Financialization of Commodities

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United Nations Thematic Debate on “Addressing Excessive Price Volatility in Food and Related Financial and Commodity Markets”

April 11, 2012
Commodity Price Volatility

![Graph showing commodity price volatility over time]

- Blue dashed line: Oil
- Green line: GSCI Non-Energy Index
- Red dotted line: S&P500 Index

Time: 88-12
Volatility: 0-0.8
What Caused the Large Volatility of Commodity Prices?

• Complex landscape of supply and demand of commodities
  – Emerging market booms and global economic recession
  – Global warming and tough weather conditions
  – Unstable political environment in Mid-east
  – Increasing adoption of bio fuel

• Financialization of commodities
  – Commodities emerged as a new asset class of portfolio investors
Average Correlation bw Commodities
Tang and Xiong (2010)
Evolution of Market Participation
Cheng, Kirilenko, and Xiong (2012)

Net Commodity Exposure

Exposure defined as Net Position(t) x Front Month Price(t), Real Dec2006 $
Risk Sharing in Commodity Futures Markets

• Keynes (1930) and Hicks (1939)
  – Hedging pressure theory
  – Commodity producers need to short futures to hedge their risk, but not enough participants on the long side.

• Tang and Xiong (2010)
  – Lucrative returns attracted hundreds of billion dollar of investment flow to the long side.
  – Caused increased correlations of commodity prices.
  – Potentially improved risk sharing of commodity producers.

• Cheng, Kirilenko, and Xiong (2012)
  – Financial traders (CITs and hedge funds) faced financial distress during the post-Lehman crisis.
  – Cut long positions in response, especially weaker CITs.
  – A convective flow of risk back towards commercial hedgers.
What is Convection?

Flow of moisture
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Implications

• Commodity markets are changing
  – Price fluctuations may reflect financial market shocks rather than demand and supply shocks.
  – Be cautious in interpreting commodity price changes!

• The landscape of commodity futures markets
  – Producers heavily use futures to hedge.
  – Financialization reduces market segmentation and risk premia in commodity prices, also induces volatility spillover from outside.
  – Consumers tend to hedge little and thus bear negative effects.

• Is the financialization process excessive?
  – Precise measures of pros and cons are needed.
  – The debate may take a long process to resolve.
A Proposal

• What can commodity consumers do?
  – **Hedge if possible!**
  – Hedging is not easy, especially for financially unsophisticated consumers in developing countries.

• United Nations and other organizations can help.
  – Measure food aids in tons, instead of dollars
  – Create an international agency to assist developing countries to hedge food prices.