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Food Speculation The Main Factor of the Price Bubble in 2008

Briefing Paper

by

Peter Wahl

This paper has been financially supported by the Ford Foundation.
The views expressed in the paper are those of the author.

Impressum:

WEED - Weltwirtschaft, Ökologie & Entwicklung
Eldenaer Straße 60
D-10247 Berlin
Phone: +49-30-27582163
Fax: +49-30-27596928
www.weed-online.org

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SUMMARY

This paper argues that speculation on food prices has played the decisive role in the price bubble in 2007/2008. Given that other factors which influence food prices, such as increasing demand of emerging markets countries, stagnation in production or the use of agrofuels are long term factors, they cannot explain that the FAO food price index increased by 71% during only 15 months between the end of 2006 and March 2008 and fell back after July 2008 within few months to the level of 2006. This hike can only be understood by looking at the mechanisms of food speculation.

The paper describes in detail the difference between speculation and investment, explains how speculation in general and food speculation in particular works and describes the emergence of the speculative bubble in food prices beginning in late 2006.

The paper describes different types of speculation with agricultural futures, such as the *Commercial Trade*, the so called “good speculation” but also the more harmful speculation by which Institutional Investors such as Index and Hedge Funds.

When the financial crisis aggravated end of 2007, institutional investors left their traditional markets and started to heavily invest in commodities, particularly oil and agricultural products, accelerating already rising prices and thus creating a speculative bubble. It also analyses the relation between spot market prices and the prices for futures.

The paper argues that the speculative move on commodity markets distorts prices, reinforces instability, increases market inefficiency and periodically leads to the formation of bubbles. The worst effect however is the aggravation of hunger in developing countries. The price bubble has pushed 120 million additional people into poverty. Behind the façade of pinstriped respectability lurks misery and hardship for millions of people.

To address these problems, the paper proposes as a first step the combination of two technical measures to prevent destabilizing speculation: First, the introduction of a trade register at the stock exchanges, which will prevent Hedge Funds and other speculative business models. And secondly, authorized traders would be strictly regulated to restrict *commercial trade* to its insurance function (hedging), thus preventing the formation of speculative bubbles.

As a more far reaching proposal, the paper suggests to keep out trade in basic food commodities from the market and to develop an international system of food security for poor countries under public (UN) control.

Food Speculation

The Main Factor of the Price Bubble in 2008

"Speculators create the bubble which lies above everything. They increase prices with their expectations, with their bets on the future, and their activities distort prices, especially in the commodities sector. And that is just like secretly hoarding food during a hunger crisis in order to make profits from increasing prices."
George Soros

Introduction

Hunger revolt in Haiti! Bread rebellion in Cameroon! These and similar headlines shook the media in the Spring of 2008. What had happened? The food prices increased drastically worldwide (see Figure 1). The FAO food price index which covers the prices of the most important food commodities showed a price increase of 71% during the 15 months between the end of 2006 and March 2008. The increase was particularly dramatic for rice and cereals where the prices sky-rocketed to a peak of 126% in this time period.

The poor are affected the hardest. In an industrial country, the proportion of expenditure for food in a typical household budget amounts to 10% - 20 %, whereas it is between 60% and 80% in the LDCs (FAO 2008). According to a U.S. Department for Agriculture calculation, a 50% price increase on basic food leads to a mere 6% rise in expenditure for a high income country, but it amounts to 21% for a food importing country of low income (U.S. Department for Agriculture. Economic Research Service. 2008: p. 25).

Apart from individual misery, food price increases also have negative macroeconomic effects: the balance of payments of food importers deteriorates. The FAO estimates that food costs of the LDCs 2008 will again increase by 37% - 40 %, after having already risen by 30% - 37% in 2007. This means a quadruplication in comparison to 2000. The danger of debt is also increased again. Additionally, the food price increases stimulate inflation. According to UN estimates, they account for up to a third to more than one half of the nominal rate of inflation in developing countries, particularly in Asia.

The price excesses are a threat to food security and thus one of the basic human rights: the right to freedom from hunger and malnutrition. These are heavy burdens for many development economies. They will contribute to completely destroying the prospects for reaching the *Millennium Development Goals*.

But there are also those who profit from this misery. Thus, in May 2008, one could read the following advertisement on the bread roll bags of Frankfurt bakers: "*Are you happy with increasing prices? The whole world is talking about resources - the Agriculture Euro Fund offers you the possibility of participating in the growth of seven of the most important agricultural commodities.*" The offer was made by the *Deutsche Bank*, which wanted to gain customers for one of its investment funds. And how does participation in the "growth" of commodities work? With speculation.

1. Speculation, the main cause of the sharp increase in prices

The factors governing the pricing of agricultural commodities are complex. No single factor alone determines the price.

Firstly, one must distinguish between long-term and short-term factors.

The long-term factors include:

- a. increasing demand, predominantly through the economic rise of emerging economies, especially through the adoption of western consumption habits by the middle classes. The Chinese, for example, are increasingly consuming dairy products;
- b. agricultural productivity. The trend in productivity is stagnating in many developing countries. This is due to under-investment and structural adjustment programmes which have imposed a priority of export orientation instead of national food security, as well as the liberalisation pressure due to the WTO and bilateral trade agreements or the decline by half in the ODA (official development aid) for agricultural promotion between the 1980s and the present day (World Bank 2008b, p. 41).
- c. production of agrofuels. Over the last ten years, the US and the EU, but also Brazil, have started to cultivate renewable agricultural commodities (among others, rape, sugar cane) to produce ethanol and diesels on a large scale in the search for alternatives to mineral oil. The cultivation of agrofuels absorbs agriculturally productive land, and this can lead to a substitution effect and therefore to a reduction in food production.
- d. the reduction of food stocks, particularly in the EU.

The short-term factors include

- e. the increase in the oil price in 2007/2008 as well as fertilizer prices;
- f. bad harvests in 2006 and 2007 in Australia, one of the world's biggest grain exporters;
- g. the U.S. dollar exchange rate fluctuations, the lead currency in international trade; or changes in the value of national currencies, such as the temporary decrease in the dollar exchange rate as a result of the financial crisis;
- h. export restrictions on food by governments which want to guarantee food self-sufficiency for their own countries due to the explosion in food prices. However, this well-intentioned measure also contributes to the food supply shortage on the world market and consequently increases prices
- i. and finally, speculation.

When the food prices sky-rocketed in 2007, the role of speculation was mentioned as an afterthought or completely ignored by mainstream economists. Instead, mainly long-term factors such as the increase in demand and the production of biogas were made responsible for the drastic price increases. A World Bank study even claimed that agrofuels contributed a proportion of 70% to the food price increase.

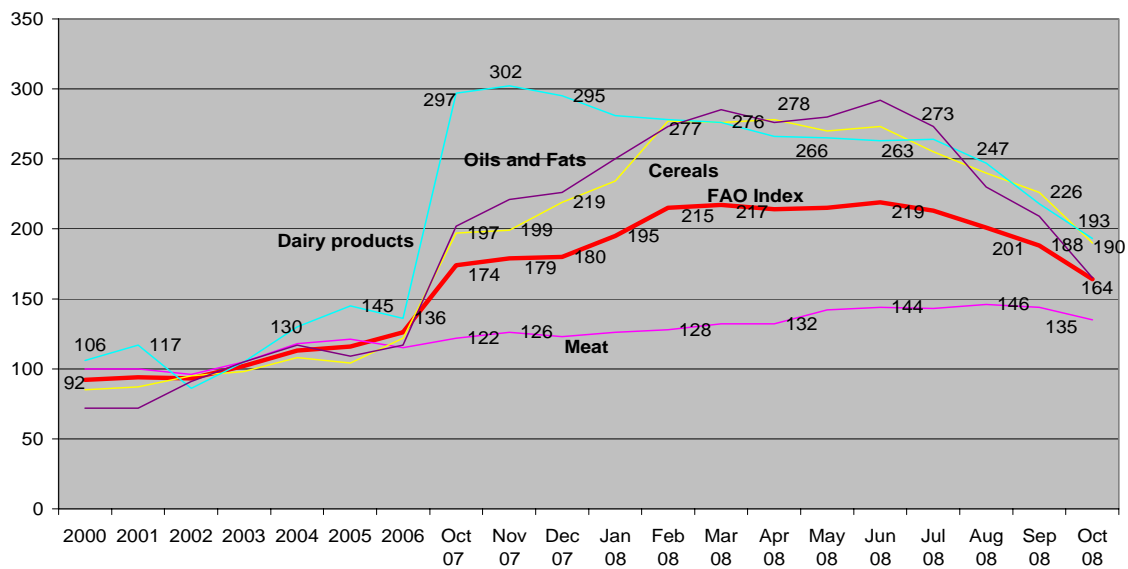
In a study on the food crisis, even before the food price reversal, UNCTAD pointed out that this factor could not be so important in increasing prices to more than double in such a short time period. For example, the price of rice increased by 165%

between April 2007 and April 2008, and rice cannot be used for biogas, and there is no substitution of acreage in the countries where it is grown, either.

It has become incontestably clear since the decrease in food prices from July 2008 at the latest, that neither increasing demand in the emerging economies nor agrofuel production caused the food price trend. It cannot be that the Chinese suddenly start to eat much more yoghurt only to stop again just a few months later. Neither has agrofuel cultivation risen so sharply only to decrease again just as abruptly. Short term factors, such as poor harvests, did not play a role in the price upswing either.

Figure 1

FAO Food Price Index
(1998-2000 average = 100)



Source: FAO

Moreover, speculation in connection with the financial crisis is the decisive factor. We are dealing with the classic case of a speculative bubble which was built up in the second half of 2007. The crisis in the mortgage sector in the US, which was also the result of a huge speculative bubble, started to spread across the whole financial sector. People in the financial market sought alternatives in the commodity sector and the bubble started to form. It reached its maximum in Summer 2008 and then burst (see the more detailed section 3.1.2.).

Meanwhile, even mainstream economists no longer deny that speculation at least contributed to this bubble. Thus, the BMZ describes speculation as one of the reasons for high food prices in April 2008: "*the international capital markets have become aware of the agricultural markets again in their search for lucrative and relatively safe investment areas of the future. This causes more volatility, especially when participants act in a strongly speculative way.*" UNCTAD also identifies speculation as a factor for the agricultural commodities price bubble (UNCTAD 2008). In the meantime, even the World Bank acknowledges that speculation shares the responsibility for the price increases even if it considers speculation as a subordinate

factor (World Bank 2008). And even the IMF can no longer ignore the facts when writing very vaguely that *pure financial factors, including the mood of the markets, can have short term effects on the price of oil and other commodities* (IMF 2008).

The U.S. supervisory authority very clearly speaks out against the trade in commodity derivatives. The CFTC (*Commodity Futures Trading Commission*) probably possesses the best expertise with respect to the US Markets, and observes that *the commodity markets have begun to set the price of commodities as an asset instead of setting the price solely according to factors of supply and demand. They have therefore created price distortions, or possibly even a speculative bubble*. In plain language:

- j. The commodity market has detached itself from the fundamental data of the economy,
- k. commodity prices, as can be seen in the futures market, have become a source of monetary wealth accumulation,
- l. the prices have thus become a target of speculation,
- m. this has caused the formation of a bubble, the excessive foodstuff prices, i.e. speculation has added a price bubble on top of the price increases resulting from real economy.

A complex package of countermeasures is therefore necessary in view of the threat to the livelihood of millions and millions of people who can no longer afford their daily bread, and this package should deal with all the factors causing the price increases. The industrial countries carry a special responsibility for measures to counter speculation. Whereas there are scarcely any opportunities to act against the cultivation of agrofuels in Brazil or the long term increasing demand for agrofuels, direct measures can be taken against speculation. Speculation is occurring in the commodities markets of the industrial countries and the instruments for regulation exist there as well. For example, on September 18th, 2008, both Great Britain and the US have banned a certain type of speculative business, so-called *short selling* (see details below). This was part of the crisis management in view of the financial crash. If the financial crisis is a reason to use this set of instruments, then the threat to the livelihoods of millions of people in the developing countries is a reason any time.

2. What is speculation?

Speculation does not occur in mainstream economics, neo-classical theory. At the most, speculation is dismissed as an obsolete category in Keynesian, Marxist or other heterodox positions.

Instead, what these theories describe as speculation is understood to be *investment*. Therefore, everything is considered as investment for which assets are used on the basis of a future expectation of achieving profit at a later date. Thus, for example, the neo-liberal stock exchange dictionary of the *Frankfurter Allgemeine Zeitung* defines speculation as follows: "*in the explicit meaning of the word, an anticipatory action taken in relation to the future with the aim of forestalling future developments in one's own dispositions and achieving an (economic) profit.*"

At the same time, the dictionary complains in the same article that "*expressions such as 'speculation' and 'speculator' etc. are used rather in a negative sense and*

speculation is not recognised as one of the most decisive incitements behind economic behaviour".

Thus, according to this definition, there is no difference at all between building a factory, a farm or starting up a trading or services business - that is, everything that is considered as part of the *real economy* - and the design and sale of a *Collateral Debt Obligation* (CDO), one of those toxic derivatives which played an essential role in the financial crash. To the neo-liberals, everything is an investment.

However, there is a fundamental difference between investment and speculation. Although a future expectation applies to both as a starting point, their respective logics diverge. Added value is made possible with a real economic investment. A business is established (or an existing one is expanded), and with a successful investment it is capable of extended reproduction through its own means, it is self-supporting and sustainable. The corporate profits are then nurtured by the permanent appropriation of the surplus value.

The objective of speculation, however, is to profit from a future difference in the prices of assets. Speculation can occur with commodities as well as with businesses and financial assets. If, for example, a farmer does not place his potato crop on the market as soon as it is harvested, but hoards it for a couple of weeks because he expects that the price will be higher, this is speculation. No real, additional value is created, there is merely speculation on a higher price. If a lot of potato farmers do this simultaneously, a speculative bubble is formed, i.e. the potato price increases during six weeks because the hoarding causes supply shortages.

Speculation can occur with all kinds of goods. There are, of course, differences in extent depending on the characteristics of the object of speculation. After a couple of months, potatoes turn bad and cannot be sold. There are no such limitations on gold, or even black gold (crude oil), for instance.

Speculation with companies occurs via the *Private Equity Fund (PEF)* business model as well as partially through mergers of companies and take-overs. PEFs buy a company, restructure it in order to then sell it again for a profit after a maximum of five years. There is no interest in future perspectives of the company such as expanding market shares, technological innovation, employment, etc.

The economically most important form of speculation has developed in the financial sector during the past two decades. Bets are made on the future development of price differences in strategic areas such as interest rates and exchange rates or the price trends of securities (shares, private and public bonds, derivatives etc.).

Among *institutional investors* - strictly speaking, they should be referred to as *institutional speculators* and *speculation banking* instead of *investment banking* - the search for such price differences has become extremely sophisticated and specialised: computer programmes facilitate completely automatic searches every second to detect possibilities of profiting from price differences, even of thousandths of a unit. By investing huge sums, as the *institutional speculators* do, exorbitant profits - or losses - can be obtained.

Another important feature of speculation is that profits are not only possible with rising prices and rates but also when they decrease (see section 3.4.)

Speculation creates no added value. In contrast to the real economy, gains are not sustainable or self-supporting, but can only be repetitively achieved through new

speculation activities.

Investment and speculation are also fundamentally different when they fail. When a company goes bankrupt, the fixed assets, the machines, the production procedures, etc., remain and can be used for further wealth creation. When a speculation fails, the assets dissolve into nothing.

This is the greatest problem with speculation: the macroeconomic consequences for stability. When speculation has become an important part of wealth accumulation, then the system is highly unstable. Even in times when there is no crisis, volatility has a structural impact.

3. How does food speculation work?

Speculation on the food markets is not new. In the 17th century, already, speculators bought the harvests of Japanese rice farmers even before they were harvested. The original motive was safeguarding, virtually an insurance (*hedging*). The logic was as follows: a farmer negotiates with a speculator in January that the speculator will buy the harvest at a fixed price in August. The arrangement is fixed by a contract. Such contracts are called derivatives (from the Latin word: derived). And since the contract concerns a future business arrangement, this derivative is called a *future*. Insiders call this kind of speculation *commercial trading*. The most important stock exchanges for commercial trading are in Chicago, New York, Kansas and London.

For the farmer, the advantage of futures lies in the security provided by the fixed price. He has transferred the risk to the speculator. However, security is not available for free. On the one hand, the farmer must pay a fee for the derivative. On the other hand, the derivatives trader will also try to sell a corresponding future to the miller who buys the harvest in August to mill flour. This also creates planning reliability for the miller.

The final price of the harvested grain is thus higher than it would have been if the farmer had sold directly to the miller, given the same conditions, because the derivatives trader's risk premium has influenced the price twice.

However, without the futures, the farmer would have had to bear the risk of price fluctuation himself. If the harvest is good, the supply is huge and the prices fall. The farmer would receive less than he would have obtained with futures. The derivative trader then makes a loss. In the reverse situation, the farmer would have received more without the futures and would have benefited from supply scarcity (and higher prices). In this event, the profit goes to the speculator.

Usually, the commercial trader doesn't physically receive the product when the futures are due. He has negotiated the contract with the miller that he redeems as a counter trade with the farmer (*evening-up*). The harvest physically goes directly from the farmer to the miller. The profit (or loss) of the *commercial trader* (apart from the fees) arises from the price difference when the contract is made and the market price when the futures are due.

At the same time, counter trade reduces risk for the speculator. Since the miller is contracted to buy the harvest at a fixed price, the risk is confined to the price difference between the two futures.

This system is rational under the conditions of a market economy and its

imponderabilities. Especially when the speculators know the markets well and can more or less estimate the risks involved. The prices of futures lie slightly above those of direct trade (described as the *cash* or *spot market*), generally, however, the markets are stable if nothing unusual happens. The profits or losses achieved by the speculators are kept within limits. For all these reasons, *commercial trading* is often described as "good" or "useful" speculation. The CFTC describes these traders as "hedgers", as opposed to "speculators" (see below).

This does not mean that there is no alternative to this kind of speculation. The insurance function and the reliability can also be achieved with other instruments, for example, producer and/or consumer insurance (mutual insurance) or price guarantees by the state. If these options work, they are also more efficient than derivative trade. Commercial trading has enabled other forms of speculation which have had an extremely negative effect on food prices, as described in the following sections.

3.1. The speculative bubble

The spot market, the "good" speculation described as *commercial trading* above, has been a daily business on the food markets since the 19th century. The traders are well-established experts in the market. They possess expertise and information systems with which they can provide relatively reliable forecasts on price trends. Commercial trade is quite closely linked to the fundamentals of these markets.

The costs of their activities influence pricing and thus increase the price. In general, however, the price is largely determined by the fundamentals of the real economy, e.g. product quality, transport costs and availability of supplies.

3.1.1. The role of index funds

On the other hand, there is a category of speculators who for some years have played an increasingly large role in speculation on resources, the commodity *index funds*. Such funds speculate on a basket of up to 20 or more commodities, primarily oil and metals (ores), but also agricultural commodities. Agricultural commodities usually account for 10% - 20 % of the index.

A study by the Lehman Brothers investment bank, which meanwhile has gone bankrupt, shows that the volume of index fund speculation has increased by 1,900% from 2003 to March 2008, from 13 billion US\$ to 260 billion US\$. As can be seen in Figure 1, prices actually start to increase in 2003, even if moderately compared to the price explosion of 2007.

In contrast to commercial trade speculation, index fund speculation is no longer linked to the fundamentals of the food markets. They exclusively follow the trends of the stock exchange indices and their strategies are based on these trends. Trade is largely automated, so that low transaction costs are incurred. Therefore, the investment or speculation behaviour of the funds is extremely pro-cyclic. Consequently, the contribution of the index funds to the food markets price bubble is not only restricted to the period from 2003 to 2007, but also contributed to the rapid increase in 2007. However, this can only be explained by another factor, the flight of hedge funds and other institutional investors from the crisis-ridden financial markets into the commodity markets.

3.1.2. Speculation by hedge funds and other institutional investors

The curve in Figure 1 displays a sharp increase in prices over the last quarter of 2007. The reason being that the subprime crisis in the USA, previously a mortgage crisis, turned into a credit crisis at this time. Whole market segments collapsed, such as, for example, the so-called structured products or certificates, e.g. the Collateral Debt Obligations (CDOs), and the first bankruptcies occurred. Whoever had purchased large quantities of these derivatives now faced problems.

Many hedge funds as well as insurance companies had also speculated in CDOs and other derivatives, especially in categories containing high proportions of subprime securities. These were extremely risky, but also yielded especially high returns. Possible profits for the funds were lost when these markets collapsed.

The crisis situation was aggravated by the general credit and bank crisis to which the mortgage crisis converted. Hedge funds are affected to a large extent, since high leverage is a main principle of their business model. This means that they acquire borrowed capital that exceeds their equity by 30 or 40 times in their operations. When credit resources dried up, the possibilities for leveraged speculation diminished.

Since speculative business in the financial sector increasingly became more difficult or even impossible, the institutional investors desperately looked for new markets. They now entered the commodity markets, primarily mineral oil, but also agricultural commodities. This is where the above mentioned advertisement on the bread roll bag comes in. The "*possibility of participating in the growth of seven of the most important agricultural commodities*" relates to the Deutsche Bank fund investing in food speculation. Agrofutures were bought expecting continuing increasing prices, so that they could be sold later at a profit.

When institutional investors turned to the commodity markets, this affected the price trends. The demand for futures suddenly increased. The established commodity market traders and index funds who were dealing with commodity derivatives were now joined by hedge funds and other institutional investors seeking high yields.

In 2007, the trade in agricultural futures and options warrants increased by 28.6% for energy and by 29.7% for industrial metals. The strongest rise occurred in agricultural derivatives, however, where the increase amounted to just under a third (32%) (UNCTAD 2008b, p. 21). At the same time, the value of commodity derivatives dealt with *over the counter* (OTC) increased by almost 160% between June 2005 and June 2007. From October 2007 until the end of March 2008, the number of contracts at the CME in Chicago (Chicago Mercantile Exchange) increased by 65%, without any real production increase.

A speculative bubble started to emerge. Prices increased again uninfluenced by the fundamentals, because institutional investors were entering the market.

The price increase in derivatives caused a rise also in the spot prices. On the one hand, buyers on the spot markets bought more ahead to put in stock for fear of further price increases. This increased demand caused an upward pressure on prices. On the other hand, sellers delayed sales in anticipation of higher prices, and caused supply shortages. Speculation by hedge funds and others set in motion a whole chain of speculative behaviour by other participants.

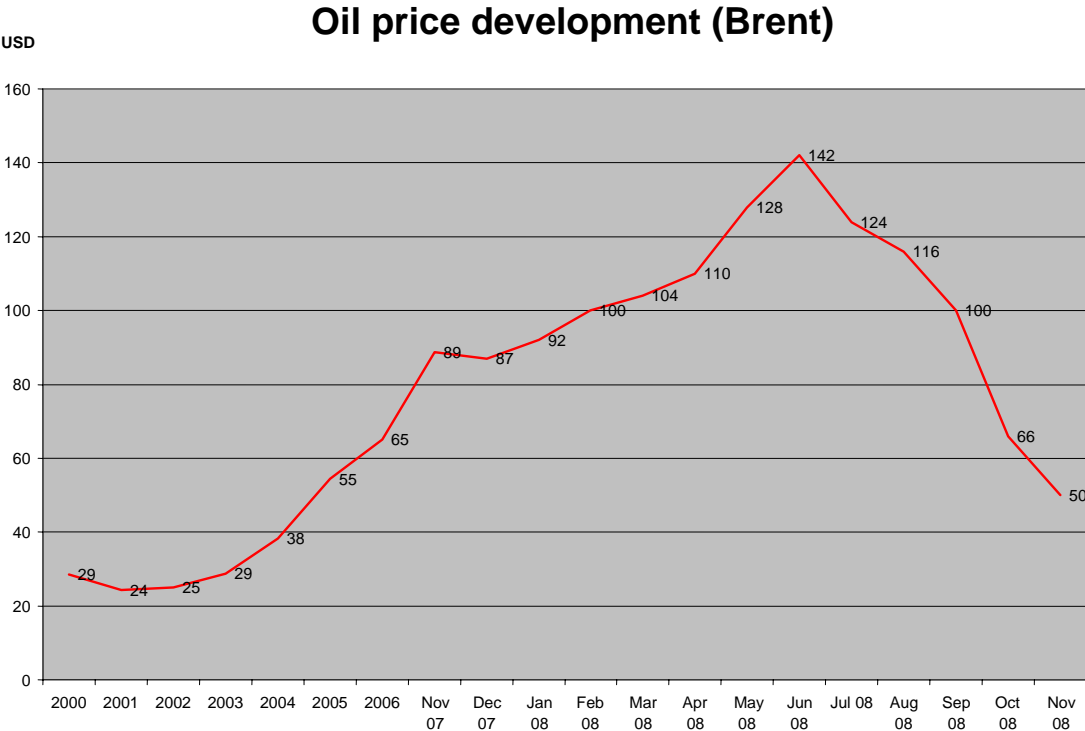
The prices then started to decline drastically in July. This can also be attributed to the

financial crisis which, in turn, experienced a further aggravation in this period. Speculation in commodities now also became too risky for hedge funds and other institutional investors, and a renewed flight was initiated, this time into US Treasury bonds, virtually the last safe haven to which capital could flee.

3.2. The influence of oil price speculation on food prices

Speculation has its effects not the only directly on the food stock markets, there is also an indirect effect through oil price speculation. The oil price is a strategic price since it influences the prices of all other products where oil is involved as fuel in production and distribution. This also applies to agricultural commodities. The production of these goods requires tractors and other machines which need petrol, and petrol is also needed to transport them to the consumer. Similarly, fertilizers also need oil.

Figure 2



Source: BP 2008

Until Summer 2008, the high oil price was explained by factors such as the huge petrol demand of the Chinese economy and other emerging economies as well as by the *Peak Oil thesis*. But a drop from almost US\$ 150 to US\$ 45 per barrel showed that general speculation and capital flight from financial markets to commodity markets was a decisive factor in the oil price development. Such an extreme fluctuation can only be explained as a result of a speculative bubble. From Autumn

2008, the expectation of a worldwide recession with a corresponding drop in demand for oil certainly also plays a considerable role. There is a strong resemblance between the course of the oil price trend and food prices. There is also a sharp increase in the first half year of 2008 followed by an equally sharp fall. The second capital flight which started with the aggravation of the financial crisis is evident, too. The oil speculators also turned to US treasury bonds at that point.

3.3. The extent of price increases caused by speculation

For several reasons, the exact extent of the effect of speculation on price increases is impossible to determine. This also applies to the other factors involved in pricing. For example, statistics do not distinguish between established traders and new speculators. Hedge Funds operate in a completely non-transparent way, and are generally located in offshore centres and tax havens where there is no supervision. The OTC traded derivatives are of an incalculable factor, as the investment banking crash in September 2008 has shown. Even the U.S. senate has to rely on estimates. *Although it is difficult to quantify the effects of speculation on prices, there are reliable indications, according to the U.S. Senate, that the large extent of speculation on the markets has contributed considerably to the price increases.* (U.S. Senate 2006, p. 2). The U.S. senate assumes that the only proportion of speculation effects on the oil price amounts to 20% - 25%.

Food pricing is also affected indirectly by the oil price and the price increases caused by the decline in the dollar exchange rate.

When prices have fallen again, this provides a certain ex post indication of the quantitative contribution of speculation. This has reoccurred with almost all commodities, including oil and food, after the peak of July 2008. Long term factors, such as *Peak Oil*, increasing demand by emerging markets, and agrofuel, cannot have had such an effect. Analysing the 2008 bubble when prices virtually doubled at first and then fell to about half the price, leads to the conclusion that the lion's share of the price increase 2008 was due to direct and indirect speculation.

Note that bets are not only made on rising prices, but also on declining prices.

3.4. Speculation on falling prices

How does this work?

First phase: On September 1st I complete a contract (forward) *over the counter* and I obtain the right to sell ten thousand tons of rice at the current daily price of 1,000 dollars per ton one month later (October 1st). The fee for the forward contract amounts to 0.1% of the face value of the underlying business, i.e. 100,000 dollars.

Second phase: In September the price of rice declines by 20%.

Third phase: On October 1st I purchase ten thousand tons of rice (on the spot market or, usually, with another derivative) at the current daily price, i.e. 800 dollars per ton. Total cost: 8 million dollars.

Fourth step: I then transfer the thousand tons I acquired at a cheaper rate to the trader from whom I bought the forward the previous month, and receive the agreed price of 10 million dollars. Gross profit: 1.9 million dollars.

This form of speculation is called *short selling*, since I do not yet possess the product at the time of sale. I speculate that I can acquire the product at a cheaper rate when it is due. A variant of short selling with shares consists of borrowing the shares that are expected to decline and then putting them on the market. If this occurs on a massive scale, this causes a decline in share prices. Then the borrowed shares can be bought back at a cheaper rate.

Whereas hedge funds in general made a loss of 3.55% in 2008, short selling made a profit of 10%.

Some could argue that speculation is good and useful in causing prices to decline. However, the problem is that speculation on falling prices is detached from the real economic data and leads to an exaggerated decline in prices. This then leads to losses on the supply side, i.e. primarily for the producer, practically the opposite of a bubble, a slump.

Exaggerated price declines contributed to the downfall of the large investment banks (Lehman Brothers, Merrill Lynch etc.). Hedge funds speculated on falling share prices of these banks when they perceived the first difficulties of the banks. This reinforced and accelerated the share price collapse to such an extent that the supervisory authorities of Great Britain and the USA decided to prohibit short selling.

This will not work over the long term, and encourages speculators to again speculate on rising prices. In this interplay of imbalances and distortions, volatility and instability is not only the breeding ground that enables speculation to prosper, but speculation itself increases and exaggerates the already existing factors of uncertainty. Short selling is therefore part of the overall problem. Therefore speculation distorts prices – whether they are falling or increasing prices. It reinforces instability and causes additional costs and thus consequently increases market inefficiency and periodically leads to the formation of bubbles. Therefore policies are now more than ever necessary against speculation, especially if speculation contributes to the misery that endangers the livelihoods of millions of people in the developing countries.

4. Alternatives

The formation of speculative bubbles linked to food prices can be prevented by the combination of two technically relatively simple measures:

- a. the introduction of a trade register at the stock exchanges,
- b. and corresponding regulation of authorized traders.

All those who trade in food on the spot or derivative markets would need to be registered. Only those traders who enable hedging, know the market and are subject to stock exchange supervision would be permitted. Hedge funds and other speculative business models would not be admitted. Highly speculative activities such as short selling, dealing in OTC derivatives and index derivatives would have to be prevented.

Speculation would then be restricted to its security function (hedging) for buyers and sellers, and the formation of speculation bubbles would be prevented. Political will is decisive for this to be achieved. The chances are not too illusory. The present crash has shaken the financial markets so that the casino-capitalism which has emerged since the end of the Bretton Woods system has been discredited to an

unprecedented extent. Far-reaching political regulations, especially emanating from the US, are not out of reach any more.

This offers a unique opportunity to civil society, especially to the development NGO community, to exert corresponding political pressure and present proposals on a development-friendly restructuring of the financial system. Civil society should not just suggest reforms in line with the market. This crash of financial market capitalism - which has spread rapidly across the whole globe since Bretton Woods - requires a more far-reaching answer. The ideology that the markets are best left to regulate themselves has finally completely disgraced itself before history. Now, this is no longer a question of making the casino safer for the players - but only of closing it down.

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