Opportunities in Commodities

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FQ Perspective

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Commodities, as an asset class, have experienced a very rough few years. Record expansion of the global monetary base following the Global Financial Crisis (GFC) led to an expectation that inflation would be following close behind. However, higher inflation expectations have not materialized as economic growth remained subdued. To make matters worse, many commodity sectors have recently experienced oversupply and suffered from sharp price declines for fundamental reasons. Oil prices are a particularly memorable example, though many agricultural markets have suffered from the same theme. Investors who employed index-like long only commodity investments, either anticipating higher inflation or a continued increase in the prices of commodities, have not been rewarded.

As frustrating as long-only commodity performance has been recently, commodities continue to demonstrate many distinct properties relative to other asset classes. These translate into a rich opportunity set for investment programs that can take advantage of the market movements on both the long and short side. In this note, we discuss three components of this commodity-specific opportunity set. First, commodities have a distinct set of fundamental drivers from other asset classes. Second, there is the large amount of opportunity inside the asset class on an inter-sector basis. Finally, the behavior of the diverse market participants that trade in commodities markets creates inefficiencies and presents attractive opportunities for active investors. Understanding each of these components is essential to maximizing the benefits of commodity investing.

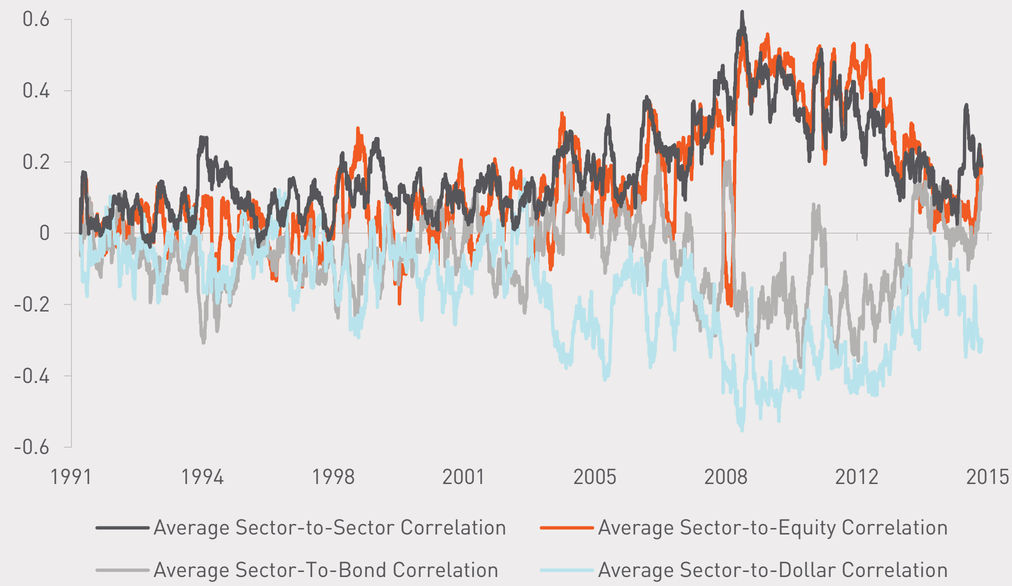
Commodities Are Fundamentally Different

The fundamental drivers in commodity space are much different than those in other common asset classes, such as stocks and bonds, mainly due to their link to the supply and demand influences that are unique to each commodity. Stocks and bonds are more financially oriented assets and are traded mostly by investors seeking a return on their capital. Commodities futures instead represent delivery of physical assets at a certain time in the future. They do not pay dividends or coupons. They respond to drivers of economic growth like stocks, but only indirectly, in the sense that better growth will cause raw materials to be in higher demand. Although there are times when commodities can become correlated with traditional assets, commodities' link to physical production and consumption processes imparts supply and demand influences unique to each commodity sector. In turn, commodities are not only less correlated and diversifying against equity and bond holdings, but they also behave differently under fluctuations in market behavior/regimes.

We can see these differences quantitatively by looking at the correlations between commodity

Commodities trading involves substantial risk of loss.
Past performance is no guarantee of future results. Potential for profit is accompanied by possibility of loss.

EXHIBIT 01 - ROLLING CORRELATION OF COMMODITY SECTORS TO OTHER ASSET CLASSES



Sources: Bloomberg and Datastream

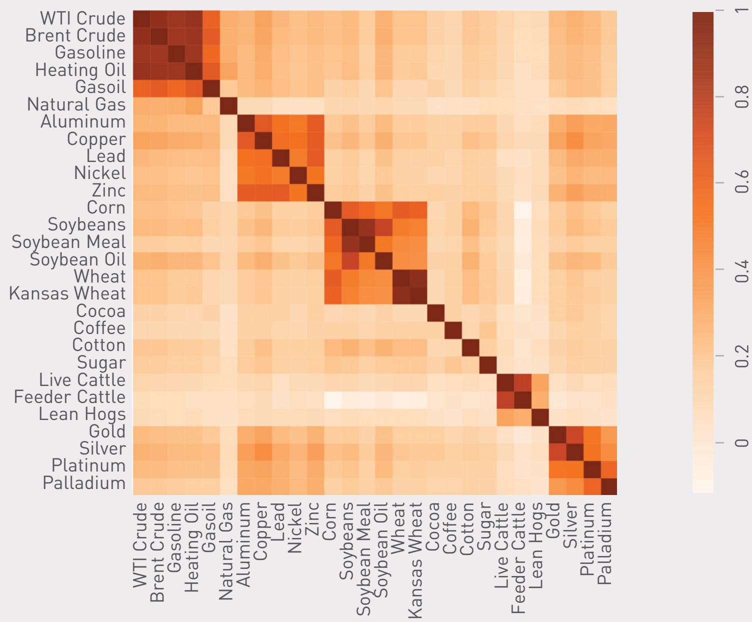
sectors and other asset classes. We use the Bloomberg Commodity Sub-indices for each commodity sector[1] (Grains, Softs, Industrial Metals, Energies, Livestock and Precious Metals), and compute the rolling three-month correlation of those series with the series for other sectors, and with returns from stocks (MSCI World), bonds (US 10 Year Futures) and the US dollar (Trade Weighted US dollar index)[1]. Exhibit 01 shows, in dark gray, the average of the rolling correlations between each pair of commodity sectors. The remaining lines show the averages of the correlations between each sector and the other asset classes. For most of the depicted history, the correlations are small and fluctuating around zero. During times of stress, however, as most correlations tend to increase, commodities too show higher correlation to themselves and to other asset classes. Recently, commodity correlations have returned to their normal ranges as the fundamental market drivers re-established control over the risk-on/risk-off paradigm of the GFC.

Opportunity Inside the Asset Class

Commodities are a broad and disparate asset class. As a counter example, think of equities. A large fraction of the risk in stocks is linked to the index as a whole, leaving only a small percentage of that risk as possibly unique to the individual stocks. Individual commodities, on the other hand, do not necessarily move together when exogenous events like macroeconomic pressures, geopolitical events, natural disasters, or weather become severe. Corn, as an asset, is fundamentally different from Copper. Consequently, inter-sector correlations are very small. There are similarities, however, within commodity sectors. For example, Grains (Corn, Soybeans, and Wheat) follow similar drivers since they are similar commodities.

Exhibit 02 (next page) shows a heat map of the correlation matrix for commodities and indeed confirms that the correlations between elements of the commodity universe are small outside of the sectors. The stronger relationship inside each of six sectors (Energies, Industrial

EXHIBIT 02 - COMMODITY CORRELATIONS (JANUARY 1990 - DECEMBER 2014)



Source: First Quadrant, L.P., Commodity Research Bureau

Metals, Grains, Softs, Livestock, and Precious Metals) can be clearly seen as well in their groupings of high correlation.

Although the correlation matrix is derived from return data that spans many years, the general pattern is true throughout shorter time periods as well. The rolling correlation between commodity sectors is generally much lower than the same measurement applied to stock sectors. Furthermore, the annual performance for the individual commodity sectors shows a wide dispersion, as seen in Exhibit 03 (next page). While overall commodity returns drift from positive to negative, the spread between the top and bottom performing sectors remains large. Even in the years of the GFC, when correlations spiked, the inter-sector return difference for commodities is sizable. It is this spread that directly represents the opportunity within commodities available to long/short commodities investors.

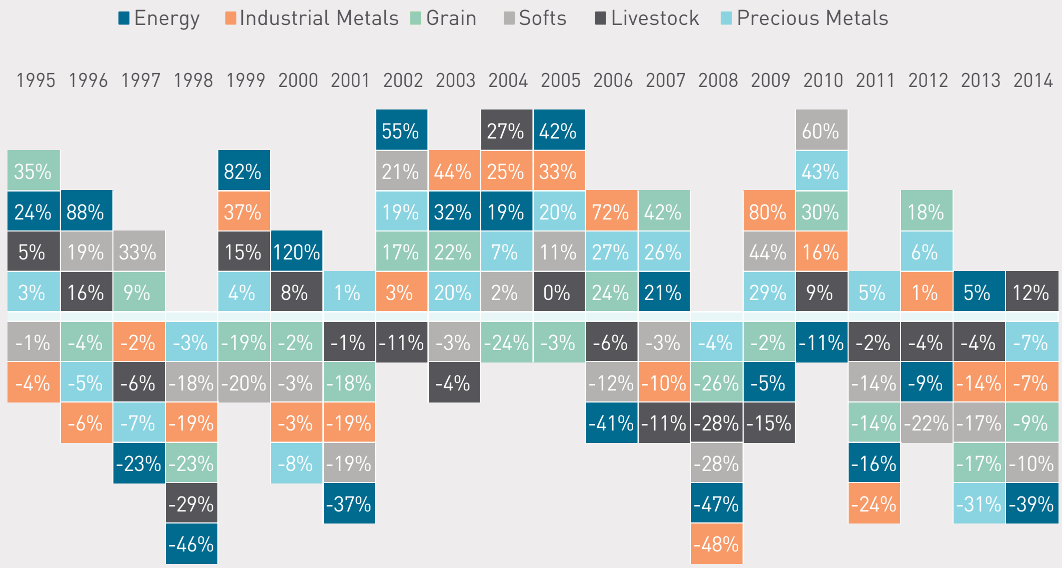
'Hedging' Provides Opportunity

Stocks and bonds are, for the most part, traded as investment vehicles. Commodities can be traded similarly, but, like in the currency markets, there is another significant segment of market participants that are not driven solely by investment return. They include both producers of the raw materials, who may want to hedge their own profitability against price moves, as well as the consumers who use commodities to manufacture other products and want to control their input costs. This constituency is often called "hedgers" as their primary goal is to reduce business risk that arises from commodity price movements. We believe that the activities of commercially oriented market participants can result in trading patterns that offer unique alpha opportunities.

We can gauge the extent of the commercial participant's activity using the "Commitments of Traders" data, published by the US Commodity Futures Trading Commission (CFTC) on a weekly basis. This report breaks down futures holdings by the type of trader in four categories:

1) Producer/Merchant/Processor/User,

EXHIBIT 03 - COMMODITY SECTOR ANNUAL RETURNS



Sources: StyleAdvisor; Sectors are Bloomberg Commodity Sectors

which contains the "hedger" market participants described above;

2) Money Manager, which contains asset managers like FQ, as well as other funds and speculative oriented investors;
3) Swap Dealers, which can be used for either purpose; and
4) The final two ambiguous categories that hold traders that do not fit into the previous three groups.

Table 01 lists the percent of open interest contributed by each group. The 'hedger' bucket contains, on average, almost 1/3rd of the open interest, and it is tied with the speculative "Money Manager" group.

As the commercial participants possess information generally not known to the market at large in the form of their own consumption or production data, it is likely that their trading activity can leave traces of that information in the market. Their actions also may have a predictable reaction function when confronted with new data from government or private industry agencies, or changes to the overall risk environment. In general, the existence of a class of investors with different utilities means that they may be willing to pay a premium to hedge certain risks, resulting in over- or underpriced commodities or sectors. Speculators, like us, can in turn evaluate and model those risks to determine trading strategies that can potentially be profitable.

The First Quadrant Approach

First Quadrant's approaches to commodity investing capitalize on the features and inefficiencies discussed above. Investors

TABLE 01: FRACTION OF TOTAL OPEN INTEREST BY MARKET PARTICIPANT, AVERAGED ACROSS AVAILABLE COMMODITIES

	Producer/Merchant/ Processor/User	Swap Dealer	Money Manager	Other Reportables	Non Reportables
Average	30%	17%	27%	17%	9%

Source: CFTC

interested in exposure to commodities for hedging inflation or as a liquid anchor allocation in a real asset bucket would be best served by a long-only or long-biased investment strategy. We believe, however, that the most commonly followed long-only commodity indices are not optimal for investors. They carry unbalanced exposures to the different sectors, effectively ignoring the diversification available inside the asset class and the disparate drivers that make commodities exposure diversifying to a broader collection of asset classes. Our approach, called FQ Balanced Risk Commodities (BRC), delivers a more appropriate broad commodity exposure. It is a long-only portfolio that balances risk across the sectors and throughout time in order to best hedge against unanticipated inflation and capture the return and diversification benefits without structurally overweighting any particular sector.

We also manage an alpha-generating strategy that actively invests in commodities on both the long and the short side. We use fundamental models to systematically capture inefficiencies inherent in the underlying drivers of those markets. This strategy, called FQ Commodities Long/Short (CLS), is designed to maximize risk-adjusted return with no persistent exposure to commodity beta, as well as low overall correlation to other betas and common alpha strategies. Both empirically and philosophically, the strategy is diversified from many other types of alpha due to its capitalization on the variety of opportunities discussed above, most importantly the ability to profit from inefficiencies associated with the commercial market participants. All of these properties make CLS an attractive building block for larger alpha-oriented portfolios. For investors that desire exposure to the commodity asset class but are also focused on return generation, these two approaches can be used together in the same portfolio very effectively.

Summary

Commodity markets exhibit several types of opportunity that distinguish them from other asset classes. Commodities are driven by unique fundamental factors, leading to an intrinsic level of diversification from other betas, as well as from other active approaches deployed in those asset classes. Individual commodities also have varied drivers that differ markedly from sector to sector and provide a large degree of relative opportunity inside the asset class. The behavior of diverse market participants, especially the commercially focused 'hedgers', imparts inefficiencies that create possible sources for returns. All of these properties have the potential to improve investment results and create fertile ground for our Balanced Risk Commodities and Commodities Long/Short strategies.

Endnotes

[1]Source: Bloomberg

FIRST QUADRANT

Index Definitions

The **MSCI World Index**^{SM} is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The MSCI World Index^{SM} is a registered trademark of Morgan Stanley Capital International.
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Bloomberg Commodity Index (Total Return) formerly the Dow Jones-UBS Commodity Index Total Return, reflects the returns on a fully collateralized investment in Bloomberg Commodity Index which is a broadly diversified index composed of futures contracts on physical commodities. The index currently has 22 commodity futures in seven sectors. No one commodity can compose less than 2% or more than 15% of the index and no sector can represent more than 33% of the index as of the annual weightings of the components. Bloomberg is a trademark and service mark of Bloomberg Finance L.P., a Delaware limited partnership, or its subsidiaries. All rights reserved.
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Trade-Weighted US Dollar Nominal Index: Major Currencies is based on nominal exchange rates and is a weighted average of the foreign exchange value of the U.S. dollar against a subset of currencies from the broad index whose currencies commonly circulate outside of the country of issue. This subset is composed of the Euro Area, Canada, Japan, the United Kingdom, Switzerland, Australia, and Sweden.

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