Implications of Economic and Financial Crisis for Agricultural Sector of India

Deepak, Shah

Gokhale Institute of Politics and Economics

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Introduction

The early nineties period saw substantial overhauling of Indian economy through Structural Adjustment Programme (SAP), which encompassed a number of measures viz. liberalization of export-import policy, drastic lowering of import duties on many products, removal of import restrictions, reduction of investment in agriculture and industrial sector so as to allow the private sector to take over, exchange rate adjustment, decanalisation and reduction in peak tariff rates besides abolition of export subsidies, improving competitiveness of Indian exports and integration of the national market with international market. However, some of these measures adversely affected the agricultural sector. The restructuring of the public distribution system had also an adverse affect on the availability of foodgrains to the poor at subsidized rates and this had substantial implications for the farm sector (Mathew, 2008).

The performance of Indian agriculture was not so encouraging in the aftermath of liberalisation as the decade of nineties and the period thereafter was marked with drastic decline in the growth rate of foodgrains, deceleration in the rate of growth of the GDP in agriculture and allied sector; which was just one percent during 2002-05, fall in per capita availability of foodgrains, import of foodgrains at a price higher than domestic price, rise in unemployment in agriculture sector, fall in prices of farm products, rise in input prices, etc. During the time when Indian agriculture was experiencing some serious concerns, the entire world got a major jolt by global financial and economic crisis. There were several underlying causes of the current global crises, which mainly revolved around: (a) prolonged boom in housing prices, (b) massive borrowing binge in the United States and some European countries, (c) rapid financial innovation, (d) growing culture of weak regulation, and (e) greed, fuelling the huge asset price bubbles in housing, stock markets and commodity prices (Acharya, 2009). The fall in US housing prices in the winter of 2006-07 rendered many of the “sub-prime” (not credit worthy) housing loans as bad loans, which meant hundreds of billions of financial derivatives to loose their value, resulting in collapse of “the house of financial cards” by the summer of 2007. The financial meltdown of September 2008 led to sharp slowdown in economic activity in the US and Europe with a massive drop in demand for goods and services from major exporting nations like China, Japan, Germany and other Asian countries, including India. In the light of this background, this paper attempts to evaluate the implications of global meltdown on agricultural sector of India, especially with respect to commodity price, investment in agriculture and in general food security of the country.

* Faculty Member, Gokhale Institute of Politics and Economics (Deemed to be University), Deccan Gymkhana, Pune – 411004 (Maharashtra), India

Global Crises

The prolonged boom in house prices enjoyed by the US and other European countries since the early nineties right up to the end of 2006 made the people believe that house prices may only go up, leading to massive amounts of lending by banks for purchase of house to those who did not have even steady income, and who were actually sub-prime borrowers because of the high risk of defaults. Since risk-distributing new financial products[1] enabled banks to sell off (at a discount) their loan mortgages to investment funds, the banks did not worry about defaulting of sub-prime loans as these derivatives had spread the risk and the funds were earning on the discounts (Swamy, 2010). During 2003-07, the US economy was booming due to loose monetary policy and low interest rates, which led to rise in global international trade due to surge in US imports. However, in August 2007, a mild recession hit the US economy, which was enough to trigger and cascade bankruptcies in Investment Funds. In fact, the housing bubble – part of a massive borrowing binge in the US and European countries by households and financial institutions – was fuelled by the easy money policies of their central banks and inflows of funds from capital surplus countries such as China, Japan, Germany and oil exporters (Acharya, 2009). Since big exporting nations sold their products to US and European consumers and then parked their surpluses in these Government securities, there was massive increase in borrowings by the households and financial firms and, as a result, the ratio of gross debt to GDP of US households, business and government more than doubled from 160 per cent in 1982 to 340 per cent in 2007. Further, since the rapid financial innovations spread the risks of the underlying weak credits throughout the Western financial system, the explosion of financial innovation led to excess growth of the finance industry on a weak base of shaky credit risks (Acharya, 2009). The growing culture of weak regulation of financial institutions and markets in US, UK and other countries was the main reason for this sorry affair of global financial crisis that fuelled the entire world.

The recession became more prominent in September 2008 when large number of American and European banks announced huge losses on their mortgage related to securities and investments. The process of financial collapse gradually gained further momentum when major American investment banks like Lehman Brothers collapsed and AIG[2] declared bankruptcy. Nonetheless, other investment funds/banks like Merrill Lynch were saved through forced merger with banks having sound footing. Most of the blue collar workers were sub-prime loanees and when they became unemployed because of recession they could not repay even a fraction of the loan installments. Due to growing unemployment and recession, Lehman Brothers could not auction off the properties and they had to saddled with house properties on foreclosures of loan defaulters (Swamy, 2010). The bankruptcy of Lehman and others and consequent reduction in liquid funds resulted in collapse of stock market, which consequently affected European economies and US demand for goods (imports). The chain reaction of this was felt by China whose economic boom was export-led. The setback was also felt by the Indian economy mainly because of our own perfidious financial derivatives called Participatory Notes[3] (PNs) – compounded by an anti-national agreement with Mauritious – which allowed even $ 1 paid-up companies to invest in Indian stock market without capital gains tax levied to them. Although the Tarapore Committee on Financial Reforms strongly condemned PNs and wanted them scrapped, all the warnings were ignored. Since billions of dollars of money entered into the Mumbai stock exchange through buying and selling of shares with PNs used like cash, the PNs accounted for 60 per cent of the foreign institutional investment (FII) funds in the stock market. At the time when liquidity crunch developed in US and subsequently in Europe and when interest rates rose, the PNs of the order of $ 60 billion were shipped out of India during the period between October 2008 and January 2009, and this resulted in steep fall in the sensex index due to crash in stock market, which in turn caused financial crises in India.

Meltdown and India

Although India initiated adequate measures to correct stock prices in January 2008, our major concern continued to remain rising inflation due to rise in commodity prices, which increased from 5 per cent in February 2008 to over 10 per cent by April 2008. The steep rise in inflation rate was seen despite the fact that Government did not change the issue prices of foodgrains, fertilizers, petrol, diesel, kerosene and LPG during this period. The acceleration in prices of oil, metals, fertilizers and foodgrains from late 2007 was mainly due to the global economic boom during 2002 to 2007 (Acharya, 2009). In fact, the events of September 2008 were marked with the collapse of Wall Street banks, freezing of bank credit flow in the West, worldwide liquidity crunch, precipitation of recessionary forces in the US, Europe and Japan and consequent liquidity shock/crunch in India as foreign institutional investors started withdrawing their money, resulting in drying up of loans from foreign banks and vanishing of credit for foreign trade. The outflow of foreign capital and drop in export earnings had an implication for the exchange rate of rupee. However, RBI took every possible measure to avoid any currency crisis by checking the slide in the value of rupee. In fact, the economic performance of India was substantially affected by the global crisis as the economic growth of India slowed down to 5-6 per cent in the second half of the financial year 2008-09, which actually averaged 9 per cent during the previous five years. It is to be noted that when India was experiencing drop in inflation rate due to sharp fall in global commodity prices, food prices in India still remained quite high. Further, the recession after September 2008 saw lose of thousands of jobs due to sharp fall in exports from India with respect to gems and jewelry, garments, leather production and footwear. It is to be noted that the UNDP Administrator, Kemal Dervis, had already warned in October 2008 that the effect of the financial crisis could reduce demand for developing countries' exports, as well as the availability of credit and foreign direct investment to finance projects. Therefore, the developing countries were suggested to come out with strong mix of social and economic policies to stimulate productive public and private investment that sustain inclusive growth. The estimates reported in September 2008 by the UN World Food Program revealed that there are 850 million chronically hungry people in the world, whereas the World Bank estimates reported that the number of poor increased by at least 100 million as a result of the food and fuel crises. According to its November 2008 report, the poorest households were "forced to switch from more expensive to cheaper and less nutritional foodstuffs, or cut back on total caloric intake altogether, face weight loss and severe malnutrition." The rise in fuel and food prices not only affected poor in India but also in China. The 2008 Global Hunger Index of the IFPRI already includes India to have alarming levels of people suffering from hunger.

It is to be noted that India has large geography and economy and agriculture is a crucial sector of the country. Therefore, there is much challenge and also much opportunity to produce and distribute and stabilize our food prices, besides playing a significant role in international market. At the time when the recessionary forces are affecting the economy of several developed and developing countries, our national agricultural policy has to be realistic, which necessitates integration and reforming of our economic and trade policies. Further, since USA has been trying hard to push the WTO reforms in its favour to facilitate the US and EU agriculture and food exports to Indian markets, there is need for India to have reciprocal policy. Already recession has created such a situation where our farmers are hard hit by credit crisis, low demand for their produce and also low stages of export markets for our food products.

Recession and Indian Agriculture

There has been every possible indication that the growth in Indian processed food sector may not be very significant and so in the case of exports with respect to foodgrains and processed food, especially in the next couple of years or so. Interestingly, while on one hand there has been virtual ban on foodgrain exports, the raw sugar, on the other hand, is subjected to zero import tariff. This has led to widespread protest by the sugar industry and there is fear that the area under sugarcane can be further reduced owing to “free” imports of raw sugar. Since sugar is a critical daily item of consumption for the vast population, there is obviously a need to have adequate control on the domestic prices on all essential commodities of common consumption, including sugar. The present and the futures trading in agricultural commodities have to be controlled to avoid further speculation in these commodities. India needs to have a stable price regime with a view to keep the common man away from the perception that economic recession will create a gloom in the growth of food sector. At the time when global economic recession is yet to take back foot, the growth prospects for Indian agricultural sector would depend on: (a) greater investment in rural infrastructure in the form connectivity of road and water management, (b) greater emphasis on commercially applicable research and development in agriculture, (c) improvements in primary education and health cover to bring greater returns in terms of agricultural productivity, (d) overcoming deficiencies in rural credit delivery system, (e) greater public and private spending in agriculture, etc. (Acharya, 2009).

Though global economic slowdown has not adversely impacted Indian economy as compared to more closely globally integrated economies of developed countries, there is some evidence of job losses in India in the exports of goods sector owing to recession. The recession, in general, has affected GDP growth in India. For instance, the GDP at factor cost in India declined from 9.7 per cent in the third quarter of 2007-08 to 5.8 per cent in the fourth quarter of 2008-09 with a make up in the same to 7.9 per cent in the second quarter of 2009-10 (Table 1). This is despite the fact that the interim budget presented on 16 February 2009 spoke of a nominal GDP growth of 11 percent in 2009-10. The decline in GDP growth with respect to Agriculture and allied sector was sharper and it fell from 4.7 per cent in 2007-08 to 1.6 per cent in 2008-09 and further to -0.2 per cent in the first half of 2009-10.

Table 1: Quarterly Growth Rates at GDP at Constant 2004-05 Prices in India

(in per cent)

Sector	2007-08					2008-09					2009-10		
	AN	Q1	Q2	Q3	Q4	AN	Q1	Q2	Q3	Q4	AN	Q1	Q2
Agriculture, Forestry & Fishing	4.7	3.1	3.9	8.7	2.1	1.6	3.2	2.4	-1.4	3.3	-0.2	2.4	0.9
GDP at Factor Cost	9.2	9.3	9.4	9.7	8.5	6.7	7.6	7.5	6.2	5.8	7.2	6.1	7.9

Source: CSO

As for impact of slowdown, the Rural Marketing Association of India conducted a study between July and December 2008 on India's rural markets and found no evidence of a slowdown on those who earn their livelihood from agriculture (Debroy, 2009). Further, the 11th Five Year Plan (2007-12) document mentions that the incremental employment growth between 2000 and 2005 was 46.72 million, which encompassed 8.84 million jobs in agriculture, 8.64 million in manufacturing, 6.44 million in construction, 10.70 million in trade, hotels and restaurants, 4.04 million in transport, storage and communications, 3.12 million in financial, insurance, real estate and business services and 4.59 million in community, social and personal services, implying major growth in employment in unorganized sector. Since bulk of the employment creation has occurred in other sectors than in agriculture, these sectors are, therefore, likely to suffer from the slowdown. Further, according to Mahajan (2009), the economic slowdown in recent times do not indicate any job loss in the food and agricultural sector as the jobs involved in the production, procurement, transport, storage, processing and retailing of cereals, oilseeds and pulses remained intact – whether the volumes are due to domestic production being exported or due to imports. This is particularly true in the case of processing units. Since the Indian food processing industry[5] exports commodities like basmati rice, pulses, herbs, meat, fruits and vegetables, there is hardly any adverse affect of slowdown on their demand, and, rather these products have shown robust demand throughout the world even during the period of global meltdown. This is an indication of the fact that investments in food and agricultural industry are not at all affected by the economic slowdown. In this context, even Debroy (2009) has mentioned that though there stand indirect impacts of global prices and trade policy, the problems relating to agriculture are nothing to do with global slowdown as agriculture sector has somewhat different entity in India. However, a counter argument put forward by Ghosh (2009) is that the global crisis, accompanied by changes in employment and relative prices, has adversely impacted three sections of the Indian population, which encompass cultivators, migrant workers and home-based women workers. Not only this, it has several implications with respect to food security of the country that happens to be already at stake. In fact, cultivators in India have been facing agrarian crisis for the past one-decade or so despite rise in international crop prices. The problems concerning farming system in India are multifarious and mainly include weather related problems like less reliable monsoon, frequent draught or floods, problems of soil degeneration, lack of insurance and institutional credit, problems relating to inputs, lack of marketing facilities and high crop prices volatility. These problems have led to dwindling growth in GDP with respect to agriculture and allied sector, which fluctuated heavily over the past two decades and even became negative in 2002-03 and 2009-10, and kept decelerating during the period coinciding with the worldwide economic slowdown (Table 2).

Table 2: Annual Average Overall GDP Growth Rate and Agriculture Growth Rate in India

(in per cent)

Five Year Plans/ Years	Overall GDP growth rate	Agriculture & Allied Sectors
	(at constant prices)@	
Seventh Plan (1985-90)	6.0	3.2
Annual Plan (1990-92)	3.4	1.3
Eighth Plan (1992-97)	6.7	4.7
Ninth Plan (1197-2002)	5.5	2.1
Tenth Plan (2002-07)	7.6	2.3
2002-03	3.8	-7.2
2003-04	8.5	10.0
2004-05	7.5	0.0
	(at 2004-05 prices)	
2005-06	9.5	5.2
2006-07	9.7	3.7
2007-08	9.2	4.7
2008-09	6.7	1.6
2009-10	7.2	-0.2

Source: CSO

Note: @ - Growth rates prior to 2001 based on 1993-94 prices and from 2000-01 onwards based on new series at 1999-2000 prices

It is interesting to note that despite global economic slowdown, the demand for cereals remained significantly high in India. Although income elasticity of demand for the population of India has been declining for cereals and nearing to zero, the low income groups still show positive income elasticity of demand for cereals (Mahajan, 2009). As a result, the demand for cereals has little tendency to decline even if average income falls marginally as it is expected that under such circumstances people will switch over to basic foods at the expense of other items of consumption. This not only ensures higher demand for farm produce but also significantly high demand for labour in agriculture. It is to be noted that 80 per cent of the farmers in India are either small or marginal and they hardly produce any marketable surplus with marginal dependence of hired labour. The remaining 20 per cent of the farmers encompassing medium and large farmers produce 80 per cent of the marketable surplus of wheat and rice with significantly high dependence on hired labour. In the states like Punjab and Haryana, the demand for labour has outstripped supply and in these states labourers are seen to negotiate wages on per acre contractual basis rather than daily rates. This has created shortage of labour, which could be partly attributed to the implementation of the National Rural Employment Guarantee Scheme that offer work opportunities to them within their village. This is a reflection of the fact that employment of village labour has remained unaffected during the period of slowdown and rather their demand has increased in recent times because of their better bargaining power.

Indian Agriculture and Price Volatility

Though extremely volatile crop prices follow an international pattern, the major reasons for the volatility of output prices associated with rising input prices in India can be traced in government attempts to reduce fertilizer subsidies and deregulation of supply of inputs like seeds and pesticides. During the period of global economic recession, the volatility in crop prices became much worse as it compounded the problems of cash crop growers. Although global primary commodity prices rose dramatically upward in 2007 and the first half of 2008, a collapse in the same was notices thereafter, leading to wiping out whatever gain in prices occurred. Obviously, the farmers, who produced cash crops hardly had any benefit from such a short-lived price boom (Ghosh, 2009). The farmers producing cash crops saw lower prices on offer for their produce despite rise in food prices. This held particularly true for cultivators of cotton and oilseeds who saw crash in prices of these crops during the period of global meltdown, which were rising just a year ago before economic slowdown caught up with the world. The farmers, who preferred to cultivate cotton and oilseeds when their prices were quite high, have now been facing a complex kind of situation where costs and prices configuration stand entirely different, and this has serious implications as it could make the cultivation process financially completely unviable (Ghosh, 2009). Further, during the period of slowdown when overall prices remained stagnant, the food prices continued to increase so much so that foodgrain prices went up by more than 10 per cent between April 2008 and March 2009, which solely cannot be blamed on higher procurement prices as the prices of pulses, not covered by public procurement, also went up sharply during this period. Even the prices of fruits, vegetables, eggs, fish and meat, etc. increased, though not as sharply as in the case of foodgrains. It was only in the case of edible oils that prices declined due to crash in world prices of oilseeds. On the other hand, the prices of non-food primary product hardly changed. While the prices of fibers like cotton, jute and silk remained unchanged, there was 5 per cent fall in the prices of oilseeds, which obviously affected the producers of cash crops. This was despite the fact that the farmers paid more for fertilizers and pesticides, which saw more than 5 per cent rise in their prices.

As for the food sector, the major cause of concern is the 10 per cent rise in wholesale price of cereals between December 2007 and December 2008 period as this has resulted in reduction in real income of all urban households and a large segment of rural population encompassing landless households and small and marginal farmers who are net buyers of cereals (Mahajan, 2009). In order to improve domestic supply of pulses and keep their prices in check, the Government of India has extended zero customs duty for one more year with respect to the import of pulses and even extended ban on its exports till March 2010. Similarly, the government reduced import duties on edible oils to keep their prices low. As a safety measure, India imported 5.60 million tonnes of edible oil during 2007-08 to keep their prices in check in domestic market. This cautioned Indian consumers when the food economy of several developing countries was jeopardized during the period of economic slowdown.

Falling Global Commodity Prices

It is to be noted that with the onset of the global recession, international commodity prices with respect to non-energy agricultural beverages and food, fat and oil, and also grains fell from 2008 to 2009 with recovery thereafter. Some of the beverage and food items like coffee, tea, coconut oil, copra, groundnut oil, palm oil, soybean, barley, maize, etc. in particular showed steep fall in their international prices during the time of recession (Table 3).

Table 3: International Commodity Prices for Non-Energy Agriculture Beverages, Food, Fats and Oils, Grains, Other Food and Fertilizers (2008-2010)

Commodity	Unit	Annual Average		
		Jan-Dec 2008	Jan-Dec 2009	Jan-Mar 2010
Agriculture Beverages				
Cocoa	b/ ¢/kg	257.7	288.9	329.9
Coffee	b/ ¢/kg	232.1	164.4	150.8
Tea, Kolkata	b/ ¢/kg	225.5	251.5	220.9
Food Fats and Oil				
Coconut oil	b/ $/ mt	1224	725	834
Copra	$/ mt	816	480	557
Groundnut oil	b/ $/ mt	2131	1184	1359
Palm oil	b/ $/ mt	949	683	808
Palmkarnel oil	$/ mt	1130	700	922
Soybean meal	b/ $/ mt	424	408	369
Soybean oil	b/ $/ mt	1258	849	917
Soybeans	b/ $/ mt	523	437	417
Grains				
Barley	b/ $/ mt	200.5	128.3	144.3
Maize	b/ $/ mt	223.1	165.5	162.7
Rice, Thailand, 5%	b/ $/ mt	650.2	580.0	536.2
Sorghum	$/ mt	207.8	151.1	156.9
Wheat, US	b/ $/ mt	326.0	224.1	195.4
Other Food				
Bananas EU	$/ mt	1188	1145	1020
Bananas US	b/ $/ mt	844	847	781
Sugar EU	b/ ¢/kg	69.69	52.44	46.38
Fertilizers				
DAP	b/ $/ mt	967.2	323.1	464.8
Phosphate rock	b/ $/ mt	345.6	121.7	102.1
Urea	b/ $/ mt	492.7	249.6	281.0

Source: Commodity Price Data, World Bank

Notes: b/ included in the non-energy index (2000=100); $ = US dollar; ¢ = US Cent; kg = kilogram

The period between 2008 and 2009 saw not only drop in prices of food and beverages but also input prices like fertilizers. In fact, huge inflows of speculative finance into the commodity futures market led to sharp increases in commodity prices in 2008, which following the financial meltdown, came down even more sharply in the subsequent year. Such sharp fluctuations in agricultural commodity prices obviously adversely affect peasantry in developing world. The peasantries of developing world are exposed to high risks of international price fluctuations owing to the policies of trade liberalization followed by them and the agricultural sector of these economics that has become more export-oriented.

Coping Strategies

The fall in GDP growth to 5.3 per cent in the thirds quarter (October-December 2008), negative rates of 2.2 per cent and 0.20 per cent, respectively, with respect to agriculture and manufacturing sectors, decline in export and imports by 15.9 per cent and 18.2 per cent, respectively, in dollar terms in January 2009 as compared to January 2008, etc. are some of the indications of adverse affect of slowdown on Indian economy. The coping strategies to counter the impact of slowdown include increasing public investment in agriculture, extending protection against price crashes of crops through price support and increased import tariffs, extending employment guarantee for more number of days than stipulated in NREG scheme, providing employment guarantee in urban areas, enhancing state intervention, providing relief packages for crisis affected sectors, etc. This means that a significant amount of public expenditure is needed for the creation of jobs and raising purchasing power of the rural and urban population. Equally important is to raise public investment, especially for the development of agriculture, social sector and infrastructure, aside from generating employment in rural and urban areas of India.

Conclusions

Although the global economic downturn has resulted in large-scale job losses and mass unemployment in many export-oriented sectors, the situation in food and agricultural sector has remained stable with little job losses. However, since agricultural sector in India has somewhat different entity, the impact of global crisis in this sector is seen to have percolated in varied forms. During the period of slowdown when there stood virtual ban on foodgrain exports, the raw sugar was subjected to zero import tariff, leading to widespread protest by the sugar industry. The "free" imports of raw sugar raised concerns regarding cultivation of sugarcane in the country. Adequate control obviously needs to be exercised on the domestic prices of all essential commodities of common consumption, including sugar. Interestingly, despite decline in income elasticity of demand for cereals in India, the low-income groups still show positive income elasticity of demand for cereals, indicating little tendency of decline in demand for cereals even if income falls marginally. This not only ensures higher demand for farm produce but also significantly high demand for labour in agriculture. However, the global economic recession has certainly compounded the problems of cash crop growers as the farmers producing cash crops saw lower prices on offer for their produce despite rise in food prices. Further, though prices of edible oil in India declined due to crash in world prices of oilseeds, the price of non-food primary products hardly changed. Nonetheless, the major cause of concern for the food sector of India is the 10 per cent rise in wholesale prices of cereals between December 2007 and December 2008 period as this has resulted in reduction in real income of all urban and rural household. Although government has resorted to initiate some measures to check prices, there still stand various other measures to be initiated to safeguard Indian economy from global economic slowdown.

End Notes

1. The new derivatives created portfolios of loans extended by banks and of mortgages of different risks and maturities. Banks were in favour of this as they got fresh liquid funds in place of mortgages (Swamy, 2010).

2. American International Group, Inc. (AIG) is an American insurance corporation. AIG suffered from a liquidity crisis when its credit ratings were downgraded below "AA" levels in September 2008. The United States Federal Reserve Bank on September 16, 2008, created an $85 billion credit facility to enable the company to meet increased collateral obligations consequent to the credit rating downgrade, in exchange for the issuance of a stock warrant to the Federal Reserve Bank for 79.9% of the equity of AIG.

3. The PNs is a piece of paper issued by designated financial institutions abroad such as Fidelity Investments and Morgan Stanley, which does not carry any detail except the money worth, and can be purchased by anyone with cash even without disclosing to any authority the name and the source of the funds. That piece of paper was acceptable for transactions in the Indian stock market for buying and selling shares as also short-selling.

4. The economic slowdown has not affected investments in food and agricultural processing industry. The sector is expected to attract fresh investments of over Rs.5,000 crore in the next 2-3 years. The Ministry of Food Processing Industries has received 4 expressions of interest after announcing the revised Mega Food Park Scheme in October 2008.

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