The Ethics of Financial Speculation in Futures Markets


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Worldwide Protests after Price Increases for Food Commodities (2004-2012)

Quellen von links oben an:
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http://cdn.mg.co.za/crop/content/images/2011/10/01/300Xtahrirxap.jpg/300x300/
Price Developments with Dramatic Consequences


Source: Lagi, Marco Karen Bertrand and Yaneer Bar-Yam (2011) The Food Crises and Political Instability in North Africa and the Middle East und FAO-Food Price Index

### Food Riots

2004 – 2012

- Burundi
- Somalia, India, Mauretania, Mozambique, Yemen, Cameroon, Sudan, Côte d'Ivoire, Haiti, Egypt, Tunisia
- Mozambique, Tunisia, Lybia, Egypt, Mauretania, Algeria, Saudi Arabian, Sudan, Yemen, Oman, Maroco, Iraq, Bahrain, Syria, Uganda

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Campaigning after the Food Riots in Germany

http://www.oxfam.de/sites/www.oxfam.de/files/mainimage/_dsc7973.jpg

http://www.erlassjahr.de/cms/upload/bilder/Startseite/mitessenspielmannicht.jpg

https://d1p42lqrwqds.cloudfront.net/campaigns/background_images/000/002/048/web/Oxfam_Spekulanten-in-die-Schranken_580x270px.jpg?1366984874

http://m3.paperblog.com/i/66/666548/mit-essen-spielt-man-nicht-L-q1EDoM.jpeg

http://garbersgazette.de/wp-content/uploads/2012/03/Banner-Ackermann_422_startseite_ger.jpg

Martin-Luther-University, Chair in Economic Ethics and IAMO, Agricultural Markets, Marketing and World Agricultural Trade
Overview of the Argumentation

1. Moralizing ≠ Ethics
2. Economics for a Reconstruction of Moral Concerns
3. Using Economic Insights for Dealing with Moral Concerns
A Bias within the Field of Ethics: The Individual Level

On the individual level, scholars argue that speculation may lead to an addictive and self-destructive behavior.

- "The mental qualities that are most frequently called into play among professional speculators are those that characterize the activities of the professional gambler." (Ryan, 1902, p. 345)

- "Gamblers who have lost money may be tempted to “double down” and increase their bets in attempts to win back their losses. This increases their losses, with potentially devastating consequences to themselves, their employers, and the community around them." (Angel and McCabe, 2009, p. 284)
A Bias within the Field of Ethics: The Societal Level

Scholars in the field of ethics assume that speculation has negative societal effects.

- "Compulsive gambling disguised as speculation ... can be particularly injurious to markets because gamblers may be trading based on their compulsion, not their information. Their trades may distort prices away from their fundamental economic values and send false price signals to producers and consumers." (Angel and McCabe, 2009, p. 284)

- "The wagers that underlie futures and options imply a zero-sum game: what the option buyer gains, the option seller loses, minus the amount retained in option fees. Such zero-sum games on a grand scale, resulting from the proliferation of wagers on the same underlying asset, make no sense in macro-economic terms. Given the fees incurred, only the banks get rich, while no macro-economic value is added. A zero-sum game after the deduction of fees becomes a negative-sum game from which everybody ends up losing." (Koslowski, 2009, 2011, p. 123)
NGOs that criticize passive index funds have gone one step further than the academic debate and differentiate between “good” and “bad” speculators.

„Active and passive speculators are two very different animals, and to understand the distinctions between the two is to appreciate the extent of the threat posed by passive speculators. Active speculators add beneficial liquidity to the market by buying and selling futures contracts with the goal of turning a profit. In contrast, passive speculators drain liquidity by buying and holding large quantities of futures contracts – basically acting as consumers who never actually take delivery of goods.“

Masters, Michael (2008): Testimony before the Committee on Homeland Security and Governmental Affairs United States Senate.
Are We Asking the Right Questions?

There are empirical and conceptual doubts that the “speculation-is-bad”-storyline really fits both for the individual and societal level.

- Today, the most relevant speculators are not individuals. They are big organizations. Thus, traditional approaches of the field of ethics may be not appropriate.

- The field of economic theory develops its explanatory power not only from analyzing individual motives but also from the “situational logic” of markets.

- This "situational logic" of markets calls for a moral assessment of the (systematic) consequences of market activities.

- Concentrating on the empirical output rather than on the intentional input of market activities requires a shift from asking psycho-logical questions to asking socio-logical questions.
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Passive Index Funds are Different

Index funds apply a specific trading strategy: They trace the market trend. To receive a certain risk profile, they mix their index portfolios with constant weights of different commodities. Therefore, they have to steadily re-balance their portfolios.

Non-Commercials
• Long and short
• Discretionary (active)
• Partly collaterized
• Information function
• Liquidity function
• Insurance function

(Traditional) Speculation

Index Funds
• Long-only
• Not discretionary (passive)
• Fully collaterized
• No information function
• Liquidity function
• Insurance function

No (Traditional) Speculation

During the last years, the investment volume of passive index funds has enormously increased. However, we neither find theoretical nor empirical arguments that index funds increase prices or volatility. Furthermore, index funds have a price stabilizing effect because of their specific trading strategy (Prehn et al., 2013).
Results of 35 Econometrical Studies

Results of the studies researching volatility:
- No effects on volatility: 12 studies
- Speculation increases volatility: 11 studies
- Spec. increa. volat. only in the short run: 2 studies
- Authors point out econometrical problems: 1 study
- Speculation decreases volatility: 1 study
- No effects on price levels: 1 study
- Speculation increases price levels: 1 study
- Increa. because of monetary policy: 1 study
- Increase only in deer markets: 1 study
- Increase because of fundamentals: 1 study
- Sum of results speak against effects: 1 study

Results of the studies researching price levels:
- No effects on volatility: 18 studies
- Speculation increases volatility: 5 studies
- Spec. increa. volat. only in the short run: 1 study
- Authors point out econometrical problems: 1 study
- Speculation decreases volatility: 1 study
- No effects on price levels: 1 study
- Speculation increases price levels: 1 study
- Increa. because of monetary policy: 1 study
- Increase only in deer markets: 1 study
- Increase because of fundamentals: 1 study
- Sum of results speak against effects: 1 study
Implication of the 35 Studies Regarding the Regulation of Agricultural Future Markets

Implications of the studies that warn against overregulation

- No implications: 15
- Be aware of over-regulation: 15
- Positive effects of index funds: 10
- Against position limits: 12
- Better rules of information and transparency: 6
- Extensive regulation is necessary: 3
- Position limits: 2
- Transaction taxes: 3
- Real or virtual reserves: 2

Chart showing the distribution of implications from the studies.
Passive index funds have developed an interesting business model: They hedge the inflation risks of their investors by bearing the price risks of traders within the commodity markets.

- Passive index funds add liquidity to the future markets.
- Especially, when traditional speculators leave the future markets, it is attractive for passive index funds to get into the market.
- Thus, farmers (and other producers of commodities) get additional possibilities for insuring their price risks.
- In the end, farmers (and other producers of commodities) have an incentive to increase their productivity because they have to bear less (price) risks.
Overview of the Argumentation

1. Moralizing ≠ Ethics

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• Competitive markets can lead private action to promote public welfare.

• In scrutinizing the potential sources of malfunctions in the business sector, economists have become aware that the institutional framework plays a decisive role in shaping competitive forces towards good or bad results.

• Thus, economists came to the conclusion that many market problems have their origin in political problems, especially where politics is responsible for deficits in the institutional framework of competitive markets.

• The core insight here is that market failure might result from political failure. Hunger and malnutrition are often not the consequence of poorly working markets. Moreover, political failures in developing countries often cause hunger and malnutrition.
Economics can also Learn from Ethics

- Ethics can help by pointing to a quite different source of political failure.
- If false beliefs dominate the public perception of a problem or the perception of possible solutions, this might lead to a "discourse failure" (Pincione/Tesón 2006) that pressures political actors to take certain measures even if these in fact defy the common good.
- Claims by civil society organizations to drastically reduce or even prohibit index fund activity in commodity futures markets, intended to protect agricultural production against shocks, might instead — un-intentionally and even strictly counter-intentionally! — be detrimental to the moral aim of improving global food security.
- Therefore ethics, specialized in criticizing (erroneous) moral criticisms on moral grounds, can complement economics. Ethics can provide arguments that guard against "discourse failures"
1. Moralizing ≠ Ethics
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The dramatic price increases experienced in recent years were caused by shocks and structural developments in the real economy. They were intensified by political coordination failures.

- Global population growth combined with a global increase in per capita income boosted the consumption of meat, which in turn increased the demand for agricultural commodities, especially animal feedstuff.

- The promotion of bio energy led to competition between the use of commodities as a fuel as opposed to as a food (food vs. fuel dilemma).

- In 2007 and 2010/2011, adverse meteorological events caused significant price increases that were exacerbated by low stock inventories.

- Many countries reacted to these price increases by initiating policies that, in retrospect, contradicted the expectation formation of market participants, causing severe difficulties for the price discovery process. These highly controversial policies were taken by both exporting and importing countries.
Overview of Policy Recommendations

- **Field 1: Empower Futures Markets**
  - Better transparency (EMIR); avoid overregulation (MiFID)

- **Field 2: Measures to Increase Global Food Supply**
  - Support R&D and encourage both private and public investment

- **Field 3: Measures to Solve the Food vs. Fuel Dilemma**
  - Reconsider “greening” strategy in times of hunger

- **Field 4: Prevent Policy Coordination Failure that Endangers Food Security:**
  - Reform the WTO Uruguay Round Green Box Agreement (Annex 2) that allows governments to implement protectionism – one important reason for price explosions!

- **Field 5: Prevent Market Intervention that Endangers Food Security**
  - Improve Risk Management and Social Security in Developing Countries
The Impact of the Real Economy on Agricultural Prices

The figure summarizes important causes for crises by the real economy. We find: (1) macro economical shocks, (2) structural trends of an increasing demand, (3) competition in the usage because of a promotion of bio fuels, (4) decreasing stocks, (5) adverse meteorological events, (6) political mistakes.

Price index for weighted prices according to the amount of traded wheat, rice, corn and soya

Index: January 2002=100

Source: Trostle et al. (2011; p. 9).
The Consumption of Meat Increases

Increasing per capita income changes the diet of former poor people. The consumption of meat increases. That causes an overproportional increase of the demand for agricultural commodities.

Source: IFAD WFP FAO (2012; S. 19).
Political Reactions during the Crisis in 2007/8

*Producing countries applied exceptions of the WTO rules and tried by means of export limitations or even bans that aimed on holding food commodities within the home countries. That caused panic on the markets. Furthermore, importing countries tried to react with public policies. These policies additionally increased the prices.*

<table>
<thead>
<tr>
<th>Exporting countries reduce supply (beginning in autumn 2007)</th>
<th>Importing countries increase demand (beginning in January 2008)</th>
</tr>
</thead>
</table>
| China withdraws subventions for export. China, Argentina, Russia, Kazakhstan, and Malaysia increase export tariffs. Argentina, Ukraine, India and Vietnam introduce quantitative export restrictions for wheat and rice. Ukraine, Serbia and India forbid exports of wheat. Egypt, Cambodia, Vietnam and Indonesia forbid exports of rice. India forbids exports of rice (except Basmati). | These countries reduced import tariffs:  
• India (for wheat flour)  
• Indonesia (soya and wheat)  
• Serbia (wheat)  
• Thailand (pork)  
• EU (grain)  
These countries increased their stocks for rice by means of public purchases:  
• Philippines  
• Malaysia |

Source: Own figure, referring to Trostle (2008; pp. 23-24) and – especially for the rice market – the detailed overview of Dawe and Slayton (2011; Figure 9.2, p. 175).
### Political Reactions on the Crisis in 2010/11

Two years later, politics repeated the same mistakes. This holds especially for importing countries.

<table>
<thead>
<tr>
<th>Exporting countries reduce supply (beginning in August 2010)</th>
<th>Importing countries increase demand (beginning in December 2010 till March 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia bans export of wheat. Belarus incurs a crop failure of 30% for canola oil and bans exports.</td>
<td>Turkey suspends tariffs on wheat imports for the public sector. China, Jordan and Algeria tremendously increase their imports of wheat. Bangladesh, Taiwan and Russia reduce tariffs for imports of some agricultural commodities. Afghanistan, Indonesia, Egypt, Iraq and Tunisia tremendously increase their imports of wheat. The European Union suspends tariffs for importing barley and wheat for feed. Turkey suspends tariffs on wheat imports of the private sector.</td>
</tr>
</tbody>
</table>

Source: Own figure, referring to Trostle et al. (2011; Table 3, p. 20).
<table>
<thead>
<tr>
<th>Policy Measures in 81 States in Reaction to the Crisis in 2006-2008</th>
<th>Afr</th>
<th>Asi</th>
<th>Lat</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>33</td>
<td>26</td>
<td>22</td>
<td>81</td>
</tr>
<tr>
<td>Foreign Trade Policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrictions on exports (up to prohibition of exports)</td>
<td>8</td>
<td>13</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Relaxation of import restrictions (Suspense of customs duty)</td>
<td>18</td>
<td>13</td>
<td>12</td>
<td>43</td>
</tr>
<tr>
<td>Internal Trade Policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Targeted tax reductions (e.g. reduced VAT rate)</td>
<td>14</td>
<td>5</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Sale of stocks for low prices</td>
<td>13</td>
<td>15</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Price ceilings (including prohibition of hoarding)</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Support for Supply Side</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Subsidies (e.g. cheap-rate loans, fuel subsidies)</td>
<td>12</td>
<td>11</td>
<td>12</td>
<td>35</td>
</tr>
<tr>
<td>Subsidies for fertilizers and seeds</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Interventions (e.g. state programs for regrating farm produce)</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Market support (e.g. public price information)</td>
<td>4</td>
<td>9</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Support for Demand Side</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income policies (public employment programs)</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Ear-marked money transfers to poor people</td>
<td>6</td>
<td>8</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Direct food supply for people in need</td>
<td>5</td>
<td>9</td>
<td>5</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Demeke et al. (2009).
Relevance of Stocks for Buffering Shocks

Because of low stocks, quantity adjustments result in extreme price reactions: An inelastic demand interacts with an inelastic supply.

Source: Own figure referring to Wright (2011; Figure 7, p. 38).

If due to low stocks shocks cannot be buffered, even small supply shocks can cause extreme price increases.
The Stock-to-Use-Ratio is an indicator for food crises. If the ratio falls below a critical value (near 20%), massive price increases can emerge (grey areas).

We find high price increases within the periods that are marked grey. Before these periods (especially before 2008), stocks went down, not up. This indicates that the food crisis was not caused by speculation.
The Level of Speculation and Index Fund Investments have Increased

The amount of capital employed (Total Commodity Assets under Management in Mrd. US$) has strongly increased in the period 2003 till 2011.

The aggregate value of all commodities has increased just as the value of agricultural commodities.

Time Lags between Speculation and Price Rises

We can find higher prices. However, there are huge time lags between the increase of speculation volume and price rises. These lags cause doubts if there is causality.

Source: Sanders and Irwin (2011; Table 1, p. 525).
Real Food Prices Decreased Since 1900 Despite of an Increasing Global Population

Food-Price-Index 1977-79 = 100

Global Population in Billions

Sources of Growth for the Global Food Production, 1960-2009

Growth p. a. (in %)

Sources of Growth:

- Total Factor Productivity
- Input-Intensification
- Irrigation
- Bigger Cropland

Fuglie and Wang (2012; Figure 3, p. 4).
What We can Learn from Onions about Speculation

The monthly volatility for onions (in percent) is in general higher than the volatility of crude oil because there is no future market for onions.

The USA banned a future market for onions in 1958. Therefore, market participants have no possibilities for inter-temporal balances. That increases tremendously volatility. Without speculation, volatility increases!