Research on agricultural futures markets - from the perspective of a Member State

EU Expert Group on agricultural commodity derivatives and spot markets
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Situation

FAO Food Price Index 1990

Source: FAO
Possible Reasons

Supply
- Climate change/ extreme weather events (-)
- Investment/ productivity gains (+)
- Protectionism (-)

Demand
- Population Growth (+)
- Bio energy demand (+)
- Emerging countries: changed nutrition habits (+)

Additional:
- Exchange rates
- Transport costs
- Speculation

Specific for EU:
- Changes in CAP lead to more volatility on EU markets (v. Ledebur/Schmitz, 2011)
Some Facts: Agr. Contracts Traded

Traded Agricultural Commodity Contracts on Commodity Exchanges (worldwide)

Source: FIA, EUREX
Why are agricultural futures markets so important?

→ The farming industry needs the possibility to hedge price risks for liberalised sectors (cereals, oil seeds).

→ In Germany, 70 – 90 % of cereal and rapeseed harvests are directly or indirectly hedged via futures.

→ As the market orientation of the CAP continues, futures markets will become increasingly important also for milk, sugar etc.
Why are agricultural futures markets so important?

→ **Advantage:**
  → Possibility to manage price risks for producers, traders, processors and consumers (“commercials”).
  → Mitigation of price volatility consequences.

→ **Disadvantage:**
  → Excessive speculation (by “non-commercials”) might increase volatility.
Why are agricultural futures markets so important?

→ Rapid availability of current rates of futures markets on PC or smartphone.

→ Most important price signal also for the spot market.

→ Futures price has replaced the EU intervention price as the main price signal.
Some Facts: Commodity Classes

Traded Commodity Futures Contracts by Class (2010)

- Agriculture: 44%
- Energy: 24%
- No-prec. Metals: 6%
- Precious Metals: 5%
- Others: 21%

Source: FIA, EUREX
Objectives of the BMELV

1. Functional agricultural futures markets for the purpose of hedging. (*Prices for agricultural commodities should be based on fundamental factors on the agricultural market!*)

2. Prevention of market disturbance and market abuse.

3. Preventing developing and emerging countries from the consequences of extreme price volatility.
Why do we need research?

→ Futures markets are extremely important for price setting on agricultural markets;

→ The framework conditions have changed significantly, raising a number of new questions:
  • Liberalisation of agricultural markets;
  • More and more relations with the financial markets;
  • New regulatory measures (EMIR; MiFID; MAD;)

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Example: Three recent studies

→ **von Witzke / Noleppa**
  → Price peak 2007/2008 mainly caused by demand and supply on physical commodity markets.
  → No significant impact of financial speculation and bio energy demand.

→ **Bank of Japan**
  → Price peak 2007/2008 mainly caused by investment funds.
  → Raising activities by financial investors on commodity markets since 2009.
  → Raising interdependence between commodity markets and financial markets.

→ **New England Complex Systems Institute**
  → On the long run, price is driven mainly by bio energy demand.

Research Problems

→ Scientific literature: contradicting results

→ Reasons:
   → Lack of data
   → Lack of theoretical foundations
   → Lack of cooperation between agriculture and finance experts
Projects by the German Ministry of Agriculture

- Study on volatility by the public “Thünen-Institut” 2011 (http://literatur.vti.bund.de/digbibExtern/bitv/dn048405.pdf)
- Expert opinion “Importance of agricultural futures markets” (2012)
- Research project on agricultural futures market (2012 – 2013)
Recent Research Proposal (BMELV)

1. Econometric analysis of price-movements from futures markets to physical markets

2. Survey of commercials
   - How they use futures markets (incl. OTC) to hedge price risks.
   - How they use price signals from future markets for bargaining physical delivery contracts.
Portfolio restructuring of investors (Wheat 2011 CBOT)
Markt experts:

→ **top agrar Markt-Hotline 15.03.2011:**

„Prices for wheat on futures markets have literally plummeted last week. That is because speculative capital has been withdrawn in large numbers. The favourite bet of investment funds and other speculators is currently crude oil …“

→ **EU-KOM, EVA 24.02.2011:**

„Prices for white sugar have dropped because investment funds have realised profits.“

→ **Commerzbank-Rohstoffinfo 18.05.2011:**

„…The fall in prices was mainly driven by the exit of financial investors…“
Portfolio restructuring by investors
(Crude Oil 2011 Oklahoma 15.02. – 08.04. + 33,7 %)
Research Questions

→ Need to analyse and assess regulatory measures (EMIR, MiFID, MAD).

→ In the future EMIR and MiFID will provide a lot of current trading data. These data allow for better scientific analyses.

→ How will the relations between agricultural markets and financial markets change?
Research Questions

→ Use of commodity futures markets by commercials in order to hedge price risks

→ Transmission channels:
  financial markets → physical markets
  (i.e. absorption of price signals from futures markets by commercials)

→ Role of financial investors on commodity futures markets: “price bubbles” vs. liquidity
What do we request from the research community?

→ We need empirical and current analyses.
→ Validated methods
→ Cooperation among experts on agricultural markets and financial markets.
→ International focus and international cooperation
Some Facts: Agr. Commodity Exchanges
Some Facts: Regional Distribution

Traded Agricultural Commodity Contracts by Region (2010)

- Asia/Pacific: 75%
- USA: 23%
- Europe: 1%
- Amerika (no USA): 1%

Source: FIA, EUREX
Agricultural futures markets are necessary to hedge against price risks. They are very important for price setting of agricultural commodities and thus for the sensitive food prices. More research is required to assess market developments and to steer regulatory measures.
Research must be based on an evaluation of current data from all important futures markets.

Research activities should be coordinated globally and be conducted jointly by agricultural economists and financial economists.

GD-AGRI: - Assessment of the „Commitment-of-trader-reports“ for agricultural commodities in the EU?
- Research cooperation?
Thank you!

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