Growth Lab

The Challenge of Fiscal Adjustment in a Democracy: The Case of India

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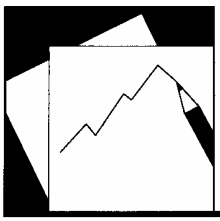
Growth Lab Working Paper Series
No. 2

September 2004

WP/04/168



IMF Working Paper

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INTERNATIONAL MONETARY FUND

 WP/04/168

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Asia and Pacific Department

The Challenge of Fiscal Adjustment in a Democracy: The Case of India

Prepared by Ricardo Hausmann and Catriona Purfield[1]

Authorized for distribution by Jerald Schiff

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Abstract

India's fiscal problem has deep roots in its federal fiscal system, where multiple players find it difficult to coordinate adjustment. The size and closed nature of the Indian economy, aided by its deep domestic capital market and large captive pool of domestic savings, has disguised the cost of fiscal laxity and complicated the building of a consensus on reform. The new fiscal responsibility act establishes a new rules-based system to overcome this coordination failure. To strengthen the framework, we recommend an autonomous scorekeeper and the extension of similar rules to the state governments as part of a comprehensive reform of the federal system.

JEL Classification Numbers: E62; H11; H61; H74; H77

Keywords: Fiscal responsibility legislation, federal relations, fiscal deficits, debt

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I. INTRODUCTION

India is in an enviable position. Growth is high, the external position is strong, and inflation and nominal interest rates are low. Yet there is a nagging concern about India's large fiscal imbalances. With the general government deficit exceeding 10 percent of GDP and the public debt representing almost 4½ years of revenue, there are reasons to worry.

Public debts have a lot in common with unwanted pregnancies. They are usually the *undesired* and *delayed* consequence of actions undertaken *with other intents* by *more than one person*. If fiscal policy were decided by an individual, the consequences of revenue and expenditure decisions, and the fact that borrowing implies more debt service tomorrow, would be internalized. But fiscal policy is a multi-agent game. This creates a common pool problem, similar to what happens when an individual goes to a restaurant in a group and orders lobster, if they were alone, they would have ordered a cheaper item, chicken. The only solution to this problem is cooperation and coordination, and hence there is a new focus on budget institutions.

Moreover, public deficits and debts are the *undesired* residual of multiple revenue and expenditure decisions. In general, all participants understand that less debt is preferable to more, but they disagree on the corrective action needed to reduce debt. This lack of coordination generates a bias toward deficits and debt. Most countries that have large fiscal imbalances do not trumpet their virtues but instead struggle with the complexities of dealing with the collective-action problems involved. They hope to sort themselves out before the damage is too great.

India is a case in point. A central Fiscal Responsibility and Budget Management Law (FRBM) has been approved, and some states are following suit. But in India, the job of convincing the politicians and society that adjustment is necessary is made more difficult by the apparent absence of any symptoms of fiscal illness. On the one hand, the debt burden is comparable only to those witnessed in crisis countries such as Turkey and Argentina. But markets are giving no indication that they find it excessive: nominal interest rates are low and declining; international capital inflows are large; and banks have ample liquidity. Usually, it is politically easier to resolve a crisis, once it happens, than to prevent one. Will India be able to garner enough political agreement so that it can use the current good times to correct its fiscal imbalances?

This paper studies three aspects of fiscal consolidation. First, it accounts for the lack of symptoms by pointing to some aspects that make India unique. The lack of symptoms is a double-edged sword; however, it makes crises less likely for any level of debt, but society is less responsive to fiscal imbalances, thus making the eventual problem much larger. Second, it analyzes possible implications of the FRBM on India's imbalances. Finally, it studies India's federal system and the role of the states in the fiscal adjustment effort.

II. INDIA'S LACK OF SYMPTOMS

Elsewhere, the magnitude of fiscal imbalances in India would presage a fiscal crisis (Table 1). Yet, this is not happening. India's credit rating is better than many major emerging markets including pre-crisis Argentina and Turkey (Figure 1). But indebtedness ratios are poor predictors of credit ratings: the indebtedness ratios of many emerging markets are comparable to those of highly rated industrial countries.

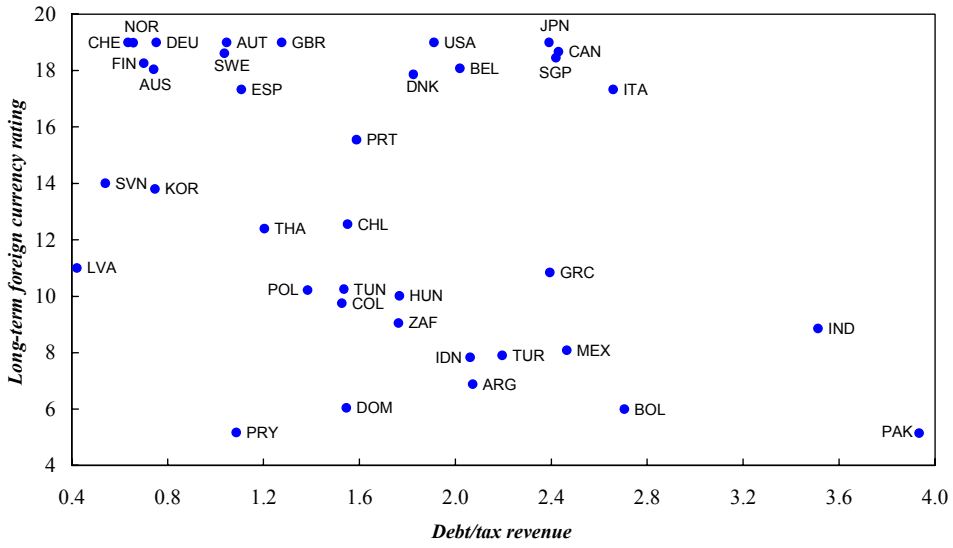
Table 1. India's General Government Finances in an Emerging Market Context

	Debt-to-GDP 1/		Debt-to-Revenue Ratio		Interest-to-Revenue Ratio	
	2002	1995	2002	1995	2002	1995
Turkey 1/	81.2	42.8	289.4	227.9	480.5	223.0
Argentina 1/	174.0	38.3	668.2	165.5	58.7	8.2
India 2/	80.6	71.0	441.2	387.3	34.0	27.3
Hungary	49.9	84.3	135.8	198.4	9.3	20.7
Philippines 1/	99.4	80.5	573.8	371.1	50.2	28.7
Brazil 1/	95.1	31.1	127.0	89.4	18.7	22.5
Indonesia 3/	80.6	29.0	414.5	191.3	28.7	12.0
Chile 1/	20.9	20.0	n.a	61.0	1.4	4.0
South Africa 3/	39.9	42.2	149.4	173.1	16.4	18.2
Russia	34.7	37.9	92.9	111.1	5.6	10.6
Ecuador 1/	57.8	39.7	223.9	268.0	13.8	17.9

Source: IMF, *World Economic Outlook* database.

1/ Public sector. For the Philippines, nonfinancial public sector debt.
2/ For India gross debt.
3/ Central government.

Figure 1. Long-Term Foreign Currency Rating and Debt-to-Tax Revenue Ratio, 1999–2001 1/



ARG	Argentina	CHL	Chile	FIN	Finland	JPN	Japan	PRT	Portugal	TUR	Turkey
AUS	Australia	COL	Colombia	GBR	United Kingdom	KOR	Korea	PRY	Paraguay	USA	United States
AUT	Austria	CZE	Czech Republic	GRC	Greece	LVA	Latvia	SGP	Singapore	ZAF	South Africa
BEL	Belgium	DEU	Germany	HUN	Hungary	MEX	Mexico	SVN	Slovenia		
BOL	Bolivia	DNK	Denmark	IDN	Indonesia	NOR	Norway	SWE	Sweden		
CAN	Canada	DOM	Dominican Republic	IND	India	PAK	Pakistan	THA	Thailand		
CHE	Switzerland	ESP	Spain	ITA	Italy	POL	Poland	TUN	Tunisia		

Source: Hausmann (2004).

1/ Average for 1999-2001.

What other things beyond indebtedness ratios come into the picture in determining fiscal risks? To determine the relationship between public debt and risk (or interest rates), it is useful to construct a simple model of fiscal risk. Suppose a country has a public debt service burden as a share of government revenue, labeled x:

$$x = \frac{iD}{\tau Y}, \tag{1}$$

where i and D are, respectively, the interest rate and the stock of government debt, Y is GDP and τ is the effective tax rate. Suppose for simplicity that the government will repay its debt provided the debt service ratio x is not larger than some maximum value $\bar{x}$. If it were larger, the government would simply default on the total amount forever.[2] This assumption is consistent with standard sovereign risk models, in which the government wants to maintain the net present value of government spending, and to avoid taxes and the costs of default.[3] If the benefits of default, in terms of reduced debt service, rise faster with debt than the costs, then there will be an optimal point to default, namely, when $x = \bar{x}$.

Investors are risk neutral and hence require the expected income from holding government debt to equal the risk-free rate ρ. However, government debt pays according to the following schedule:

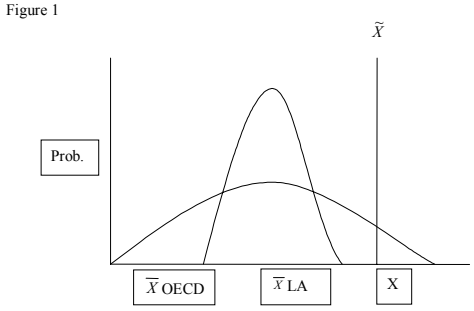
$$iD \quad \text{if } x < \bar{x}, \quad \text{and} \quad 0 \quad \text{if } x > \bar{x}.$$

In order for investors to earn the risk-free rate ρ, the contractual interest rate must be

$$i = \frac{\rho}{\Pr ob(x < \bar{x})}. \tag{2}$$

What are the determinants of the probability that $x > \bar{x}$? Figure 2 shows two stylized probability distributions of the value of x that differ in their volatility, but have the same expected value of x. The risk premium must cover the value at risk, that is, in situations where $x > \bar{x}$. The narrow distribution (applicable to most advanced countries) has low volatility and negligible value at risk. The fatter distribution (relevant for

Figure 2: Probability Distribution of Debt Service



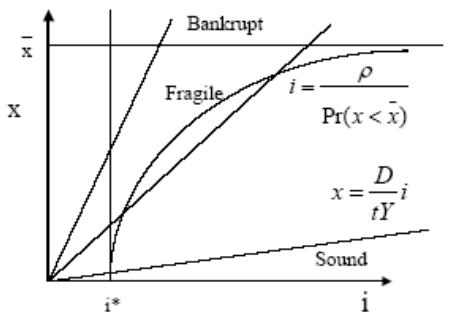
[2] In reality, the government would not default, nor would it stop paying forever. A more realistic default rule would only complicate the algebra without adding new insights.

[3] See Eaton and Fernandez (1995) for a systematic survey of the literature on sovereign debt.

many emerging market countries) has a significant part of the distribution in which $x > \bar{x}$. The contractual interest rate has to be higher for the latter distribution, even though the expected value of debt service is the same. However, as the contractual interest rate increases, x rises.

Equations (1) and (2) are depicted in Figure 3. The model is solved in x vs. i space. The vertical line represents the locus of points in which the interest rate i is equal to the risk-free rate ρ. The horizontal line expresses the points at which $x = \bar{x}$. The ray from the origin is equation (1): it traces x as a function of i, with a slope equal to the debt-revenue ratio $D/\tau Y$. We draw three such rays at different $D/\tau Y$ ratios.

Figure 3: A Graphical Depiction



The hyperbola represents equation (2). For low values of x, the probability that $x > \bar{x}$ is essentially zero and hence i is very close to the risk-free rate ρ. For high values of x (drawn from a probability distribution) the probability that $x > \bar{x}$ increases and hence the interest rate must be higher. Obviously, at no point can $x > \bar{x}$, since in that case the government pays nothing. Equilibrium is determined where the ray crosses the hyperbola. As shown, at a low $D/\tau Y$ ratio, the equilibrium is very close to the riskless rate. At higher ratios, the ray crosses the hyperbola twice. This does not mean that there are multiple equilibria, as the second intersection is unstable: small increases in i cause a rise in x that is larger than what would be consistent with equation (2), causing thus an even larger increase in i until the government becomes insolvent. By contrast, in the first intersection, small increases in i lead to increments in x that are lower than would be consistent with equation (2), causing the interest rate to fall back. Finally, there is an even higher $D/\tau Y$ ratio in which the ray does not cross the hyperbola: there is no interest rate at which the expected return is ρ: the country is bankrupt.

Figure 4: Impact of Volatility on Probability Distribution of Debt-Service Capacity

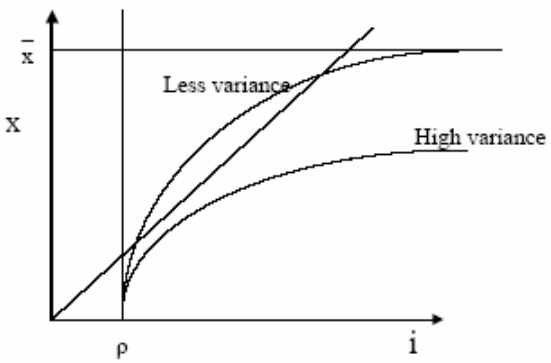


Figure 4 analyzes the impact of volatility with two alternative

hyperbolas. An increase in volatility (shown by a fatter distribution of *x)* implies a southeastern shift in the hyperbola. For a given $D/\tau Y$ ratio, higher volatility leads to bankruptcy, while at lower volatility the country has market access at a reasonable interest rate. Volatility may be a major factor in explaining why countries with the same debt-tax ratio have very different risk profiles.

One way to understand India's exceptionalism is to study the determinants of the volatility of *x*. Since $x = iD/\tau Y$, uncertainties in *x* must come from either the interest rate, the value of the debt, GDP or the effective tax rate. Consider first the volatility in the denominator, τY.

At just under 18 percent of GDP, India's revenue base is below the developing economy average of 26 percent of GDP, but it is far more stable. The volatility in India's revenue base is one-third of that of other developing countries, owing to the low volatility of GDP growth (Table 2). A stable revenue base implies that India has a lower variance of *x* and hence for any given level of debt would have a lower risk premium. But the lower volatility of growth and fiscal revenues in India is not just the consequence of aggregation across such a large economy. Braun, Hausmann, and Pritchett (2002) find the average volatility of GDP growth in the states of India is similar to that of the United States and to the cross-country volatility in Western Europe, and is about a third of that Eastern Europe, sub-Saharan Africa, and Latin America.

Table 2. Volatility of Tax Revenue, GDP, and Terms of Trade, 1990–99 1/

(In percent)

	Tax Revenue Growth	GDP Growth	Change in Terms of Trade
		(In local currency)	
Industrial countries	3.6	2	4.4
Developing countries	12.6	4.8	11.6
Latin America	11.8	4.6	10.7
Other countries	13	4.9	12
India	4.5	1.6	11.5

Sources: Hausmann (2003); and IMF staff estimates.

1/ For India, 1990–2002.

Consider now the determinants of the volatility of the numerator of *x*, namely *iD*. Here it is useful to expand equation (3) to split the debt into three components: long-term, fixed-rate, domestic currency debt (*l*); short-term domestic currency debt (*s*); and long-term, fixed-rate foreign currency debt (*f*), so that

$$x_t = \frac{i^l_{t-1} D^l_{t-1} + i^s_t D^s_{t-1} + i^f_{t-1} e_t D^f_{t-1}}{\tau Y_t} \tag{3}$$

At *t-1*, the cost of servicing long-term, fixed-rate, domestic-currency debt is fully known, but the interest rate on short-term, domestic currency debt is uncertain and the exchange rate on long-term, foreign currency debt is unknown. This uncertainty impacts the volatility of *x*.

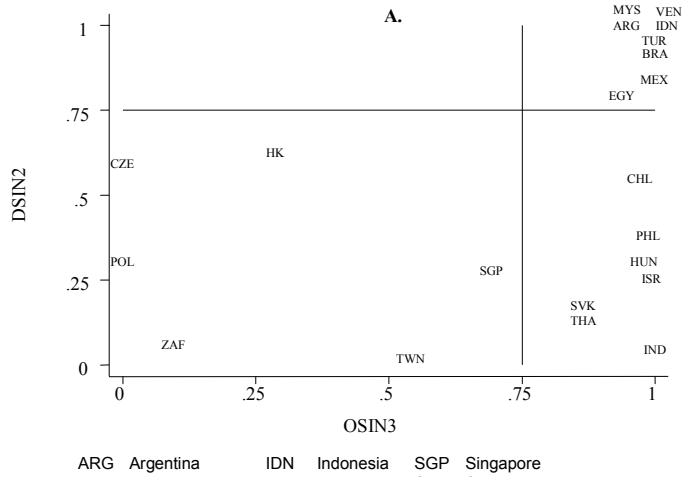
Most emerging market countries borrowing abroad cannot denominate their obligations in their own currency, a fact labeled original sin by Eichengreen and Hausmann (1999). Thus the real value of foreign debt is affected by movements in the real exchange rate. What matters then is the volatility in the dollar value of GDP, which reflects both the volatility in real GDP and the real bilateral exchange rate. Eichengreen and Hausmann (1999) shows the

average volatility in dollar GDP growth in developing countries to be twice as high as the volatility in their real GDP growth and about five times the volatility of industrial countries.

Many emerging markets also lack a long-term, fixed rate, domestic-currency debt market, labeled by Hausmann and Panizza (2003) *domestic original sin*. They are forced to borrow at short maturities or at floating rates making debt service dependent on the short-term interest rate, which may be very volatile.[4] Countries with both forms of sin find if they borrow in dollars, they expose themselves to real exchange rate risk, and if they borrow in local currency, they expose themselves to real interest rate risk. This can make the volatility in *x* truly large.

Figure 5 shows measures of the two forms of original sin: the ability to borrow abroad in domestic currency (OSIN) and the ability to borrow at home at fixed rates, long maturities and in local currency (DSIN).[5] India is in the second quadrant with no ability to borrow abroad in rupees but one of the lowest measures of domestic original sin in emerging markets owing to its deep long-term fixed-rate rupee market in government securities. Countries in this quadrant have a statistically significant higher probability of having

Figure 5: Domestic and International Original Sin



ARG	Argentina	IDN	Indonesia	SGP	Singapore
BRA	Brazil	IND	India	SVK	Slovakia
CHL	Chile	ISR	Israel	THA	Thailand
CZE	Czech Republic	MEX	Mexico	TUR	Turkey
EGY	Egypt	MYS	Malaysia	TWN	Taiwan Province of China
HKG	Hong Kong SAR	POL	Poland	VEN	Venezuela
HUN	Hungary	PHL	Philippines	ZAF	South Africa

[4] Hausmann and Panizza (2003) show that the volatility of monthly real short-term interest rates averages 10.5 percentage points in Latin American, and 0.9 percentage points in the United States.

[5] From Hausmann and Panizza (2003). OSIN3 is measured as one minus the ratio of internationally placed securities in a country's currency to internationally placed securities by a country's residents, using data from the Bank for International Settlements (BIS). DSIN2 is the ratio of long-term fixed rate domestic currency securities to total locally issue securities using data from JP Morgan.

exchange controls than countries in other quadrants. This suggests that countries with international original sin can only develop long-term domestic markets if they are sheltered from capital movements.[6]

While India suffers from international original sin, it has a very small foreign currency public debt. This implies that exchange rate movements *per se* do not have a significant fiscal impact. Moreover, the long duration of its domestic debt implies that shocks to the interest rate take a long time in affecting the fiscal deficit. Both characteristics may explain both India's low macroeconomic volatility and its high debt tolerance.

But complacency here may be misguided. First, while the public debt is long-term, a significant portion is held by banks that fund their positions with short-term deposits. Hence, in a scenario of a significant jump in long-term interest rates banks could loose a significant amount of capital. While interest-rate risk is a valid concern, banks in India have conservatively valued their assets using mark-to-market techniques which provides them some cushion to help absorb trading losses from rising interest rates. The RBI (2003) estimates that banking systems' net interest earnings would rise by 5 percent should interest rates rise by 200 basis points. However, Patnaik and Shah (2002) show that only 9 of India's 42 domestic banks would be adequately hedged in the event of a large positive interest rate shock. In such a scenario, a jump in long-term interest rates may precipitate difficulties in the banking system. In such circumstances, the effective maturity of the public debt may not be much larger than the maturity of the deposits that are ultimately funding it. Resolving this could require eroding the real value of the debt through inflation. The low public tolerance for inflation in India may however prompt the government to take action before such a stage is reached.

The second reason why complacency may be misplaced is that India's tolerance for debt makes the political system and society as a whole less responsive to debt accumulation. Consider two countries. One has a very volatile x and the other has a very stable x. Assume both countries have unsustainable fiscal policies that will inevitably end in a crisis. The country with the lower variance of x will have the crisis at a higher level of debt. This may complicate the crisis when it happens and may lead to a permanently higher tax burden or lower primary spending in the post-crisis period. Just as with cancer, it may not be good in the long run to be symptom-free: it prevents the patient from taking early action.

[6] A country in the (i) top-right-hand quadrant suffers from both forms of original sin, (ii) 3rd quadrant has low levels of both forms of original sin, and (iii) 4th quadrant can borrow abroad in its own currency and has a domestic long-term bond market.

III. Achieving Fiscal Discipline: Institutional Determinants

A. Institutional Challenges in Democratic Systems

Sustained fiscal deficits are usually the undesired outcome of complex multi-agent, or strategic interactions. Common pool problems occur at many levels: at cabinet between spending ministers; at parliament between individual representatives or parties in a multi-party coalitions; and between states in a federal system. Each player has more to gain by securing more resources than what they may lose by accumulating excessive but shared debts.

The magnitude of common pool problems is deeply related to how choices are aggregated by the electoral rules and power arrangements designated by the constitution. Federal systems have more collective action problems than unitary systems. Electoral rules that give rise to many political parties, and hence to coalition governments, have more problems reigning in the common pool problems (von Hagen and Harden, 1995). Proportional representation generates greater party fragmentation than first-past-the-post electoral systems.

Fiscal policy also suffers from agency problems as participants in the fiscal game have delegated authority from the public. The agent is supposed to decide in the best interest of the principal, but will typically skew choices to include his own interests. As a result, governments can create electoral budget cycles. They engineer unsustainable fiscal expansions, in order to exploit the difficulty of the public in distinguishing between competence and profligacy in the short run.

Credibility problems also arise when plans are not time consistent. It is in the interest of the government to commit to keep inflation low so that the public will be willing to buy the debt at a low interest rate, but then it may have incentives to erode the real value of debt through higher inflation. Investors anticipate this and may demand a higher interest rate which only makes higher inflation more attractive. Credibility problems may lead to inefficient equilibria of high inflation or interest rates.

Solving these coexistent problems involves difficult trade-offs. The common pool problem can be addressed by giving full fiscal powers to a single individual who would internalize all the externalities. However, this would create an enormous agency problem and would not allow choices to reflect social preferences. Adopting rigid rules, such as balanced budget rules, may facilitate credibility but limit the flexibility needed to have a stabilizing response to shocks. A first-past-the-post electoral system provides more decisive mandates that may exhibit less of a common pool problem, but at the cost of leaving minority views under-represented. In practice, societies make choices that reflect these difficult trade-offs.

Institutional reforms provide mechanisms to assure cooperation and coordination. Alesina and Perotti (1995) classify fiscal rules to address these coordination problems into:

- *Numerical rules* such as balanced budget rules and deficit and debt ceilings.

- *Procedural rules* which define the respective powers of the finance ministry, cabinet, parliament, the national and sub-national governments in the budget processes.

- *Transparency rules* which determine who has the responsibility to make what information publicly known and through which entity.

The experience with reforms in these areas is still limited. Cross-sectional analyses try to show that different institutions lead to different results.[7] While the policy conclusions from this literature are suggestive it is hard to establish whether the experience of one country can be replicated in another while leaving much of the rest of its political and governmental institutions unaffected. Actual experience has been less encouraging. The Gramm-Rudman-Hollings Act in the United States did not deliver the agreed adjustment. France and Germany have broken the Stability Pact limits. In Argentina and Peru numerical targets were quickly violated.

The experiences of Brazil and New Zealand seem more successful. New Zealand does not set any numerical targets. It adopts certain principles including reducing debt to prudent levels by achieving operating surpluses every year until *prudent* levels of debt have been achieved and maintaining debt at prudent levels by ensuring that, on average, over a *reasonable* period of time, total operating expenses do not exceed total operating revenues. It requires the government to take account of contingent liabilities and to recognize the value of having a reasonable degree of predictability about the level and stability of tax rates. The government is supposed to interpret what is reasonable and how longer-term goals are be adjusted for cyclical events, making these interpretations explicit in the published budget. Actual deviations must be explained. Enforcement relies on the political or the capital market fallout if this discretion is abused. This may work in New Zealand, a small and relatively homogeneous country with a well-developed capital market.

In Brazil, all agents with budgetary authority are forced to respect the budget and sound fiscal principles through a system of sanctions. Rules apply to all levels of government that make it illegal for entities to spend more than their allocated budgets and to accumulate so-called "administrative" debt. Ceilings are placed on the proportion of the budget that can go into salaries. Governors or mayors found in violation of these principles can go to jail. The perception is that the Brazilian reform has allowed the government to make the budget a credible institution that actually binds government spending and its structure.

[7] See Inman (1990) or Poterba (1994) for the United states, von Hagen and Harden (1995) for the European Union, Alesina, Hausmann, Hommes and Stein (1996), IDB (1997), Stein, Talvi and Grisanti (1998), for Latin America, and for Argentina see Braun and Tommasi (2004).

B. Institutional Reform at the National Level

India is also attempting to deal with its fiscal imbalances by reforming budget institutions. After a three-year discussion, the FRBM Law was enacted in 2003. Its key objective is to restore fiscal sustainability by setting a medium-term target to guide fiscal policy. The target is embedded within a framework that places increased emphasis on transparency. As such, it merges aspects of the frameworks of advanced countries, such as that in New Zealand, with the more rules-based approaches of the European Union and Canada.

The rule under India's FRBM possesses some features that set it apart from other emerging market fiscal responsibility frameworks. One key aspect is that, although the states' fiscal deficit is almost half of the general government deficit, the new framework only targets the central level of government. We will discuss the implications of this in the next section. In this section, we will concentrate on the issues arising at the national level.

The FRBM requires the central government to eliminate its revenue (or current) deficit by March 2008, although the 2004–05 budget proposes amending the FRBM to extend the deadline to March 2009. The balanced revenue deficit rule effectively allows the government to run a deficit to finance investment. The new rule may have the advantage of safeguarding capital expenditure from bearing the brunt of any adjustment effort as it has in the past. On the other hand, by opportunistically classifying current expenditures as capital, and by not requiring outlays to recoup the cost of capital, the rule may run the risk of leaving overall spending and deficits quite unconstrained. To partly address this concern, from July 2004 the medium-term target is supported by rules that set a fiscal adjustment path that requires a minimum annual adjustment of ½ percent of GDP in the revenue deficit, and 0.3 percent of GDP in the overall deficit so that the overall deficit is not more than three percent of GDP by March 2008. However, the new rules also set a generous limit of 9 percent of GDP on the accumulation of central government debt in 2004–05, although this ceiling is progressively reduced by 1 percent of GDP per year thereafter. The rules also impose an annual ceiling on new government guarantees.

To ensure the quality and durability of the adjustment, fiscal responsibility legislation (or their supporting regulations) is generally explicit on the accounting procedures for the fiscal policy target. In India, accounting and definitional procedures underpinning the law were delegated to the supporting rules. These rules require the government to inform parliament of "significant" changes in accounting standards but they could be strengthen by setting out the exact definitions of the concepts underpinning the prescribed fiscal indicators.

Enforcement relies on the loss of reputation that the government experiences from not implementing the FRBM. In India, there are no explicit penalties, although the new rules require the Minister of Finance to propose to Parliament corrective measures mid-year in the event revenues fall below 40 percent of the budget target or the fiscal or revenue deficits are in excess of 45 percent of the budget target. Nonetheless breaches of the ultimate medium-term target, or of the annual targets set under the supporting rules, are still permitted for reasons of natural disaster, security or other circumstances specified by parliament. The

Minister of Finance is only required to report to parliament on the extenuating circumstances after the targets have been missed. It is an open question under what conditions rules without explicit penalties can work. They seem to do so in New Zealand, but even in the European Union, penalties have been ineffective in assuring enforcement.

The FRBM employs more exacting transparency requirements and supplements the existing constitutional procedures governing budget processes. India's budgetary system has traditionally been hierarchical in nature with the procedures governing the presentation of the budget in parliament granting the Minister of Finance strong powers. In theory once the budget is submitted, parliament can reduce or reject specific budget spending proposals, but has little power to modify the size of the budget deficit. However, in the past the Minister of Finance has in the context of the budget debates increased provisions for specific expenditures. Nonetheless, the parliamentary procedures have to some extent helped contain the common pool problem, as the Finance Ministry has, in principle, a greater capacity to internalize the costs of public spending.

While preserving strong hierarchical powers of the Minister of Finance and the executive, the FRBM imposes greater transparency requirements. The executive now must submit to parliament additional documentation in support of its budget, including a medium-term fiscal policy statement assessing deficit and debt sustainability; a fiscal policy strategy statement articulating the key fiscal measures for the coming year; and a macroeconomic framework statement.

By specifying for the first time a three-year rolling path for the fiscal aggregates and the broad assumptions underpinning the budget these documents—first released in the context of the 2004–05 budget—represent a substantial improvement in transparency. This should make the underlying budget assumptions and policy choices clearer. However, there is still some scope to strengthen transparency by specifying the exact annual forecasts for GDP growth and inflation (only ranges for GDP growth and inflation are provided at present), as well as including forecasts for imports, exports, and the exchange rate.

Likewise, the creditability of the FRBM would be greatly enhanced if the medium-term fiscal policy statement elaborated a plan of measures that supports its annual targets. The statement is candid in saying that most of the planned adjustment will come from an increase in the tax-to-GDP ratio, and correspondingly sets an ambitious target for tax revenue growth.[8] However, the measures that will boost revenue growth over the medium-term have not been specified and it is not clear how on-going trade liberalization initiatives will impact collections. Other countries, such as Belgium, Italy and New Zealand have found that clearly

[8] The medium-term fiscal policy statement assumes annual growth in gross tax revenues of 22 percent per annum based on 26 percent growth in direct taxes and 19 percent growth in indirect taxes. Between 1992 and 2003, the nominal growth in gross tax revenues has averaged 12.3 percent.

specifying their tax and expenditure adjustment plans up front in pre-announced medium-term adjustment plans greatly enhanced the credibility of their frameworks while broadening public support by reducing uncertainty. These countries' plans specified the tax measures the government intended to take, the timeline for their implementation, and often estimated their projected yield.

The FRBM also strengthens the institutions governing budget execution and reporting. It requires parliament to approve corrective action through tax or expenditure measures during the budget implementation process to avert deviations from the fiscal target. New quarterly reports are to be submitted to parliament every quarter, as well as annual reports on tax and nontax arrears, government guarantees, and assets. The controller general of accounts will continue to compile budget implementation data (ex-post) using existing accounting definitions, while a special unit with the Ministry of Finance will analyze and prepare the reports on fiscal performance and compliance (again, ex-post).

However, the law does not establish an independent agency to assess compliance with the law on an ex-ante basis. In Spanish, the term "budget" is "presupuesto," which comprises "supuesto" meaning assumption and the prefix "pre". Hence, "presupuesto" could be literally translated as pre-assumption or assumption squared. By strategically playing with the budget assumptions, the government can be in abidance of the law and then have a long list of explanations as to why targets were missed ex-post.

Assumptions about the macroeconomic outturn, revenue performance, and expenditure are critical. If the estimating entity has an interest in these estimates for other purposes, it may bias them to better achieve these goals. This was a serious problem under the Gramm-Rudman-Hollings Act in the United States when, the Office of Management and Budget, within the Executive, made the budget estimates. Every year the approved budget implied a projected deficit that was in line with the law. Every year the actual deficit exceeded the targets.

India's track record suggests that budget estimates have not been unbiased. Over the past ten years, the actual central government deficit overshot its budget target by 0.8 percent of GDP, with nominal overruns in eight years (Table 3). The overruns were the result of revenue shortfalls with respect to the estimated values and these were only partly contained by expenditure compression. The revenue shortfalls were concentrated in excises but in

Table 3. Implementation of Central Government Budget

	1992/93	1998/99	2002/03	Average 1992-2002	Average 1998-2002
	(In percent of GDP)				
Deficits					
Budget	-3.8	-4.4	-5.5	-4.4	-4.9
Outturn	-4.8	-5.1	-5.9	-5.2	-5.6
Expenditure					
Budget	14.8	14.5	16.6	15.1	16.2
Outturn	15.4	14.5	16.0	15.0	15.4
Revenue					
Budget	11.0	10.1	11.0	10.7	11.3
Outturn	10.6	9.4	10.1	9.8	9.7
Deficit overrun in % of GDP (+)	1.0	0.7	0.4	0.8	0.8
Expenditure cuts % of GDP (-)	0.6	0.1	-0.6	-0.1	-0.8
Revenue shortfall % of GDP	-0.3	-0.7	-1.0	-0.9	-1.6
Overrun in % of expenditure	6.2	5.0	2.3	5.4	5.0
Real GDP growth	5.1	6.5	4.3	5.9	5.4

Source: Ministry of Finance, India.

addition, budgets regularly anticipated disinvestment proceeds that were not fully realized. While revenue forecasts have become more realistic over the past two years, the 2004–05 budget again appears set ambitious targets for revenue growth if judged by historical standards.

The FRBM may increase the pay-off to this estimation bias. Ensuring against unbiased estimates and opportunistic expenditure reclassifications are important elements of the institutional structure. Governments can change taxes and appropriations but as long they can achieve similar results by changing the estimates they will have a temptation to do so. This reduces the credibility of the budgeted figures and may complicate political negotiations.

Granting autonomy to the entity in charge of making the estimates can be a remedy. After the abuses under the Gramm-Rudman-Hollings Act, the responsibility for budget estimates was transferred to the Congressional Budget Office. Creating a similar independent entity within the limits of India's Constitution—along the lines of India's Electoral Commission or by expanding the role of existing independent agencies that are charged with the monitoring government funds and assessing policy—with the function of signing off on the quality of budget estimates and the appropriateness of its classification may increase the effectiveness of the FRBM, while making deviations at the time of budget execution more justifiable.

IV. Challenge of Achieving Fiscal Sustainability Within a Decentralized Federal System

A. Institutional Dimensions of Federal Systems

Common pool problems are often exacerbated in a federal system depending on how five key dimensions of the federal relations are organized:

The power to tax. Federal systems tend to give pre-eminence to federal taxation and put in place a system of inter-governmental transfers due to the mobility of tax bases within national frontiers, the need for internal common market, and scale economies in tax administration.

The system of inter-governmental transfers. The transfer system can act as an obstacle to fiscal discipline. In systems that rely on shared taxes, any adjustment requires a more than proportional increase in taxes because the extra revenue must be shared with the lower levels of government, while national revenue shortfalls are transmitted to the sub-national level.

The power (or responsibility) to spend. Most important here is clarity. Countries often assign joint responsibility to the national and sub-governments for the same area of spending allowing lower tiers to underfund these areas and extract greater resources from the center.

The power to borrow. Owing to problems of excessive sub-national debt, borrowing powers are often restricted. Forty-nine U.S. states have balanced-budget rules, Chile prohibits it, while other countries require national government approval. Aggravating matters is the

tendency of national governments to bail out state governments in a debt crisis. This creates a moral hazard problem, in which states allow themselves to run unsustainable deficits as a means to extract more resources from the national government when these debts become unsustainable.

*The power to elect the sub-national government***.** State governments are often a political force in and of themselves and may exercise influence through their state representatives in the national parliament. This can amplify the common pool problem.

Eichengreen and von Hagen (1999) argue that noncooperative sub-national behavior is most probable in federal systems characterized by large vertical imbalances. They argue against such imbalances and for stable and predictable transfers to avoid transferring revenue uncertainty to levels of government least able to deal with them, and for clear rules-based revenue sharing arrangements to avoid political renegotiation.

All this suggests that a strategy to deal with the fiscal imbalance by focusing only on the national government may not work in India. Adjustments at the center may be compensated by higher state deficits as federal spending cuts may create further pressures for state spending. Lower government borrowing may make it easier for states to borrow. Cuts in federal transfers may increase state funding gaps while a more solvent federal government has more leeway to bail out states. To analyze how these potential political economy distortions give rise to fiscal imbalances we examine the five dimensions of decentralization in India.

B. The Power to Elect State and Local Governments in India

Indian states possess a high degree of political autonomy. The 1993 Constitutional amendment added municipalities and rural panchayats to supplement the state tier of government. In contrast with many other decentralized systems, sub-national government executives and legislatures are elected under first-past-the post system, although there are efforts to ensure representation from minorities and women. This limits political fragmentation at each level. However, to the extent that party structures become regional, they may generate another form of political fragmentation at the national level, as in fact has taken place. State elections are held on a rolling basis across states every five years, are outside the national parliamentary election cycle and politicians can be reelected. Issues of political organization usually trump fiscal issues in constitutional discussion, as they should. Keeping national unity is a prerequisite for any well functioning polity and hence should have precedence over fiscal issues, which can best be addressed through other rules and institutions.

However, it is useful to note the stresses political rules may pose. India's political system has demonstrably increased the focus on local issues, some argue at the expense of fiscal policy. Coalition governments are highly reliant on the support of state-level political parties who may negotiate support in exchange for additional fiscal resources or may complicate the achievement of consensus on reform priorities (McCarten, 2003; Rao and Singh, 2001). State

governments also have veto powers on constitutional amendments (which govern the assignment of tax and expenditure functions) and constitutional reforms require a two-thirds majority in national parliament and approval by at least half of the state legislatures.[9] In addition, the rolling election calendar implies that national coalition governments in India are subject to a perpetual electoral cycle, while strong anti-incumbency bias in state elections also suggests that politicians rarely face the consequence of their spending decisions.

C. Expenditure and Revenue Assignment

The constitution clearly assigns responsibilities between the state and central governments (see Hemming, Mates, and Potter, 1997). The central government has strong powers, including the supremacy of central legislative power and the right to take over state administration in a state of emergency. Its functions primary relate to macroeconomic management. States are assigned a wide range of responsibilities including health, education, power, irrigation, roads, rural development, public order. The Constitution prevents overlapping tax powers but it assigns taxes by source leaving the central government responsible for nonagricultural tax sources. Although states can raise taxes on agricultural and self-employed income, few do. Sale taxes are the most important revenue source for states.

By international standards, India is one of the most decentralized countries. Using as a criterion the proportion of general government expenditure spent by the states, only China has a greater degree of decentralization (Table 4). Over the course of the 1990s, state governments in India increased their share of general government spending without taking on additional expenditure responsibilities. However, states revenue raising powers do not match their expenditure responsibilities. The share of total taxes collected by states is low, especially when compared with China. While states have broad powers to decide both the scope of the tax base and the tax rate most choose not to exercise these powers and compete for mobile tax bases by offering tax incentives.

D. Intergovernmental Transfers

Large vertical imbalances leave states in India highly dependent on central government transfers (Table 5). The constitution provides for a variety of transfers to states. The most important are shared taxes, which comprise about 60 percent of total transfers and about one-third of total state-level taxes. The Constitution does not specify the revenue shares but instead provides for a Finance Commission (FC) to be appointed every five years to recommend how taxes are to be shared. The FC formulates its recommendations using projections of the shortfall between states' own-revenue collections and expenditure needs, and specifies a formula to allocate these taxes among states. While shared taxes de-link expenditure decisions from the incidence of taxation, they also transmit cyclical volatility to the states as demonstrated by the concurrent fall in central and state revenues since 1994.

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[9] The constitution grants the central government seniority when powers are concurrent.

Table 4. Scale of Indian Decentralization in an International Context 1/

	Decentralization of: 2/			Change in Decentralization of:		
	Expenditure	Revenue 3/	Deficit	Expenditure	Revenue	Deficit
	(Average for 1990-1997)			(Average 95-97 less average 90-94)		
	(In percent of General Government)					
China 4/	81.5	59.7	-0.9	-3.3	-16.4	-17.1
Canada	58.8	53.0	3.8	0.7	0.2	-83.1
India's states	56.7	39.1	36.7	0.5	-2.0	4.4
Denmark	53.9	31.7	-1.9	0.8	0.4	-10.9
Australia	49.0	31.7	-75.7	-2.0	1.8	246.4
Argentina	45.6	39.1	177.4	-1.0	-0.4	-245.7
Brazil 5/	45.6					
United States	44.4	42.1	-48.2	2.7	-0.6	-79.7
Germany	38.8	33.8	43.8	-1.4	-0.4	4.9
Columbia 5/	39.0	...	...	...	...	...
Bolivia 5/	26.7	...	...	...	...	...
Mexico 5/	25.4	...	...	...	...	...
Average Latin America 5/	14.6	...	...	...	...	...
Average OECD 5/	34.9	...	...	...	...	...

Sources: IMF, *Government Finance Statistics;* Inter-American Development Bank (1997).

1/ Where data are available, subnational government includes both the state and lower levels of government.
2/ Subnational expenditure, revenue, or deficit as a proportion of general government expenditure, revenue or deficit.
3/ Excluding grants from the central government.
4/ For China, non-GFS data from Ahmad, Keeping, Richardson and Singh (2002) IMF WP/02/168.
5/ From IDB (1997).

Shared-taxes are supplemented by various grants, which are often determined in a discretionary manner. The responsibility for determining the size of grants transferred is split between two agencies. Traditionally, Planning Commission (PC) "plan" or block grants for implementation of state-level development plans have been the largest. In recent years, the "grants-in aid" recommended by the FC to fill projected gaps between states' own-revenue resources, shared taxes and nonplan expenditure responsibilities, and the "earmarked grants for central sponsored schemes" approved by the PC have become increasingly important (rising to almost 40 percent of the total).

Table 5. India's Federal Transfer System in an International Context

	Measures of Central Assistance to the States					
	Grants from Centre as Share of Revenue	Grant Dependence 1/	Tax Sharing 2/	Tax Autonomy 3/	Vertical Gap 4/	Vertical Gap After Grants
	(Average for 1990-1997)					
China 5/	53.4	36.9	n.a.	53.0	-0.7	-0.3
Denmark 6/	43.1	43.1	4.8	47.8	-0.1	-0.1
India's states	42.4	34.7	32.4	46.9	-38.5	-22.1
Australia	37.4	38.1	n.a.	35.9	2.4	1.6
United States	15.2	5.4	n.a.	55.0	5.4	3.9
Canada	13.6	12.6	n.a.	65.6	-9.5	-7.0
Argentina	12.4	11.5	64	79.1	-9.2	-8.1
Germany 6/	11.4	10.3	86.5	61.0	-9.2	-6.9

Sources: IMF, *Government Finance Statistics* ; authors' own calculations.

1/ Ratio of central grants to total consolidated expenditure of subnational governments.
2/ Ratio of shared taxes from central government to total subnational tax revenue.
3/ Ratio of tax revenue (including shared taxes) to total sub-national revenues, including grants.
4/ Deficit as a share of sub-national non-grant revenue; a positive number implies a surplus.
5/ Tax autonomy measured from GFS data for 1995-1999. Others measures use data reported in IMF WP/02/168 for 1990-1997.
6/ Tax share ratios from Ebel and Yimax (2002).

The split in responsibility for grant allocations across two agencies results in the envelope for state grant assistance being determined in fragmented ad-hoc manner that largely depends on the availability of central government resources. As a result, the size of transfers can vary widely year-to-year and often fall short of budgeted amounts. The rise in earmarked grants also implies that a growing share of spending is dictated by the central government, negating the efficiency gains from decentralizing expenditure decisions. And while PC grants are allocated among the states by Gadgil formula they do not address deficiencies in basic minimum levels of public service provision across states.

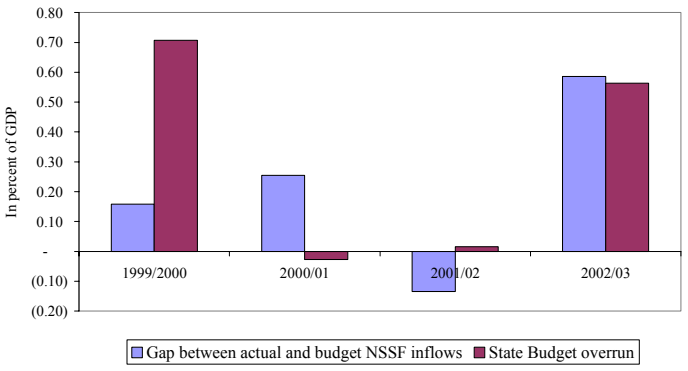
It also gives rise to common pool problems. States have little incentive to increase their revenue raising efforts when they do not derive the full benefit of the extra resources in a revenue pooling system. They can reduce the tax burden on its citizens by increasing their reliance on transfers or they can offload additional spending costs onto others. Indeed, states' own-revenue has fallen by 1 percent of gross state domestic product (GSDP) since the mid-1980s while expenditures have risen by ¾ percentage points of GSDP per annum.

E. Sub-national Borrowing Autonomy

A system that leaves large vertical imbalances may still be contained by strict limits on borrowing by state governments. Many emerging market economies impose tight controls on sub-national borrowing but India's borrowing regime allows state governments greater freedoms, except for foreign debt (Purfield, 2004). On an index of borrowing autonomy developed by Rodden (2002)—where 4 represents the most liberal regime and 1 the least liberal regime—India's scores 2.5 points, compared to 2.7 points for Germany, 3 points for the US, 3.4 points for Canada.[10] Captive private savings, off-budgetary financing, and central government support for higher borrowing notwithstanding the central government's administrative control over states indebted to it, and extra-budgetary assistance allow states to borrow rather than raise revenue to close their financing gaps.

A large pool of captive domestic savings facilitates state borrowing. Banks are required by statutory liquidity requirements to hold state-issued paper. Despite this, market borrowing still accounts for less than 15 percent of the states' borrowing. The National Small Savings Fund (NSSF) is more important. It is required to invest 100 percent of its net collections in state paper and it finances almost half of the states' deficit. The growth in NSSF deposits has outstripped effective interest outlays, with the result that states have been able to borrow and effectively capitalize the interest cost of these funds. There has been a strong positive correlation between state deficit overruns and the excess of NSSF net deposits over budgeted targets (Figure 6).[11] States' also make extensive use of guarantees, public owned enterprises, and financial institutions to soften budget constraints. State guarantees amount to 7¼ percent of national GDP, having grown by more than 40 percent between 1993 and 2000. Fiscal activities are also conducted by states off budget through various state owned financial corporations and utilities. This creates further mechanisms that weaken budget discipline and facilitate debt accumulation at the state level.

Figure 6. Association Between State Budget Overruns and Excess National Small Savings Fund (NSSF) Deposits



[10] The index assesses the actual effectiveness of constraints on subnational borrowing.

[11] McCarten (2003) suggests that similar correlation exists at the individual state level.

Making matters even more complicated, the Federal government has an established record of bailing out states. The FC has accorded debt relief to the states (Table 6). There is also a hands-on approach in helping state governments through their payment difficulties as demonstrated by the 2002 and 2003 debt-buyback schemes and the restructuring of arrears owed by state electricity enterprises.

Table 6. Debt Relief Provided Under Finance Commission

	Relief	
	Rs. Billions	% of GDP
1974-1978	19.7	2.95
1979-1983	21.6	2.11
1984-1988	22.9	1.03
1989-1995	9.8	0.22
1995-2000	2.12	0.02
1995-2000 (relief to Punjab)	34.13	0.25
Total debt relief provided under the Finance Commission	110.25	6.58

Sources: Report of the Eleventh Finance Commission and McCarten (2003).

F. Simulations: Implementation of Fiscal Rules in a Decentralized Fiscal Structure

The mix of effective political decentralization, large vertical imbalances, a large pool of captive savings, and a liberal borrowing rule make it difficult to impose a hard budget constraint on states. Under these conditions, the FRBM may not be nearly enough to seriously address the fiscal imbalances. It is not only that state deficits are a significant part of the overall imbalance, but that in addition, adjustment at the federal level may quite easily lead to fiscal relaxation at the state and local level.

Various efforts have been made to induce fiscal consolidation at the state level with varying degrees of success. Five states have introduced their own fiscal responsibility law, including limits on the deficits and debt accumulation. Other states, such as Karnataka and Andhra Pradesh, have tightened controls on guarantees requiring these liabilities to be fully recognized and provisioned for in their budgets. However, other initiatives have worked less well than expected. The Medium-Term Fiscal Reforms Facility—established in 2000 to offer financial incentives to states that reform their finances—has so far failed to meet its targets. Under the program, 21 states formulated medium-term adjustment plans to reduce their revenue deficit to revenue receipts ratio by 5 percentage points per annum so as to eliminate the combined states revenue balance by 2005/06. Three years into the program, the states had secured a 9 percent reduction in this ratio compared with a target of 15 percent. It may be too early to assess this program. Structural problems may have hampered consolidation efforts. On the other hand, the incentives provided by the fund, barely to 0.5 percent of GDP for all states for the five-year period maybe insufficient inducement to compensate for the set of institutional distortions that create the deficit bias.

A simple quantitative model illustrates how the federal system could impact the FRBM's goals. The macroeconomic assumptions and the path by which the central government adjusts its policies to meet the FRBM March 2008 target

Table 7. Macroeconomic Assumptions

	Ten-Year Average 1993-2003	Five-Year Average 1999-2003	Average 2004-2008
Real GDP growth rate	6.0	5.4	6.1
Nominal effective interest rate on general government debt	8.7	9.0	8.7
Real effective interest rate on general government debt	2.7	5.2	4.5

are shown in Tables 7 and 8. Owing to the sharing of taxes, the center's adjustment is greater than the current level of the revenue deficit, the exact amount varying depending on the weight of new revenue-raising measures in the adjustment effort. Reflecting India's low tax burden, we assume that about 60 percent of the adjustment will come via revenue-raising measures implying that a total adjustment of 4.8 percentage points—comprising an increase in gross revenue of 2.7 percent of GDP, and a reduction in expenditure of 2.1 percent of GDP—will be required to meet the revenue-deficit target. We assume that the government channels half of the revenue savings into capital expenditure so that the overall deficit adjusts by 2.1 percentage points of GDP.

Table 8. Adjustment in Central Government Finances Under the Fiscal Responsibility and Budget Management Law

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	Cumulative Change 2003/04-2007/08
	(In percent of GDP)						
Central government 1/							
1 Net Revenue (1-2)	9.0	8.8	9.0	9.4	10.1	11.0	2.2
2 Gross revenue	11.2	11.1	11.4	11.9	12.7	13.8	2.7
3 Tax share to states	2.3	2.3	2.3	2.4	2.6	2.8	0.5
4 Expenditure (5+6)	15.0	14.8	14.4	14.6	14.6	14.9	0.1
5 Revenue expenditure	13.3	13.0	12.5	11.7	11.1	11.0	-2.1
6 Capital expenditure	1.7	1.8	1.9	2.9	3.5	4.0	2.2
7 Overall deficit (1-4)	-6.0	-6.0	-5.4	-5.2	-4.6	-4.0	2.1
8 Revenue deficit (1-5)	-4.3	-4.3	-3.5	-2.3	-1.0	0.0	4.3
Gross annual adjustment to meet FRBM target (Δ (2+5))	...	0.1	0.8	1.3	1.5	1.2	4.8

Source: IMF staff estimates.

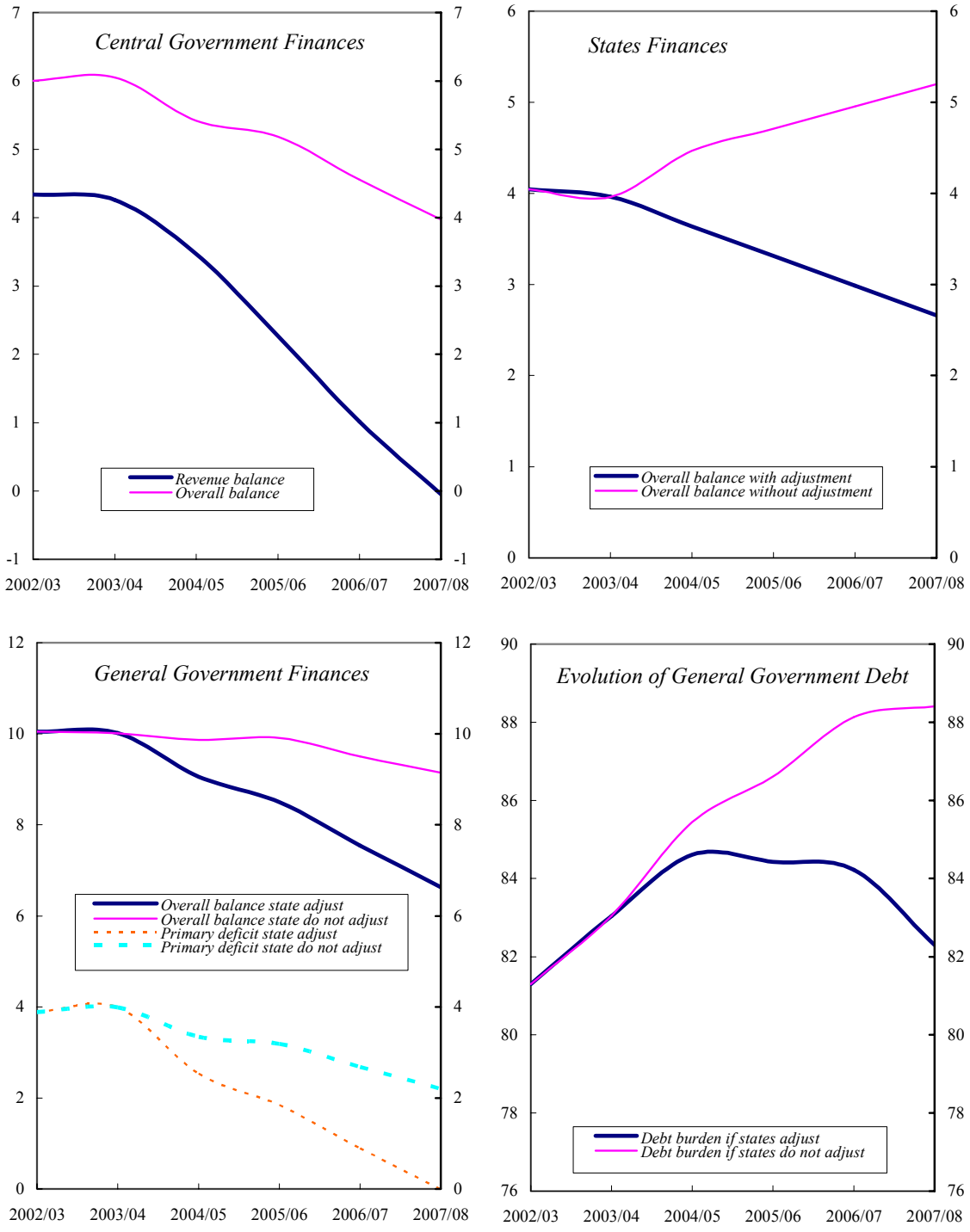
1/ Excludes commercial departments.
2/ Excluding transfers to states.

How successful this adjustment will be in reducing the overall debt burden depends crucially on the behavior of states. In the first scenario in Figure 7, states sustain a primary deficit of 2½ percent of GDP implying a rising interest burden and deficit. The adjustment at the central level is insufficient to offset the widening state level deficit, and general government debt rises to 88½ percent of GDP by end-March 2008. In the second, states emulate the central government by eliminating the revenue deficit by March 2008 and the general government debt falls to 82⅓ percent of GDP by 2008.

The success of the FRBM also depends on the evolution of growth and interest rates. The simulations conducted so far assume a positive differential between nominal growth. Yet in the last 12 years this differential has fluctuated between 10 percent and -1.5 percent per year with a standard deviation of 4.0 percent. Even after controlling for a trend and an auto-regressive term, the standard deviation (with barely 8 degrees of freedom) is 1.7 percent per year. Assuming a stable nominal growth-interest differential is unwarranted. This variable is not only volatile, but it is trending upward as would be expected given a rising debt ratio.

To simulate the impact of a nonstable growth-interest differential, we subject the growth-interest differential to a one standard deviation shock. We then assume that the annual differential evolves as a random walk (i.e., with the square root of time). Even if both

Figure 7. India: Debt Dynamics Under the Fiscal Responsibility and Budget Management Act
(In percent of GDP)



Source: IMF staff estimates.

tiers of government eliminate their revenue deficit, the debt burden rises toward 100 percent of GDP by 2009 (Table 9). Stabilizing the debt could prove daunting if the growth-interest differential moves in the wrong direction by a magnitude in line with its stochastic history.

Table 9. Impact of One-Standard-Deviation Shock to Growth Interest Differential on Debt Sustainability Under the Fiscal Responsibility and Budget Management Law

	2003/04	2007/08	
	Base Year	No State Adjustment	States Adjust
		(In percent of GDP)	
Central government revenue deficit	-4.3	-3.0	-3.0
Central government deficit	-6.0	-7.0	-7.0
State deficit	-4.0	-6.9	-5.0
General government deficit	-10.0	-13.9	-11.9
General government debt	83.0	102.8	97.0

Source: IMF staff calculations.

V. Conclusion and Policy Implications

We have argued that India's ability to tolerate high deficits and debt is the consequence of the low volatility in the debt-service-to revenue ratio. This can be explained by the very low volatility of real output, and hence of real tax revenues, compared with other emerging market countries. It also reflects India's large long-term, fixed-rate, and rupee-denominated bond market. Thus, movements in interest rates have only a small fiscal impact in the short run, while the long duration of the bond market implies that surprise inflation, even in small quantities, can have substantially positive wealth effects on the fiscal situation, allowing inflation to play a potentially stabilizing role in assuring solvency. Finally, even though India has been unable to borrow abroad in its own currency, it has very little foreign currency debt. All this lowers the probability of difficulties *for any given level of debt*.

This characteristic is a double-edged sword. It helps India remain stable and crisis free at levels of debt that would get other countries into trouble, but the absence of early symptoms removes the warning signs that would force the political system into resolving fiscal imbalances, permitting it to delay until the debt is larger. Moreover, volatility is likely to increase as India becomes more globally integrated. Current trends suggest that India is on an unsustainable path and will eventually have to adjust, one way or the other--in other words, with or without a crisis.

Furthermore, we find that the bias toward large debts and deficits in India may have strong institutional foundations. India's political and budget institutions have many positive aspects. Its first-past-the-post electoral system keeps political fragmentation in check, but regional differences imply that at the national level political fragmentation is substantial, making coalition governments more frequent and fiscal discipline much more dependent on strong

budget institutions. The inherited institutional budget setup is strong and hierarchical, and the FRBM adds to it a new numerical fiscal target, improves transparency and monitoring of budget execution, and incorporates intertemporal macroeconomic considerations in budget formulation. These are steps in the right direction.

We would like to add three substantive comments, however. First, the FRBM increases the incentives for the strategic use of estimates and for creative accounting. The evidence suggests that the institutional system already had a significant tendency toward biased budget estimates. Second, the FRBM does not include any coercive powers to assure enforcement. It is an open question, however, whether this strategy would work in India. Name-and-shame strategies have not been effective in pressuring the French or German governments to comply with the Stability and Growth Pact. Third, and probably most important, the FRBM does not tackle the institutional fiscal federalism arrangements that are a potent source of deficit bias.

We propose a set of policy ideas that may help strengthen India's budget institutions and address it federal problems. It is important to point out, as we did earlier, that each institutional solution involves important trade-offs along different dimensions: common pool versus agency problems, credibility versus flexibility, representativeness versus decisiveness, etc. Conscious of these trade-offs, we offer these ideas for discussion.

For a reputation-based framework of numerical targets such as the FRBM to succeed, transparency will be of the utmost importance. One way to enhance transparency is to empower an independent scorekeeper (much like the Electoral Commission) to ensure the budget process is not distorted by the strategic use of budget estimates. This institution could be empowered to (i) prepare budget estimates, (ii) provide accounting standards, and (iii) verify compliance with the FRBM and other budgetary rules and targets. It would, of course, have to be consistent with India's parliamentary system. The Controller Accountant General and the Controller Auditor General already perform some of these roles (for example, on accounting standards) and are independent bodies under the constitution. Their roles could be expanded under the FRBM to include these other functions..

On the budget estimation side, the autonomous scorekeeper—be it an existing body or a new agency—would have functions similar to those of the Congressional Budget Office in the United States. It would be responsible for estimating all nondiscretionary budget items on revenue and expenditure. The government and parliament would keep their current functions, but delegate the transformation of policies into projections to the autonomous scorekeeper.

Giving regulatory and interpretative powers on accounting issues to the autonomous scorekeeper may help fiscal transparency. Standards and definitions need to evolve over time, watertight definitions cannot be made all at once, because new programs and financial forms arise, such as state debt swaps and public-private partnerships. The autonomous scorekeeper may also require that divestment revenues be incorporated into the budget after they are realized to ensure budgeted resources are secure. Furthermore, the development of

an accounting system that is based on the overall balance sheet of the public sector is a progressive task that needs an unbiased focal point in the institutional system.

The autonomous scorekeeper should also be empowered to verify compliance with the FRBM and other rules and goals. It should express judgments as to whether the fiscal targets have been achieved and comment on the government's medium-term fiscal policy statement and its strategy statement in terms of their technical feasibility, given the announced policies.

There is also the issue of ex post monitoring. So far, the quarterly reporting system mandated by the FRBM has utilized the data and reports produced by the controller general of accounts and a technical unit within the ministry of finance. The autonomous scorekeeper could be mandated to provide an assessment of ex post performance and compliance. In this case, it may make sense to decide whether the three institutions should be maintained or there should be some consolidation.

It is important to ensure an independent and accountable scorekeeper. Like an independent central bank, the scorekeepers could have a board appointed by parliament, with super-majority requirements. The board's members should be appointed for long but staggered tenures. Removal from office would take place only owing to gross violations. The scorekeeper should be accountable to parliament, explaining deviations from estimates and presenting an independent ex post evaluation of its assessments.

The presence of a credible autonomous scorekeeper can make state-contingent targets more effective. If the FRBM were to adopt a Chilean-style rule, such as a cyclically or monsoon-adjusted primary surplus, the scorekeeper would decide what annual cyclical adjustments should be made to the targets. This would make the numerical targets more flexible without a concomitant decline in credibility. The rule would enable India to use good times to achieve even faster fiscal consolidations, and this would provide it with more scope for flexibility in bad times.

One could make it a rule that if, absent mitigating circumstances, there is a breach of the adopted rule, the government and parliament would have a set period to bring matters into conformity or else automatic, across-the-board spending cuts would be put in place. Even if these cuts were inefficient or created inefficiencies, they could play a constructive role in creating incentives for the cabinet and parliament to avoid this outcome by taking more effective action.

To deal with the political economy causes of the deficit bias at the state level, we propose three courses of action. First, expand the principles of the FRBM to the states to increase transparency and accountability. It may be useful to discuss whether this effort should be done on a state-by-state basis or at the federal level. Should each state have its own independent scorekeeper, or should the national entity provide scorekeeping services? Budget rules may be enhanced following the example of Brazil's federal law, which restricts

each tier of government and imposes severe penalties for those politically responsible for breaching those rules.

Second, state borrowing autonomy has made fiscal balance extremely difficult. The constitution provides for federal authorization of borrowing by states that owe money to the central government. Since all states do, the central government could play a coordinating role. One idea would be to impose borrowing ceilings on states that decline to a desired long-run level and could even be cyclically adjusted by the federal scorekeeper. Ceilings are just another way to impose a deficit constraint, and adopting them would extend the targets on the central government to the states. A medium-term fiscal consolidation plan could form the basis for these ceilings.

Third, the system of intergovernmental transfers should be reformed. The fiscal-consolidation plan could incorporate a rule that estimates fiscal transfers as a specific amount, say 95 percent, of projected revenue. This would be the actual transfer under the plan, irrespective of actual revenue outturns, thereby relieving states from volatility in fiscal transfers and enabling them to commit to a debt ceiling. Moreover, by fixing fiscal transfers, the proceeds of additional tax effort by states would be kept by the state governments, thus better internalizing the benefits of taxation. For the center, the change would imply that states help in the fiscal adjustment and any improvement in tax efficiency could be used fully to lower the deficit. In a system where states rely heavily on transfers, however, there is some risk that the rule could overly burden the central government with the adjustment effort in the event of large revenue shortfalls.

After the 5–7 years of the state fiscal consolidation plan, a more permanent structure would be needed. It would be ideal to work toward permanently reducing state borrowing autonomy and making intergovernmental transfers a function of projected medium-term revenues as estimated by the autonomous scorekeeper.

In good times, most countries do not deal with fiscal imbalances that may bring bad times. The world is full of recent, sad examples. India, during its good times, is starting to act on its fiscal imbalances. We have argued that its current plans represent a move in the right direction but more forceful institutional action may help extend the good times. India would become an example of fiscal wisdom in a complex democracy—one that the world sorely needs.

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