reported that China’s imports jumped by 55.9% in December 2009, causing its trade surplus to drop in the month. In addition, the country imported record levels of crude oil and soybeans, with strong demand for metals. Demand has increased as China looks to stockpile metals and other resources to continue to build the supplies necessary for anticipated infrastructure and development.

The emerging markets story is not limited to Asia. For instance, commodity markets have a large influence in Brazil’s economy. Not surprisingly, China is one of Brazil’s major trade partners, particularly for raw materials, including metals and agricultural products. The positive relationship between price movements and the value of the real is evident in Exhibit 3. This sheds light on the fact that commodities and currencies are often linked. The impact of commodity prices on currencies and vice versa should be of particular concern for institutional investors that have exposure to foreign currencies either through commodities or other investments.

It should be noted that the explosion of GDP growth in emerging markets has become a concern of emerging market governments looking to ensure sustainable growth. Brazil has imposed a 2% tax on foreign investments and China has raised the yield on 3-month notes in addition to raising the reserve requirements for its banks. It is unclear how these policy changes may affect economic growth, inflation, and commodity demand.

**Investment Vehicles**

Investors may consider several vehicles to gain exposure to commodities. For example, a passive index fund or Exchange Traded Fund that tracks the S&P GSCI or DJ-UBSCI indices may be a comfortable move for most investors. This option offers investors transparency and liquidity, though not without underlying risks. In particular, the S&P GSCI stands out for its overweight in energy and has experienced increasing volatility in the last decade. From June 2004 through the end of 2009, the S&P GSCI gained over 70%. Note that over this same period, the DJ-UBSCI actually lost 5%. The lesson here is that different commodities and their index weightings can greatly impact this form of passive investing.

In Exhibit 4, we illustrate the components within two major commodities indices - the S&P GSCI Index and the Dow Jones-UBS Index.

Both of these indices have significant exposure to the energy sector. Investors need to seriously consider component
weights before choosing a broad exchange traded fund strategy.

The futures exchanges are the most direct investment form besides physical possession to gain exposure to commodities. However, the futures strategy is limited to those commodities that are listed and lock investors into rolling contracts and derivative positions. This strategy requires access to derivative markets and significant expertise about these instruments, thereby making it a more active investment strategy.

Another investment option is to own commodity-related stocks. This strategy may be easier to access but can be more volatile because a change in spot price can significantly affect a company’s profitability. Similarly, some investors have looked to structured notes to gain exposure and make a specific bet. Investors should give as much thought to the strategy as to the asset manager selection since there are crucial differences between strategies and manager performance.

**Conclusion**

In our view, there are many issues and questions surrounding commodities as an investable asset class. Over long periods of time, the correlation of commodities to stocks and bonds is relatively low or negative. However, in recent years, energy and industrial metals seem to have become more highly correlated with stocks and bonds. In our view, the inflation-protection qualities of commodities appear to be well-supported by the data. Also, there may be a compelling case that commodity prices will appreciate due to economic demands, particularly in emerging markets. In all, we believe commodities may contribute important benefits to institutional portfolios.

For more information, contact: J.P. Morgan Investment Analytics and Consulting: Brad Boggia at bradford.boggia@jpmchase.com, or Karl C. Mergenthaler, CFA, at karl.c.mergenthaler@jpmorgan.com