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## Fiscal Policy in India: Lessons and Priorities

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## Fiscal Policy in India: Lessons and Priorities\*

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February 17, 2004

### Abstract

This paper assesses India's current fiscal situation, its likely future evolution, and impacts on the economy. We examine possible reforms of macroeconomic policy (including fiscal, monetary and exchange rate policy) and broader institutional reforms that will bear on the macroeconomic situation. We also consider the political feasibility of possible reforms. We examine both medium and longer run scenarios, and fiscal sustainability and adjustment going beyond conventional government budget deficits, to include off-budget liabilities, both actual and contingent. We conclude with our assessment of reforms focused on improving the fisc.

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## **Fiscal Policy in India: Lessons and Priorities**

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**February 17, 2004**

### **1. Introduction**

India faced a severe macroeconomic crisis in 1991. A series of economic reforms, implemented in response, have, arguably, supported higher growth and a more secure external payments situation. Removal of controls and trade barriers, along with modernization of regulatory institutions, characterized reforms in industry, trade, and finance. However, growth only marginally accelerated in the 1990s compared to the previous decade. At times, structural reforms seem to have stalled, and little progress has been made in areas such as labor market and bankruptcy reforms.

Perhaps the most striking aspect of reform is the lack of progress in restoring fiscal balance. A high fiscal deficit of around 9.5% of GDP, widely perceived as unsustainable, contributed to the crisis of 1991. Containing this deficit was one of the key structural adjustments undertaken by the Indian government at the time. This effort met with some success: the fiscal deficit came down to 6.4% of GDP, and growth accelerated to a peak of 7.5% in 1996-97. From 1997-98 onwards, however, growth has slowed and the deficit has widened, returning attention to India's fiscal policy and prospects.<sup>1</sup>

Our objective here is threefold: first, based on our analysis, as well as our reading of the conference papers, to assess India's current fiscal situation, its likely future evolution, and impacts on the economy; second, to examine possible reforms of macroeconomic policy (including fiscal, monetary and exchange rate policy) and broader institutional reforms that will bear on the macroeconomic situation; and third, to consider the political feasibility of possible reforms. In doing so, we will consider both medium and longer run scenarios, though clearly the short run, encompassing the next five years, is easiest to assess. We must also examine fiscal sustainability going beyond conventional government budget deficits, to include off-budget liabilities, both actual and contingent, an aspect that has been receiving increasing attention. We conclude with our assessment of reforms focused on improving the fisc.

India's current fiscal situation is potentially grave, and could lead to an economic crisis (fiscal, monetary and/or external) with severe short-term losses of output and even political turmoil, or, alternatively and more subtly, many years of continued underperformance of the economy. Most of the papers in this conference establish the gravity of the fiscal situation, even in the short run, through extensive projections based on various assumptions of growth, interest rates and deficits, as well as detailed cross-country comparisons (and some regressions) of the Indian situation with that of other developing economies. Most of the conference papers restrict themselves to examining

the implications of intertemporal budget algebra, as pioneered by, e.g., Buiter (1990) and Fischer and Easterly (1990).

The *prima facie* solution to the looming problem is obvious: control fiscal deficits. The deeper question is how is this to be achieved, and to what extent? One complicating factor is the existence of off-budget items that are not accurately measured or monitored. The uncertainty associated with these items makes formulating budgetary policies more challenging. Besides, fiscal policy obviously cannot be analyzed in isolation. Monetary and exchange rate policies have to be considered in conjunction with it (not to mention microeconomic policies and institutional reforms) for achieving desired combinations of growth and stability under realistic assumptions about sustainable capital inflows from abroad.<sup>2</sup> Even on the fiscal side alone, this perspective shifts the focus to considering optimal paths of public consumption, investment, taxes and borrowing, rather than an emphasis only on primary balances. Ultimately this broader framework poses technical and empirical questions that would benefit from an explicit theoretical analysis as a foundation for econometric modeling and estimation.

Such a theoretical framework would be especially valuable in tracing out the long-run implications of any short run adjustment program, and help to shape the details of such adjustment. Besides the obvious benefit in tracing out the long run impacts of different short run adjustments, an explicit growth model would also be helpful in predicting the optimal size of government under different policies,<sup>3</sup> and perhaps also in achieving a political consensus. Although the available theoretical models are not adequate for the task,<sup>4</sup> some of the possible ingredients are available. Different elements of the necessary theoretical modeling might include: a consideration of financial intermediation with transaction costs or other imperfections, e.g., Bencivenga and Smith (1991, 2002) and Bencivenga, Smith and Starr (1994); explicit analysis of the interaction of fiscal and external policies, e.g., van Wijnbergen (1991), Rodriguez (1991), and Frenkel and Razin (1996); and explicit consideration of the interaction of monetary and fiscal policies, e.g., Sargent and Wallace (1981), Liviatan (1984, 1986), Fernandez (1991), and Agenor and Montiel (1999). One can argue that such models, even if not completely integrated, could provide a useful basis for empirical work.

While there is a large set of econometric models for India (by and large in the old-fashioned Klein-Goldberger Keynesian tradition – these are surveyed in Krishnamurthy, 2003) that may provide a base for empirical analysis, they tend to be weak in terms of analyzing the financial sector, its interaction with the real sector, and the resulting implications for growth (e.g., Pandit, 2002). To the extent that some of the key issues involve the financial sector impacts of India's current fiscal stance (Section 4 of our paper), this is a significant gap. In the absence of an empirical model founded on a coherent and satisfactory theoretical framework, basing themselves on more limited modeling, Lal, Bery and Pant (2003) attempt to evaluate the implications of not sterilizing capital inflows as the Reserve Bank of India (RBI) has been doing. The exercise of the Planning Commission (Government of India, 2003) is in a similar vein.<sup>5</sup> In Section 5, we offer some simple alternative illustrative models that allows for calculation of the equilibrium growth rate as a function of underlying parameters, as well

as an indication of how such models might be enriched to make them applicable to the case of India and other, similarly-placed countries.

Beyond projecting aggregate outcomes of (e.g., revenue, expenditure) India's fiscal policy adjustment, there are issues of distributional impacts and hence of politics. What will be the incidence (proximate and ultimate) of different adjustments in expenditure and revenue policies across different sectors, classes, and regions? What are the possible political impacts, in terms of conflict (with its own dangers in terms of lost potential output), or violating implicit (informal political bargains) and explicit (existing coalitions) political constraints? What are the institutional impediments to fiscal restructuring? Are they legal, constitutional, or reflective of social norms? Can the deeper problems be overcome in time? What is the appropriate sequencing and timing of reforms that are necessary or desirable?

While complete answers to these questions are difficult, several of the conference papers, including ours, provide partial answers. However, long-run growth implications of fiscal policy, while important, do not emerge very clearly from the conference papers – possibly because this was beyond their scope.<sup>6</sup> To some extent, answering questions pertaining to political feasibility necessitates going beyond 'technocratic' solutions, which, though not necessarily wrong, are almost surely incomplete.<sup>7</sup> For example, Rajaraman (2004) finds from her regressions that primary fiscal deficits increase in election years. Guardia and Sonder (2004), Howes and Murgai (2004), and Hausmann and Purfield (2004) also devote attention to the political aspects of fiscal reform in a democracy, and we discuss this in later sections. Clearly, the only relevant combinations of fiscal adjustment are those that meet political constraints. However, political constraints are not immutable: institutions can be changed in ways that provide credible commitments, and thus alter political constraints. The recent passage of the Fiscal Responsibility and Budget Management (FRBM) Bill, and earlier reforms in the intergovernmental transfer system are examples.

In what follows, we structure our discussion to correspond to the conference sessions (Sections 2 through 8). Section 2 reviews the Indian fiscal situation. In Section 3, we consider the interaction between fiscal and financial sector policies, in particular the nature and impacts of financial repression. Section 4 is concerned with external sector policies, and their links to fiscal policies. In Section 5, we discuss fiscal adjustment, emphasizing the importance of an integrated analytical framework that incorporates behavioral and policy variables and their fiscal and growth outcomes. We also highlight the importance of exploring alternative ways of enhancing revenues. Section 6 considers federal issues in fiscal adjustment more explicitly, while Section 7 examines some details of possible expenditure adjustments. Section 8 discusses long run issues, including risks and uncertainties, as well as fundamental institutional changes that may be feasible or desirable in the long run. Section 9 offers our assessment of lessons and priorities, drawing on the other conference papers, as well as our own analysis.

## 2. The Indian Fiscal Situation

Even before independence, there was a broad consensus, across the political spectrum, that once independence was achieved, Indian economic development should be planned, with the state playing a dominant role in the economy and achieving self-sufficiency across the board as a major objective (Srinivasan 1996). Within three years of independence, a National Planning Commission was established in 1950, charged with the task of drawing up national development plans. The adoption of a federal constitution with strong unitary features, also in 1950, facilitated planning by the central government. Several central government-owned enterprises were established, and a plethora of administrative controls (the so-called ‘license-quota-permit *raj*’) was adopted to steer the economy towards its planned path. At the same time, fiscal and monetary policy remained quite conservative, and inflation relatively low – the latter reflecting the sensitivity of the electorate to rising prices.

During 1950-80, India’s economic growth averaged a very modest 3.75 percent per year, reasonable by pre-independence standards, but far short of what was needed to significantly diminish the number of poor people. The license-permit *raj* not only did not deliver rapid growth, but worse, unleashed rapacious rent-seeking and administrative as well as political corruption (Srinivasan 1996). In the 1980s, India’s national economic policymakers began some piecemeal reforms, introducing some liberalization in the trade and exchange rate regime, loosening domestic industrial controls, and promoting investment in modern technologies for areas such as telecommunications. Most significantly, they abandoned fiscal conservatism and adopted an expansionary policy, financed by borrowing at home and abroad at increasing cost. Growth accelerated to 5.8 percent during the 1980s, but the cost of this debt-led growth was growing macroeconomic imbalances (fiscal and current account deficits), which worsened at the beginning of the 1990s as a result of external shocks and led to the macroeconomic crisis of 1991.

The crisis led to systemic reforms, going beyond the piecemeal economic reforms of the 1980s. An IMF aid package and adjustment program supported these changes. The major reforms included trade liberalization, through large reductions in tariffs and conversion of quantitative restrictions to tariffs, and a sweeping away of a large segment of restrictions on domestic industrial investment. Attempts were made to control a burgeoning domestic fiscal deficit, but these attempts were only partially successful, and came to be reversed by the mid-1990s.

Of the conference papers, Kochhar (2004), Rajaraman (2004), Roubini and Hemming (2004); Hausmann and Purfield (2004); and Heller (2004) all provide qualitative and empirical summaries of India’s fiscal situation. Several of these papers also put India in an international perspective. Other recent empirical evaluations include Mohan (2000), Lahiri and Kannan (2002), Rangarajan and Srivastava (2003), World Bank (2003) and IMF (2003). All present similar numbers, though with some minor differences.<sup>8, 9</sup>

Table 1 summarizes the trends in Central and State fiscal deficits since 1990. It shows that fiscal deficits began to rise in 1997-98 at both levels of government, though the rise was much greater at the State government level. In fact, fiscal balances at both levels were severely affected by the large pay increases granted to Central government employees in 1997-98, followed by similar increases at the state level the following year. Interestingly, the Center's balance has continued to deteriorate slowly after 1997-98, while the States' aggregate position appears to have stabilized after the one-time shock.

Table 1 also shows that two other fiscal indicators have deteriorated since 1997-98. First, the revenue deficit (i.e., balance between current receipts and expenditures) has grown as a percentage of GDP: current expenditures have not been controlled well – reflecting budgetary pressures such as subsidies, as well as the government pay hike. However, an excessive emphasis on the revenue deficit is misplaced: current expenditures include spending on health and education, which, if effective, is investment in human capital, with significant social returns. Analogously, some capital expenditures include items that should be deemed as current, because they are essentially maintenance expenditures, and others that have negligible social returns. Second, the primary deficit (after taking out net interest payments from expenditures) has grown, after the initial reduction in the early 1990s, indicating that the problem is not simply growing interest payments, though these have also gone up as a percentage of GDP. Clearly, Table 1 throws doubts on the future sustainability of the current trajectory.

[Table 1 about here]

Fiscal deficits financed by borrowing add to the government debt. Table 2 summarizes recent trends in the general government debt. After some decline in the early 1990s, the stock of government debt rose steadily after 1997-98, as a percentage of GDP. In fact, Buiters and Patel (1992) had pointed out the unsustainability of India's government debt in the sense that the expected present value of future surpluses was inadequate to pay off the debt as of 1990. In 1995 (Buiters and Patel, 1997) they updated their analysis and found that the problem remained. The methodology in such analyses involves discounting and controlling for future stochastic shocks: therefore the conclusions are dependent on specific assumptions about which there could be differences among analysts. Nevertheless, several authors, using different data sets and varying detailed assumptions, have reached similar conclusions.<sup>10</sup>

[Table 2 about here]

Furthermore, as Lahiri and Kannan (2002) note, sustainability in a formal sense is not enough: illustrative (non-stochastic) calculations – assuming an interest rate of 5 percent, growth rate of 6 per cent, and primary deficit of 5 percent of GDP – imply that debt stabilizes at 500 % of GDP.<sup>11</sup> Clearly such a trajectory would collapse well ahead of reaching this notional limit, as the implied interest payments and required taxes are non-credible. A related distinction (Roubini and Hemming, 2004) is between sustainability and 'financeability': the latter captures investors' willingness to finance debt. It is conceivable that investors finance debt that is unsustainable given publicly available

information, either because their private information about the future makes them believe it is sustainable, or because they are irrational. It is also conceivable that investors refuse to finance what appears to be sustainable debt.

As Roubini and Hemming (2004) point out, currently investors seem to be willing to finance a debt that appears unsustainable in the long run. If we rule out differential and correct private information, this situation, by construction, cannot continue forever, in the absence of fiscal adjustment. Roubini and Hemming note, based on Early Warning System (EWS) models that attempt to quantify such risks of crisis, that the estimated probability of a sovereign debt crisis for India in the next 12 months is only 2%, but this could increase very quickly with any rise in interest rates. We return to these issues of risk and possible response in later sections.

There are two additional arguments going in opposite directions. The first, pointing to the existence of substantial off-budget items and contingent liabilities, says that the situation is even more unsustainable than that implied by conventionally measured fiscal deficits. The second argues that India's fiscal situation is in fact sound, and many analysts (including us and the authors of conference papers), have exaggerated the problems.

The first argument is straightforward. There are indeed large and growing off-budget items that represent current or future claims on the government's revenues, and these make the fiscal situation even more unsustainable. The World Bank (2003, Chapter 2), estimates the general government debt at 85% of GDP, with the debt of public sector enterprises adding another 10% of GDP, and contingent liabilities from guarantees in support of loss-making public enterprises at a further 12% of GDP.<sup>12</sup> All three components – as well as the total, at 107% of GDP – are significantly greater in magnitude relative to GDP than they were in 1991. While losses of public sector enterprises raise somewhat different policy issues than government budget deficits, they are clearly part of the government's immediate problem. EWS models, and even credit rating agencies, may not be fully informed of these non-budget liabilities and hence may underestimate crisis probabilities.

Another significant problem in the medium and long run arises from the government's pension schemes, some of which are defined benefit schemes with fundamental structural imbalances (Gillingham and Kanda, 2001; World Bank, 2001; Heller, 2004; Howes and Murgai, 2004; Kochhar, 2004;<sup>13</sup> Roubini and Hemming, 2004). Heller identifies several other sources of major long-run challenges to India's fiscal policy, which involve a great deal of uncertainty (see our Section 8), but the contingent liabilities associated with the current pension system are predictable as well as worrisome.

The second view, if correct, would call for different policy responses.<sup>14</sup> One strand of this view, echoed by India's Finance Minister (Business Standard, 2004), is that sustained high growth and low interest rates will take care of any future problem. It is certainly true that India has so far managed to avoid any fiscal crisis, that growth rates have exceeded interest rates despite the deterioration in the fisc, and also that interest rates have recently been quite low by historical standards. We, and many other analysts, would argue that the



cost of India's high fiscal deficit has been growth that is below potential. A full justification of this argument would require a well-specified growth model, which is beyond the scope of the paper, though we provide some pointers in Section 5. A second strand, which we discuss in Section 4, is that the fiscal deficit is not of great concern since India's current external situation is comfortable: unlike in 1991, foreign exchange reserves are ample, the size and composition of external debt are more favorable, and foreign trade appears to be more robust.

A third strand is that India's government debt to GDP ratio is not high by international standards (Rakshit, 2000, p. 35), and thus is not indicative of a potential crisis. However, India's ratio is low only in comparison to the upper tail of the distribution of the ratio across countries, including those that have not had a fiscal crisis. In comparison to similar emerging market economies, India's debt ratio is relatively high (e.g., Roubini and Hemming, 2004, Figure 1, and Hausmann and Purfield, 2004, Table 1). Furthermore, even if the level of debt is not high (however measured), the potential debt dynamics are still cause for concern in the short run. Finally, even if a crisis is many years away – indeed, even if it never occurs – the costs of the current fiscal stance, in terms of forgone growth, may well be substantial.

Rakshit (2000, pp. 43-44), however, argues that low private savings (household and corporate) rather than high and growing public consumption has constrained growth in India. Related arguments from Rakshit and others against crowding out, inflationary impacts of monetizing the government deficit, and negative impacts of financial repression are all rooted in what we may term a 'structuralist/Keynesian' view of India's economy (that it is an economy constrained by deficient aggregate demand rather than by capacity resources and by market imperfections). We will address these in subsequent sections.<sup>15</sup>

One point that does emerge from this debate is the importance of levels of, and trends in, tax revenues in affecting the course of fiscal deficits, but these trends have been highlighted by many economists, independently of any structuralist assumptions (e.g., Rao, 2000; Singh and Srinivasan, 2002; World Bank, 2003; Rajaraman, 2004; Hausmann and Purfield, 2004). Be that as it may, there are enough indicators, in our view, of the unsustainability in India's public finances, and we focus in the rest of the paper on policies (particularly those relating to financial and external sectors) that lead away from slow growth and risks of crisis, while respecting legitimate distributional concerns and political constraints.

### **3. Financial Repression, Crowding Out and Growth**

India has been a financially repressed economy since at least the 1960s, and especially since 1969, when all major banks were nationalized. The links of financial repression to fiscal policy come about through its implicit tax on the financial system, as well as through its growth consequences, which in turn have implications for government finances. Repressionist policies include various interest rate controls, directed credit

programs, and required liquidity and reserve ratios. An index based on these measures (Demetriades and Luintel, 1997) shows an increase in financial repression from 1961 through 1984. The index fell in 1985, reflecting a partial deregulation of deposit rate controls. However, controls were reintroduced after a couple of years, and it was only in 1990 that financial liberalization appeared to take a firm hold.

Financial repression policies force the non-government sector, including publicly owned commercial banks to lend to the government at an interest rate below what would have prevailed in the absence of such policies. The government is therefore able to reduce the borrowing cost of financing its expenditures, as well as the need to monetize as an alternative financing mechanism,<sup>16</sup> which would instead constitute a politically unpopular inflation tax. One potential consequence of this system is lower growth through negative impacts on the financial system. Further, borrowing at a rate below that which would have cleared markets induces the government to borrow more than what it would have at higher, market clearing rates, besides reducing the interest cost of what it can borrow. The *ex post* 'revenue gain' (this term, though typical, is a misnomer, since it is really a cost reduction) to the government was first estimated by Giovannini and de Melo (1993) as substantial, and close to 3% of GDP for the period 1980-85. Using a similar methodology, Kletzer and Kohli (2001) estimated it at an even higher 6% of GDP for 1980-90, falling to 2.9% for 1992-98.

Part of the increase in fiscal deficits in the latter part of the 1990s reflects increases in the cost of borrowing, as interest rates were brought closer to market clearing rates.<sup>17</sup> Although a reduction in financial repression (including a reduction in mandated reserve ratios and broadening of directed credit programs) in the 1990s has been accompanied by a worsening of the government's fiscal situation, interest rates in the market have fallen and banks continue to hold government securities well above the now-reduced requirements. In attempting to explain these facts, we need to discuss the government's role in the financial sector in some depth.

Key factors influencing the performance of India's financial intermediaries are government ownership, the nature of regulation, organizational structures, and legal frameworks for change (especially bankruptcy, but also mergers and restructuring). Many analysts (e.g., Ahluwalia, 2002; Banerjee and Duflo, 2002; Bhattacharya and Patel, 2002, 2003; IMF, 2003, Chapter I) have noted that risks of lending to corporations have increased with liberalization of the economy, but not the institutional capacity or regulatory framework to evaluate and handle these risks; that regulatory and internal norms, balance sheet considerations, government ownership, and political pressures all favor lending to the government and to public sector enterprises; and that financial repression continues to bite, in areas such as directed credit in banking, but also through asset requirements imposed on insurance companies, government guarantees, and various small savings schemes that directly provide funds to the government. In sum, the problems with India's system of financial intermediation are deeper and broader than would be suggested by (RBI Deputy Governor) Rakesh Mohan's memorable phrase, "lazy banking."

While lower interest rates in the last year eased the government's interest burden, they have also led to capital gains for holders of government securities in the financial sector, thereby improving their balance sheets. An increase in interest rates will reverse the gains and worsen balance sheets. In fact, Patnaik and Shah (2002) estimate that the capital position of most of the major banks would be severely compromised in case of a large interest rate increase: less than a quarter of the banks in their sample were adequately hedged. Hausmann and Purfield (2004) point out that there may be a negative spiral here. Higher deficits and debt increase interest rates, leading to either bailout of banks whose capital base eroded, which in turn raises deficits, or their collapse, in which case the RBI would have to purchase the government securities they hold. Higher inflation, collapse of credit, and severe output losses are all possibilities in such a scenario. Roubini and Hemming (2004) tell a similar story, and note the 'D' rating given by Moody's to the Indian banking sector.

Except Roubini and Hemming, other authors do not estimate the probabilities and costs of a financial crisis for India, but they point to some other developing countries in similar situations which experienced severe banking crises. Bhattacharya and Patel (2003), for example, demonstrate that the asset position of India's financial sector (extending very broadly to all non-bank financial companies as well as banks) is considerably worse than might be gleaned from official statistics, mainly because the accounting standards for valuing assets are too lax, allowing financial institutions to appear in better shape than they really are: neither losses nor risks are properly recognized on balance sheets, and managerial decisions are distorted as a result, compounding the problem.

To sum up, the current structure and performance of India's financial sector reflects substantial government involvement. At least in the short run, such involvement helps both central and state governments to run higher deficits than would otherwise be feasible, regardless of whether banking sector reserve requirements are binding, or interest rates on government debt are lower than market clearing rates. While this allows the current fiscal situation to be sustained in the short run, there are risks of a financial sector crisis, and these risks can increase over time. Putting aside the disaster scenario for the moment, what can one say about the impacts of this situation on the economy?

Cross-country regressions (e.g., Easterly, 1990; Levine, 1993, 1996; Roubini and Sala-i-Martin, 1991, 1992) suggest that financial repression and financial underdevelopment hurt economic growth. In a time series analysis for India covering the period 1962-91, Demetriades and Luintel (1997) find that India's financial repression policies held back financial development, and reduced economic growth.<sup>18</sup> They also find no evidence for any positive growth impacts of repressive policies such as directed credit. Bell and Rousseau (2001) and Athukorala and Sen (2002) find that the efficiency of financial intermediation and of investment are important in India's growth. Thus, it is possible that government pre-emption of savings has reduced India's economic growth.

Implicit in the possibility of lower growth are the presumptions that deficit financed public spending crowds out private investment, and, even if public spending is on investment, it is less efficient than the crowded out private investment. Rakshit (2000)

disputes these presumptions. However, this is a minority position, and both theoretical and empirical considerations support the presumption that government expenditure and its regulation of the financial sector have crowded out private investment, as well as reduced the overall efficiency of financial intermediation. In fact Ahluwalia<sup>19</sup> has argued that a more competitive banking system, with greater market discipline and better regulation, could raise India's growth rate by a full percentage point. While differing in their views about crowding out, analysts mostly agree that excessive government consumption expenditure (especially on salaries) has had a negative impact on growth. This is an issue of the political economy of government spending and the quality of fiscal adjustment, to which we return in later sections.

Easterly (2004), in his conference paper, surveys and synthesizes empirical findings on the impact of government deficits on growth, using cross-country data, and allowing for various channels of impact, including inflation and exchange rates, as well as crowding out of private investment. However, financial repression and stage of development are only captured very indirectly, through noisy measures of black market exchange rate premia and indices of general institutional quality. While recognizing the two-way causality between deficits and growth, he focuses on the impact of the deficit on growth rates. His point estimate is that a 5 percentage point improvement in the government's budget balance leads to a 0.69 percentage point increase in the growth rate. While the sign of the estimated coefficient supports economists' contention that controlling fiscal deficits spurs growth, its magnitude may not be robust.

However, India is probably an outlier in this regression (see Easterly's Figure 1). As a crosscheck, assume each rupee of public deficit crowds out a rupee of investment. Then a permanent 5% reduction in the deficit leads to an equivalent additional investment. Then Easterly's point estimate of its growth impact implies an implausibly high ICOR of 7.25, as compared to the target of 3.6 in the Tenth Plan, and the 4.5 realized in the Ninth Plan. This suggests that India-specific studies quoted in this section, as well the risk scenarios discussed in Patnaik and Shah (2002), Bhattacharya and Patel (2003), Hausmann and Purfield (2004), and Roubini and Hemming (2004), provide a more compelling case that managing the fisc can improve growth, as compared to cross-country regressions.

#### **4. Balance Sheet Crises**

The balance sheet approach (focusing on stocks of assets and liabilities as distinct from flows of receipts and expenditures) to analyzing risks of a crisis distinguishes between the long run sustainability of debt and its short run financeability (Roubini and Hemming, 2004). Flow imbalances, such as a fiscal deficit, could add to existing debt liabilities or fail to reduce them due to the inability to roll over maturing liabilities. Thus, besides the risk of insolvency associated with excessive debt accumulation, risks associated with mismatches in maturity and currency denomination of debt, and capital structure (debt vs. equity) have to be considered. India's debt is largely domestic so that mismatch in

currency denomination is not serious, and the government has succeeded in lengthening the maturity of its debt. However, other avenues to a crisis remain open.

A balance sheet crisis can be purely domestic (Roubini and Hemming, 2004), but typically has an external component. India's economic reforms of the 1990s began with a macroeconomic crisis involving high fiscal and current account deficits. The connection between fiscal and external deficits is not inevitable, but theory and experience are compatible with such a connection.<sup>20</sup> For example, Reynolds (2001) argues that high fiscal deficits would lead to rising interest rates, slower growth, and hence higher current account deficits leading to a balance of payments crisis, as was the case in 1991. Buitert and Patel (1995) suggest that a vulnerable fiscal position could lead to a speculative attack on the country's foreign exchange reserves. This could occur even in the absence of a large external public debt, though a significant external component of public debt (particularly of short maturity) would increase the likelihood of such an attack, assuming that foreigners are more concerned about the risk of default or repudiation. Buitert and Patel also argue that fiscal deficits will spill over into the external accounts to the extent that they cannot be financed domestically.

India's external situation in 2004 is quite different from what it was in the crisis year of 1991. Its exports, particularly those related to information technology services, have grown faster than the economy as a whole. Imports have also boomed, but overall, India's current account has improved quite substantially over the last 12 years, with it being in surplus in the last two years. Furthermore, there has been some liberalization of portfolio inflows and direct investment, which has increased both. Overall, one can describe these policies as 'creeping convertibility'<sup>21</sup> of the capital account. However, whether progress towards full capital account convertibility is being held back by high fiscal deficits is an open question. Alternatively, if indeed full convertibility is optimal and lowering fiscal deficits is necessary for achieving it, can announcing a target date for the former help in lowering deficits? We return to these questions in our conclusion.

Had the RBI simply purchased the inflow of capital and added it to reserves, an inflationary increase in domestic money supply would have occurred while preventing currency appreciation to some degree. By sterilizing, that is, selling government securities as it bought the inflows, the RBI reduced the monetary impact and its inflationary potential. Under this policy, the RBI has accumulated foreign exchange reserves that have reached the \$105 billion mark in February 2004, much more than what would be needed to smooth shocks to the ability to finance imports and insure against speculative attacks. The RBI has also altered the maturity structure of debt (particularly short term debt) to increase average maturity, and the proportion of external debt to GDP has gone down substantially.

Kapur and Patel (2003) suggest that the RBI's motivation in its reserve accumulation policy has been to compensate for India's loose fiscal policy, reassuring foreign debt holders that, at least as far as they are concerned, the country can meet its obligations. While this is plausible, unless the entire foreign debt is put up for repayment at once, a much lower level of reserves would have sufficed for reassuring foreign debt holders.

The goal of controlling inflation by reducing monetary expansion consequent to capital inflows is also plausible. While a large stock of reserves substantially reduces the possibility of an external crisis, this benefit has come at a cost.

The cost of compensating for loose fiscal policy through accumulation of reserves has been forgone growth. While the RBI's own analysis (RBI, 2003b) downplays this aspect of its policy, Lal, Bery and Pant (2003) have used an eclectic and theoretically not entirely coherent combination of a real model with traded and non-traded goods with macroeconomic accounting identities involving nominal variables from the Mundell-Fleming absorption approach to the balance of payments to estimate forgone growth as a result of the RBI's sterilization of capital inflows. They estimate the annual forgone growth to have been 1.1 to 4.9 percentage points in the period 1992 to 2000. They correspondingly estimate the growth costs of bond financed fiscal deficits to be in the range of 0.7 to 1.8 percentage points in this period. They emphasize that these calculations are merely illustrative.<sup>22</sup> To the extent that Kapur and Patel are right in their claim that accumulation of reserves is to reassure foreigners that their debt would be repaid regardless of high fiscal deficits, and that preventing the absorption of inflows lowered growth as Lal, Bery and Pant claim, a greater proportion of the foregone growth can be attributed ultimately to the fiscal deficit of the government.

The RBI's monetary management and robust growth of exports cannot insulate India from a currency crisis in the medium to long run if the fiscal situation does not improve. Certainly, the ability of domestic savers to finance government deficits will become further stretched, and foreign investors will need to fill the breach. They may do so in the short run, but they are likely to be increasingly uncomfortable with the fiscal situation. For example Standard & Poor's lowered its long-term local currency rating to 'BBB-' from 'BBB' and revised its outlook on local and foreign currency to negative in August 2001, citing 'the continued deterioration of the government's financial profile, with persistently high fiscal deficits resulting in a rising burden of public debt.' On September 19, 2002, it further downgraded India to BB+, citing similar reasons.<sup>23</sup> While ratings are notoriously imperfect – having failed to predict, for example, the 1997 financial crisis in South Korea and Thailand – they do influence foreign investors.

Roubini and Hemming (2004) highlight the fact that, as compared to other countries with similar Moody's long-term local currency credit ratings, India's position is worse in terms of measures such as fiscal deficit, ratio of government debt to GDP, and ratio of debt to government revenue. Using countries that have experienced financial crises as an alternative comparison group, they note that India typically stands worse on measures such as fiscal deficit, primary deficit, debt to GDP ratio, interest to revenue ratio, and government debt share in bank assets. Finally, according to Roubini and Hemming, India's external vulnerability can be seen from the low level of net foreign assets. While capital inflows are allowing the RBI to build up reserves, these are matched by increased foreign liabilities (except in the last two years, when India has had a current account surplus) that may be called or withdrawn if there are signs of a crisis. Portfolio investors may easily pull back, while FDI holders may use hedging instruments that put pressure

on India's external position. In this view, the RBI's accumulation of reserves may provide very limited protection against external shocks.

One can conclude, therefore, that India's current fiscal situation leaves it with a choice between suboptimal growth, where monetary and exchange rate policy, along with capital controls, effectively have to provide what is ultimately very limited insurance against an external crisis, and an alternative of higher growth together with some increased risk of an external crisis. An improvement in the government's fiscal position offers a way to soften this tradeoff in the short run, and avoid its worsening in the long run. It should be emphasized that the RBI's views on this – despite disagreements with the details of Lal, Bery and Pant's calculations – are no different from those of the Finance Ministry or the Planning Commission. All of three agree that some fiscal adjustment is required. How is this adjustment to be implemented in a manner that is not itself disruptive or too costly?

## 5. Fiscal Adjustment

Crisis resolution is almost always contentious as well as painful. For example, crises in Argentina and Indonesia have had very high economic and social costs. India, at least for the moment, does not appear to face an imminent crisis, especially on the external front. Since crises very often arise from adverse shifts in expectations or confidence than from deterioration in fundamentals, this favorable situation could change rapidly if there is a negative shock that affects confidence. The financial sector is extremely fragile, and some public sector enterprises, particularly in the case of electric power and irrigation, are bankrupt. Under these circumstances, one cannot rule out the occurrence of a crisis in the future, which may begin in the banking sector, spill over to the rest of the financial sector, and ultimately affect all parts of the economy. The fact that until now fiscal looseness has manifested itself in foregone growth should not therefore lead to any complacency about its seriousness.

World Bank (2003) projections of current trends, based on nonstochastic accounting identities, and plausible assumptions about interest rates and growth, but without factoring in any unanticipated shocks, suggest that by 2007, the general government fiscal deficit (excluding contingent liabilities and public sector enterprise (PSE) losses) will cross 13% of GDP, and the debt-GDP ratio will increase from about 85% to 103% (Chapter 2, p. 31). Interest payments will absorb almost 55% of revenue in this case. Adding on contingent liabilities and PSE losses only strengthens the case that current trends are unsustainable, i.e., India cannot postpone fiscal adjustment much longer by sacrificing growth. The projections of Roubini and Hemming (2004) tell a similar story.<sup>24</sup> On the positive side, precisely because a crisis is not imminent, India currently has the opportunity to shape fiscal policy in an orderly manner. The real challenges in achieving this are political rather than technical.

We next outline some approaches to fiscal adjustment. The Planning Commission (Government of India, 2003) has estimated combinations of growth targets and corresponding fiscal deficits for the Tenth Plan period, which runs from 2002 to 2007.

These numbers are presented in Table 3. Key assumptions include nominal interest rates on new debt of between 8.5% and 9% for the Center and 10.5% to 11% for the States, an inflation rate of 5%, and debt repayment rates of 14.3% for the Center and 8.3% for the States. The first row of numbers gives the actual situation in the base year for the Tenth Plan (though these numbers have since been revised: see Table 1). The sustainable deficits given in the next two rows are based on accounting identities and the assumptions noted above.<sup>25</sup> It is clear that the consolidated deficit at its current level of 9.3% of GDP is not sustainable even at 8% growth. This growth rate is the Tenth Plan (five year average) target, but has yet to be achieved in India's history, except in years of recovery following a severe drought. If growth is assumed to be a more realistic 6.5%, then the sustainable deficit is even lower.

[Table 3 about here]

The numbers in Table 3 for the Center and the States are *gross* fiscal deficits. The Tenth Plan tends to highlight the Center's *net* position, by excluding interest payments received on Central loans to States from the receipts side and loans to States from the expenditure side. In our consolidated figure, presented in the last column, these cancel out; that is, interest paid by States (and receipts of loans from the Center) as their expenditure cancels out the same item entering as receipt (expenditure) in the Center's budget. This allows a more standard view of the deficits. In any case, a comparison of the actual and sustainable numbers highlights the well-recognized fact that much of the current fiscal problem is at the level of the States. We return to this issue in the next section.

The last row of Table 3 gives the Tenth Plan target averages, based on a set of assumptions about savings, investment totals and the productivity of investment. The basis for the Indian planning exercise remains a Harrod-Domar model, with assumptions about incremental capital output ratios (ICORs) playing a crucial role. We cannot go into a full discussion here,<sup>26</sup> but note that a key assumption of the Tenth Plan is a substantial improvement in the ICOR over the previous plan period, from 4.5 to 3.6. The plan also requires increases in savings and investment, and these are projected to be partly met by a reduction in government dissaving. In sum, the feasibility of the 8% growth target requires a fiscal deficit that is substantially lower than what is notionally sustainable at that growth rate, and also lower than the sustainable level corresponding to a 6.5% growth rate.

A comparison of the base year and Tenth Plan figures reveals that the 2.5% reduction in the consolidated deficit (Tenth Plan average versus 2001-02) is envisaged to be shared almost equally between the Center and the States, with loans from the former to the latter staying at about 1.1% of GDP.<sup>27</sup> In comparison, if one looks at the notionally sustainable levels for 8% growth, one sees that the Center has more room to maneuver, in that its ability to pay for continued borrowing is substantially higher than that of the States. This is useful to note because it highlights potential problems of implementing fiscal adjustment, in terms of how this is to be shared across the different levels of the federation.



Comparing the 2001-02 actual figures with the Tenth Plan average targets (the first and last rows in Table 3) indicates that the goal is reduction of the Central and State gross deficits by 1.2 and 1.3 percentage points respectively. The Plan envisages substantial cuts in revenue deficits as the avenue for achieving the required fiscal deficit reductions. The Center's revenue deficit is supposed to be reduced from 4.2% of GDP in 2001-02 to an average of 2.9% the Plan period, while the corresponding figures for the States are 2.5%, and 1.3% (Government of India, 2003, Table 2.22). These reductions in revenue deficits (1.3 and 1.2 percentage points respectively) almost match the target reductions in gross deficits, implying that the targeted reduction in the deficit is essentially slated to come from current revenues or expenditures. Interest payments of the Central government, which were 4.6% of GDP in the base year, are projected to average 4.3% of GDP over the plan period (Government of India, 2003, Table 2.24).<sup>28</sup> Subtracting this from the 4.7% target figure in Table 3, we infer that the primary deficit of the Center is targeted to average only 0.4% over the plan period.

Before turning to how these targets might be achieved, we present alternative analyses, performed by the World Bank (2003), and updated in Pinto and Zahir (2003), which use actual 2002-03 deficit figures (worse than targeted in the Plan, though higher than RBI figures reported in Table 1), as well as alternative assumptions. These data are summarized in Table 4. The 'reform case' in the Table may be considered an alternative adjustment scenario to that of the Planning Commission. The base case, with the real interest rate exceeding the growth rate, involves a situation spiraling out of control, with interest payments eating up an increasing share of GDP. In the reform case, the growth rate exceeds the real interest rate, although assumptions about growth, interest rates and inflation are more conservative (or pessimistic) than those of the Planning Commission. The result is a holding pattern with respect to the deficit, rather than the reduction targeted in the Tenth Plan.

[Table 4 about here]

Nevertheless, under the reform scenario, "the quality of spending will have vastly improved", through a reduction in subsidies, in particular. The reform case involves reducing subsidies from 1.8% of GDP to 0.5% of GDP by 2006-07 (through reductions in food and petroleum subsidies), and increasing government revenues by 2.4% relative to the base case, also by 2006-07. Both of these are ambitious targets: the Bank projects total government revenues to rise from 17.5% of GDP to 19.9% over the plan period, while the Tenth Plan projects a similar increase. For subsidies, the Tenth Plan notes that "the expenditure on subsidies has to be reduced substantially," (p. 59) but the exact reduction envisaged is not broken out from "other non-plan expenditure."<sup>29</sup> Therefore, the main reason that the Bank's deficit predictions are much higher than those of the Planning Commission lie in the latter's more optimistic assumptions about growth and interest rates. Pinto and Zahir (2003), in revisiting the Bank's projections, partially bridge this gap, maintaining the Bank's growth assumptions, but reducing inflation and interest rate estimates.<sup>30</sup> As a result, their reform case projection for the consolidated deficit is 7% in 2006-07, which is much closer to the Tenth Plan's 5.4% target.

Both the Bank and the Planning Commission projections envisage increased revenues through higher tax collections. The Plan appears to rely on an increase in the buoyancy of indirect taxes, as well as a recovery in the buoyancy of customs duties. In turn, these targets rely on implementation of base-broadening tax reforms. There are also exhortations for improved tax administration. Many of these issues have been on the table for some time (e.g., Das-Gupta and Mookherjee, 1998), and the recent Kelkar Committee reports on direct and indirect taxation reiterated the need for base-broadening, reduction of exemptions and improved administration.<sup>31</sup>

Whether the necessary tax reforms can be enacted quickly remains to be seen: in some cases, what is required is the overcoming of opposition from interest groups that will be hurt by tax reform, and in others, the building of a coalition of States that will support reforms, such as a unified VAT. The fact that there are taxes such as octroi and import tariffs that are probably too high by standard efficiency criteria,<sup>32</sup> and promoting growth may require giving up some tax revenues from these channels, implies that revenues from other existing taxes or imposition of new taxes have to be considered if the goal of raising of tax revenue is to be realized. Obviously, this is a complicated and difficult task. Whatever the exact details of tax reforms may be, clearly one can agree that “these [tax] reforms deserve the highest priority in view of the decline in the tax-to-GDP ratio in the 1990s and the direct positive effect this will have on reducing primary and revenue deficits” (World Bank, 2003, p. 23).

Ultimately, tax reform, though undoubtedly difficult politically to undertake, may be less difficult than cutting expenditures, no matter how unproductive.<sup>33</sup> One step that may change this judgment is the recent passage of the Fiscal Responsibility and Budget Management (FRBM) Bill by both houses of parliament. The bill requires the elimination of the Center’s revenue deficit by March 2008 (the end of the 2007-08 fiscal year). While legislation does not ensure implementation, it does provide a benchmark for action, and a means for reducing political pressures. We return to a consideration of the FRBM law in Section 6 as well as the concluding section.

We have repeatedly drawn attention to the fact that off-budget items, namely accumulated and ongoing losses of public sector enterprises (particularly the State Electricity Boards, or SEBs), as well as contingent liabilities associated with substantial guarantees by State governments of loans to a range of PSEs, constitute a looming threat. While a clearer and more transparent framework for guarantees is one option, probably the only real solution will be completely severing links between governments and these enterprises. In other words, as is the case with the financial sector in general, government ownership and/or control is not conducive to an efficient resolution of the problem of current and potential losses. These issues have been highlighted in Srinivasan (2002), as well as Singh and Srinivasan (2002) and World Bank (2003). The last discusses some of the recent reform measures undertaken in the power sector, including a program for hardening the budget constraints of the SEBs, but notes the potential difficulties of commitment by the Center to enforcing the new rules (see also footnote 42).

The projections presented above fail to connect deficits, interest rates and growth as variables that are simultaneously determined by underlying exogenous variables and economic parameters. This allows for widely different assumptions about interest rates and growth. The Planning Commission begins with a target growth rate and (effectively) a target ICOR, and works out how the investment requirements are to be met in an accounting sense, though not in behavioral terms. The assumptions on the composition of savings and investment, presented in Table 5, imply that total household saving, net of household investment which constitutes household financial saving, accounts for 10.7% of GDP over the Tenth Plan period, and public investment net of savings is 8% of GDP, so that public sector absorbs nearly 75% of household financial saving in financing its own investment. This is closer to the situation that prevailed in the mid-1990s, whereas in 2001-02, the public sector absorbed about 87% of household financial saving (IMF, 2003, p. 10).<sup>34</sup>

In the context of public sector investment, often viewed as inadequate in recent years because of ‘fiscal compression,’ achieved through reduction of capital expenditure, we add two points. First, an early objective of reforms was to attract new private investment for infrastructure, e.g., in the power sector, in order to allow fiscal adjustment that did not unduly harm growth. The failure to reform such sectors – through reduction of subsidies, privatization of existing organizations and improved financial market functioning – can thus be viewed as the culprit, not unanticipated cuts in capital expenditure. Thus, more comprehensive fiscal adjustment could actually improve the quality of government expenditures (see also Section 7). Second, capital expenditures have different start dates and gestations, so that a judicious postponement of relatively new projects can postpone the costs of forgone growth and give the government some time to implement its fiscal adjustment.

The discussion accompanying Tenth Plan projections does not ask whether the targets are consistent with some well-defined equilibrium of the economy, and, if not, precisely what policy changes will make them an equilibrium. To answer these questions, one has to have an explicit model of the economy, including the determination of savings and investment, as well as how investment is translated into growth. We briefly describe some of the features, implications and possible extensions of some illustrative models as a basis for discussion. Details of the models are provided elsewhere (Singh and Srinivasan, 2004).

[Table 5 about here]

The first is a Harrod-Domar model with firms, households and government. Only households save, while the private corporate sector and government both invest. The behavioral equations and equilibrium are quite simple: there is no interest rate, and savings are a constant fraction of GDP. There is a parameter in the private investment demand equation, whose sign and magnitude reflect whether, and the extent to which, public investment crowds in or crowds out private investment. We allow the direct productivity of public and private investment to differ, through different ICORs. We assume that the marginal propensity to save out of income exceeds the marginal

propensity to invest for the private sector. This ensures that government investment is positive in equilibrium. The equilibrium determines private and public investment as a function of the income level and the economy's parameters: marginal propensities to save and invest, and the crowding in/out parameter. In turn, these investment rates and the ICORs determine the growth rate. This equilibrium growth rate is shown to be an increasing function of the crowding-in parameter, as long as private investment is directly more productive than public investment.<sup>35</sup> In fact, as the crowding in parameter increases, the equilibrium size of the government sector (which only involves investment) decreases, and the equilibrium growth rate approaches a maximal finite level in the limit.

To relate this model to the discussion that dominates the conference papers, we note that the government deficit in this simplest model is simply government investment expenditure since there is no tax revenue. Thus the issue of financing is finessed: the implicit assumption being that the government and the private sector borrow from households at a zero rate of interest. Thus the size of the government is also the size of the deficit. Both the deficit and the growth rate are determined endogenously, and what is relevant for determining their correlation is the movement of the underlying parameters. Thus, an increase in the crowding-in parameter reduces the deficit, but increases the growth rate. On the other hand, an increase in the savings rate increases both private and public investment and hence the growth rate in equilibrium. However, as noted earlier, an increase in public investment is equivalent to an increase in the fiscal deficit in this simple model. If taxation is allowed for, it is more realistic to model saving as coming out of disposable income. We can assume that tax revenue is proportionate to income. In that case the model works through with a modified effective savings rate. In this case, an increase in marginal taxation simply reduces growth, because it reduces savings. The equilibrium deficit decreases as well.

The reason the above model has somewhat unsatisfactory predictions is, of course, the absence of an interest rate mechanism for equilibrating savings and investment. Government investment expenditure crowds in through a technological assumption, but there is no financial crowding out. Our second model sketches a modification of the first that introduces this interest rate mechanism. The model remains a conventional real sector model, however, since neither financial intermediation nor money is included. In this case, the savings-investment balance determines combinations of government investment and the interest rate that are consistent with overall equilibrium, given income. Given the assumed standard responses of savings and investment to interest rate movements, it is easy to show that greater government investment is associated with higher interest rates. This represents the conventional financial crowding out effect.

Using the same production structure as in the first model, the equilibrium growth rate can be derived, and it can be shown that the growth implications of an increase in government investment are ambiguous, and depend not only on the relative efficiency of public and private investment and the magnitude of any crowding in, but also on the responses of savings and investment to interest rates. Note that taxation in this model may now reduce crowding out, by reducing the government's net demand for investment funds. This is in addition to the previous effect of reducing savings. This adds another complication to the

impact of government investment on growth. Both models assume that output is related to capital stock as in a simple Harrod-Domar world. Furthermore, public and private capital are perfectly substitutable (adjusting for differences in efficiency). Alternatively, one could assume that private and public capital are imperfect substitutes, using, for example, a CES production function to aggregate them. This would allow one to work out the growth implications of alternative assumptions in this dimension as well.

In two further models, we consider optimal determination of savings, consumption, debt and taxation. The difference in these two optimal growth models is the method of financing. For simplicity, we examine pure debt financing and pure tax financing separately. The debt-financing model could be interpreted also as a small open economy model with an opportunity to trade (as well as lend or borrow) at given world prices (interest rates). The point, once again, is that one can work out the endogenous growth paths, and associated savings, investment and government deficit or expenditure trajectories. Examining such equilibria provides a firmer basis for assessing the nature of fiscal adjustment appropriate for the medium and longer run, once concerns about a short-term crisis are allayed by more immediate action.

In two final models, we bring in money and nominal prices and exchange rates by postulating a simple transactions demand for money. It turns out, unsurprisingly, that an exogenous gift to the private sector of resources from abroad is purely inflationary if the government simply buys the foreign gift and adds it to reserves. If, on the other hand, it does not intervene, prices and exchange rates adjust to absorb the gift. Finally, to get to grips more effectively with the Indian case, extended models would incorporate institutional features of the financial system to more accurately capture crowding out effects,<sup>36</sup> and interactions between monetary and fiscal policy that determine inflation tradeoffs. This is the kind of research program we have outlined in the introduction.

In the models described, we assume, for convenience, that all government expenditure is investment. It is clear that unproductive expenditure will reduce growth. Empirically, however, there are real issues with deciding the extent to which current expenditures are necessary 'costs of doing business' for the government, as well as the investment components of categories such as health and education, which typically are accounted for as current expenditures. We return to these issues in Section 7, along with approaches to managing unproductive expenditures. There we also take up concerns about fiscal contraction hurting growth, and falling disproportionately on the poor.

To summarize the message of this section, some short-term fiscal adjustment is necessary, even if the goal is the modest one of maintaining current growth rates and averting a potential fiscal and financial crisis. The greater the adjustment in reducing overall fiscal deficits, and particularly primary and revenue deficits, the more likely it is that growth can be maintained or accelerated. This position is reasonable, whatever one thinks about the efficiency of government investment, relationship between public sector and private sector investment, and the scope for flexibility in monetary policy. It is also straightforward that the government must increase tax revenues as a percentage of GDP, through a set of reforms in structure and enforcement. We have also highlighted some of

the analytical issues that remain to be tackled. Scenarios that involve setting the values of different endogenous variables, and seeing the implications for debt dynamics, particularly in the short-run, are certainly useful, and can get the attention of policy makers. However, there needs to be an analytical framework to judge the plausibility of alternative scenarios. Behavioral equations involving savings, investment, money demand, and so on, are all neglected in a narrow focus on seeing how fast debt accumulates under varying assumptions about deficits, interest rates and growth. Ideally, one would like to see a model in which all three of these variables determined endogenously by more fundamental parameters. The simple models summarized in this section illustrate this approach for possible future work.

## 6. Adjustment in a Federal Context

We have already noted that the States have contributed significantly to India's fiscal problem after 1997-98. The unitary features of India's constitution that were dominant for nearly four decades declined, and its federal features have emerged more strongly in the last decade, as a result of decentralizing economic reforms as well as corresponding political developments that have increased the role played by regional parties. The essential features of India's federal structures are described in Singh and Srinivasan (2002), IMF (2003, Chapter IV, p. 55) and Hausmann and Purfield (2004). There are three broad issues to consider in examining the federal dimensions of fiscal adjustment. First, what is the overall fiscal position of the States as compared to the Center? Second, what are the relative positions of different States in terms of their fiscal situations? Third, what are the institutional and political dimensions of implementing fiscal adjustments that cut across levels of government? Included in these issues are answers to specific questions such as the impact of the emergence of coalition governments at the Center and of federal features of the constitution on fiscal profligacy in the States.

Beginning with the overall fiscal position of the States, we have noted (along with all other analysts of India's fiscal situation) that this has deteriorated more than that of the Center, as documented in Table 1. This development reflects several disparate factors. First, the Center has been able to shift some of the burden of its own fiscal adjustment to the States, by reducing some explicit transfers.<sup>37</sup> Second, the States themselves have been given more operational freedom, in areas such as negotiating with international development agencies, attracting private foreign direct investment, and so on. Third, the States may have been competing more vigorously with each other in ways that may be leading to a race to the bottom in tax rates, investment incentives and infrastructure expenditures. Fourth, the nature of political competition has changed in the last decade, with pivotal states able to extract concessions from the Center, and greater political competition within states leading to fiscally detrimental policies such as increased subsidies for power and irrigation.

To the extent that electoral competition (possibly together with voting with one's feet) acts as a check on government inefficiency (e.g., Wittman, 1989), increased political competition within and among the States would be beneficial in the long run, although

some short-term policy decisions may be costly in the long run. A different and more serious issue is that State governments may not bear the full cost of an increase in their expenditures at the margin – this is the well-known problem of soft budget constraints (e.g., Anand et al, 2001; Rao and Singh, 2001; Singh and Srinivasan, 2002; McCarten, 2003; Hausmann and Purfield, 2004). In some respects, the States' budget constraints do seem to have softened with economic liberalization and reform.<sup>38</sup> In particular, the increased use of off-budget entities is one example. Another is a specific characteristic of recent political equations, where a coalition government at the national level has given pivotal status to ruling parties in some States, which have exercised their bargaining power with the ruling coalition at the Center to soften their budget constraints. In this regard, even ostensibly positive developments such as tying some portion of Center-State transfers to implementation of economic reform may not necessarily be supportive of fiscal rectitude at the level of the States, since such a policy introduces discretion that allows distortion by political considerations. We return to this issue in considering federal institutions and possible reforms that will support positive fiscal adjustments.

The second federal aspect of fiscal adjustment involves looking at the States' relative performance. IMF (2003, Chapter IV) and Purfield (2003) provide detailed analyses and further documentation of the deterioration in the States' overall fiscal situation, both budgetary and off-budget, using data from 1985 to 2000. Among the points made are that states that had initially large imbalances tended to do worse in the 1990s, that there were large disparities in fiscal situations across the States, that these were partially explained by structural and institutional factors, and that changes in the Finance Commission's transfer system may have worsened disparities. Purfield (2003), in particular, emphasizes institutional weaknesses in the system intergovernmental fiscal relations, rather than state-specific factors.

It is useful to examine which states are contributing the most to the subnational fiscal deficit. According to Planning Commission data for 2001-02 (Government of India, 2003, Table 2.23), of the 14 major states, the six with the highest deficit-SDP ratios were Orissa, Gujarat, West Bengal, Punjab, Andhra Pradesh, and Rajasthan. In Purfield (2003, Figure 3), the ranking is similar for 2000 data: Bihar, Orissa, West Bengal, Gujarat, Punjab, and Rajasthan. Also, the states with the biggest increase in the deficit-SDP ratio from 1990 to 2000 were Bihar, Orissa, West Bengal, Rajasthan and Andhra Pradesh. Of course, the larger is a state's SDP, the greater the contribution of its deficit-SDP ratio to the aggregate for the States.

If one turns from flow to stock measures, then the six major states with the highest ratios of debt to SDP in 2001-02 were, in order, Orissa, Bihar, Punjab, Rajasthan, Uttar Pradesh and West Bengal (Government of India, 2003, Table 2.23). These figures exclude guarantees, where the ranking of the states is somewhat different (IMF, 2003, Figure IV.2).<sup>39</sup> In either case, these ratios have risen dramatically over the last decade. Of course, as is the case with the Center, the productivity of expenditure funded by this debt is critical. The evidence indicates that for many of the States, subsidies and salaries are taking a larger and larger share of expenditure, though the States' performance in this respect is not uniform (e.g., Howes and Murgai, 2004). An in-depth analysis of the social

rationale for subsidies, and their cost effectiveness in fulfilling that rationale is overdue. It would be simplistic to suggest that any expenditure on salaries is by definition wasteful. Once again, a careful analysis of the size and structure of the States' employment is essential (see Section 7).

Our inference from this preliminary exercise in ranking the States is that it may help identify those states where fiscal adjustment can have the greatest impact on India's consolidated fiscal deficit. Fiscal performance tables may also help in creating a consensus for institutional reforms, by identifying those states that may be dipping too heavily into the common pool (Hausmann and Purfield, 2004), or acting as a drag on the nation as a whole. The list of six states with high deficits relative to population or SDP also indicates that economic reform is not the culprit in fiscal distress: Kerala, Punjab and West Bengal have not been enthusiastic reformers.

Finally, we discuss institutional and political dimensions of fiscal adjustment in the context of India's federal system. The problems with the system of Center-State transfers are well known. Lack of transparency, multiple channels and objectives, and perverse incentives all contribute to fiscal problems at the State level. We have discussed possible reforms in Singh and Srinivasan (2002). These reforms include a simpler, more targeted, and more consolidated transfer system, without any 'gap-filling' that destroys incentives for fiscal management by the recipient of the transfers. Such reforms would require political bargaining and agreement, but the precedent of a major change in the tax sharing arrangements, which proceeded from proposal by the Tenth Finance Commission to discussion in the Inter-State Council, and finally to a constitutional amendment, suggest that it is politically feasible to improve the working of the transfer system by altering its structure. Tables of comparative fiscal performance, such as we have discussed above, may also help in bringing about agreement, and mitigate the power of a poor performing state being able to get away with this because the regional party in power in the State is a pivotal member of a ruling coalition at the Center.

Another area of reforms, discussed in Rao (2000) and Singh and Srinivasan (2002), is that of taxes. Tax reforms such as introduction of a unified VAT, taxation of services and central taxation of agricultural income may require politically acceptable packages of reforms that both the Center and a winning coalition of the States can sign on to. Increasing the tax capacity of the States through changing the Constitution's assignment of tax authority is also an important potential step forward that goes hand-in-hand with better and narrower targeting of transfers.

An important area of reforms relates to the process of borrowing by the States, which has been somewhat ad hoc and opaque in its functioning. Improvements in financial information, budgeting practices, regulatory norms and monitoring are all required here, as well as changes in the institutional rules (IMF, 2003; Hausmann and Purfield, 2004). These reforms echo many of those required for the financial sector as a whole. State governments just happen to be among the most powerful actors who are taking advantage of poorly functioning credit markets to run up their debts.<sup>40</sup> Some of the needed reform is already taking place, including statutory or administrative borrowing ceilings, guarantee



redemption funds, explicit restructuring and write-offs, and market-based borrowing mechanisms such as auctions conducted by the RBI. Market borrowing by the States rose from 11% of their total borrowing in the 1980s to 15.8% in the 1990s (RBI, 2003, p. IV-20), and this ratio has subsequently not increased much (Hausmann and Purfield, 2004). Achieving (desirable) increases will require more reforms along the lines indicated.

A new and potentially important development is the enactment of the Central FRBM Act. So far, four States (Karnataka, Kerala, Punjab and Tamil Nadu) have followed the Center and passed their own FRBM laws. The law itself was initially recommended by the Eleventh Finance Commission, and required considerable political bargaining before it was passed. Issues of design are complicated by consideration of the subnational level. Kopits (2001) emphasizes coordinated and uniform implementation of the laws, in order to control externalities or free-riding behavior. Given that enforcement provisions are weak in the Indian FRBM laws (Hausmann and Purfield, 2004), the approach in practice of individual states choosing their own provisions may be the best one can hope for.<sup>41</sup> Rajaraman (2004) clearly lays out their design features, at the Center as well as in these States. While Rajaraman (2004) and Hausmann and Purfield (2004) each simulate the impact of the States overall adopting FRBM laws, the latter focus on the aggregate reduction in deficits, while the former warns that public service delivery will be crippled without additional revenue efforts, although such an outcome is not inevitable: there is enough scope for efficiency improvements in delivery to avoid *delivery* cuts in response to *expenditure* reduction. The manner in which net deficit requirements of FRBM laws are implemented will be crucial. This 'quality of fiscal adjustment' perspective is discussed further in Section 7.

In conclusion, a focus on the federal dimensions of fiscal adjustment leads to a reemphasis on financial sector reform and tax reform, as well as consideration of a possible major overhaul of the system of intergovernmental transfers. While the magnitude of the institutional changes required may seem daunting, and some of the envisaged changes will take several years to implement, it is important to lay out all the options, especially because this may reveal creative combinations of reforms that will pass the test of political feasibility and because it will facilitate informed discussion, legislative drafting, and building political consensus. It would be useful to rank possible reforms in terms of ease (and therefore potential speed) of implementation. Certainly some aspects of tax reform and financial market reform fall into the category of relatively easy reforms. That also applies to some modifications in the transfer system. Major changes in the assignment of tax authorities and in the overall design of the intergovernmental transfer system will obviously take more time. In mapping out a coordinated approach to fiscal reform for the Center and the States, the Brazilian experience (Guardia and Sonder, 2004) could be worth exploring for possible approaches.<sup>42</sup> This is particularly the case for issues such as control of subnational debt, where Brazil and other Latin American countries have had severe problems. As is clear from Guardia and Sonder's (2004) lucid and comprehensive review of Brazil's fiscal adjustment in a federal context, it is possible to effect positive institutional change. The details of India's institutions, however, are somewhat different, and both process and outcomes will reflect this. In Singh and Srinivasan (2002), we have suggested that the

Inter-State Council may play an enhanced role in the future in achieving coordinated reforms. In other cases, political and economic competition among the States may lead to positive fiscal outcomes, if States come to depend on financial markets for borrowing, so that markets can pass judgment on State governments' financial management.

## 7. Financing Development Priorities

A major concern with any fiscal adjustment is its potential cost in slowing economic development, and, in particular, its possible adverse effects on the poor, whose dependence on public services and income support is larger than of the non-poor. There are two factors that suggest that such cost may not be high. First, India is, at least for now, in a position to implement some fiscal adjustment before a crisis possibly hits. This allows India's government the opportunity to choose carefully how to go about getting its fiscal house in order, without constraints that would be imposed in a crisis situation. There appears to be a reasonable technical consensus on needed reforms, and on how sufficient political support can be mobilized to implement these reforms. These factors, in principle, would moderate the cost of adjustment.

The second advantage – if it can be termed that, is that in India, delivery of public services is very inefficient in terms of cost-effectiveness. Improvements in efficiency can allow fewer Rupees to achieve the same or even greater benefits than is currently the case. Examples of such 'X-inefficiency' include the core administrative service at the Center and the States, programs such as the Public Distribution System (PDS) for food, and PSEs such as the SEBs. In many of these cases, there will be losers, since public sector employees may currently be enjoying monetary rents or leisure that will be lost. However, one can hazard that at least some of the leisure in inefficient organizations is involuntary, and results in frustration rather than any utility gain. As for the impacts on the poor, the World Bank (2003) is quite clear in its conclusions: "The burden of weak administration falls particularly on the poor, who suffer from skewed government spending, limited access to services, and employee indifference." Thus, it seems that there is room for fiscal adjustment that benefits rather than hurts the poor. In this context, it has also been noted in the past that a system of explicit user charges often allows for more efficient as well as more equitable delivery of services (e.g., drinking water, health and education: see World Bank, 2003, Chapter 3).

The efficiency of delivery of health and education in rural areas can be improved substantially, either through restructuring government efforts, or bringing in private participants such as nongovernmental organizations or community groups. There is substantial evidence that institutional innovations can improve efficiency (e.g., Drèze and Gazdar, 1997; PROBE, 1999; World Bank, 2003, Chapter 3; Howes and Murgai, 2004). In either case, the gains come from improved incentives and reduced transaction costs. Of course there are many areas where more cannot simply be squeezed out of the existing expenditures just by improving incentives for those responsible for the service delivery. In particular, India still suffers from major bottlenecks in roads, ports, electric power, and urban infrastructure.

In many of these cases, there is room for public-private partnerships that allow the government's own expenditures to be more effective, and to go further. Governments in India at both the Central and State level have tried to create such partnerships for large-scale infrastructure projects, or tried to involve private providers more fully, but with limited success. If one examines the historical evidence (Eichengreen, 1994) the culprit is again the imperfections in financial markets that make investors wary of losing their money through various forms of hidden expropriation or taxation, or, conversely, make it impossible for governments to avoid creating severe moral hazard for the private investors. Howes and Murgai (2004), in their conference paper, document and highlight how private sector infrastructure funding in India has fallen well short of projections or targets in recent years (e.g., their Figure 1). Whether this is caused by such institutional weaknesses or coordination failures in the presence of complementarities (Matsuyama, 1995) is debatable, but it is probably a combination of both factors.<sup>43</sup>

In any case, if India is to achieve a fiscal adjustment that protects growth and development, it needs to create conditions in its financial sector that will allow for the reduction of the risks associated with imperfect information, as well as allow for mechanisms that allow participants to manage such risks better. In addition to regulatory reforms in the financial sector, mechanisms for approval of foreign direct investment (FDI) need to be streamlined further, and FDI to be opened up more.<sup>44</sup> For example, only if protecting small, but inefficient retailers, is deemed an appropriate social objective (even though it may raise costs for the poor) and there is no other socially cost-effective means of protection, does banning FDI in retailing make sense. On the other hand, new entrants, including foreigners, can be required to provide urban infrastructure that is essential for efficient retailing. While in some cases, attracting foreign investors requires the government to increase its investment in infrastructure, if the opportunity is attractive enough (as is likely to be the case for retailing in India's large market), entrants will be willing to provide needed infrastructure. Alternatively, requiring entrants to obtain a government license and auctioning of such licenses could generate resources for the government to undertake investment in the needed infrastructure. Allowing greater competition in investment may reduce the need for the kinds of subsidies recently announced (see footnote 43).

There is broad agreement on the steps that ought to be taken in restructuring expenditures and enhancing their efficiency. For example, the Tenth Plan has the following list:

- Raising user charges to cost recovery levels and 'selling' this proposal to the general public
- Implementing the Expenditure Reforms Commission road map for progressive reduction in fertilizer subsidies, and full elimination of petroleum subsidies
- Better targeting and design of food subsidies
- Controlling government pay and allowances
- Improving the operational efficiency of the Indian Railways and power sector PSEs  
(Government of India, 2003, Box 3.1)

The World Bank (2003) reform scenario, discussed in Section 5, assumes that the second and third recommendations in the above list will be implemented over the next four years. Charging for the use of irrigation water and power at appropriate levels also amounts to subsidy reduction, and economists of diverse political and economic persuasion, such as Rakesh Mohan and Mihir Rakshit,<sup>45</sup> agree that such subsidy reductions are desirable, and even necessary. However, Howes and Murgai (2004) question the political feasibility of making any headway in this direction, because of the power of rural interest groups. They document the case of power subsidies for irrigation quite extensively, drawing on the experiences of different states.

As an alternative, Howes and Murgai argue for greater attention to civil service reform. They examine the numbers, pay and performance of government employees. They provide some detailed discussion of possible reforms along the lines of those we have outlined in broader terms earlier in this section. Some reforms involve restructuring government organizations. Howes and Murgai, as well as Rajaraman, quote work on this aspect by Beschel (2003), and the World Bank (2003) report offers similar analysis.<sup>46</sup> However, if the underlying rationale for the current structure of Indian government is the provision of employment, rather than the delivery of public services, then one can argue that making headway here will be as difficult as reducing subsidies, unless more rapid growth generates more attractive alternatives to government employment.

In fact, the political difficulties of imposing user charges and improving the functioning of government organizations jointly strengthen the case for privatization of delivery to the extent possible. Howes and Murgai point out potential difficulties in ensuring supply with privatization, but this shifts the issue to one of creating an effective regulatory regime for commercial enterprise, rather than what may be a futile attempt to improve the operations of government and their financial viability. Of course, privatization has its own political obstacles, and one approach may be to experiment with a range of reforms, perhaps in different States, including private sector involvement, subsidy reduction and government rationalization, and learning from the experience, as China is claimed to have done, or is doing. The fact that government employees ultimately have to implement the required expenditure restructuring suggests that, from a political economy perspective, and despite the pressure of other interest groups, broad pay and pension controls may not be the easiest or the best route.<sup>47</sup> Targeted and limited privatization of public service delivery may be the best method of chipping away at expenditure inefficiencies in government, both directly, and through competitive pressures placed on remaining government employees. Thus, pricing, private involvement and internal rationalization policies may be complementary approaches in tackling expenditure restructuring.

An important aspect of public service delivery is its federal dimension. Since many services are local, the weakness of India's local governments in terms of accountability and fiscal capacity has always been a problem. While there have been concerns about elite capture (Bardhan and Mookherjee, 2000) and lack of expertise at the local level, there is a theoretical case that decentralization improves electoral accountability (Seabright, 1996), as well the Wicksellian connection between revenues and

expenditures. While the new structure of India's local governments, put into place through constitutional amendments (Rao and Singh, 2000; Hausmann and Purfield, 2004) is not ideal, it represents a basis for improved accountability and delivery. Arguments for decentralizing revenue authority further, which can be made for the States vis-à-vis the Center, may also be applied to local government. This assignment, as well as attention to the design of transfers to local governments to avoid perverse incentives, may provide conditions for improved public service delivery without increasing fiscal stress at the subnational level.

In conclusion, fiscal adjustment does not have to imply a reduction in public services. There is ample scope in India for improvements in the efficiency of delivery of services through internal restructuring or private participation. Indeed, cost cutting may be necessary (though not sufficient) for increased government productivity. Reasonable user charges can also lead to improved budgetary positions without hurting the poor. For large-scale infrastructure projects, improvements in the workings of the financial sector are the key to allowing for private participation in ways that allow government budgets to be stretched further. All of these reforms involve political economy challenges, and it is these challenges that are most difficult to overcome.

## **8. Long-Term Fiscal Policy Challenges**

We have argued that for various reasons, India's loose fiscal policy has reduced growth below potential without showing any discernible signs of an imminent crisis. However, if the fiscal imbalances are not addressed and growth continues to fall short of potential, the risks of a conventional crisis – fiscal, monetary or external – will increase. According to some scenarios, in which real interest rates stay relatively high and greater efficiencies in investment are only partially realized, even fiscal reform that cuts the primary deficit substantially over the next three years will just succeed in maintaining something like the current deficit-GDP ratio of about 10%, and debt will continue to accumulate, though less rapidly than in the last few years. This is a minimal objective to aim for over the next few years. Critical elements of any scenario that does not lead to almost certain crisis down the road are an increase in the tax-GDP ratio, and a reorientation of public expenditure toward efficient investment in physical infrastructure and human development, and away from distortionary and inefficient subsidies.

The most serious medium and long-term issue that must be anticipated is the future cost of the pension system. Many of the conference papers emphasize this relatively recent addition to the causes for concern with respect to India's fiscal future. While some demographic trends will help, by increasing the proportion of the population that is of working age, the increase in life expectancy will increase the number of years for which pensions are paid, relative to the number of working years. Managing this problem by increasing the retirement age can be politically difficult if it reduces the employment chances of young entrants. However, with sufficiently rapid growth of GDP and employment, this difficulty will ease. Be that as it may, Heller's paper quotes World Bank estimates that the cash-flow deficit of the Employees' Pension Scheme (EPS),

which is a defined benefit scheme, will grow to almost 1% of GDP over the next few decades, even without increases in coverage. If more employees are covered by the EPS as growth increases the relative size of the formal sector, then the potential problem will grow accordingly.

Recently, various income transfer and social insurance schemes that reach into rural areas and the informal sector of the economy have been announced. While the objectives of such policies are laudable, they introduce yet additional demands on the budget, which will be difficult to reverse, as they become viewed as entitlements. Srinivasan (2002) and Rajaraman (2004) emphasize that the Pay Commission award was not an exogenous shock, but one that was predictable in the context of institutional and political economy considerations. Thus, one can argue that pay, pensions and social insurance are all areas in which there is virtually no uncertainty about their future costs so that the government will have to do long term planning. While we have suggested that the broad outlines of technical solutions to India's short run fiscal problems are well understood, leaving only the political difficulties of implementation, in the case of long-term budgetary commitments, there seems to be a need for an integrated analysis of the various possibilities. For example, the last Pay Commission award was followed by increases in the pensions of those who had already retired – while such *ex post* adjustments may again have laudable motives, they represent a contingency that must be allowed for in projecting the future liabilities of the government. The announcement in the interim budget for 2004-05 of the merger of 50% of dearness allowance of civil servants into their basic salary is not a good signal.

The overall picture of the future of government pay and pensions, and social insurance schemes is gloomy. However, attention to these factors not only allows the government to plan, but can also increase the awareness of the need for immediate fiscal adjustment on other fronts, if not this one. One hopeful area, again, is tax reform. Heller (2004) points out that the tax treatment of pension contributions is unduly generous, and also creates some perverse incentives. This is one area where short-term remedies, such as phased reductions of tax preferences, ought to be politically feasible and relatively easy to implement, once they are on the policy agenda.

Two other aspects of demographic trends and predictable future demands on the fisc are in the areas of primary education and urban infrastructure. Based on projected fertility rates, one can predict the number of school children that will need basic education, and plan for this.<sup>48</sup> To some extent, the problems of India's education system lie more in inefficient rather than insufficient public expenditure, but as the demands of being part of a modern workforce increase, the need to fund education more effectively will also rise. Much of this burden will fall on the State governments, and given the fiscal adjustment that is going to be required of them, tax reform that gives State (and local) governments more scope to tax will be imperative.

Urbanization increases specific infrastructure needs, which must also be funded, at least partly, by raising additional revenues through taxation. In this case, there is tremendous scope for improving property taxation systems and introducing reasonable levels of user

charges. After years of deterioration in the assessment and collection of property taxes (Rao and Singh, 2000), the granting of greater autonomy to urban local bodies, combined with the general climate of economic reform, have led to some positive developments on this front (Bagchi, 2003). Emphasizing decentralized financing solutions (as also in the case of education) to the requirements of urbanization illustrates the general principle of aligning tax authority with the locus of benefits – the traditional ‘Wicksellian connection’ of public economics.

Even more broadly, India’s federal system needs to develop revenue assignments and authorities that match expenditure responsibilities more closely. This, in general, can be a positive step in controlling fiscal laxity. We may note here that in addition to altering the pattern of existing assignments, some long-run progress may also be made by redrawing the boundaries of the larger States. The recent creation of three new states carved out of three of the largest existing states represents an interesting experiment in increasing the Wicksellian connection, in this case by creating smaller units of governance. Since India’s largest states remain comparable in population to what would be more typically medium-sized countries, there remains scope for further disaggregation if the three new states prove to be more successful as separate political entities.

Beyond the issues associated with foreseeable demographic and developmental trends, the other possible long-term problems that face India’s government are ones where there are potentially large risks, which are not necessarily predictable. They are also large enough that the Center must take primary responsibility for insuring against them. This motivates the idea of having a fiscal cushion for the future, which is the crux of Heller’s arguments.<sup>49</sup> In this category lie possibilities such as threats to national security, AIDS and other epidemics, and local as well as global environmental problems (e.g., global warming, pollution of several kinds, floods, and water scarcity).

In some cases, the government’s main role should be to design rational policies that provide more sensible incentives to private actors at all levels. This is particularly true for environmental problems. By doing so, the potential for large future claims on government resources as a result of avoidable disasters is reduced. Of course, in the case of purely exogenous disasters, having a fiscal cushion will always be better than not being in that position.

In general, therefore, looking at the longer term and at broader public welfare concerns can have three benefits. First, it allows for better intertemporal planning of public expenditures within and across categories. Second, it improves the pattern of near-term public expenditures toward spending that reduces the chances of larger expenditures in the future. Third, it emphasizes the need for a fiscal cushion or self-insurance to meet unavoidable expenditures should they occur in the future. Finally, considering the long run necessitates modeling the dynamics of the economy more explicitly – as we have stressed in Section 5 – in addition to analyzing debt dynamics and intertemporal insurance against exogenous shocks. Growth is critical in the long run, and working out steady state implications of current policy adjustments (as well as adjustment paths) also requires explicit modeling.

## 9. Conclusions: Lessons and Priorities

What are the final lessons of the conference papers, and our own analysis? In this section, we provide our summary answers, including some thoughts on priorities for action, then discuss some remaining issues, with respect to the underlying theoretical framework, as well as policymaking and institutional reform. Our long list of summary lessons goes as follows:<sup>50</sup>

- India's fiscal situation requires immediate attention: high growth and low interest rates will not take care of the problem of long run sustainability of the debt, nor the risks of a crisis in the short or medium run.
- In fact, growth in recent years may have been significantly lower than if fiscal deficits had not been so high.
- A focus only on budget deficits can be misleading, because the problem of off-budget and contingent liabilities is serious, and shifting liabilities off budget without reducing systemic risk does not improve matters.
- India's external position is relatively strong, in terms of trade flows, foreign exchange reserves, and level and maturity structure of external debt: to some extent, monetary and exchange rate policies are biased by attempts to compensate for fiscal looseness.
- However, high reserves and a conservative monetary policy may not be sufficient insurance against a crisis of confidence. There are theoretical reasons and previous empirical evidence of high domestic debt and deficits being associated with such a crisis. Furthermore, there are numerous potential sources of risk, including interest rate volatility, as well as exogenous shocks.
- Many of the risks facing the public sector are intertwined with the fragility of the banking sector in general – there is probably a two-way causality here that must be recognized explicitly in planning any adjustment. There are structural aspects of the financial system, as well as the high availability of government bonds, that may be crowding out productive investment.
- Neither comfort in India's external position nor concerns about destabilizing the financial sector should be an argument against fiscal and financial reform: in fact, the good external situation gives India a window of opportunity to move forward with structural reforms.
- Financial sector reform needs to be broader and deeper than it has been so far, and reduction in the direct and indirect influence of the government in this sector must continue.
- A narrow focus on deficits or debts, even including off budget liabilities, can lead to a neglect of long run growth implications: it is essential to examine public consumption, investment, taxation and deficits in a framework that recognizes these are all endogenously determined, along with the growth rate.



- Available theoretical models surely leave a lot to be desired, but they have the ingredients of what is needed to make headway in empirically examining the optimal path of fiscal adjustment, as well as long run targets: current policy making in India may still not fully appreciate the endogeneity of behavioral factors.
- Coordination of fiscal policy with monetary and exchange rate policies would be better than letting the latter adjust to fiscal looseness, as seems to have been happening recently.
- India's democratic system and federal structures present challenges to fiscal policy that are common across all federal democracies (including developed one), and are well recognized in theoretical terms.
- However, given the potential improvements that can be made in policy, one has to search for institutional changes that will provide the right incentives to policymakers: this applies to all reforms, not just fiscal reforms.
- In order for this process to work, policymakers must have an incentive to act: one obvious idea is that reforms may need to be bundled in ways that garner sufficient political support. This may be especially relevant where there are potential Center-State conflicts.
- While the consequences of the 5<sup>th</sup> Pay Commission award and the States' worsening fiscal positions are obvious and related points of concern, both may be overstated. For example, the States' budgetary position in the aggregate may have stabilized. Furthermore, there is sufficient variation across the States (not all States implemented the award in full) to indicate that policy matters, and the right incentive structures may lead to beneficial competition among the States in fiscal management.
- However, the quality of expenditures at the Center and the States overall has deteriorated, and the solution to this has to be a rationalization of government, both internally and through privatization. Thus expenditure restructuring must accompany expenditure control.
- Privatization, when combined with increased competition, thus has a role that goes beyond any immediate contribution to reducing fiscal deficits, namely promoting efficiency in 'public' service delivery, and merely changing ownership, without removing government control, may not fulfill this second role. In the long run, however, the second role may be a more important contribution to fiscal health.
- Revenue-enhancing tax reform is critical at all levels, including Center, States and local governments. While there is ample room for improving the structure of indirect taxes in particular (including moving away from inefficient internal border taxes), improved tax administration and enforcement remains one of the most critical areas for internal government reform. Tax reform is an essential step toward increasing government revenue, as well as reducing microeconomic distortions.
- Institutional reforms such as improvements in the intergovernmental transfer system, borrowing mechanisms for State governments, and budgeting practices and norms are all technically possible and may well be politically feasible.

- While fiscal adjustment requires some immediate attention, India's governments have the opportunity to plan it intelligently, rather than being straitjacketed by a crisis.
- Therefore, measures such as hiking tariffs to raise revenue, or cutting productive expenditures, as ways of achieving a better fiscal balance, are to be avoided.
- At the same time, economists have to give policymakers convincing guidance on how to proceed – which is where more comprehensive behavioral economic modeling comes in. This does not preclude the exercise of judgment beyond the models, as we noted in the introduction.
- In the long run, as Keynes said, we will all be dead, but our descendants will still be around, and some thinking about long term risks, whether predictable (pension liabilities) or highly uncertain (wars, climate change, etc.) would be appropriate – fixing short term problems will allow this to receive more attention.

Turning from the list of lessons to priorities, one can simply state that there needs to be some short run fiscal adjustment, otherwise the probability of a crisis or collapse may soon increase dramatically. Furthermore, there are some obvious expenditure adjustments that can be made, such as cutting or overhauling poorly designed subsidies, and at least improving the efficiency of government expenditures. There are also some steps that can be taken to enhance revenues while simultaneously cutting distortions in the tax system, including improving the efficiency of tax collection. Clearly, also, the financial sector is the fulcrum of much that is wrong with the Indian economy, and further reforms in this area must be pursued. If these are the obvious priorities, what more is there to say? Just do it? This is very much the thrust of what New Zealand's 1980s reformer, Roger Douglas, says about proceeding with reforms (Douglas, 1995). Arun Shourie, currently a significant figure in the Indian economic reform process, emphasizes consensus and the role of civil society somewhat more than Douglas, but he, too, stresses the feasibility and desirability of plowing ahead (Shourie, 2004).<sup>51</sup>

Certainly, there are political difficulties with implementing some of the policies that would improve India's fiscal situation (and hopefully also its overall economic position), and several of the conference papers point these out. In some cases, choices are suggested based on a judgment of the degree of political feasibility. For example, this leads Howes and Murgai (2004) to focus more on pay and pensions rather than subsidies. In other cases, there are suggestions for institutional changes that will change political incentives, such as independent scorekeeper for monitoring FRBM compliance (Hausmann and Purfield, 2004). Our own suggestion has been for finding bundles of reforms that will create winning coalitions for acceptance. Existing institutions, such as the Inter-State Council or the Finance Commission, can sometimes be adapted to further such goals.

Our final thoughts bring us back to one of our central themes, that of the importance of using economic theory to provide a more integrated analysis of what might otherwise be seen as narrow technical problems. India has a long tradition of using analytical thinking to guide policy – but sometimes policy models may be too far inside the thought frontier. Certainly, India's policymakers are astute enough to receive complex advice, clearly

delivered. They are also good at putting together policy packages that meet their goals and those of their constituents: this statement is well illustrated by the January 2004 announcements of the Finance Minister and Prime Minister. The cut in tariffs is precisely a policy that is important and positive, and in which the government had room to maneuver. Similarly, one can argue that the further relaxation of some restrictions on capital flows in both directions is also in the right direction in terms of overall economic reform. On the other hand, these moves were somewhat counterbalanced by more populist expenditure sops, including interest rate subsidies, that are less attractive from an economist's perspective, and not in the right direction in terms of fiscal reform.

The perspective we have proposed, giving growth and its determinants center stage in looking at fiscal policy, rather than just deficits per se, is one that also allows policy advisors to more directly address the concerns of policymakers. One might be able to improve on the kind of policy package offered recently, in terms of the best combination of political and economic gains. By not underestimating the ability of India's policymakers to absorb their analysis, policy advisors may help those policymakers also, in not underestimating the capacity of their constituents to judge the quality of their decisions.<sup>52</sup> At least we can hope.

## References

- Agenor Pierre-Richard and Peter J. Montiel (1999) *Development Macroeconomics* (2<sup>nd</sup> ed.), Princeton: Princeton University Press.
- Ahluwalia Montek S. (2002) Financial Sector Reform in India, paper presented at conference on Financial Sector Reform Across Asia: Facts, Analyses, Solutions, John F. Kennedy School of Government, Harvard University, December.
- Alesina, Alberto, and Roberto Perotti (1997). Fiscal adjustments in OECD countries: Composition and macroeconomic effects. *IMF Staff Papers*, 44 (2): 210-248.
- Anand, Mukesh, Amaresh Bagchi and Tapas K. Sen (2001), Fiscal Discipline at the State Level: Perverse Incentives and Paths to Reform, paper presented at conference, "India: Fiscal Policies to Accelerate Economic Growth", NIPFP, New Delhi, May.
- Athukorala, Prema-Chandra, and Kunal Sen (2002) *Saving, Investment, and Growth in India*, New Delhi: Oxford University Press.
- Bagchi, Soumen (2003) Politics and Economics of Property Taxation, *Economic and Political Weekly*, October 18, 4482-91.
- Banerjee, Abhijit and Esther Duflo (2002), Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program, working paper, MIT, May
- Bardhan, Pranab and Dilip Mookherjee (2000) 'Relative Capture of Government at Local and National Levels', *American Economic Review*, vol. 90(2), 2000c.
- Bell and Rousseau (2001) Post - Independence India: A Case Of Finance - Led Industrialization? *Journal of Development Economics*, 65, 1, 153-175.
- Bencivenga, Valerie, and Bruce D. Smith (1991) Financial Intermediation and Endogenous Growth. *Review of Economic Studies*, 58, 2, 195-210.
- Bencivenga, Valerie, and Bruce D. Smith (2002) Monetary Policy and Financial Market Evolution, *Federal Reserve Bank Of St. Louis Review*, 7-26.

Bencivenga, Valerie, Bruce D. Smith and Ross Starr (1995), Transactions Costs, Technological Choice and Endogenous Growth, *Journal of Economic Theory*, 67, 151-177.

Beschel Jr, Robert P., (2003) "Civil Service Reform in India: Perspectives from the World Bank's Work in Three States" in Stephen Howes, Ashok K. Lahiri and Nicholas Stern ed. *State-Level Reforms in India: Towards More Effective Government* (New Delhi: Macmillan); 233-55.

Bhattacharya, Saugata, and Urjit R. Patel (2002), Financial intermediation in India: A case of aggravated moral hazard, Working Paper 145, SCID, Stanford University.

Bhattacharya, Saugata, and Urjit R. Patel (2003), Reform strategies in the Indian financial sector, Paper presented at conference on "A Tale of Two Giants: India and China's Experience with Reform and Growth, November.

Buiter, Willem H. (1990) *Principles of Budgetary and Financial Policy*, New York: Harvester Wheatsheaf.

Buiter, Willem H., and Urjit R. Patel, (1992) "Debt, deficits and inflation: an application to the public finances of India" *Journal of Public Economics* 47: 171-205.

Buiter, Willem H., and Urjit R. Patel (1995), Indian Public Finance in the 1990s: Challenges and Prospects, CEPR Discussion Paper 920, London.

Buiter, Willem H., and Urjit R. Patel (1997), Solvency and Fiscal Correction in India: An Analytical Discussion, in ed. Sudipto Mundle, *Public Finance: Policy Issues for India*, New Delhi: Oxford University Press.

Business Standard (2004a), Another Rs 2,240 crore given away, January 11.

Business Standard (2004b), More goodies from poll vault, January 11.

Cashin, Paul, Nilss Olekalns and Ratna Sahay, (2001) "Tax Smoothing, Financial Repression and Fiscal Deficits in India" in Tim Callen, Patricia Reynolds and Christoph Towe, ed. *India at the Crossroads: Sustaining Growth and Reducing Poverty* (Washington, D.C.: International Monetary Fund); 53-74.

Das-Gupta, Arindam and Dilip Mookherjee, (1998) *Incentives and Institutional Reform in Tax Enforcement: An Analysis of Developing Country Experience*, Delhi: Oxford University Press.

Demetriades, Panicos, and Kul Luintel (1997), The Direct Costs of Financial Repression: Evidence from India, *Review of Economics and Statistics*, 311-320.

Douglas, Roger (1995), Turning Pain into Gain: Lessons from the New Zealand Experience, text of talk given at Atlantic Institute for Market Studies, Halifax, Nova Scotia, Canada, January, available at <http://www.aims.ca/commentary/pain.htm> (Accessed February 11, 2004).

Drèze, Jean and Harris Gazdar. (1996). "Uttar Pradesh: The Burden of Inertia." In Jean Drèze and Amartya Sen (eds.) *Indian Development: Selected Regional Perspectives*. Oxford and Delhi: Oxford University Press.

Easterly, William (1993) "How Much do Distortions Affect Growth?" *Journal of Monetary Economics* 32(4): 187-212.

Easterly, William, (2004) The Widening Gyre: The Dynamics of Rising Public Debt and Falling Growth, NIPFP-IMF Conference Paper, January.

Eichengreen, Barry (1994), Financing Infrastructure in Developing Countries: Lessons from the Railway Age, UC Berkeley Working Paper 94-20.

Fernandez, Roque B. (1991) Exchange Rate Policy in Countries with Hyperinflation: The Case of Argentina, in Exchange Rate Policies in Developing and Post-Socialist Countries, ed. Emil-Maria Claassen. San Francisco: ICS Press.

Fischer, Stanley, and William Easterly (1990). The Economics of the Government Budget Constraint. *World Bank Research Observer* 5, 127-142.

- Frenkel, Jacob, and Assaf Razin with Chi-Wa Yuen, (1996) *Fiscal Policies and Growth in the World Economy*, Cambridge, MA: MIT Press.
- Gillingham, Robert and Daniel Kanda, (2001), "Pension Reform in India," *IMF Working Paper 01/125*.
- Giovannini, Alberto and Martha de Melo (1993), Government Revenue from Financial Repression, *American Economic Review*, 83, 953-963.
- Government of India (2002a), *Report of the Task Force on Direct Taxes*, New Delhi: Ministry of Finance and Company Affairs, December.
- Government of India (2002b), *Report of the Task Force on Indirect Taxes*, New Delhi: Ministry of Finance and Company Affairs, December.
- Government of India, (2003), *Tenth Plan*, New Delhi: Planning Commission.
- Guardia, Eduardo Refinetti, and Daniel Sonder (2004), Fiscal Adjustment And Federalism In Brazil, NIPFP-IMF Conference Paper, January
- Hausmann and Purfield (2004), The Challenge of Fiscal Adjustment in a Democracy: The Case of India, NIPFP-IMF Conference Paper, January.
- Heller (2004), India: Today's Fiscal Policy Imperatives Seen in the Context of Longer-Term Challenges and Risks. NIPFP-IMF Conference Paper, January
- Howes, Stephen, and Rinku Murgai (2004), Subsidies And Salaries: Issues in the Restructuring of Government Expenditure in India. NIPFP-IMF Conference Paper January
- International Monetary Fund (2003), *India: Country Report 03/261* (August).
- Jadhav, Narendra (2003), Capital Account Liberalisation: The Indian Experience. Conference Paper, RBI: Mumbai.
- Kapur, Devesh, and Urjit R. Patel. 2003. "Large Foreign Currency Reserves: Insurance for Domestic Weakness and External Uncertainties?" *Economic and Political Weekly* 38(11): 1047-53.
- Kletzer, Kenneth, and Renu Kohli (2001), Financial Repression and Exchange Rate Management in developing countries: theory and empirical support from India, ICRIER Working Paper, 71.
- Kochhar (2004), India: Macroeconomic Implications Of The Fiscal Imbalances. NIPFP-IMF Conference Paper January
- Kopits, George R., 2001 "Fiscal Policy Rules for India?" *Economic and Political Weekly* 36: 9, 749-756.
- Krishnamurthy, K. K. (2003), (August 2002): "Macroeconometric Modelling For India: Past, Present and Prospects", Administrative Staff College of India, in [www.asci.org.in/publications/lectures/ties\\_kk\\_2001.html](http://www.asci.org.in/publications/lectures/ties_kk_2001.html)
- Lahiri and Kannan (2002), India's Fiscal Deficits and Their Sustainability in Perspective, paper presented at World Bank-NIPFP conference on fiscal reform, at [www.fiscalconf.org](http://www.fiscalconf.org).
- Lal, Deepak, Suman Bery and Devendra Kumar Pant, (2003). "The Real Exchange Rate, Fiscal Deficits and Capital Flows India: 1981-2000" *Economic and Political Weekly*, November 22-28.
- Levine, Ross (1996). "Financial Development and Economic Growth." Policy Research Working Paper 1678, The World Bank, Washington, D.C.
- Levine, Ross (1993). "Financial Structures and Economic Development." *Revista de Analisis Economico*, 8(1): 113-129.
- Liviatan, Nissan (1984), Tight Money and Inflation. *Journal of Monetary Economics*, 13, 5-15.
- Liviatan, Nissan (1986), The Tight Money Paradox – An Alternative View. *Journal of Macroeconomics*, 8, 105-112.
- Matsuyama, Kiminori (1995) "Complementarities and Cumulative Processes in Models of Monopolistic Competition," *Journal of Economic Literature* 33 (June): 701-729.

- McCarten, William, (2002), "The Challenge of Fiscal Discipline in Indian States," in *Fiscal Decentralization and the Challenge of Hard Budget Constraints* ed. Jonathan Rodden, Gunnar S. Eskeland, and Jennie Litvack, 2003, (Cambridge, Mass: MIT Press).
- Mohan, Rakesh (2000), Fiscal Correction for Economic Growth: Data Analysis and Suggestions, *Economic and Political Weekly*, June 10, 2027-2036.
- Mohan, Rakesh (2004), Discussant's Comments, NIPFP-IMF Conference, January.
- Naastepad, C.W.M., (1999), *The Budget Deficit and Macroeconomic Performance: A Real-Financial Computable General Equilibrium Model for India*, Delhi: Oxford University Press.
- Pandit, V. N. (2002), Sustainable Economic Growth for India: *An Exercise in Macroeconomic Scenario Building*, CDEDSE Working Paper 100.
- Patnaik, I. and A. Shah (2002), 'Interest Rate Risk in the Indian Banking System', ICRIER Working Paper No. 92, New Delhi: Indian Council for Research on International Economic Relations.
- Pinto, Brain and Farah Zahir (2003), India: Why Fiscal Adjustment Now, processed, World Bank, December 10.
- PROBE team in association with Center for Development Economics. (1999). *Public Report on Basic Education in India*. New Delhi: Oxford University Press.
- Purfield, Catriona (2003), The Decentralization Dilemma in India, IMF Working Paper, October.
- Rajaraman (2004), Fiscal Developments and Outlook in India, NIPFP-IMF Conference Paper, January
- Rakshit, Mihir, (2000) "On Correcting Fiscal Imbalances in the Indian Economy" ICRA Bulletin, *Money and Finance* (July-September); 47.
- Rangarajan, C. and D.K. Srivastava, (2003) "Dynamics of Debt Accumulation in India: Impact of Primary Deficit, Growth and Interest Rate" *Economic and Political Weekly* 38: 46, 4851-58.
- Rao M. Govinda (1981), *Political Economy of Tax and Expenditure Determination in Indian States*, Allied Publishers, New Delhi.
- Rao, M. Govinda (2000), "Tax Reform in India: Achievements and Challenges", *Asia-Pacific Development Journal*, 7, 2, 59-74.
- Rao M. Govinda, and Nirvikar Singh (2000), How to Think About Local Government Reform in India, in *Economic Reform and the Liberalisation of the Indian Economy: Essays in Honour of Richard T Shand*, ed., K.P. Kalirajan, Edward Elgar.
- Rao, M. Govinda, and Nirvikar Singh, (2001), "Federalism in India: Political Economy and Reform," Stanford Center for International Development, Stanford University.
- Reserve Bank of India. (2001). *Annual Report 2000-01*. Mumbai.
- Reserve Bank of India. (2002). *Annual Report 2001-02*. Mumbai.
- Reserve Bank of India. (2003a). *Annual Report 2002-03*. Mumbai.
- Reserve Bank of India (2003b) *Report on Currency and Finance 2001-02*. Mumbai.
- Reynolds, Patricia, (2001) "Fiscal Adjustment and Growth Prospects in India" in Tim Callen, Patricia Reynolds, and Christopher Towe, ed. *India at the Crossroads: Sustaining Growth and Reducing Poverty* (Washington, D.C.: International Monetary Fund); 75-102.
- Rodriguez, Carlos (1991). The Macroeconomics of the Public Sector Deficit: The Case of Argentina. Working Paper 632. World Bank.
- Roubini, Nouriel, and Richard Hemming (2004), A Balance Sheet Crisis in India? NIPFP-IMF Conference Paper, January
- Roubini, Nouriel, and Xavier Sala-i-Martin (1991), Financial Repression and Economic Growth, NBER Working Paper 3876.

- Roubini, Nouriel, and Xavier Sala-i-Martin (1992), A Growth Model of Inflation, Tax Evasion, and Financial Repression, NBER Working Paper 4062.
- Sargent, Thomas J. and Neil Wallace (1981), Some Unpleasant Monetarist Arithmetic. *Federal Reserve Bank of Minneapolis Quarterly Review*, 5 (Fall), 1-17.
- Seabright, Paul (1996), Accountability and Decentralisation in Government - An Incomplete Contracts Model. *European Economic Review*. 40(1):61-89.
- Shourie, Arun (2004), The Fate of Reforms, text of M.N. Srinivas Memorial Lecture, delivered as National Institute for Advanced Studies, Bangalore, India, January 28, (mimeo).
- Singh, Nirvikar and T.N. Srinivasan (2002), Indian Federalism, Globalization and Economic Reform, UC Santa Cruz Working Paper.
- Singh, Nirvikar and T.N. Srinivasan (2004), Foreign Capital Inflows, Sterilization, Crowding-Out and Growth: Some Illustrative Models, UC Santa Cruz (mimeo).
- Srinivasan, T.N., (1996), Economic Liberalization and Economic Development: India, *Journal of Asia Economics*, Vol. 7, No. 2, pp. 203-216.
- Srinivasan, T.N., (2002) India's Fiscal Situation: Is a Crisis Ahead? in Anne O. Krueger ed. *Economic Policy Reforms and the Indian Economy*, New Delhi: Oxford University Press; 47-90.
- Srinivasan T.N. (2003), India's Statistical System: Critiquing the Report of the National Statistical Commission, *Economic and Political Weekly*, January 25, 303-306.
- van Wijnbergen, Sweder (1991), Fiscal Deficits, Exchange Rate Crises, and Inflation, *Review of Economic Studies*, 58 (Jan.), 81-92.
- Wittman, Donald (1989) Why Democracies Produce Efficient Results. *Journal of Political Economy*.
- World Bank (2001). *India: The Challenge of Old Age Income Security*, Report No. 22034-IN (Washington).
- World Bank. (2003). *India: Sustaining Reform, Reducing Poverty*. New Delhi: World Bank and Oxford University Press.

**Table 1: Central and State Fiscal Deficits (% of GDP)**

Year	Center	States	Consolidated		
			Total	Revenue	Primary
1990-91	6.6	3.3	9.4	4.2	5.0
1991-92	4.7	2.9	7.0	3.4	2.3
1992-93	4.8	2.8	7.0	3.2	2.1
1993-94	6.4	2.4	8.3	4.3	3.3
1994-95	4.7	2.7	7.1	3.7	1.9
1995-96	4.2	2.6	6.5	3.2	1.6
1996-97	4.1	2.7	6.4	3.6	1.3
1997-98	4.8	2.9	7.3	4.1	2.1
1998-99	5.1	4.2	9.0	6.4	3.7
1999-00	5.4	4.6	9.6	6.3	3.9
2000-01	5.7	4.3	9.8	6.6	4.0
2001-02	6.1	4.2	9.9	6.9	3.7
2002-03	5.9	4.7	10.1	6.7	3.6
2003-04	4.8	n.a.	n.a.	n.a.	n.a.

Sources: RBI Annual Reports (RBI, 2001, 2002, 2003a), Finance Minister's Budget Speech 2004.

Notes: The consolidated deficit indicators net out the inter-governmental transactions between the Center and States, and do not equal to the sum of the deficits of the Center and the States. 1990s figures for the Center exclude small savings allocated to the States, to give consistency across the accounting change discussed in the text. N.a. – not available

**Table 2: General Government Debt (% of GDP)**

Year	Debt
1997-98	66.7
1998-99	67.1
1999-00	70.8
2000-01	75.2
2001-02	80.9
2002-03	81.9

Source: IMF (2003)



**Table 3: Tenth Plan Deficit Scenarios (% of GDP)**

<b>Period</b>	<b>Nature of Deficit</b>	<b>Center</b>	<b>States</b>	<b>Consolidated</b>
2001-02	Actual	5.9	4.5	9.3
2002-07	Sustainable (8% growth)	7.1	3.4	8.6
2002-07	Sustainable (6.5% growth)	6.2	3.0	7.4
2002-07	Tenth Plan Target (8% growth)	4.7	3.2	6.8

Source: Government of India (2003), Table 2.21

**Table 4: Fiscal Deficit Projections**

	<b>Year</b>	<b>Growth</b>	<b>Nominal Interest Rate</b>	<b>Inflation Rate</b>	<b>Gross Fiscal Deficit</b>	<b>Interest Payments</b>	<b>Primary Deficit</b>
Actual	2002-03	4.0	9.9	4.1	10.4	6.5	3.8
Base Case	2003-04	5.5	9.5	5.5	11.1	7.6	3.5
	2004-05	5.0	10.0	5.0	11.8	8.3	3.5
	2005-06	5.0	10.5	5.0	12.6	9.1	3.5
	2006-07	5.0	10.5	5.0	13.1	9.6	3.5
Reform Case	2003-04	5.5	9.0	5.0	10.0	7.2	2.8
	2004-05	7.0	10.0	3.5	10.2	8.1	2.1
	2005-06	7.5	11.0	3.5	10.5	9.1	1.4
	2006-07	8.0	11.5	3.5	10.3	9.6	0.7

Source: World Bank (2003), Table 2.1, Table 2.7 and Box 2.1, IMF (2003), Table 7, p. 83, RBI (2003a), Table 4.13.

**Table 5: Plan Saving and Investment Assumptions**

(% of GDP)	2001-02 (Actual)	2006-07 (Target)	Tenth Plan Average (Target)
Gross Domestic Savings	23.3	29.4	26.8
Private	24.1	27.3	26.4
Corporate			6.1
Household			20.3
Public	-0.8	2.1	0.4
Government			-2.4
Enterprises			2.8
Gross Capital Formation	24.4	32.3	28.4
Private	17.1	22.4	20.0
Corporate			10.4
Household			9.6
Public	7.3	9.9	8.4
Government			4.6
Enterprises			3.8
Public Borrowing	8.0	7.8	8.0
Current Account Deficit	0.9	2.9	1.6

Source: Tenth Plan, Tables 2.9, 2.10 and 2.11.

## Endnotes

<sup>1</sup> The fall in the deficit until 1996-97 led to a fall in the government debt to GDP ratio from 1993-94 to 1997-98, but then the ratio resumed its increase.

<sup>2</sup> As we shall point out later in the paper, it seems that India's monetary and exchange rate policies in recent years may have been heavily influenced, and to some extent constrained, by the conduct of a 'loose' fiscal policy.

<sup>3</sup> A possible implication is that if the current size of India's government sector is not "too large", as judged by a potential long run steady state, the burden of fiscal adjustment must fall more on increasing government revenues, and not cutting expenditures, though the quality of expenditures remains crucial, so that even a larger government would not be "more of the same". This topic is taken up in Section 7.

<sup>4</sup> The classic Arrow-Debreu model of Walrasian general equilibrium in a world with a complete set of contingent (with respect to space, time and state of the world) commodity markets, strictly speaking, does not require the existence of asset markets, let alone money and financial assets. There is no equally general, elegant and theoretical model of macroeconomics. Note that the integration of monetary theory and general equilibrium theory in available models is based on rather crude assumptions about the demand for money, such as cash-in-advance, or *ad hoc* approaches such as putting real balances in utility or production functions or a Cagan-style money demand function. Also, the fact that agents, domestic and foreign, have opportunities to invest in real and financial assets with varying risk-return characteristics is inadequately integrated in these models. Furthermore, models of sovereign debt, public debt sustainability and growth (with or without public investment), and so on capture only some features of a far more complex reality. Finally, extrinsic and intrinsic uncertainties again are modeled in a more or less stylized fashion. On the other hand, the empirical literature has its own problems, including the lack of a sound theoretical foundation for the equations being estimated and often-unsatisfactory treatment of endogeneity and identification issues. We intend these remarks more as our understanding, albeit limited, of the state of the art and as a caution against taking the findings of some of the models (including those in our paper and others for this conference) too literally. Equally important to recognize is that sound policy analysis involves judgment by analysts that necessarily goes beyond the scope of the analytical models used.

<sup>5</sup> Reynolds (2001) estimates a small structural econometric model that includes savings and investment and money demand equations, and is used for her projections of growth and deficits. This goes beyond the more recent World Bank and Planning Commission projections discussed in Section 5 of our paper, and an update of this approach would have informed the conference discussion. All these exercises, however, are limited in their behavioral and institutional assumptions, and do not get to grips with the modeling issues raised in footnote 4.

<sup>6</sup> Easterly (2004) in his paper for the conference, does survey the literature on fiscal policy and growth, and he estimates an equation that relates growth to policy (including fiscal) and structural variables, but this is not explicitly derived from a theoretical model. Also, the use of cross-country data limits the applicability in terms of deriving long-term implications specifically for India.

<sup>7</sup> Of course, agencies such as the IMF and World Bank may be constrained in terms of offering recommendations that involve reforming the structure of domestic political institutions.

<sup>8</sup> For example, the numbers in Kochhar (2004) for the primary deficit differ from those in IMF (2003), because she reports for calendar years. On the other hand, the IMF's numbers differ from those reported by the Reserve Bank of India (RBI) because of some differences in what is put 'above' or 'below the line.'

<sup>9</sup> One data issue is the change in the Central budget's accounting treatment of small savings deposits (mainly postal savings), which are directly tapped by the Center and the States to finance their expenditures (Rangarajan and Srivastava, 2003; Rajaraman, 2004). The data in Table 1 report Central deficits net of small savings, to give consistency across this change. Other differences in the treatment of data, may lead to small differences in reported magnitudes across papers and reports: none will affect our main arguments. There is a separate data issue that is more serious, if one desires an accurate empirical assessment of the linkages between savings and investment and growth, including estimates of any 'crowding out' by the public sector. India's data on household savings, financial as well as physical, are calculated as residuals. As Srinivasan (2003) notes, as part of a more general critique of India's economic statistics, "no serious and credible macroeconomic analysis can be done if a large component of savings and investment in the economy is estimated as a residual." (p. 305)

<sup>10</sup> In particular, see Cashin, Olekalns and Sahay (2001).

<sup>11</sup> This is simply the primary deficit multiplied by a factor  $1/(g-r)$ , where  $g$  is the growth rate and  $r$  the interest rate. This is our own calculation. The algebra deriving this expression is simple, and is omitted. Lahiri and Kannan (2002, p. 25) obtain a figure of 530%, which multiplies our numerator by  $1+g$ : we are unsure why this extra term appears in their calculation.

<sup>12</sup> Kochhar (2004, Table 2) reports an estimate of this last figure that is similar, at 11.6% in calendar year 2001. See also RBI (2003), Table 4.16.

<sup>13</sup> Again, Kochhar (2004, Table 2) gives an estimate for unfounded pension liabilities, at 6.7% of GDP.

<sup>14</sup> See Lahiri and Kannan (2002) for a more detailed discussion of such views: Rakshit (2000) is a thoughtful proponent of some, if not all, of these skeptical arguments. The recent pronouncement of the Finance Minister, in the context of announcing several major expenditure commitments, is very much in this vein: "Singh exuded confidence, saying what the government would lose in arithmetic terms would be made up through a higher growth rate of the economy" (Business Standard, 2004). In a *ceteris paribus* situation, the announced expenditure commitment would add 0.1% of GDP to the fiscal deficit. The tariff and excise reductions announced at the same time amount to four times this.

<sup>15</sup> There is a final issue regarding the appropriate measurement of government deficits and debt, having to do with the inclusion or exclusion of government debt held by the RBI (Lahiri and Kannan, p. 21). It is true that such debt represents domestic assets for the RBI, but liabilities of the government, and in a consolidation of RBI and government balance sheets, such debt will drop out. But then, interest income to the RBI from its holdings of government debt has to be subtracted from its profits transferred to the government and at the same time, interest payments by the government will have to be excluded from its expenditures. Thus, such a consolidation has no effect on the fiscal deficit.

<sup>16</sup> Rakshit (2000) suggests that seigniorage of up to 2.5% of GDP would be safe, but Lahiri and Kannan (2002), using parameters from Buiter and Patel (1992) suggest that half this amount, or 1.25% of GDP would be more in line with traditional political limits on inflation.

<sup>17</sup> Rangarajan and Srivastava (2003) highlight the switch in relative magnitudes of the growth rate and interest rate over the last few years, and point out how it changes the contribution of primary deficits to debt accumulation. However, this remains an accounting analysis, and does not draw out any welfare or growth implications.

<sup>18</sup> The quantitative impacts are not immediately apparent from their estimated equations, which are based on a cointegration model. Estimated long run increases in financial depth, measured as the ratio of bank deposits to nominal GDP, from various plausible reductions in components of the financial repression index, are approximately in the 4-12% range. Since the estimated income elasticity of the cointegrating equation is about 0.4, this suggests that financial deepening of this magnitude would be associated with a 10-30% increase in long run per capita GDP.

<sup>19</sup> Quoted at <http://economictimes.indiatimes.com/articleshow/301960.cms>; accessed December 29, 2003.

<sup>20</sup> A theoretical model that brings out this possibility, and formalizes the underlying logic of the arguments typically presented is in van Wijnbergen (1991). See also Agenor and Montiel (1999).

<sup>21</sup> A lucid and comprehensive survey of India's experience with capital account liberalization, including an international perspective, is Jadhav (2003).

<sup>22</sup> The RBI's own critique of these estimates is in RBI (2003), Box VII.8, p. VII-42. This critique focuses on the empirical work. Our discussion in the introduction would suggest that there are feasible improvements possible in the theoretical framework as well.

<sup>23</sup> From [www.standardandpoors.com/RatingsActions/RatingsNews/Sovereigns/index.html](http://www.standardandpoors.com/RatingsActions/RatingsNews/Sovereigns/index.html), accessed October 2002. The S&P rating remains at that level. Moody's performed a similar downgrade at about the same time, and India's long-term domestic currency rating by the firm stands at Ba2.

<sup>24</sup> Reynolds (2001) provided a detailed set of projections that preceded the ones presented here.

<sup>25</sup> Fiscal sustainability is defined as the level of fiscal deficit at which the Debt/GDP ratio remains constant. The formula used is:

$f = b \cdot (g + I - rn - a \cdot (rn - re)) + \text{int}$ , where:

$f$  = fiscal deficit/GDP ratio

$b$  = total government debt/GDP ratio

$g$  = growth rate of GDP

$I$  = inflation rate

$re$  = interest rate on existing debt

$a$  = rate of repayment of existing debt

$rn$  = interest rate on new debt

$\text{int}$  = interest payment on public debt/GDP ratio

<sup>26</sup> Clearly, achieving the required improvement in the ICOR will require further microstructural reforms, which we discuss in other sections, as well as in Singh and Srinivasan (2002).

<sup>27</sup> Hausmann and Purfield (2004, Table 16) and Rajaraman (2004) provide alternative scenarios based on possible implementations of the new fiscal responsibility laws.

<sup>28</sup> The corresponding figures for the States are 2.9%, and 3.0% of GDP (Government of India, 2003, Table 2.24). Subtracting the latter figure from 3.2% (from the last row of Table 3) implies a primary deficit of only 0.2% for the States.

<sup>29</sup> It is worth restating the position that we, and other economists have taken. While we are using the Plan numbers as a basis for discussion, there are serious questions about the utility of Indian planning, and there are severe conceptual issues with the way it is practiced, since the distinction between 'plan' and 'non-plan' expenditures has become increasingly meaningless over time.

<sup>30</sup> For 2003-04, inflation is projected to be 2%, while nominal interest rates are in the range of 8.2 to 8.4% (Pinto and Zahir, 2003, p. 21, Box 2). In this scenario, the debt-GDP ratio also begins to decline by 2006-07. There are also some differences in assumptions about the components of subsidy reduction (Box 2). Pinto and Zahir also repeat their projections with a growth rate of 6.5% for 2003-04. As one would expect, changing just one year's growth performance has only a small overall effect. The latest estimate for 2003-04 (in the Finance Minister's Budget Speech) is even higher, at 7.5% to 8%: again, the issue is whether this rate can be sustained without appropriate fiscal adjustment. However, it should be noted that in the Pinto-Zahir projections, an increase in the growth rate from 5.5% to 8% for 2003-04 reduces the deficit-GDP ratio for that year by about 2 percentage points, and stabilizes the debt-GDP ratio in that year.

<sup>31</sup> There can be arguments about the details of the two Kelkar Committees' (Government of India, 2002a, b) recommendations (e.g. raising the exemption limit conflicts with base broadening), but their general spirit must surely be accepted by almost all economists. Many of the conference papers highlight the need to increase tax revenues as part of a program of fiscal adjustment. Rajaraman (2004, Section III), in particular, examines some projections of revenue from specific tax reforms. Rakesh Mohan (2000, 2004) has been particularly emphatic about the problem of the narrow effective tax base (e.g., the unrealistically small number of tax filers with reported annual incomes above Rs. 1 million), this being indicative of poor collection as well as structural problems. The importance of tax revenue enhancement holds despite the empirical findings of Alesina and Perotti (1997) that expenditure-based fiscal adjustments in OECD countries have been more permanent and effective than tax-based adjustments. Their reasons include credibility of commitments and wealth effects, but especially the impacts on unit labor costs and competitiveness. We recognize the importance of expenditure adjustments here and in Section 7, but caution against a facile transfer of Alesina and Perotti's Europe-focused analysis to India, though the general case for labor market reforms is strengthened by their empirical analysis.

<sup>32</sup> In this context, Rajaraman (2004) is correct in an *ex post* accounting sense in noting that the overall loss in central tax revenue roughly equals the loss in custom duty revenue. But not much of policy or causal relevance can be inferred from *ex post* accounting. It certainly does not, in any way, constitute an argument for restoring high tariffs. After all, the revenue loss from reduction in tariffs should have been anticipated and, as such, taking no measure to offset the loss has to be viewed as a conscious policy decision. Whether the decision was appropriate cannot be judged without a complete analysis of tax and expenditure, exchange rate, and other policies in an integrated framework. Similarly, the dependence of local governments on octroi revenue, while it must be recognized, cannot be an argument for the preservation of a tax that can create severe internal trade barriers. In the context of tariffs, the government has used the recent buoyancy of direct taxes as an occasion to reduce the peak customs tariff rate from 25 to 20 %, eliminate the special additional duty of 4 %, and reduce a few other duties pertinent to infrastructure sectors (Business Standard, 2004).

<sup>33</sup> However, see Box 3.1 in Government of India (2003), pp. 79-80 for a list of proposed expenditure reforms as well as tax reforms. We discuss this further in Section 7.

<sup>34</sup> Kochhar (2004) reports that over 90% of household financial saving is now being used to finance the public sector.

<sup>35</sup> Note that this model has features that would be familiar to structuralists, but it does not assume that there is any Keynesian demand deficiency or excess capacity.

<sup>36</sup> A CGE model in this vein is analyzed by Naastepad (1999).

<sup>37</sup> The average level of explicit Center-State transfers fell by 0.5% of GDP from 1993-97 to 1998-2001 (IMF, 2003, p. 48).

<sup>38</sup> As Hausmann and Purfield (2004) point out, the Center has an established record of bailing out States in fiscal distress – however, the institutional and political conditions of intergovernmental relations were such that the Center was able to manage States’ overall budgets and debt positions more tightly in the past.

<sup>39</sup> The IMF data on States’ debt in this Figure are somewhat different from that of the Planning Commission, more so than would be explained by the difference of a year or two in the figures across the two sources. One advantage of publishing the comparative performance tables we propose in the next paragraph is that such data discrepancies would be quickly sorted out.

<sup>40</sup> Interestingly, even private corporations have been able to run up debts and avoid paying them: the recent Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act (2002) gives banks greater ability to get corporate debtors to pay up by threatening to take over collateral. Since State governments cannot be subject to such strictures, alternative market and regulatory disciplining devices are required.

<sup>41</sup> William McCarten (personal communication) has pointed out that the draft Maharashtra FR law calls for an independent review panel to provide fiscal monitoring and fiscal rule infraction identification. He goes on to suggest that the States could coordinate to support a single body, independent of the Center, as a way of achieving more effective fiscal performance benchmarking. Hausmann and Purfield’s (2004) suggest an independent scorekeeper to help give some bite to the FRBM laws. Rather than a new agency, it is possible that the Finance Commission could play this role – it was the Eleventh Finance Commission’s report that gave impetus to the FRBM legislation.

<sup>42</sup> For example, reform needs to be coordinated and broad based, as in the case of Brazil’s provisions for withdrawing central transfers to their states (Guardia and Sonder, 2004). In this respect, India’s provisions with respect to the dues of SEBs to Central power producers, requiring withholding of supplies, did not appreciably change incentives: since funds are fungible, constraints on a subset of Center-State financial transactions cannot work well.

<sup>43</sup> The recent announcement of a scheme for infrastructure finance is designed to correct the shortfall of investment in these areas does not seem to address the real issues (Business Standard, 2004). Subsidized interest rates, government guarantees, and directed credit, all features of the new scheme, have long been mainstays of India’s financial system, with disappointing results.

<sup>44</sup> Related to this, the Central government’s recent announcement (Business Standard, 2004) of relaxing ceilings on external commercial borrowing via the automatic route is welcome. Additionally caps on overseas investment by Indian firms will be relaxed, as will a ban on investing in agriculture activities abroad. These are additional steps toward capital account convertibility.

<sup>45</sup> Quoted in Howes and Murgai (2004), p. 2.

<sup>46</sup> Rakesh Mohan (2004) pointed out that India’s expenditure on government pay as a ratio of GDP is not high compared to other developing countries at similar income levels, and there are also difficulties in comparing public and private sector pay. These observations raise larger issues of cross-country data comparability, as well the quality and interpretation of the Indian data.

<sup>47</sup> Rajaraman (2004) expresses some related concerns, regarding adverse selection in the public sector.

<sup>48</sup> In the southern States, where replacement levels of fertility have been, or are about to be reached, a decline of school age population will come about soon. But in the rest of India, the school age population will continue to increase in the foreseeable future, though at a decreasing rate.

<sup>49</sup> As in the case of accumulations of foreign exchange reserves to self-insure against risks of external crisis, creating a fiscal cushion is another self-insurance scheme. Obviously, in a world with a better international financial architecture and greater ability of developing countries to access private financial markets at modest costs, self-insurance schemes, which are inherently more costly, could be avoided.

<sup>50</sup> Since so many are common across the conference papers, we do not attempt specific attributions. Furthermore, many will be recognized as ideas or realizations that predate the conference. If there is any statement not found in any of the conference papers, and has no other known antecedent, then it can be credited to us.

<sup>51</sup> Douglas offers eight lessons for reform that emphasize appealing to electorates over special interest groups, and the benefits of speed and momentum. For India’s larger and more heterogeneous polity, Shourie’s more consensual approach has merits, but he comes down strongly for *making* reforms happen.

<sup>52</sup> Both Douglas and Shourie make the same point, in somewhat different ways.