Commodities, Do They Boil Down to an Asset Class or an Investment Universe?

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When we were asked to contemplate producing an Editorial that would in short address how could a renewed risk appetite and interest for the Commodity sector be positively met by the alternative investment's Industry, we had plenty of ideas that stormed our minds. Indeed, so much was the case that we decided to create an "internal think-tank" that would be in charge of addressing and organizing this arduous reflection process.

The Team

Said so, mandate was given to our team of talents to consider how to best approach it. Most diverse and qualified opinions tending towards the market norm, a reduced task force was onward composed of an un-canonic practically seasoned economist managing a portfolio, a PhD statistician running the numbers as a model versed quantitative analyst, a cash commodity transaction manager or what other people would call trader and ultimately, of a marketing savvy trade finance specialist.

The Initial Mission

The initial work-plans were to (a) list and categorize the various "families" of commodity related active strategies available out-there, (b) state their positive externalities for an investments' basket and (c) only then look at some elements of correlation within these investment opportunities themselves to ultimately correlate them with the other asset classes.

The Reflection Cascade

So the team embarked on segmenting the main investment proposals that would be available in the commodity space. The economist opening remark was that one should beforehand also define whether both direct and indirect commodities' investments be alike considered: one could very well invest in a commodity's future market or through the bias of listed equities involved solely with that commodity. The economist further hinted that these two investments may or may not be directionally alike and resultantly even fruit completely different returns' statistics.

> "If the strategy did matter more than the underlying market forces, Commodities would on the contrary compose a much vaster Investment Universe than an Asset Class"

All sided positively with the remarks, although public wisdom would rather be that going long Cocoa futures would inherently carry a similar north then buying a listed Chocolate company's equity.

Furthermore, if one looks at the available strategies' directionality, some further complexity arises. He could very well elect to equally invest in commodity (i) directionally through Commodities Cash Markets, Futures Markets' systematic or discretionary CTAs, Long/Short Equities and even activist Private Equity or (ii) non-directionally through Intra-Futures or Cash-Futures Arbitrage vehicles and Credit related strategies. The commodity trade finance specialist felt strong about his posture, evidencing that a credit strategy should by essence generate value irrespective of the financed underlying asset's inherent market direction and by extension volatility. As much as directional investments usually embed some volatility seeking bias, would their respective volatility be at the end of the day more strategy linked then underlying market resulting?

This last point was intuitively defended by the transaction manager. He perceived it natural that as many economic activities existed along the general commodity value chain, one could have a vested economic interest capturing wealth from the aggregate value added but equally selectively destroying or generating it by hand picking the activities' invested. He frequently witnessed producers of a commodity having positive economies while processors or market distributors of the very same commodity be negative on theirs, such equally happening.

The statistician had no chance to yet enter in action and no list of available strategies even drawn that it appeared rather dantesque, if not impossible, to categorize them based on their externalities.

The New Mission

Instead of looking at each family's differences, wouldn't it be best to look at their similarities? If correlations between all these commodity's strategies could be demonstrated, provided they involved the same underlying commodity, then one could establish if the strategy really mattered or not. And if the strategy did indeed matter more than the underlying market forces, Commodities would on the contrary compose a much vaster Investment Universe than an Asset Class.

Merit of truth lying in tested numbers, a quantitative look at things was now best placed to erode doubts and hint direction. The portfolio manager and quantitative analyst proposed that (a) some Equity and Commodity indices be considered over the last 5 years, (b) their returns compared, (c) the correlation within Equities and within Commodities be defined, (d) that the global economic trends be removed from the equation through regression to allow correlation to be again drawn (e) within each category and (f) finally that the related (similar underlying commodities) Equity and Commodity sectors be compared free from the global economic trends. All agreed that this preliminary analysis would at least allow sidelining unproductive hypothesis and giving way to further hinted studies, if ever one wished.

For the sake of this exercise, although depth could have been statistically limited, data was daily extracted on the:

1. Equity side: from a leading provider's World Equity Index then further segmented into 5 (five) commodity related sector-indexes, namely Food, Agriculture, Energy, Metal & Mining and Industrial.

2. Commodity side: from a leading provider's Global Commodity Index, then sub-divided into 3 (three) subindexes, namely Agriculture, Energy and Industrial Metals.

The above Indexes and Sub-Indexes' returns having been beforehand synchronized, the pair graphs were then plotted.

Intra-Categories

The Figure 1 depicts the relations within the Equity indexes group's returns. Reading the World Equity versus the Energy Equity, the relevant graphs (in red) show elements of correlation. This pattern is present in all the other pairs in this category.

When one applies an equal study to the Commodity Indexes category, much to the same, intra-group correlations are present as shown in Figure 2.

Market Trends aside

Having now defined that intra-group correlations exist for both commodity related Equities and Commodities, the global market trends forces had to be removed from the equation to isolate the sub-segments' inherent dynamics. Such was obtained through a linear regression of all the sub-categories to the global index using the least squares method. This protocol allowed extracting the residuals or noise over the regression, leaving us with observations freed from global market trends. Two very interesting and rather unexpected phenomenon stroke us. While the Intra-Equity class pairs (Figure 3) illustrated no obvious relation with any clear direction other than the clouds' axis, the Intra-Commodity pairs (Figure 4) illustrated similarly for some and showed surprisingly negative correlations for most others (Energy Vs Industrial Metals or Energy Vs Agriculture).

The Cocoa Vs the Chocolate test

The sub-segments being now freed of global market trends, one could finally cross compare the respective commodities grouping with their relative set of activities. As evidenced by all the subsequent pairs' comparative graphs, the results came somewhat unexpected for most of conventional wisdom.

Much to the delight of the economist, the trade finance specialist and the

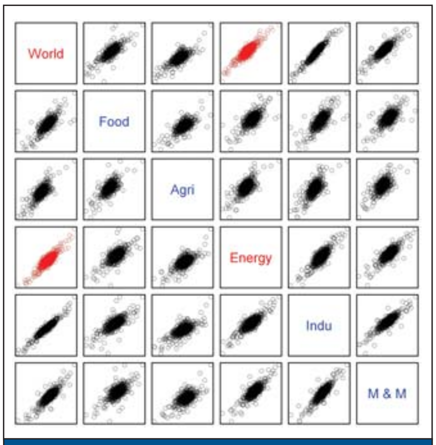

Figure 1

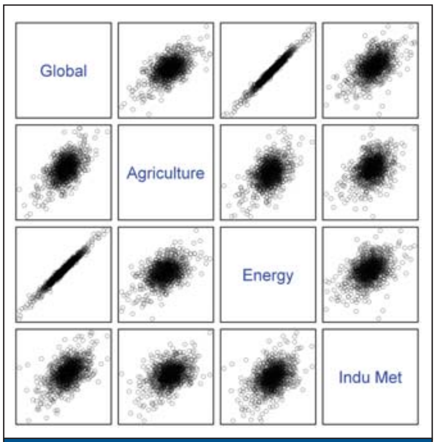

Figure 2

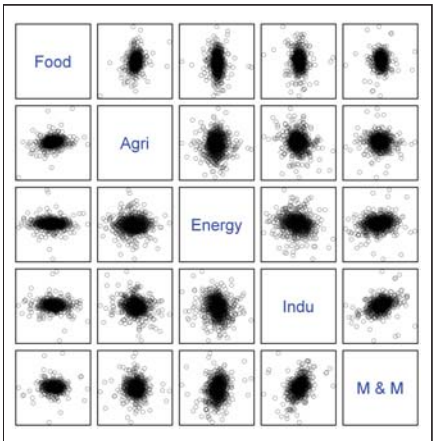

Figure 3

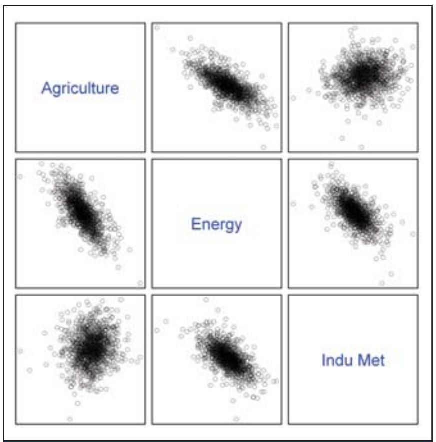

Figure 4

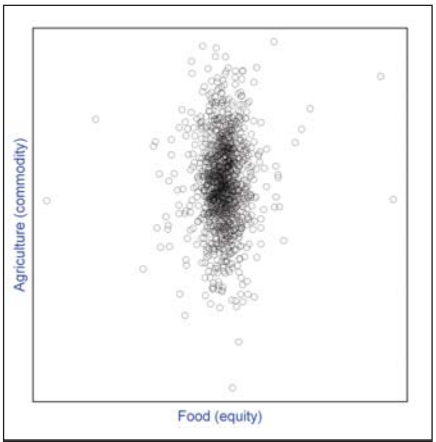

Figure 5

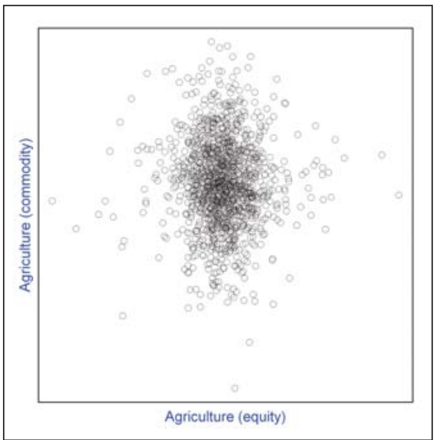

Figure 6

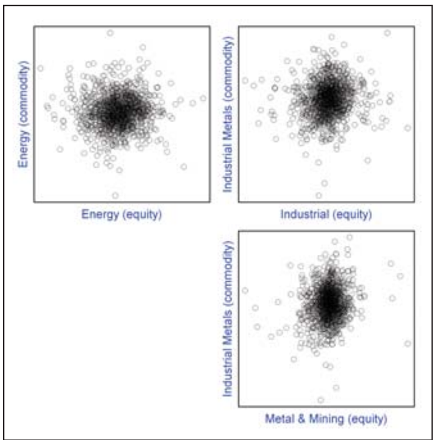

Figure 7

trader, it appeared that the quant man may have successfully demonstrated that investing directionally in Cocoa does not obviously mean:

a) Investing in Chocolate (Figures 5), and
b) Neither in Agro-Industries (Figures 6)!

Indeed, other than the global economic trends, there was not much correlation between returns in Agri-Commodities and ones from the Agriculture and Food sectors Equities alike.

Exact same occurrences were tested for all Commodity and relative Equity pairs as the three additional graphs show (Figure 7).

The Outcome

Isolated from global trends and therefore of their catalyst market forces, Commodities appears to offer much more wealth and depth than a simple Asset Class. Not only to the extent that noncorrelations have been summarily established, Commodities may in fact be considered a much richer Investment Universe. Outside of the diversification capacity from other main stream and traditional Investment groupings, this universe could carry within itself its own source of diversification through the numerous strategies available to the educated investors.

In a nutshell, if Commodities are an Investment Universe and not an Asset Class, then if one thinks out of the box within that space, he could very well construct a portfolio that would entirely be composed of "Commodity Asset Classes" embedding elements of:

a) Volatility through CTAs;
b) Non-correlation and absolute return with limited volatility (Fixed Income type) through commodity credit strategy;
c) Equity flavours through overlays that extracts market trends with shorted commodity related equities or options
d) and selected Private Equity investments adversely capturing the appearing negative correlations.

As this little mind's work illustrates, there are many doors left to open and avenues to go for the Alternative Investment Industry to devise Products in this new Investment Universe! ■

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