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Federalism and Economic Development in India: An Assessment*

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Abstract

This paper examines India’s federal system in the context of prospects for India’s future economic growth and development. After a brief review of India’s recent policy reforms and economic development outcomes, and of the country’s federal institutions, the analysis focuses on the major issues with respect to India’s federal system in terms of their developmental consequences. We examine the impacts of tax assignments, expenditure authority and the intergovernmental transfer system on the following aspects of India’s economy and economic performance: the quality of governance and government expenditure, the efficiency of the tax system, the fiscal health of different tiers of government, and the impacts on growth and on regional inequality. In each case, we discuss recent and possible policy reforms. We make comparisons with China’s federal system where this is instructive for analyzing the Indian case. Finally, we provide a discussion of potential reforms of aspects of India’s federal institutions.

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1. Introduction

India’s recent growth story is now much analyzed, and quite well understood. Despite some temporary controversy over the relative impacts of economic reforms in the 1980s and 1990s – hesitant and piecemeal in the first of those decades, deeper and more systematic in the subsequent period – the new consensus is not very different from the old, namely, that an overall shift in economic policy toward greater reliance on the market for resource allocation, including greater openness to the global economy, has been an important factor in increasing India’s average growth rate from its previous low levels. This recognition of the role of market competition does not diminish the Indian government’s past importance in building physical infrastructure and human capital, and in providing stability and safety nets. Nevertheless, the reform of India’s governance is one of two major strands of current policy debates, the other being areas where further “liberalization” of the economy is needed (e.g., small scale industry reservations, privatization, and matters pertaining to openness to foreign capital).

Debates about India’s governance include old concerns about corruption, affirmative action (e.g., the latest controversy over quotas in higher education) and social safety nets (e.g., the new Employment Guarantee Scheme), as well as newer worries about growing regional inequality. Managing the public finances appropriately has been an obvious part of the reform story, since fiscal deficits have been a continuing problem for well over a decade. Within the broader context of governance, issues of federalism and decentralization have been addressed in a somewhat piecemeal fashion. Thus, the need for fiscal consolidation has focused considerable attention on the states’ situations in this regard, and the central government, central bank, and central Finance Commission have all made efforts to ameliorate aspects of the states’ fiscal crisis. At the same time, the decentralization to local governments, put in motion by the 73rd and 74th amendments to the Constitution, has been proceeding unevenly, and with mixed success. States have made various kinds of efforts to attract investment, done various deals with multilateral agencies, and wrestled with potentially major tax reforms, all the while struggling with fulfilling their constitutional responsibilities to constituencies such as the rural poor.

Underlying all the developments in economic policymaking, and concerns about governance, therefore, is the working of India’s federal system. It is important to understand what this system is, what it does, and how it has been changing in response to the forces put in motion by India’s renewed struggle to fulfill its “tryst with destiny” by substantially improving the well-being of all its citizens in a tangible manner. In particular, many of India’s fiscal federal institutions evolved in the context of a planned economy, with the state playing a dominant role and that of the private sector and markets heavily circumscribed, and largely closed to the outside world. Economic liberalization with state control receding and markets coming into their own, and globalization together require a comprehensive reassessment of these institutions (Rao, 2006). This context, therefore, motivates the following analysis of the role of India’s
federal system in its economic development. This analysis also leads toward some specific policy suggestions for institutional reform.

Our discussion of the performance and impact of India’s federal system will also bear on general theoretical issues that have surfaced in considering the economic performance of federations. For example, China’s economic success has partly been traced to *de facto* features of its federal system (Montinola, Qian and Weingast, 1995). Since China is now a commonly used benchmark for India in economic performance, we will also make some explicit comparisons with China in this paper. The key theoretical construct that we will explore in this comparison is “market-preserving federalism”, (MPF; Weingast, 1993). MPF is defined by five conditions: (1) a hierarchy of governments with delineated authorities (the basis of federalism); (2) primary authority over local economies for subnational governments; (3) a common national market enforced by the national government; (4) hard subnational government budget constraints; and (5) institutionalized allocation of political authority.

One motivation for the concept of MPF is as an explanatory factor for the differential economic performance of developing nations with ostensibly federal structures. A causal link is drawn from the institutional structures of MPF to economic growth. A larger question is what shapes these institutional structures – what has made China, say, closer to MPF than India? Rodden (2006) has characterized answering this question in terms of developing a theory of endogenous federalism, in which the institutions of federalism are explained as emerging from underlying preferences and other structural conditions. This perspective, too, provides a useful lens with which to analyze the development of India’s federal institutions. For example, one can view some

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1 We first tackled some of these issues in Singh and Srinivasan (2005a) and will not repeat many of the details of that analysis. Rao and Singh (2005) also examine federalism from this perspective of reform in a globalized economic environment.  
2 While Breton (2000) distinguishes federalism from other decentralization in terms of the inextinguishable constitutional powers of subnational governments under federalism, the economist’s view of federalism is considerably more elastic (e.g., Oates, 1977, p. 4).  
3 Several other conceptions of the nature of federal systems exist. The idea of cooperative federalism, (Wheare, 1953), emphasized the mutual gains from different subnational jurisdictions as well as subnational and national governments working in concert. Similarly, Riker (1964) conceived of federations as constitutional bargains, designed to enhance security and stability. An alternative approach stresses the benefits of competition among subnational units, and between national and subnational governments. This competition enhances efficiency by improving the incentives of political leaders to act in the interest of their constituents (Tiebout, 1956; Breman and Buchanan, 1980; Breton, 1995). Breton also notes that competition among governments may be destabilizing or lead to inequitable outcomes, and does not see it as something that is always best left unrestrained. MPF encompasses key aspects of competitive federalism, but goes beyond it in several ways, particularly in conditions (3) and (4). At the same time, except in the restrictions embodied in (3), the view of MPF is more sanguine about competition than is Breton. It emphasizes both the decentralization and the restraint of the regulatory power of governments vis-à-vis the market.  
4 Rodden himself does not undertake this exercise, but Wallack and Srinivasan (2005) do offer some insights into how one might proceed in this direction. See also Weingast (2006), in which he develops the idea of second generation fiscal federalism, which assumes that “public officials have goals induced by political institutions that often systematically diverge from maximizing citizen welfare.”
of the greater de facto decentralization that has emerged in India in the last decade as an endogenous response to changing external conditions, including globalization and fiscal stresses (Rao and Singh, 2006). Furthermore, there have been responses to these changes through modifications in the legal frameworks that govern taxes, expenditures and fiscal deficits (e.g., fiscal responsibility legislations at the national and subnational levels).

The rest of the paper is structured as follows. In section 2, we provide some background on India’s economic performance and its federal system. We emphasize that several institutional features need to be re-examined in the current context of reform and globalization. Section 3 discusses the quality of governance and government expenditure, while section 4 examines the efficiency of the tax system. In both cases, we examine past and current problems, including inappropriate policies (e.g., untargeted subsidies and punitive tax rates) as well as poor implementation (e.g., corruption), and we examine various ongoing reforms, particularly with respect to tax policies. Section 5 considers the fiscal situation of the center and states, focusing on recent attempts at coordinated fiscal consolidation. We argue for more fundamental structural reforms to alter subnational government incentives and harden their budget constraints. Section 6 discusses growth and equity impacts of the federal system, with special reference to the complex channels of intergovernmental transfers. Again, we argue for specific reforms of the intergovernmental transfer system formulas to achieve horizontal equity objectives without hindering growth. Section 7 provides a brief comparison of India’s federal institutions with the case of China to examine what lessons may be drawn for reform. A key idea that is explored here is the support and involvement of subnational governments in China with respect to local economic activity, and the resulting positive growth impacts. Section 8 makes some specific suggestions for future institutional reform of India’s federal system, to improve overall public sector fiscal management, and the process of funding public sector investment needs at the subnational level. Section 9 provides a summary conclusion.

2. Background: India’s Economic Performance and Federal System

India has been one of the fastest growing economies in the world since it began to reform its economic policies toward greater openness and greater market orientation. Table 1 summarizes India’s overall growth performance since 1951. There is, perhaps, a weak consensus that market-oriented reforms played an important and positive role in supporting India’s good growth performance over the last 25 years.5

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5 We make this assertion while recognizing the existence of continued and vigorous debate on this issue. Panagariya (2005) provides a careful appraisal of India’s growth experience in the 1980s and 1990s. His main objective is to reassess a “revisionist” view (deLong, 2003; Rodrik, 2003; Rodrik and Subramanian, 2004a,b) that argues that economic policy reforms in the 1990s were not key to India’s growth performance in that decade. Rodrik and Subramanian (2004b) seem to retreat from their revisionism when they state, “policy liberalisation will progressively erode the licence-quota-permit raj as a source of corruption and patronage that has had such a corrosive effect on public institutions.” In addition to this indirect effect, they also attribute productivity growth directly to reforms that removed the “shackles on the private sector.” See also Srinivasan (2004) for a critique of the Rodrik-Subramanian analysis; Wallack (2003) and Singh (2006b) for examinations of India’s growth performance; and Kelkar (2004), Mukherjee (2006) and Shome (2006) for recent growth projections.
studied have been the parallel developments in governance that have accompanied and interacted with economic policy reform. At the same time, the nature of governance in India itself shapes the kinds of policy reforms that are politically feasible, and the pace at which they occur. Furthermore, a key aspect of India’s governance is its federal system, which is often crucial in determining how economic reforms filter down to affect the daily lives of the population.

India is a constitutional democracy, now comprised of 28 states and seven “Union Territories” (UTs), the latter including the National Capital Territory (NCT) of Delhi. The states, Delhi and the UT of Pondicherry have elected legislatures, with Chief Ministers in the executive role. The other UTs are governed directly by appointees of the center. Each state also has a Governor, nominally appointed by the President, but effectively an agent of the Prime Minister. There are directly elected parliamentary-style governments at the national and state level, as well as nascent directly elected government bodies at various local levels. These subnational elected bodies with explicit constitutional authorities are the essential feature of *de jure* federalism. Overlapping political authorities at the central and state levels have been dealt with through intra-party bargaining in the initial post-independence years, and, more recently, through explicit bargaining and discussion. The Inter-State Council (ISC) was created in 1990, and has become a forum where some political and economic issues of joint concern can be collectively discussed, and possibly resolved. The ISC includes the Prime Minister, state Chief Ministers, and several central cabinet ministers as members. While the ISC is merely advisory, it has formalized collective discussion and approval of important matters impinging on India’s federal arrangements, including tax sharing and inter-state water disputes. In other cases, committees composed of state finance ministers have provided a means for reaching collective agreement by the states.

[Table 1 about here]

India’s constitution, though federal, has strong unitary features. These in large part reflected the political consensus among members of the Constituent Assembly that, given the trauma of partition, the problem of integrating former princely states with diverse socio-economic and administrative features into the union, and the ever-present threat of ‘fissiparous’ tendencies in the body politic, a strong central government was essential. The unitary features, some dating back to the Government of India Act of 1935 (from which the constitution borrowed liberally), were designed to create a strong central government, with powers to dismiss a duly elected state government, if it deemed necessary, because in its view the ‘constitutional machinery’ had broken down in that state. The center also has the power, exercised on several occasions, to redraw the boundaries of the states, so they are not inviolate constitutional entities. The constitution

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6 The erosion of intra-party democracy, and the rise of dynastic politics, especially in the Congress party, but also in newer regional parties that are often governed by single individuals, have made intra-party bargaining somewhat less salient.

7 Centralization of India’s governmental structures was also reflected in bureaucratic and judicial institutions. See Rao and Singh (2005) for details on these aspects on India’s federal structures.
also spelled out in some detail the assignment of taxation powers and expenditure responsibilities among states, mandated the appointment of a Finance Commission every five years, and described the duties of the Finance Commission, the core of which relates to sharing of central taxes under article 270 and determination of grants for the states as provided for under 275 (Twelfth Finance Commission, 2004, p. 9). On the advice of the central government, the President appoints the Commission and specifies its terms of reference. The twelfth such commission since the adoption of the Constitution in 1950 was appointed on 1st November, 2002, and submitted its report on 30th November 2004.

Besides the constitutionally mandated Finance Commission, an extra-constitutional body, the Planning Commission, was established by a resolution of the central cabinet in March 1950, within three months of the adoption of the constitution. State governments appointed their own planning commissions or boards later on. With the 73rd and 74th amendments of the constitution relating to panchayat boards and other local governmental bodies, the state governments, have appointed their own Finance Commissions to recommend financial devolution to local bodies.

Over the course of time, the center has acquired through various channels a large say on how the financial resources in the economy are allocated among various levels of government and the private sector. First, the Planning Commission began making grants to states in support of their five-year plans (which the Commission formally approved). Second, central ministries made their own grants in support of centrally sponsored schemes to be implemented by the states. Presumably these were meant to subsidize states for undertaking schemes that had positive spillovers to other states and to the economy as a whole. The Twelfth Finance Commission (TFC, 2004, p. 11) reports that transfers to states through all channels increased from 31.4% of gross revenues receipts of the center during the First Finance Commission to a high of 40.3% during the sixth commission, before they fell as a proportion to 37.3% during the first two years of the eleventh.

Control of money and finance has also been an important centralizing feature of the Indian system. First, money creation was the exclusive privilege of the central government so that the revenues from seignorage accrued only to it. Second, with the nationalization of insurance companies and commercial banks in 1969, the central government acquired a large part of the investible resources of the financial sector for its use, directly or indirectly through cash reserve ratios (CRRs) and statutory liquidity ratios (SLRs). Third, through selective credit controls and requirements of lending to priority sectors, little effective room was left for discretionary lending by financial intermediaries. Fourth, interest rates were also controlled by the central government. Reforms since 1991 have brought about substantial changes: interest rates are no longer controlled (although the mandated rate on small savings sets a floor), CRRs and SLRs are well below their infamously high previous levels, and public equity in insurance companies and commercial banks has been partly divested. Still, the public sector (mostly central

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8 The Planning Commission is charged with coordination and disbursement for some, but not all, ministry transfers. The practice of categorical subnational grants by central departments or ministries is common in every federal system, but bodies similar to the Planning Commission are rare.
government) owns 75% of the assets of commercial banks, and priority sector lending requirements have not disappeared, though they have been somewhat relaxed.

Concentration of powers in the hands of the central government did not create serious conflicts in the early years of the functioning of the constitution since the same political party, the Indian National Congress, ruled the center and states. Any potential interstate or center-state conflict was resolved within the party. With the Congress Party losing power in some of the states, the conflicts became open. For example, the Communist Party led Kerala government was dismissed by Prime Minister Nehru’s government in 1961. Periodic attempts at reexamining center-state relations (e.g. the Sarkaria Commission in 1988) have not led to any fundamental changes in the constitution, although the ISC and also the National Development Council (for discussion and approval of five year plans) have been constructive institutional additions. With single party governments no longer the norm at the center, the rise of regional parties in the states, and above all the changing political landscape (an increase in the political power of erstwhile discriminated-against groups, particularly Dalits), one may need to rethink in a fundamental way the unitary features of the constitution. 9

The recommendations of each Finance Commission apply to the five-year period until the next commission is appointed. However, the sustainability of existing domestic and external debt of the central government, and the debt of state governments, cannot be judged without a perspective on revenues and expenditures and interest rates in the indefinite future beyond the five-year horizon of each commission. More importantly, even if the current commission does make its recommendations based on its perspective about the future, there is no way it can commit to preventing future commissions from having their own and possibly different perspective about the future, even if there are no changes in the economy in five years to warrant it. Even more so, the governments in power who are to act on the commission’s recommendations, which have implications for future revenues and expenditures, cannot commit future governments, even if the party in power wins the election. In sum, myopia and short-term considerations would tend to bias the thinking of the commission and governments.

There is also a continued problem with coordinating transfers recommended by the Finance Commission and the Planning Commission. In the past, an attempt was made to coordinate the approaches of the Finance and Planning Commissions by having a member of the Planning Commission serve as a member of the Finance Commission as well, but this had limited impact. The Twelfth Finance Commission (TFC, 2004, Ch.14) has recommended the creation of a permanent secretariat for itself and also of a research committee to undertake relevant studies for the commission. It has also recommended that each state set up a high level monitoring committee to ensure proper utilization of the commission’s grants. While these are unexceptionable, more could be done to ensure

9 Initially, in addition to concerns about unity, inequality and capture by local elites were concerns. B.R. Ambedkar made this statement about local government during the Constituent Assembly’s drafting of the constitution in 1946: “What is a village but a sink of localism, a den of ignorance, narrow mindedness and communalism...?” See Rao and Singh (2005) for more detail and references.
some depth and continuity in the analytical approach across commissions as long as the present constitutional arrangements remain.

The TFC, like its predecessors, and indeed conventional public finance economists, viewed its mandate as “to recommend a scheme of transfers that could serve the objectives both of equity and efficiency, and result in fiscal transfers that are predictable and stable. These transfers, in the form of tax devolution and grants, are meant to correct both the vertical (between center and states) and horizontal (among the states) imbalances. Correcting vertical imbalance relates to transfers from the central government to the state governments taken together, whereas the correction of horizontal imbalances is concerned with the allocation of transfers among the state governments. The vertical imbalance arises since resources have been assigned more to the central government and states have been entrusted with the larger responsibilities. The horizontal imbalance has its roots in the differential capacities and needs of the states as also the differences in the costs of providing services” (TFC, 2004, p. 9). Clearly, the vertical imbalance reflects in large part the constitutional provisions relating to taxes and expenditure responsibilities. Horizontal imbalances depend not only on differential capacities, needs and costs, but also on the efficiency with which capacities are used to deliver services at the least possible cost. Various commissions themselves have recognized that the “gap filling approach” of some past commissions seriously eroded the incentives to improve government efficiency. This issue is addressed in Section 6.

In the decades since India’s independence, the central and state governments vastly expanded their role in the economy, particularly by producing goods and services for which more cost-effective alternatives in the private sector have always existed or have come into existence since 1950. Successive Finance Commissions have studiously avoided getting into the question of the rationale for the existence of many public enterprises, partly as a result of their being given narrow terms of reference. The existence and operation of public enterprises have significant impacts on the revenues, expenditure and borrowing of governments at all levels. Indeed, the use of such enterprises for borrowing under state guarantees has created contingent liabilities for the states, besides being a non-transparent device to raise resources outside the formal budget.

The point is that a narrow traditional approach of correcting vertical (between center and states) and horizontal (among the states) imbalances, without examining the broader question of the social rationale for the involvement of governments at various levels in the economy, can no longer be justified in the Indian context. The usual economics of fiscal federalism provides answers to the rationale issue through public goods theory, applied to the case of different loci of benefits (Olson, 1986), but many public enterprises in India are engaged in activities that would not even fall under the

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10 In contrast to the past, recent commissions, given broader terms of reference, have played a greater role in articulating recommended policies for fiscal federal reform. These, recommendations, together with a process of political bargaining then influence the legislative agenda, often toward significant modification (Rao and Singh, 2006). Fiscal responsibility legislation is an example of this process.
category of quasi-public or merit goods. However, one area where the last two Finance Commissions have played a greater role is in making recommendations with respect to overall fiscal management: their broader terms of reference were to some extent a response to a situation where the central government executive, in an era of coalitions, may have lacked the direct power to rein in state fiscal deficits. The fiscal deficit issue is discussed in Section 5.

In its approach to horizontal imbalances, the TFC (2004, p. 10) refers to the concept of ‘equalization’ considered in many federal countries to be “a guiding principle for fiscal transfers as it promotes equity as well as efficiency in resource use. Equalization transfers aim at providing citizens of every state a comparable standard of services, provided their revenue effort is also comparable.” It goes on to add that in Australia, the equalization principle has been defined to say that “states should receive funding … such that if each made the same effort to raise revenue from its own sources and operated at the same level of efficiency, each would have the capacity to provide services at the same standard…” and that in Canada, equalization payments are meant to “ensure that provincial governments have sufficient revenues to provide reasonably comparable level of services at reasonably comparable levels of taxation.”

The equalization concept seems eminently sensible if there is a social consensus on what should be included in the set of services to be provided by the government and at what level. The conventional argument for decentralizing their provision is that state (and local) governments are likely to be more informed of and responsive to the heterogeneous preferences of their residents, and that competition among states could improve the quality and cost effectiveness of services provided. However such competition, if it takes the form of subsidies or tax concessions to attract industrial investment could turn into a ruinous “race-to-the-bottom.” The informational advantage of state governments with respect to the preferences of their residents may no longer be that important in the contemporary informationally-connected world. On the other hand, incentives still may favor decentralization, since a national government will tend to aggregate or balance across different constituencies. Hence a state government’s incentives may be better aligned with the preferences of constituents, if they are heterogeneous, even if there is no difference in the informational asymmetry between the two levels. The caveat, here, of course, is that some instances of local heterogeneity (e.g., a preference for discrimination against certain groups) may not be legitimate. If such preferences are not represented so strongly at the national level, then centralization will mitigate the problem. This was precisely the view of B.R. Ambedkar, in favoring centralization in India’s constitution (see footnote 9).

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11 The modern term is due to Musgrave (1959), and captures the idea that some goods may be rival goods, but have positive externalities. While Musgrave introduced the term, it can be traced back to Adam Smith. There have been some controversies over the precise meaning, but the externality perspective is analytically the clearest, tying in with public goods, which can also be formulated in externality terms.
3. Quality of Governance and Government Expenditure

In federal systems such as India’s, general issues of quality of governance become intertwined with the features and operation of the hierarchy of governments. The MPF perspective is that, given basic good governance, what matters especially is restricting inefficient government interference in the market, and the right kind of federal institutions can be important in achieving this. From this viewpoint, certain kinds of decentralization of governance may be complementary to market-oriented reforms that redraw the boundary between government and market.

The framers of India’s Constitution opted for a relatively centralized, ‘quasi-federal’ system because of concerns about unity, stability, and inequality. At the same time, the adoption of planning and the articulation of ostensibly comprehensive and economy-wide development plans led to centralization of economic decision-making. Implicit in these choices was the assumption that the central leadership (politicians and bureaucrats) would be more skilled and more honest than state and local politicians. Initially, therefore, state governments functioned basically as “corporate divisions” of the central ruling party, with local governments having little or no role to play in political or economic decision-making. The size and cultural homogeneity of India’s major states, combined with the constitutional decentralization of key government expenditure responsibilities, created a tension that was finally resolved only in the 1990s, with the emergence of explicit political coalitions at the center as the norm of national governance.

The political story, revolving around the organizational decay and reduced political influence of the once-dominant Indian National Congress, coupled with the rise of the BJP as a national “right-wing” party, and the emergence of regional and caste-based parties, has been extensively analyzed. Chhibber (1995) explains the deepening of ‘rent-seeking’—including the persistence of the laws that make it possible—in terms of the intensifying needs of political competition. Essentially, powers of patronage for electoral support became more important in the 1970s and 1980s, overwhelming any concerns about the inefficiency of the system from the perspective of economic growth. Chhibber provides empirical evidence that central loans, food assistance and subsidies to the states were all linked to electoral considerations. Similarly, Rao and Singh (2005), Kapur and Mehta (2002), and others have argued that large payments were directed by the center in the late 1990s to the states (Andhra Pradesh and Punjab) from which regional parties that were key coalition partners originated. In this case, the support

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12 There is a more fundamental property-rights-protection logic for restraining government, which argues for limiting bureaucratic and political control rights. Shleifer (1995) develops this argument, and Singh (2004) applies it to discussing the Indian case.

13 See, for example, Rudolph and Rudolph, (1987); Brass, (1990); and Kohli (1990). Note that even the parties that are currently classified as “national” according to the criteria of the Election Commission do not have a legislative presence in many parts of the country.

14 Kapur and Mehta also highlight the role played by the organization of the Indian parliament. They trace the decline of parliamentary functioning in ways that reduce legislative oversight of the executive, increase spending, and make legislation more difficult. This weakness in legislative organization tends to shift bargaining among states and between the center and the states to other arenas, such as the NDC and the
mechanism works to build a majority coalition in parliament after elections, whereas in Chhibber’s analysis it derives from the pre-election need to mobilize state-level political resources for national elections.

While a situation where individual legislators are mainly recipients and distributors of patronage is to some extent a natural feature of democracy, inefficiencies that arise can managed through the details of internal organization of governmental processes. In the current system, there are also direct political pressures on bureaucrats that distort supposedly impartial administrative decision-making, as well as distortionary incentive mechanisms such as frequent transfers of bureaucrats. Even in the 1950s, transfers were used to reward and punish bureaucrats.\textsuperscript{15} In some cases, transfers are a part of an elaborate rent-seeking and rent-distribution mechanism, where administrators and politicians may be equally complicit, and which leads to self-selection for the bureaucracy that parallels what has occurred in politics – those who seek monetary rents (rather than what economists have termed “ego rents”) are more likely to seek these positions. The outcome is that the bureaucracy’s role in carrying out administrative policies that are derived from underlying legislative goals is severely hampered. Since, in a democracy, the bureaucracy is properly subordinate to the elected representatives of the people, external monitoring of improper political interference is required. The media and judiciary can (and do) both play this role, the former perhaps more effectively. To the extent that the judiciary is over-centralized and itself works with inefficient institutional organization, its role is somewhat limited.

To the extent that the fundamental governance problem, as described above, is one of accountability, one can argue (Rao and Singh, 2003) that India’s centralized traditional accountability mechanisms, relying as they do on hierarchical political and bureaucratic control and monitoring, have been ineffective. A more robust federal structure, extending political accountability more effectively at the subnational level, is important to consider as a way of increasing the efficiency of governance.\textsuperscript{16} At the same

\textsuperscript{15} See, for example, Sivaraman (1991). Wade (1989) and De Zwart (1994) provide extensive surveys and analysis of more recent practices with respect to transfers.
\textsuperscript{16} More effective judicial functioning, as part of a system of checks and balances, would also be helpful. The over centralization, under funding, and inefficient procedures of India’s judiciary together work against effective decentralization of other branches of governance. Furthermore, the political system often ends up substituting for the failing judicial system. Those in political power influence the judicial system through patronage appointments, and also take over its functions. Disputes are resolved by each side appealing to different politicians or political factions. Politicians then become above the law, since they control its direct enforcement. They are free to engage in illegal activities without deterrent, and those who are already lawbreakers have a strong incentive to enter politics. These effects can be self-reinforcing: politicians self-selected by a system that protects them from punishment have an incentive to weaken the judicial system. The ineffectiveness or absence of intra-party control mechanisms exacerbates the problem. The total effect on the environment for investment and economic growth can only be negative, though the macroeconomic impacts are hard to measure. For a microeconomic analysis that identifies the impact of harassment of business on productivity, see Dollar, Jarossi and Mengistae (2002), which highlights variations across ten states in specific aspects of corruption, and the resulting impacts on investment climate.
time, the MPF perspective emphasizes the importance of having the right restrictions on the sphere of action of subnational governments vis-à-vis the market.

The idea of subnational governments seeking to enhance constituent welfare through market-based economic activity is an important one to consider in the context of India. As discussed in Section 7, India is quite different from China in this respect. There are proper constraints on direct involvement by bureaucrats and politicians in private enterprise, though these can be and are circumvented through family, friends and agents. However, there is clearly scope for decentralizing decisions that affect economic activity. The centralized industrial licensing policy that was finally gutted in 1991 was a prime example of needless controls on economic activity. There is evidence that needless or poorly designed subnational controls still exist, and that some national level discretion could be devolved to the states. A key example of subnational controls is state laws that restrict agricultural trade. In this case, severe distortions in pricing through various subsidies compound the problem.

Some of these problems (where they restrict the common market aspect of MPF) can be dealt with by central government action. Others require subnational action, which may come from pressures such as competitive benchmarking. This subnational action may include changing policies, as well as changing institutional setups. Examples include modifying tax assignments (institutions) as well as rates (policies), and changing the incentive structures of the bureaucracy (selection, training, evaluation and promotion) as well as of politicians (e.g., elections at the local level, with local politicians being given real authority and resources to act). Essentially, the current incentives for subnational governments in India to promote market functioning are weak, and strengthening these incentives can help.

This discussion is also pertinent for the direct locus of acknowledged proper government action, namely in the sphere of public goods, social insurance and income distribution. There are well-known and long-standing problems of inefficiency in government expenditures in India. Examples of inefficiency include the functioning of core administrations, many plan and ministry projects, and PSEs such as the SEBs. 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, 2005). While expenditure reform will result in losers, since public sector employees currently enjoy monetary rents or leisure that will be lost, at least some of the leisure in inefficient organizations is involuntary, and results in frustration rather than any utility gain. 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

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17 See Singh and Srinivasan (2005a), for example, for more discussion of this issue.
18 As indicated in Section 2 and elsewhere in this paper, among the possible areas of institutional reform to improve subnational government functioning in this respect are the assignment of expenditure responsibilities and revenue authorities, the intergovernmental transfer system, and mechanisms for intergovernmental bargaining and conflict resolution.
19 An in-depth analysis of the social rationale for subsidies, and their cost effectiveness in fulfilling that rationale, is overdue. See Mundle and Rao (1991) and Rao and Mundle (1992) for a classic analysis.
indifference." The areas for improved administration include budgeting procedures, accounting and auditing methods, personnel policies and tax collection, among others (Twelfth Finance Commission, 2004; World Bank, 2005). These basic improvements in government financial management and functioning are less difficult to implement than the broader institutional changes suggested above, and the slow pace of reform may be the result as much of neglect by leaderships more concerned with macro issues than micro reforms as it is of resistance from government employees.

The efficiency of delivery of health and education in rural areas can also 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, 1996; PROBE, 1999; World Bank, 2003, Chapter 3; Howes and Murgai, 2005). In particular, the evidence is that decentralization of accountability systems can improve incentives for teachers if done properly. Decentralization in this manner is not exclusive of private or NGO participation. In either case, the gains come from improved incentives and reduced transaction costs. Such decentralization to improve efficiency also does not remove all higher-level government oversight. If certain individual rights are a national level merit good, then the central government can still monitor their subnational provision to ensure there is not a case for direct or indirect intervention. This is very different from primary control for expenditure on local public goods (which may themselves be inputs into providing basic rights) resting with the center. Thus, decentralization of some government powers need not lead to local elite capture and exploitation, as was the fear after independence. In fact, one might characterize this possibility of improvement in governance as Governance Enhancing Federalism (GEF).

Another important aspect of governance that has a federal dimension is regulation. Economic reform has included a move toward modern, arm’s length regulation of industries where the natural industry structure may not be competitive (e.g., telecommunications), or where there are systemic dangers that can be triggered by moral hazard or other asymmetric information problems (financial markets in particular).

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20 In this context, it has been noted 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, as well as World Bank, 2005). This would clearly be a necessary part of a program of reducing inefficient and poorly targeted subsidies.

21 See Rao and Singh (2005), Chapter 13 for further details. Of course there are many areas where the state governments must continue to play a dominant role, and where more cannot be squeezed out of the existing expenditures by improving incentives for those responsible for the service delivery. In such cases, shifts in expenditure and/or new resources for increased expenditure are required, but the latter option should be a last resort, given the states’ fiscal situation.

22 For example, there may be externalities associated with Tiebout-type migration that occurs in response to a failure to provide such rights. Migration may also be a costly option for individuals, and infeasible as a consequence. In the latter case, there may be externalities on the demand side – one person’s lack of rights may affect another’s utility.

23 In the United States, for example, decentralization in the form of “states’ rights” became an excuse for perpetuating discrimination. However, federal action (e.g., sending troops to Little Rock, and passing national civil rights legislation) did not deprive states and localities of their decision-making power in many other spheres.
National level regulators such as TRAI and SEBI have developed regulatory approaches that are more likely to emphasize establishing and enforcing fair “rules of the game,” than trying to decide each play or each move. In the case of electric power, federal issues with respect to regulation are more salient, and have made progress more difficult. Electric power is a concurrent responsibility of the center and the states. Each state has had a State Electricity Board (SEB) that is vertically integrated with respect to generation, transmission and distribution, and is part of the state government. Various political compulsions and inefficiencies have led to large losses by the SEBs. States were slow to set up their own Electricity Regulatory Commissions (ERCs). These delays meant that reform proceeded in a somewhat chaotic manner. The state ERCs were not able to function quickly, because of inexperience and pre-emption by earlier ad hoc decisions. The latest national legislation (the Electricity Act of 2003) may finally help in this sector, where coordination of regulation across governments is clearly required, though not all states have followed through with their own reforms. The unbundling of transmission, generation and distribution at the level of the SEBs, which is taking place in some states, will also help to wring out efficiencies through competition and consequent restructuring, though in some initial cases, the privatization has been poorly designed and implemented.

4. Efficiency of the Tax System

Allocative distortions resulting from the tax system can affect growth as well as static efficiency. In addition, inadequate tax revenue can put pressure on government finances. Both problems have been apparent in the Indian case. Some of the greatest challenges for tax reform in India have come at the subnational level, with indirect taxes. The initial constitutional assignment of tax powers in India was based on a principle of separation, with tax categories being exclusively assigned either to the center or to the states. Most broad-based taxes were assigned to the center, including taxes on income and wealth from non-agricultural sources, corporation tax, taxes on production (excluding those on alcoholic liquors) and customs duty. These were often taxes where the tax revenue potential was greater, as a result of relatively lower collection costs. The center was also assigned all residual tax powers. Initially, the central government followed principles that emphasized extreme progressivity and narrow targeting, resulting in a very inefficient tax structure (with very restrictive import quotas and prohibitively high tariffs being a prime example), and tax administration that was highly susceptible to corruption.

One of the achievements of economic reform in India has been a substantial rationalization of the central government tax structure, in terms of lowering marginal rates, simplification of the rate structure, and some degree of base broadening. This reform agenda was first laid out in the 1991 report of the tax reform committee headed by Raja Chelliah, and has been further developed in subsequent reports, notably including a

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24 The sharing formulas developed by the early Finance Commissions, which resulted in almost all central income tax revenue being devolved to the states, also likely distorted the pattern of central taxation, until it was replaced by general revenue sharing in 2000, after recommendations made by the Tenth Finance Commission.
pair of analyses about a decade later, by committees under the direction of Vijay Kelkar. There are still areas where the tax structure might be improved, and there is not full agreement on how to proceed. In the realm of tax administration, despite detailed analyses (e.g., Das-Gupta and Mookherjee, 1998), less progress has been made, reflecting the general political economy constraints on improving the quality of governance by reducing rent-seeking and corruption, as discussed in the previous section. Liberalization also reduced the central government’s take from trade taxes, and this is only now being made up by increases in revenue from direct taxes through reforms in their structure and collection.

At the subnational level, a long list of taxes was initially assigned to the states, but only the tax on the sale of goods has turned out to be significant for state revenues. This narrow effective tax base is largely a result of political economy factors (e.g., rural landed interests were initially quite powerful in government at the state level) that have eroded or precluded the use of taxes on agricultural land or incomes (and also of user charges for public irrigation and even electricity) by state governments. In addition, the separation of income tax powers between the center and states based on source (agriculture vs. non-agriculture) created avenues for evasion, since the states chose not to tax agricultural income. The greatest inefficiencies arose in indirect taxes. Even though in a legal sense taxes on production (central manufacturing excises) and sale (state sales taxes) are separate, they tax the same base, causing overlapping and cascading, and leaving the states less room to effectively choose indirect tax rates. Also, the states were allowed to levy taxes on the sale and purchase of goods (entry 54 in the State list) but not services. This also provided avenues for tax evasion, and delayed the design and implementation of a comprehensive value added tax (VAT). These issues have been the main subject of recent policy and institutional reform initiatives, and are discussed later in this section.

One other aspect of the initial assignment of tax powers, and its subsequent evolution, deserves detailed attention, because it directly involves one of the conditions for MPF, namely, an internal common market. The framers of the constitution were aware of the need for a common market, but also included a rather broad escape clause. Article 301 of the Constitution states, “Subject to the other provisions of this part, trade, commerce and intercourse throughout the territory of India shall be free”. However, Article 302 empowers Parliament to impose restrictions on this freedom in the “public interest” – a term that is both very broad and not clearly defined in this context. This significant escape clause was, perhaps, in keeping with the post-war situation of general scarcity, and the ideology of centralized planning, but fiscal impediments to internal trade continued or worsened, even as changing economic conditions made them less necessary for economic security or stability.

The most significant fiscal impediment to free inter-state trade was the manner in which inter-state sales taxes were levied. In general, sales taxes have been levied by exporting states on the inter-state sale of goods, making the tax origin-based. On the other hand, the constitution’s framers intended that the sales tax system in India should be destination based. While there is no clear-cut theoretical case for choosing one
taxation principle over the other,\textsuperscript{25} clarity and consistency are virtues, and these were lost in the evolution of sales taxation in India, as we explain next.

According to Article 286 of the Constitution, “No law of a state shall impose, or authorise the imposition of the tax on the sale or purchase of goods where such sale or purchase takes place (a) outside the state, or (b) in the course of import of goods into, or export of goods out of, the territory of India.” This principle was gutted just a few years later. Based on the recommendations of the Taxation Enquiry Commission (India, 1953), the Sixth Amendment to the Constitution added clauses (2) and (3) to enable the central government to levy taxes on inter-state transaction. These clauses read:

“(2) Parliament may, by law formulate principles for determining when a sale or purchase of goods takes place in any of the ways mentioned in clause (1).

(3) Any law of a state shall, insofar as it imposes, or authorises the imposition of,

(a) a tax on the sale or purchase of goods declared by Parliament by law to be of special importance in inter-state trade or commerce; or

(b) a tax on the sale or purchase of goods, being a tax of the nature referred to in sub-clause (b), sub-clause (c) or sub-clause (d) of clause (29-A) of Article 366; be subject to such restrictions and conditions in regard to the system of levy, rates and other incidents of the tax as Parliament may by law specify”.

Under these new provisions, the central government authorized the states to levy a tax on inter-state sales, subject to a specified ceiling rate (4 percent). Besides impeding the free movement of goods (through check-posts), this tax on the export of goods from one state to another converted the sales tax into an origin-based tax. This tax also led to significant inter-state exportation of the tax burden from the richer producing states to the residents of poorer consuming states (Rao and Singh, 2005).

A further problem arose through an inconsistency in constitutional provisions. Although Article 286 does not allow restrictions on inter-state transactions, entry 52 in the State list empowers the States to levy tax on the entry of goods into a local area for consumption, use or sale. In many states, the tax has been assigned to urban local bodies and the tax is variously called, “octroi”, or “entry tax”. In some states, the local entry taxes were eventually replaced by state entry taxes, with similar effects. Thus, taxes are levied not only on the exports from one state to another but also on all imports into local

\textsuperscript{25} Oliveira (2001) provides the following summary of the issues, “Given the existence of different tax schedules, neither of the principles discussed here is clearly superior than the other one as a second-best solution. While the origin principle in general brings consumption efficiency, the destination principle brings production efficiency to the economy of the community. The effects of the two principles on the public administration do not show a sure winner either. The origin principle does not call for border controls and tend to make auditing and, to some extent, compliance easier. The destination principle avoids fiscal wars, net overall revenue losses and does not cause states to wish for a clearing mechanism. Taking a closer look, we think that the destination principle is superior. The relocation of producers that is likely to happen under the origin principle does not have a significant parallel under the destination principle, for individuals are much less likely to move to another country or state solely on a VAT rate basis. Border controls can be replaced by close cooperation between tax authorities from different states.” See also Rao and Rao (2006) for the practical and distributional considerations favoring a destination-based tax in the current Indian context.
areas, including imports from other states. Note that these entry taxes are destination-based, and show that the problem of inter-state taxation has had another side as well as those created by the amendment to Article 286. These entry taxes have complicated the tax system, created distortions, caused impediments to inter-regional movement of goods, increased compliance costs and been a source of corruption.

Overall, developing a coordinated consumption-tax system remains a major challenge for India. Rao (2000) provided detailed recommendations with respect to issues such as rates, interstate sales taxes, and tax administration for a dual VAT coordinated between the center and the states, and noted the problem created by the failure of the Constitution to explicitly include services within the scope of states’ sales tax authority. He suggested moving taxation of services from the Union list, where it implicitly lay (through the center’s residual powers over taxes not explicitly specified in the Constitution), to the Concurrent list via a constitutional amendment. However, the central government chose instead to explicitly add service taxes to the Union List, via the 88th amendment to the Constitution, enacted in January 2004. According to the new institutional regime for service taxes, they are to be shared with the states, in a manner to be determined by Parliament, and therefore outside the “common pool” that is divided among the states by the Finance Commission. Indeed, it is possible that the sharing of service taxes will be completely outside the Commission’s scope in the future, representing a reversal of previous measures to simplify the tax-sharing system and make it more efficient. One can conjecture that the move represents an attempt to establish more central control over the tax base, in the face of broader sharing of centrally collected revenues. However, one could argue, as we do below and in Section 6, that the more efficient route to follow would be to strengthen subnational tax bases and tax collection, reducing the need for tax sharing that is susceptible to distorting marginal fiscal incentives.

In contrast to its noncooperative approach to service taxation, the center has been largely successful in persuading the states to replace taxation of interstate sales with a destination-based VAT, and this is well on the way to implementation (as of October 2006). This effort has taken a very long time, reflecting the difficulties of coordination of policy changes, as well as the practical difficulties of implementation, in terms of rates and administrative mechanisms. The process began with the tax reform committee report of 1991, and the Report on Reform of Domestic Trade Taxes in India (NIPFP, 1994). The latter report studied three different possible models for a coordinated consumption tax system: (i) centralizing sales taxes and unifying them with excise duties; (ii) giving the states the power to levy all domestic indirect taxes while reducing tax devolution; and (iii) evolving an independent dual VAT at the central and state levels, with no credit to be paid for the payment of central taxes by the states and vice versa. The third approach was pursued as being most practical, and as a part of a dual VAT design, a destination-based retail stage VAT will replace existing state level sales taxes. To achieve agreement on

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26 Se also Rao and Rao (2006) for a more recent analysis of the conceptual and practical issues that have arisen in Indian tax reform.
27 The Twelfth Finance Commission has also raised this issue as a concern for the functioning of the tax-sharing system (TFC, 2004).
this shift, the center appointed a State Finance Ministers’ Committee, which recommended the switch to the VAT in stages. The Committee was then transformed into an “Empowered Committee” of State Finance Ministers, which recommended floor rates by the states and Union Territories to avoid any “race to the bottom” in tax rates. By August 2006, 30 states and UTs had implemented the new VAT, representing almost the entire country.  

The key point we make here is that a major reform was achieved essentially by bargaining and logrolling among the executive branches at the national and subnational levels. The legislatures, as in other cases, tend to provide ratification rather than initiation or legislative improvement.

A destination-based VAT will remove some of the internal barriers that have plagued the development of a true national market within India, and could also reduce tax exporting by the richer states. Given potential political problems associated with the interstate income divergence that has emerged in the reform period, any policy reform that ameliorates the causes of this divergence would be welcome. Even though the growth impacts are hard to quantify, the magnitude of the implicit redistribution could have been as high as Rs. 66 per capita in tax exportation for Maharashtra, a high income state, in 1999-00 – this figure being over 10% of the explicit transfers the state received in that period (Rao and Singh, 2005, Chapter 9), though only about 2% of state own revenues, and less than 0.4% of SGDP. In fact, studies commissioned by the Twelfth Finance Commission allay concerns over revenue losses, and project that a properly designed state-level VAT would prove to be revenue augmenting over the medium to long term, with any transitory losses being compensated for by the center. The latest budgetary figures on the initial impacts of moving to VAT are consistent with this conclusion.

The issue of which level should have the power to tax services illustrates a broader issue addressed by the Eleventh Finance Commission, which made a general recommendation to give the states more power to tax, to reduce the vertical fiscal imbalance. This approach takes some pressure off the fiscal transfer system, allowing states that can obtain internal political support to more flexibly tax their own constituents for delivering benefits to them. Another possible example of such a tax reassignment would be to allow states to piggyback on central income taxes. With tax sharing no longer applied to specific tax “handles”, but to tax revenues in total, this change would give states more flexibility at the margin, where they properly should have it. While states are already assigned the right to tax agricultural income, as noted earlier, their use

28 Tamil Nadu announced its decision to implement the VAT with effect from January 1, 2007, leaving only Uttar Pradesh and the UT of Pondicherry remaining to announce their decisions. The UTs of Andaman & Nicobar Islands and Lakshdweep do not have sales tax/VAT. A detailed account and analysis of the features of the new system, and the process of adoption, is given by Rao and Rao (2006). See also World Bank (2005, Chapter 3).

29 There is the possibility that removing taxes on inter-state sales could lead to evasion through false claims of inter-state exportation: the evidence from the European Union suggests this as a possibility that would need to be guarded against (World Bank, 2005, Chapter 3). However, it may be feasible to implement a scheme for taxing all sales, and rebating tax paid on inter-state sales with filing of claims: this would be analogous to a duty drawback scheme.

30 This change would, of course, require a constitutional amendment.
of this tax is minimal, and the separation of agricultural income merely promotes tax evasion. Piggybacking, combined with a removal of the distinction between nonagricultural and agricultural income, \(^{31}\) would represent a change in tax assignments that could increase efficiency as well as reduce the states’ fiscal problems.

While services taxation and VAT represent the two most important aspects of subnational tax reform, the potential reform agenda is much deeper. The World Bank study of state finances suggests attention to the professions tax, state excise duties, stamp duties and transport taxes, as well as to state-level tax administration. Ultimately, while the technical aspects of policy and administrative reform are relatively well understood, the real issue is how institutional reform can be achieved through the political process. Our perspective is that the tax reform process at the subnational level has proceeded through a combination of cooperative and competitive federalism. The central government has played an agenda setting and coordination role in this process, and the states have managed to reach some level of agreement on coordinating tax rates and policies through bargaining by representatives of the executive branch. Strengthening and institutionalizing this process of bargaining could lead to a smoother reform process. The competitive aspects of federalism enter indirectly, through competitive benchmarking, sometimes spurred by individual states that initially go it alone (as in the case of Haryana with the VAT). The center can also play a role in brokering agreement by offering incentives in the form of compensation for lost revenue from a tax reform. Although this might create some short-term moral hazard, if compensation is capped, it will not lead to long run distortions.

One idea that has not been explicitly tried is that of Rao (2000), who suggested that packages of tax reforms (e.g., VAT plus service taxes) be implemented, in ways that would compensate a lost source of revenue for states with a new one. This idea may still be useful in implementing changes to tax assignments that reduce vertical imbalances, tax evasion, and distortionary taxes (e.g., consolidating the power to tax all income with the center, but allowing states to piggyback on central income taxes.) Finally, all of the issues that have been raised in considering center-state tax reform apply to local governments. Their tax bases are inadequate, and property and land tax systems need to be developed and implemented more effectively for decentralization of expenditure authority to the local government level to make some headway. In doing this, the political process that governs reform needs to be given attention, including developing institutions that will allow local governments to share information, benchmark, and coordinate where possible and desirable. Paralleling our suggestions for center-state tax coordination, small piggybacking taxes can also be introduced at the local level at the point of last sale to replace octroi. \(^{32}\)

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\(^{31}\) This suggestion does not preclude provisions such as tax smoothing for farm income to mitigate the effects of greater risks associated with agriculture.

\(^{32}\) We are grateful to M. Govinda Rao for this suggestion. He also points out the need to coordinate reforms in the property tax, capital gains tax and stamp duty, as well as changing laws such as land ceiling and rent control acts that distort land and housing markets.
5. Fiscal Situation of National and Sub-national Governments

Table 2 summarizes trends in central and state fiscal deficits since 1990. Fiscal deficits began to rise in 1997-98 at both levels of government, though the rise was much greater at the state level. Fiscal balances at both levels were severely affected by the large pay increases granted to central government employees in 1997-98 (based on the Fifth Pay Commission’s award), followed by similar increases at the state level the following year. The center’s balance continued to deteriorate slowly till 2001-02, when the trend was reversed. The states’ aggregate position stabilized after the one-time shock, and improved after 2002-03. Two other fiscal indicators also deteriorated after 1997-98. First, the revenue deficit (i.e., balance between current receipts and expenditures) grew as a percentage of GDP, coming down to 1997-98 levels only in 2004-05. 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. Fiscal deficits financed by borrowing add to the government debt. Table 3 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, before stabilizing from 2002-03. A significant portion of this increase was at the state level. For example, the debt-GDP ratio of the states increased from 21% in 1996-97 to 31% in 2002-03.

In addition to the stabilization or slight improvement in the center and states’ main fiscal indicators, government guarantees have also been controlled, falling from 12.2 percent of GDP in 2001 to 10.6 percent in 2004, though the latter figure is provisional (RBI, 2005). The external debt is also under control (22% of GNP in September 2005 – classified as low by international standards by the World Bank), and, as is well known, foreign reserves are at very comfortable levels ($165.1 billion on September 8, 2006). On the other hand, the future cost of the pension system remains a serious issue for the medium and long run. While one demographic trend will help, by increasing the proportion of the population that is of working age, another, longer life expectancy, will increase the number of years for which pensions are paid, relative to the number of working years. The 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.

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33 This section draws on Singh (2006a) for some of its analysis.
34 Excessive emphasis should not be placed on the revenue deficit: current expenditures include spending on health and education, which, if effective, is investment in human capital, with significant social returns. Analogously, some expenditures accounted as capital spending include some items that are really current – essentially maintenance expenditures – and others that have negligible social returns. See Singh and Srinivasan (2005b) for further details of a broad range of issues related to India’s fiscal policies.
Fiscal problems at the state level began to appear in the late 1980s. India’s states had nonexistent or negligible revenue deficits before 1987-88, but thereafter the states in aggregate have continuously had revenue deficits, and that deficit level increased from an average of 0.62% of GDP across 1993-96 to 2.53% in 2000-03. This deterioration was greater than the worsening of overall fiscal deficits for the same period (2.55% to 4.07%), reflecting the crowding out of capital expenditures by current expenditures such as subsides and salary payments. As noted, the Fifth Pay Commission’s award spilled over to the states, and led to a very large jump in the states’ wage bills. It also led to liquidity problems for the state governments, which even had difficulty in paying salaries and wages (World Bank, 2005, Box 1.1). The states’ aggregate primary deficit also worsened significantly, from an average of 0.69% of GDP over 1993-96 to 1.41% over 2000-03. The latest figures for the revenue deficit (1.2% in 2004-05, revenue estimate of 0.5% in 2005-06, and budget estimate of 0.05% in 2006-07) reflect an improvement, but the quality of the fiscal consolidation remains a concern, with expenditure on social services getting squeezed disproportionately, especially in some of the poorer states.

Disaggregating the states’ deficits reveals (Table 4) that the source of deterioration over the 1990s was increases in expenditures such as interest payments, rather than declines in own revenues or transfers from the central government (particularly tax sharing and grants determined by the Finance Commission). This conclusion assumes that the “natural” income elasticity (“buoyancy”) of tax revenues is equal to one. One could argue that the buoyancy of states’ tax revenues ought to be greater than one, which would imply that tax revenues have failed to grow at a pace consistent with that norm. Further aspects of changes in expenditure (not shown in Table 4) have been increases in subsidies – with the power sector a major culprit – and a squeeze on Plan expenditure, which ought to be earmarked for capital projects. Some of the negative impact of the power sector’s problems also shows up in the decline in net non-tax revenues (Table 4 and Rao, 2003).

We can also examine the performance of individual states. The fiscal deterioration for the special category states was generally worse than that of the major states, but we focus on the latter here, as they contain the bulk of India’s population. Data for these 15

35 These and other figures in this section are taken from the report of the Twelfth Finance Commission (Twelfth Finance Commission, 2004).
36 These figures are from the Reserve Bank of India, available at http://rbidocs.rbi.org.in/rdocs/Publications/PDFS/71572.pdf. The improvement in the states’ aggregate fiscal deficit (which was 3.5% in 2004-05 and estimated at 3.2% in 2005-06 and 2.7% in 2006-07) has been smaller, and the states’ combined debt-GDP ratio has reached about 33%, though it appears to be stabilizing.
37 See also Rao (2003a) for a detailed discussion of the composition of and trends in tax revenues of the states.
states is shown in Table 5.\(^\text{38}\) Ranks are shown in parentheses, with a higher rank indicating a ‘worse’ number in terms of deficit, change in deficit, or debt stock. While there is considerable variation across the states, in terms of their fiscal positions and the level of deterioration, there is no clear pattern. High and low income states, reforming states as well as those that have moved slowly on reform, larger and smaller states, all have shown significant fiscal deterioration. The magnitudes of the changes were not obviously affected by initial positions. The correlation between revenue deficits in the earlier and later periods was 0.35, and the correlation between the revenue deficits in the earlier period and their changes was in fact negative (-0.37). The corresponding correlations for fiscal deficits were 0.67 and -0.11. The 2004-05 figures, in the last column of the Table, indicate that this lack of any clear pattern of fiscal performance continued, with substantial swings in relative fiscal performance.\(^\text{39}\)

Table 6 does indicate some of the underlying sources of states’ differing performance.\(^\text{40}\) Table 6 again follows the convention of ranking from ‘worst’ to ‘best’, with ‘worst’ being low tax revenue or revenue increases, but high expenditure or expenditure increases. This characterization neglects the potential benefits of government expenditure,\(^\text{41}\) focusing only on the narrow fiscal consequences. Bearing out the earlier aggregate figures, we see from Table 6 that, while a couple of states have allowed own-tax revenues to slip substantially, the major source of fiscal deterioration has been increases in expenditures running well beyond tax revenues. The correlation between the own-tax and expenditure ratios fell from -0.13 in the earlier period to -0.41 in the later period, with the negative coefficients indicating, perhaps surprisingly, that higher spending states tended to do worse in own revenue-raising. Again, there is no obvious or simple link between the economic characteristics of the states and their relative revenue and expenditure performance. However, we can consider various institutional contributors to the states’ current situation.

\[^{38}\text{Following the analysis in the Twelfth Finance Commission Report, the new states of Chhatisgarh, Jharkand and Uttaranchal are combined with their respective ‘parents’ for the purposes of the comparison across the years. The 2004-05 figures are after the split, as explained in the note to the table.}\]
\[^{39}\text{Budget estimates for 2005-06 indicate significant fiscal improvement for Maharashtra and Gujarat, but not for other states.}\]
\[^{40}\text{Some studies (e.g., Khemani, 2002; Purfield, 2003) have attempted to provide causal explanations of state deficits through cross-section or panel regressions for the states. Explanatory variables include structural variables such as the share of agriculture in Gross State Domestic Product, behavioral variables such as expenditure levels, and political variables such as affiliation between the ruling parties at the state and central levels. The results are suggestive (particularly with respect to the impact of political affiliation between the center and a state on that state’s fiscal deficit) but not conclusive, with one unexplained issue being the variation in states’ fiscal performance from year to year, which we have already noted. Hence, these regressions may not capture the essential mechanisms of state fiscal policy making, nor uncover the underlying structural explanation of fiscal performance.}\]
\[^{41}\text{As pointed out in the Twelfth Finance Commission Report, revenue expenditure has tended to crowd out capital expenditure. The real issue, however, is the quality of both types of expenditure, as discussed in Section 3.}\]
For example, a large contributor to increases in current expenditure was the pay award, and its political economy can plausibly be described as follows. Economic liberalization allowed private sector salaries to rise substantially, creating an envy effect for central government bureaucrats. Their large pay increases had a similar effect on state governments. While these phenomena have more to do with motivations of status and envy, economic liberalization was a factor. It removed some elements of an implicit social contract, in which large monetary rewards were discouraged (through taxes as well as relatively flat pay structures), without changing other elements of the system. Thus, institutional structures that were somewhat adequate in the past are no longer functional. In fact, one can argue that pay commission awards, coming as they do in large discrete changes, should have been anticipated and allowed for in government budgeting, or even that the system should be replaced with a smoother, more frequent method for adjustment of government pay scales (Srinivasan, 2006).

The increase in states’ fiscal deficits and debt has represented a major change in status of the overall fiscal management of government, and a challenge to economic reform. The challenge includes the direct impact on governance because of the deteriorating quality of expenditures, as well as indirect impacts through a discourse that blames reform for the states’ fiscal difficulties. We have suggested that the latter perspective has some merit, though the proper implication, in our view, is that the problem is one of incomplete rather than pernicious reforms. The Indian federal system is in the middle of developing a new institutional framework for managing subnational deficits and debt. To evaluate different approaches that have been proposed and attempted, some brief review of concepts is helpful.

Obviously, borrowing, in addition to its normal role of funding capital expenditures, is an expedient method of financing the excess of current expenditures over current revenues. At the same time, borrowing shifts the burden of paying for current expenditures from the present to future generations, who will be servicing the debt, as a result also redistributing future current income from taxpayers to debt holders. This impact of borrowing is quite different from borrowing to fund capital expenditure that increases growth rates and future incomes. In the pre-reform period, access to the market for borrowing by subnational governments was severely restricted. The RBI, as central bank, managed the debt of all levels of government, and, in particular, it did not allow market borrowing by state governments that were already indebted. In practice, all the states were in debt to the central government, which made discretionary loans to the states for capital and current expenditures. In this regime, debt of different state governments that was incurred at the same time carried the same interest rate, regardless of the borrowers’ fiscal situation. Moreover, the central government acted as a financial intermediary, certainly with respect to external borrowing, but also for domestic

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42 Howes and Murgai (2005) analyze aspects of the pay and pensions of government employees. They suggest that overall, public sector wages are too high, but this does not seem to be true at the most senior levels – essentially, the private sector rewards performance and responsibility more closely, with a much steeper pay gradient.
borrowing: it borrowed and then on-lent to the states, with or without an additional charge. Recent borrowing by states, however, has been largely to fund revenue deficits.

Just as the pay and incentive system for government employees has come under strain from the opening up of India’s market economy to globalization, the system of hierarchical, discretionary control of subnational borrowing, which worked sufficiently well under the old license-permit regime, came under strain in the late 1990s, with states borrowing to fund revenue deficits partly caused by the large pay hikes (essentially a form of subsidy for unproductive government employees), as well as by increasing explicit subsidies to interest groups such as farmers, and implicit subsidies to PSE employees (especially in the power sector) in loss-making enterprises. States also were given more freedom to negotiate with multilateral agencies for loans for capital projects, with the center traditionally serving as a guarantor.  

Central political control of states’ deficits became weaker in a situation where more regional parties were pivotal players in broad central government coalitions. These regional parties were no longer subject to incentives (such as influence in the party hierarchy) that might have operated through bargaining among regional factions within a single political party. The last few years have therefore seen attempts to create a new set of political institutions to once again harden the states’ budget constraints, after the “softness” of the 1990s.

From the center’s perspective, there was some advantage to restricting the states’ borrowing and deficits. The center itself was under fiscal pressure, and there was a subset of central government decision makers who saw policies that encouraged fiscal discipline and long-term growth as an attractive political strategy. Initial attempts to control subnational deficits by restricting ways and means advances from the RBI were hampered by their temporary and limited nature – essentially, they were not credible. One can also argue that the political power of the center vis-à-vis the recalcitrant states was limited. The Eleventh Finance Commission tried to build incentives for fiscal reform into the transfer system, but the manner in which these incentives were structured left them too weak to make a difference to state expenditure and borrowing decisions.

The approach that seems to have worked partially is that of commitment to explicit targets through fiscal responsibility legislation. The central government passed a Fiscal Responsibility and Budget Management (FRBM) act in 2003, laying down specific targets for deficit reduction. Many state governments have followed the center’s lead since then. The RBI provided model legislation, while the Twelfth Finance Commission (TFC) recommended tying debt relief and restructuring for the states to their passage and implementation of FRBM laws. The degree of commitment has been somewhat shaky in practice, with the 2005 Budget incorporating a pause in moving toward FRBM targets,

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43 Chakraborty and Rao (2006) have shown that this new opportunity did have the effect of softening the states’ budget constraints.
44 As will be clear from the following discussion, these attempts have not been without problems in terms of focus and consistency. In addition, governmental actions are not those of a monolith, and various expenditure policies and proposals, in particular, have worked against this hardening. We are grateful to M. Govinda Rao for highlighting these caveats and contradictions.
and the Planning Commission suggesting a further weakening this year.\textsuperscript{45} There can also be natural skepticism about the enforceability of such laws by sovereign governments, or by subnational governments that can count on being bailed out. A precondition for enforcement, monitoring, is also not trivial to implement. The inability of such legislation to completely specify the quality of the fiscal adjustment (what expenditure gets cut, or who gets taxed and how) has also raised concerns about distortion of incentives (e.g. Rajaraman, 2005).\textsuperscript{46}

Some have suggested a new independent scorekeeper for monitoring (e.g., Hausmann and Purfield, 2004), while others have viewed the Finance Commission as a candidate for the job (e.g., Singh and Srinivasan, 2005b). In fact, it was the Eleventh Finance Commission’s report that prompted the initial FRBM legislation, and the TFC has sought to extend the scope and impact of fiscal responsibility laws to all the states. Howes (2005), in an assessment of the initial impact of the state FRBM laws, is quite positive. He sees the laws as having a positive effect on states’ fiscal positions, though he does not see conclusive evidence that passing such legislation is a necessary route to fiscal consolidation. In fact, one could conjecture that such laws, especially without sanctions for failing to meet targets, are more a symptom or symbol of a political consensus with respect to fiscal consolidation than a constraining factor. Nevertheless, this approach is useful, and has advantages of transparency, targeting, and monitoring that can together support better overall governance.

Despite the usefulness of FRBM laws, they do not tackle the fundamental underlying incentive problems that can lead to poor fiscal decision-making by subnational governments: for example, their effectiveness would rely on states not being bailed out by the center. With respect to borrowing, the TFC (2004, p.12) has made a significant recommendation, namely, that “The Central Government should not act as an intermediary for future lending and allow the states to approach the market directly. If some financially weak states are unable to raise funds from the market, the center could borrow for the purpose of on-lending to such states, but the interest rates should remain aligned to the marginal cost of borrowing for the Center.” This recommendation moves institutions in the right direction for more efficient fiscal management, but there are still weaknesses in what is envisaged. Direct access to the market usually means that states deemed too risky to lend by the market have to pay a higher interest rate, and this in turn would provide an incentive for such states to be fiscally more responsible and be perceived as less risky. Any on-lending to fiscally weak states at about the market rate for central loans would simply dilute the incentive to be fiscally strong that direct access to the market induces. Instead, the Commission could have recommended that all states have to access the market directly, with some relatively weak states given more time to reach that stage, receiving additional grants in the meantime.

\textsuperscript{45} In each case, a rationale is provided, but presumably there can always be some \textit{ex post} reason for not sticking to a commitment – otherwise the commitment would be unnecessary.

\textsuperscript{46} However, at a coarse level, expenditure quality targets (at least constraining expenditure on salaries) can be (and have been) incorporated in FRBM laws.
The TFC’s scheme for restructuring the states’ existing debt could also have been better designed. Writing off debt and/or rescheduling it, whether it is external debt of developing countries or the debt of states in India, creates a serious moral hazard – debt relief blunts the incentives to change behavior that led to the accumulation of debt in the first place. Although moral hazard cannot be eliminated altogether, conditionalities on debt relief, provided they are credible, can alleviate it. The recommendations of TFC in this area do have conditionalities related to passage of FRBM legislation with specific debt-reduction targets but while the TFC sensibly avoided confining the write-off only to the worst-off states, it could have been selective in other ways that do not create moral hazard.

One area that has remained relatively untouched in legislation and recommendations implemented so far is the issue of captive financing at different levels of government. We have argued previously (Singh and Srinivasan, 2005a) that the central government can park its deficits in the public sector banks, which must hold large quantities of government bonds. The states also have this luxury to some extent. Furthermore, they have been relying increasingly on access to small savings and pension funds to finance their deficits (e.g., World Bank, 2005), and unless this channel of captive financing is blocked, market borrowing will not be effective in hardening budget constraints. On the other hand, the TFC has recommended overall limits on borrowing by each state, and if these can be enforced effectively (by limiting off-budget borrowing in particular), they will help to harden budget constraints.

Two conceptual points still need to be analyzed in considering the evolution of institutions to manage subnational fiscal positions. First, the role of the transfer system and the consequent nature of the so-called “common pool” problem have been misunderstood in the Indian context. Second, it is useful to situate the institutional evolution described in this section to the concepts of cooperative, competitive and market-preserving federalism.

The common pool characterization of subnational fiscal incentives is easy to understand. If all tax revenues across subnational jurisdictions are pooled (either directly or indirectly) and shared formulaically, independently of (explicit or implicit) contributions, any individual jurisdiction has an attenuated incentive to take actions that stimulate tax revenue. Hausmann and Purfield (2004), for example, emphasize the common pool problem as a cause of India’s subnational fiscal deficits. Following Singh (2006), we would like to suggest that the more fundamental concept is really the basic marginal principle. Thus sharing in a common pool is not a problem if it does not distort marginal incentives. In the context of deficits, debt relief and restructuring result in

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47 Hausmann and Purfield (2004) picturesquely illustrate the common pool problem with what happens when an individual goes to a restaurant in a group and orders lobster, whereas if he were alone, he would have ordered a cheaper item, chicken. However, this analogy oversimplifies, and masks the problem and, therefore, the solution. In Hausmann and Purfield’s story, the implicit assumption is that the bill will be equally divided. Hence the marginal cost of an individual order of lobster is split among the entire group. Suppose instead that the marginal cost versus chicken of all the lobster orders is separated out and divided among only those who order lobster. Then the common pool problem goes away. The key idea is that
marginal expenditures being paid ex post, or with a lag, from central revenues – the common pool. Similarly, center-state transfers that are designed to fill current expenditure-revenue gaps also represent dipping into the common pool. However, neither of these phenomena is a necessary consequence of federalism, and neither is built into India’s institutional structures – as opposed to its prevalent practice. Hence, some of the reform that is necessary can come from recognizing where precedent is inefficient, and changing policies rather than changing institutional structures (though the latter could be required to achieve the former). Making sure that marginal expenditures are generally paid through current or future subnational own-tax revenues should be the focus of reform. This shifts the focus away from FRBM laws toward market discipline for borrowing, and transfer systems that do not distort per-period marginal incentives. The issue of the transfer system is explored further in the next section.

The institutional evolution underlying the problem of subnational fiscal deficits can be related to the different concepts of federalism. India’s federal system in the 1950s was typically perceived, or at least presented, as being “cooperative” in nature, reflecting post-independence nationalist attitudes. In practice, the workings of the system were more hierarchical. Thus, in the political arena, a shuffling of regional leaders of the Indian National Congress under the “Kamaraj plan” of the early 1960s was projected as a cooperative decision, when its underlying motive was based more on maintaining centralized hierarchical control. The current nature of Indian federalism is, perhaps, more genuinely cooperative. The move toward state level FRBM laws has been partly achieved by agreement, though without formal contracts. The TFC’s recommendations have an element of hierarchical control, but the debt relief scheme can be viewed as an explicit contract, which the states can choose to sign, rather than “an offer that cannot be refused.”

The aspects of tax reform discussed in the previous section also have elements of cooperative federalism in them. These cooperative elements can be viewed as checks on destructive competition in the federal system through subnational tax and expenditure policies driven by what M. Govinda Rao and others have termed “competitive populism,” which was heightened after liberalization. At the same time, one can obviously view the move toward market-determined borrowing and overall restraints on borrowing at the subnational level as a move toward the MPF condition of hard subnational government budget constraints. In fact, the use of the market mechanism to achieve hard budget constraints can be termed “market-disciplined federalism” (MDF). In sum, in tracing the process of changes in subnational fiscal management and outcomes, one can perhaps identify competitive and cooperative elements of federalism in this process of change, while MPF can be viewed as the direction in which the system is moving.

marginal incentives must be right, so that, in the case of India’s states, they must bear the full marginal cost of their spending.

48 This characterization was made by Rao at a Stanford conference in 2002.
6. Impacts of Federal System on Growth and Equity

For decades, a major debate has proceeded with respect to the proper role of government vis-à-vis the market in determining resource allocation, as well as how this determination interacts with non-material aspects of society. The last two decades have seen a shift toward acknowledging that market institutions are superior for many aspects of resource allocation, including those which impact growth, as well as those which affect static efficiency. While the debate is not settled in the minds of some, as evidenced by various policy discussions and actions in India, the more relevant issues really lie elsewhere. First, there is more room for disagreement with respect to how equity concerns should be handled, since this introduces normative considerations that tend to get tangled up with positive analyses of the impacts of government policies. Even here, though, we have considerable theoretical guidance and consensus on which policies may work best to achieve societal equity objectives, whatever those objectives may be.

In comparison to this more settled literature on government-market boundaries, there is less work on, and perhaps less understanding of, the effects of the organization of governmental structures on economic activity and performance. Modern theories of federalism are an important subcategory of theories of the economic impacts of governance, with the concept of MPF being an example of an attempt to unify our understanding in a normative ideal for federalism. In this context, there is a clear link from some aspects of federal structures to their economic consequences, and these are captured in the MPF rubric. In particular, the benefits of an internal common market, just as is the case for international trade, are easily understood in terms of the theory of competitive market exchange. The rationale for decentralization of expenditure authority for local public goods has also been developed, in terms of political competition to satisfy constituents’ wants effectively. The assignment of revenue authorities, coupled with a system of intergovernmental transfers, creates some more interesting theoretical issues.

As discussed in Section 2, the traditional public finance literature focuses mostly on static effects of transfers, and is mainly normative in nature. It deals with the question, given some norms for minimum national standards with respect to the provision of subnational public goods, how can the intergovernmental transfer system be designed to fulfill these norms? In the case of India, even this basic objective has not been well met by the transfer system. Recently, Barry Weingast and his co-authors (e.g., Careaga and Weingast, 2001) have attempted to tackle an even more important issue for developing countries, namely the growth effects of federal institutions governing revenue authority and sharing. At the risk of some oversimplification, we can distinguish the two sets of questions as follows. The standard public finance question takes the subnational jurisdiction’s income as given, and looks at the incentive effects of tax assignments and transfers. The growth perspective examines the effects of the tax and transfer system on incentives to increase income (e.g., through public or private investment). Of course there is a large macroeconomic literature on taxes and growth – the difference here is that a federal structure adds intergovernmental transfers as a factor. In this case, there may be a conflict between goals of short run horizontal equalization and long run development.
Beginning with the static issue of horizontal equity, the Indian case is one where the impacts of Finance Commission transfers are definitely equalizing across states. This goal was built into the transfer formula from the first commission, and analysts such as M. Govinda Rao have estimated the equalizing effects for various cross-sections and time periods, as an elasticity of transfers with respect to per capita income. Rao has also shown that including Planning Commission transfers weakens the equalizing effect. This is so despite the inclusion of some equalizing criteria in the Planning Commission’s formulas, which were introduced in 1969. In any case, the existence of ministry-based transfers, and even more so of implicit transfers through subsidized and directed loans, debt relief and restructuring, tax exportation, targeted public investment, and administered pricing (particularly the freight equalization scheme) makes it very difficult to estimate the overall degree of horizontal equalization that takes place within India’s federal structures.

Focusing on Finance Commission transfers alone, one can note that there has been a slight decrease in horizontal equalization in the Twelfth Finance Commission’s recommendations, versus its predecessor (Rao and Jena, 2005; Howes, 2005). This was, of course the result of explicit changes that put less weight on per capita income, thereby reducing the horizontal equalization achieved through the formula. Rao and Jena calculate the exact differences in tax devolution as a result of the TFC’s formula change. Howes shows that incorporating grants (which were targeted at the poorer states) reduces this inequalizing effect, but does not remove it. While India’s states receive about half of their revenues through explicit transfers from the center (about 30% of the center’s own revenues), these transfers represent about 5-6% of average state GSDP. In total, therefore, the states receive transfers that are small relative to their overall economies. Nevertheless, this process of apparent backing off from formal horizontal equalization takes place against a background of increased regional income inequality.

These observations are not meant to imply favoring the previous status quo with respect to the tax devolution formula. In fact, the Finance Commission’s methodology is non-transparent in its rationale and its outcomes. Theory would suggest using measures such as population density, overall size, topography, and economic structure to establish minimum norms for tax and expenditure levels, which could then be used to determine levels of transfers that would sustain minimum expenditure norms for a state that behaves according to the norm. As an illustration, a ‘need-revenue’ gap, which measures the difference between what a state ought to spend to provide specified levels of public services and the revenue it can raise at a given standard level of tax effort, can be calculated as \( G_i = QC_i - \overline{tB}_i \), where \( G_i \) is the gap (per capita), \( Q \) is the desired (normative) level of composite public service provided by the state per capita. \( C_i \) is the unit cost of the public service (reckoned at justifiable costs), \( \overline{t} \) is the standard tax effort, and \( B_i \) is the per capita tax base. For need calculations unit cost components within the control of the State governments would also have to be reckoned at justifiable levels. See Rao and Singh (2005), Chapter 8.
Finance Commission itself does not see this as a problem (Rangarajan, 2005), arguing that the gap-filling is based on normative measures. Nor does it show up in some econometric studies, though the results are not consistent across studies. To some extent, the problem may also be more severe with Plan grants, which are, in some ways, even more the result of bargaining, lobbying and “gap-filling.”

Some of the impact of different components of the formula can be assessed by recalculating shares without one component or another (keeping the relative weights on other components constant). In particular, since the fiscal discipline and tax effort measures are very highly correlated with each other and with population (simple unweighted correlation coefficients greater than 0.98), excluding them has very little impact on the major states (with the exception of West Bengal, which has recently been a consistent poor performer on these criteria). On the other hand, excluding the “area” component has two kinds of effects. Because this variable is proportional to area for larger states, but is truncated at a fairly high value for small states (presumably to capture both fixed costs of administration and higher costs associated with lower population density), excluding it actually helps the poorest state of Bihar. The very small states are the biggest beneficiaries of including this component, but that includes high income states such as Goa and Punjab.50

Overall, it is not at all obvious what impact a change in behavior (e.g., tax effort or fiscal discipline) has on a state’s share, nor whether the incentive effects are sufficient to induce changes in behavior, though one can perform the former calculation. For example, if Chhattisgarh’s tax effort measure had fallen to that of Madhya Pradesh (about 0.9% of GSDP lower, so a substantial decline of close to 15% of tax revenue), the penalty in terms of the reduction in transfers (neglecting second order effects from recalculating relative shares) would have been about 0.9% of the overall formulaic transfers to the state. It is difficult to say whether this would be a deterrent, but the size of the penalty is an order of magnitude smaller than the tax reduction, and it seems unlikely that any state’s behavior would be driven by the incentives built into the formula. In the absence of good empirical models of state level fiscal behavior, even after over 50 years of Finance Commissions, we can only speculate.

Understanding the growth impacts of intergovernmental transfers requires some modeling of how subnational governments can affect their tax bases. Careaga and Weingast (2001) use a model in which government decision-makers can either capture rents, or increase their jurisdiction’s income, and hence its tax base. From this perspective, the marginal subnational retention rate of all taxes levied on the subnational tax base comes into play. Weingast (personal communication) observes that in the United States in the 19th century, the marginal retention rate of a state was nearly 100%. Qian and Weingast (2005) calculated this figure for China during the high growth phase of reform, 1981-92, and estimated the average marginal retention rate for a province at 89%.

50 The share of Goa is almost four times what it would be without the “area” component of the weighting scheme.
with 68% of the provinces having marginal retention rates of 100%. On the other hand, they report a similar calculation by Zhuravskaya for Russian cities, which came up with a retention rate is around 10%. Finally, Careaga and Weingast (2001) calculate this percentage as 23.3% for Mexico in 1995.  

For the Indian case, this kind of calculation has not been seriously attempted. Note that the idea here is to look at the overall tax revenue of a state, without prior assumptions about assignment. A simple calculation might be as follows. If a state receives one-third of all taxes assigned to the center, and all of the taxes assigned to the state, and the latter and former made up equal shares of the state’s revenue, then its marginal share of the extra tax revenue generated by growth would be 50%. This assumes that tax rates could not be adjusted, and that all tax revenues have the same income elasticity. The complication in this calculation would be the impact of the Finance Commission’s equalization formula. If only a single state grew, out of say 20 equal sized states, then about half of the increased central tax would be shared with other states (reflecting the 50% weight given to the “distance criterion,” though this overstates the impact of that factor). Now the marginal share of this state would be somewhat under 40%. If one accepts this kind of calculation, it would suggest that the horizontal equalization approach used in India has strong negative growth effects. Note that this calculation has nothing to do with tax effort or fiscal discipline effects of tax sharing formulas.

Weingast (personal communication) suggests that sharing rules be devised to reduce the marginal take of the center, and correspondingly increase the marginal retention of the state or other subnational government, even in cases where horizontal equalization is being attempted. One should note, however, that the argument as developed here is incomplete, since the center’s role in promoting economic activity is not modeled. In fact, since the center also can increase tax revenue by increasing the national tax base, there is a trade-off that is not captured by focusing on just the subnational government. Of course, one can argue that much of the center’s activity is related to public goods that are inelastic with respect to growth, and it is subnational stimulus and support of the market that matters. But this is a question that deserves closer examination. It also relates to the initial assignment of revenue and expenditure responsibilities, which are presumably reflective of the comparative advantages of different levels of government. One should emphasize again the caveat that, in the absence of a model of the links between taxation, public expenditure and growth, one should not rely too much on the specific numbers presented in our illustrative calculation.

In addition to redesigning the formulaic part of the intergovernmental transfer system to directly improve marginal incentives, one can also argue that reducing the

51 They point out that there were periods when all state revenue was put in a common pool and then divided by an equal sharing rule, which meant that the marginal percentage for the average state was close to 1/33, the denominator being the number of states.

52 We are grateful to Barry Weingast for some suggestions, made in a different context, on how to go about this calculation, as well as for pursuing this overall line of reasoning. He is blameless for the calculations attempted here.
magnitude of transfers can decrease the scope for political influence effects that distort subnational behavior, and also improve subnational political incentives – constituents of subnational jurisdictions can more clearly identify the Wicksellian connection between their costs and benefits in voting on taxation. Since there is no reason for centralizing expenditure decisions more than the status quo, reducing transfers requires further decentralization of tax authority. This can be done through allowing subnational jurisdictions to piggyback on some of the same tax bases that are used for center-state tax sharing, as we have argued in Section 4. For example, allowing states and local governments to impose income tax surcharges would not only improve their marginal retention, but it could reduce the need for tax sharing. This would also allow the focus of Finance Commission transfers to be more clearly on horizontal equalization for the poorest states. In general, the greatest weakness of local government reform as conceived and implemented so far has been the failure of tax assignment to match expenditure assignment. The poor functioning of the State Finance Commissions could be partly addressed by increasing the power to tax of the local authorities. In this latter case, some expenditure authorities also need to be decentralized more fully, since local government autonomy in this dimension remains constrained by state and central decisions with respect to investment projects and social insurance programs.

7. Comparison with China

We choose to compare India with China for several reasons. China’s size, economic reforms and growth record make it a natural benchmark for India. In the realm of federalism, problems with tax sharing, invisible transfers, soft budget constraints and off-budget activities are issues in common between the two countries, despite their very different political and economic structures. It is also worth remarking that in the case of both India and China, the second tier of federalism, namely the states or provinces, represents populations and areas comparable to European countries. The concept of MPF also provides a point of comparison. While there has been a debate about where India’s federal system fits the MPF system (Parikh and Weingast, 1997; Rodden and Rose-Ackerman, 1997), China has been characterized as firmly within the MPF locus, with appropriately decentralized political and economic decision-making, and only a common national market somewhat lacking (Montinola, Qian and Weingast, 1995). In the Chinese case, for example, local government officials were given freedom by central and provincial governments to implement policies that attracted and sustained many new enterprises. One may find the concept of MPF hard to pin down in some of its details,

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53 In placing China this way, Weingast distinguishes between de jure and de facto federations, India falling into the former category, and China into the latter, though in practice any system will work as a mix of legal framework and conventions. Also, the de facto nature of Chinese federalism has allowed for more institutional and policy flexibility than in the Indian case, though this flexibility can cut both ways, with the Cultural Revolution in China being an example of a negative extreme.

54 Thus, the boundary between government and market was drawn in a peculiar way. Subnational governments became more or less directly involved in commercial enterprises, with interjurisdictional and international competition providing a disciplining device for efficiency. Employment creation and social safety net provision were enhanced by this involvement, though at a cost in terms of some other typical governance objectives: for example, environmental protection and social equality have both suffered. In
but the themes of subnational autonomy, a common national market, and hard budget
constraints provide a useful frame of reference for considering the evolution of India’s
federal system over the last decade or two.

In particular, the central theme of subnational governments (with political and
bureaucratic roles being substantially intertwined in the Chinese case) seeking to enhance
constituent welfare through market-based economic activity is an important one to
consider in the context of India. India has a more difficult problem in one respect, since
its institutions and history are not suitable for a Chinese style direct approach. There are
typical and proper constraints on direct involvement by bureaucrats and politicians in
private enterprise, though these can be and are circumvented through family, friends and
agents. However, there is clearly scope for decentralizing decisions that affect economic
activity. The centralized industrial licensing policy that was finally gutted in 1991 was a
prime example of needless controls on economic activity. There is evidence that needless
or poorly designed subnational controls still exist, and that some national level discretion
could be devolved to the states. A key example of subnational controls is state laws that
restrict agricultural trade. In this case, severe distortions in pricing through various
subsidies compound the problem.

Some of these problems in India (where they restrict the common market aspect
of MPF) can be dealt with by central government action. Others require subnational
action, which may come from pressures such as competitive benchmarking. This
subnational action may include changing policies, as well as changing institutional
setups. Examples include modifying tax assignments (institutions) as well as rates
(policies), and changing the incentive structures of the bureaucracy (selection, training,
evaluation and promotion) as well as of politicians (e.g., elections at the local level, with
local politicians being given real authority and resources to act). Essentially, the current
incentives for subnational governments in India to promote market functioning are weak,
and strengthening them can help. This can be done while preserving the traditional
boundary between government and market, which is interestingly blurred in the Chinese
case.

A constant feature of China, in contrast to India, has been a strong, centralized,
one-party system. This institutional arrangement has dominated politics of course, but
allowed considerable experimentation and variation in terms of economic authority at
different levels of government. Before the 1980s Chinese reforms, which began the
country’s sustained growth spurt, taxes and non-tax revenues (i.e., profits from state
enterprises) were collected by provincial governments acting as agents of the center.
Expenditure planning was a centralized top-down process, as was the determination of
revenue sharing. With reform, there was an attempt to create a fiscal contracting system
to govern explicit sharing of revenues by the provinces with the center. However, the
increased economic resources of several provinces gave them incentives to manipulate
the system to shelter revenues from sharing with the center, resulting in fiscal stress at the

some ways, the Chinese model fits with Olson’s (1993) idea of efficient ‘stationary bandits.’ It is an
idiosyncratic illustration of the MPF concept.

55 See Singh and Srinivasan (2005b), for example, for more discussion of this issue.
center. In addition to the contracted transfers, there was also discretionary borrowing by the center from provinces, and transfer payments by the center to other provinces.

At this stage, centralization of political power asserted itself, and in 1994, the institutional arrangements finally moved toward a more traditional tax system, with a separate national tax collection bureau, and taxes that are shared (including a VAT), as well as others that are assigned to one level of government or another. While China has been ahead of India with respect to the introduction of a VAT, “extra-budgetary” revenues, which include tax surcharges, user fees and some state enterprise profits, are quite significant, and even institutionalized. Given these features, and the somewhat opaque nature of Chinese government budgeting and national income accounting, it is difficult to conduct an analysis of the Chinese tax system that could parallel some of the observations that we have made about India.\(^{56}\) In keeping with our discussion of the MPF view in Section 2, one hypothesis could be that the allocative efficiency of the tax system in a standard public economics sense is of second order importance relative to fiscal autonomy on the revenue side (with expenditure authority being somewhat taken for granted). Certainly, China has grown rapidly without using any optimal tax or other economic models to guide their design of tax policy. Nevertheless, it would be irresponsible to suggest that microeconomic efficiency of tax rates can be neglected, and both China and India are attempting tax reforms to improve administration and allocative efficiency.

Turning to fiscal problems, China’s situation is ostensibly better than India’s. China’s fiscal deficit did not touch 3% till 2002, and that was the result of a deliberately expansionary fiscal policy, designed to compensate for sluggish domestic consumption. It has fallen subsequently to about 1.5% of GDP. The consolidated figure for all levels of government is about 4% of GDP. Debt, too, is much lower than India’s, at under 40% of GDP. Furthermore, China’s high savings rates and large trade surpluses give it a much greater margin of safety than exists for India with respect to negative economic shocks. A caveat to this optimism is the existence of large off-budget deficits of state enterprises, and the poor shape that many state-owned banks are in. In fact, the government has used foreign reserves, to restructure some banks, to shore up the financial system. The key difference from India may lie in the harder budget constraints that have been in place for provincial and local governments. According to Cao, Qian and Weingast (1999), those hard budget constraints have driven subnational governments toward various forms of privatization strategies, further enhancing the market-preserving nature of Chinese federalism. This development builds on the existing fiscal autonomy of subnational governments. Privatization at the subnational level is important, as it reduces the future use of the state-owned financial sector as a resting place for bad debts. On the other hand, recent analyses suggest a less positive view of local government finances, with off-budget borrowing surfacing as a problem (Bahl and Martinez-Vazquez, 2005; Fedelino

\(^{56}\) However, see Rao (2003b), Bahl and Martinez-Vazquez (2005) and Fedelino and Ter-Minassian (2006) for some observations on the Chinese tax system.
and Ter-Minassian, 2006),\(^{57}\) and the central government unable to impose fiscal discipline in some cases.

Overall, despite the issue of off-budget deficits, it seems that China’s subnational governments are considerably stronger than India’s both in terms of quality of expenditure (better delivery of local public services), and overall fiscal health (smaller subnational budget deficits). This superficially poses somewhat of a paradox for conventional theories of democratic responsiveness. While the operation of democratic incentives at the local level has been weak in India, the better performance of Chinese subnational governments is not explained at all be conventional democracy. One might explain this better performance in terms of greater alignment of incentives between bureaucrats and politicians on the one hand, and constituents on the other – this being achieved in China through shared stake holding in local economic development. The Indian case has been much more one of adversarial relations between governed and government. One might conjecture that fiscal autonomy and a stronger Wicksellian connection between public revenues and spending is more important for economic performance than the trappings of democracy. It may also be the case that administrative centralization, in the form of a well-defined party hierarchy, was more conducive to political and economic decentralization than India’s system of divided authority without clear demarcations. Of course, these observations do not devalue all the inherent, non-instrumental benefits of democratic governance.

Finally, we have already discussed in Section 6 the contrast between India and China in terms of intergovernmental transfers, in particular in terms of fiscal incentives for subnational governments. In China, strong local and provincial fiscal autonomy can be seen as establishing a de facto federal structure, which is better at stimulating economic growth, even in the absence of other well-defined political and bureaucratic institutions. The proposition illustrated by the Chinese case is that subnational fiscal autonomy on the revenue side overrides the impact of many micro-level institutional features, such as we have discussed in the case of India (e.g., specific constitutional provisions, bureaucratic rules, and checks and balances). Furthermore, for a positive outcome, this revenue side autonomy must work in both directions, up and down, so that it is associated with hard budget constraints.\(^{58}\) At the same time, this arrangement may be less amenable to managing regional inequalities, which may be emerging as a serious problem in the case of China, threatening to get beyond the central government’s ability to manage them (Fedelino and Ter-Minassian, 2006). On the other hand, while not as severe, growing regional inequalities are a concern in India as well, but without the positive incentive features of the Chinese example. This suboptimal situation motivates the reform proposals discussed in the next section.

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\(^{57}\) Bahl and Martinez-Vasquez (2005) also note that pension liabilities at the subnational level are another reason for a cautious assessment of local government finances in China.

\(^{58}\) See, in particular, Montinola, Qian and Weingast (1995), Cao, Qian and Weingast (1999) and Jin, Qian and Weingast (2005).
8. Future Reform and Prospects

India’s constitutional provisions on center-state economic relations were largely based on prevailing circumstances that were seen to demand a strong central government and this led to many unitary features in the constitution of 1950. These circumstances no longer prevail. While the constitution mandated the appointment of a Finance Commission every five years to manage intergovernmental fiscal transfers, an extra-constitutional body, the Planning Commission, was set up in 1950 at the center (with state planning commissions and boards following later), to implement the belief of the ruling Congress Party leadership in central planning (modeled after the Gosplan of the Soviet Union) and a dominant role for the state in economic management. The Planning Commission became a major player in center-state economic relations and has been making transfers to states in support of their five-year plans, as well as overseeing some other transfers by central ministries. The Soviet Union collapsed in 1991, while central planning as a mode of articulating and implementing a development strategy had gone out of fashion even earlier. Thus, the role of central planning needs urgent rethinking in the contemporary Indian context, in which markets are allowed to play a far greater role in the economy.

Besides emphasizing state control over the economy, the Indian development strategy from the 1950s to the mid-1980s was extremely inward-oriented, with across-the-board import substitution, implemented though a plethora of controls that drove the investment pattern of the public and private sector. Foreign investment was actively discouraged and foreign borrowing was basically from concessional loans of multilateral development banks and bilateral foreign aid. The economy has moved away from this dysfunctional strategy with much greater openness to external competition and active pursuit of foreign investment (direct and portfolio). This shift was also accompanied by reforms in the financial sector, along with making the rupee convertible for current transactions.\(^{59}\)

With the economy getting more integrated with the world economy both in trade in goods and services and in finance, domestic fiscal and monetary policies (and also public investment in social and economic infrastructure, to the extent that the public sector continues to be the supplier of infrastructure services), have to be consistent with foreign sector policies, particularly with respect to the exchange rate and capital flows. Evidence from other federations (e.g. Argentina) suggests that the political economy conflicts of federalism in the fiscal arena, themselves rooted in faulty institutional design, can trigger an external payments/exchange rate crisis. As Indian policy makers are considering a road map for making the rupee fully convertible, they have to ensure that fiscal aspects of India’s current federal system do not pose such a threat and undertake appropriate actions to reform the system, if necessary, for this purpose.

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\(^{59}\) Although the Reserve Bank of India appointed a committee in 1997 to put together a road map for making the rupee fully convertible (i.e. for current and capital transactions) and it recommended a three year phase-in for doing so, spread over 1997-2000, no formal action was taken, partly because of the Asian financial crisis. That committee has recently been revived, and has prepared yet another road map.
Some reforms may require rewriting the constitutional provisions regarding center-state fiscal relations. While there have been several successful examples of this process in the 1990s, constitutional amendments do require considerable thought and debate and can take a longer time to accomplish. However, there are several reforms that can be considered for implementation, which do not require constitutional change.

First, we suggest that it would be beneficial if states and the center have means for discussing each other’s fiscal policies in a more effective common forum. Currently discussions on state plans at the Planning Commission take place between the commission and each state separately. The National Development Council, in which state chief ministers are represented, on the other hand, discusses central plans. There are ad hoc forums for discussion, such as the Empowered Committee of State Finance Ministers (ECSFM) and the meetings of state finance secretaries organized by the Reserve Bank of India, that do provide an opportunity for each state’s representatives (finance ministers or finance secretaries) to be informed of and comment on other states’ policies. In fact, the ECSFM under the leadership of Asim Dasgupta, Finance Minister of West Bengal, was instrumental in ushering in VAT. But to the best of our knowledge, those forums do not discuss the central government’s fiscal policies. We propose supplementing, if not completely replacing, these ad hoc forums by a formal Fiscal Review Council, analogous to the Trade Policy Review Mechanism of the World Trade Organization (WTO) that enables the members of the WTO to discuss, review and comment on each member’s trade policies periodically.\(^{60}\)

The European Union provides an example, It introduced a new mechanism under which each member country submits to the European Commission each year a national reform action plan, setting out how it intends to create jobs and growth, and in particular how it will meet two or more specific economic targets: an employment rate 70% of working age population and an expenditure of 3% of GDP on R&D. Although the proposal of the former Dutch PM, Mr. Kok to use the EC review of action plans to ‘name and shame’ countries which talked a good game but failed to deliver and ‘fame’ those whose performance was exemplary, did not get far, there is something useful in this mechanism.

In Singh and Srinivasan (2005a), we suggested that a strengthened Finance Commission could play a role as fiscal monitor. Here we propose an alternative, that the Interstate Council (ISC)\(^{61}\) constitute itself into a Fiscal Review Council (FRC) and meet at an appropriate frequency (certainly no more frequently than once a year) to review the medium and long term fiscal policies of the state and center as well as make recommendations. Each state and the central government would submit to the FRC its

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\(^{60}\) It might be argued that trade is an economic interaction across jurisdictions that requires coordination, unlike subnational fiscal policies. However, we have seen that those fiscal policies almost always have impacts across jurisdictions within a nation. In fact, managing this issue is at the heart of all normative approaches to federalism, such as MPF.

\(^{61}\) M. Govinda Rao has pointed out to us that the ISC is under the Home Ministry, which may affect its functioning: he argues for the (more independent) Finance Commission to play the FRC role. It is possible that new arrangements may be required to balance independence from central ministerial control against the need for incorporating political decision-makers to give the FRC clout.
plan (in terms of precise and specific tax and expenditure proposals) for achieving set revenue and fiscal deficit targets (based on FRBM legislations) as included in its annual budget and its performance relative to the target in the previous fiscal year. The FRC would seriously review the targets and performance. A report ranking states by the FRC and made public would be very useful. To avoid political grandstanding and to encourage serious discussion, the meetings could be closed to the media. Whether the recommendations should be binding on all parties or only advisory is an issue that the ISC could decide. Because in the FRC’s deliberations, each Chief Minister gets an opportunity to comment on and learn from other states’ and center’s policies, any rankings and recommendations emerging from the review would not only have greater political weight but also provide a commitment mechanism for each chief minister to undertake reforms in his/her state which he/she may not be able to do unilaterally.

Second, we re-emphasize a recurring idea in recent discussions of Indian fiscal federalism, that center-state transfers through the Finance Commission, Planning Commission and the ministries have to be looked at in a unified framework. Ignoring many details and simplifying a lot, there are essentially three types of transfers: from current revenues as determined by the Finance Commission, capital transfer for financing investment (largely the domain of the Planning Commission), and transfers for internalizing positive externalities that one state’s fiscal actions may have on other states and the country’s economy as a whole (currently, the domain of centrally sponsored schemes).

We suggest that: (i) the center take full responsibility for financing investment and operational costs of projects that have spill-over across states, regardless of the authority that implements them (center or state). We understand that the current system of centrally sponsored schemes, under which the center provides partial funding for the project’s investment cost and for its operational cost for a limited period has had the unfortunate effect of that projects get started and completed but once completed are not fully utilized because states have not provided the needed costs of operating them once it became their exclusive responsibility to provide them. The center assuming full financial responsibility will avoid this waste. (ii) Reconstitute the Planning Commission as a Fund for Public Investment (FPI) for both the center and states. Its share holders would be the state and central governments. The Fund, much like a multilateral development bank, would appraise the projects proposed for their economic and social returns as well as feasibility and soundness of proposed financing (from the center or state’s own resources, borrowing from domestic and foreign sources and capital transfers from the center, if relevant.

We agree with the TFC that the center should not be in the business of being a financial intermediary between capital markets at home and abroad as well as external aid agencies. The FPI will instead borrow from domestic and foreign capital markets with state and central governments jointly guaranteeing the loans. The freedom for states to approach capital markets directly and negotiate with foreign donor agencies could lead to interstate imbalances in the flow of financing. On the other hand, the failure to attract flows could also provide an incentive for the failing states to undertake policies to make
them more attractive to lenders. Still, to the extent that the projects proposed by states are found to be worthwhile from an economic and social perspective by the Fund, it could recommend that capital transfers from the center to make up for the failure of the states proposing them to attract funding from other sources. However, such fund-recommended capital transfers should not carry any subsidy (relative to the cost of borrowing to the center) on interest rates. In other words, although we considered it, we do not recommend that the fund also open a soft lending window similar to IDA. There is no economic rationale for such a window. If a state is deemed ‘poor’ for reasons of horizontal imbalance, it should be addressed through the Finance Commission transfers and not through the fund.

The logic of our proposal suggests that each state replace its Planning Commission or Board with a fund for financing investment projects of local authorities along the same lines as we have suggested for the central FPI. We note that the TFC’s recommendation for limiting the role of the center as a financial intermediary as a lender to states is being followed by the RBI. It is exploring the development of institutions to support this shift to market borrowing, including offering mechanisms, secondary markets for government debt, credit ratings, and methods of regulation and monitoring. Therefore, the case of reforming financing states’ capital expenditure through new borrowing mechanisms involves building on reforms already taking place in the financial sector. It is clear that there are imbalances across states in generating viable project proposals, identifying sources of finance and implementing them once approved. These ‘capacity’ imbalances have to be addressed independently of proposals for project financing and transfers.

Third, in addition to the tax reforms we have discussed in Section 4, reforms of expenditure mechanisms to enhance their efficiency in delivering goods and services are essential. For example, a number of subsidies continue to be rationalized on distributional equity grounds. But there is no reason why such subsidies need to incur efficiency costs. Simple measures such as ensuring recipients of subsidies preferably pay the full cost of delivery at the margin, while they continue to receive subsides on infra marginal purchases can be implemented (Noll and Srinivasan, 2006). More generally, in a country as diverse as India, there is an opportunity of exploiting this diversity for experimentation with alternative mechanisms. The TFC, after discussing the principle of equalization, does not do much with it. Nor does it address the issues of determining the services for which the governments are to be held responsible, let alone linking them to constitutionally defined rights of the citizen. These issues need urgent discussion. One can argue that expenditure reform is the key to tax reform, since citizens are more likely to accept taxation for expenditures that are seen as effective.62

Last, but not least, is the issue of public sector production of those goods and services for which there is no social rationale based on consideration of scale economies, public goods or certain kinds of externalities. Instead of delving into the social rationale, Indian debate has degenerated into whether profit-making (at market prices) public enterprises should be privatized or not. Given the direct and indirect impacts of the

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62 This is the Wicksellian connection again (Rao and Singh, 2003).
existence and operation of public enterprises on the economy and on public finances in particular, a serious analysis of their social rationale is called for. Protecting the employment of the currently employed in these enterprises is not a convincing social rationale. This issue is particularly important at the subnational level, since loss-making state-level enterprises such as the SEBs are a particular problem. The broader issue here is that one must link public policy with respect to the entitlements and rights of all citizens (not just those employed in public enterprises) more clearly to the Directive Principles of State Policy in the Constitution.

9. Conclusions

Most observers of the Indian economy agree that economic liberalization and systemic reforms since 1991 have contributed to sustaining a growth rate averaging more than 6% a year since, and that growth at about the same rate in the 1980s, led by fiscal profligacy and rapid accumulation of domestic and foreign debt, but without significant and systemic reforms, was not sustainable. The balance of payments crisis of 1991 that led to systemic reforms was the inevitable consequence of irresponsible macroeconomic policies of the eighties. The current debate on India’s growth prospects center around issues of governance and of deepening, widening and accelerating reforms. The working of India’s federal system is central to this debate. We discussed in Section 1 conventional theories of federalism and their relevance to India’s vibrant, resilient but imperfect democracy.

In Section 2, we explored the background to India’s economic performance, its federal system and alternative perceptions of the contribution policy reforms to the growth experience since the 1980’s. The strong unitary features of India’s constitution adopted in 1950 and the creation of the Planning Commission, also in 1950, set the framework for economic policy making until the reforms of 1991. The role of the constitutionally mandated Finance Commissions, (twelve have reported thus far) on center-state fiscal relations are elaborated in this section. We found that by and large, they have played a constructive role, but in the contemporary context of a greater acknowledged role of markets (in particular, capital markets) and of openness to foreign trade and investment in the economy, greater autonomy of state governments and devolution to local self-governing bodies, this role needs to be reexamined.

We discussed the quality of governance and government expenditure in Section 3. The change in the body politic, away from the same party governing both the center and states, to one at which coalitions (not necessarily stable over time) govern at the center and states has had a major impact, not always favorable, on governance. The decline in the quality of the bureaucracy and legislative bodies, and perceptions of growing corruption at all levels, often with connivance between bureaucrats and politicians, are evident. However, while India’s centralized political and bureaucratic control and monitoring has neither been very effective nor accountable to the larger public, the recent move towards devolution to local bodies has the potential to bring about greater efficiency and accountability. Regulation has become much more important than direct state intervention in recent years in India. The successful performance of some industries

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under regulation (e.g. telecommunications) and still miserable performance (e.g. electricity) of others which are neither fully regulated nor completely under direct state control are interesting. Some of the key problems in introducing regulation have arisen from the division of responsibilities among different levels of government.

We turned to the efficiency of the tax system in Section 4. After reviewing the history of tax assignments, particularly with respect to the failure to preserve an internal common market, we discussed recent developments with respect to the introduction of a nationwide VAT, as well as the appropriation by the center of the exclusive right to tax services. In addition to noting the potential for greater microeconomic efficiency of the tax system through recent tax reforms, we discussed the possibility of creating politically feasible tax reform packages in a federal context.

The unsatisfactory current fiscal situation of central states and the largely, unsuccessful attempts at fiscal consolidation since the reform of 1991 are the subjects of Section 5. We noted the unexplained variation in fiscal performance across states. We discussed the problem of ensuring subnational fiscal discipline in a federal system and the attempts to instill some discipline through Fiscal Responsibility and Budget Management legislation at the center and some states, and through the recommendation of the Twelfth Finance Commission.

In Section 6 we considered the impact of the fiscal system on growth and equity. We found that the complexity of the transfer system in India, with the Finance commission, Planning Commission and central ministries all acting in a relatively uncoordinated manner, makes it difficult to isolate their impact on growth and equity. No firm conclusion can be drawn empirically on whether the transfers on the whole (including implicit transfers) have been equalizing across states, nor can one be confident that they have been conducive to growth.

In Section 7, we compared India with China and argued that alignment of political and bureaucratic interests at the local level in China, led to better performance. We suggested that while China’s tax policy has not necessarily been optimal from the standpoint of allocative efficiency, reforms have been in a positive direction in this respect. We noted that China’s overall fiscal situation and that of its subnational governments are stronger than India’s both in terms of quality of expenditure and overall fiscal health though some underlying weaknesses are emerging at the subnational level.

In Section 8 we offered some reform proposals. First is to create a Fiscal Review Council (FRC), which could be the existing Inter State Council constituting itself as FRC, for joint review of state and central fiscal policies and plans. Second is for two reforms in intergovernmental transfers: one, that the Center assume sole responsibility for what are now called Centrally Sponsored schemes, and the other, to reconstitute the Planning commission into a Fund for Public Investment. These proposals are meant to create a politically credible means of pushing ahead with reforms which each state individually does not find politically feasible to implement and to ensure greater efficiency and equity in the process of allocation of public funds for investment. Lastly, we made some
tentative suggestions as how to limit and improve the efficiency of subsidies and to link entitlements and rights of citizens more clearly to the Directive Principles of State Policy in the Constitution.

References


Cao, Yuanzheng, Yingyi Qian, and Barry R. Weingast. 1999. From Federalism, Chinese Style, to Privatization, Chinese Style, Economics of Transition. vol 7 no. 1: 103-31.

Careaga, Maite, and Barry Weingast, 2001, Fiscal Federalism, Good Governance, and Economic Growth in Mexico, working paper, Stanford University


de Zwart, Frank The Bureaucratic Merry-Go-Round: Manipulating the Transfer of Indian Civil Servants (Amsterdam: Amsterdam University Press, 1994)


Mukherji, Joydeep (2006), Economic Growth and India’s Future, Occasional Paper 26, Center for Advanced Study of India, University of Pennsylvania


Panagariya, Arvind (2005), The Triumph of India’s Market Reforms: The Record of the 1980s and 1990s, Policy Analysis, November 7, No. 554.


Reserve Bank of India (2001-6), Annual Reports, Mumbai.


Wallack, Jessica (2003), Structural Breaks in Indian Macroeconomic Data, *Economic and Political Weekly*, October 11th, 4312-4315


Table 1: Average Annual Growth Rates for India

<table>
<thead>
<tr>
<th>Period</th>
<th>GNP at constant prices</th>
<th>NNP at constant prices</th>
<th>NNP per capita at constant prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Plan (1951-56)</td>
<td>3.7</td>
<td>3.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Second Plan (1956-61)</td>
<td>4.2</td>
<td>4.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Third Plan (1961-66)</td>
<td>2.8</td>
<td>2.5</td>
<td>0.2</td>
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<tr>
<td>Three Annual Plans (1966-69)</td>
<td>3.9</td>
<td>3.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Fourth Plan (1969-74)</td>
<td>3.4</td>
<td>3.3</td>
<td>1.0</td>
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<td>Fifth Plan (1974-79)</td>
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<td>5.0</td>
<td>2.7</td>
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<tr>
<td>Annual Plan (1979-80)</td>
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<td>-6.0</td>
<td>-8.3</td>
</tr>
<tr>
<td>Sixth Plan (1980-85)</td>
<td>5.5</td>
<td>5.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Seventh Plan (1985-90)</td>
<td>5.8</td>
<td>5.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Two Annual Plans (1990-92)</td>
<td>3.3</td>
<td>3.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Eighth Plan (1992-97)</td>
<td>6.8</td>
<td>6.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Ninth Plan (1997-2002)</td>
<td>5.5</td>
<td>5.5</td>
<td>3.5</td>
</tr>
<tr>
<td>2002-03</td>
<td>3.9</td>
<td>3.9</td>
<td>2.2</td>
</tr>
<tr>
<td>2003-04 (P)</td>
<td>8.6</td>
<td>9.0</td>
<td>7.2</td>
</tr>
<tr>
<td>2004-05 (Q)</td>
<td>7.6</td>
<td>7.8</td>
<td>6.1</td>
</tr>
<tr>
<td>2005-06 (A)</td>
<td>8.0</td>
<td>7.6</td>
<td>5.9</td>
</tr>
</tbody>
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### Table 2: Central and State Fiscal Deficits (Percent of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Center</th>
<th>States</th>
<th>Consolidated</th>
<th>Total</th>
<th>Revenue</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>6.6</td>
<td>3.3</td>
<td>9.4</td>
<td>4.2</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>1991-92</td>
<td>4.7</td>
<td>2.9</td>
<td>7.0</td>
<td>3.4</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>1992-93</td>
<td>4.8</td>
<td>2.8</td>
<td>7.0</td>
<td>3.2</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>1993-94</td>
<td>6.4</td>
<td>2.4</td>
<td>8.8</td>
<td>4.3</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>1994-95</td>
<td>4.7</td>
<td>2.7</td>
<td>7.1</td>
<td>3.7</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>1995-96</td>
<td>4.2</td>
<td>2.6</td>
<td>6.5</td>
<td>3.2</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>1996-97</td>
<td>4.1</td>
<td>2.7</td>
<td>6.4</td>
<td>3.6</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>1997-98</td>
<td>4.8</td>
<td>2.9</td>
<td>7.3</td>
<td>4.1</td>
<td>2.1</td>
<td></td>
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<tr>
<td>1998-99</td>
<td>5.1</td>
<td>4.2</td>
<td>9.0</td>
<td>6.4</td>
<td>3.7</td>
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<tr>
<td>1999-00</td>
<td>5.4</td>
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<td>9.6</td>
<td>6.9</td>
<td>3.3</td>
<td></td>
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<td>2000-01</td>
<td>5.7</td>
<td>4.3</td>
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<td></td>
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<tr>
<td>2001-02</td>
<td>6.1</td>
<td>4.2</td>
<td>9.9</td>
<td>6.9</td>
<td>3.9</td>
<td></td>
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<tr>
<td>2002-03</td>
<td>5.9</td>
<td>4.7</td>
<td>9.6</td>
<td>6.7</td>
<td>3.2</td>
<td></td>
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<tr>
<td>2003-04</td>
<td>4.5</td>
<td>4.4</td>
<td>8.5</td>
<td>5.8</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>2004-05 (RE)*</td>
<td>4.0</td>
<td>4.0</td>
<td>8.4</td>
<td>4.1</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>2005-06 (BE)**</td>
<td>4.1</td>
<td>3.1</td>
<td>7.7</td>
<td>3.4</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>2006-07 (BE)</td>
<td>3.8</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td></td>
</tr>
</tbody>
</table>

Notes: RE: revenue estimate; BE: budget estimate; * Center’s figure is actual; ** Center’s figure is RE.

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 related to the treatment of national small savings. The 2005-06 figures are given as reported, but appear to have an inconsistency, since the consolidated figure exceeds the center and state sum. n.a. – not available.

### Table 3: General Government Debt (percent of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Debt</th>
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</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>64.4</td>
</tr>
<tr>
<td>1995-96</td>
<td>61.2</td>
</tr>
<tr>
<td>2000-01</td>
<td>70.4</td>
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<tr>
<td>2001-02</td>
<td>75.8</td>
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<tr>
<td>2002-03</td>
<td>80.0</td>
</tr>
<tr>
<td>2003-04</td>
<td>81.1</td>
</tr>
<tr>
<td>2004-05 (RE)</td>
<td>82.0</td>
</tr>
<tr>
<td>2005-06 (BE)</td>
<td>81.3</td>
</tr>
</tbody>
</table>

Source: RBI (2005)
### Table 4: Trends in Revenue and Expenditure Components, All States (% of GDP)

<table>
<thead>
<tr>
<th>Period</th>
<th>Own Tax Revenues</th>
<th>Own Non-Tax Revenues</th>
<th>Finance Commission Transfers</th>
<th>Non-Finance Commission Transfers</th>
<th>Revenue Expenditures</th>
<th>Interest Payments</th>
<th>Pensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-96</td>
<td>5.27</td>
<td>1.55</td>
<td>2.94</td>
<td>1.62</td>
<td>12.00</td>
<td>1.86</td>
<td>0.63</td>
</tr>
<tr>
<td>2000-03</td>
<td>5.44</td>
<td>1.26</td>
<td>2.88</td>
<td>1.23</td>
<td>13.34</td>
<td>2.65</td>
<td>1.25</td>
</tr>
<tr>
<td>Change</td>
<td>0.17</td>
<td>-0.29</td>
<td>-0.05</td>
<td>-0.39</td>
<td>1.34</td>
<td>0.79</td>
<td>0.62</td>
</tr>
</tbody>
</table>


### Table 5: Comparative Fiscal Performance, Major States (% of GSDP)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>-2.03 (13)</td>
<td>-1.51 (11)</td>
<td>-4.57 (9)</td>
<td>-1.41 (13)</td>
<td>29.93 (11)</td>
<td>-3.4 (12)</td>
</tr>
<tr>
<td>Bihar</td>
<td>-1.87 (14)</td>
<td>-0.04 (15)</td>
<td>-4.52 (10)</td>
<td>-1.67 (10)</td>
<td>44.35 (5)</td>
<td>-5.6* (4)</td>
</tr>
<tr>
<td>Goa</td>
<td>-2.44 (10)</td>
<td>-3.89 (3)</td>
<td>-4.68 (6)</td>
<td>-2.38 (4)</td>
<td>33.54 (9)</td>
<td>-3.9 (11)</td>
</tr>
<tr>
<td>Gujarat</td>
<td>-4.66 (3)</td>
<td>-4.75 (1)</td>
<td>-5.74 (5)</td>
<td>-3.93 (2)</td>
<td>37.92 (7)</td>
<td>-6.3 (2)</td>
</tr>
<tr>
<td>Haryana</td>
<td>-1.32 (15)</td>
<td>-0.56 (14)</td>
<td>-3.69 (15)</td>
<td>-1.19 (14)</td>
<td>28.02 (12)</td>
<td>-1.3 (15)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>-2.21 (11)</td>
<td>-2.15 (9)</td>
<td>-4.37 (11)</td>
<td>-1.65 (11)</td>
<td>27.27 (13)</td>
<td>-2.7 (14)</td>
</tr>
<tr>
<td>Kerala</td>
<td>-4.17 (5)</td>
<td>-2.99 (5)</td>
<td>-5.13 (6)</td>
<td>-1.81 (6)</td>
<td>37.58 (8)</td>
<td>-5.3 (8)</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>-2.05 (12)</td>
<td>-1.44 (12)</td>
<td>-3.94 (13)</td>
<td>-1.78 (7)</td>
<td>30.42 (10)</td>
<td>-6.3* (2)</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>-3.09 (7)</td>
<td>-3.00 (4)</td>
<td>-4.12 (12)</td>
<td>-1.96 (5)</td>
<td>27.11 (14)</td>
<td>-5.2 (9)</td>
</tr>
<tr>
<td>Orissa</td>
<td>-4.91 (2)</td>
<td>-2.91 (6)</td>
<td>-7.84 (1)</td>
<td>-3.21 (3)</td>
<td>63.68 (1)</td>
<td>-5.6 (4)</td>
</tr>
<tr>
<td>Punjab</td>
<td>-4.53 (4)</td>
<td>-2.66 (8)</td>
<td>-6.14 (3)</td>
<td>-1.77 (8)</td>
<td>46.66 (3)</td>
<td>-5.2 (9)</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>-3.87 (6)</td>
<td>-2.78 (7)</td>
<td>-6.05 (4)</td>
<td>-1.54 (12)</td>
<td>44.88 (4)</td>
<td>-6.5 (1)</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>-2.50 (9)</td>
<td>-1.78 (10)</td>
<td>-3.75 (14)</td>
<td>-1.77 (8)</td>
<td>26.16 (15)</td>
<td>-2.9 (13)</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>-2.98 (8)</td>
<td>-1.21 (13)</td>
<td>-5.07 (7)</td>
<td>-1.03 (15)</td>
<td>46.94 (2)</td>
<td>-5.6* (4)</td>
</tr>
<tr>
<td>West Bengal</td>
<td>-5.47 (1)</td>
<td>-3.95 (2)</td>
<td>-7.31 (2)</td>
<td>-4.13 (1)</td>
<td>42.73 (6)</td>
<td>-5.4 (7)</td>
</tr>
</tbody>
</table>


* These states’ figures exclude those for the split-off states of Jharkhand (-8.1%), Chhattisgarh (-5.6%) and Uttarakhand (-13.8%)
### Table 6: Comparative Revenues and Expenditures, Major States (% of GSDP)

<table>
<thead>
<tr>
<th>State</th>
<th>Own Tax Revenue, 2000-03 (Rank)</th>
<th>Change in Own Tax Revenue, 1993-96 to 2000-03 (Rank)</th>
<th>Revenue Expenditure, 2000-03 (Rank)</th>
<th>Change in Revenue Expenditure, 1993-96 to 2000-03 (Rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>7.30 (9)</td>
<td>1.40 (12)</td>
<td>15.56 (10)</td>
<td>2.08 (9)</td>
</tr>
<tr>
<td>Bihar</td>
<td>4.46 (2)</td>
<td>0.75 (7)</td>
<td>18.11 (3)</td>
<td>1.60 (11)</td>
</tr>
<tr>
<td>Goa</td>
<td>6.46 (6)</td>
<td>-1.45 (1)</td>
<td>17.25 (5)</td>
<td>0.13 (15)</td>
</tr>
<tr>
<td>Gujarat</td>
<td>7.71 (10)</td>
<td>0.20 (5)</td>
<td>18.37 (2)</td>
<td>5.85 (1)</td>
</tr>
<tr>
<td>Haryana</td>
<td>8.30 (13)</td>
<td>1.09 (9)</td>
<td>13.45 (15)</td>
<td>0.39 (14)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>8.33 (14)</td>
<td>-0.19 (4)</td>
<td>15.33 (11)</td>
<td>1.36 (12)</td>
</tr>
<tr>
<td>Kerala</td>
<td>8.11 (12)</td>
<td>-0.34 (3)</td>
<td>16.11 (8)</td>
<td>1.18 (13)</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>6.45 (5)</td>
<td>1.53 (13)</td>
<td>16.74 (7)</td>
<td>3.45 (3)</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>7.76 (11)</td>
<td>1.12 (10)</td>
<td>14.10 (14)</td>
<td>3.42 (4)</td>
</tr>
<tr>
<td>Orissa</td>
<td>5.81 (3)</td>
<td>1.87 (14)</td>
<td>22.22 (1)</td>
<td>5.74 (2)</td>
</tr>
<tr>
<td>Punjab</td>
<td>7.13 (8)</td>
<td>1.87 (14)</td>
<td>15.33 (11)</td>
<td>2.59 (7)</td>
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<tr>
<td>Rajasthan</td>
<td>6.48 (7)</td>
<td>0.25 (6)</td>
<td>18.06 (4)</td>
<td>2.63 (6)</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>9.00 (15)</td>
<td>0.98 (8)</td>
<td>15.60 (9)</td>
<td>1.66 (10)</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>5.88 (4)</td>
<td>1.12 (10)</td>
<td>16.78 (6)</td>
<td>2.50 (8)</td>
</tr>
<tr>
<td>West Bengal</td>
<td>4.26 (1)</td>
<td>-1.20 (2)</td>
<td>15.02 (13)</td>
<td>3.23 (5)</td>
</tr>
</tbody>
</table>


### Table 7: Criteria and Relative Weights for Tax Sharing

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Weight (%) 11th FC</th>
<th>Weight (%) 12th FC</th>
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</thead>
<tbody>
<tr>
<td>1. Population (1971 Census)</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>2. Income (Distance Method)*</td>
<td>62.5</td>
<td>50</td>
</tr>
<tr>
<td>3. Area</td>
<td>7.5</td>
<td>10</td>
</tr>
<tr>
<td>4. Index of Infrastructure</td>
<td>7.5</td>
<td>0</td>
</tr>
<tr>
<td>5. Tax Effort**</td>
<td>5.0</td>
<td>7.5</td>
</tr>
<tr>
<td>6. Fiscal Discipline***</td>
<td>7.5</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Notes: *The distance method is given by: \((Y_i - Y_h)P_i / \Sigma (Y_i - Y_h)P_i\) where, where \(Y_i\) and \(Y_h\) represent per capita SDP of the \(i^{th}\) and the average of the three highest income states respectively and \(P_i\) is the population of the \(i^{th}\) state. For the three highest income states, a notional distance is assigned.

** Tax Effort \(\eta\) is estimated as \(\eta = (T_i / Y_i) / \sqrt{1/Y_i}\) where, \(T_i\) is the per capita tax revenue collected by the \(i^{th}\) state and \(Y_i\) is the per capita State domestic product of the \(i^{th}\) state.

*** Estimated as the improvement in the ratio of own revenue of a state to its revenue expenditures divided by a similar ratio for all States averaged for the period 1966-99 over 1991-1993 (11th FC years used for illustration).