



# Food Speculation

The price of agricultural commodities is more important than nearly all other products. If this price goes up, it can mean hunger for millions of people. For instance, in 2007/2008 a price explosion for grain and other commodities caused malnutrition in an estimated 115 million people in developing countries. The prices subsequently dropped, only to soar again three years later, surpassing previous highs by spring 2011 and now remaining high (cf. chart 1). Again, an estimated 44 million people fell into extreme poverty, according to World Bank.

## 1. Physical and futures markets

The all-important prices for agricultural commodities are derived differently, depending on the commodity. Some products, such as rice, tend to be traded on national or regional markets; others, such as wheat, are traded strongly on international markets and exchanges. Physical commodity trading is dominated by huge multinational corporations which also have large stocks. This allows them to speculate with the harvest to maximise their profits.

However, commodities are not only traded physically, but are also subject to forward buying. This business is called “forward” or “over the counter” (OTC) trading if it takes place bilaterally, and “futures” trading if on multilateral exchanges. It is particularly developed in the United States while in the European Union fewer agricultural commodities are traded on a large scale on exchanges. This is due to the former Common Agricultural Policy which controlled the physical markets. However, the London and Paris exchanges are large as well.

Food producers like farmers, on the one hand, and food processors like millers, on the other, can pre-sell or purchase agricultural goods with futures, thus protecting themselves from price fluctuations and reducing their risks. Often, this is not done by the farmers themselves but grain traders. In addition, there are further intermediary traders which accept risks and provide additional liquidity, drawing profits from price differences.

Because physical delivery can be replaced by cash payments without any physical delivery,

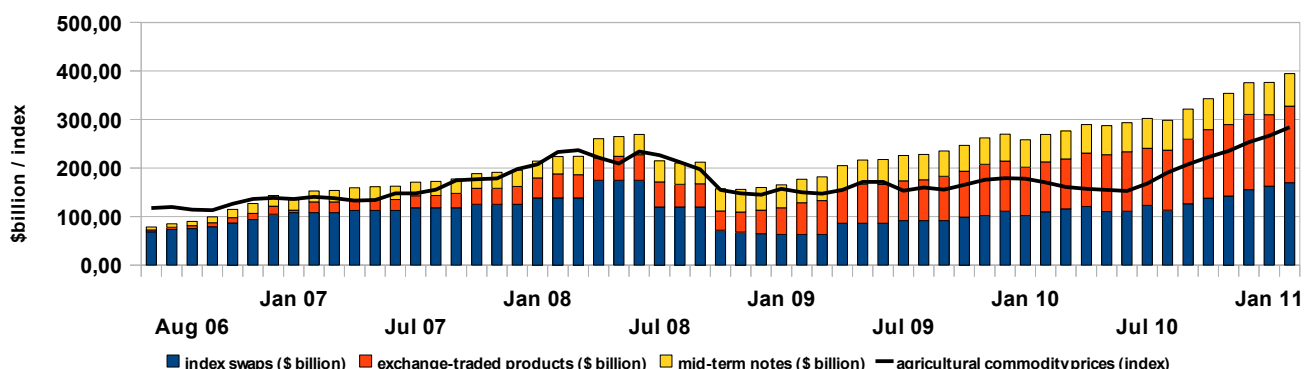
futures no longer require the seller to possess the actual goods. Thus their volume can be separated from the actual quantity of the commodity and can increase indefinitely as long as enough intermediaries want to deal with them. In the past, though, relatively few speculative intermediaries speculated on futures markets. Moreover, regulatory agencies normally imposed rules to limit the extent of speculation, for instance by regulating delivery dates, delivery locations, the timeframe for buying, certified stocks, storage fees, position limits, price limits and other factors.

## 2. Growing influence of financial players

However, limits in the United States began being lifted in the 1990s, especially with the Commodity Futures Modernization Act in 2000. Since then, financial speculators – funds and banks – from all around the world have moved onto the market in large numbers. At the moment, Barclays Bank estimates commodity assets of about \$400 billion (cf. chart 1). Most of the money is channelled through so-called index funds which mainly invest in futures betting on higher prices according to a buying recommendation set up by banks like Goldman Sachs. Even pension funds have put large sums of money into this. The total volume of commodity indexes has increased more than tenfold in five years according to a report by the US Senate: from an estimated \$15 billion in 2003 to around \$200 billion in 2008. The number of daily outstanding contracts held by index traders on the Chicago Mercantile Exchange grew from approximately 30,000 in early 2004 to 220,000 in mid-2008 (cf. chart 2 for the Chicago wheat future). Next to index funds, hedge funds are also very active. In June 2010, one single fund bought almost all cacao futures on the London exchange, equivalent to 7% of the world’s cocoa harvest.

These financial speculators either push the exploitation of price trends and exacerbate herding behaviour. Or – in contrast to classic intermediaries – they are not familiar with the physical market and tend to invest for reasons that have nothing to do with the physical market, e.g. to protect them-

Chart 1: Commodity assets under management and agricultural commodity prices (source: Barclays, BIS)



selves against price fluctuations on financial markets. Financial speculators cannot suspend the laws of supply and demand on a long-term basis. But short to medium-term explosions in price are possible.

### 3. Speculation versus fundamentals

Supply and demand in the physical markets, the so-called fundamentals, cannot explain the strong price volatility of the last five years. While many observers initially argued that the price explosion of 2007/2008 was related to weak harvests, rising demand from countries such as China and the growing production of bio-fuels, there are many doubts about these reasons. Bio-fuel and emerging market demand was unabated while prices plummeted, and important emerging countries like China are still self-sufficient for important grains such as corn and wheat. Furthermore, the wheat harvests in the last two years were amongst the highest on record, so the current price spike cannot be duly justified.

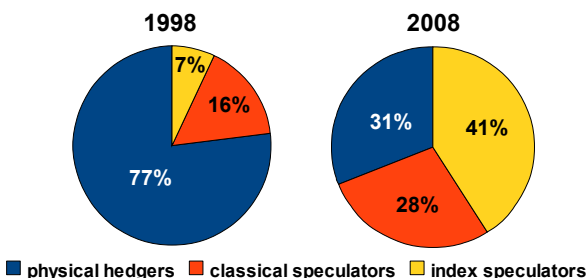
Good theoretical arguments can be made for asserting that speculation on futures markets has affected the physical markets. First, the “weight of money” on the part of financial investors cannot leave the futures markets unchanged. Secondly, the futures market should always predict the price on the physical markets. Thus it is also taken as a benchmark by many farmers if they sell their harvest, or it is even included in contracts. This means that price changes in futures markets are definitely transmitted to the physical markets.

Finally, more and more academics acknowledge that speculation can contribute to short- and mid-term price distortions even though the extent of the influence is still being debated. Amongst others, studies show causations between futures and physical market prices, higher interdependence of commodities covered by index funds compared to commodities in general, and increasing correlation between financial and commodity markets.

### 4. Regulation and alternatives needed

Given that hunger still exists in the world, even small price increases that are driven by financial investment are scandalous. The damage that financial speculation can cause requires regulation. This includes limiting the futures positions that speculators can take. As Ann Berg, former commodity trader and now FAO advisor, stressed, “Over 150 years of futures trading history demonstrates that position limits are necessary in commodities of finite supply to curb excessive speculation and hoarding.” However, only limiting the posi-

Chart 2: Chicago wheat future (source: Better Markets)



tions seems inappropriate and could be circumvented. So it would be more efficient to prohibit trading by funds and banks and only allow special traders as intermediaries.

With its July 2010 reform law (“Dodd Frank Act”), the USA has learned from the errors of the past few years and is once again restricting financial speculation. This includes higher reporting standards and stronger position limits without exemptions for financial speculators.

As European markets are growing and as stricter US regulations could induce speculators to sidestep the American market for European exchanges, reforms are currently being debated in the EU, too. The European Union is revising its regulations for financial instruments including commodity derivatives. The plans include creating new trading platforms and requiring that OTC trades are limited and fulfil transparency and capital requirements. For commodity derivatives, weekly reporting and position limits are foreseen. However, there are still many loopholes and shortcomings. Given the problems that commodity futures markets have caused, it is prudent to explore basic alternatives. These include the regulation of the physical market as formerly in the EU, regional or bilateral treaties between states, and the build-up of higher, more reliable reserves at all levels.

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### Further reading

- Baffes, John / Haniotis, Tassos (2010): Placing the 2006/08 Commodities Boom into Perspective. World Bank, Washington DC.
- Berg, Ann (2011): The rise of commodity speculation: from villainous to venerable. FAO, Rome.
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- Tang, Ke / Xiong, Wei (2011): Index Investment and The Financialization of Commodities. Princeton.
- United Nations Conference on Trade and Development (UNCTAD) (2011): Price Formation in Financialized Commodity Markets: the Role of Information. Geneva.

**Publisher:** Weltwirtschaft, Ökologie & Entwicklung, WEED e.V., Eldenaer Str. 60, 10247 Berlin

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**Note:** This factsheet is part of a project co-financed by the European Union and the Ford Foundation. Its contents are in the sole responsibility of WEED and can under no circumstances be attributed to the EU or the Ford Foundation.



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