C1 | THE GLOBAL FOOD CRISIS

The global financial crisis drew international attention away from the food crisis, but the latter continues to fester, and even grow. When the global food crisis first hit headlines around the world in 2008, international bureaucrats referred to the current problems in the world food situation as 'a silent tsunami'. But the truth is that it was not a sudden or unexpected crisis; the signs had been around for some time, and it could easily have been seen to be coming. Even so, its impact has been powerful and devastating, as food shortages and high food prices have adversely affected billions of people, especially the poor in the developing world.

It is also a man-made crisis, resulting not so much from inescapable forces of global supply and demand as from the market-oriented and liberalising policies adopted by choice or compulsion in almost all countries. These policies have either neglected agriculture or allowed shifts in global prices to determine both cropping patterns and the viability of farming, and also generated greater possibilities of speculative activity in food items. Cultivators in developing countries have been ravaged by the fearsome combination of exposure to import competition from highly subsidised agriculture in developed countries, removal of domestic protection of inputs, and reduced access to institutional credit, to the point that even the global increase in agricultural prices after 2002 did not compensate sufficiently to alleviate the pervasive agrarian crisis in much of the developing world.

It is also clear that the global food crisis is not something that can be treated as discrete and separate from the global financial crisis. On the contrary, it is intimately connected with it, particularly through the impact of financial speculation on world trade prices of food.

This is not to deny the undoubted role of other real economy factors that affect the global food situation. While demand–supply imbalances have been touted as reasons, this is largely unjustified given that there has been hardly any change in the world demand for food in the past three years. In particular, the claim that food grain prices have soared because of more demand from China and India as their GDP increases is *completely invalid*, since both aggregate and per capita consumption of grain have actually fallen in both countries (Nuo and Jiao 2008). Supply factors have been – and are likely to continue to be – more significant. These include the short-run effects of the diversion of both acreage and food crop output for biofuel production, as well as more medium-term factors that have affected harvests in different ways,

20 Contrary to claims the food crisis was not brought about by increased demand in India and China (Indranil Mukherjee)

such as rising costs of inputs, falling productivity because of soil depletion, inadequate public investment in agricultural research and extension, and the impact of climate changes.

Impact of biofuels

Two policy factors affecting global food supply deserve a special note. The first is the biofuel factor: the impact of both oil prices and government policies in the United States, Europe, Brazil, and elsewhere that has promoted biofuels as an alternative to petroleum. This has led to significant shifts in acreage to the cultivation of crops that can produce biofuels and to the diversion of such output to fuel production. For example, in 2007 the United States diverted more than 30 per cent of its maize production, Brazil used half of its sugar cane production, and the European Union (EU) used the greater part of its vegetable oil seed production, as well as imported vegetable oils, to make biofuels (Polya 2008). In addition to diverting corn output to non-food use, this has also reduced acreage for other crops and has naturally reduced the land available for producing food.

The irony is that biofuels do not even fulfil the promise of ensuring energy security or retarding the pace of global warming. Ethanol production is extremely energy-intensive, so it does not really lead to any energy saving. Even in the most 'efficient' producer of ethanol, Brazil, where sugar cane rather than corn is used to produce ethanol, it has been argued that the push for such production has led to the large-scale deforestation of the Amazon, thereby further intensifying the problems of global warming. Indeed, recent scientific research suggests that the diversion of land to the cultivation of biofuel crops can produce an enormous 'CO_2 debt' arising from the use of machinery and fertilisers, the release of carbon from the soil, and the loss of CO_2 sequestration

by trees and other plants that have been cleared for cultivation (Beddington 2008). Yet, as long as government subsidies remain in the United States and elsewhere, and world oil prices remain high, biofuel production is likely to continue to be encouraged despite the evident problems. And it will continue to have negative effects on global food production and availability.

Neglect of agriculture

The second factor is the policy neglect of agriculture over the past two decades, the impact of which is finally being felt. The prolonged agrarian crisis in many parts of the developing world has been largely a policy-determined crisis. Inappropriate policies have several aspects, but they all result from the basic neoliberal open-market-oriented framework that has governed economic policy-making in most countries over the last two decades. One major element has been the lack of public investment in agriculture and in agricultural research. This has been associated with low to poor yield increases, especially in tropical agriculture, and falling productivity of land. Greater trade openness and market orientation of farmers have led to shifts in acreage from traditional food crops that were typically better suited to ecological conditions and the knowledge and resources of farmers, to cash crops that have increasingly relied on purchased inputs.

At the same time, both public provision of different inputs for cultivation and government regulation of private input provision have been progressively reduced, leaving farmers at the mercy of large seed and fertiliser companies and input dealers. As a result, prices for seeds, fertilisers, and pesticides have increased quite sharply. There have also been attempts in most developing countries to reduce subsidies to farmers in the form of lower power and water prices, thus adding to cultivation costs. Costs of cultivation have been further

21 Biofuels have taken over agricultural land (Indranil Mukherjee)

22 Ethanol bio fuel Refinery (© Ryan Stevenson | Dreamstime.com)

increased in most developing countries by the growing difficulties faced by farmers in accessing institutional credit, because financial liberalisation has moved away from policies of directed credit and provided other, more profitable (if less productive) opportunities for financial investment. So many farmers are forced to opt for much more expensive informal credit networks, which have added to their costs.

Climate change and food production

In addition, there is the impact of recent climate change, which has caused poor harvests in different ways, ranging from droughts in Canada and Australia to excessive rain in parts of the United States. Scientists are projecting that warmer and earlier growing seasons will increase crop susceptibility to pests and viruses, which are expected to proliferate as a direct result of rising temperatures. Some more arid regions are already more drought prone and in danger of desertification. The rapid melting of glaciers in Asia is of huge consequence to China and India, where important rivers such as the Yangtze, the Yellow, and the Ganga are fed by such glaciers. This will deprive the hinterland of much-needed irrigation water for wheat and rice crops during dry seasons. This is of global significance since China and India together produce more than half the world's wheat and rice. Once again, official policy has been tardy and negligent in considering such problems, let alone addressing them.

The lack of attention to relevant agricultural research and extension by public bodies has denied farmers access to necessary knowledge. It has also

been associated with other problems, such as the excessive use of groundwater in cultivation; inadequate attention to preserving or regenerating land and soil quality; and the overuse of chemical inputs that have long-run implications for both safety and productivity. Similarly, the ecological implications of both pollution and climate change, including desertification and loss of cultivable land, are issues that have been highlighted by analysts, but largely ignored by policy-makers in most countries (Lang 2010). Reversing these processes is possible, and of course essential. But it will take time, and also will require not only substantial public investment but also major changes in the orientation and understanding of policy-makers.

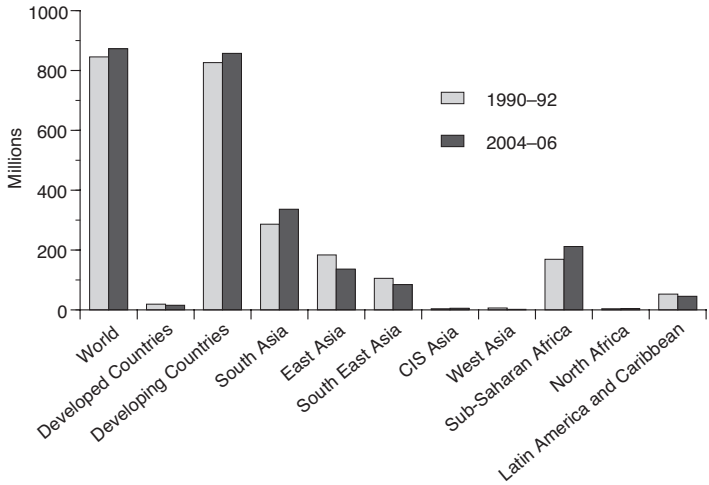
Another important element in determining food prices is oil prices. Since oil (or fuel) enters directly and indirectly into the production of inputs for cultivation as well as irrigation and transport costs, its price tends to have a strong correlation with food prices. So curbing volatility in oil prices would also help stabilise food prices to some extent.

Increase in 'hungry' people

All this has meant that the number of hungry people has actually increased in the world as a whole, and particularly in certain developing regions. Far from halving, or even decreasing, the figure for the number of malnourished people globally increased by more than 50 million between the early 1990s and the mid 2000s.

This was entirely because of increasing hunger in the developing world,

23 Paddy field in Hechuan, China (David Legge)



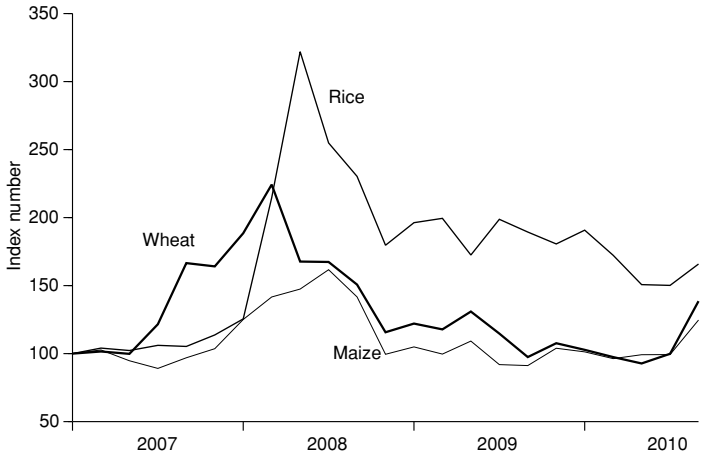
C1.1 Number of undernourished people worldwide (*source*: FAO 2009). *Report on State of Food Insecurity in the World*)

as the numbers declined in the developed countries. East and Southeast Asia also performed well in terms of falling numbers of malnourished people, but such numbers increased quite sharply in South Asia (by 50 million) and in sub-Saharan Africa (by 44 million). The surprise is that the growing prevalence of hunger and food insecurity was associated with relatively high GDP growth in several regions, such as India and countries in Latin America. The contrast with East and Southeast Asia is a stark one, and points to the role of public policy in ensuring that aggregate income growth translates into better provision of basic needs, such as food for the general population.

Speculation drives up food prices

While this was the state before the global economic crisis, the crisis obviously made matters much worse. The intensity of the food crisis that hit many developing countries from 2008 onwards was particularly on account of the very pronounced global volatility in food prices. Globally, the prices of many basic food commodities had not risen faster for more than three decades. Indeed, even in recent years, food prices internationally had shown only a modest increase until early 2007. But thereafter they soared.

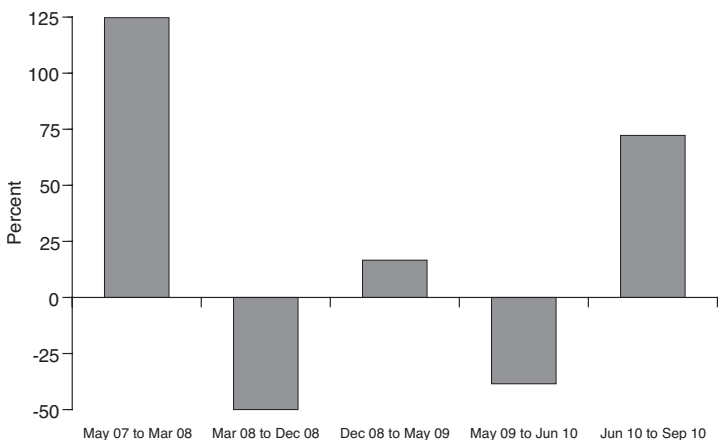
Chart C1.2 indicates the extent of price changes in the three most important food grain crops: wheat, rice, and maize. The extent of price variation in such a short time already suggests that such movements could not have been created by the forces of supply and demand, especially as in world trade the effects of seasonality in a particular region are countered by supplies from other regions. In any case, FAO data show very clearly that there was scarcely any change in global supply and utilisation over this period, and that if anything, output changes were more than sufficient to meet changes in utilisation in the period of rising prices, while supply did not greatly outstrip demand in the period of falling prices (see FAO 2009, 2010 and Ghosh 2010).



C1.2 Price volatility of food grains (*source*: calculated from IMF commodity prices database, accessed 14 October 2010)

The extent of the volatility is even more apparent when we look at the changes in the price of any one particular commodity. Chart C1.3 shows how wheat prices have changed in the past three years. It should be noted that after all these very rapid and extreme changes, global wheat prices are now around 40 per cent higher than they were in January 2007. This is related to the very rapid increase in wheat prices in the very recent past, which is significant because it serves as a warning that the possibility of another price spike in important food items still looms large.

It is now quite widely acknowledged that financial speculation was the major factor behind the sharp price rise of many primary commodities, including agricultural items over the past year (UNCTAD 2009; IATP 2008, 2009; Wahl 2009; Robles et al. 2009; UN Special Rapporteur on Food 2010). Even recent research from the World Bank (Baffes and Tassos 2010) recognises the role played by the 'financialisation of commodities' in the price surges and



C1.3 Changes in wheat price (*source*: calculated from IMF commodity prices database, accessed 14 October 2010)

declines, and notes that price variability has overwhelmed price trends for important commodities.

Of course, there continue to be other opinions, according to which these price changes reflected real if temporary changes in demand and supply, such as sudden supply shocks in particular areas, as well as the associated impact on panic buying, or bans on selling, such as export bans in the world trade market. It is then argued that financial activities in the commodity futures markets have had relatively little impact on price volatility, and if anything have operated to stabilise prices rather than destabilise them (for example, OECD 2010).

But this argument dissolved completely in the face of subsequent trends in prices, as shown in Charts C1.2 and C1.3. Clearly, such price variation in relatively short periods of time cannot be explained even by panic buying and selling of commodities, and indeed there is no evidence that actual volumes of commodity transactions mirrored these price movements.

Financial deregulation as a fillip to speculation

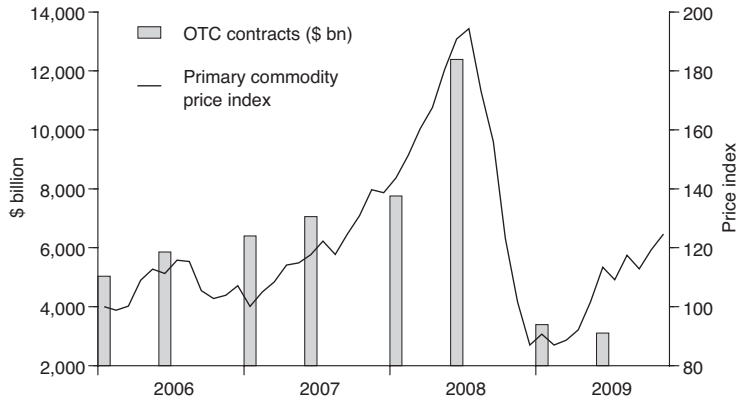
So what happened exactly? Global commodity prices have always been volatile to some degree and prone to 'boom–bust' cycles, which is one of the many reasons why developing countries have been encouraged to diversify away from dependence on such exports. The 1980s, saw the emergence of commodity futures markets (see Box C1). It was claimed that they allowed for better risk management because producers, consumers, and intermediaries can hedge (i.e. protect against risk) against price fluctuations.

Financial deregulation in the early part of the current millennium gave a major boost to the entry of new financial players into the market for trading of commodities (including food). In the United States, which has the greatest volume of futures commodity trading, a significant regulatory transformation occurred in 2000. While commodity futures contracts had existed before, they

Box C1 What is a futures market?

Futures markets are based on futures contracts, standardised contracts between two parties to buy or sell a specified asset (e.g. oranges, oil, gold) of standardised quantity and quality at a specified future date at a price agreed today (the *futures price* or the strike price). The contracts are traded on a futures exchange. The party agreeing to buy the underlying asset in the future assumes a long position, and the party agreeing to sell the asset in the future assumes a short position.

Source: en.wikipedia.org/wiki/Futures_contract



C1.4 Primary commodity prices and OTC futures contracts (*source*: IMF commodity price statistics and *BIS Quarterly Review*, June 2010

were traded only on regulated exchanges under the control of the Commodity Futures Trading Commission (CFTC), which required traders to disclose their holdings of each commodity and stick to specified limits, so as to prevent market manipulation. Therefore, they were dominated by commercial players who were using them for the reasons mentioned above (i.e for hedging against risks), rather than for mainly speculative purposes. In 2000, the Commodity Futures Modernization Act effectively deregulated commodity trading in the United States by exempting over-the-counter (OTC) commodity trading (outside of regulated exchanges) from CFTC oversight. Soon after this, several unregulated commodity exchanges opened. These allowed any and all investors to trade commodity futures contracts without any limits, disclosure requirements, or regulatory oversight. The value of such unregulated trading zoomed, reaching around $9 trillion at the end of 2007, which was estimated to be more than twice the value of the commodity contracts on the regulated exchanges. According to the Bank for International Settlements, the value of such unregulated trading (other than for gold and precious metals) increased from $5.85 trillion in June 2006 to $7.05 trillion in June 2007 and to as much as $12.39 trillion in June 2008 (BIS 2009).

Unlike genuine producers and consumers who use such markets for hedging purposes, financial firms and other speculators increasingly entered the market in order to profit from short-term changes in price. At the height of the boom, it was estimated by the hedge fund manager Michael Masters in testimony before the US Congress that even on the regulated exchanges in the United States, such investors owned approximately 35 per cent of all corn futures contracts, 42 per cent of all soybean contracts, and 64 per cent of all wheat contracts in April 2008. This excluded all the (unregulated) ownership through OTC contracts, which were bound to be even larger.

As the global financial system buckled under the pressure of the continuing implosion of the US housing finance market, large investors searched for other avenues of investment to find new sources of profit. Speculation in commodity

trading increasingly emerged as an important area for such financial investment. The United States became a major arena for such speculation, not only because of the size of its own crisis-ridden credit system, but also because of the deregulation mentioned above, which made it possible for more players to enter into commodity trading.

This created a peculiar trajectory in international commodity markets. The declared purpose of futures markets is to allow for hedging against price fluctuations. This implies that futures prices would be lower than spot (current) prices. However, throughout much of the period from January 2007 to June 2008, futures prices were higher than spot prices. This cannot reflect the hedging function and must imply the involvement of speculators who are expecting to profit from rising prices.

Then, by around June 2008, when the losses in the US housing and other markets because immense, it became necessary for many speculators to exit with the profits that they could make (book their profits). UNCTAD (2009: 25) notes the sharp decline of financial investment in commodity markets from mid 2008. This caused futures market prices to fall, and this trend was transmitted to spot prices as well.

Thus, international commodity markets, far from protecting against risks, become very effective in determining and manipulating market behaviour. The result was the excessive price volatility that has been displayed by important commodities over the recent past, not only the food grains and crops mentioned here, but also minerals and oil.

Effect on consumers and cultivators

Such volatility has had very adverse effects on both cultivators and consumers of food. It is often argued that rising food prices at least benefit farmers, but this is often not the case, as marketing intermediaries tend to grab the benefits. In any case, with price changes of such short duration, cultivators are unlikely to gain. One major reason is that they send out confusing, misleading, and often completely wrong price signals to farmers that cause over-sowing in some phases and under-cultivation in others. Many farmers in the developing world have found that the financial viability of cultivation has actually decreased in this period, because input prices have risen and output prices have been so volatile that the benefit has not accrued to direct producers.

In addition, this price volatility has meant bad news for most consumers, especially in developing countries. In developing countries in the phase of rising prices, domestic food prices tended to rise as global prices increased, even if not to the same extent. However, the reverse tendency has not been evident in the subsequent phase as global trade prices have fallen. In June 2010, the FAO estimated that around 20 countries faced food emergencies and another 25 or so were likely to have moderate to severe food crises. Even in countries that are not described as facing food emergencies, the problem

24 Activists demanding equitable access to food: US Social Forum, Atlanta, 2007 (David Legge)

is severe for large parts of the population. For example, in India, retail prices of some important food items have risen by more than 50 per cent in the past two years, causing great hardship in a country in which just under half the population is malnourished (Kala Anant 2011).

So the only gainers from this process are the financial intermediaries who were able to profit from rapidly changing prices.

This can easily happen again unless strict regulation prevents such financial activity. Despite reasonably good harvests in most countries and with no likelihood of any serious supply shortfall at the global level, prices have again started rising.

After a period of slight decline, the numbers of futures contracts in the regulated commodity markets (exchanges) have been increasing in the recent past. Clearly, the factors that created the recent food price spiral are still in place.

Need for regulations to curb volatile food prices

Obviously, the need to pass careful regulation controlling such speculative behaviour, and then to ensure that such legislation is effectively implemented, is absolutely crucial if the crazy price volatility in important food items is to be curbed. But the groundswell of public opinion that can force such changes has not yet been formed.

The recently passed Dodd-Frank Financial Reform Bill[1] in the United States

does contain some necessary regulations, bringing all futures contracts into regulated exchanges and requiring some limits for investors (based on proof of actual interest in the commodity). An important proposal in this legislation seeks to plug, at least partially, the loopholes that allowed such frenzied activity in commodity futures markets. It requires that previously unregulated OTC trades be traded on public exchanges. It has been estimated that around 90 per cent of this market in the United States would move from OTC trading to the more transparent exchange trading environment. In addition, the legislation specifies that limits must be imposed on traders in agricultural and energy-related commodities. This should reduce the importance of purely financial players.

However, while financial regulation in the United States is important, it will not be enough. Currently, only 30 per cent of commodity futures contracts are traded in the United States. European exchanges account for the bulk of the rest, followed by Tokyo and Singapore to a much lesser extent. Therefore, appropriate legislation in the EU is essential. Without it, the danger is that the speculative activity that has so disturbed essential commodity prices will simply move to other financial centres. Unfortunately, the proposed legislation that is currently on the table in the EU has some important weaknesses.

Of course, this does not in any way mean that the world food crisis is over, or that commodity prices will not continue to behave in a volatile fashion without other measures being adopted by governments. At best, it may simply mean that developing countries will get some breathing space from excessive price volatility, which should help them to get the relevant policies in place to tackle the real problems in the food economy and elsewhere. The need to put such measures into place, to revive the food economy in countries, and to ensure adequate and universal distribution of essential food items, is more pressing than ever. It is clear that the resolution of the food crisis requires strong governmental interventions to protect agriculture in developing countries, to provide more public support for sustainable and more productive and viable cultivation patterns, and to create and administer better domestic food distribution systems. It also requires international arrangements and cooperative interventions, such as strategic grain reserves, commodity boards, and other measures, to stabilise world trade prices. It has also been persuasively argued (Raffer 2008) that international lending institutions should provide automatic and non-conditional compensatory financing to food-importing developing countries that are adversely affected by such dramatic volatility in global food grain prices.

Note

1 banking.senate.gov/public/_files/070110_Dodd_Frank_Wall_Street_Reform_comprehensive_summary_Final.pdf.

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