Bangiya Arthaniti Parishad
40th Annual Conference

XIVthA.K. Dasgupta Memorial Lecture

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Farmer Distress: Are we missing a Macroeconomic factor?

Pronab Sen

There is today a general consensus among Indian economists that the current slow-down being experienced by the economy is primarily due to a binding demand constraint which is structural in nature. However, there is far less agreement on why and how things have come to such a pass. In this lecture, I argue that the roots of this problem lie in the collapse of agricultural prices and the resultant distress in most of rural India. Furthermore, I will attempt to provide a macroeconomic explanation of this phenomenon which seems missing from the current discourse.

Rural distress has been in evidence for at least the past several years, and farmers have taken to the streets pretty much all over the country. In an unprecedented development, practically all farmer organisations have joined hands to demand relief from the government. The source of the *angst* is clear – crash in agricultural prices. The main demands being made by the farmers are increase in the minimum support price (MSP) across all products and waiver of farm loans, along with the usual increases in agricultural input subsidies.

Despite the fact that this farmers' agitation represents a major political threat to the present government, the government's response has been surprisingly tepid, at best. The only measure of any substance has been an increase in MSPs across a range of crops, and some lip service to improving the effectiveness of delivering the MSP to farmers.By and large, the responsibility for doing so has been passed on to the state governments, which is a convenient way of deflecting the anger. Moreover, the central government has strongly resisted efforts by states to grant farm loan waivers on the grounds that they erode credit culture

The discourse around this issue too is not particularly edifying. The commonest position appears to be that large MSP increases and loan waivers are undesirable and, in any case, will not solve the problem. "Structural" correctives involving improving farm productivity, reducing wastage and strengthening logistics are popular suggestions. What these commentators seem to overlook is the fact that all these measures will lead to an increase in the availability of farm produce in the market, which will simply exacerbate the deflationary trend in prices; thus leading to an internal contradiction.

Counterpoised to this is a view that the steady fall in agricultural prices is the result of over-production, and the only way out is aggressive exports. This explanation has the virtue of at least being consistent with the observed problem, but it has one fatal flaw –it does not explain the cause of "over-production". This is particularly important in view of the fact that food inflation remained in double digits for 5 years (2009-14) and collapsed sharply thereafter.

There is no evidence whatsoever that there has been a dramatic increase in agricultural production; if anything the recent trend is marginally lower than the 20 year average. If supply is not the problem, then it must be demand.However, alternate evidence clearly indicates that the dietary intake of the average Indian is still significantly below

desirable norms, which means there is a considerable distance to go before excess supply can become a problem. The pertinent question, therefore, is why is demand not increasing as fast as it was in the past?Any explanation of the crash in agri-prices must therefore also explain this if it is to be at all credible. Sadly, none of them do so.[1]

The purpose of this lecture is to argue that while all the various structural explanations are valid to varying extent in explaining food inflation in India, they are incomplete and, more importantly, are completely unable to explain the deflation. A comprehensive explanation requires a monetary story to be told about, which has been completely missing.

Monetary Dualism

The notion of "dualism" – that a country can be viewed as having two distinct sectors – has a long and rich history both in development economics as well as in popular Indian discourse.The concept of dualism was first introduced into development economics by Sir Arthur Lewis (1956). In Indian socio-political discourse, this is referred to as the "Bharat-India" divide.

I propose a specific additional form of dualism: that the Indian economy is composed of two sub-economies – a credit economy and a cash economy. The cash economy can roughly be defined as the entire rural economy plus a significant part of the urban informal sector.

In the credit economy, all transactions within it are mediated through the banking system; whereas in the cash economy, all transactions are in cash. The key assumption is that all transactions between these two sub-economies are carried out only in cash. I further assume that the average price level of goods produced by the cash economy is determined by the amount of liquidity available – i.e. by the stock of currency available in the cash economy – along with other factors affecting demand.

The total stock of currency in the country is used for three purposes: (a) transactions in the cash economy; (b) transactions in "black" assets; and (c) reserves held by the banking sector (this includes bankers deposits with RBI). The total stock of currency is determined uniquely by the RBI as a policy decision. There are two predominant instruments through which the RBI can increase the stock of currency in the country – purchase of either government securities or of foreign exchange. In both cases, RBI action directly increases only the currency reserves of banks, and not the currency held by the public. It is, therefore, important to understand the mechanisms by which currency moves from the reserves of the banks to the cash economy.

There are three main channels. The first is the net value of transactions between the cash and the credit economies. If the money value of purchases by the credit economy from the cash economy exceeds the value of purchases by the latter from the former, the difference between the two values will be reflected in an increase in the stock of currency in the cash economy. The second channel is through the government's fiscal activities. The government not only buys and sells goods and services with the cash economy (which

are included in the first channel), but also makes substantial transfer payments in the form of social security, scholarships and the like. The third channel is the net value of cash injections into the black economy less the cash withdrawals through money laundering.

Effects of an agricultural shock

In such an economy, if the production in the cash economy is adversely affected by a shock (say, a monsoon failure), the prices of agricultural products will rise since the liquidity available will now exceed the availability of goods. If I further assume that food (a major component of agricultural output) is an essential good so that its demand in the credit economy is inelastic, then consumers in the credit economy will withdraw currency from their banks for purchase of food. This will increase the supply of liquidity in the cash economy, leading to a further increase in prices.

Even when production returns to normal (say during the next harvest), food prices will not decline to the original levels since there would now be more liquidity in the cash economy than earlier. This permanent increase in the price of food relative to all other goods will continue to induce further flows of cash from the credit economy into the cash economy, leading to further increases in food prices. This process will continue until such time as the induced shift in demand towards credit economy goods eventually leads to a zero net transfer of currency between the two sub-economies.Such a shift in demand will occur as the result of the price of credit economy goods falling relative to that of the cash economy goods.

In the credit economy, so long as the currency reserves held by banks exceeds the minimum levels required for precautionary purposes, there will be no reduction of credit available. Thus, there can be a fairly extended period of food inflation with no change whatsoever in any of the monetary aggregates (M_0 or M_3). The inflationary process in such a case is supported by a compositional change in the holdings of currency from passive bank reserves to active circulation in the cash economy.

The role of MSP

It has been forcefully argued with empirical evidence by a number of commentators that the principal determinant of food inflation in India has been increases in the minimum support price (MSP) of cereals. The argument is that the MSP not only sets the floor price of cereals in the country, but also affects the prices of other agricultural products by inducing a shift of land towards cereal production thereby reducing the availability of other agricultural products. While the floor price argument is undoubtedly true, the land-switching effect is not borne out by facts. The data on area under crops does not indicate any significant shift towards cereals. Moreover, production of non-food-grain crops has been growing much faster than food-grains. What is probably true is that high MSPs can retard the pace of shift out of cereal production.

However, the story is more complex than that, and involves the entire chain of interventions by the government in the food economy.Every year, during harvest time, the government procures nearly 25 per cent of the cereal production at the MSP; the remaining

75 per cent of the grain is sold to traders, who are a part of the cash economy for the most part.Thus, twice a year, within a very short time, there is a massive injection of currency into the cash economy through the procurement process.The government borrows from the banking sector through the Food Corporation of India (FCI) and pays cash for its purchases. The total cash injected through procurement is the procurement price multiplied by the quantity procured.

During the course of the year, the government releases a major part of the grains procured at highly subsidised rates through the public distribution system (PDS) and a smaller part free of cost for certain government schemes. Nevertheless, this usually leaves a significant amount of grains undistributed.Of the 60 million tonnes procured, 45 million tonnes are released through the PDS and 5 million tonnes are provided free to schemes, leaving about 10 million tonnes undistributed. The undistributed amount can either be issued as *ad hoc* allocation to certain states and for exports or can remain in the government's buffer stocks.

Thus, on the supply of cereals, the procurement-cum-PDS operation is equivalent to a mild supply shock with one important *proviso*: there is no loss of income for the farmers. On the monetary side, these operations inject a huge amount of net liquidity into the cash economy. The net liquidity injection is: (procurement price x quantity procured – average PDS issue price x quantity released to PDS). Over the past several years, the procurement price has been increased every year, but the PDS issue price has remained constant. Thus, the monetary injection has steadily increased year by year. his is the factor missed out in all the discussions around the MSP.

The inflationary consequences of these two effects can be very substantial indeed even in a normal year. Since there is no loss of income for the farmers, the additional liquidity is spent on other goods, including non-cereal food items, thereby raising their prices. Of course, a part is also spent on credit economy goods as well thereby reducing a part of the extra liquidity, but given that the consumption basket of farmers is dominated by food (typically food accounts for about 60% of the rural consumption basket, and about the same for the urban poor as well) this effect is probably small.The consequence is that the price impulse spreads rapidly from food-grains to all other food items as well.

In so far as the credit economy is concerned, the general increase in food prices will induce a flow of cash out of bank reserves into the cash economy, thereby perpetuating the inflationary process. The larger the increase in MSP, the stronger will be this inflationary process not only because of the direct effect on food-grain prices, but also because it would induce a higher proportion of food-grains being offered for procurement.There is of course a natural limit to the amount of food-grains procured since the procurement mechanism is limited only to some parts of the country and does not operate in the other parts.

What happened in 2014 and after?

We believe that the monetary process described above is the root cause of the persistent food inflation observed since 2005 when sizable increases in MSP were made

by the UPA government. This was exacerbated from 2008 when the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) was rolled out nationally, which represented a new source of liquidity injection into the cash economy. On the average, the NREGS injected about Rs. 320 billion annually. As a result, in 2008-09, although reserve money grew at only 6.4 per cent, currency with the public grew at 17.1 per cent.

Matters came to a head in 2009 when India experienced the worst drought in 30 years. This not only involved a substantial supply shock, but MGNREGS payments shot up by nearly 50 per cent to Rs. 480 billion. To make things worse, there was gross mismanagement of the food economy by the government with food-grain stocks actually increasing due to releases being significantly lower than the procurement during the year. This not only meant a supply shortage larger than just the loss of production, but also additional liquidity injection which further supported the inflationary process.

The inflationary impetus given by the events of 2009 persisted for the next four plus years, and eventually spilled over into the non-agricultural sector, despite the best efforts of the RBI. The RBI not only increased the policy interest rates substantially, but also reduced the rate of growth of reserve money significantly especially in 2011-12 and 2012-13 when it was 3.7 and 6.1 per cent respectively. Currency with the public, however, grew at 11.2 per cent in both years.

A possible additional contributory factor to the persistence, and indeed acceleration, of inflation was the collapse of transactions in the real estate sector. Since this sector represents the single largest repository of black assets, a part of the currency sequestered in property transactions was probably released into the cash economy, thereby partially off-setting the RBI's monetary contraction. Unfortunately, there is no hard data on the volume of real estate transactions in India, but there is sufficient circumstantial evidence to justify this assumption.

In light of this monetary explanation of inflation, the dramatic reduction of the inflation rate in the second half of 2014 can be explained by three developments. First, the increase in MSP in that year was only 3.8 per cent, which was well below the prevailing food-grain inflation of 11 per cent. Thus the real liquidity injection was actually negative. Second, despite the fact that 2014 witnessed a less than normal monsoon, the outlay on MGNREGS dropped sharply by nearly Rs. 120 billion. Finally, and most importantly, the government released more than 6.5 million tonnes of food-grains from its stock through open-market operations, which both augmented the supply of cereals as well as sucked out about Rs. 80 billion in liquidity from the cash economy. This was helped by the fact that global food prices had fallen and therefore there was no incentive for traders to export the additional food-grains.

These three factors together imply that the injection of liquidity into the cash economy in 2014 was more than 30 per cent less than in previous years. It was no wonder that the inflationary process collapsed. There are, however, two features of this reduction in inflation that need to be noted. First, it led to massive rural distress. A sub-par monsoon

is always bad news for rural India, and it was made considerably worse by the lack of livelihood support from the NREGS. Moreover, the release of food-grains from the government stocks was singularly badly timed in that it came roughly at the time of the harvest. This meant that the market prices received by the farmers were well below the level that would have been justified by the production short-fall, thus adding to their woes. Second, the RBI had absolutely no role to play in all of this, which points to its limitations in dealing with monetary issues.

Things began to improve a bit in 2015-16 (another sub-par monsoon year) and there were hopes that normal monsoons in 2016 would bring stability back to farm incomes. And then demonetisation happened in November 2016. This one event broke the back of the cash economy. With the sudden withdrawal of liquidity, all sectors of the cash economy suffered. Agricultural prices crashed, and the MSME sector simply did not have the funds for working capital nor the demand for its products. Demand shifted from the cash economy to the credit economy where supply could be made against non-cash payment.

Lessons for the future

There is by now compelling evidence which suggests that the normal monetary transmission mechanisms either do not work or are very weak in most developing countries.[2] It is amply clear from the recent inflationary experience that this is true of India as well. In countries characterised by monetary dualism, such as India, this is only to be expected. Addressing inflationwhich has its origins in the cash economy requires a deep understanding of the processes by which currency moves from the coffers of the banking sector into the cash economy, and what the central bank can do about it. While there is considerable research globally on the transmission mechanisms through which monetary policy, especially interest rate changes, work through the credit system, there is virtually none which address this particular issue.

Now that India has adopted inflation targeting as the centre-piece of its monetary policy, this lack of understanding can be very costly. Inflation in India can arise from a variety of causes, and it is important to know what the appropriate monetary instruments are for each case. Use of inappropriate monetary instruments can do more harm than good, and limiting the monetary authority's instruments to a single primary one can be very dangerous indeed. RBI can certainly be proud of finally having achieved a "state-of-the-art" monetary framework. Now if only we had a state-of-the-art economy.

Notes

[1]A comprehensive summary of the possible causes of food price inflation can be found in Bhattacharyya, R., Narahari Rao and A. Sengupta, "Why Food Inflation has been high in India", **Ideas for India**, April 16, 2014.

[2]See Mishra, P., P.J. Montiel and A. Spilimbergo (2010), "Monetary Transmission in Low Income Countries", **IMF Working Paper**, WP/10/223.

A.K.DASGUPTA MEMORIAL LECTURES:

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