Commodity Speculation and Commodity Investment

by

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"The views expressed are those of the author and do not necessarily reflect the views of UNCTAD"
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Commodity prices in 2008

- Commodity prices peaked in May-July 2008.
- There was a widespread view that these high prices were driven, at least in part by, speculative euphoria.
- In this presentation I will confine my discussion to the oil price but the same considerations apply to non-ferrous metals and, to a lesser extent, agricultural commodities.
- I start by reviewing four contemporary quotations from legislators and market practitioners which illustrate these concerns.
George Soros, the billionaire financier, stood before US lawmakers this week and witheringly described the current boom in commodity markets as a "super-bubble" that could result in instability.

Mr Soros told the Senate commerce committee on Tuesday that institutional investors were inflating a bubble by investing in commodity indices.
There is a growing feeling that the latest sharp upsurge in the price of oil may be a speculative bubble rather than an outcome of market fundamentals.

You have asked the question “Are Institutional Investors contributing to food and energy price inflation?” And my unequivocal answer is “YES.” In this testimony I will explain that Institutional Investors are one of, if not the primary, factors affecting commodities prices today. Clearly, there are many factors that contribute to price determination in the commodities markets; I am here to expose a fast-growing yet virtually unnoticed factor, and one that presents a problem that can be expediently corrected through legislative policy action.

Michael W. Masters, Masters Capital Management, LLC
FOR IMMEDIATE RELEASE
June 18, 2008

Lieberman, Collins Float Potential Fixes to Curb Excessive Speculation in the Commodity Markets

Goal: Reduce High Cost of Food and Fuel With Future Legislation

WASHINGTON – Homeland Security and Governmental Affairs Committee Chairman Joe Lieberman, ID-Conn., and Ranking Member Susan Collins, R-Me., unveiled three discussion documents Wednesday aimed at curbing excessive speculation in the commodity markets, which they say is contributing significantly to the skyrocketing costs of food and energy.
Bubbles

- In terms of the academic discussion, this relates to the literature on asset market bubbles.
- In a bubble, the asset price rises at an increasingly fast rate until eventually the bubble bursts and the prices collapses back to its fundamental value.
- In a 2009 working paper, Yale economist Peter Phillips and Jun Yu argue “the empirical evidence supports a selective migration of the bubble activity through financial markets as the subprime crisis evolved and liquid funds searched for safe havens”.
- In his Frank Hahn Lecture at the 2009 Royal Economic Society Conference, Harvard economist David Laibson stated “Bubble economics may provide a cohesive explanation of the economic events of the past decade”.

Both Phillips & Yu and Laibson cite crude oil as having been subject to a bubble. The time plot of WTI prices is consistent with this view, Many contemporary comments suggested that there was a bubble in oil prices in 2008.

Speculators and investors

- Economists and regulators have traditionally distinguished between commercial and non-commercial traders on commodity futures exchanges – “hedgers” and “speculators” respectively.
- That distinction has become too simple to describe contemporary markets. I distinguish
  a) traditional speculators
  b) CTAs and other trend-following speculators
  c) hedge funds, and
  d) Index-based and other long term investors in commodity futures.
CTAs and price trends

- CTAs are Commodity Trade Advisors. CPOs are Commodity Pool Operators. CTAs place retail investor funds in CPO funds.
- Rich individuals and institutions, including many large financial institutions, will prefer to invest in hedge funds.
- CTAs are required to declare their investment strategies. The vast majority (probably over 90%) declare that they follow non-discretionary “technical” strategies.
- Trend seeking behaviour may generate the very same trends that the CTAs then identify – a random upward price move is picked up as the start of a trend validated by subsequent CTA purchases.
- This may result in bubbles but these are probably short-lived.
Hedge funds

Hedge funds have three common features:

- They are only open to the very rich,
- They have high leverage, and
- They are currently exempt from reporting requirements.

This is all they have in common. Hedge fund strategies and asset allocations differ enormously:

- Some may use technical analysis but most also do fundamental analysis. They may initiate movements subsequently identified as trends but they seldom blindly follow trends.
- Hedge funds are not unanimous in their views. Often there are large fund holdings on opposite sides of the same market.
- Because hedge funds are large they can, and do, move markets. It is less clear that they often move prices away from fundamental values.
Index investment

- Index investors set out to replicate an index – usually the S&P GSCI or the Dow Jones UBS index – or a sub-index of one of these. It is these investors that George Soros and Michael Masters accuse to have driven up oil prices.

- These investments are generally transacted as fixed-for-floating swaps in which the investor swaps the invested sum for the value of the index. The investor is long the index so the index provider (typically an investment bank) is short. The index provider will invest in commodity futures to offset his risk exposure.

- Index investment is characterized by three important features:
  a) Commodity investors are motivated by the potential returns on the entire “commodity class”, not on specific commodities.
  b) Until recently, they have been almost entirely long.
  c) They are typically in all important markets. Position size relates to the overall value of the market.
The S&P GSCI (left) had a 76% energy weight (55% crude oil) in September 2008.
The Dow Jones-UBS index had a lower 33% energy weight (13% crude oil)
## Index fund values and shares of open interest, June 2008

<table>
<thead>
<tr>
<th>Commodity</th>
<th>$bn</th>
<th>Share</th>
<th>$bn</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude oil</td>
<td>51.0</td>
<td>26.6%</td>
<td>Cocoa</td>
<td>0.8</td>
</tr>
<tr>
<td>Gasoline</td>
<td>8.0</td>
<td>23.9%</td>
<td>Coffee</td>
<td>3.1</td>
</tr>
<tr>
<td>Heating oil</td>
<td>10.0</td>
<td>34.5%</td>
<td>Cotton</td>
<td>2.9</td>
</tr>
<tr>
<td>Natural gas</td>
<td>17.0</td>
<td>14.7%</td>
<td>Sugar</td>
<td>4.9</td>
</tr>
<tr>
<td>Copper</td>
<td>4.4</td>
<td>41.7%</td>
<td>Feeder cattle</td>
<td>0.6</td>
</tr>
<tr>
<td>Gold</td>
<td>9.0</td>
<td>22.7%</td>
<td>Live cattle</td>
<td>6.5</td>
</tr>
<tr>
<td>Silver</td>
<td>2.3</td>
<td>20.1%</td>
<td>Lean hogs</td>
<td>3.2</td>
</tr>
<tr>
<td>Corn</td>
<td>13.1</td>
<td>27.4%</td>
<td>Other U.S. markets</td>
<td>1.4</td>
</tr>
<tr>
<td>Soybeans</td>
<td>10.9</td>
<td>20.8%</td>
<td>Total (U.S. markets)</td>
<td>161.5</td>
</tr>
<tr>
<td>Soybean oil</td>
<td>2.6</td>
<td>21.7%</td>
<td>Non-U.S. markets</td>
<td>38.4</td>
</tr>
<tr>
<td>Wheat</td>
<td>9.7</td>
<td>41.9%</td>
<td>Overall total</td>
<td>199.9</td>
</tr>
</tbody>
</table>

Source: CFTC
Evolution of index positions

Source: Author’s calculations from CFTC Supplementary Commitment of Traders Reports

Very sharp fall in 2008q3 and q4

Sharp rises in 2006q1 and 2007q4-2008q2

Rising in 2009q2 and q3 as markets recover
Index investment and the oil price

The chart shows the cross-plot of weekly changes in index positions and percentage changes in the front WTI oil future over the same period.

\[ r = 0.397 \]

January 2006 – December 2009
Counterfactual simulation

I have simulated the impact of index investment on the oil price over the period January 2006 – March 2009. These results show a rise in oil prices to over $100/bl in 2008, but with a substantially lower peak ($114/bl). I get similar results for other commodities.

The implication is that, although index investment did not cause the 2008 commodity price spike, it did amplify its extent.
How should we interpret these results?

There are two possible interpretations

1. Index-based investment pushed prices away from their fundamentally-based values. *This view suggests additional controls on futures market activity may be required to prevent repetition of the 2008 bubble.*

2. Index-based investment is driven by views about the likely future evolution of the macroeconomic fundamentals which drive commodity prices – in particular perceptions of likely demand growth in China and other parts of developing Asia. *On this view, there was no commodity price bubble. The summer 2008 price collapse was temporary and the result of the financial crisis.*
These arguments are set out in greater detail in an UNCTAD discussion paper (#197) which will be available in the coming days.

Thank you for your attention.