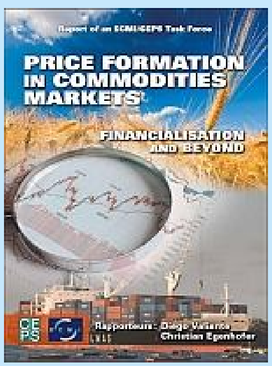
Price Formation in Commodity Markets: The World after Financialization



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Introductory comment

Let me start by saying that this is an excellent and comprehensive report.

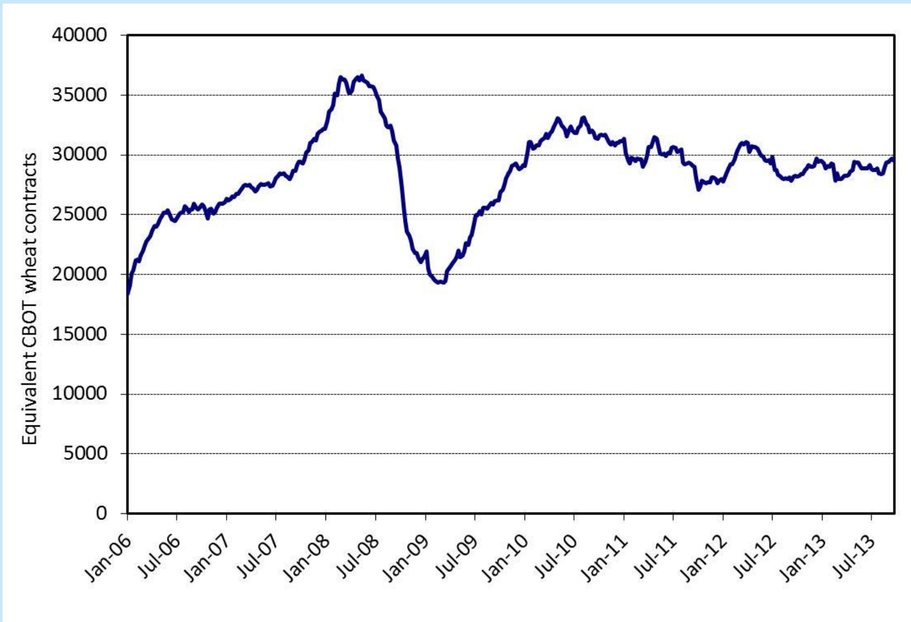
I will make three simple points where I think the conclusions might have been somewhat stronger

1. Financialization is here to stay.
2. The report is a little too timid in following the US efficient markets view that financial actors have no price impact. I will look specifically at index-based investment.
3. More space could have been devoted to the impact of biofuels production, a factor unconnected with financialization, on agricultural prices and volatilities.

1. Was financialization a bubble?

- The report characterizes financialization as “the process of alignment of commodities returns with pure financial assets … so increasing co-movements among asset classes” (page 52).
- Commodity prices are now falling and investors are becoming bearish about the commodities sector. Volumes are likely to be lower over the next few years but financial actors will remain important.
- Commodity investment has been predominantly a long side activity over the past decade, reflecting generally positive returns as prices have appreciated or at least remained high and markets have been largely backwardated. Currently, prices are weaker and many markets have moved into contango. Commodity investment returns have therefore been generally negative. Money may leave the industry although this does not seem to have happened yet at least so far as index investors are concerned.
- Commercial swap activity will remain substantial. Hedge funds, who are equally likely to be short as long, will remain active.

Commodity index investment



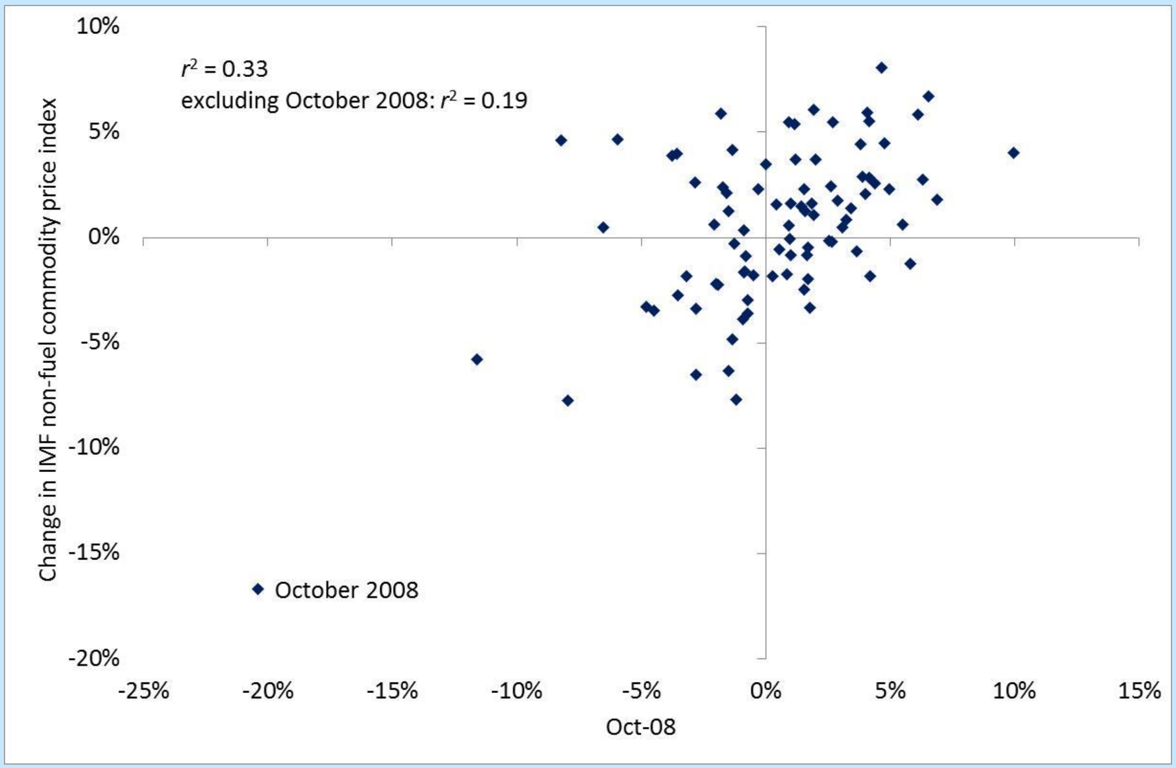
Source: Author's calculations from CFTC *SCOT* data.

A quantum index of net commodity index (CIT) positions from 2006 shows a very rapid rise through 2006-07; a fall from the summer of 2008 through early 2009; recovery through the remainder of 2009; and a broadly constant level since the start of 2011.

2. Did index investment impact prices?

- The general academic view is that commodity futures markets are liquid and efficient; that index trading does not convey information to the markets; and that there is little empirical evidence that CIT position changes shift prices.
- This evidence is well summarized in the report on pages 68-69. The authors state “Index investments appear to have been merely channelling information on macroeconomic factors into the price formation mechanism of futures contracts”. I am sympathetic to this conclusion.
- The US-based skepticism over market impact is over-done. Using standard Granger-causality tests on monthly data for the IMF commodity prices indices, the *p*-values for no impact are 0.0005 for the non-fuels index, 0.0074 for the food index, 0.0942 for beverages, 0.0000 for the agricultural raw materials, 0.0004 for metals and 0.0034 for the average crude oil price. (Sample: April 2006 – April 2013). Granger-causality does not imply structural causality but it establishes a strong *prima facie* case for a causal link.

The correlation between changes in prices and changes in index positions

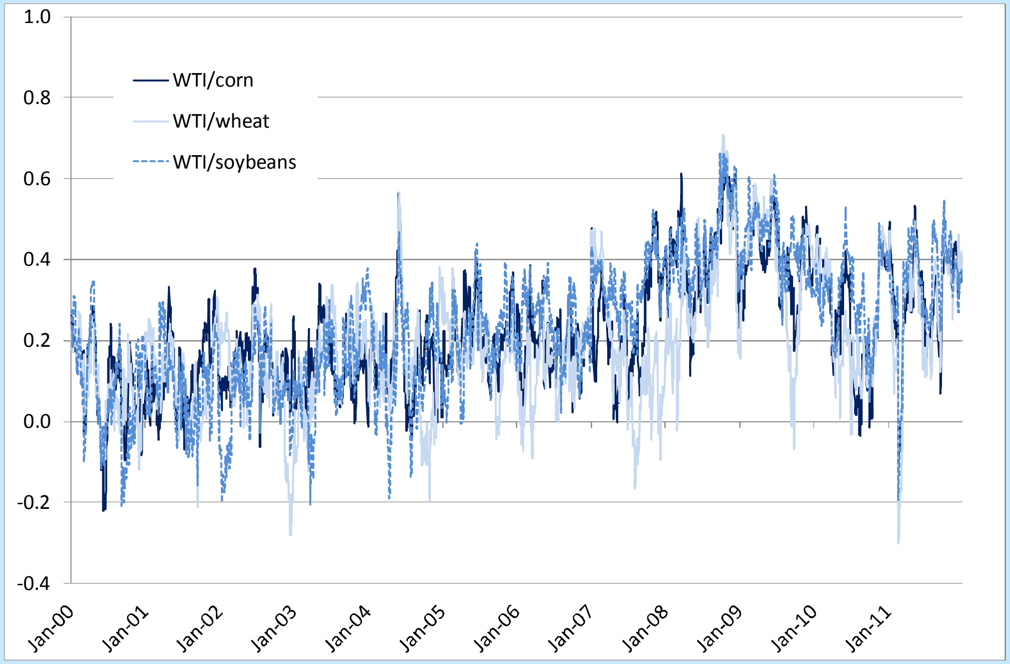


Source: Author's calculations from CFTC and IMF data.

3. Biofuels

- The report discusses biofuels production in a number of context. Page 188 states “The price of agricultural commodities may be increasingly correlated to oil prices in the short run. The more oil prices increase, the more wheat and other related crop prices could rise …”.
- I would have given this greater emphasis. Over the past seven years, incremental production of corn (maize) has largely gone into ethanol production. Movements in corn prices reflect movements in crude oil prices to a much greater extent than previously. Land substitutability transmits these impacts to the wheat and soybean markets. High and volatile crude oil prices therefore generate high and volatile grains and vegetable oil prices. Biofuels played a major role in the 2008 price spike.
- The good news is that biofuels production appears to have leveled off in both the US and Europe relieving upward price pressure although not necessarily reducing volatility.

Moving (DCC) correlations between crude oil and grains returns, 2000-11



The correlations are of the order 0.15-0.25 over the period 2000-05. They jump to 0.5-0.6 in 2008 and have subsequently fallen back to around 0.3-0.4.
Correlations are estimated from a four variable DCC-GARCH model.

Source: C.L. Gilbert and H.Mugera, "Biofuels or Financialization: Explaining the Increased Correlation between Grains and Crude Oil Prices", 21st Annual Symposium Society for Nonlinear Dynamics and Econometrics, Milan, March, 2013

Thank you for your attention and congratulations to CEPS on an excellent and comprehensive report.