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# Monetary Policy: Implications for Inclusive Growth



By Ashima Goyal

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## **Monetary Policy-Implications for Inclusive Growth**

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(Please do not quote)

**Ashima Goyal**

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**Professor**

**Indira Gandhi Institute of Development Research**

Gen. Vaidya Marg, Santosh Nagar,

Goregaon (E), Mumbai-400 065

ashima @ igidr.ac.in

Tel.: +91-22-28416514 Fax: +91-22-28402752

<http://www.igidr.ac.in/faculty/ashima>

## **I. Introduction**

Traditionally macroeconomics and development are treated as separate. It follows, inclusion typically discussed in the latter category, is regarded as separate from monetary policy. It is in development economics the large informal sector is analyzed. But after independence, monetary policy was subordinated to planned development and therefore implicitly directed at inclusion. Even so the sphere acted on and reacted to was a limited one, since large areas of the economy were still not monetized, and the modern sector was small. So inclusion was about expanding the sphere of the modern economy. But the results were disappointing as development occurred only at a snail's pace.

As reforms successfully pushed up growth rates, the ease of transition from the informal to the formal sector has risen implying a higher elasticity of aggregate supply. A whole new range of jobs are available; inclusion is potentially easier. Once a populous emerging market (EM) crosses a critical threshold and high catch-up growth is established, higher labour mobility blurs the distinction between formal and informal sectors. A macroeconomics of the aggregate economy becomes both necessary and feasible. Since monetary policy affects a larger part of the economy, it can directly affect inclusion by affecting the pace of job creation. There are problems that tend to raise costs thus pushing up the price at which any level of output is available. If these are addressed, monetary policy can better support inclusive growth. This requires a change in the type and efficacy of government policies designed for inclusion. Such improvements have become politically and technologically feasible.

We start by examining the effect monetary policy had on inclusive growth after independence. Now that exclusion is reducing, the next question naturally is what does inclusive growth imply for monetary policy? How can the latter help sustain inclusive growth?

## **II. Implications of monetary policy for inclusive growth**

Although inclusion is a term of relatively recent coinage, monetary policy in independent India always had a commitment to development. The ideas of the time favoured planning, and it early became a national goal. The fervor that followed independence also made it natural to give precedence to development.

To support planned development, with the commanding heights for capital-intensive public sector projects, the emphasis was on generating resources for public investment, allocating resources to priority sectors, and expanding the reach of the formal financial system<sup>1</sup>. Institutions such as the big development banks were set up. The early push towards inclusive financial deepening<sup>2</sup> included the expansion of bank branches after nationalization, with emphasis on rural branches and on credit to agriculture. The RBI also worked towards larger sized financially viable rural cooperatives that could have eliminated the middleman. But the government chose to emphasize village level cooperatives.

In setting up the RBI, checks and balances were put in to give a degree of freedom from political influence. These were regarded as essential for the control of inflation. Under the constitution and the division of responsibilities, if the RBI did not follow the policy direction given by the finance minister, the government would have to go to Parliament, which could assert some discipline. But since monetary policy had to support resource mobilization for the Plan precedents and procedures became established that vitiated the autonomy of the RBI. It came to be regarded as a department of the government—monetary policy became one more another instrument to achieve national goals. The Bank's primary responsibility became to find resources for Government expenditure. Small steps taken to accommodate government borrowing requirements led, over time, to the destruction of autonomy. And the RBI found it had adopted and internalized what had earlier been the opposite government view.

For example, the use of ad hoc treasury bills took off during the second plan after the RBI agreed in 1955 to the Government's proposal to create them to maintain Government cash balances at 50 crores or above. This effectively made unlimited soft credit available for the government; the latter also reduced safeguards that restricted currency expansion. Ambitious projects in the second 5-year plan, and a paucity of resources, made the government soon turn to deficit financing. Deficits were continuously used from the second five year Plan, and from the late

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<sup>1</sup> Historical experiences draw upon material from Goyal (2011c).

<sup>2</sup> Reddy (2011) points out the term 'financial inclusion' was first used and the policies laid out in the October 2005 monetary policy statement. So the concern for inclusion was a continuing one.

seventies revenue deficits became positive as the government borrowed even to finance consumption (Figure 1).

Figure 1 here

Although development was important, stability of the monetary and financial systems also remained a major objective. Since, given the support to the plans, it was not possible to control aggregate credit, the RBI turned towards controlling sectoral credit and secondary liquidity creation to achieve its twin goals of development and stability. Since it could not prevent expansion of high-powered or reserve money through steady monetization of deficits, the RBI fought for and got additional powers that gave it control over banks' cash reserves—it could vary the cash reserve requirement (CRR) between 3 and 15 percent of scheduled bank's demand and time liabilities. Liquidity provisions in the Banking Companies Act were also strengthened and became the Statutory Liquidity Ratio (SLR). Now bank resources could be diverted for government financing, while restricting growth of broad money, yet setting up many schemes to direct credit towards development priorities. According to the ideas of the time, in effect planning was extended to the monetary and financial system also.

Given the steady monetization of deficits, and the loss of autonomy of the central bank (CB), it is a puzzle that the country avoided episodes of sustained high inflation. The answer is, in a democracy with a large number of poor, and hardly any indexation of wages, high inflation was not politically acceptable. This explains the tight control that was kept on aggregate money supply, while selective credit controls directed credit in line with Plan priorities.

A democracy is said to be subject to 'inflation bias'. Since the government has to face election, it pressures the CB, who is responsible for monetary and financial stability, to try to raise output and employment. If the CB creates surprise inflation, after workers have made their work decisions based on expected wages, this lowers real wages. Unemployment falls since firms are then want to employ larger numbers. Workers are tricked into working for lower wages. But over time the process becomes anticipated and higher nominal wages adjustments are built in. So there is only excess inflation, with no decrease in unemployment. A large literature on the

inflation bias explores the structure of institutions, such as independence of a CB or appointment of a conservative central banker that can allow the CB to resist potential pressure. Bureaucrats are expected to be able to take a longer view compared to politicians since their prime motivation is their reputation, not winning elections.

But in a poor populous democracy without full indexation of wages and prices, inflation hurts the poor who have the most votes. Therefore, democratic accountability also acts to force the CB to keep inflation low unlike as in mature economies. It is the fiscal authority that may be tempted into excess expenditures, forcing the CB to accommodate fiscal needs, while using distorting administrative measures, including credit controls, to keep inflation low. This was the Indian experience.

There is a continuing debate on whether democracy helps or harms growth, but the majority view is it reduces inequality. While pulls and pressures may restrain growth its quality tends to be higher with less volatility and inequality, as local voice gets reflected in a wide variety of robust and efficient institutions. Thick participatory institutions are known as horizontal democracy—participation is more than just at election time. Democracy may reduce growth by reducing physical capital and raising government consumption, but stimulates growth by improving human capital and reducing inequality (Tavares and Wacziarg, 2001). The second puzzle then is why poverty and inequality remained high in India despite all the initiatives for development pushed by a vibrant democracy.

### *II.1. Politics*

The answer includes the closed-economy government-led model that created much inefficiency. Poor growth and bursts of inflation translated into political fragmentation, after the first twenty years of independence when the Congress party provided a stable government. As intense multi party competition set in, populist schemes multiplied. The losses from large public investment projects also encouraged a shift to transfers.

A majoritarian democratic regime, such as India's, has a bias towards targeted transfers at the expense of public goods, compared to a regime based on proportional voting. With multiple competing parties, swing votes become critical for winning in a first-past-the-post system. And winning parties target transfers to the well identified groups that vote them in. The first reaction of new caste-based regional parties to the acquisition of power was consumption transfers to their support groups. Once in power they needed to accumulate resources to buy votes and legislators in the future. Institutions of governance were undermined. In the South where the caste-based movement was older, progressive reform, emphasizing education and capacity building, was achieved.

By the 1980s, Central Sponsored Schemes (CSS) became a way for the central government to directly reach the masses. New schemes were announced every year, although targeting was poor and waste and corruption proliferated. These may have helped manage but did not eliminate poverty. Since state elections were separated from those at the Centre in 1971, frequent elections kept up pressure continually and harmed longer-term development.

This period also coincided with major oil shocks. In order to keep prices of direct government services low, user charges were kept fixed although costs were rising. Low price caps for many public goods created systematic incentives to lower quality and investment. Subsidies, transfers and distortions increased while current and future provision of public goods suffered. Falling efficiency and rising costs compounded the problem of low user charges, and prevented a fall in prices from improvements in technology and organization.

But where the government had monopoly power and was servicing the rich, prices were raised much above costs of production, or indirect charges, not obvious to voters, such as the prices of intermediate goods, were raised. The Indian railways illustrate this process. Prices of mass travel were rarely raised, but freight charges rose continuously. As a result the railways lost freight to subsidized diesel trucks. Yet the latter have much higher social costs since railways are the cheapest and least environmentally polluting mode of transport for bulk goods. The voter may be paying less for train travel but more for every good she consumes, and in addition bears the costs of pollution.

As the rich turned to private providers, revenue losses contributed to the inability to service the poor adequately. The cross-subsidization was not sufficient to cover costs. The choices made amounted to protecting the poor through current transfers, rather than building their assets and human capital, when it was the latter that was the sustainable option. This was a rational social outcome because the rich could often escape imposts in the long-term, and the poor had high discount rates and pessimistic growth projections.

Where there were strong lobbies, such as in agriculture, minimum support prices (MSP) were continuously raised, providing a rising floor for agricultural prices, wages and therefore the general price level. Protection for the poor, through the public distribution scheme (PDS), was ineffective. It led to leakages and corruption. Disruptions in marketing and the movement of grains, partly to support government procurement, enervated the supply response.

## *II.2. Outcomes*

After a good initial start with the 1<sup>st</sup> and 2<sup>nd</sup> five-year plans, the system was unable to raise growth rates or moderate the supply-side shocks the economy was subject to. Growth fell to a paltry 3 percent per annum in the seventies and although it recovered to 5.6 percent in the 1980s (Table 1). It remained much below what its peers in Asia, including China were achieving as they moved to more open systems. Both higher growth, lower inflation, and government action were essential for further inclusion.

The economy had always been vulnerable to the monsoon—agriculture was a regular source of supply shocks. During an agricultural shock monetary policy would initially support increased drought relief then tighten just as the lagged demand effects of an agricultural slowdown were hitting industry. Macro policy was thus pro-cyclical, but pervasive controls limited volatility.

Since the early seventies, oil shocks became a new source of such shocks. Administered oil and food prices were normally raised with a lag after monetary tightening brought inflation rates down. Indian commodity prices were less volatile than international, but over time their

cumulative rise was more. They raised less but never fell, imparting an upward bias to the price level, and turning a temporary price shock into a persistent shock.

Since high inflation was not politically acceptable, the use of CRR and SLR enabled a squeeze on money and credit in response to supply shocks, which intensified the demand recession that followed. This discouraged growth and the productivity increases that would have lowered inflation from the cost side. India did not have high inflation, but it had repressed and chronic inflation. Since the tax base and tax-GDP ratio was low, some inflation provided useful seignorage revenue.

Table 1 shows decadal average inflation rates were dominated by primary goods and fuel (FPLL) inflation. Liberalization, and the effect of competition from abroad, reduced primary good and manufacturing inflation in 2000s, but the severe international food and oil price shocks pushed it up after 2007 (Figure 2). Figure 3 shows how food prices remained high, even when manufacturing fell with international oil prices, and partly explain the rapid resumption of manufacturing inflation.

Table 1-2 and Figure 2 and 3 about here

The push towards inclusive financial deepening, especially the expansion of bank branches after nationalization, probably contributed to the sharp rise in the savings (GDS) GDP ratio in the 70s. Another large jump came in the post-reform high growth period, and the growth rate of GDS overtook that of capital formation (GDCF) and consumption (PFCE), although it fell with growth (Table 2). India has a healthy combination of savings to finance investment and consumption to create demand. But the savings are poorly intermediated through the financial sector, and after large government borrowings little is left for the private sector. Even in 2010 less than half the population had a bank account—financial exclusion remained severe, and despite its high savings rate, drove the country towards excessive reliance on foreign inflows.

Since the seventies, dominant development ideas changed to favour openness. This was the way the rest of the world was going. In India also the ill effects of pervasive market distortions were

becoming obvious. Some liberalization started in the mid-eighties, but a major thrust for external openness came from the mid 1991 balance of payment crisis when foreign exchange reserves were down to 11 days of imports. The stagnation in the economy contributed to the crisis which helped bring home the lesson that excessive interest controls and credit rationing hurt growth and stability. It made possible the implementation of the series of pending committee reports that favoured moves to let markets determine key asset prices and credit allocation.

But more openness required more credible institutions. Poor fiscal finances had precipitated many outflows and currency crises in emerging markets. Therefore liberalizing reforms in the nineties strengthened the autonomy of the CB compared to the Government. Ad hoc treasury bills and automatic monetization of the deficits was stopped in the 90s. The Ways and Means Advance (WMA) system was started in 1997. Primary issues of government securities no longer devolved on the RBI. From April 1, 2006, the RBI could not participate in the primary auction of government securities.

The basic objectives of monetary policy remained price stability and development, but the operating procedures shifted from credit controls towards flexible monetary targeting with ‘feedback’ from the mid 1980s till 1997-98. But deregulation and liberalization of the financial markets combined with the increasing openness of the economy in 1990s made money demand more unstable, and broad money more endogenous. The informal nominal money supply targeting proved inadequate under these changes; interest rates were volatile in the 1990s. After the adverse impact of the nineties peak in interest rates, the RBI moved towards using the interest rate as an instrument, basing its actions on a number of indicators of monetary conditions. This became more feasible as the money market developed, and a liquidity adjustment facility was put in place to fine tune short-term liquidity (Figure 4). The RBI would lend and absorb short-term liquidity within a band so as to keep short-term market rates within the band, which defined the policy rates<sup>3</sup>. The RBI formally adopted a ‘multiple indicator approach’ in April 1998, following informal changes in practice from the mid-nineties. There was no formal inflation targeting, but policy statements gave both inflation control and

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<sup>3</sup> Figure 4 shows greater success in containing market rates over time, with large spikes prevented. In periods of large inflows when the RBI bought foreign currency liquidity was large and rates stayed at the bottom of the band. In periods of tight liquidity they were near the top.

facilitating growth as key objectives. A specific value of 5 percent was given as the desirable rate of inflation, with the aim to bring it even lower in the long-term.

Figure 4 here

But monetary tightening was excessive not only because of an initial inability to smooth interest rates. There were episodes of excessive tightening in 2008 and in 2011 that sharply reduced growth rates. More autonomy to the CB can, without changes in the rules of the game through fiscal reform, lead to higher interest rates that increase the burden of public debt and impose a large output sacrifice, as the CB seeks to compensate for government overspending. A democratically accountable Central Banker in a developing democracy would anyway keep inflation low, so if rules restrain fiscal populism, and change the composition of government expenditure towards capacity creation that reduces inflation, the CB can focus less on inflation and more on supporting growth.

### **III. Implications of active inclusion for monetary policy**

Table 1 shows the turnaround in growth after the reforms. This opened new possibilities. For a while, as high growth and some tax reform raised revenues over 2003-08 it seemed the Government would be able to continue spending in the same way, with equity defined as using resources from growth to spend on multiple schemes for the poor, and the excluded.

But in an open economy, good government finances and low inflation are a prerequisite for the confidence of markets. And when growth creates opportunities, the masses want good public services that make it easier to harness opportunities. If the disappointment with large scale investment projects, led the government to shift to subsidies and transfers, today there is scope to turn to a different kind of capacity creation. After the global financial crisis (GFC) the extreme shift in ideology from Government must do it to markets know best has also moderated, encouraging government action suited to meeting real needs and to filling the gaps that market do not address. As improvements in government expenditure composition and governance lower costs, monetary policy can also support an inclusive growth.

After developing the idea of active inclusion, we draw out its implications for monetary policy, and the institutional changes that can make improvements in governance credible.

### *III.1. Active Inclusion*

“Inclusive growth” has become the government’s objective, but debates have refined the meaning of the term, as creating conditions for the masses to contribute to and participate in growth (UNDP 2011). This requires pro-poor growth, access to quality public services and jobs. It is active inclusion (Goyal 2012a), which differs from redistribution from a productive section to others.

A more active rather than a passive sharing is also now more feasible politically. As growth creates more opportunities, the cost of activity falls and its rewards rise. For example, although the output of Indian education is heterogeneous, and leaves much to be desired, it does make transition from illiteracy to semi and neo-literacy possible. Jobs are available for the wide range of skills produced. That the largest rise in enrollment in English schools shows the ordinary Indian is responding to new opportunities

But creating conditions for active inclusion still requires government initiative, since spillovers that are not internalized mean private provision of human capital will always be below the social optimal. Negative externalities from failures in social infrastructure also raise the cost of private provision. The really backward will continue to need special help.

Examples of government initiatives that can contribute to active inclusion are improving infrastructure, health, education, technology the poor use, and public service delivery. The rewards to hard work then increase. Successes with conditional cash transfers, made in technology-enabled leak-proof ways in Brazil, show subsidizing activities that improve human capital incentivizes even the really disadvantaged. They compensate for market failures that exclude the very poor.

For government schemes to effectively add to capacity, the composition of Government expenditures must change more towards investment that expands capacity defined broadly to

include human capacity. Second, those expenditures have to be effective, achieving targets at minimum cost. New technologies of delivery are making this possible. Essential social protection expenditures can switch to more economical and effective modes.

Active inclusion shifts the focus from growth alone to growth with higher productivity jobs that allow wages to rise. Wages rising without a rise in productivity only lead to inflation. Given the still large share of food in the average consumption basket a rise in agricultural productivity is critical for a non-inflationary rise in wages. To the extent active inclusion is occurring, it implies an elastic supply.

### *III.2. Aggregate demand and supply in transition*

Modern aggregate demand (AD) and supply (AD) analysis is conducted using a simple IS (investment equals savings) curve and Phillips curve, derived from rigorous optimization by agents with foresight. The strong theoretical foundations, give them forward-looking behaviour. The modern macroeconomic approach focuses on employment (Gali 2008). Labour is the key output driver since capital is a produced means of production. Moreover, in an open economy resource bottlenecks are easier to alleviate, as savings rise with growth and capital flows in with greater openness.

In India labour is available, for a range of skills. There is no one figure for unemployment but, Table 3 shows the range of unemployment rates derived from the National Sample Survey (NSS) rounds. For rural areas where employment is often short term current weekly status (cws) is reported. The poor cannot afford to be unemployed. For urban areas usual status (us) persistent unemployment is reported for two rounds. It shows continuing high unemployment across the reform years, especially in the more skilled categories, where it is in double digits. The latter can be trained to do jobs required suggesting the unemployment is not structural and supply is elastic<sup>4</sup>. Moreover, given India's demography, youthful entrants to the labour force, coming in with fresh and relevant skills, are expected to top 12 million per year over the next five years. In addition, segments of the 300 million or so Indians living below the poverty line will have to

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<sup>4</sup> A large number of private training schools have sprung up in India. These impart a few months of job-relevant training bringing the so called 'unemployable' quickly up to scratch.

transfer to higher-productivity employment. By way of comparison, the unemployment impact of the global financial crisis in economically advanced countries only affected 22.5 million workers. This triggered an avalanche of macroeconomic stimuli. Although it is difficult to obtain one precise number, the Economist estimated India's unemployment rate to be 10.8 per cent in 2010.

Table 3 here

The AD curve relates the output gap, or excess demand, inversely to the real interest rate, positively to expected future demand and to a positive demand shock. The AS curve relates inflation positively to the output gap, to future expected inflation and to a cost-push or supply shock. The output gap is defined as the gap between actual and potential output. As long as there is large unemployment and labour mobility the output gap is positive. The AS relates inflation to the output gap rather than to unemployment, and to cost-push (Goyal, 2002).

A firm sets price as a function of the expected future marginal cost. Once set a price is changed only after some time. Greater model uncertainty and more backward-looking behaviour in EMs imply greater and more persistent deviation of prices from optimal marginal costs. A proportionate relationship is assumed between the output gap and marginal cost. A cost shock, then, is anything that disturbs this relationship. Such deviations can occur due to administered prices, wage expectations, mark-up, exchange rate shocks, infrastructure bottlenecks and rising transaction costs in an emerging market. Some of these shocks affect average rather than marginal costs since they are independent of activity at the margin. For example, hiring more labour does not affect an administered price, but costs rise at all levels of activity when the price rises. Since an administered price increase is seldom reversed it raises future costs and is factored into the pricing of sticky-price goods today.

When cost-push is zero only current and future demand causes inflation. The CB can then vary interest rates to set excess demand to zero for all time and lower inflation with no cost in terms of output, which remains at its potential. A fall in output is required to lower inflation only if

cost-push is positive. So a short-run trade-off between inflation and output variability arises only if there is positive cost-push inflation.

The Indian longer-run aggregate supply (LAS) is elastic (Figure 5). But inefficiencies, distortions and cost shocks push aggregate supply upwards, over an entire range, rather than only at full employment, since that is not reached at current output ranges and output can increase<sup>5</sup>. The LAS becomes vertical only as the economy matures and full productive employment is reached. With such a structure, demand has a greater impact on output and supply on inflation. This is the sense in which the economy is supply constrained (Goyal, 2011a, 2012b). This framework differs from the early idea that output cannot be demand determined in a developing economy because of supply bottlenecks (Rao, 1952). Here output is demand determined but the supply-side raises costs.

It also differs from the structural school that while industrial output is demand determined agricultural output is fixed at a time period. In typical closed economy structuralist models agricultural markets were price clearing with quantities given, while quantities adjusted in non-agricultural markets. Therefore money supply could affect food prices. But in an open economy, agricultural supplies are not fixed even in the short period since imports are possible—but now the exchange rate would affect food prices, shifting the supply curve. In addition to the cost of imported items, the gap from border prices affects lobbying for higher MSPs.

Figure 5 here

The food price wage cycle is an important mechanism propagating price shocks and creating inflationary expectations in India, given low per capita incomes, and the large share of food in the consumption basket. If markets are perfectly clearing and prices and wages are flexible, then a fall in one price balances a rise in another with no effect on the aggregate price level. But prices and wages rise more easily than they fall. So, a rise in a critical price raises wages and

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<sup>5</sup> Rigorous empirical tests support this structure (Goyal 2011a). The sustained food inflation since 2007 led to some analysis of supply side factors (Gokarn, 2011, GOI 2012).

therefore other prices, generating inflation. Some relative prices, among them food prices and the exchange rate, play a key role in propagation of inflation.

Political pressures from farmers push up farm support prices, with consumption subsidies also going up. But these are inadequate due to corruption and failures of targeting, so nominal wages rise with a lag pushing up costs and generating second round inflation from a temporary supply shock. This political economy used to index wages informally to food price inflation. Political support has recently raised unskilled wages effectively through MGNREGA, an employment insurance scheme. If the rise in subsistence wages exceeds that in agricultural productivity, prices in turn rise, propagating inflation. This happened after 2008 with MGNREGA as States competed with each other in raising minimum wages since the Centre was footing the bill, in a climate of high food price inflation. The mechanism is now institutionalized since MGNREGA wages were indexed to retail inflation (dominated by food prices) in 2011. In 2012 they exceeded State minimum wages for 21 States. This meets social justice, since Figure 6 shows that much of the real wage adjustment used to come in the non-manufacturing informal sector. But the indexation lag has shortened so it becomes more critical to raise agricultural productivity to prevent a wage-price cycle. It also has implications for the real exchange rate—a more depreciated rate may not be sustainable since it would create inflation, as wages rose in response to high prices of imported food.

Figure 6 here

Given the critical role of food prices, immediate supply-side response is required from the Government—measures such as allowing imports, reducing tariffs, even while longer-term measures that improve the supply-side response continue. Specific bottlenecks can be addressed. If the spike is persistent, and is spilling over into a second round, monetary policy has to tighten to anchor inflationary expectations and prevent an upward shift in the AS. If adequate supply-side action is being taken, the tightening can be mild. Especially since a larger proportion of wages are now indexed, reaction to spikes in key prices has to be immediate. Reacting when core or manufacturing inflation rises may not be adequate, since core inflation may not indicate excess demand. The rise could be due to cost pressures, which by then would be well-

entrenched. A useful indicator of reaching potential output for an EM is second round inflation has turned a temporary supply shock into a persistent one above an acceptable inflation threshold (Goyal and Arora, 2012).

Apart from anchoring wage expectations a major weapon the RBI has that affects the supply-side is the nominal exchange rate. A preemptive nominal appreciation can abort the pass through of imported intermediate good or food price inflation. Such a response to a temporary supply-side shock is consistent with managed floating and overall flexibility of the exchange rate. To the extent it maintains growth supporting inflows come in.

A problem for monetary policy in relying only on interest rates is that the latter's reach is narrow, with a greater impact on the modern sector. The interest elasticity of consumer durables, housing investment, and other types of investment are high, but that of food demand is low. Reducing money supply affects the informal sector, but both price and quantity tightening raises costs of production and hinders the improvement in supply required especially after a supply-shock. To some extent, the interest rate instrument makes money supply itself endogenous. While the exchange rate has both demand and supply-side effects, the latter is broader, affecting pricing of a whole range of intermediates. While appreciation contracts demand along with the rise in interest rates, it also expands supply while lowering costs.

Other policies that gave short-term subsidies but raised hidden or indirect costs also contribute to cost-push. Yet forcing a large reduction in demand would have a cost in terms of output foregone, which is especially high with the above structure of AD and AS, and the large number of unemployed. Improvements in governance, reforming the features that impact an upward creep to costs, can reduce inflation, without the output sacrifice. Shifting to active inclusion turns out to be incentive compatible and itself improves governance.

### *III.3. Strengthening institutions*

The poor maybe the largest vote block, but they discount the future heavily, and future generations are not present to voice their interests. For example, public goods such as infrastructure would also benefit future generations who are not there to exercise democratic

control. A gap arises between ex-ante and ex-post incentives because complete contracts cannot be written to cover all eventualities. Promised actions are not credible, because the government will be tempted to go back on its words. Many social institutions and rules can be understood as closing the gap between ex-ante and ex-post incentives and thus restoring credibility. Incentive mechanisms that force a long-term perspective are required.

A Fiscal Responsibility and Budget Management (FRBM) Act is one such institution. It was enacted by Parliament in 2003, and contributed to a reduction in deficits. But there were escape clauses, that were triggered after the Lehman crisis, and after subsidies ballooned with the steep oil price hikes in 2011 (Figure 1). These events exposed the inadequate attention paid to incentives in formulating the Act. Improvements were more in States where Finance Commissions were able to impose better incentives through conditional transfers. There was also nothing to improve the composition of public expenditure. Following policies of active inclusion would do so. Strengthening institutions of horizontal democracy, whereby the public demands continuous accountability and better performance from its governments, as well as elections that are increasingly rewarding better public service delivery, are creating better incentives for the Centre as well.

A change in the composition of government expenditures towards active inclusion will improve the supply response, and alleviate concerns about the fiscal deficit countering monetary tightening. The deficit would then be increasing productivity. Better fiscal-monetary coordination would follow. In post-reform India, as the RBI gained greater independence, overall monetary tightening sought to compensate for fiscal giveaways, and harmed growth. This would change as fiscal waste reduced.

#### *III.4. Innovation and relevance*

After the global financial crisis, when the West faced persistent unemployment many innovations were tried in monetary policy to reduce unemployment and enhance recovery. In contrast monetary policy in EMs tends to be conservative, reacting to and furthering agendas suited to advanced countries.

The frameworks of analysis used are also developed in and suited to those countries. The optimizing labor supply decision, which drives unemployment in the analytical frameworks used, cannot capture the dimensions of unemployment in a developing economy. Labour markets are crucial for macroeconomic outcomes and must adequately reflect context. Goyal (2011b) develops a more relevant optimizing framework with two types of consumers and labour: above subsistence (R), and at subsistence (P). While the first are able to smooth consumption using international markets, those at subsistence cannot. Transfers from the R-types, mediated by the government, helps maintain the consumption of the P-type. Low productivity employment captures the major coping mechanism in a small open EM and helps model the transition path as employment in the productive modern sector raises the share of the R-type. The path is complete when inclusion is perfect—all P-types become R-types. This defines a final potential output. Welfare can be derived from consumers' utility. It falls with higher output and inflation variance as is standard but it also falls if output is below potential. This is intuitive since per capita output is below the benchmark world output.

The dualistic structure adds consumption of the subsistence group as exogenous variables tending to lower the policy rate when consumption of the P-type falls. The aggregate supply curve derived is flatter compared to that of a mature small open economy, because of higher labour supply elasticity but is less stable, with more factors tending to shift it. Since income changes that affect the terms of trade are concentrated among the R-types, the terms of trade are more volatile. Hence there is a case for managed floating, with variations in the exchange rate countering some of the shifts in aggregate supply. Yet reducing volatility is also a policy aim. Welfare loss is the least with this combination because a flatter and less volatile AS prevents a fall in output under a cost shock. Pure inflation targeting is not optimal; a weight on output and on interest rate smoothing delivers better results.

The model implies monetary policy can support inclusion, and innovative policies suited to context are possible.

#### **IV Conclusion**

Indian monetary policy supported government investment after independence, but is finding it difficult to support government consumption and transfers, consistent with keeping inflation low. If government changes the composition of its expenditure towards supporting human capacity, monetary policy will be able to support this active inclusion.

The earlier set of policies was not successful in achieving inclusive growth. This lack of success, and the change in development ideas, led to greater reliance on markets. The share of investment in government expenditure decreased. But the limitations of markets have also become obvious, and there is a better understanding of the kind of interventions that are required and that do work. There are policies for active inclusion that expand human capacity in effective ways.

Since this makes more productive labour available, reducing wasteful distortions that raise costs and prices, the complementarities between social spending and macroeconomic policy are enhanced. The prospects for monetary support of growth that delivers inclusive growth improve, despite increasing autonomy of monetary authorities, since their fears about unsustainable government deficits reduce. More autonomy is part of greater macroeconomic stability essential in a more open economy. These pressures, together with stronger democratic institutions that impose greater continuous accountability on the government will make the change in government expenditure from consumption to a different kind of investment incentive compatible.

#### **References**

Gali, J. 2008. 'Monetary policy, inflation and the business cycle: An introduction to the new Keynesian Framework. Princeton University Press: Princeton and Oxford.

Gokarn, S. 2011. 'The price of protein'. *Macroeconomics and Finance in Emerging Market Economies*, 4(2). pp. 327-335. September.

GOI (Government of India). 2012. Economic Survey 2011-12. Available at <http://indiabudget.nic.in>

Goyal. A. 2012a. 'The five-year plans and future'. *Yojana-Special issue*. Pp. 68-70. January.

Goyal, A. 2012b. "India's Fiscal and Monetary Framework: Growth in an Opening Economy", *Macroeconomics and Finance in Emerging Market Economies*, 5(1). Earlier version available at <http://www.igidr.ac.in/pdf/publication/WP-2010-025.pdf>.

Goyal, A. 2011a. 'Exchange rate regimes and macroeconomic performance in South Asia', in Raghbendra Jha (ed.) *Routledge Handbook on South Asian Economies*.

Goyal, A. 2011b. 'A general equilibrium open economy model for emerging markets: Monetary policy with a dualistic labor market,' *Economic Modelling*, Elsevier, vol. 28(3), pages 1392-1404, May.

Goyal, A. 2011c. "History of monetary policy in India since independence," Indira Gandhi Institute of Development Research, Mumbai Working Papers 2011-018, Indira Gandhi Institute of Development Research, Mumbai, India.

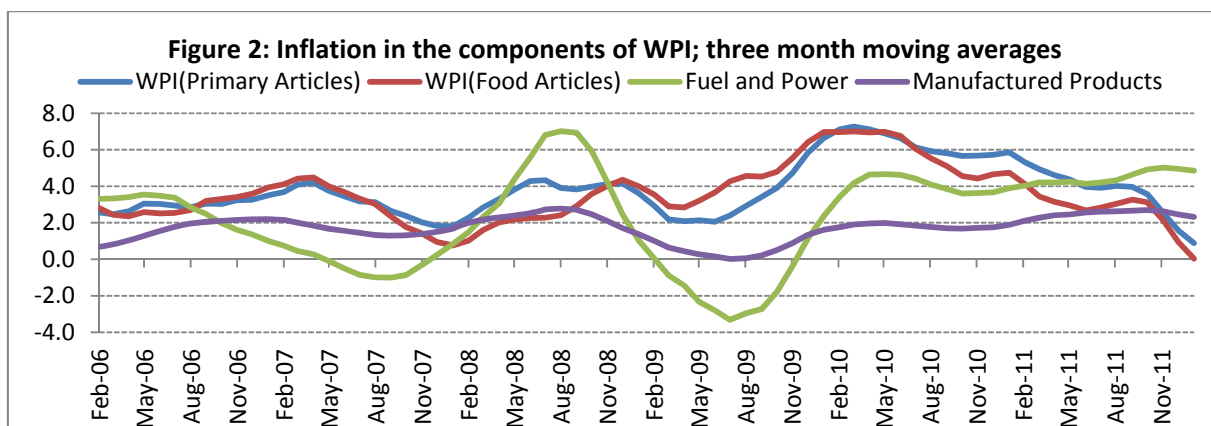
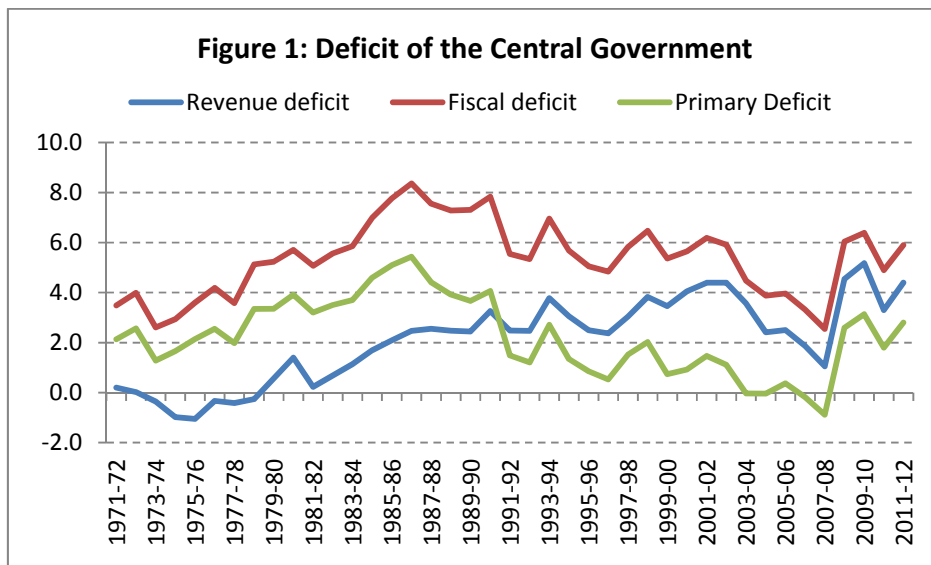
Goyal, A. 2002. 'Coordinating monetary and fiscal policies: A role for rules?' Chapter 11 in *the India Development Report*, Kirit S. Parikh and R. Radhakrishna (ed.), IGIDR and Oxford University Press.

Rao, V.K.R.V. 1952. 'Investment, income and the multiplier in an underdeveloped economy'. *The Indian Economic Review*, February, reprinted in Agarwala, A.N. and S.P. Singh (eds.) *The Economics of Underdevelopment*, London, Oxford, New York: Oxford University Press, 205-218, 1958.

Reddy, Y.V. 2011. 'Microfinance industry in India: Some thoughts'. *Economic and Political Weekly*. Vol. 46 (41), pp. 46-49. October 08 - October 14. Available at <http://epw.in/epw/uploads/articles/16635.pdf>

Tavares, Jose & Wacziarg, Romain, 2001. 'How democracy affects growth,' *European Economic Review*, Elsevier, vol. 45(8), pages 1341-1378, August.

UNDP (United Nations Development Programme). 2011. 'Intersections between social protection, inclusive growth and fiscal space'. *International Policy Centre for Inclusive Growth discussion papers: Issues paper for G20 DWG on Growth with Resilience*. pp. 2-15.



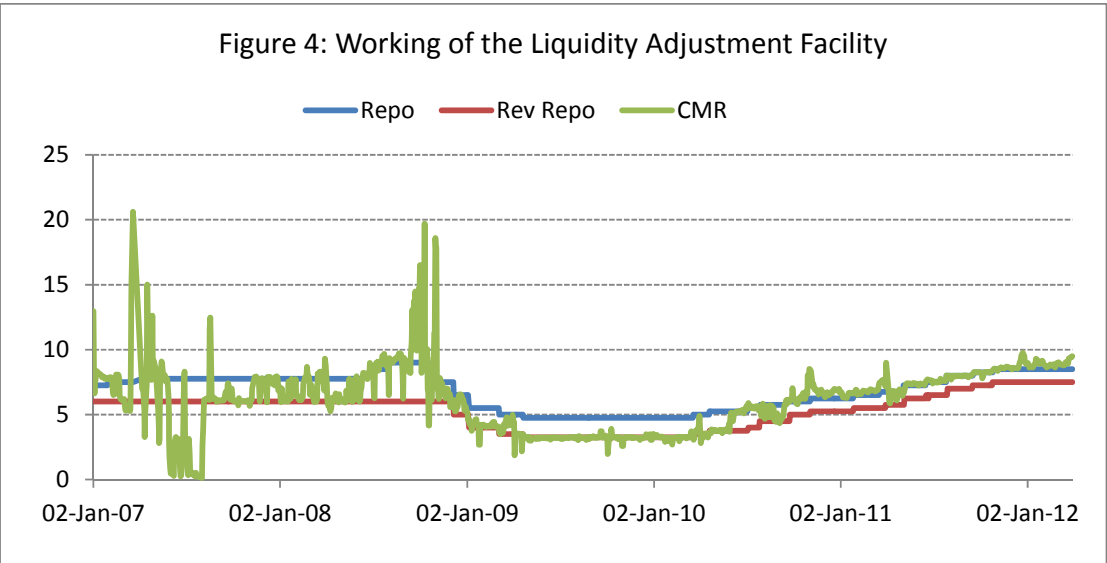
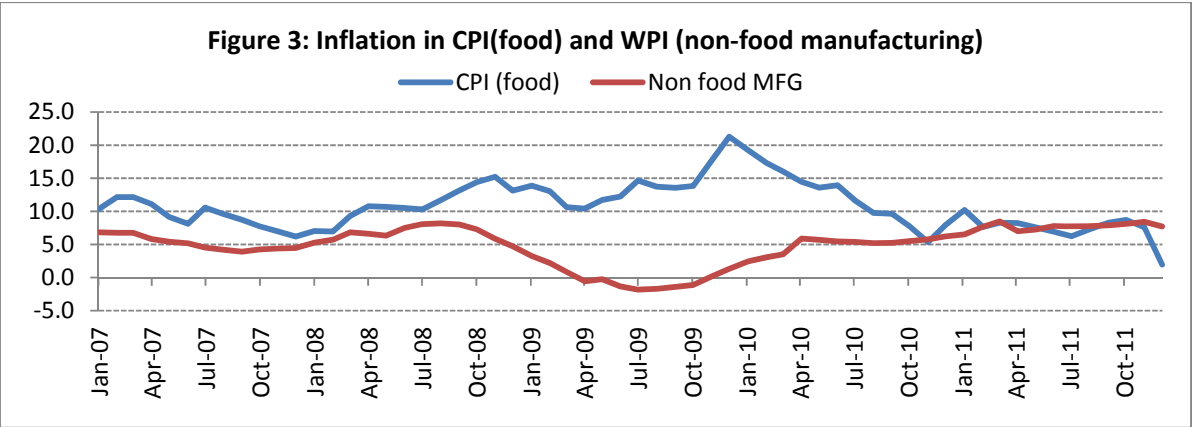


Table 1: Average Annual Growth and Inflation							
Base 1982=100	GDP at factor cost	WPI (All Commodities)	WPI (Primary Goods)	WPI (Food Articles)	WPI (FPLL)	WPI (Manufacturing)	CPI (IW)
1953-54 to 1959- 60	3.59	2.47		2.94	2.3	1.62	
1960-61 to 1969- 70	3.95	6.34		7.43	5.03	4.92	
1970-71 to 1979- 80	2.95	8.97	8.95	7.23	12.15	9.03	9.32
1980-81 to 1989- 90	5.56	7.97	7.76	8.57	9.21	7.86	8.48
1990-91 to 1999- 00	5.68	8.12	9.37	10.24	10.56	7.13	8.73
2000-01 to 2009- 10	7.2	5.27	5.68	5.27	8.05	4.34	6.75
2010-11 to 2011- 12	7.46	9.35	14.15	11.95	12.95*	6.55	7.82
Note: Data for 2011-12 only upto January; * only Fuel and Power							
Source: Updated from Goyal (2011c)							

<b>Table 2: Savings, Investment and Consumption</b>			
<b>At current Prices</b>	<b>GDCF</b>	<b>PFCE</b>	<b>GDS</b>
<b>Average Annual Growth Rate</b>			
1950-51 to 1959-60	8.06	5.17	8.67
1960-61 to 1969-70	12.87	9.61	13.69
1970-71 to 1979-80	15.15	10.46	15.28
1980-81 to 1989-90	17.06	13.58	16.04
1990-91 to 1999-00	16.09	14.34	16.62
2000-01 to 2009-10	14.83	11.07	16.18
2010-11 to 2011-12	13.89*	16.42	13.70*
<b>As a Percentage of GDP at Market Price</b>			
1950-51 to 1959-60	11.30	90.58	9.85
1960-61 to 1969-70	14.31	83.38	12.44
1970-71 to 1979-80	17.88	77.64	17.88
1980-81 to 1989-90	21.41	71.62	19.40
1990-91 to 1999-00	24.56	64.30	23.24
2000-01 to 2009-10	31.87	59.08	29.16
2010-11 to 2011-12	35.1*	57.87	32.34*
Note: * indicates data for the year 2010-11			
Source: Updated from Goyal (2011c)			

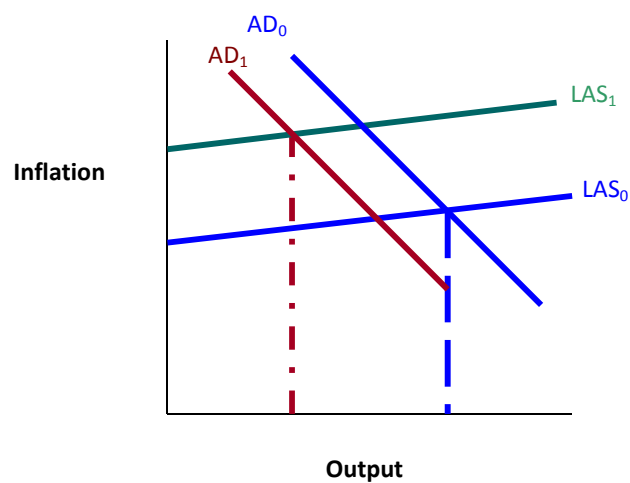


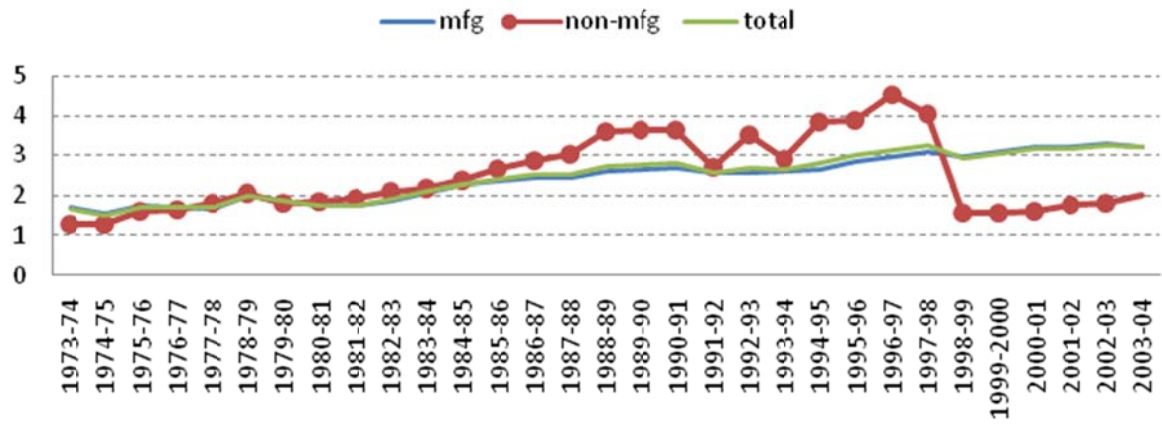
Figure 5: Aggregate demand and supply

Table 3: Unemployment rates: NSSO rounds 50<sup>th</sup> and 66<sup>th</sup>

	1939-94				2009-2010			
	Rural male	Rural female	Urban male	Urban female	Rural male	Rural female	Urban male	Urban female
All	3.1	2.9	5.4	8.3	3.2	3.7	3.0	7.0
Not literate	1.8	2.2	1.1	0.1	2.1	1.9	1.0	1.0
Higher secondary	9.0	24.3	8.5	22.2	4.5	18.6	4.7	15.4
Diploma/certificate course	-	-	-	-	9.0	33.1	5.5	10.3
Graduate & above	1.22	32.0	6.4	20.6	8.1	25.1	4.4	14.2

Note: Current weekly status used for rural male and female ; Usual status used for urban male and female.

Figure 6: Formal and informal real wages





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United Nations Development Programme  
55 Lodhi Estate, Post Box No. 3059  
New Delhi 110003, India  
Tel: +91 11 46532333 Fax: +91 11 24627612  
Email: [info.in@undp.org](mailto:info.in@undp.org)  
For more information: [www.in.undp.org](http://www.in.undp.org)