Futures Markets, Speculation and the Impact on Commodity Prices

A Chicago Perspective

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Outline of the Presentation

- Economic value of futures
- Trends in global futures markets
- Futures market mechanics – eight points to remember
- The current debate on the role of speculation
- Academic perspectives
- Regulatory perspectives
- Considerations in formulating a response

Economic Value of Futures Markets

- Price discovery
  - Central market brings together …
    - Different perspectives on value
    - Different sources of information
  - Cash markets are often fragmented
  - Provides a publicly available price signal
- Risk management
  - Hedgers want to transfer their price risk
- Investment/speculation
  - Investors/speculators are willing to take the price risk
  - Complete markets
  - Liquidity
- My bias
  - 20 + years at the Chicago Board of Trade

Trends in Global Futures Markets

- Trading volume is increasing
  - 2004: 3.5 billion contracts
  - 2008: 8.3 billion contracts
  - But, volume is 11% lower in 2009 (Jan. – June)
  - Non-U.S. trading significantly exceeds U.S. trading
- Transition from open-outcry to electronic trading
  - Increased access
- Exchange mergers
  - Greater liquidity
- New exchanges being established/considered
  - Products tailored to specific regional needs
- Increased focus on the value of the exchange clearinghouse
  - Response to credit risk in OTC markets

Futures Market Mechanics – Eight Points To Remember

1. **Cash market product (for example, corn) is not traded**
   Legal agreements – "contracts" – are traded

2. **Contracts are created by the futures market traders**
   Buyer is obligated to <u>take</u> delivery of product in the future

   Seller is obligated to <u>make</u> delivery of product in the future

3. **However, most contracts are offset before they expire**
   So, delivery of the cash product seldom occurs

4. **Since delivery seldom occurs, the number of contracts created is not limited by actual production**

Futures Market Mechanics (Cont.)

5. **The price of the futures contract reflects the value of the product**
   - For example,
     - Buyer contractually agrees to buy corn at $3/bushel
     - Corn price rises to $4/bushel
     - Buyer’s futures contract is more valuable

6. **Futures prices and cash prices are linked**
   - For example, are futures prices too high relative to cash?
     - Arbitrage …
       - Buy cash product
       - Store it
       - Deliver it in the futures market

Futures Market Mechanics (Cont.)

7. **Futures contract terms are specified by the exchanges**

    Delivery area and product grade are not negotiable by traders

    Futures contract prices reflect supply and demand in
    <u>that</u> delivery area and <u>that</u> product grade

8. **Futures markets are <u>not</u> a good source of cash product**

    Why?

    Delivery must occur in the contract-specified delivery area

    So, want to buy/sell the cash product?

    Use normal commercial channels

    Want to manage price risk?

    Use futures markets

The Current Debate on the Role of Speculation

- Is there too much speculation in the agricultural futures markets?

  Price bubbles? Increased volatility?

- Long-standing debate

- What's different now?

  More sophisticated investors; more knowledge of futures

  New portfolio diversification strategies

  Greater interest in the commodities asset class

  Index trading – "long only" trading

  New participants

  Swap dealers and users

  Low cost of using futures to implement strategies

The Current Debate on the Role of Speculation (Cont.)

- What's different now? (Cont.)
  - Greater access to futures – electronic trading
  - Larger pools of capital
  - More market-making capacity at futures exchanges
  - Greater appreciation of the value of exchange clearinghouses
    - Invest without credit risk
- A particular current concern – price spikes in 2008
  - Did speculative buying cause futures prices to exceed fundamental values?
  - If so, what were the impacts? What should be the response?

Academic Perspectives

- All agree that speculative buying in futures has grown dramatically

  Long futures positions held by non-commercial and index traders peaked in 2008

  … but what is the impact on prices?

- Conceptual differences regarding the cash – futures price relationship

  Futures a zero-sum game; no limit on number of contracts

  Speculative futures buying ≠ demand for product

- Historical analyses

  Current levels of speculation – within historical norms

  Speculation vs. hedging levels – within historical norms

Academic Perspectives (Cont.)

- Studies of cause and effect (Granger causality tests)
  - Is there a statistically significant relationship between changes in long speculative positions and futures price movements?
  - Mixed results
  - Does correlation indicate causality?
- Studies of fundamentals
  - Did supply and demand factors drive prices up?
  - Then, did the global recession bring prices back down?
- Poor futures market performance may be caused by other factors
  - The case of CBOT Wheat futures

Regulatory Perspectives

- Is increased U.S. regulation inevitable?
- U.S. Commodity Exchange Act
    - Directs Commodity Futures Trading Commission to …
        - Prevent "excessive speculation"
        - Maintain position limits for speculators
- CFTC responses
    - Over the years …
        - Expanded position limits
        - Provided exemptions from position limits
    - September 2008 study – Swap dealers and index traders
    - Data enhancements

Regulatory Perspectives (Cont.)

- Congressional proposals
  - 2008 proposal to ban institutional investors from commodity markets
  - Increase position limits in futures
  - Greater regulation of OTC derivatives
    - Registration of swap dealers
    - Require central clearing
    - Move standardized OTC transactions to exchanges
- Similar proposals in Europe

Considerations in Formulating a Response

- The economic value of these markets

  Effect of reducing liquidity?

- The greater sophistication of today's financial markets

  Effect of limiting investment in regulated markets?

- Long history of the debate

  Yet, futures volume and number of exchanges increasing

Considerations in Formulating a Response (Cont.)

- Futures prices are readily available, transparent
  - When prices rise (or fall) → some benefit, others do not
- Understanding of the futures markets
  - What they are, what they are not
  - How the cash price – futures price link works
  - Importance of rigorous analysis of market performance
- Futures exchanges are businesses
  - If customers do not like the product/service, they will go elsewhere

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