OPPORTUNISTIC COMMODITY BETA:

TURNING LEMONS INTO LEMONADE

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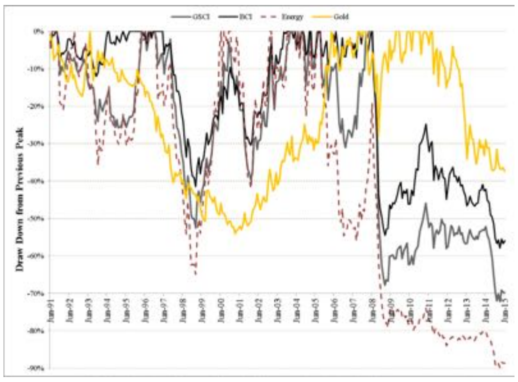
Some exposure to commodity beta can be prudent since commodities have the most positive inflation sensitivity of any liquid asset class. Deferring the allocation decision to commodities is risky because, once inflation expectations rise, it will already be too late if commodity prices have lead inflation expectations. Yet, as we are seeing with the precipitous draw-down in energy and metals prices, commodity beta exposure has an unattractive risk-return tradeoff in the periods between inflationary episodes, which in the US have been few and far between. Even worse, commodity beta has been prone to regular and steep draw-downs. Accordingly, some investors regard the cost of holding a static exposure to commodity beta as being too high to be "worth it". We wholeheartedly agree. Instead, we prefer "opportunistic" exposure to commodity beta, managed to increase when commodity beta is going up and reduce when commodity beta is trending down or whipsawing sideways.

LONG-ONLY COMMODITY BETA: LONG-STANDING PROBLEMS

The long-only approach to commodity beta is problematic, not only because commodities offer little real return over the long run, but also because commodity futures are not like stocks or bonds. Because companies (and sovereigns) issue stocks and bonds, stocks and bonds have positive float, allowing every investor to index stocks and bonds on a long-only basis. In contrast, no one issues commodity futures; they are created by exchanges on a zero float basis. Every long position in a commodity future must be balanced out by a mirror short position. Thus, a long-only commodity index is less likely to earn a market risk premium like long-only stock and bond portfolios. A situation where every investor seeks to be long-only commodities in order to hedge an expected rise in inflation would likely result in demand for long positions far outstripping supply, potentially leading to a price spike and steep contango. Once the inflation expectation evaporates, the demand for long positions would likely collapse, leading to a steep price pullback. Consequently, we believe that the long-only approach to commodities indexation is problematic and fraught with uncompensated volatility and draw-downs.

Figure 1: Over the last quarter century, all of the passive long-only commodity indices have experienced extended and deep drawdowns of over 40%.



Source: DataStream and Mellon Capital Research As at July 2015

Individual commodities and traditional commodity indices are consistently volatile. Both have suffered from extended periods of low Sharpe ratios, and have been prone to prolonged up and down cycles with peak-to-trough draw-downs worse than -30% *(Figure 1)*. By early 2015, analysts observed that, after a decade of global investment in commodities production infrastructure, we are now entering into a period of excess supply capacity, which may dampen extended upside moves in commodity beta.[i]

Some investors attribute the volatility of the commodity indices to the energy sector, but history shows otherwise. As shown in *Figure 1*, gold – an oft-called "flight to safety" asset – is quite volatile by itself. Taking the drastic step of excluding energies altogether from the long-only indices is not recommended since energy has inflation protection benefits. From 1996 to 2006, the GSCI Non-Energy Index had a painful decade that started in 1996, bottomed out at -45% in 2001, and didn't recoup its losses until 2006.

Figure 1 also reveals the idiosyncratic nature of individual commodity moves. These lemony idiosyncrasies, however, can be turned into lemonade. They create opportunities for relative-value or "spread" trades, which Mellon Capital incorporates into its active commodity strategies to seek alpha returns. These alpha returns complement beta returns, especially when beta returns are flat or negative.

FOCUS ON UPSIDE BETA WITH OUR LONG-BIASED APPROACH

Our approach to opportunistic commodity beta focuses on tracking upside commodity beta and rising inflation expectations and reducing beta exposure when beta returns and inflation expectations are low or negative. Our models

- increase commodity beta exposure when our signals forecast that beta returns will be positive;
- reduce commodity beta exposure and steer towards more alpha exposure when our signals forecast that beta returns will be low or negative; and
- use a combination of macro (inflation) as well as bottom-up (individual commodity- level signals) to try and forecast the direction and magnitude of commodity price moves, both at the aggregate as well as the individual commodity level.

A few important details are in order. First, reducing commodity beta exposure does not mean we reduce commodity exposure altogether. We dynamically allocate risk[ii] between commodity beta and commodity alpha. By commodity alpha, we mean capturing roll yield and inter-commodity and inter-sector spread returns. As an independent source of alpha, commodity alpha diversifies stock and bond portfolios.

Second, capturing commodity alpha requires shorting a subset of commodities. Thus, our approach is long-biased rather than the traditional long-only approach to capturing commodity beta. When our signals do not forecast much upside commodity beta, we get our returns from capturing roll yield and spread returns on a long-short basis. Conversely, when they do (especially if there is associated rising inflation), we allocate more risk to commodity beta and seek to capture returns from long overweights on the commodity sectors that are trending upwards.

Third, the long-biased approach strikes a dynamic, optimised balance between alpha and beta returns. It opportunistically seeks both beta and alpha returns on a relative attractiveness basis, based on supply-and-demand-grounded, commodity-level attractiveness scores: inventory shortage, hedging pressure, capital flows, seasonal and economic trends, the shape of the futures curve, and the likelihood of surprise inflation. The flexibility to allocate between alpha and beta exposure enables the strategy to steer away from downside into upside beta returns. In contrast, the traditional approach of overlaying a 2-5% active-risk alpha strategy over a locked-in long-only index does not have the flexibility to prevent -30% to -60% index draw-downs.

CONCLUSION

We believe commodities belong in every well-diversified portfolio, due to the potential benefits of inflation protection and portfolio diversification. However, the costs of a long-only approach are unattractive returns and time-varying volatility, leading to deep and prolonged draw-downs.

Figure 2: Primary Energy Production

CALB	Exposure target	Benefits	Vulnerabilities	Historical performance
Long only	Static beta	Track rising inflation and commodity beta spikes	Exposed to whipsawing from sideways volatility, beta pullbacks, and negative contango returns	Volatility and prolonged draw downs not associated with inflation/deflation
Long biased	Dynamic beta seeking to target upside beta and steer away from downside beta to alpha	Track rising inflation and commodity beta spikes, shift to alpha during periods of disinflation, deflation, or marketwide contango	May be late to turning points of commodity beta rallies	Smaller draw downs and access to alpha return source during extended periods of disinflation

Source: Mellon Capital Research as at July 2015

As summarised in *Figure 2*, we believe that the only way to mitigate these costs is to use a long-biased approach. The long-biased approach potentially offers the benefits of inflation-tracking, better total returns, lower volatility, and smaller draw-downs compared to long-only approaches.

FOOTNOTES

[i] For example, see The 3D's of macro push commodity markets lower, Goldman Sachs Commodities Research (July 8, 2015). As this article notes, global macro weakness, such as deleveraging in China, is a drag on demand growth that might otherwise soak up the commodity supply.

[ii] Because the short-term risk of commodity beta varies greatly and it is desirable to increase risk when beta is moving to the upside, we do not target constant risk. Instead, we target a reasonable long-term average risk level (for example, 10%) and allow short term risk to vary opportunistically depending on the attractiveness of the alpha and beta opportunity set.

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