The unnatural coupling: Food and global finance

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Abstract:
The dramatic rise and fall of world food prices in 2007-08 was largely a result of speculative activity in global commodity markets, enabled by financial deregulation measures in the US and elsewhere. Despite the recent fall in agricultural prices in world trade, the food crisis has exacerbated in many developing countries where food prices remain high and even continue to increase. The financial crisis also directly operates to increase food insecurity by imposing constraints on fiscal policies and food imports in balance of payments constrained developing countries, causing exchange rate devaluation through capital flight and adversely affecting employment, thereby reducing the ability of vulnerable groups to purchase food.

Keywords: Food, Agriculture, Commodity trade, Financial liberalisation, Speculation, Crisis

JEL Classification: E44, F13, F14, F36, G13, G38, O13, Q13, Q17, Q18

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I. Introduction

It has been clear for some months now that the global food crisis, which has been simmering for some time even if it first attracted international attention only around a year ago, is not something that can be treated as discrete and separate from the global financial crisis. On the contrary it has been 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 in affecting 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. Supply factors have been – and are likely to continue to be – more significant. These include the short-run effects of diversion of both acreage and food crop output for biofuel production, as well as more medium term factors 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 that have affected harvests in different ways.

Two policy factors affecting global food supply require special note. The first is the biofuel factor: the impact of both oil prices and government policies in the US, Europe, Brazil and elsewhere that have 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 diversion of such output to fuel production. For example, in 2007 the US diverted more than 30 per cent of its maize production, Brazil used half of its sugar cane production and the European Union used the greater part of its vegetable oil seeds production as well as imported vegetable oils, to make biofuel. In addition to diverting corn output into non-food use, this has also reduced acreage for other crops and has naturally reduced the available land for producing food.

The irony is that biofuels do not even fulfil the promises 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 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 growing bio-fuel crops can produce an enormous "CO^2 debt" 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 US and elsewhere, and world oil prices remain high, bio-fuel 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.

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 neo-liberal open market-oriented framework that has governed economic policy making in most countries over the past 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 the ecological conditions and the knowledge and resources of farmers, to cash crops that have increasingly

relied on purchased inputs. But 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 to the mercy of large seed and fertiliser companies, 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 increased in most developing countries by the growing difficulties that farmers have 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 that have added to their costs.

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 ground water in cultivation; inadequate attention to preserving or regenerating land and soil quality; the over-use 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. 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.

While these remain urgent issues that require global and national policy interventions, the intensity of the food crisis that hit many developing countries in 2008 was particularly on account of the dramatically high global prices of important food items, which adversely impacted upon national food security for food deficit countries, and their partial pass-through to national economies, which in turn affected the food security of vulnerable groups within countries. 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). Similarly, the subsequent sharp declines in prices were also related to changes in financial markets, in particular the need for liquidity to cover losses.

However, the subsequent decline in global trade prices of important food commodities has induced some amount of complacency about the food crisis. Yet it continues apace and is even likely to be exacerbated in many developing countries. One significant reflection of this continuing crisis is the fact that, even though global trade prices of wheat, rice, maize and other food items have fallen dramatically since mid/late 2008, the retail or wholesale prices of these commodities in many developing countries have not fallen and in many cases continue to increase. There are other mechanisms through which the financial crisis itself operates to increase food insecurity. These work through the constraints the current crisis is imposing on fiscal policies in balance of payments constrained developing countries and the effects of capital flows upon exchange rates, as well as through the adverse impact upon livelihoods and employment, which reduces the ability of vulnerable groups to purchase food.

In this paper, some of these issues are explored in more detail. In the second section, the role of speculation in determining the recent volatility of prices of food and other agricultural commodities in global trade is discussed. In the third section, the conundrum of persistent high food prices in much of the developing world despite falling global prices, and the implications of this tendency, are explored, along with a consideration of how some developing countries have managed to avoid the more adverse effects. The fourth section contains a discussion of the

various interconnections between finance and food that continue to generate food insecurity for a large part of the world's population. In this section some proposals for regulating finance specifically in order to enable effective strategies for food security are also briefly noted.

II. Speculation and the global trade in food crops

For much of the period between mid 2007 and mid 2008, as global prices in oil and other commodity markets zoomed to stratospheric levels, various eminent economists joined bankers, financial market consultants and even policy makers, in emphasising that these price rises were all about "fundamentals" that reflected real changes in demand and supply, rather than the market-influencing actions of a relatively small group of large players with enough financial clout and a desire to profit from changing prices.

In the case of oil, the arguments ranged from "peak oil", which pointed to the eventual (and imminent) problem of world oil consumption exceeding supply and known reserves, at one extreme, to the perfidious actions of the OPEC cartel in restricting supply so as to push up prices, at the other extreme. In between were other arguments such as the easing of monetary policy in the largest economy, the United States; the weakening US dollar, which caused oil prices to rise since oil trade is largely denominated in dollars; and rapid economic growth worldwide, but especially in China and India. Such arguments were widespread even though the period when global oil prices more than doubled was one in which total world oil demand had scarcely changed and if anything fell to some extent, and global oil supply increased slightly.

Similarly, the dramatic rise in food and other primary commodity prices was also traced to real economic causes and processes, even though 2008 has turned out to be a year of record grain production internationally. In the case of food grain and similar commodities, it is certainly true that rising costs of cultivation (partly affected in turn by high oil prices), inadequate policy support for agriculture resulting in falling yields, acreage diversion to produce bio-fuels, reduced government grain stockpiles, crop failures that could be traced to adverse weather conditions related to climate changes, all meant that there were imbalances that could explain some of the price rise. Nevertheless, even for food grains, the very rapid rise in prices over just a few months was hard to explain without bringing in some role of speculation. But even such speculation was excused, on the grounds that this also meant good times for the direct producers, not only oil exporting countries but small farmers producing food grains that had become highly valued internationally.

The most common argument in favour of allowing continued speculation was simply that the economics of speculation require such activities to be stabilising, rather than destabilising, if they are to be profitable. The vital function of speculators is to predict future market patterns and thereby reduce the intensity and volatility of change. Because speculators are supposed to buy when prices are low and sell when prices are high, they thereby serve to make prices *less* volatile rather than more so. Futures markets in commodities play a similar role: they allow both producers and consumers (farmers and food purchasers in the case of food grain) to hedge against future price changes and therefore allow them to get on with their real work instead of worrying about possible price changes.

According to this perception, therefore, the presence of speculation has a positive effect on the markets, cannot be blamed for rising prices, and certainly should not be curbed in any way. Taken to its logical conclusion, this argument also suggests that the price rises witnessed in the first half of 2008 were inevitable, reflecting economic fundamentals and requiring adjustment by governments and societies.

But this apparently plausible argument dissolved completely in the face of more recent trends in prices, as prices that had risen very sharply in the first half of 2008 then peaked around

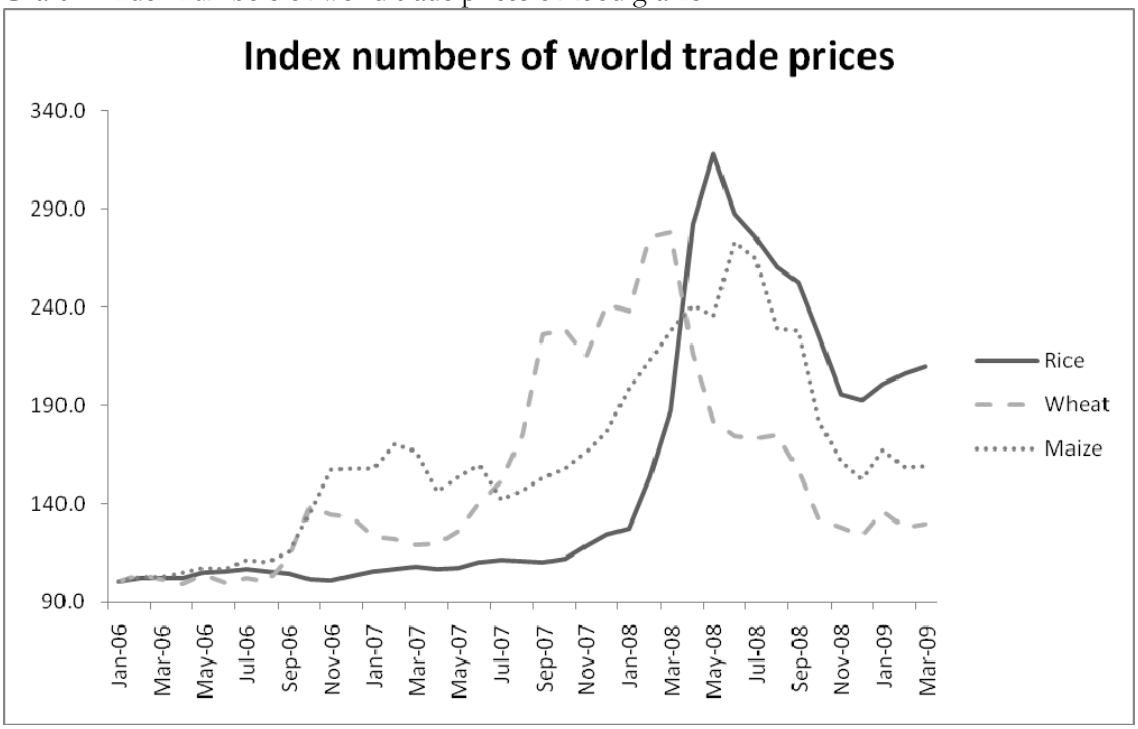
the middle of the year and fell drastically to levels that completely wiped out the earlier increases and in some cases were even below the level of more than two years previously. This is evident from Charts 1 and 2, which plot the average monthly prices of major food and cash crops in world trade since January 2006. These also happen to be the major agricultural commodities that have been increasingly subject to trade in the commodity futures exchanges.

Two general points are worth noting. First, there is a general absence of very large seasonality effects on prices in these major global crop markets, partly because of more generalised global stock holding, but largely because the differing weather conditions in various parts of the world ensure varying harvest times. Second, while commodity prices had been increasing since 2003, the very sharp increases were really evident only from late 2006 or some time in 2007. In the case of rice, the sharp increase in prices was from the beginning of 2008, but it was so dramatic as to cause an increase of more than two and a half times in the traded price between December 2007 and June 2008. The abrupt fall in price in the second half of 2008 was equally startling, bringing rice prices down by 40 per cent compared to their peak, but still around 12 per cent higher than their level of a year earlier. Wheat prices peaked in March 2008, at more than double that of previous year, and then fell almost to the levels of early 2007. It had been assumed that maize prices would continue to increase, essentially because of the impetus provided by biofuel subsidies in the US and EU, but even these peaked in August/September 2008 and have fallen thereafter.

In the case of cash crops, the trends are similar, with slightly later peak months for prices. The major oilseeds soyabean and groundnut, which also have other popular food uses, peaked in price in the third quarter of 2008. In July 2008, soyabean prices were more than two and half times their level of January 2006, and more than 187 per cent of their level of the previous year. But then they fell quite drastically by 40 per cent from that peak in the subsequent 8 months, to be back at the levels of early 2007. A similar trend is evident for groundnut prices.

These sharp spikes are historically unprecedented even in the volatile price history of primary commodities. Such wild swings in prices obviously cannot be explained by short term supply and demand factors or any other "real economy" tendencies. Instead, these acute price movements are clearly the result of speculative activity in these markets. But then what explains all this speculation in the recent past, when it was not so evident before? And what form does it take? Why is it not stabilising, as predicted by so many economic theories? The answer must relate such market involvement with broader tendencies in terms of changes in national and global financial markets, patterns of government regulation and other developments such as the eruption and persistence of the credit crisis in the US and other major capitalist economies.

Chart 1. Index numbers of world trade prices of food grains.



Source: www.fao.org/faostat (Accessed on 29 March 2009).

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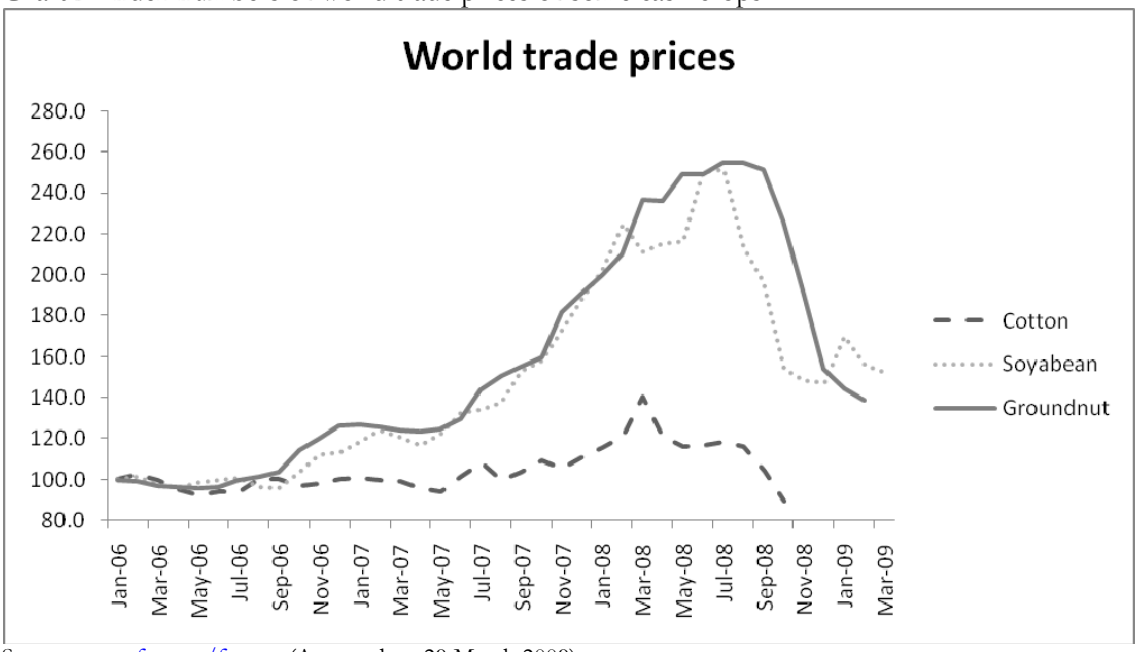
Chart 2. Index numbers of world trade prices of some cash crops.



Source: www.fao.org/faostat (Accessed on 29 March 2009).

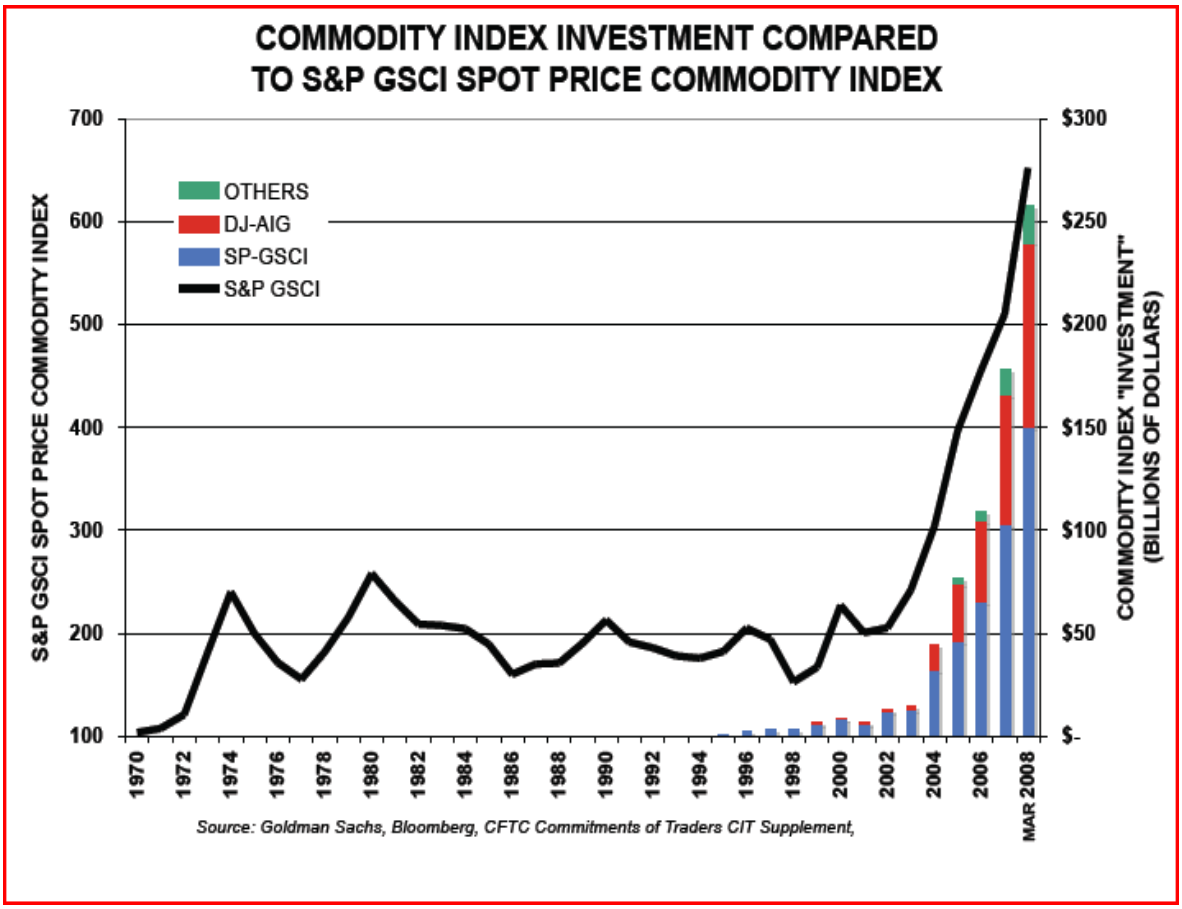
Global commodity prices have always been volatile to some degree and prone to boom-bust cycles, which is one of the many reaons why developing countries have been encouraged to

diversify away from dependence on such exports. In the 1950s and 1960s, commodity boards and international commodity agreements were seen as one means of stabilising global prices. Since their decline from the mid 1970s, and especially as financial deregulation and innovation became more pronounced from the early 1980s, the emergence of commodity futures markets was touted as providing the advantages of such agreements in a more market-friendly framework. There were several features of such futures markets that were perceived to be of value: they allowed for better risk management through hedging by different layers of producers, consumers and intermediaries; they enabled open-market price discovery of commodities through buying and selling on the exchanges; they were therefore perceived to lower transaction costs.

Financial deregulation in the early part of the current decade gave a major boost to the entry of new financial players into the commodity exchanges. In the US, which has the greatest volume and turnover of both spot and future commodity trading, the significant regulatory transformation occurred in 2000. While commodity futures contracts existed before, they 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 position limits, so as to prevent market manipulation. Therefore they were dominated by commercial players who were using it for the reasons mentioned above, 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, including hedge funds, pension funds and investment banks, to trade commodity futures contracts without any position limits, disclosure requirements, or regulatory oversight. The value of such unregulated trading zoomed to reach 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 outstanding amounts of OTC commodity-linked derivatives for commodities other than gold and precious metals increased from $5.85 trillion in June 2006 to $7.05 trillion in June 2007 to as much as $12.39 trillion in June 2008 (BIS 2009).

Unlike 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. They were aided by the "swap-dealer loophole" in the 2000 legislation, which allowed traders to use swap agreements to take long-term positions in commodity indexes. There was a consequent emergence of commodity index funds that were essentially "index traders" who focus on returns from changes in the index of a commodity, by periodically rolling over commodity futures contracts prior to their maturity date and reinvesting the proceeds in new contracts. Such commodity funds dealt only in forward positions with no physical ownership of the commodities involved. This further aggravated the treatment of these markets as vehicles for a diversified portfolio of commodities (including not only food but also raw materials and energy) as an asset class, rather than as mechanisms for managing the risk of actual producers and consumers. At the height of the boom, it was estimated by the hedge fund manager Michael Masters in a testimony to the US Congress that even on the regulated exchanges in the United States, such index 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.

Chart 3



Source: Kregel (2008)

As the global financial system became fragile with the continuing implosion of the US housing finance market, large investors, especially institutional investors such as hedge funds and pension funds and even banks, searched for other avenues of investment to find new sources of profit. Commodity speculation 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 because of the deregulation mentioned above that made it possible for more players to enter into commodity trading. The resulting trends are evident from Chart 3.

This created a peculiar trajectory in international commodity markets. The declared purpose of forward trading and of futures markets is to allow for hedging against price fluctuations, whereby the selling of futures contracts would exceed the demand for them. This implies that futures prices would be lower than spot prices, or what is known as *backwardation*. However, throughout much of the period January 2007 to June 2008, the markets were actually in *contango*, in which 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. Indeed it has been argued that contango was so strong that the futures markets were essentially driving the spot prices up in this period.

Then, by around June 2008, when the losses in the US housing and other markets because intense, it became necessary for many funds to book their profits and move resources

back to cover losses or provide liquidity for other activities. 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 transmitted to spot prices as well.

Thus international commodity markets increasingly began to develop many of the features of financial markets, in that they became prone to information asymmetries and associated tendencies to be led by a small number of large players. Far from being "efficient markets" in the sense hoped for by mainstream theory, they allowed for inherently "wrong" signalling devices to become very effective in determining and manipulating market behaviour. The result was the excessive volatility displayed by important commodities over 2008 – not only the food grains and crops mentioned here, but also minerals and oil. Such volatility had very adverse effects on both cultivators and consumers of food. This was not only because it sent out confusing, misleading and often completely wrong price signals to farmers that caused over sowing in some phases and under cultivation in others. In addition, it turns out that while the pass through of global prices was extremely high in developing countries in the phase of rising prices, the reverse tendency has not been evident in the subsequent phase as global trade prices have fallen. So both cultivators and food consumers appear to have lost in this phase of extreme price instability, with the only gainers from this process therefore being the financial intermediaries who were able to profit from rapidly changing prices.

III. Food prices and food crises in the developing world

Around the middle of 2008, when international recognition of the global food crisis was its height and had not yet been displaced from the public radar by the financial crisis, there were actually visible signs of the crisis that went beyond the silent hunger of the poor that generally characterises the unequal global food situation. For obvious reasons, the impact of the sharp food price increases, which generally transmitted at least to some degree to retail prices in the developing world, was felt most sharply in poor countries where most people tend to spend around half of their family budgets on food items. There were food riots in countries as far apart as Haiti, Guinea, Mauritania, Mexico, Morocco, Egypt, Senegal, Uzbekistan, Yemen, Bangladesh, Philippines and Indonesia. And many more countries were threatened by social unrest as rising food prices caused not merely dissatisfaction but even the spread of hunger among social groups who were not inured to it. In several countries in Asia, such as Pakistan and Thailand, troops had to be deployed to guard food stocks and prevent seizure of grain from warehouses. Even the multilateral institutions (the same ones that had encouraged policies that brought the situation to this pass) had to sit up and take notice. For example, the World Bank President estimated in October 2008 - ironically when global prices were already falling - that the global rise in food prices could cause more than 100 million people in low-income countries to be pushed back into deeper poverty.

Subsequently, the decline in world trade prices of important food grains and other items, as well as the even more dramatic implosion of global finance after the collapse and closure of Lehmann Brothers in September 2008, pushed such concerns to the background. It is currently perceived by many international commentators that the food crisis is effectively over, because global food prices started falling around the middle of 2008 and it is presumed that this would have also led to declining food prices including in those parts of the developing world where the food crisis was most acute.

However, this is not the case, and, the food crisis has actually grown more intense in many developing countries since the middle of 2008. At the end of December 2008, the FAO estimated that 33 countries were experiencing severe or moderate food crises, with conditions in at least 17 countries worse compared to October 2008 (FAO 2008). *This was* ***not*** *because of overall*

deteriorating conditions of global supply or suddenly increased global demand. Indeed, as Table 1 indicates, aggregate conditions with respect to global food grain markets were generally favourable in terms of increased supply, such as would have warranted expectations of stable and even slightly declining prices.

Table 1: Basic facts of the world cereal situation (million tonnes)

	2006-07	2007-08	2008-09	Per cent change: 2008-09 over 2007-08
PRODUCTION [1]	2 010.4	2 129.2	2 244.8	5.4
Wheat	596.6	610.8	682.2	11.7
Coarse grains	985.1	1 078.4	1 111.5	3.1
Rice (milled)	428.7	440.0	451.0	2.5
SUPPLY [2]	2 481.1	2 553.4	2 675.5	4.8
Wheat	776.3	767.9	832.4	8.4
Coarse grains	1 171.0	1 240.9	1 282.5	3.4
Rice	533.8	544.7	560.6	2.9
UTILISATION	2 064.3	2 125.2	2 198.3	3.4
Wheat	622.0	617.5	647.6	4.9
Coarse grains	1 015.3	1 070.9	1 106.1	3.3
Rice	427.1	436.8	444.5	1.8
Per capita cereal food use (kg per year)	151.8	152.3	152.4	0.1
TRADE [3]	256.8	271.6	265.0	-2.4
Wheat	113.3	111.2	120.0	7.9
Coarse grains	111.2	129.6	114.0	-12.0
Rice	32.3	30.9	31.0	0.3
END OF SEASON STOCKS [4]	424.3	430.7	474.3	10.1
Wheat	157.0	150.2	182.9	21.8
- main exporters[5]	36.6	27.7	42.7	54.1
Coarse grains	162.5	171.0	175.2	2.5
- main exporters[5]	62.3	73.7	64.8	-12.1
Rice	104.7	109.6	116.2	6.0
- main exporters[5]	23.1	26.0	29.2	12.2
Cereal production [1]	887.2	916.6	934.9	2.0
excl. China and India	306.4	303.5	313.7	3.3
Utilization	935.5	960.2	978.3	1.9
Food use	650.4	663.5	673.1	1.5
excl. China and India	276.5	283.7	290.8	2.5
Per capita cereal food use (kg per year)	155.5	156.3	156.3	0.0
excl. China and India	157.3	158.1	158.9	0.5
Feed	166.8	172.0	176.4	2.6
excl. China and India	48.9	49.2	50.1	1.9
End of season stocks [4]	238.2	255.9	278.1	8.7
excl. China and India	58.0	52.4	53.0	1.2

Source: (FAO 2008)

Notes:

1 Data refer to calendar year of the first year shown.
2 Supply refers to production plus opening stocks.
3 For wheat and coarse grains, trade refers to exports based on July/June marketing season. For rice, trade refers to exports based on the calendar year of the second year shown.
4 May not equal the difference between supply and utilization because of differences in individual country marketing years.
5 The main wheat and coarse grain exporters are Argentina, Australia, Canada, the EU and the United States.
The main rice exporters are India, Pakistan, Thailand, the United States and Viet Nam.

There are several points of interest in Table 1, such as the evidence that supply of wheat and coarse grains has increased at around the same rate as utilisation, and for rice somewhat faster than utilisation. End of season stocks have increased significantly for grains other than coarse grains as a group, and especially for the major wheat exporters. Aggregate food use has increased very little, and less than both production and supply. China and India continue to exhibit falling food grain consumption both in per capita terms as well as in the aggregate, completely belying the view that increased demand from these countries had contributed even partially to the global price rise.

With respect to food vulnerability, of course, the relevant indicator need not be global supply and demand, but rather the supply conditions of the low-income food deficit countries (LIFDCs). These include food deficit countries with per capita GDP below the level used by the World Bank to determine eligibility for IDA assistance, for example $1675 in 2005. For such countries, grain output continued to increase at a decelerating rate, amounting to 2 per cent in 2008. Furthermore, as will be discussed in the following section, there are other aspects of the current global economy that have prevented easy access to imported food. As a result, in many developing countries food prices have remained high and even continued to increase, despite various policy measures taken by governments to limit the impact of high international prices on domestic markets. As noted by FAO (2008) "In countries where prices have declined the reductions have been modest compared to those in export markets and, generally, national cereal prices remain above their levels of a year earlier. Persistent high food prices in the developing world continue to affect access to food of large numbers of vulnerable population in both urban and rural areas."

Therefore many developing countries in which widespread and persistent hunger was already a problem, have experienced significant increases in the prices of staple foods in the past two years, and there has been hardly any decline even after global trade prices started falling. Table 2 provides some idea of the overall changes in food prices in some countries in the period January 2007 to December 2008.

Table 2: Changes in prices of food staples in some developing countries

Country and food item	Per cent increase in price Jan 2007-Dec 2008
Zimbabwe wholesale white maize	994
Ethiopia wholesale white maize	141
Malawi wholesale white maize	107
Kenya wholesale white maize	81
Zambia wholesale white maize	32
South Africa wholesale white maize	**-38**
Honduras retail white maize	36
Guatemala retail white maize	25

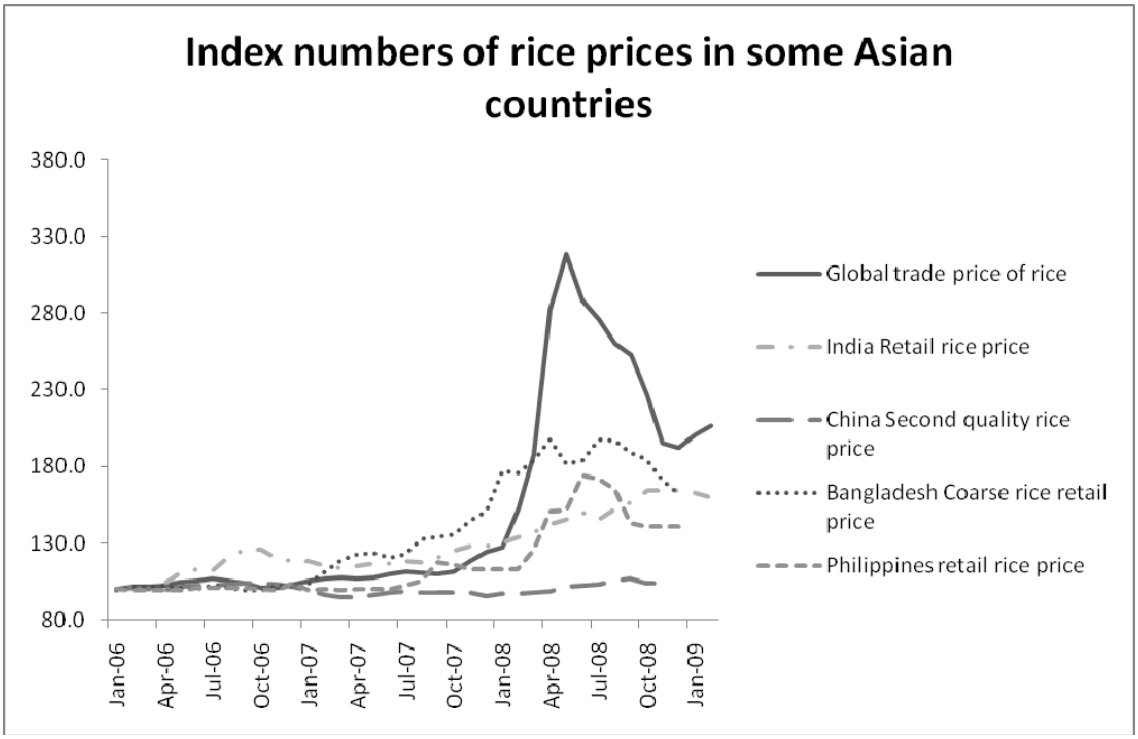
Ethiopia wholesale wheat	119
Eritrea wholesale wheat	114
Sudan wholesale wheat	**4**
Afghanistan retail wheat flour	114
Pakistan retail wheat flour	82
Thailand wholesale rice	73
Colombia wholesale rice	76
Bolivia wholesale rice	30
Senegal imported rice	85
Burkina Faso imported rice	65
Niger imported rice	44
Sri Lanka retail rice	30
Haiti retail rice	94
Nicaragua retail rice	54
Brazil retail rice	43

Source: FAO (2008)

Obviously, therefore, food prices in many developing countries are in general considerably higher than they were two years ago, and much higher than increases in nominal wage incomes in most of these countries. (In fact, it turns out that nominal wages also barely increased in many countries despite high rates of GDP growth and reasonable rates of inflation in these two years, but that is another story.) Therefore food insecurity was clearly on the rise in most of these countries (and probably others for whom data are not so readily available) simply expressed in terms of the real price of food relative to wages.

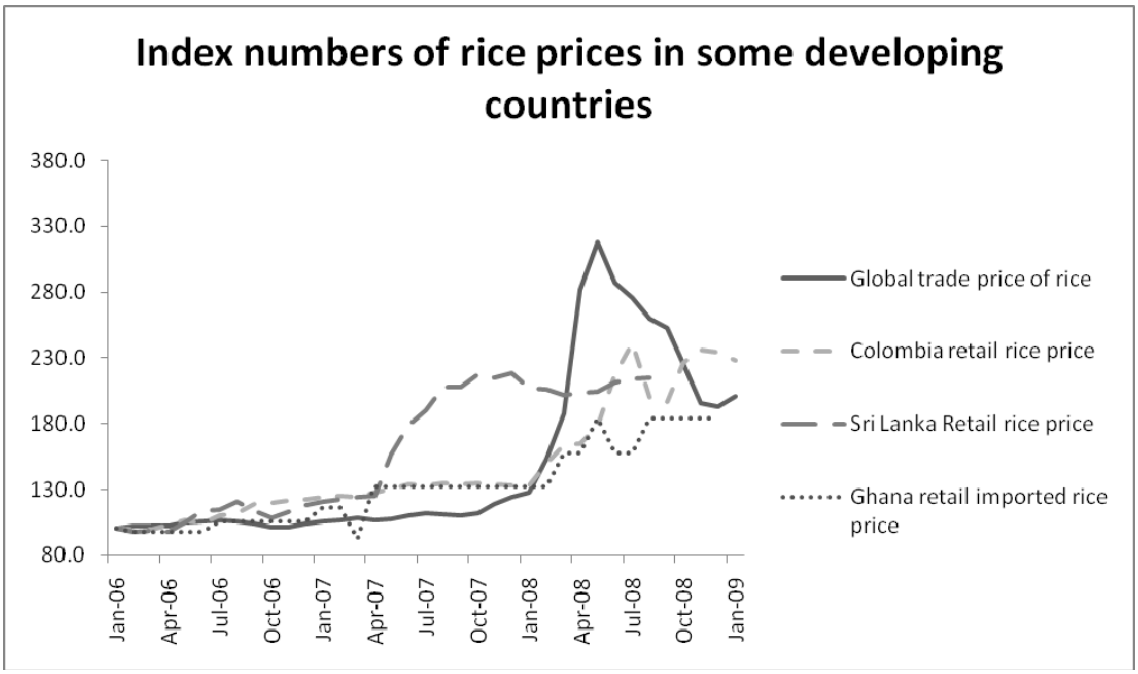
Of course such overall increases mask the trends over time, and it is worth examining the extent to which food price changes in different countries have followed trends in global trade prices. Charts 4 and 5 provide evidence on rice prices in various developing countries. It is evident that these countries were all affected by the extroardinary world price movements, although they were able to avoid the extremely sharp spike that cause global prices to increase by around three and half times in the 18 months between January 2007 and June 2008. China appears to have handled the matter the best, with rice prices broadly stable over the entire period despite the high global volatility. It is tempting to explain this in terms of domestic food self sufficiency that allowed China to insulate its population from the effects of high world prices in this basic food item. But this need not be the only reason. By way of contrast, India which is also a large economy with domestic rice production several times the total volume of world trade, has experienced quite signfiicant increases in price of rice. Furthermore, these have not decreased commensurately with the global price, to the point that retail rice prices were 60 per cent higher in January 2009 then their level two years earlier. In an economy in which more than 90 per cent of workers' incomes are not indexed, such a substantial increase obviously has a big impact upon food access. Given the large proportion – around half - of those who are calorie deficient among the Indian population, this is obviously a matter of great concern.

Chart 4



Source: www.fao.org/giews/pricetool/ (Accessed on 29 March 2009)

Chart 5

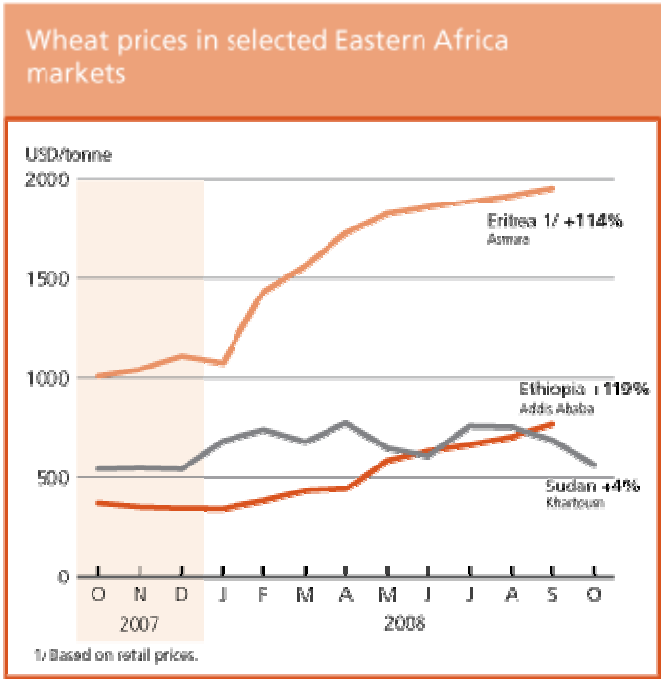


Source: www.fao.org/giews/pricetool/ (Accessed on 29 March 2009)

Chart 5 describes developing countries that have been even less able to manage the global price hike in terms of the impact upon their own population. It should be noted that in these countries as well, prices went up as global prices increased – albeit to a lesser degree (which is only to be expected because it is hard to imagine any country in which food price increases of 350 per cent in 18 months would be politically sustainable). But the subsequent equally sharp decline – which obviously affected rice exporting countries and their farmers adversely – did not get reflected in any real declines in rice prices in these countries. Similar tendencies are evident in some Latin American countries. For example, in Bolivia retail rice prices increased by about 35 per cent between January 2007 and June 2008 and subsequently have stayed at that level. In Brazil the increase was by around 45 per cent, and once again there has been hardly any fall from that level since then.

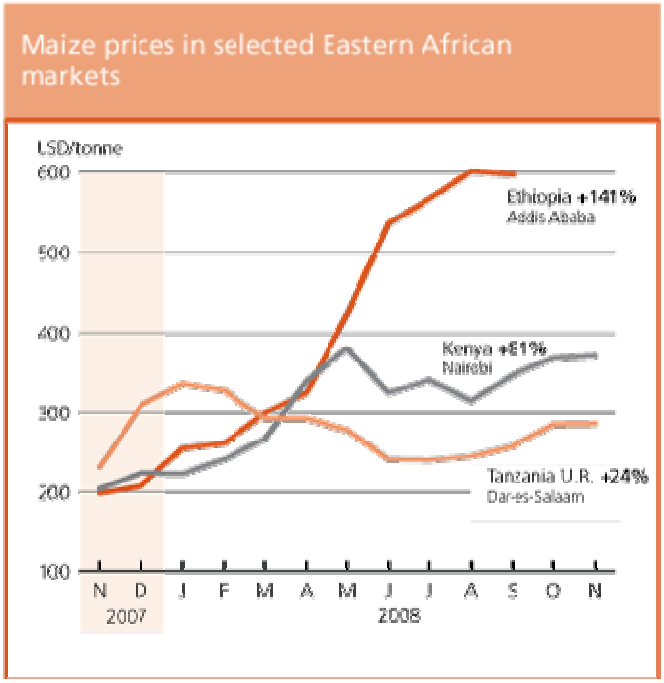
Charts 6 and 7 provide similar evidence on wheat and maize prices in some African countries. Charts 8 and 9 show the movement of retail wheat flour prices in Pakistan and Afghanistan. Once again, some differing trends deserve to be noted: the fact that in many countries prices have not come down since June 2008, despite the decline in global prices; in some countries (Tanzania in Chart 6) showed an initial decline corrsponding to the global price decline, followed by an increase even though global prices kept falling; and the fact that some countries (Sudan in Chart 5) have been able to withstand the overall volatility and keep prices relatively stable throughout the period.

Chart 6



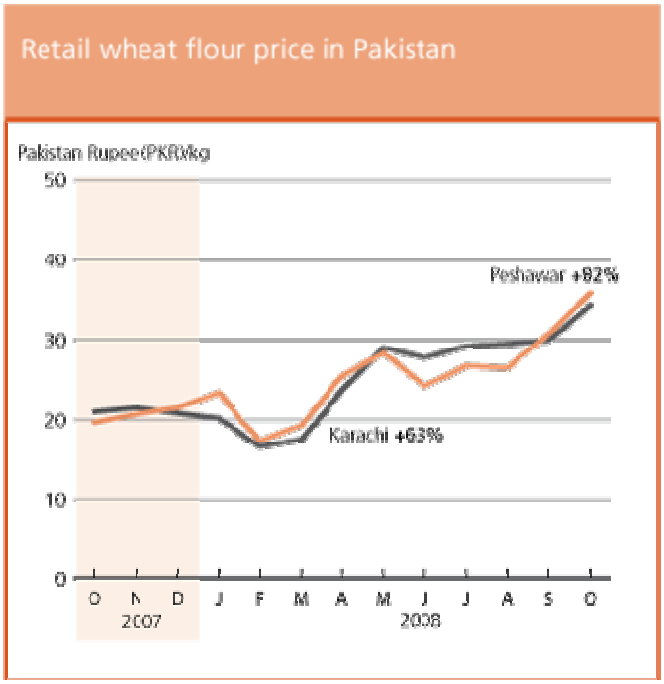
Source: FAO (2008)

Chart 7



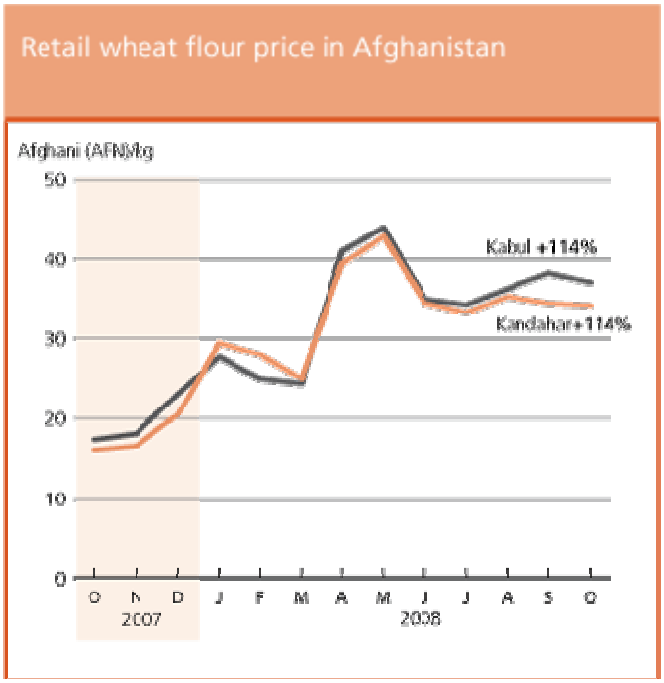
Source: FAO (2008)

Chart 8



Source: FAO (2008)

Chart 9



Source: FAO (2008)

IV. Mechanisms and strategies

How has this peculiar process occurred, whereby developing countries find that their domestic prices of food go up when international prices go up, but do not come down as global trade prices fall? And what explains how some countries have managed to escape the worst effects of this volatility and keep their own prices relatively stable? The answers obviously lie largely with how domestic policies have functioned, but more importantly, also with the space for effective domestic policies that is determined by both the external environment and the country's mode of global economic integration. And in the latter, once again we find direct and indirect roles of international finance.

The most direct link is through trade, with both food importers and food exporters are affected. Countries in which a very large proportion of the basic food requirement is met through domestic supply (China, India) are therefore less likely to experience the volatility *if* they have in place adequate institutional arrangements to ensure domestic production and distribution. By contrast, food importers are obviously more vulnerable. It used to be thought that "large" economies – those with the capacity to affect global prices through their entry or exit into world trade – should be more worried, but with the advent of financial players in the grain markets, it is no longer evident that this would have a direct impact on price. Rather, the impact is more likely to be indirect, through the impact upon the expectations of the financial players. But the lesson here is unpleasantly straightforward: no country, however small and open, can afford to neglect domestic food production and must ensure at least some domestic supplies, if it does not want to get caught in a vortex of price volatility that can dramatically affect national food security. This has important implications for trade negotiations, since the WTO rules have forced aggressive trade liberalisation upon agriculture in developing countries and arguably

created significantly higher food insecurity in the developing world. Future negotiations, if they do indeed occur, must take this into account and reverse such requirements accordingly.

But how have some importing countries managed to cope better than others? FAO (2008) has documented the range of measures undertaken by 101 developing countries in response to the global food crisis, with varying degrees of success. These interventions have ranged from the reduction or suspension of import tariffs and taxes, to imposition of export restrictions, to support to domestic production with agricultural inputs and credit, to intervening heavily in food markets, introducing food assistance programmes or increasing subsidies. The countries that have managed to do these more effectively are those that have also managed to restrain or stabilise food price increases to some extent. In addition, some countries have taken measures to contain domestic speculation in food markets, either through banning commodity futures markets in grain trade (India).

The case of China is especially significant, because with its large population, any significant entry into global markets through additional import demand would naturally affect spot prices. Despite this, China has managed the food situation the most effectively among all developing countries, and this reflects not only its internal policies but two features that are particularly noteworthy: the greater strength and viability of its fiscal strategy, and its control over internal and external flows (through the large state banking sector and extensive capital controls). Why these matter so much is noted below.

It is evident of course, that effective state intervention for food price stability and food security requires fiscal resources. This has become an important barrier to successful intervention to contain food price rises in many countries. Many, if not most, developing countries today are experiencing much larger fiscal deficits than before or than they had planned for. This is a typical outcome of financial crisis, when both government deficits and public debt increase substantially. Reinhart and Rogoff (2009), on the basis of a long and comparative historical review, argue that in the post-crisis scenario the real value of government debt tends to explode, rising an average of 86 percent in the major post World War II episodes of crises in both developed and developing countries. According to them, "the big drivers of debt increases are the inevitable collapse in tax revenues that governments suffer in the wake of deep and prolonged output contractions, as well as often ambitious countercyclical fiscal policies aimed at mitigating the downturn."

The difficulty is that many developing countries cannot engage in "ambitious countercyclical fiscal policies" because they are themselves constrained by internal and external deficits. In particular, governments of developing countries increasingly find themselves crowded out of international credit markets because of the voracious demands of the US and other major developed economies, as they guarantee more and more private debt within their own countries and expand their own fiscal deficits. Without the required external resources in particularly, governments cannot import more food. So they are simply not in a position to spend more and take the measures necessary to ensure adequate food for the population. International creditors in the current situation have been both unjust and contradictory to their own proclamations, punishing developing countries that have hitherto maintained "fiscal discipline" and otherwise adhered to the rigid precepts of neoliberal policies, and rewarding irresponsible behaviours of public and private agents in countries like the US, because of their greater faith in the backing of the US state.

This is particularly true in private international financial markets. One of the more remarkable features of the recent months has been the recovery of the US dollar in international currency markets, despite all the evidence of continuing decline and the negative feedback loops that are feeding from financial to real sectors and back, creating possibilities of a severe

depression in that economy. By contrast, many developing countries whose "fundamentals" appear to be much stronger in terms of continuing GDP growth, better managed banking systems and so on, have experienced rapid and large outflows of private capital, thereby causing sharp currency depreciations. For example, in the period between June 2008 and January 2009, the Indian rupee depreciated by 23 per cent vis-à-vis the US dollar as portfolio capital moved back to the US. Similar declines are evident in most other developing countries, barring the exceptional case of China. And obviously this has led to rising prices of imported food (the trade of which is still mostly denominated in dollars) in domestic currency.

The food crisis in developing countries is therefore something that has been created and is currently being exacerbated by the workings of deregulated international finance, that continues to have an adverse impact even when these financial markets are themselves in crisis. Developing countries are caught in a pincer movement: between volatile global prices on the one hand, and reduced fiscal space and depreciating currencies on the other hand.

In this context, it is clear that the resolution of the food crisis requires not only strong government interventions to protect developing country agriculture, 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 co-operative interventions, such as strategic grain reserves, commodity boards and other measures to stabilise world trade prices. And it definitely requires specific controls on finance, to ensure that food cannot become an arena of global and national speculation. These controls should include very strict limits (indeed bans) on the entry of financial players into commodity futures markets; the elimination of the "swap-dealer loophole" that allows financial players to enter as supposedly commercial players; and the banning of such markets in countries where public institutions play an important role in grain trade. In addition, because it has been seen that broader mechanisms, such as the impact of portfolio finance flows in affecting exchange rates, can also affect the food situation indirectly, it is important to impose capital controls of different sorts on short-term capital flows, not only for their own sake, but to prevent their destabilising impact on domestic food prices.

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