

Micro-foundations of Macroeconomic Development

2 CHAPTER

This has been a classic year of economic recovery for India. The economy remained on the path of rapid resurgence which began in 2009-10 and has virtually returned to the high growth path that it had achieved during 2005-08, before the global financial crisis and economic meltdown. India's growth story this year has been remarkable by any standards. What makes it even more significant is that this is happening on the heels of a year in which growth was a robust 8 per cent; so there is no base effect to lay claims on this year's achievement. Further, as discussed in Chapter 1, the growth prospect over the medium to long term looks excellent. However, as often happens with strong recovery, the economy has come under strain from high inflation. Since the growth is in real terms, the average person has the cushion of more goods and services. Nevertheless, inflation, especially when it is centred on food, as has been the case in recent times in India, can be a cause of considerable distress for the common man and woman. Not surprisingly, a substantial part of this chapter addresses the subject of inflation. Price rise is discussed both as a matter of overall demand management and from the point of view of productivity and marketing. The chapter also comments at some length on the efficiency of financial intermediation. Economic analysts often treat growth and development as rooted in economic policy alone. In reality, much depends on the social, political, and institutional milieu. Crafting good policy entails taking proper account of this. The chapter closes with a discussion of these extra-economic catalysts of economic development.

INCLUSIVE GROWTH AND INFLATION

2.2 This has been a difficult year in terms of inflation, even though the overall trend of inflation has been downwards. Inflation peaked around March and April 2010 and has since been on a downward trend despite a disturbing turnaround in December 2010. Inflation in India is measured by a wholesale price index (WPI) and four different consumer price indices (CPIs) for various categories of consumers. Interestingly, measured by all five price indices, it was in single digits from October 2010. This had not happened since April 2009. Till September 2010, for 17 months, one or the other inflation index has been in double digits. In fact, from March 2010 to July 2010 all five indices showed double-digit inflation.

So clearly there has been an easing of the overall inflationary situation even though the recent spike in food prices is a cause for concern and will be addressed in this and other chapters. On the other hand, the high growth that India has achieved this year, when much of the industrialized world is still teetering on the brink of a possible second dip, is remarkable. As always with high growth, this is also a moment of opportunities. This is the time when we have to make sure that the economy builds up strengths—fiscal, infrastructural and more—so that not only do we improve our current standard of living, we also accumulate resources and create fiscal space for bad times that may come our way in the future. In short, a part of the current recovery must be stored away to build future resilience.

2.3 When growth is as high as it has been for India this year, if it were the case that all segments of the population were partaking in the growth in exactly the same way, then inflation would not be a matter of great concern. This is because the growth being real, everybody is better off and the inflation does not take away anything from this. It is when the average growth is unevenly distributed that we have to worry about the worse-off and vulnerable segments of society. Hypothetically it is possible that while the average Indian is better off by the per capita income growth of approximately 7 per cent per annum that the country has had, some poor people are actually worse off because their nominal incomes have hardly grown and inflation has negated that growth. Given India's objective of inclusive growth, this is a matter of concern.

2.4 According to the unit level data of the NSSO 2004-05 round of monthly consumption expenditure, based on uniform recall period, the bottom quintile of India's rural population devotes approximately 67% of their aggregate household expenditure on food. Since food price inflation during much of the year has been over 10 per cent, it is possible that some of these people are worse off, despite the high real gross domestic product growth (GDP) growth. The way this has to be handled is by developing stronger systems of food security for the poor, more effective systems of providing cheap fertilizer to small farmers, dependable micro credit to poor households in rural and urban areas, and basic health support and other such services. There are several initiatives afoot in India right now to make sure that not only do we try to control inflation, we also try to put these supportive policy structures in place so that the vulnerable segments of India's population are protected from the ravages of inflation. These policies are important because, though the Government aims to bring down inflation further, there may be reason to expect that in the medium term we will have to live with a little higher inflation than the 3 per cent or so that we used to have in earlier years.

2.5 In designing inflation control measures it is important to be aware that sudden, sharp policy-induced contractions in demand can cause unemployment to rise. Given that India's inflation data are remarkably comprehensive and are published on a weekly and monthly basis, whereas our employment statistics come out with long intervals and time-lag, the trade-off between inflation and employment escapes public awareness and slants discourse. There is however, enough evidence from around the world that, at least in the short run, there is a negative relation between inflation and unemployment. This is what makes it critical for government to carefully calibrate the demand management measures when bringing down inflation. There is no known formula for doing this. This has to

be based on the comprehensive study of available statistics, the lessons of economic theory and, not least, judgement.

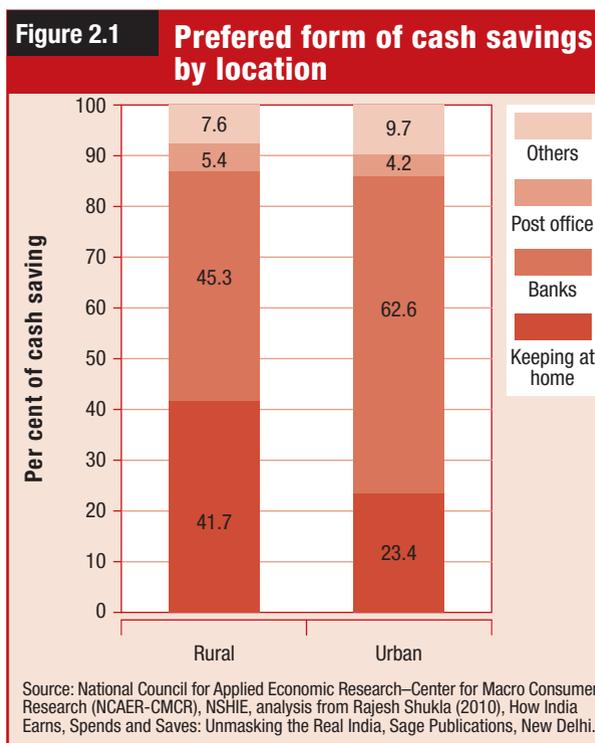
2.6 Recognizing the complex nature of inflation, with roots in domestic and international factors, the Government has set up an inter-ministerial group (IMG), under the chairmanship of the Chief Economic Adviser, Ministry of Finance, to "review trends in overall inflation, with particular reference to primary food articles," and "make recommendations for action on fiscal, monetary, administrative and other fronts." In the mean time, in understanding and analysing inflation, it is important to distinguish between two different kinds of phenomena. The first is a short-term relative price rise in a couple of commodities and the second is a sustained overall price increase. In fact, in much of standard economics, the former is not even called inflation. The latter, on the other hand, is classic inflation and calls for standard remedies involving monetary and fiscal policies. This is not to deny that relative price adjustments can be a contributory factor in a country's overall inflation. However, these two kinds of phenomena call for very different kinds of policy interventions. To begin with the phenomenon of sustained overall price increase or inflation, it is important to note an interesting connection between inclusion and inflation. While the Reserve Bank of India (RBI) controls the total amount of currency in the economy and the Ministry of Finance, Government of India (GOI), controls the fiscal and revenue deficits, what is not often understood is that inflation depends on overall liquidity in the economy, and that can be affected by the decisions and behaviour of firms, farms, corporations, and ordinary citizens.

2.7 As Figure 2.1 shows, Indians continue to hold a lot of their savings as cash. In rural India, around 42 per cent of savings are held as cash. In this environment, once we initiate policies for financial inclusion and help people open bank accounts and put their money in the accounts, we will be bringing money that was earlier lying dormant into circulation. In the old set-up where lots of Indians, especially in rural areas, kept their savings as cash in their homes, the Government and the RBI had the freedom to indulge in an additional amount of spending without this giving rise to inflationary pressures. This is a case of one person's decision not to put his money into circulation enabling another agent to put her money into circulation without causing inflationary pressures. Once people are financially included, that is, they put away their money in banks and mutual funds, this money goes into circulation. Hence, the total *effective* money supply in the economy goes up. In this situation, even if there is no change in the behaviour of the RBI and GOI, there will be inflationary pressure. There is evidence from around the world that monetization of the economy and the desirable

objective of bringing more and more people into systems of modern money management contribute to the overall pressure on prices. This is a case of one good development, namely, greater financial inclusion, having an undesired consequence, to wit, a greater inflationary propensity. This must not deter us from pursuing financial inclusion since the overall benefit of this can be enormous. What is being pointed out is the need to be aware of all its fall-outs, and take appropriate action against possible negative side effects.

2.8 An analysis of India's recent monetary and liquidity conditions lends credence to the foregoing analysis. Overall money supply seems to be well under control. In 2010-11 (year on year, up to 31

December) broad money (M_3) growth was 16.5 per cent. This is not only reasonable but it is less than the growth in the previous year, which was 17.9 per cent. Narrow money (M_1) also grew less in 2010-11 compared to 2009-10. This year (year on year, up to 31 December) the growth was 15.5 per cent and last year the growth was 17.9 per cent). During this year currency growth has been greater than deposit growth, resulting in a higher currency to deposit ratio. Also, during the year the growth in bank credit to Government has also gone down. The demand for liquidity is evident from the fact that the repo rate emerged as the operative policy rate, at least for most of the latter part of the calendar year 2010. This shows that the raising of the repo rate was being



tolerated well by the real economy. The inflation that occurred despite these features point to the possible role of other non-central bank factors.

2.9 The other route through which a desirable change can have the adverse effect of creating inflationary pressures in an emerging economy is integration with the global economy and, more generally, globalization. It is well-known that in poor countries, the purchasing power parity (PPP) is low. In other words, the kind of living standard one can achieve in a poor country with 100 dollars is considerably higher than what one can achieve with the same money in the United States, Europe, or any other industrialized nation. Currently, India's PPP correction factor is 2.9. In other words, what a person

in India can buy with 100 dollars will typically require 290 dollars in the US. We also know that by the time a country becomes industrialized, the PPP correction has to be smaller. This happens partly because of exchange rate changes but more substantially because the prices of basic non-traded goods and unskilled labour in the formerly poor country rise and partly catch up with prices in industrialized nations.

2.10 The most major break for the Indian economy occurred with the far-reaching economic reforms of the early 1990s. From 1994 India was clearly on a higher growth path than ever before. The next big step up in growth happened in 2005. If India keeps up the high growth rate it has had from 2005, it will

mean that the real per capita income of Indians will rise from the current level of approximately 1300 dollars per annum to 10,000 dollars in 2039. Using the data on PPP corrections needed for countries just above the 10,000 dollar benchmark, we would expect India's average dollar prices to rise (see Box 2.1). If this happened entirely through the adjustment of prices with no change in real exchange rate, we would have an additional 2 per cent per annum inflation rate. In reality, there could be some exchange rate adjustment as well, though cross-country data suggest this is dominated by the price adjustment. If simply as a rule of thumb, we take three-fourths of this to be determined by price adjustment, this will mean that we will, over the next 30 years, have an inflation rate that is 1.5 percentage points greater than would have been the case in the absence of this growth spurt. In the years immediately preceding 2003-04, from when GDP growth picked up (and went even higher after 2005), the average annual WPI inflation was just below 3.5 per cent (it was 3.61 per cent in 2001-02 and 3.38 per cent in 2002-03). This implies that, other policies remaining unchanged, we will have an average annual inflation of nearly 5 per cent during the next decade or so of the rapid growth that is widely expected to occur in India. This suggests the need to revisit some of our standard policies for managing inflation, and also underlines the need to ensure that India's growth is inclusive and that we have better designed systems for providing basic security to the vulnerable.

2.11 Around this average inflation, there will certainly be periods of price spikes and even price declines for different commodities and different classes of commodities. The year 2010-11 has been a year of more than one such skewflationary episode. At the beginning of the calendar year 2010 and even in the first months of the fiscal year 2010-11 inflation was high for foodgrains, sugar, and pulses. During the course of the year, inflation in these commodities stabilized, but by November there was another spike in prices of another set of commodities, led by onions, cabbage, milk, and a couple of other products. While we are often forced to use the blunt instrument of controlling aggregate demand in the economy through monetary and fiscal instruments, these price spikes should be treated as occasion to investigate the micro structure of markets, in particular the production and distribution of goods from farm and factory to retail store and consumer. While political compulsions sometimes oblige Government to take short-term measures like banning exports and changing tax rates to correct the price

spikes, it is important to take a longer-run view and be restrained in the use of such interventions. We should use each such inflationary episode to try and locate and rectify the flaws in the system of production and marketing.

2.12 Before going into this, it is important to stress that not all price increase should be met with Government interventions. Prices rise and fall in response to changing demand and supply scenarios in the country. Prices are signals to consumers and producers to alter their behaviour in response to exogenous changes in the economy. It is not advisable for Government to step in and flatten out all these price fluctuations. Trying to control these price increases by legislating price controls runs the risk of prices being lower but goods vanishing from store shelves, as happened in countries which tried this strategy in the 1970s and 1980s. In other words, we risk having low prices for no goods. Such a policy could also give rise to black markets. When an unwarranted price spike occurs, the need is to see if there are defects in our marketing system, take away lessons, and put corrective measures in place to prevent a recurrence. Some such food distribution flaws were isolated during the high inflation in foodgrains that occurred from November 2009 to May 2010 and corrective measures put in place.

2.13 It can be argued that the sharp hike in the price of vegetables seen during December 2010 and January 2011, especially of onions, reveals defects in our food production and marketing systems. What came to light during this period was the great difference in prices for the same product at the farm gate and in city retail outlets, and also across different cities and towns. On 7 January 2011, for instance, onions were selling for ₹ 30 in Agra and 57.5 in Delhi; for ₹ 35 in Nagpur and 62 in Mumbai; for ₹ 23 in Thiruvananthapuram and 60 in Dindigul. Surely with an efficiently functioning and competitive market such price differentials could not have survived. What these price differentials suggest more than anything else is not so much hoarding as the cartelization of trade resulting in the prevention of entry of new traders. The problem needs to be tackled using our Competition Act 2002.

2.14 When we give free rein to enforcers to check these practices in the market and among traders, the tendency often is to lump together a motley category of behaviour—hoarding, entry deterrence, and collusive price hikes—and treat them all as malpractices to be avoided. Yet such indiscriminate lumping together and punishing traders can do more

Box 2.1 : The Mechanics of PPP Catch-up and Increases in Price Levels

The concept of PPP catch-up inflation arises from the empirical observation that as countries grow in terms of per capita GDP the required PPP adjustment appears to become lower (see Figure). Countries with per capita GDPs of around US\$ 850 to 1200 in 2009, like India, Pakistan, Nicaragua, and Vietnam, appear to have an average PPP correction of approximately 2.3.¹ In comparison, countries with per capita GDPs between US\$ 8500 and US\$12,000, like Turkey, Uruguay, Mexico, and Brazil, have an average PPP correction of around 1.6. It therefore appears that, as the per capita GDP of a country increases, its PPP correction becomes smaller. This would also indicate that due to this apparent fall in the PPP correction factor, there would be some increase in prices. For example, in 1980 Brazil had a per capita GDP of US\$ 1371 with a PPP correction of 2.7. By 2009 it had a per capita GDP of US \$ 8220 and a PPP correction of 1.3. India currently has an annual per capita GDP of around US\$ 1300 with a PPP correction of 2.9. If it reaches a PPP correction level of 1.6 (average PPP correction of countries with per capita GDP US\$ 8,500-12,000), over a period of around 30 years it would face an inflation of 2 per cent per annum solely on account of this PPP adjustment (provided there is no currency appreciation).

The theoretical basis for this comes from the work of Balassa and Samuelson. As explained by Froot and Rogoff (1995), the Balassa-Samuelson effect posits that 'after adjusting for exchange rates, CPIs in rich countries will be high relative to those in poor countries and that CPIs in fast-growing countries will rise relative to CPIs in slow-growing countries.' The underlying mechanism arises from the historical tendency wherein technological progress is faster in the traded goods sector than the non-traded. Rising wages in the traded goods sector lead to rising wages in the entire economy. The non-traded goods producer then needs to raise the relative price of non-traded goods to pay the higher wages.

Suppose we consider a basket of goods in India that costs ₹ 5000 today. Given an exchange rate of ₹ 50 per US dollar, this costs US\$ 100 in India. With a PPP correction factor of 2.9, the same basket of goods would cost US\$ 290 in the US. If in say 30 years there is no inflation in the US, and the PPP correction factor for India comes down to around 1.6, the basket costing US\$ 290 would cost approximately US\$ 181 in India. If the exchange rate remains at ₹ 50 per US dollar, the basket would cost ₹ 9050. This would imply a PPP catch-up inflation of about 2 per cent per annum for 30 years (compound annual growth rate--CAGR). The other extreme possibility is that there is no inflation in India and this adjustment occurs only because the ₹ 5000 basket becomes worth US\$ 181 because the rupee appreciates to ₹ 27.6 per US dollar.

Between these two extreme alternatives, there would be other combinations involving a smaller appreciation and a lower inflation rate. If we consider real-world examples of current middle-income countries (Table 1), very few countries appear to have had currency appreciation as their per capita incomes increased. Brazil with its spectacular growth in per capita GDP had a depreciating currency together with very high inflation. Poland, Uruguay, Chile, Venezuela, and Mexico also had significant growth, lowering of the PPP factor, currency depreciation, and inflation. These examples lend some credence to the idea of PPP catch-up due to high growth leading to high inflation in the absence of currency appreciation.

PPP adjustment factor and per capita GDP (2009)

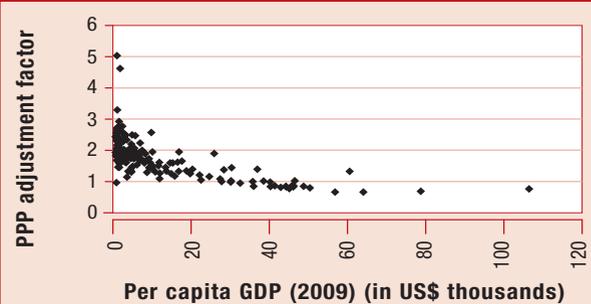


Table 1: Per capita GDPs, Currency Depreciation, Inflation and PPP Adjustment in Some Middle-income Countries.

Country	Per capita GDP 1980	Per capita GDP 1990	Per capita GDP 2009	Currency Depreciation (1993-2009)	Average Annual Inflation (1993-2009)	PPP Adjustment 1990	PPP Adjustment 2009
Russia	n/a	n/a	8681.4	3100.7	99.7	n/a	1.7
Mexico	3291.9	3395.1	8133.9	333.7	11.3	2.1	1.7
Brazil	1371.6	3463.9	8220.4	5123.6	245.2	1.5	1.3
Turkey	2235.1	3859.5	8711.2	14,010.3	47.4	1.4	1.4
Seychelles	2793.5	6366.5	9253.0	162.7	6.1	1.6	2.6
Uruguay	3845.7	3319.2	9420.5	472.6	17.1	1.6	1.4
Libya	12,795.5	7063.1	9511.4	n/a	2.4	1.4	1.4
Chile	2492.9	2409.1	9515.9	38.8	5.3	2.0	1.5
Equatorial Guinea	143.9	294.6	9577.2	66.8	7.7	1.5	1.9
Lithuania	n/a	n/a	11,115.1	-42.8	35.0	n/a	1.5
Poland	1591.3	1625.2	11,302.1	72.2	10.8	3.6	1.6
Venezuela	4650.0	2481.6	11,383.0	2263.5	34.0	2.8	1.1
Latvia	n/a	n/a	11,465.6	-25.1	15.3	n/a	1.2

Note: Internal calculations based on International Monetary Fund (IMF) data.

Data Source: IMF, World Economic Outlook (WEO) and International Financial Statistics (IFS).

Reference: Kenneth A. Froot and Kenneth Rogoff (1995), 'Perspectives on PPP and Long-run Real Exchange Rates', in Gene Grossman and Kenneth Rogoff (eds.) *Handbook of International Economics, Volume 3*, North Holland, Amsterdam.

¹ Per capita GDP at current prices, not adjusted for PPP.

harm than good. Our enforcers have to be taught to distinguish between legitimate activities and genuine malpractices. Hoarding, for instance, like cholesterol, can be both good and bad. When ordinary citizens hoard for a rainy day, they serve the useful role of evening out price fluctuations. This falls in the category of good hoarding. When Government talks in terms of setting up new warehouses and storage facilities, it implicitly recognizes the socially useful function of this type of hoarding. On the other hand, when hoarding is done by large traders to deliberately manipulate prices, this can be detrimental to the economy and go against the interest of consumers. It is this latter kind of hoarding that we need to deter. The important press release by the Prime Minister's Office made on 13 January 2011, which led to the setting up of the IMG referred to earlier, shows awareness of the need to distinguish between different kinds of hoarding stating as it does, 'Government will take stringent action against hoarders and black marketers manipulating market prices.' The last three qualifying words are important. The same paragraph goes on to point out the need to use not just our Essential Commodities Act 1955, but also the Competition Act 2002.

2.15 The main relevance of the Competition Act occurs in the context of the natural propensity of established traders to prevent the entry of new traders. It was observed in an earlier paragraph how the same product on the same day had vastly different prices at the farm gate and at different retail locations. This does suggest the occurrence of entry-deterrence. For a policy analyst it is important to realize that the best antidote to these large price margins and the consequent large profits made by the incumbent traders is the drive of others not currently operating in this market to make profit from the large margins. If we allow new traders to come into the market, buy where prices are low, and sell where prices are high, the large price differentials will vanish. So the critical question is why such new traders and farmers do not come into the market. Though a firm answer is not possible at this stage, it seems likely that there are barriers to their entry, caused by the rules and regulations of the Central and State governments and by deliberate barriers to entry created by the incumbent traders. It is arguable that our Agricultural Produce Market Committees (APMC) Act, by restricting the traders permitted to trade through the main *mandis*, facilitates collusive pricing. Also the various tolls and checks that a trader faces in bringing supplies into a city make it difficult

for small, new traders and farmers to bring their products to retail outlets. It is also believed that new traders are deterred by incumbent traders. If this is established, then section 3 of the Competition Act 2002, can be invoked to put an end to these practices.

2.16 Another, and quicker, method to curtail the margin between farm gate and retail prices is to bring in modern supply chain management systems and retail sellers into the picture. This will involve a lot of new know-how. A quick way to get at this is to allow foreign direct investment (FDI) in multi-product retail into India. We will certainly need to have a regulatory structure within which such foreign companies will be required to function, even if it were argued that large organized-sector firms would be more wary of violating the nation's antitrust laws. At any rate, we are at a juncture where FDI in multi-product retail is worth considering. It could enable farmers to get higher prices and consumers to have to pay less. We could, as a first step, consider limiting international multi-product retailers to a few outlets in each major city. This will prevent them from getting full control of the market and, at the same time, set an upper bound on the prices that other retailers will be able to charge for their products. Further opening up can follow depending on the success we have with this.

2.17 The policy changes discussed in the preceding paragraphs can improve our food delivery and distribution systems and provide great benefit to consumers. They can even achieve a once-and-for-all lowering of retail prices that consumers pay. But this in itself will not cure the risk of long-run inflation, which refers to a sustained across-the-board price increase. Sustained inflation is, in part, a by-product of growth and financial inclusion. As discussed earlier, with more people putting their savings in banks and mutual funds, the scope of the RBI and Government to increase money and run a fiscal deficit may go down. A deficit that earlier did not cause inflation may now do so because ordinary citizens are putting their money into circulation. In the parlance of economics, there may be a steady increase in the velocity of circulation of money. Unfortunately, there are no known formulae for how much we have to cut back on deficit and liquidity to counteract the fact of rising velocity. This will have to be achieved through trial and error. The secular lowering of inflation seen through this year suggests that the moves made by the RBI and Government have been in the right direction.

2.18 There is another novel dimension to inflation today that puts it beyond the full control of any single nation. This has to do with globalization. As barriers between economies come down, and goods, services, and capital flow more easily between nations, there is a natural tendency for each nation's monetary authority to lose some of the effectiveness it earlier had. Equivalently, one nation's monetary policy now has greater externalities for other nations. In earlier times, when one country increased its money supply, it boosted demand in that nation, leading to a combination of greater output and some upward pressure on prices. Nowadays, it is possible for the newly created money to flow out of the nation to other countries and give rise to greater demand there, boosting output but also creating inflationary pressures. It was realized a long time ago that for one economy to have more than one central bank with money-creating rights can be destabilizing. Starting with the founding of the Bank of England in 1694 it gradually became the norm to have one central bank for one economy. With globalization and the lowering of boundaries between nations, the world economy is gradually moving towards a single

economy. But since each nation has a central bank, we are unwittingly returning to a predicament that we had once escaped, to wit of having multiple money-creating authorities in a single economy. This has given rise to destabilizing currency competitions and may be a factor behind the recent increase in inflation in emerging economies (see Table 2.1).

2.19 It is time for the world's major economies to get together through appropriate international agencies such as the G-20 to address this problem and have systemically important economies try and achieve greater coordination in their monetary and fiscal policies. The global economy is beginning to exhibit some troubling characteristics that need attending to. What we have is a variant of stagflation at global level. But unlike the standard melting-pot stagflation, where the stagnation and inflation occur in the same economy, the global economy is characterized by a salad-bowl stagflation—stag in some nations, flation in others. This is probably a consequence of the world becoming increasingly boundaryless. Money creation in such a world is like pouring water on a flat surface. No matter where the water is poured it ends up in the same place, in this case stimulating growth and prices in those places, and not necessarily stimulating the economy where the money was created.

Table 2.1 : Cross-country Inflation over the Last Year

	Inflation		Food Inflation	
	Year ago	2010	Year ago	2010
Argentina	7.1	11.0 *	4.7	15.8 *
Brazil	4.3	5.9 **	3.3	9.2 *
China	0.6	5.1 *	3.2	11.7 *
Egypt	10.7	11.6 ***	17.4	21.9 ***
India	13.5	8.3 *	17.6	5.4 *
Indonesia	2.8	7.0 **	4.7	13.2 \$
Iran	7.4	12.5 *	6.6	12.1 ***
Pakistan	10.5	15.5 **	7.5	20.1 @
Philippines	4.3	3.0 **	2.2	3.2 ***
Russia	8.8	8.8 **	-	-
Thailand	3.5	3.0 **	0.8	6.6 ***
Turkey	6.5	6.4 **	9.3	7.0 **
Ukraine	12.3	9.1 **	7.6	13.1 @
Vietnam	6.5	11.8 **	-	-
Uruguay	5.9	6.9 **	4.6	10.1 @

Source: International Labour Organization (ILO) Department of Statistics, World Bank, National Bureau of Statistics of China.

Notes: *November, **December, ***September, @October, \$August.

MICROFINANCE, FINANCIAL PRODUCTS, AND FINANCIAL INCLUSION

2.20 Over the last year, there has been a lot of effort to strengthen economic inclusion. This is as it should be. Of the Government's lynchpin for economic policy, namely 'inclusive growth', the country has done very well on 'growth,' but needs to press more on the peddle for 'inclusion'. To do better on this front we have to define this target more sharply and then pursue policies to achieve it. It was argued in last year's Economic Survey that one way of formalizing the inclusion target is to evaluate the performance of an economy in terms of the performance of the bottom quintile of the population. Thus, instead of treating the overall per capita income as a target, we should aim to enhance the growth of the per capita income of the bottom 20 per cent (what is called the quintile income) of the population. Such a definition would avoid the common pitfall of treating growth and equity as pulling in different directions. Even with this clarity of definition, the question remains about how best to achieve this target? What should be the components of a policy aimed at raising the standards of the marginalized population?

2.21 This Government took the view that in the large agenda of inclusion, a central and in some ways pivotal feature is financial inclusion. In order to achieve such inclusion, there are plans to expand India's banking sector, enable the creation of new financial products and use modern technology to enable the poor to keep their savings in interest earning accounts. One of the most ambitious schemes for achieving these is the Swabhimaan programme, which, takes off on the idea of financial inclusion proposed and developed in the Rangarajan Committee Report (Committee on Financial Inclusion). Swabhimaan, launched on 10 February, 2011, is an innovative scheme to take banks to the doorstep of the rural poor instead of the latter having to go in search of banks. The idea is to have business correspondents, or bank saathis, (who may be the local merchant) armed with electronic hand-held devices, which can recognize the bio-markers of bank customers. The customers can then deposit and draw money directly from the bank saathi, without having to travel long distances to get to the nearest brick and mortar bank branch. The programme will be making use of aadhaar which will make it possible for individuals to establish their identities in any part of India. By combining India's strength in information technology with innovative ideas in banking, Swabhimaan promises to be a major catalyst for growth and inclusion.

2.22 Another constituent of financial inclusion, which could potentially benefit from Swabhimaan, is the extension of the reach of micro finance. Microfinance can empower the poor so that they can move on from relying on hand-outs to being self-sufficient and seeing their incomes grow. For microfinance this has been a year of remarkable developments. The sector has grown rapidly but it has also been mired in controversy. A micro finance institution (MFI) can take many different forms. It can be a non-government organization (NGO), a non-profit non-banking financial company (NBFC), or a profit-making NBFC incorporated under the Indian Companies Act 1956. Following the RBI guidelines of 18 February 2000, MFIs have been taking bulk loans from banks and on-lending to small borrowers. MFIs cannot take in retail deposits and to that extent fall in the category of NBFCs. This sector has grown exponentially and on 31 March 2010, based on returns filed with the National Bank for Agriculture and Rural Development (NABARD) we know that there were 1659 MFIs availing a total credit of ₹ 13,955 crore from the banking system. With the success of the initial public offer (IPO) of a leading MFI, namely

SKS Micro Finance, this sector seems to have come of age. However, in 2010-11 the sector ran into difficulty with reports of unfair practices by MFIs to recover loans and some farmer suicides attributed to these practices.

2.23 These developments have put the microfinance sector at crossroads. In regulating MFIs it has to be recalled that they have played a major role in drawing poor people into India's mainstream finance and enabling farmers to make useful investments and marginal workers to start up small self-employed enterprises. There are approximately 30 million people throughout India who have been beneficiaries of MFI lending. There is evidence that some of these people have been subjected to unfair threats to make them repay loans. Such practices must be stopped. However, to react to this by announcing blanket amnesties and encouraging farmers to default en masse will do more damage than good. Such practices would lead to the MFI sector disappearing since no MFI, whether it be a profit-making one or a non-profit NGO, would want to give out loans knowing that these will not be recovered. While we must recognize that borrowers in special situations have the right to plead bankruptcy and not pay back, we need an intelligent regulatory structure which protects borrowers and, at the same time, allows this sector to flourish. It is with this in mind that the RBI set up a committee headed by Y.H. Malegam to study and advise on the microfinance sector (see Box 2.2). The report will, no doubt, give rise to discussion, debate, and analysis. In the light of this, it is worthwhile recounting some of the principles we have to keep in mind while regulating this important sector.

2.24 The central principle of a good system of finance is a transparent contract. Hence the first and foremost principle in drafting a regulatory system for the microfinance sector is to require that the lending MFI make the terms and conditions of the loan clear to the borrower. It is, for instance, well known that people often fail to understand the meaning of compound interest rates. A poor farmer told that he has to pay 10 per cent interest rate per month tends to believe that he will be paying an interest of 120 per cent over the year. However, if the 10 per cent interest rate is meant to be a compound rate, then this works out to an interest of 214 per cent over the year. To misunderstand this can lead the borrower to make huge losses and the lender to make huge, unfair profits. We have seen these kinds of phenomena even in advanced economies like the United States where the sub-prime home borrowers

Box 2.2 : Issues and Concerns of the MFI Sector : Extracts from the Report of the Sub Committee of RBI Central Board of Directors—the Malegam Committee.

Main Recommendations*

Categorization of MFIs

- Creation of a separate category of NBFCs to be designated as NBFC-MFIs;
- NBFC-MFIs need to be companies providing financial services predominately to low income borrowers with not less than 90 per cent of total assets (other than cash and money market instruments) in the form of qualifying assets;

Terms of credit: borrowers, size and interest rate

- Borrower can be a member of only one SHG or Joint liability group;
- Limits on annual family income of borrowers recommended at ₹ 50,000;
- Individual ceiling on loan to single borrower recommended to be ₹ 25,000;
- Loans to be in small amounts with more frequent repayments than bank loans;
- The interest charged from borrowers subject to a 'margin cap' of 10 per cent for MFIs with loan portfolio of ₹ 100 crore and 12 per cent for smaller MFIs;
- Overall interest cap on loans at 24 per cent;
- Tenure of loan to vary with loan size;
- Restrictions recommended on the extent of 'other services' to be provided by MFIs;
- Not more than two MFIs can lend to a single borrower.

Resources, capital structure and provisioning

- Commercial Bank lending to NBFC-MFIs to qualify as 'priority lending';
- Minimum net worth of 15 crore for NBFC-MFIs.
- Capital Adequacy Ratio of 15%
- All of the Net Owned Funds should be in the form of Tier I Capital.
- MFIs encouraged to issue preference capital (with a ceiling on the coupon rate to be treated as part of Tier II capital subject to capital adequacy norms)

Consumer protection, code of governance and regulatory issues

- RBI to prepare a draft customer protection code;
- Grievance redressal mechanism to be established
- MFIs to observe code of corporate governance;
- Responsibility of avoiding coercive recovery methods to rest on MFIs;
- Credit information bureau to be established;
- The Reserve Bank should have the responsibility for off-site and on-site supervision of MFIs;
- A four pillar approach comprising of MFIs, Industry associations, banks and RBI for monitoring compliance of regulations suggested;
- NBFC-MFIs should be exempted from the provisions of the Money-Lending Acts, in view of the recommendation on interest margin caps and increased regulation.

Note: *This is only a synoptic extract of the recommendations and not the full text.

Source: Report of the Sub-Committee of the Central Board of Directors of the Reserve Bank of India to Study Issues and Concerns in the MFI sector, January 2011.

took on loans without understanding the terms they were signing on to. Government has to take measures to ensure that MFIs make the terms of contract transparent to the borrowers. This is more important than setting caps on interest rates and other restrictions on the terms of the contract. This is not to deny that we may have to set some limits on the terms. But the economics of this is important to understand before we go about ring-fencing the terms of the contract.

2.25 At first sight an MFI charging an interest rate of 24 per cent or 30 per cent per annum may seem extortionist since big urban borrowers manage to get money at much lower interest rates. However, there are two arguments against this reaction. First, it has to be kept in mind that lending to many small borrowers is much more costly than lending to a few large borrowers. Second, for a lot of these poor borrowers the alternative to an MFI is not a bank or an organized-sector financial institution but the rural

moneylender and such moneylenders often charge interest rates which, on annual basis, go up to 100 per cent or even 200 per cent. Hence to place too severe a cap on the maximum interest rate that an MFI can charge can drive some of the poorest and least bankable borrowers towards even greater extortion.

2.26 Is there then a case for having an interest rate cap or should we simply insist on transparency of the terms of the contract, whatever those terms may be? Even most industrialized nations such as the United States have usury laws which cap the interest rate that a lender can charge. Recent research in behavioural economics shows that human beings have a propensity to make inter-temporal decisions badly. Over and above the old idea of discounting through time, people have an additional propensity to value a bird in the hand disproportionately higher than all future birds in their hands. Moreover, people typically tend to underestimate the pace at which compound interest rates cause the repayment burden to rise over time. In other words, inter-temporal decision making is often done in a way which is not fully in keeping with a person's rational interest. This leads to a possible view that when a person signs onto a contract where the interest rate is too high, that in itself shows that the person has miscalculated the repayment burden. This could be a justification for why consumers' sovereignty may have to be curtailed in the interest of the consumer's own true interest. For this reason, there may be a case for setting some limits to the kinds of terms and conditions that go into a lending contract including a cap on interest rates. However, in figuring out the exact details of these, we have to keep in mind the two factors earlier mentioned, namely that micro lending is costly to the lender and to many a poor borrower the alternative to an MFI loan is money from the informal moneylender whose interest charges tend to be much higher.

2.27 These conceptual issues have a bearing on some matters that pertain to larger questions of organized finance. The financial crisis that began with the sub-prime housing mortgage market in the US and spread to other parts of the world has raised important questions about new financial products and structured finance. Teaser loans, in which the initial repayments are low but then escalate, over time, to larger repayments, have come under criticism. Collateralized debt obligations (CDOs), whereby new financial products are created by packaging different mortgages of differing risk profiles together and sold off in slices to other finance and

investment companies, also came under criticism. It can be argued that these CDOs caused a 'rating inflation', since in mixing and matching these mortgages, banks made sure that each such product making it to a certain rating category made it to just the edge of that category. In earlier times, ratings agencies, such as Standard and Poor's or Fitch, used to rate whole companies or even nations. So when debt issued by some company was given an AA+ rating, the lender knew that this company's quality rating was somewhere in the interval from AA+ to just below AAA. Once CDOs came into vogue, investment banks started creating new assets that were deliberately aimed at certain ratings. Since the demand for these CDOs depends on the ratings, it is not worthwhile creating tranches that lie in the middle or upper end of a 'rating interval'. In other words, these new securities were almost invariably clustered at the bottom cut-off of each interval. It is arguable that many agents buying these assets failed to take adequate account of this change that had occurred as a consequence of structured finance. They were used to treating an AA+ asset as an asset somewhere between the start of AA+ and below AAA. But with the arrival of CDOs that was no longer the case. The average quality of assets in each rate category was invariably at the bottom end of the interval. In other words, there was 'rating inflation' the way some universities have had 'grading inflation'. Just as happened in the early days of grade inflation, buyers of these assets were partly deceived. In the world of finance, a small mistake per asset of this kind can amplify into big errors and, given the complicated interdependencies in this market among lenders, the total impact can be vastly amplified, as happened in 2007 and 2008. Box 2.3 discusses some other reasons for rating inflation.

2.28 One way of handling this is to go for greater granularity in grading as Standard and Poor's rating system specially designed for East Asian nations does. But for India the more relevant matter right now is the status of new financial products like teaser loans. The terminology is sufficiently tainted for a neutral term to be of some value. We shall here refer to loans in which the monthly repayment instalment rises over time as a 'terraced loan'. Unlike most industrialized countries, India has had considerable success with terraced loans. The State Bank of India (SBI), for instance, came out with two different terraced loan products—Happy Home Loan in February 2009 and Easy and Advantage Home Loan in August 2009. Both these loans hold the interest rates fixed and below the market rate in the initial years. In the case of Happy Home Loan this was

Box 2.3 : Securities, Seniorities, and the Lending Boom

A little less than 1 per cent of all corporate bonds get an AAA rating. During the lending boom, preceding the financial crash of 2007-09, close to 60 per cent of all asset-backed securities were rated AAA. What was the magic behind these securities being rated so highly? As discussed in the text, the ability to create packages by mixing and matching mortgages can cause some of this rating inflation. But there are other reasons as well. The popular practice of creating securities of different seniority can also contribute to this.

Suppose a bank sells two mortgages of ₹ 100 each and suppose each of these mortgages has a risk of default equal to one-eighth. Further assume that the risks of the two mortgages are un-correlated. Now, suppose that a clever finance consultant advises the bank to put these two mortgages together and create two new securities of Rs100 each and sell them off to two buyers. These two securities are, however, given different levels of seniority. The junior security will see a default if any of the mortgages defaults. The senior security will incur a default only if both mortgages go into default. Note that the junior security is a little worse than one of the original mortgages because the risk of default is two-eighths. On the other hand, the senior security is vastly better because it is like the original mortgage but with the risk of default reduced to one-sixty-fourth. It is this method of exploiting the laws of probability and elevating certain pools of mortgages into inflated rating categories that was among the causes of the lending boom. Since by mixing and matching nothing fundamental at aggregate level is changed, the subsequent financial meltdown was all but inevitable.

References: M. Brunnermeier, (2009), 'Deciphering the Liquidity and Credit Crunch 2007-2008', *Journal of Economic Perspectives*, 23.

R.G. Rajan (2010), *Fault Lines: How Hidden Fractures Still Threaten The World Economy*, Collins Business.

fixed for the first 12 months and in the case of Easy and Advantage Home Loan interest was held constant and below the market rate for three years. Thereafter the rates were expected to move to higher and floating interest rates. The response of the market to this was very good. The number of loans offered in January 2009 was 18,780 with an aggregate value of ₹ 1499 crore. By November 2009 this had risen to 28,492 loans with an aggregate value of ₹ 3273 crore. Defaults on these have been negligible and cases of foreclosure rare. Also, these loans played a major role in promoting inclusiveness. Around 90 per cent of the home loan borrowers were first-time home buyers.

2.29 Two factors were behind the success of these terraced loans. First, despite having the shape of repayment associated with conventional teaser loans

in the US, these loans in India were not given to sub-prime borrowers. In the case of Easy and Advantage Home Loans, a borrower's repayment capacity and hence eligibility was worked out under the presumption that the person would have to pay from the beginning what she would actually have to pay from the fourth year onwards. Second, there was a lot of effort made to keep the contracts transparent so that the borrowers knew exactly what they were getting into. Given what behavioural economics has taught us, we know that this may not always be adequate, that a borrower's nod does not always mean that the borrower has fully comprehended what it is that he or she is getting into. However, especially the decision not to make these products available to the sub-prime borrowers but instead to expand the choice available to borrowers with an assured capacity to replay played a major role. The fact that this enabled many new home buyers to enter this market speaks well of the inclusiveness of the scheme, even though the sub-prime segment was deliberately left out. This is what enabled India's mortgage market to remain stable even as such markets in industrialized countries faltered. The basic lesson is clear. In general, it is worthwhile giving banks and financial institutions the freedom to introduce new products and thereby expand the options available to consumers and firms. This can enhance entrepreneurship and enable ordinary citizens to achieve a higher standard of living than would otherwise have been possible. The important restriction should be that banks and even NBFCs should be discouraged from lending to categories of borrowers who are clearly not in a position to take on such debt burdens. As far as restrictions on the types of products go, these should be used minimally and with judiciousness.

CAPITAL FLOWS AND GEOPOLITICAL OPTIONS

2.30 Overall capital flows into India this fiscal year have been greater than ever before in the country's history. This has been caused largely by a groundswell of money coming through the foreign institutional investor (FII) route, in response to the robust performance of the Indian economy but also because of low interest rates and returns in general in industrialized nations. Midway through the fiscal year, there was also 'currency competition', with China allegedly holding its exchange rate at what was believed to be a depreciated level, the US responding to this and its own sluggish growth and

high unemployment with two rounds of quantitative easing, and Japan buying up foreign exchange and releasing yens on the market. All these moves contributed to a greater flow of money our way. This was initially a matter of concern to India. However, there seems to have been no substantial appreciation of the *nominal* exchange rate of the rupee during the year. This is testimony to India's growing strength and power of absorption.

2.31 This must, however, not lull us into complacency. We will have to keep open the options of having to take corrective measures should these flows affect us adversely. The most important step in this context is to work with the G-20 countries and try to figure out collective decision rules whereby each country tries to intervene minimally in the flow of capital and, when it does intervene, it does so taking into account the externalities on other nations. But till such a plan of coordinated action is worked out successfully, a nation has to be prepared to adopt policy measures on its own. In contemplating such policy measures in India two inter-related factors have to be kept in mind. First, although there is very little nominal appreciation of the rupee, our real exchange rate, especially vis-a-vis the systemically important currencies, has been on a fairly steady path of appreciation. This is likely to have contributed to the relatively slow pickup of India's exports, even though over the last few months these have done well. It has also contributed to the large current account deficit (CAD) that the country faces. In itself this would not be a matter of concern but, in this case, a substantial part of the CAD is being financed by relatively footloose capital. One possible strategy in response to this is the market-based intervention of buying up some of the foreign exchange coming in through this route. This will limit the amount of capital available for financing the deficit and could also stabilize the real exchange rate. Against this, we will have to balance out the risk of inflationary pressures generated by the rupees that will be released on the market. However, it can be argued that since the rupees that will come on the market will be replacing other currencies, which are convertible and therefore fairly liquid, the inflationary impact of this will not be as serious as is often presumed. It is also hoped that with India's savings rate beginning to rise, some of the pressures on the CAD will ease.

2.32 All these policies must be complemented by the effort to attract more FDI into India. FDI capital is much more stable and, therefore, does not give rise to the kind of volatility that some forms of short-

term capital bring with them. Moreover, the kind of apprehension that India once had about foreign investment and political interference is of much less concern now since it is now a much more robust economy and has greater say in international political matters. To attract more FDI, we will have to think in terms of new areas into which we may channel these investments. But more than this, the serious stumbling block to attracting FDI into India is the fact that our bureaucratic machinery continues to be sluggish. Data released by the World Bank show that in terms of the bureaucratic efficiency for "doing business," India ranks as low as 134th in the world. Clearly, this is one area with scope for improvement. If we can make our bureaucratic, administrative machinery more efficient, the benefits for the economy will be enormous. There are examples of nations that inherited the cumbersome bureaucratic system of colonial governments but managed to reform those. We can learn from those nations but, interestingly, we can also learn from within our own country. A simple calculation shows that if all of India adopted the best practices found in some part of India, for instance in terms of facilitating the opening of new business, enforcing contracts, simplifying procedures to help bankrupt firms close down quickly, it would rank 79th in terms of efficiency. In other words, we can improve our ranking by 55 positions simply by learning from within our own nation. This is not to promote the parochialism of refusing to learn from beyond our borders but to emphasize that there is a lot that can be achieved even without that.

2.33 Digressing briefly, it is worth turning to the interesting question of the economic and representational power of Governments. There was a comment earlier about India's greater say in global economic matters. Indeed, India's G-20 membership is recognition of this fact. The 'economic power' of a Government is an important indicator of how much say that Government has in global fora and also how much say it ought to have. The economic power of a Government is a more complex idea than the economic power of an individual. We usually measure the latter by looking at a person's income or wealth. Taking a cue from this, we may think of a Government's power as measured by the total amount of revenue the Government earns and so is able to disburse. We may also look at the ownership of assets by a Government to get an approximate idea of the permanent income of the Government. However, a Government's economic power depends also on the amount of human capital available in the nation and so at some level available to the

Box 2.4 : Government Economic Power in the Post-crisis World

The economic abilities of nations and governments have always been a force to reckon with. While the process of globalization saw government economic power supplementing the forces of the market, the global economic crisis witnessed governments playing a crucial role in stabilizing financial markets and managing to coordinate responses in order to prop up the world economy. Governments also play a critical role in ensuring redistributive equity and development. Motivated by the need to develop a set of metrics to encompass this important phenomenon, an index of government economic power was developed. The index can also be of value in deciding on the voting rights and other powers the governments of various countries ought to have in international organizations like the IMF and the World Bank. The index has been created for 10 years (2000-09) covering 112 economies.

The index of government economic power (IGEP) endeavours to capture the ability of a government to project itself in the international sphere. There is also a normative content to this. Since the index shows the extent of charge a government has, it also can be used to determine how much say the Government should have in multilateral fora. The index is composed of four variables: government revenues, foreign currency reserves, export of goods and services, and human capital. These variables broadly capture a Government's ability to raise resources, its creditworthiness and credibility in international financial markets, its influence on global economic activity, and its representational strength, that is how much of the global economy, including global manpower, it can claim to represent. In order to ensure use of standard data, the index has been constructed using three widely accepted datasets; the IFS and WEO of the IMF, and the United Nations Development Programme's (UNDP's) Human Development Index (HDI).

The 2009 results show that the top ten ranks are occupied by (1) the United States, (2) China, (3) Japan, (4) Germany, (5) India, (6) Russia, (7) Brazil, (8) France, (9) Italy, and (10) the United Kingdom. In 2000 the top ten places were held by (1) the United States, (2) Japan, (3) China, (4) Germany, (5) France, (6) the United Kingdom, (7) Italy, (8) (Republic of) Korea, (9) Canada, and (10) India. Among the top ranking economies some of the most dramatic rises in rank have been Brazil's ascent from 13th place in 2000 to 7th in 2009 and India's rise from 10th position in 2000 to 5th in 2009. Japan was replaced by China in the second spot in 2004. The United Kingdom went down from 6th place in 2000 to 10th in 2008 and continued there in 2009. Canada fell from 9th in 2000 to 15th in 2008.

The changing dynamics of global economic power can be further seen if we analyse the index values over time for some of the larger economic entities. If we compare the three top ranking countries of 2000, the US, Japan, and China, the US and Japan had a slow rise in index values, except for the slight fall in 2009. In contrast, China has risen rapidly and, after surpassing Japan in 2004, has almost reached the same level as the US in 2009 (see Figure 1).

On an analysis of the countries holding the 4th, 9th and 10th positions in 2000 (namely, Germany, Canada, and India), India moves from an index value just below Canada in 2000 to one very close to Germany by 2009 (Figure 2). Among the large economies, China and India also demonstrate remarkable robustness by not having lower index values in 2009 unlike all the other countries occupying the top ten positions in 2000.

Interestingly, there is a strong positive correlation between the growth in economic power (percentage change in index value between 2000 and 2009) and the change in GDP across the post-crisis period (that is between 2009 and 2010) indicating a link between growth in economic power as measured by the index and the ability to recover from the crisis (Figure 3). This does not establish a direct causal relationship between the two variables but is of descriptive interest.

Fig 1: Index values

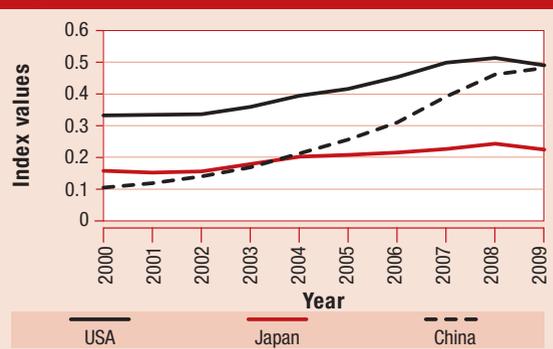


Fig 2: Index values

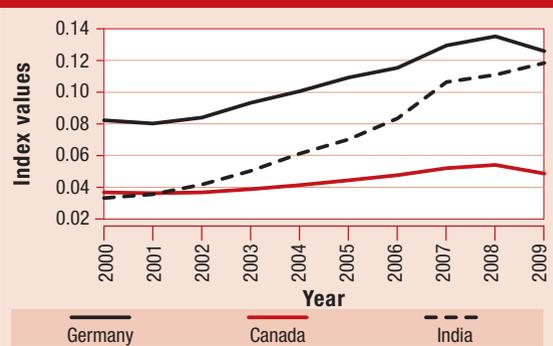
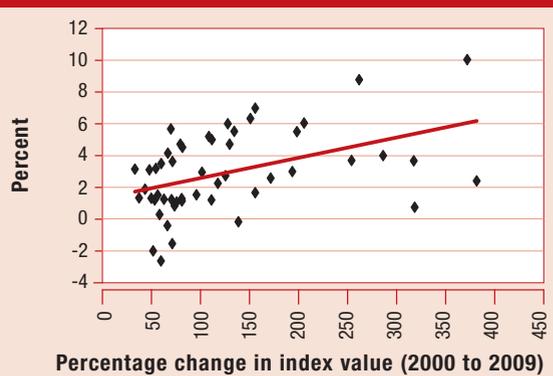


Fig 3: Change in GDP growth 2009 to 2010



Source: A complete description of the index of government economic power and its implications is available in a forthcoming Economic Division, Department of Economic Affairs, Ministry of Finance, working paper: 'The Evolving Dynamics of Global Economic Power in the Post-crisis World: Revelations from an Index of Government Economic Power'.

Government. A Government's power further depends on the nation's level of integration with the world. A nation that is rich but largely a closed economy may not be of much importance to other nations and so not able to exercise influence in international matters. On the other hand, a nation that exports and imports a lot has the power of leverage. The potential threat of interrupting these flows gives such a Government more economic muscle than another nation that may be wealthier but has negligible trade and capital links with the world. Combining all these factors, an index was created by researchers in the Economic Division of the Ministry of Finance and is reported in the Box 2.4. It shows, as expected, that the US Government has the greatest economic power. This is followed, in descending order, by China, Japan, Germany, India, Russia, Brazil, and France. What is interesting in this story is the rapid rise in the economic power of India and, more so, China over the last decade. Box 2.4 is of interest in itself since there is so much writing nowadays on the shifting economic base of the world.

NEW INITIATIVES

2.34 The buoyant growth of the economy creates opportunities; and it is important to seize them so that the growth becomes sustainable. There are many areas with opportunities for new initiatives, and only a few of these will be discussed here for illustrative purposes. It is widely accepted outside of and within Government that we have a great distance to go in eradicating poverty and drawing into the mainstream of our economy segments of the population that are currently marginalized and live on the fringes. The first step towards this is to make sure that no one is deprived of basic food and all attain minimal nutritional standards. There have been new initiatives on this front, such as the new food security bill.

2.35 At this stage, some broad principles of economic policy are worth outlining. There is a common presumption that markets and inclusion are inimical to each other. The truth, however, is that, while markets have a natural propensity to deliver on efficiency, they do not have any innate propensity for equity or equality. Hence it is true that for eradicating poverty and creating a more equitable and inclusive society, there is need for purposive action by Government—Central, State, and local. The view we take is that Government should play an enabling role vis-a-vis the market, facilitating trade, exchange, and enterprise. On the other hand, when

it comes to distribution and the mitigation of poverty, Government has to be more proactive with policy interventions. However, wherever possible, the intervention should take the form of direct transfers from the better-off sections to the poor, with as minimal a tampering with prices as possible. The fact that markets are not naturally inclined to deliver on equity and poverty eradication does not mean that we should ignore the market. The laws of the market will be there whether or not we acknowledge their presence. Good policymaking entails recognizing and understanding these laws and utilizing them to deliver on the targets that we have.

2.36 There are two reasons for having a system of a minimal amount of food procurement and distribution carried out by the State. The first is to do with evening out foodgrain availability and price fluctuations from one year to another. This is also related to the issue of self-sufficiency. In times of food shortage, we do not want to rely entirely on imports from other countries and should be able to depend on our own stocks and supply to our consumers. The second motive is to provide food security to the poor and vulnerable. No one, no matter how poor, should have to suffer from food deprivation and malnutrition.

2.37 As far as the aim of evening out food prices from one year to another goes, our success has been moderate. Thanks to our procurement policy, mainly in wheat and rice, we have not had to be held to ransom by international suppliers. However, a study of our food stocks shows that we have continued to hold these at elevated levels in good years and bad. Likewise, procurement has taken place from year to year without the cyclical features that one would expect in an effective price stabilization system. Thus, in 2006-07 the total procurement of wheat, rice, and coarse grain was 34.3 million tonnes, in 2007-08 40.1 million tonnes, in 2008-09 57.7 million tonnes, and in 2009-10 57.2 million tonnes. Clearly, given that the last fiscal year was one of high foodgrain price inflation, we would have expected lower than usual procurement and a larger offloading of stored grains. But neither of these happened. Evidently, there is ample scope for improvement in our strategy of foodgrain release. The current practice has some systemic flaws. Trying to ensure that the procured food is not released at a price which inflicts too large a loss on Government, we have often priced it so high that there were no buyers. Not releasing foodgrain defeats the purpose of bringing down market prices.

2.38 This has at times led to the suggestion that the state should just release this grain at near-zero price. At first sight, this sounds reasonable since there is excess foodgrain lying in warehouses and even in the open and going waste. But there is a problem with following this seemingly obvious policy. The way we run our minimum support price (MSP) policy is to have a fixed price and allow farmers to sell their foodgrain at that price to the Government. If with the MSP policy intact, we began the practice of selling off excess food in Government granaries at near zero price, this is bound to give rise to food recycling. That is, traders will buy the food from the Government at zero or near zero price and sell it back to the Government at the MSP and again buy it back; and so on. There is evidence that a certain amount of food recycling happens even now. But if the gap between the MSP and the release price becomes sufficiently large, this problem can get exacerbated. Our problem of foodgrain policy cannot be corrected through piecemeal action such as getting the government to release food at near zero prices without correcting other defects in the system. We need to take stock of both our release and procurement policies. Procurement should vary from year to year, depending on production. Also, the windows for procurement ought to be opened up much more widely in different parts of the country. Currently outside of a few States the MSP is a purely notional price as far as farmers are concerned. They know that they have the right to sell their food at that price but they have no access to Government granaries or take-in windows where they can sell. There is also urgent need to increase storage space so that foodgrains do not go waste. It should be clear that the act of better storage, important though it is, is not going to cure inflation. For that we have to develop effective strategies for releasing foodgrains, and the release should take place not in large bulks, which would create monopolies but in numerous small batches.

2.39 On the second objective of guaranteeing food to the poor there are several initiatives and the Government is currently considering a food security bill which will give people legal right to a certain amount of basic foods. Before venturing into this, it would be well to stress what is discussed elsewhere in the Survey and also in various Plan documents, namely, the importance of increasing agricultural productivity and production. This sector used to lag behind. But there are policies being implemented to correct this. The estimated growth of agriculture, forestry and fishing of 5.4% in 2010-11 raises hope

that some of these are working. We must now endeavour to sustain the momentum.

2.40 Returning to the food security bill, this is an important move that can transform the face of poverty and malnutrition in India. There has been a lot of debate about how extensive the coverage of this programme ought to be. What is, however, not always appreciated is that the coverage of this programme will depend on the efficacy of the mechanism through which we try to distribute the food. The current system of handing over cheap food to the approximately 500,000 ration shops all over India, and then requiring them to sell the it at below-market price to poor households leads to large leakages. In the current method the subsidy is handed over to the ration shop and not directly to the poor households. Studies show (see **Box 2.5**) that ration shopkeepers often sell off the food at the high market price on the open market and turn away the below poverty line (BPL) households or adulterate the food that the BPL households are supposed to receive. Clearly, if we try to make the coverage of subsidized rice and wheat wide *and stick to the present system of distribution*, the total procurement will have to be large to the point of being unachievable. Hence the important need is to plug the seepage in the distribution mechanism; and the more effectively we manage to design this, the larger we will be able to make the coverage of cheap food to our population.

2.41 The obvious way of doing this, and this has been widely discussed in the economics literature, is to give the subsidy directly to the poor households and allow the PDS stores to sell food at market price. This will involve handing over smart cards or food coupons to poor households and then giving them the freedom to go to any PDS or other store and buy the food at the prevailing market price by using the smart card or the coupons. In this system, a poor customer is as valuable as a rich customer from the shopkeeper's point of view, since both pay the same price. Also, if one shop adulterates its foodgrain supply, people will have the freedom to go to another store and this, in turn, will mean that the incentive to adulterate foodgrain will go down vastly. As the system of Aadhaar-based identification comes into activation, the smart card system will become portable. In other words, the poor can move from one part of India to another and still be able to exercise their right to subsidized food. The current system places an effective barrier on the ability of poor people to move location in response to better wages, since they risk losing out on other benefits.

Box 2.5 : Food Subsidies and Leakages

It is a part of common wisdom that a large amount of the subsidized foodgrain, targeted at BPL households, some APL households, and other vulnerable groups, find its way to the open market, where it is sold off at a higher price than the stipulated ration shop price. Is this true? And if so, what is the extent of the pilferage? Recent research by Reetika Khera and by Shikha Jha and Bharat Ramaswami has come out with careful statistical estimates, where earlier we had to rely on guesswork. The Ministry of Food and Consumer Affairs publishes monthly data on the offtake of wheat and rice under the public distribution system (PDS). The National Sample Survey (NSS) gives data based on random samples of the amount of PDS wheat and rice that are actually purchased by the households. The gap between the offtake and the amount actually reaching households gives a measure of pilferage or diversion from the target population. Using this method, Khera shows that in 2001-02 18.2 per cent of PDS rice and 67 per cent of PDS wheat was diverted. In other words, over 40 per cent of all grain targeted at the poor missed the poor. Jha and Ramaswami, using the NSS expenditure survey of 2004-05, report an overall diversion of 55 per cent of the grain meant for the poor. No matter where the exact figure lies between 40 and 55 per cent, the fact of the matter is the leakage that currently takes place is far too high. Once we give a legal guarantee to people about the food that they are to receive, if we try to deliver on this promise using our current delivery mechanism, we shall have to send twice the targeted amount of grain towards the targeted population.

References: R. Khera, (2011), *India's Public Distribution System: Utilization and Impact*, *Journal of Development Studies*, forthcoming.

S. Jha, and B. Ramaswami (2010), 'How can Food Subsidies Work Better? Answers from India and the Philippines', Asian Development Bank, Working Paper No. 221.

2.42 The same idea carries over to other goods such as kerosene, diesel, and fertilizers. This Government's policy of ensuring that these vital goods reach the poor, instead of leaving it all to the vagaries of the market as conservative analysts would recommend, has much to commend it. But in choosing the mechanism for reaching these goods to the poor the same principles discussed in the context of foodgrains apply. As soon as we lower the price of a commodity by Government diktat, be it for kerosene, diesel, or fertilizers, we invite adulteration, pilferage, and corruption. The need, therefore, is to design mechanisms of delivery which are incentive-compatible and minimize these distortions. For the most part this means that it is best not to distort prices to subsidize the poor but to give the subsidy to the poor directly. We may as a first step try this on one product, such as kerosene, by handing over the subsidy to the poor in the form of a smart card; and letting them buy kerosene from

the market at market price. This will improve targeting and cut out corruption. It is true that the poor may misuse some of these subsidies on non-essentials, but it is surely better for the poor to do so than for the shopkeeper to do so using the subsidy meant for the poor.

2.43 There are other areas where new initiatives are likely to yield large benefits for society. One example of this is tourism. Given the vast attractions in India, ranging from diverse natural formations to historical monuments and relics going back to more than two millennia, there is vast scope for expansion of tourism in India. Till now we have not reaped more than a fraction of this possibility. In 2010 the total number of foreign tourists that arrived in India was 5.58 million and they brought in a foreign exchange earning of ₹ 64,889 crore. It should be possible for India to get many times more inbound tourists than it currently does. In 2007, for instance, there were 5.1 million tourists who came to India, compared to 54.7 million to China and 20.1 million to Malaysia. Interestingly enough, India sends out more outbound tourists than it gets inbound ones. This is fairly unusual for an emerging economy. To exploit the huge potential that this sector has will require investment in infrastructure and even improvements in our immigration and visa services. But it will be unwise not to reap the large benefits that are lying unutilized in this sector.

2.44 Another sector with scope for development and large potential dividend is education, both school-level and higher education. India currently has a gross enrolment ratio (GER) of 13.5 per cent in higher education, often also called the tertiary enrolment ratio. That is, 13.5 per cent of all those who are aged between 18 and 23 (that is the college-going age) are actually enrolled in a college or a university. For the United States, the figure is 81.6 per cent. Even China and Malaysia over which India had a lead a few decades ago have now crossed our GER with figures of 22.1 and 29.7, respectively. India currently produces close to 6000 PhDs per annum. China, which in 1993 produced 1900 PhDs per annum, now produces close over 22,000. In principle, it is possible for India to quickly double the GER and reach 30 per cent within a decade from now. In the long run an economy's growth depends on the quality of its citizenry and the human capital and innovativeness of the population. Clearly we need to invest more and more intelligently in this sector.

2.45 One large potential of our higher education sector is to develop India as a hub for global

education. Given that historically we have been very strong in higher education and also our advantage in the English language, it is possible for India to develop as a major centre for higher education where students come from all over the world to study. Given the high cost of education in industrialized nations (annual tuition fees in leading US universities are around \$40,000), it is possible for India to attract students not only from developing and emerging countries but even from the United States and other industrialized nations. We can offer these students education at a price where we will cover all our costs and have a profit left over and they will get education at a price which is vastly less than what they would have paid in the United States, or the Government would have paid for them in many European countries. The profit can then be used to expand our universities and colleges for the enrolment of our own students. For all this, we need complementary investments. There will have to be quality hostels and broadband internet connectivity. We will also need to tone up our bureaucratic processes. We will, for instance, need to give students visas for multiple years because no one will want to come to study for two years with a one-year visa and live under the uncertainty of it being extended. These investments in infrastructure and in creating a more efficient bureaucracy can not only boost the higher education sector, but all these initial costs will be more than made up for by the high returns they will yield in the medium to long term.

2.46 As just discussed, underlying both the above initiatives and other developmental projects is the need for better infrastructure. This being the eve year of the Twelfth Five Year Plan, it is a good moment to take stock of India's infrastructural needs. As discussed elsewhere in this **Survey**, India has, over the last few years, made special effort to enhance the country's infrastructural base. The initiatives cut across rural infrastructure, railways, highways, power, and the development of our cities, small and large. East Asian economies financed a lot of this through public land sales implemented through well-designed auctions. There is a lesson in this for us to make sure that such large infrastructural expansions remain fiscally viable.

2.47 The Planning Commission is working to give a major thrust to infrastructure over the next Five Year Plan. To ensure that this happens, the big need is not so much a matter of bricks and mortar as of finance and mechanism design. Infrastructural investments require long-term loans because some

of these investments may need 5, 10, or even 15 years to become financially viable. Banks are understandably wary of making such long-maturity loans. The need, therefore, is to create appropriate systems for drawing domestic and international, and private and public investments into infrastructure. For private money to be directed into any form of investment the critical ingredient is the reliability of contracts. Having put your money into an investment, can you be reasonably sure that the borrower will not renege? Of course, there will have to be clauses under which a borrower can get legitimate bankruptcy cover, but the legal administrative set-up must be such as to ensure that there is no spurious renegeing on contracts. This is important not only for micro finance but even to ensure that more money flows into infrastructural investments.

SOCIAL BASIS OF ECONOMIC PROGRESS

2.48 The foregoing analysis emphasised that in crafting good economic policy it is important to treat the various players on the market—the policeman, the ration-shop owner and the ordinary citizen—as reasonably self-seeking, rational agents. If these agents get the opportunity to earn some extra money with little effort, they will seize the opportunity. Hence, to cut down on corruption and pilferage, we have to design policies in such a way that there is no incentive for ordinary citizens and the enforcers of the law to cheat. Accordingly, good mechanism design is the heart of the problem. Many a noble plan to reach out to the poor and increase the welfare of our citizens has fallen on hard times because of the policymakers' propensity to assume that the policies are delivered by flawlessly moral agents or perfectly-programmed robots. Models based on such faulty assumptions are destined to fail. It is important for Indian citizens to understand this because, in democracies, popular opinion plays an important role in promoting progressive policies.

2.49 This analysis must not be taken to imply that uncompromising self-seeking behaviour is innate in human beings. This dismal assumption, widespread in some early mainstream economics, is, fortunately, not true. Recent research shows that human beings have a natural propensity to cooperate, to be trustworthy, and to be honest. They are often willing to give up some personal gains in order to demonstrate pro-social behaviour. These qualities of honesty and trustworthiness can, however, vary from one society to another and, even within one

society, over time and depending on the context (see Box 2.6). What is increasingly recognized is that successful economic development has a strong correlation with these human qualities of honesty and trustworthiness. The drive for greater profit and greater personal utility, devoid of these social qualities, creates a dysfunctional and chaotic society.

2.50 There are studies showing that societies in which interpersonal trust is greater are societies that exhibit faster economic growth. It is not difficult to see why this is so. A modern and efficient economy critically depends on contracts and the ability of individuals to rely on these contracts. An individual gives money to a painter to paint her home. If the risk is high that the painter will breach the contract by taking the money and then doing an insignificant

job, people may prefer to leave their homes unpainted for longer stretches of time. A person lends money to a company with the company making a promise of paying a certain interest rate over the next 10 years and then paying back the principal. In a country where such contracts are not dependable and companies are likely to renege on the contract, it is unlikely that people will invest money in companies. The bond market will flounder and companies will be able to invest less than what is optimal. In brief, a modern, vibrant economy relies critically on contracts and our ability to have trust in the contracts. A part of the responsibility for enforcing contracts lies with the State and the Judiciary. Long-term contracts, like a mortgage for buying a house with the promise of repayment over the next 20 years, necessarily have to rely on the State machinery for enforcement.

Box 2.6 : Pro-Social Behaviour and Economic Development

There is a growing literature in economics arguing that pro-social behaviour, which includes altruism and trustworthiness, is innate to human beings and, moreover, forms an essential ingredient for the efficient functioning of economies. In other words, human beings have a natural ability to forego personal gains for the sake of other people or because that is what is required because of a promise the person had made. This trait may well have evolutionary roots but its existence is now well demonstrated in laboratory tests. The broad idea behind these laboratory experiments is the following. The experimenter pairs up all the subjects in a laboratory and then asks each pair to have the following interaction. One of the two persons, call him A, is asked to hand over if he wishes a certain amount of money (which may be called A's investment) to B. If A refuses to invest anything, their interaction is over, A and his partner, B, get nothing and they go home. If A invests a certain amount of money, that is gives this to B, then the experimenter adds some more money and lets B have it all. B is then asked whether B wants to hand a part of the total money she received back to A. In other words, B is given an opportunity to pay back to A some of B's gains, since B would have got nothing if A had not made the first move. In the Trust Game, once B decides how much to give A, that is given to A, and that is the end of the interaction. (The Hold-up game is a variant of this with a slightly different closure rule.)

In a totally selfish world, we would expect B to offer nothing to A and for A, anticipating this, not to give any money to B to start with. However, experiments conducted all over the world with this or related games demonstrated that in a large number of cases, the first player does give money to the second player and the second player does give back a part of her income to the first player. Moreover, there are conditions which lead to a higher propensity among the players for this kind of cooperative behaviour. Recently, Hodaka Morita and Maros Servatka conducted an experiment on 258 undergraduate students at the University of Canterbury in the New Zealand Experimental Economics Laboratory, using the Hold-up game. They found that people typically did make positive investment and the person receiving the investment did give back some return to the investor. Moreover, if the players are initially primed so as to believe that they share a common group identity, they tend to be more cooperative.

What is not widely recognized but deserves mention is that one of the earliest statements of the Trust Game and the critical role of morality and trustworthiness in the efficient functioning of an economy occurred in David Hume's 1739 classic, *A Treatise on Human Nature* (Book III, Part II, section iv): '[The] commerce of mankind is not confin'd to the barter of commodities, but may extend to services and actions, which we may exchange to our mutual interest and advantage. Your corn is ripe today; mine will be so tomorrow. 'Tis profitable for us both, that I shou'd labour with you to-day and that you shou'd aid me tomorrow. I have no kindness for you, and know that you have as little for me. I will not therefore take pains on your account; and shou'd I labour with you on my own account, in expectation of a return, I know I shou'd be disappointed, and that I shou'd in vain depend on your gratitude. Here then I leave you to labour alone: You treat me in the same manner. The seasons change; and both of us lose our harvests for want of mutual confidence and security.'

References: R. Benabou, and J. Tirole (2006) 'Incentives and Prosocial Behavior,' *American Economic Review* 96.

T. Ellingsen and M. Johannesson (2008), 'Pride and Prejudice', *American Economic Review* 98.

E. Fehr and S. Gächter (2000) 'Fairness and Retaliation', *Journal of Economic Perspectives* 14.

F. Fukuyama, (1996) *Trust: The Social Virtues and the Creation of Prosperity*. Free Press.

H. Gintis, S. Bowles, R. Boyd, and E. Fehr (2003) 'Explaining Altruistic Behavior in Humans', *Evolution and Human Behavior* 4.

H. Morita and M. Servatka (2011) 'Group Identity and Relation-Specific Investment', Mimeo: University of New South Wales.

However, these are not the only kinds of contracts. Economic life is full of little promises—I will supply you X today, and you will pay me Y tomorrow. For these, it is impossible each time to bring in the policeman and the judge to ensure enforcement. The best enforcer of these little contracts is our word of honour and the ‘culture of honesty’ and trustworthiness. If a particular citizenry is known to be trustworthy, people will be more likely to cut deals with the people of that nation and, over time, the nation will do better and prosper economically.

2.51 For India to develop faster and do better as an economy, it is therefore important to foster the culture of honesty and trustworthiness. Thanks to the fact of this social prerequisite of economic development remaining unrecognized for a very long time, this has not received adequate attention in the scientific literature. Fortunately, a large body of recent economics research has been stressing the importance of these social and cultural factors. While

it is true that we do not as yet have a hard science of how to *develop* these cultural qualities in a population, we know that even the mere understanding of the importance of certain qualities for promoting the economic development of a group of people, helps nurture these qualities in people. After all, people have learnt not to smoke in a crowded room even when not smoking is not in their self-interest simply because they have come to understand that this is not in their collective interest. These good values are then further supported in society through mechanisms of social stigma, which help bring individual and social interests into alignment. So once we recognize that honesty, integrity, and trustworthiness are not just good moral qualities in themselves but qualities which, when imbibed by a society, lead to economic progress and human development, people will have a tendency to acquire these qualities; and that should help build a more tolerant and progressive society.