# Turning Point

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## Deeper into the food crisis: How they play with our food

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# Deeper into the food crisis: How they play with our food

Rosario Bella Guzman

## Introduction

The causes of the phenomenal increase in food prices that occurred in 2007-2008 continue to be the subject of an intensifying debate. It appears that the supply-demand factors that are being offered as explanation cannot fully account for the dramatic rise in the prices of the world's most important food commodities. Food prices fell in July 2008, as steeply as they had climbed from January 2007 to June 2008, but now they are above the 2008 level despite reports of larger stocks than three years ago. Supply and demand alone, also called the "market fundamentals", can no longer explain such price volatility, and the situation has sparked a controversy on the role of speculation.

Even within the camp of those who have pushed for trade liberalisation and deregulation – policies that have heightened corporate recklessness in agriculture – it is openly acknowledged that speculation – a product itself of such recklessness – has been a major reason for the sharp inflation of food. The Food and Agriculture Organisation (FAO) is seriously looking into the issue and has called upon international financial institutions, the UNCTAD and other intergovernmental organisations to conduct their own studies to analyse the "causal links between speculation and agricultural commodity price movements."[1] The World Bank and the UNCTAD, for instance, have recognised the role of "financialisation" of commodities and commodity trading in the price surges.[2] [3] Notable too is the briefing note of the United Nations Special Rapporteur on the Right to Food, Olivier de Schutter, forwarding that "a significant portion of the price spike was due to the emergence of a speculative bubble."[4]

Yet, not surprisingly within the same camp, there remain views that deny the causality of speculation and price hikes and continue to argue that the 'fundamentals' are the ones making food expensive and beyond the reach of the poor. The Organisation for Economic Cooperation and Development (OECD) has been most prominent in its strong assertion that changes in the financial markets did *not* increase price volatility.[5] There is no "statistically significant relationship",

according to the OECD, and some economists, academics and even journalists have been in unison with the conclusions of the OECD. At some point thus, the discourse has been reduced to econometrics.

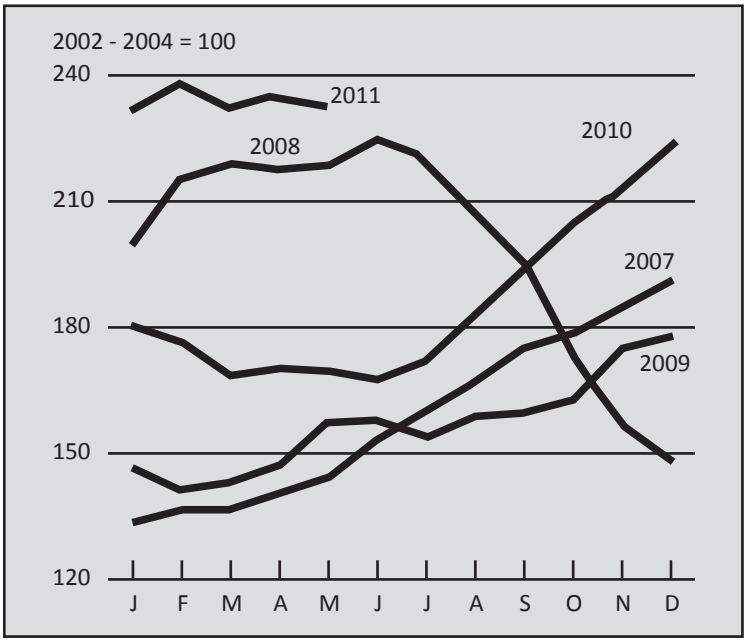
But understanding the issue is life-and-death for farmers and consumers especially in underdeveloped countries. Food price hikes triggered protests (dubbed by mainstream media as riots) in at least 30 countries and increased the number of hungry people by 75 million in 2007 and another 40 million in 2008.[6] [7] A repeat of these scenarios looms large, if the latest FAO report on price movements would be used as the basis for such projection, and most especially if the real underlying causes are not fully explained. It is crucial for peasant movements, advocates and civil society organisations to understand the role of speculation and be able to relate this to the growing hunger and impoverishment. Such understanding would deepen their knowledge of the global capitalist system and its worsening crisis and what should be done.

## Still crazy after all these years

The FAO food price index, which tracks 55 commodities grouped into five categories, got crazy in 2007-2008, and since then has not been the same again. **(See Graph 1)** It increased by 74 per cent from the end of 2006 to June 2008 and fell back by 33 per cent beginning in July to December 2008, but the farthest level it could go back to was only the April 2007 level. Prices picked up again in the first semester of 2009 but somehow fell in the second semester below the levels in the same period of 2007.

Come 2010, however, the FAO price index showed significant signs of a worsening situation – it started higher than the end-2009 level and ended surpassing the peak of the 2008 food (price) crisis. As of May 2011, food prices are 36 per cent higher than they were in the same period last year and have reached their highest since the FAO started monitoring food prices in 1990.

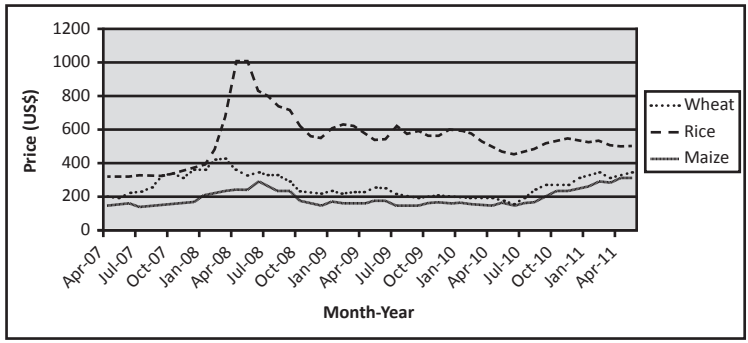
**Graph 1. FAO Food Price Index**




*Source: World Food Situation, June 2011, FAO*

Among the food commodities, cereals registered the steepest price increases between 2007 and 2008, and although sugar has overtaken cereals since 2009, reaching a 30-year high, cereals have continued to record the highest price increases as of May 2011.[8] It was specifically phenomenal for rice whose price on world markets shot up by 159 per cent from April 2007 to June 2008, while prices of wheat and maize increased by 76 per cent and 88 per cent, respectively. Although rice prices have been going up and down since then, rice is still 55 per cent more expensive today than it was in April 2007. What is also worrisome is that the prices of wheat and maize started shooting up again in July 2010 and have already increased 11 months later by 125 per cent for wheat and 101 per cent for maize.[9] **(See Graph 2)**

**Graph 2. World Market Prices of Major Grains**




*Source: IMF Commodity Prices database, as of May 2011*

In various publications by the US Department of Agriculture (USDA), the FAO and the World Bank, the price volatility has been attributed to slowing production, low stocks of wheat, maize and rice, climate change and water shortage, and the growth of biofuels. The FAO also cites the drought in Australia for the lower-than-expected wheat production. Meanwhile, according to the IMF, the Chinese and the Indians developed a taste for meat which drove up grain prices.[10]

These accounts have been difficult to accept given the scale of the price increases. In fact, upon looking into their validity, some economists have noted that some of these reasons are not even factual. On end-2008, for instance, rice production was higher than consumption and ending stocks were higher than the previous year. The same trend was valid for corn.[11] Meanwhile, since 2005 wheat production had consistently fallen short compared with consumption and stocks had been declining, but it did not justify why the price skyrocketed only in 2008. It also does not explain now why after the episode and after wheat production, supply and stocks have started increasing in 2008, wheat price has continued to increase. The same trend is valid for rice and corn. **(See Tables 1 and 2)**

According to the UN Special Rapporteur on the Right to Food, the claim by the IMF that food prices increased because of per capita

## Table 1. World Wheat Market

| | 2007/08 | 2008/09 | 2009/10 | 2010/11 estimate | 2011/12 forecast (07 June 2011) |
|---|---|---|---|---|---|
| | *(..... million tonnes .....)* | | | | |
| **Production**[1] | 610.9 | 685.2 | 684.7 | 652.6 | **673.6** |
| **Supply**[2] | 775.7 | 831.3 | 867.2 | 859.5 | **861.4** |
| **Utilization** | 628.1 | 645.9 | 658.6 | 670.3 | **677.0** |
| **Trade**[3] | 111.5 | 139.4 | 129.8 | 123.0 | **125.0** |
| **Ending Stocks**[4] | 146.1 | 182.5 | 206.9 | 187.8 | **182.9** |
| | *(..... percent .....)* | | | | |
| **World Stock-to-use ratio** | 22.6 | 27.7 | 30.9 | 27.7 | **27.1** |
| **Major exporters'stock-to-disappeaance ratio**[5] | 12.3 | 17.7 | 21.8 | 18.9 | **17.9** |

*Source: World Food Situation, June 2011, FAO*

## Table 2. World Rice Market

| | 2007/08 | 2008/09 | 2009/10 | 2010/11 estimate | 2011/12 forecast (07 June 2011) |
|---|---|---|---|---|---|
| | *(..... million tonnes .....)* | | | | |
| **Production**[1] | 440.1 | 458.5 | 455.6 | 463.8 | **475.8** |
| **Supply**[2] | 545.3 | 570.4 | 582.2 | 596.1 | **612.6** |
| **Utilization** | 434.9 | 444.5 | 448.9 | 459.6 | **469.4** |
| **Trade**[3] | 29.9 | 29.6 | 31.4 | 31.8 | **32.0** |
| **Ending Stocks**[4] | 111.9 | 126.6 | 132.3 | 136.7 | **143.3** |
| | *(..... percent .....)* | | | | |
| **World Stock-to-use ratio** | 25.2 | 28.2 | 28.8 | 29.1 | **30.6** |
| **Major exporters'stock-to-disappeaance ratio**[5] | 17.5 | 21.7 | 19.4 | 18.6 | **19.7** |

*Source: World Food Situation, June 2011, FAO*

income growth in China and India, which allegedly increased the demand for meat and animal feeds including grain, soybeans and edible oils, is not corroborated by data collated by the FAO.[12] Indeed consumption of coarse grains grew by an annual average of only 3 per cent for China and 1 per cent for India from 2004 to 2008. Consumption of wheat grew by an annual average of 3 per cent for India and 0 per cent for China in the same five-year period.[13] These rates are even slower than the rate of their population growth. Both aggregate and per capita consumption of grains for both countries have actually fallen.[14]

This is not to dismiss the factors of climate, ecology and the aggressive shift being led by transnational corporations (TNCs) and foreign investors from food to biofuels production. In fact, these issues, along with other issues like increasing inputs cost, declining farmers' incomes and diminishing government support, only show that there is an underlying crisis in agriculture that is more fundamental than simple supply-demand equations. An inquiry into the role of speculation in the sudden price increases should not assume that the fundamentals are not valid reasons – they are already problematic as they are indeed. Rather, it should aim to deepen the understanding on the nature of the fundamental crisis.

This may be started by looking at the broader context of the food price hike. It must be emphasised first of all that food prices increased steeply in 2007-2008 along with oil prices in what is described as the longest and broadest "price boom" after the Second World War. Crude oil prices peaked at US$133 per barrel in 2008, or an increase of 94 per cent from the previous year, and rice prices doubled within only five months. Prices of energy and metals increased by 230 per cent and of fertilizers by around 400 per cent from 2003 to 2008.[15]

It is the only "price boom" in history that involves three main commodity groups – energy, metals and agriculture – and happens simultaneously with the boom in financial markets. These should provide clue as to which context the whole discussion of speculation should be placed. The boom in the financial markets, which has plummeted with the crash of housing mortgage and real estate, has

dragged down the advanced capitalist countries to their most severe post- Second World War recession. Time and again in the history of imperialism, as its crisis becomes more and more severe, natural resources such as mining and agriculture (including water and food), whether through plunder or taking advantage of their price volatility, have been foolproof way for capitalists to get back on their feet.

**Understanding the real fundamentals**

A commodity is a product for exchange – a good that is capable of being delivered and traded physically in the market. The *physical commodities market* (the name has been specified due to the rise of other kinds of markets) is the real world market (also referred to now as the 'spot market') where producers and consumers meet to buy and sell commodities.

Money is the first "derivative" of this exchange economy. It is the expression by which a commodity is priced. It is the instrument with which a commodity is exchanged.

What determines the price of a commodity is a question that invariably brings back the classic debate between neo-classical economics and radical thought, where the neo-classicists would easily point to the law of supply and demand while radical thinkers would explain the theory of value.

If supply is abundant against normal demand, prices decrease, according to neo-classicists. Conversely, if supply is scarce, prices increase. If demand changes, it follows the same law – increased demand means higher prices and decreased demand triggers a bargain.

The value of a commodity is the amount of labour embodied in it, according to the theory of value. It is the sum of old value (land, machines and raw materials) and new value (the product). A part of the newly created value is paid to the workers who produced

everything including the machines and raw materials used. Another part is pocketed by the capitalist who did not do anything in production and continues to concentrate and accumulate all values. In money terms, the paid value is called wage, the unpaid value is called profit, and the total value is called price.

The price of a commodity thus, is simply the money expression of the total labour efforts exerted to produce the commodity. The law of supply and demand is valid, but only in so far as it influences (not determines) the price and as it is being used by capitalists to obtain additional profit aside from the one already derived by exploiting workers. On the other hand, profit, which is also called surplus value obtained from the newly created value, is realised only when the commodity is bought and sold.

But this classic picture has been modified when capitalism has entered the stage of monopolies. Because of monopoly pricing as well as manipulating supply and demand to the hilt, especially in the underdeveloped countries, prices have strayed far from value while profits have been over and above the newly created value, generating super-profits.

Crisis is inherent in capitalism precisely because capitalism is profit-oriented. As mentioned already, if a commodity is sold, profit is realised. But if it is not sold and remains a sleeping inventory, crisis manifests. The tendency of the commodity *not* being sold, however, is inherent in capitalism as the system inevitably leads to constant retrenchment of workers, lowering of wages, declining incomes and indebtedness, limited consumption, and alienation.

Over the centuries, the capitalist class has intensified means to address and mitigate this inescapable crisis, such as increasing technology, retrenching workers, colonising markets, imposing globalisation on former colonies, and waging wars. In the underdeveloped countries, the imperialists have continually resorted to prolonging working hours, overpricing commodities,

depressing wages, cheapening raw materials, and plundering natural resources.

These 'solutions', however have reached their limits and the imperialist crisis has only reasserted itself. The other solution for the imperialists is to place the profits from commodity production to financial activities such as lending and mere speculation. Loans, bonds and mortgages are the next-generation derivatives, and to a certain extent, are still based on the real world and grounded in actual production. Speculation, however, has increasingly involved another generation of derivatives and has created opportunities for purely financial profits, with no grounding in any newly created value but simply a claim on future surplus value.

## Skimming more profits

In order to grasp the phenomenon of speculation, it is essential to go back to one's understanding of commodity and market as the basic cells of capitalism. **(See Box)** Long before capitalism has developed into monopolies and given rise to financial oligarchy, speculation has been one of the means for capitalists to arrest the crisis of overproduction and the general tendency for the rates of profits to fall. In food and agriculture, speculation has been a mechanism of market insurance since the 17th century. Buyers would buy the harvests of Japanese rice farmers, for instance, before the rice was harvested with the objective of safeguarding, also called *hedging*, against price fluctuations.[16]

A seller (say, a farmers' association) negotiates with a buyer (usually a processor or a trader) in January that the buyer would buy the harvest in August at a pre-determined price. For the seller, the advantage of this *future* price is security against falling prices. For the buyer, the advantage of buying this *option* is security against rising prices. The arrangement is covered by a contract, a derivative, which is called a future, which is traded on the exchanges. This kind of speculation is

called commercial speculation, which is a form of price insurance for commodity buyers and sellers.[17]

Over time, this *commodity futures market* has evolved with two major players – the hedgers (producers and end-users) and the speculators. Commercial farmers, trading and processing companies, and other end-users of agricultural commodities are the hedgers, and they hedge by passing on the risk to a speculator who trades derivatives. The speculator acts as the buyer and enters into contract with the seller (the seller will pay a derivative fee) and will try to sell the future to a processor (say, a miller). The speculator then negotiates a contract with the miller for the miller to buy the harvest in the future at a fixed price. By such counter-trade, the risk for the speculator has been reduced and confined to the price difference between the two futures. The speculator profits if supply is scarce (as prices will rise) and loses if supply is abundant (as prices will fall). This profit (or loss) arises from the price difference when the contract is made and the market price when the futures are due. The harvest is then physically delivered from the seller to the miller.[18]

Speculation, as described above, is grounded in real production and presumably does not affect the market price. It is actually regarded as having positive effect on the market. It allows hedgers to mind their businesses without worrying about fluctuating prices while it predicts future market trends and reduces price volatility. Speculation has been viewed by some economists including the Commodity Futures Trading Commission (CFTC) of the US as 'beneficial' especially in stabilising markets. Others even view the activity as some sort of an investment that benefits a business in the future.

It does not change the fact that the profit of the speculator is over and above the newly created value as he is merely taking advantage of the influence of supply and demand on price through speculation. In fact, the profit from the newly created value was already realised by the seller the moment he sold the future, while price changes thereafter due to supply and demand are only additional profit. The speculator is skimming some more.

It is also erroneous to say that speculation is some kind of an investment. With investment, the surplus value is reinvested in expanded production with the expectation of a higher rate of profit (from commodity production of course). With speculation, the objective is not to expand production and put in additional assets but simply to profit from a future difference in the price of assets. Speculation is not different from the practice of the rice seller who hoards the rice in anticipation of a higher price. He is not creating a new value, he is just speculating, and if other rice sellers would do the same, they would create a speculative bubble (a sudden increase in rice price) in a matter of weeks.[19]

To some economists, speculation as described above is traditional, having been ingrained in the capitalist system, and is necessary. No matter how seemingly benign speculation is, however, like the crisis of capitalism, it has progressed into a malignant phenomenon with the invention of derivatives, its worsening dissociation from the real economy, and its tremendous impact on price volatility. Worse, unlike oil or metals, food cannot be hoarded for long, and speculation in food has aggravated the innate instability of the market.

## It's complicated

Speculation has become even more and more parasitic in recent decades with one noteworthy development – the rise of *commodity index funds*. To get a handle of this, first, it is critical to understand the functions of traditional speculation and the differences of markets that have emerged. This understanding shall be useful in appreciating why the rise of non-traditional speculators has only revealed the intensifying contradictions of capitalism.

From the point of view of capitalists, traditional speculation has usefulness: 1) it eliminates price risks both for the producer and the end-user (also called price risk management function); 2) it allows the players to determine with most possible accuracy the price of the physical commodity in the physical commodity market (also called price discovery function). The two traditional players – hedgers and

speculators – benefit from the commodity futures market because the hedgers can plan their respective businesses effectively while the speculators can profit from price changes. An important function of the speculators is that they accept the price risk in exchange for providing liquidity.[20]

Ideally (i.e. if there are many speculators and the commodity futures market is functioning as it should), speculators are actively studying the supply-demand dynamics and the behaviour of the hedgers. In this sense, futures prices are truly based on the happenings in the physical commodities market. Specifically, the futures price would simply be the price of the physical commodity now in the physical commodities market (the spot price) plus the cost of storing the commodity and transporting it in the future. Thus, if wheat futures are being traded at US$9 per bushel, which are due in August, while the spot price now is only US$7 per bushel and the cost of storing and transporting physical wheat is 75 US cents, the speculator would buy every single wheat, store it, and sell futures like crazy until "price equilibrium" is discovered.

Yet, aside from the physical commodities market and the commodity futures market, two other kinds of market have emerged, which would complicate the matter further – these are the capital market and the financial futures market. Capital markets are the debt and equity markets that provide financing to corporations and other entities, where bonds and stocks are issued to investors who trade securities among themselves. Financial futures markets trade futures that are based on financial securities such as Eurodollar deposits, Treasury Bonds, foreign currencies, and the Standard and Poor (S&P) 500 stock index.[21]

The capital markets are currently the biggest. It is notable that the financial futures markets have overtaken both physical commodities and commodity futures by more than 1,000 times. Total open interest for financial futures amounted to around US$21 trillion in July 2008. **(See Table 3)**

**Table 3. Summary of Markets**

| Commodity Markets | Capital Markets |
|---|---|
| Crude Oil, Corn, Copper, etc. | Stocks, Bonds, Real Estate, etc. |
| $1.6 Trillion (2002) | $97.9+ Trillion (2004-2005) |
| Physical Commodity Producers and Consumers | Investors/Speculators |
| **Commodities Futures** | **Financial Futures** |
| Derive their value from physical commodities | Derive their value from capital securities |
| $0.18 Trillion (2004) | $21 Trillion (2008) |
| Physical Hedgers **AND** Speculators | Investors/Speculators |

*Source: Masters, as cited in the endnotes*

The emergence of other markets has introduced modifications in traditional speculation in particular and capitalism in general, which would only aggravate the capitalist crisis. In the physical commodities markets, once the producers have sold the commodities, they do not go back to the market until they have produced more, and consumers only go back when they have consumed what they bought. In the commodity futures markets, hedgers only have to trade once to make their hedges and then they either receive the delivery or let go of their hedges before delivery. These are quite different from the capital markets and financial futures markets where trading is two-way rather than one-way, i.e. they trade back and forth among themselves, and where there is only one group of players – the speculators.[22]

If trading is two-way and there is only one group of players, these players, the speculators, can incessantly re-value the profit potential of a class of financial instruments, without delivering the physical commodity. In this scenario, or even if there are two groups such as hedgers and speculators but the speculators are already dominant, speculative bubbles can be formed.

The distinctions among the derivatives markets have also become hazy. In the 1980s, financial futures became so popular that investment banks in Wall Street started acquiring trading firms with seats on the futures exchanges. They wanted to penetrate the financial futures markets but they also inherited trading firms with transactions on commodity futures.[23] Making things more complicated, the speculators now hedge against the risks of their derivatives with other derivatives.[24]

One crucial factor that complicated things further was the financial deregulation in 2000, especially in the US where the greatest volume and turnover of commodity trading is taking place. Whereas before, traders were supposed to disclose their positions (how much of each commodity they were holding) and were imposed position limits, with the Commodity Futures Modernization Act in 2000, all these rules were gone. The Act exempted over-the-counter (OTC) derivatives from the regulatory oversight of the CFTC. It allowed OTC derivatives where neither party was hedging but only speculating. It allowed the speculators to "hedge" the OTC derivatives by taking positions on the exchanges.[25] [26]

Deregulation thus has enticed non-traditional speculators to participate in one particular group, the commodity index funds, which is mostly OTC. Non-traditional speculators include hedge funds, pension funds, and other institutional speculators and large banks, often investment banks that operate as dealers. They have increasingly participated in the derivatives markets, notably trading in contracts of agricultural commodities.[27] They are not concerned with physical commodities and deliveries or in hedging price risks. They are more interested in "betting long" for prices to go up or "betting short" for prices to go down and they provide capital to allow commercial speculators liquidate their contract positions.[28]

Financial deregulation and the rise of non-traditional speculation conspicuously coincided with the bursting of the dot-com speculative bubble in 2001 that was created by equities in information technology. Institutional speculators had to look somewhere else. These institutional speculators included the corporate and government

pension funds, sovereign wealth funds, university endowments, public and private foundations and life insurance companies who normally invested in the debt, security and real estate markets. Their portfolios suffered when the bubble burst, and in the succeeding years, equities performed poorly because of the effects of the 9-11 attacks, Enron and WorldCom accounting scandals, build-up to the war on Iraq, and recession.[29]

They wanted new asset classes that were not related with their existing portfolios. In particular, the pension funds who were not allowed to trade commodity futures in the 1990s were enticed to "invest" in commodities with "equity-like returns" and "reduced risks" through a relatively new invention – the commodity index.[30]

The collapse in 2008, from a housing bubble to mortgage crisis to credit crisis, sent those who speculated on fancy financial derivatives, such as the collateral debt obligations (CDOs), special investment vehicles (SIVs) and the like especially in subprime securities, to bankruptcy and in search of new markets. A credit crisis ensued plus a brewing sovereign debt crisis for the imperialist governments that have bailed out the financial institutions. Markets are drying up one by one, and the institutional speculators have to move to other markets. All these burst bubbles are providing the impetus for the rise of one particular category of speculators – the commodity index funds.

Non-traditional speculators especially the hedge funds and pension funds have turned to commodity futures markets, primarily oil but also food commodities, and specifically through the derivative instrument called commodity index.[31] They need to spread out their risks by diversifying their portfolios, and besides, as the UN Special Rapporteur on the Right to Food notes, there is common belief that markets for food and oil could not possibly dry up – people may lose interest in asset-backed securitisation, but they will always have to eat.[32]

## Unleashing a new terror

A commodity index is a calculation based on the prices of a basket selection of 20 or more commodity futures that make up the index, primarily oil and metal ores but also agricultural commodities.[33][34][35] The commodities are weighted based on global production and liquidity factors.

A commodity index on its own is not supported by any actual assets such as futures or physical ownership of commodities. Instead, the index traders – the financial institutions that sell it – have created financial instruments attached to the index, whose values rise and fall according to the value of the index. These financial instruments are commodity index swaps, exchange traded funds (ETFs), and exchange traded notes (ETNs). Swaps are the most common (which will be explained more in detail) while ETFs and ETNs offer index-related shares for sale on a stock exchange.[36] All these financial instruments are traded OTC.

The index traders then sell these financial instruments to hedge funds, pension funds, other institutional speculators, etc. to speculate in the commodities market without actually buying any commodities. To offset their financial exposure to price changes in the commodity futures that make up the index as well as changes in the value of the index-related financial instruments they sell, the index traders usually buy the futures contracts on which the index-related instruments are based.[37] Without a doubt, they directly impact on the futures markets.

In effect, the index speculators place their money in futures contracts with the commodities listed in the index, in fixed amounts based on the weights in the index. When the indexes are sold, all of the listed commodities are sold, and the value is assessed each trading day based on the closing price of each commodity. Index speculators do not care which is the most lucrative commodity at the moment. They also do not bet “long” or “short”, because commodity index funds are traded passively and simply replicate the price movements of the commodities in the index.[38]

The most famous of these indexes is the S&PGSCI, known before as Goldman Sachs Commodities Index, controlling 63 per cent of the market, and the Dow Jones-UBS Commodity Index (DJ-UBSCI), formerly Dow Jones in partnership with AIG, with 32 per cent market share. S&PGSCI has 24 commodities while DJ-UBSCI has 19 commodities. The composition of the basket differs according to the index, and agricultural commodities comprise 17.4 per cent of the S&PGSCI and 29.17 per cent of the DJ-USBCI as of July 2011.[39 40 41]

Both indexes are based on the prices of commodity futures and not the real commodities. Unlike the aforementioned S&P500 stock index that is based on securities, S&PGSCI and DJ-UBSCI are based on the prices of the nearest-to-expiration futures contracts. Since commodity futures expire every 1-3 months, the indexes can be *rolled*. The S&PGSCI, for instance, may be rolled forward on the 5th through 9th business days prior to the futures expiration month, transferring 20 per cent of the weight on each of these days into the next futures expiration month.[42] This is also known as the Goldman Roll.

In order to replicate the index, futures contracts must be bought as already mentioned, and they must be rolled in the same way that the index rolls its weight from one contract to the next. Since this happens monthly, a trader must be active in trading futures. This is why most institutional speculators contract Wall Street banks to manage their futures trading.[43]

Around 90 per cent of the index speculators prefer to get into *swaps* with Wall Street banks, which are transacted OTC. It becomes the bank's responsibility to trade in behalf of the speculator. So, for instance, a pension fund (the speculator) agrees to pay the 3-month Treasury-bill rate (the prevailing rate for short-term loans) plus a management fee to a Wall Street bank, while the bank agrees to pay the total return on the index.[44]

The notional amount of the swap is then placed in T-bills, and the speculator thus is fully collateralised. Meanwhile, the bank is obligated to pay the total return, say S&PGSCI Total Return Index, to

the pension fund. The bank's trader thus must hedge the position and follow closely the commodities futures trading strategy outlined by S&PGSCI.[45]

As previously noted, the exemption of swaps from CFTC regulation has unleashed traders to use the swaps to take long positions in commodity indexes without physical holdings involved. All speculators and traders have to do is focus on returns from changes in the index by periodically rolling over commodity futures contracts before maturity date and reinvesting the proceeds in new contracts.[46] Paper profits are realised simply by purchasing financial instruments and taking advantage of price changes in futures contracts for a broad range of commodities, without having to really purchase the referenced commodities.[47]

The index speculators who are not into swap arrangements may be trading futures themselves, with the futures bought on down-payment and the rest of the money in a bank or money market and earning interest.[48] At any rate, whether the speculators are trading futures or have outsourced their trading to a swaps trader, the time will come when they will have to roll their positions in order to avoid delivery of physical commodities.

Rolling is done through a trade called "calendar spread", where the trader simultaneously buys a more distant future and sells the closer-to-expiration future. Since buy and sell are packaged as one trade, the impact on price is theoretically minimised. But index speculators follow the same trading methodology, thus when they roll their positions, they do so in unison, and this can have tremendous impact on market prices.[49]

The indexes have been advertised as ideal mechanisms for hedging against movements in other financial markets, but the strategy evolved by Goldman Sachs and others has damaged the price discovery function of traditional speculation. For one, institutional speculators have captured large amounts of available liquidity that they do not have intention of releasing in the near future. They intend to keep their positions for a long time, simply by continuous

rolling. They are hoarding not physical commodities but futures contracts, and since pension funds have long-term horizons, they could disturb commodities markets for at least 20 years.[50] [51] Secondly, index speculators are "long-only", which means that they only bet for prices to go up, keep on rolling, and only increase the demand for futures that mimic the indexes. The pressure on commodity prices is constantly upward, interrupted only when the index speculators take profits on the futures they roll over.[52]

Finally, commodity index funds have forced upon a "contango", or the situation where futures prices are higher than the spot prices.[53] The reverse situation (futures prices are lower than spot prices) is otherwise known as "backwardation", which presumably is one feature of the price discovery function of traditional speculation.

A contango is 'normal' for traditional hedgers who simply have to decide whether to take delivery of a product today at today's spot price and store it themselves, or pay more for a futures contract, and let someone else do the storage for them. This goes without saying that the product thus must be non-perishable. The hedgers will just have to compute the spot price plus storage cost in order to gain insight of a 'justifiable' futures price and a 'normal' contango. The problem with commodity index funds, however, is that they are not concerned with what is happening with one particular commodity in the real commodity market – they are looking at an index that bundles both non-perishable commodities and perishable ones such as food.

The more futures prices increase, the more commodity indexes increase, and the more speculators are attracted to the commodity futures and financial markets, thereby creating a price bubble in commodities.[54] In the end, these increases translate to increases in spot prices, while sellers and buyers of physical commodities behave in a manner that anticipates more price increases. Then again, in a vicious cycle, increases in spot prices attract more speculation and feed increases in futures prices. As UN Special Rapporteur on the Right to Food puts it, "The whole structure of commodity index speculation was premised upon a contango."[55]

## One big 'happy' market

Money flowing into commodity futures markets is meant to buy orders, and buy orders cause futures prices to go up, especially if the buy orders are for more contracts than are currently offered for sale. It does not matter if the demand for more contracts is being done by a bona fide physical hedger or an institutional speculator in commodity futures. The demand has the same impact on futures prices.[56]

The impact on spot prices, however, is not as anonymous as how the demand is made. The increase in futures prices definitely influences the prices for the end-users because they use those futures to hedge. In fact, futures prices are used as benchmark for hedging contracts and at the same time for spot prices. The end-users and producers thus absorb the increases in futures prices, which they will pass on to consumers.[57]

This analysis, however, is not shared by all experts, thus the endless debate. Some argue that many contracts are being hedged by other contracts that offset the risks, and that markets will finally find the right price through supply and demand. These experts also refer to the role of *arbitrageurs*, or those who take advantage of the price differences between two markets, of eventually bringing together the prices between the two markets.[58]

An example of an arbitrage is when the spot price of gold is US$1,500 per troy ounce and the futures price three weeks to delivery is US$ 1,900 per troy ounce, the gold producer could sell a futures contract, store the gold for three weeks, and afterwards deliver the gold against the contract. By taking the gold supply off the spot market, spot prices would rise, yet the sale of gold futures would lower futures prices. The arbitrageur, who is normally a speculator and not the producer, can do the same by selling futures contract, renting warehousing space for three weeks, buying the gold on the spot market at US$1,500, and delivering against the contract.[59] In both cases, they profit US$400 per troy ounce out of nothing at all but are still 'appreciated' by experts for reconciling the spot price and the futures price.

The argument does not change the fact, however, that indeed spot prices and futures prices are intimately connected, and that any aberration in the futures price will be absorbed by the spot price and eventually by the consumers. Besides, only storable commodities with provisions of physical delivery can be arbitraged, and commodity indexes are detached from these provisions. Also, the argument does not change the fact that the spot price is the futures price in *certain* markets, that there is an arbitrage link between spot and futures prices in *most* markets, and that futures prices are the benchmark for spot market transactions in all markets.[60]

In the grain and energy markets, since the products are costly to store and transport while spot markets are geographically dispersed, the mechanism where spot prices equal futures prices has been invented. For instance, a wheat farmer in the US delivering crops to the local grain elevator will be paid the Chicago Board of Trade (CBOT) wheat futures price plus or minus the local basis spread. If wheat futures prices increase by 20 cents even if the local basis does not move, the spot wheat prices will also increase by 20 cents. Likewise, crude oil is bought and sold based on the futures prices in the New York Mercantile Exchange (NYMEX) plus or minus a local differential. So if the paper barrel price increases by a dollar, the physical barrel price also increases by a dollar.[61]

But commodity index funds have made the differences (called the basis) between futures prices and spot prices large and persistent. And no matter how distant futures prices and spot prices have grown apart, they cannot simply be divorced. For instance, in the Chicago wheat market, the world's biggest, the basis from 2000-2005 was only 25 cents and it has jumped to US$2 since 2006. The wheat futures prices have not converged with the spot prices at the expiration of futures contracts. Consequently, the spot prices of wheat jumped from US$3 per bushel in mid-2006 to over US$11 per bushel in early 2008 only to collapse to US$3.50 per bushel at the end of 2008.[62]

Lastly, the argument for the arbitrage link between the spot price and the futures price does not apply anymore as the markets have become complex. The invention of commodity indexes, swaps and

OTC derivatives has complicated everything. If an oil producer gets better deal with swaps than futures or the physical market, then he will sell oil production through swaps. Meanwhile, if the swaps dealer gets better price with futures than in the swaps market, then he will hedge with futures. In any case, whether an index speculator buys in the futures market or OTC in the swaps market, the purchase will impact on the futures prices and futures prices will be higher than they would otherwise be, because now, the physical commodities market, the futures market, and the swaps market are one big 'happy' market.

## Too obvious to deny

The question now is how dominant are futures markets, particularly the highly toxic commodity index funds, to create price bubbles? As already shown, the physical commodities markets are already dwarfed by capital and futures markets. On the other hand, several estimates show that commodity indexes grew 25 times, from US$13 billion in 2003 to around US$317 billion in mid-2008.[63] According to the Bank of International Settlements, the notional value of OTC derivatives is now over US$9 trillion from only US$0.44 trillion in 2002.[64] [65]

There are no data on how much of the outstanding OTC derivatives are coming from pension funds, and conversely, how much of the pension funds are traded in commodity indexes. Global pension funds are currently estimated to be around US$20 trillion, and there are estimates that at least 5per cent may be exposed.[66] [67]

On US markets, commodity index funds held 42 per cent of wheat futures contracts in mid-2008, with the futures stockpile enough to feed each American with all the bread, pasta and baked goods for the next two years. In the same period, they held maize and corn futures that could supply the whole US ethanol industry for a year and could make the US the biggest ethanol producer.[68] [69]

From 2003 to 2008, the futures stockpiles of index speculators for all of the 25 important commodities that make up the S&PGSCI and DJ-UBSCI have grown tremendously, which when compared with the sizes of the physical commodities markets would be enormous. The purchases of the index speculators are now the biggest if compared with the purchases of the hedgers and the traditional speculators. **(See Tables 4 & 5)** Today, for every hedger, there are four non-traditional speculators, overwhelming the market with liquidity.[70]

It is estimated that index speculators on the average hold 40 per cent of the size of the commodity futures markets. On the other hand, 60 per cent of all the positions held by index speculators are controlled by swaps traders stationed at the four Wall Street banks – Goldman Sachs, Morgan Stanley, J.P. Morgan, and Barclays Bank. Thus, one out of four contracts on the commodities futures exchanges is controlled by the four banks, which is such a tremendous power.[71]

The magnitude may also be measured by looking at the annual inflows of speculative money and comparing them with the "dollar value of open interest" for each commodity, which is the gauge of the size of the commodity futures markets. **(See Tables 6 and 7)** Thus, for instance, the 2004 inflows for the two top indexes, the S&PGSCI and DJ-AIGCI, amounted to US$25.1 billion while the size of the commodity futures markets that time was US$183 billion, or an inflow of 14 per cent of total market size. To illustrate the impact, if the world consumes 85 million barrels a day, there would be such tremendous impact on prices if this demand increases by 14 per cent, or to 96.8 million barrels per day.[72]

From only US$183-billion market size, the index speculators poured in US$173.4 billion from 2004-2008. To accommodate this huge growth in demand, the market expanded and prices increased dramatically.

As already pointed out, the growth of commodity index funds has created a *demand shock* never seen before in history. There may be happenings that can wipe out portions of supply but there has never been a steep increase in demand for only five years. Ironically, supplies are aplenty in the physical commodities markets, there are

**Table 4. Index Speculators' Futures Purchases, Last 5-1/2 years**

| | | Index Speculators' Futures Stockpiles as of 1/1/03 | Index Speculators' PURCHASES Last 5 1/2 Years | Index Speculators' Futures Stockpiles as of 7/1/08 |
|---|---|---|---|---|
| **Cocoa** | M Tons | 18,828 | **297,592** | 316,420 |
| **Coffee** | Pounds | 195,716,944 | **2,192,733,056** | 2,388,450,000 |
| **Corn** | Bushels | 242,561,708 | **2,070,808,292** | 2,313,370,000 |
| **Cotton** | Pounds | 544,934,999 | **5,067,015,001** | 5,611,950,000 |
| **Soybean Oil** | Pounds | 163,135,678 | **4,346,164,322** | 4,509,300,000 |
| **Soybeans** | Bushels | 81,028,272 | **829,371,728** | 910,400,000 |
| **Sugar** | Pounds | 2,291,358,746 | **44,990,337,254** | 47,281,696,000 |
| **Wheat** | Bushels | 166,738,225 | **893,321,775** | 1,060,060,000 |
| **Wheat KC** | Bushels | 54,746,014 | **89,193,986** | 143,940,000 |
| **Feed Cattle** | Pounds | 104,446,612 | **475,803,388** | 580,250,000 |
| **Lean Hogs** | Pounds | 517,414,747 | **4,536,865,253** | 5,054,280,000 |
| **Live Cattle** | Pounds | 669,766,732 | **6,202,713,268** | 6,872,480,000 |
| **Brent Crude Oil** | Barrels | 47,075,357 | **161,236,643** | 208,312,000 |
| **WTI Crude Oil** | Barrels | 99,880,741 | **580,433,259** | 680,314,000 |
| **Gas Oil** | M Tons | 1,682,662 | **6,700,238** | 8,382,900 |
| **Heating Oil** | Gallons | 1,067,859,608 | **2,739,650,392** | 3,807,510,000 |
| **Unleaded Gas** | Gallons | 1,102,184,401 | **2,646,903,599** | 3,749,088,000 |
| **Natural Gas** | MM Btu | 330,652,415 | **1,975,417,585** | 2,306,070,000 |
| **Aluminum** | M Tons | 344,246 | **3,252,704** | 3,596,950 |
| **Lead** | M Tons | 82,019 | **179,731** | 261,750 |
| **Nickel** | M Tons | 20,147 | **102,715** | 122,862 |
| **Zinc** | M Tons | 133,381 | **1,175,419** | 1,308,800 |
| **Copper** | M Tons | 220,096.25 | **1,160,192** | 1,380,288 |
| **Gold** | Ounces | 979,863 | **8,737,837** | 9,717,700 |
| **Silver** | Ounces | 11,126,862 | **149,353,138** | 160,480,000 |

*Source: CFTC Commitments of Traders CIT Suplement, calculatiions based upon CFTC COT/ CIT report (see Appendix: How to Calculate Index Speculator's Positions)*

**Table 5. Futures Contract Purchases by Category (Last 5-1/2 years: January 1, 2003 to July 1, 2008)**

| | Physical Hedgers | Traditional Speculators | Index Speculators |
|---|---|---|---|
| Cocoa | -32,461 | 65,060 | 29,759 |
| Coffee | -6,570 | 27,727 | 58,473 |
| Corn | 231,324 | 216,533 | 414,162 |
| Cotton | 40,618 | 19,019 | 101,340 |
| Soybean Oil | 715 | 10,332 | 72,436 |
| Soybeans | 13,305 | 73,360 | 165,874 |
| Sugar | 133,073 | 110,068 | 401,699 |
| Wheat | 13,136 | 34,942 | 178,664 |
| Wheat KC | -5,967 | 12,226 | 17,839 |
| Feed Cattle | 3,210 | 374 | 9,516 |
| Lean Hogs | 12,399 | 21,955 | 113,422 |
| Live Cattle | 7,435 | 26,349 | 155,068 |
| WTI Crude Oil | 433,997 | 527,787 | 580,433 |
| Heating Oil | -21,534 | 1,366 | 65,230 |
| Unleaded Gas | 14,957 | 38,719 | 63,022 |
| Natural Gas | 10,129 | 118,918 | 197,542 |
| Gold | -9,936 | 124,967 | 87,378 |
| Silver | 3,455 | 7,054 | 29,871 |
| TOTAL | 841,284 | 1,436,756 | 2,741,728 |

*Source: CFTC Commitments of Traders CIT Suplement, calculatiions based upon CFTC COT/ CIT report (see appendix). Note that Physical Hedgers in this table are equivalent to the Commercial category. Any Trditional Speculators utilizing the swaps loophole )see Ch. 6) show up here as Physical Hedgers. This table does not include spread trades or non-reported trades/ WTI crude oil figures include NYMEX, ICE and NYMEX financial contracts as well as CFTC reclassification. CFTC does not report data for non-US traded commodities.*

**Table 6. Commodities Futures Markets Size – Dollar Value of Open Interest (Billions)**

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|
| **Cocoa** | $1.8 | $1.5 | $1.6 | $1.9 | $2.0 | $2.7 | $4.1 |
| **Coffee** | $1.4 | $1.7 | $2.7 | $3.8 | $4.2 | $6.3 | $8.4 |
| **Corn** | $5.4 | $5.1 | $8.2 | $7.7 | $15.1 | $23.8 | $41.9 |
| **Cotton** | $1.6 | $3.0 | $2.6 | $2.8 | $4.3 | $6.8 | $11.1 |
| **Soybean Oil** | $1.4 | $2.0 | $2.5 | $1.9 | $3.2 | $5.8 | $8.7 |
| **Soybeans** | $4.9 | $7.3 | $9.5 | $8.8 | $10.1 | $20.9 | $34.6 |
| **Sugar** | $1.5 | $1.7 | $2.8 | $5.1 | $8.6 | $8.2 | $13.9 |
| **Wheat** | $1.8 | $1.9 | $2.6 | $3.8 | $7.4 | $11.6 | $17.2 |
| **Wheat KC** | $1.3 | $1.1 | $1.2 | $1.5 | $3.1 | $4.1 | $5.3 |
| **Feed Cattle** | $0.5 | $0.8 | $0.8 | $1.3 | $1.5 | $1.4 | $1.7 |
| **Lean Hogs** | $0.6 | $0.9 | $1.9 | $2.3 | $3.3 | $3.9 | $5.2 |
| **Live Cattle** | $2.7 | $3.6 | $3.6 | $4.9 | $6.7 | $7.9 | $9.7 |
| **Brent Crude Oil** | $6.6 | $8.5 | $12.6 | $19.4 | $31.1 | $45.7 | $61.8 |
| **WTI Crude Oil** | $16.1 | $20.4 | $33.6 | $55.3 | $96.4 | $171.0 | $295.7 |
| **Gas Oil** | $4.0 | $3.7 | $5.5 | $10.2 | $14.7 | $21.0 | $27.7 |
| **Heating Oil** | $4.4 | $5.1 | $8.2 | $11.8 | $13.6 | $17.9 | $28.3 |
| **Unleaded Gas** | $3.7 | $3.9 | $7.3 | $10.3 | $11.4 | $16.1 | $29.3 |
| **Natural Gas** | $23.6 | $27.8 | $25.9 | $42.4 | $45.1 | $54.1 | $87.3 |
| **Aluminum** | $- | $- | $- | $12.3 | $23.7 | $27.6 | $34.9 |
| **Lead** | $- | $- | $- | $0.7 | $1.0 | $2.2 | $2.0 |
| **Nickel** | $- | $- | $- | $2.0 | $4.4 | $6.7 | $6.7 |
| **Zinc** | $- | $- | $- | $2.7 | $6.8 | $6.9 | $6.3 |
| **Copper** | $- | $- | $- | $15.4 | $31.5 | $34.0 | $41.8 |
| **Gold** | $5.6 | $9.9 | $13.2 | $13.9 | $18.9 | $24.9 | $40.1 |
| **Silver** | $2.0 | $2.4 | $3.7 | $4.3 | $6.4 | $7.4 | $11.8 |
| **TOTAL** | **$91.0** | **$112.2** | **$150.1** | **$246.5** | **$374.5** | **$538.7** | **$835.2** |

*Note: Table has no data for base metals in 2004. If base metals are assumed to be approximately $33 billion (like 2005) that would make the total commodities futures market size around $183 billion.*

*Source: CFTC Commitments of Traders and Bloomberg. For Base Metals, Brent Crude and Gasoil open interest represents futures only. No data for Base Metals in 2002-2004. All other commodities include delta-equivalent options positions but spread positions are omitted. WTI crude oil figures include NYMEX, ICE and NYMEX financial contracts. Figures represet averages and 2008 figure is an average through 7/1/08.*

**Table 7. Estimated Annual Inflows (Billions)**

| | S&P-GSCI | DJ-AIG | TOTAL |
|---|---|---|---|
| **2004** | $16.2 | $8.9 | $25.1 |
| **2005** | $4.8 | $12.4 | $17.2 |
| **2006** | $28.2 | $11.3 | $39.5 |
| **2007** | $14.7 | $15.4 | $30.1 |
| **2008** | $44.5 | $17.0 | $61.5 |
| | | **TOTAL INFLOWS** | **$173.4** |

*Source: Masters, as cited in the endnotes*

no shortages, and despite price increases, demand has continued to rise.

The debate (or more aptly, denial) has heated up at this point: whether or not the increased demand of index speculators is guilty of driving up spot prices. The OECD has attacked critics for using simple correlations rather than causal links, but even then its application of correlation methods has failed to show its point that speculation has nothing to do with steep increases in spot prices.[73]

There are too many evidences to ignore the 'simple' correlations. The demand of index speculators has definitely driven up prices as evidenced by the movements of all the 25 commodities of the S&PGSCI and DJ-UBSCI. Their prices rose by an average of more than 200 per cent from 2003 to 2008. **(See Table 8)** It is quite unusual for any economy to have different commodities increase in prices all at the same time. This is precisely the problem with indexes, that when they rise only because of the increasing value of oil, even if food commodities do not change in value, the demand for food commodities as well as their prices will also increase.

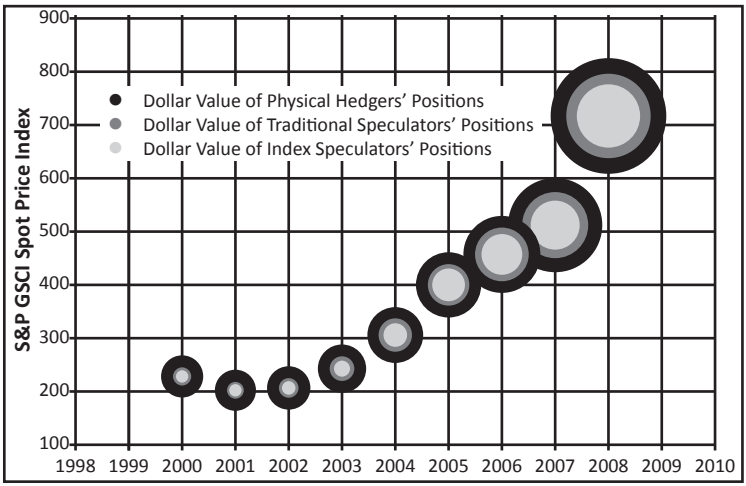
It is also evidenced by the growth of the commodity futures markets coinciding with the increase in the spot price index of S&PGSCI itself. **(See Graph 3)** It is also evidenced by the correlation of the money poured in by index speculators and the rise in spot prices. **(See Graph 4)**

**Table 8. Commodity Futures Prices, July 1, 2003 to July 1, 2008**

| | | |
|---|---|---|
| AGRICULTURAL | Cocoa | + 101% |
| | Coffee | + 160% |
| | Corn | + 214% |
| | Cotton | + 18% |
| | Soybean Oil | + 196% |
| | Soybeans | + 160% |
| | Sugar | + 121% |
| | Wheat | + 177% |
| | Wheat KC | + 190% |
| LIVESTOCK | Feed Cattle | + 30% |
| | Lean Hogs | + 11% |
| | Live Cattle | + 48% |
| ENERGY | Brent Crude Oil | + 397% |
| | WTI Crude Oil | + 364% |
| | Gasoil | + 448% |
| | Heating Oil | + 399% |
| | Unleaded Gas | + 298% |
| | Natural Gas | + 154% |
| BASE METALS | Aluminum | + 124% |
| | Lead | + 265% |
| | Nickel | + 157% |
| | Zinc | + 141% |
| | Copper | + 433% |
| PRECIOUS METALS | Gold | + 169% |
| | Silver | + 298% |
| | AVERAGE | + 203% |

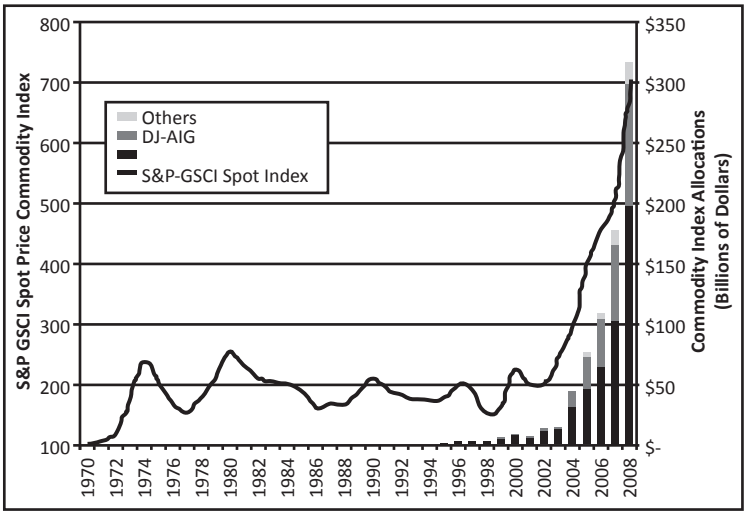
*Source: Bloomberg*

**Graph 3. Commodities Futures Market Size (billions) vs S&PGSCI Spot Price Index**




*Source: Masters, as cited in the endnotes*

**Graph 4. S&PGSCI Spot Price Index vs Index Speculators Assets**




*Source: Bloomberg, Goldman Sachs, CFTC Commitments of Traders CIT Supplement, calculations based upon CFTC COT/CIT report (see appendix). 2008 figure is as of July 1, 2008.*

The volumes of derivatives trading in corn and rice are also correlated with the price movements of the two food commodities. **(See Graphs 5 and 6)** The contracts purchased by commodity index funds are also closely related with the IMF food price index. **(See Graphs 7 and 8**)

## Back to the real world

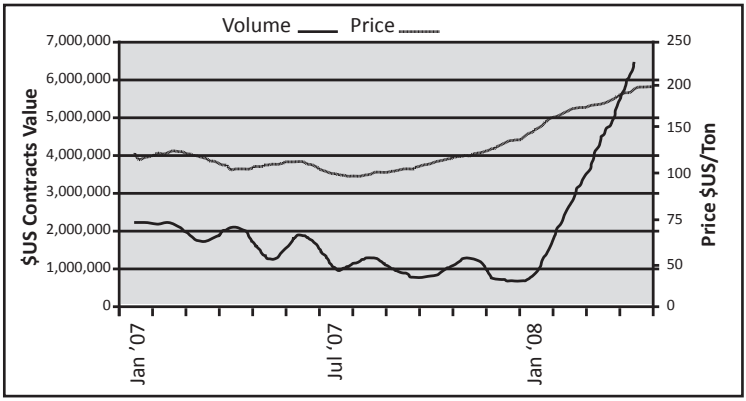
In the long run, increased prices in the real world bring more unimaginable consequences, especially if they are not at all based on increased incomes, population growth or production woes that have concrete and doable solutions.

In the advanced capitalist countries, the farmers and processors have lost the ability to plan their production and predict prices. More importantly, they are unable to realise the benefits of higher prices because of higher production costs. For instance, in March 2009, the USDA reported that increase in fuel and fertilizer costs cancelled out the historical increase in wheat prices.[74]

The oil price hike that has been attributed as effect of speculation is unprecedented, i.e. three to four times higher in real terms (taking inflation to account) than the average price in 1984 to 2004, and it is bound to last.[75] This phenomenon has dragged food prices as already mentioned since the links between food and energy have become more intimate with index speculation. But more concretely, high oil prices along with the dominance of corporate agriculture that is highly dependent on the use of energy, shall have serious impact on food.

Oil and petroleum products are used in production, transportation, processing, and inputs. This explains considerable part of price variability of food commodities. Most commodities respond to oil price hikes, and according to the analysis commissioned by the World Bank, the higher oil prices increase, the more elastic (or responsive) the prices of commodities are, and the links have become stronger in the last price boom. Although the World Bank analysis points out that *non-food* commodities such as metals are more elastic than food,

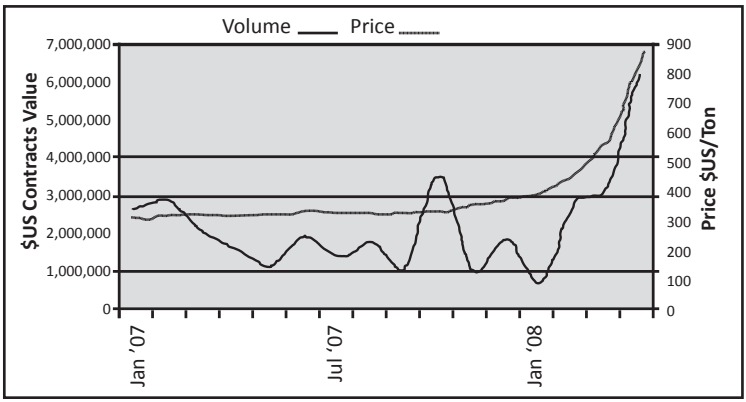
**Graph 5. Volume of Trading in Corn Derivative Contracts and the Global Market Price**




*Note: Volume of trading and open interest refer to the primary Y axis on the left (CBOT data: http://futures.tradingcharts.com/chart/CN/M), while price refers to the Y axis on the right (FAO data: http://www.fao.org/es/esc/prices).*

*Source: Pace, Noemi, et.al. Has financial speculation in food commodity markets increased food prices? October 2008*

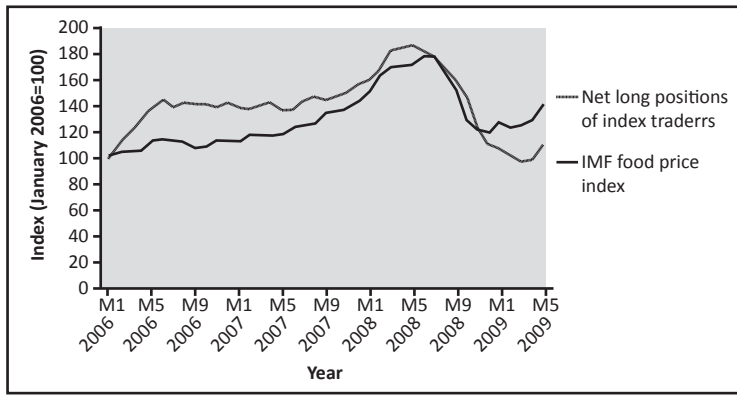
**Graph 6. Volume of Trading in Rice Derivative Contracts and the Global Market Price**



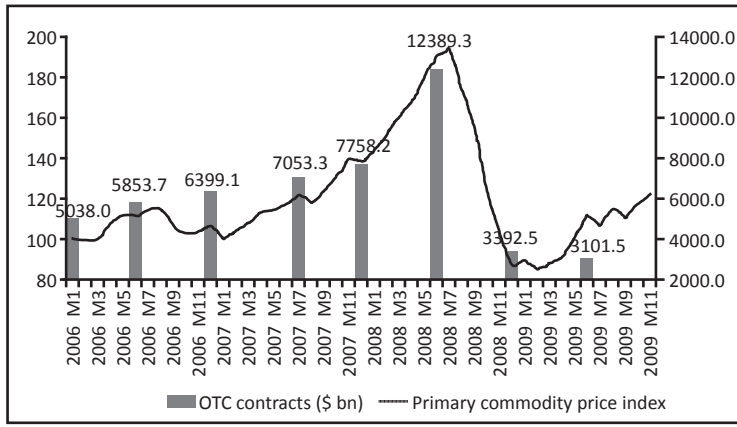

*Note: Volume o trading and open interest refer to the primary Y axis on the left (CBOT data: http://futures.tradingcharts.com/chart/RI/M), while price refers to the Y axis on the right (FAO data: http://www.fao.org/es/esc/prices).*

*Source: Pace, Noemi, as cited*

**Graph 7. Index of estimated net long positions of index traders and the IMF food price index (January 2006-May 2009)**




**Graph 8. Primary commodity prices and OTC futures contracts**




*Source: IMF Commodity Price Statistics and BIS Quarterly Review June 2010*

the agricultural markets are so interdependent that market trends in wheat affect movements in other cereals such as rice and corn.[76]

Take the case of rice. Very little rice is traded on the commodity exchanges or in futures contracts; it is not even part of the popular indexes. But its price increased more than that of wheat during the phenomenal increases in 2008. In some countries like India, wheat and rice are substitutes for each other, so when the wheat prices increased from US$220 per tonne in 2007 to US$375 per tonne in 2008, India's imports fell from 5 million tonnes to 700,000 tonnes and rice prices increased. The global price of wheat rose in late-2007 while rice price hike started in early 2008. Both the World Bank and the FAO have researches confirming that at times the increases in rice prices are caused by increases in wheat prices.[77]

For the underdeveloped countries, the impact of speculation is manifold, being the stream of the imperialists' super-profits. Because of globalisation policies, these countries have increasingly become net food importers of the very food commodities that they used to produce abundantly. Trade liberalisation imposed by international financial institutions such as the International Monetary Fund (IMF) and the World Bank as well as the lopsided agreements under the World Trade Organisation (WTO) and bilateral deals have opened up the agricultural sectors of these countries to food imports, among others. Decades of globalisation have seen their agricultural sectors erode in capacity to produce and provide for their food security. This is not to mention that prior to globalisation, Third World agriculture was already in a chronic crisis characterised by backwardness, landlessness, and exploitative relations.

This underlying crisis is only aggravated by imperialist globalisation and heightened further by speculation. Today, the underdeveloped countries import wheat, rice, corn, livestock, vegetables, and what have you, first as commitment to various agreements and eventually as necessity since they can no longer produce these efficiently. The damage of speculation driving up the spot prices is easily seen in increasing import bills of the underdeveloped countries. In 2008, the food import bills of underdeveloped countries increased by 25 per

cent from 2007, while those of what the FAO classifies as low-income food-deficit countries (LIFDC) increased by 35 per cent, the highest on record.[78]

Higher import costs are also compounded by a myriad of problems in the already crisis-ridden Third World. Aside from spending more on imports in relation to their exports receipts and gross domestic product (GDP), some of the underdeveloped countries, especially the LIFDCs, have also seen their currencies fall as one of the repercussions of the global financial crisis, and this has increased further the cost of importation. For those whose currencies have strengthened on the other hand are still forced to borrow for the higher importation costs, thereby raising their debt burden.

Still there are those who argue that high global prices would benefit the Third World farmers and cultivators, especially the exporters. But several factors disprove this view. One, very little percentage of food produced in the Third World ends up in the international markets. Secondly, imperialist governments have retained the incentives they give their own producers, resulting in historically low global prices prior to the spike in 2008, which have served as disincentives to Third World exporters. Thirdly, decades-long globalisation has crippled production so bad to even compete domestically. Lastly, in the Third World, the farmgate price has been chronically depressed by middlemen and traders. Typically traders would overprice the inputs and underprice the produce and gain super-profits.

In collaboration with the agribusiness TNCs, traders have also shifted to importation instead of buying from farmers and selling to processors since many cereals sectors have been privatised. They import cheaply and sell dearly. In the event of speculation-induced price hikes, they are forced to import more expensive food but will definitely sell at even more exorbitant prices. The difference in the Third World in addition is that when global prices have already fallen, Third World prices remain high. It has been observed that the pass through of global prices is extremely high in the underdeveloped countries in the phase of rising prices but not evident in the phase of

falling prices.[79] And this can only be the trick of the collaboration of agribusiness TNCs and the local traders.

Farmers' bankruptcies have increased further because cultivation has become more and more unaffordable due to high cost of inputs. The US dollar prices of some agri-chemicals increased by more than 160 per cent in the first few months of 2008. The FAO has also observed that the ratio of output to input prices, which can be an indicator of farmers' profitability, has declined in the last decade, yet has not been coupled with increasing productivity. Simply put, inputs costs just went up without commensurate increases in productivity and farmgate prices. Another observation was made when the ratio declined sharply in 2007, that the increases in the prices of inputs were passed on fully and quickly to the farmers.[80] And this could only be the trick of agri-chemical TNC monopoly.

All literature on the subject of speculation concludes that in the end, the bearers of the brunt are the consumers. It is often pointed out that consumers in the rich countries typically allocate 10-15 per cent of their household income to food while consumers in the underdeveloped countries use 50-80 per cent of their budget to purchase food.[81] [82] It must be emphasised first, however, before due attention is given to the poor countries, that the consumers of the First World are the ones who have been enticed to "invest" in commodity indexes. The Wall Street banks use ordinary people's money, on which those people expect to live in retirement, to take advantage of high food prices.[83]

Then, it should be emphasised that in the underdeveloped countries, majority of the consumers are the farmers and direct producers themselves, thus before the decline in their purchases due to increased commodity prices, the discussion has already started with how their incomes have declined over time. Most of the income levels in poor countries are already below what is needed for decent living.

Increasing food prices weigh heavily on the cost of living and general inflation. In the poor countries, this situation is oftentimes met with central banks increasing interest rates and employers freezing wages.

Both have been proven to have put agriculture and industry at a standstill and have worsened poverty.

Staples account for the large part of the food expenses of the poor, thus any increases in the prices would shift the quality of food extremely and increase the risks of malnutrition.[84] According to the UN, the 40-per cent increase in average prices of food led to additional 130 million malnourished people and it increased the number of people living in poverty by 100-200 million.[85] [86]

What is most ironic is that while the underdeveloped countries suffer a host of problems already, high prices tend to stay in underdeveloped countries even if global prices have fallen already relative to the peak in 2008. On the average, food commodities are still 20 per cent more expensive today than they were in 2006.[87]

In June 2010, presumably long after the 2008 price spikes, the FAO estimated that 20 countries continued to face food emergencies and another 25 countries were likely to have moderate to severe food crises. Even countries that are not described as having food emergencies, the problem gets severe for large portions of their population, precisely because majority of the people of these countries have generally remained poor.[88]

In the end, the only winners in the price increases and volatility are the financial oligarchs, mainstays in the moribund stage of capitalism, squeezing more and more paper profits out of parasitic activities such as speculation. They are by themselves monopolies, but it is also important to note in order to illustrate the immensity of monopoly power, that food and agribusiness TNCs are inter-linked with the financial oligarchs. The banks sit in the boards of the biggest food TNCs and vice versa. And in “revolving-doors”, the financial oligarchs and food TNCs serve in governments and vice versa. The directors of Nestle, for instance, sit in the boards of HSBC and the Bank of International Settlements. Barclays is the biggest individual shareholder in the agri-chemical, food conglomerate, Monsanto.

Food TNCs such as Bunge, Cargill and John Deere also use derivatives and are classified as "non-banks derivatives end-users". And they have lobbied for the exemption of swaps from regulatory oversight of the CFTC. They are gaining from advanced information on prices while trading in unregulated markets and keeping their financial records secret. The food TNCs have dipped super-profits at least five times – by plundering Third World land and natural resources, underpricing Third World labour, overpricing inputs, overpricing commodities, and speculation. This shall have tremendous impact on food security.

Most of the responses to this terror have been simply policy responses especially coming from the US and European Union governments, which aim to regulate or moderate the use of derivatives in particular and speculation in general. The Obama administration has specifically passed a Wall Street reform bill that is seen to limit the number of derivatives that can be controlled by one entity and OTC transactions. At one point, the FAO has even proposed more efficient importation through tariff reduction for the underdeveloped countries to manage stocks and conditional cash transfers for the poor to survive the onslaught. But all these at best only serve to curb the financial abuses of the financial oligarchs and corporate monopolies while preserving the moribund capitalist system. Current responses do not address the real fundamentals that have set the crisis in motion from one ugly phase to the next.

This is why farmers and consumers especially in underdeveloped countries should look beyond the proposed 'solutions' and instead look into the concrete connections between a seemingly abstract world of speculation and financialisation of commodities and real-world hunger, poverty and underdevelopment in the broader context of the imperialist crisis. They can start by building solidarity with the workers and consumers of the rich countries, for after all, there is a direct line between the retiree who is about to lose his pension and the next peasant who will die of hunger.

## Endnotes

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The role of speculation in the continued volatility of global food prices continues to spark controversy. Even within the camp of multilateral institutions and those that have themselves prescribed globalisation policies that have facilitated and aggravated unbridled speculation-driven price hikes, the debate is drawing the line between truths and lies. More importantly, the issue is challenging the critical analysis and advocacy of peasant movements, advocates and civil society organisations as the concrete impact of speculation in food is tremendous on the growing hunger and impoverishment of the world's poor – the direct producers. Indeed there are concrete connections between a seemingly abstract world of speculation and financialisation of commodities and real-world hunger, poverty and underdevelopment in the broader context of the global crisis.

Pesticide Action Network Asia and the Pacific (PAN AP) is one of the five regional centres of PAN, a global network dedicated to eliminating the harm caused to humans and the environment by pesticides and promoting biodiversity-based ecological agriculture.

PAN AP's vision is a society that is truly democratic, equal, just, and culturally diverse; based on the principles of food sovereignty, gender justice and environmental sustainability. It has developed strong partnerships with peasants, agricultural workers and rural women movements in the Asia Pacific region and guided by the strong leadership of these grassroots groups, has grown into a reputable advocacy network with a firm Asian perspective.

PAN AP's mission lies in strengthening people's movements to advance and assert food sovereignty, biodiversity-based ecological agriculture, and the empowerment of rural women; protect people and the environment from highly hazardous pesticides; defend the rice heritage of Asia; and resist the threats of corporate agriculture and neo-liberal globalization.

Currently, PAN AP comprises 108 network partner organizations in the Asia Pacific region and links with about 400 other CSOs and grassroots organizations regionally and globally.

EMPOWERING PEOPLE FOR CHANGE

PANAP

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