

International Studies Program

Working Paper 05 -19
October 2005

Fiscal Decentralization and Economic Growth: A Comparative Study of China and India

Jorge Matinez-Vazquez
Mark Rider



Georgia State
University

Andrew Young
School of Policy Studies



Fiscal Decentralization and Economic Growth: A Comparative Study of China and India

Working Paper 05 -19

Jorge Matinez-Vazquez
Mark Rider

October 2005

International Studies Program
Andrew Young School of Policy Studies
Georgia State University
Atlanta, Georgia 30303
United States of America

Phone: (404) 651-1144
Fax: (404) 651-4449
Email: ispaysps@gsu.edu
Internet: <http://isp-aysps.gsu.edu>

Copyright 2001, the Andrew Young School of Policy Studies, Georgia State University. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means without prior written permission from the copyright owner.

International Studies Program Andrew Young School of Policy Studies

The Andrew Young School of Policy Studies was established at Georgia State University with the objective of promoting excellence in the design, implementation, and evaluation of public policy. In addition to two academic departments (economics and public administration), the Andrew Young School houses seven leading research centers and policy programs, including the International Studies Program.

The mission of the International Studies Program is to provide academic and professional training, applied research, and technical assistance in support of sound public policy and sustainable economic growth in developing and transitional economies.

The International Studies Program at the Andrew Young School of Policy Studies is recognized worldwide for its efforts in support of economic and public policy reforms through technical assistance and training around the world. This reputation has been built serving a diverse client base, including the World Bank, the U.S. Agency for International Development (USAID), the United Nations Development Programme (UNDP), finance ministries, government organizations, legislative bodies and private sector institutions.

The success of the International Studies Program reflects the breadth and depth of the in-house technical expertise that the International Studies Program can draw upon. The Andrew Young School's faculty are leading experts in economics and public policy and have authored books, published in major academic and technical journals, and have extensive experience in designing and implementing technical assistance and training programs. Andrew Young School faculty have been active in policy reform in over 40 countries around the world. Our technical assistance strategy is not to merely provide technical prescriptions for policy reform, but to engage in a collaborative effort with the host government and donor agency to identify and analyze the issues at hand, arrive at policy solutions and implement reforms.

The International Studies Program specializes in four broad policy areas:

- **Fiscal policy**, including tax reforms, public expenditure reviews, tax administration reform
- **Fiscal decentralization**, including fiscal decentralization reforms, design of intergovernmental transfer systems, urban government finance
- **Budgeting and fiscal management**, including local government budgeting, performance-based budgeting, capital budgeting, multi-year budgeting
- **Economic analysis and revenue forecasting**, including micro-simulation, time series forecasting,

For more information about our technical assistance activities and training programs, please visit our website at <http://isp-aysps.gsu.edu> or contact us by email at ispaysps@gsu.edu.

Fiscal Decentralization and Economic Growth: A Comparative Study of China and India

Jorge Martinez-Vazquez and Mark Rider

Andrew Young School of Policy Studies, Georgia State University

Abstract:

Although there are obvious differences in the political systems of China and India, there are surprising similarities in their respective approaches to decentralization. Both countries face similar design issues with their intergovernmental systems, such as the lack of clear expenditure assignments, high transfer dependency, low revenue autonomy, and soft budget constraints. As a result, in both countries there is a lack of aggregate fiscal discipline among sub-national governments, and the quality of sub-national government service delivery is poor. Poor service delivery and the lack of fiscal discipline threaten the ability of both countries to sustain high rates of economic growth.

“Decentralization has been regarded as the major institutional framework for the phenomenal industrial growth in the last two decades in China (taking place largely in the non-state non-private sector); and India ushered in a fundamental constitutional reform in favor of decentralization around the same time it launched a major program of economic reform.”

Pranab Bardhan (2002)

Decentralization of Governance and Development

1. Introduction

One of the main policy objectives of market-based economic reforms is to improve living standards through economic growth. Fiscal decentralization is being pursued by many developing countries as part of this general development strategy. However, little is known about the impact of decentralization on economic development beyond the expectation that it should increase the efficiency of the public sector. Surprisingly, such expectations are largely based on predictions of the theory of fiscal decentralization that have not been subject to rigorous empirical tests. Therefore, determining the impact of fiscal decentralization on economic growth is more than merely an academic question. It is an important policy issue potentially affecting the lives of billions of people in developing and transitional countries, particularly in China and India which are prominent developing countries pursuing both market-based reforms and fiscal decentralization.

The manner in which decentralization affects economic growth is indeed a complex issue because of numerous direct and indirect links between the two.¹ Improving the allocation of resources in the public sector, which, as previously noted, is one of the most important expectations of fiscal decentralization, may lead to increases in human welfare but have little or even no appreciable effect on measured changes in gross domestic product (GDP). For example, fiscal decentralization may reduce the ability of government officials to divert public funds to their own private benefit and thereby increase the funds available to local governments for improving access to potable water. This re-allocation of resources may, in turn, result in dramatic increases in human welfare by, for example, reducing the rate of infant mortality from water borne diseases. However, this re-allocation of resources may have little or no effect on measured changes in GDP or economic growth. In short, as Oates (1993) contends, the static proposition that fiscal decentralization enhances economic efficiency has a corresponding effect in the dynamic setting of economic growth.² Of course, any link -- direct or indirect -- between decentralization and growth would be broken if the intergovernmental fiscal

¹ See the discussion in Martinez-Vazquez and McNab (2003).

² More recently, in the literature on market preserving federalism, Weingast (1995), Qian and Weingast (1997), and Cao, Qian, and Weingast (1999), among others, contend that decentralization may also promote and protect the development of markets.

system does not function effectively due to poor design or government capture by local elites.³

In recent years, the direct relationship between decentralization and growth has received a significant amount of attention in the empirical literature, but no consistent empirical patterns emerge from these studies.⁴ Whether a direct relationship exists between the two therefore remains an unanswered question. However, there are a multiplicity of potential effects through which decentralization could indirectly affect growth, such as the regional allocation of resources, macroeconomic stability, and corruption. There are indirect forces or effects at work that may link decentralization to economic growth. For example, suppose that decentralization leads to increased macroeconomic stability and reduces official corruption; then, such improvements in the economic environment may increase the rate of economic growth. However, these forces also may work in the opposite direction. If decentralization leads to greater macroeconomic instability and more corruption, then the resulting deterioration in economic conditions may slow the rate of economic growth.

Regarding the role of macroeconomic stability, it is now well understood that more unstable economies with higher rates of inflation and unemployment generally lead to lower rates of economic growth. However, we know much less about the way fiscal decentralization affects macroeconomic stability. Generally speaking the consensus view appears to be that the lack of fiscal discipline among sub-national governments inherent in many decentralized systems leads to greater macroeconomic instability or at least creates obstacles to resolving chronic fiscal imbalances in these countries [Rodden (2002) and Rodden, Eskeland, and Litvack (2003)].⁵ However, the empirical evidence on the relationship between fiscal decentralization and macroeconomic stability is not conclusive. For example, Fornasari, Webb, and Zou (2000) find a close correspondence between increases in sub-national deficits and central government expenditures and deficits in the subsequent period. In contrast, Treisman (2000) and Rodden and Wibbels (2002) find no clear relationship between decentralization and the rate of inflation, and Martinez-Vazquez and McNab (2003) find that greater revenue decentralization leads to greater price stability.

Corruption arguably tends to slow the rate of economic growth. Since decentralization brings government closer to the people which results in greater accountability of government officials to the people they represent, the expectation is that decentralization should result in less corruption. However, decentralization may result in

³ See, for example, Prud'homme (1995), Tanzi (1996), Rodden and Rose-Ackerman (1997), and Bardhan and Mookherjee (2002) for interesting discussions of these issues.

⁴ See, for example, Xie, Zou, and Davoodi (1999), Zhang and Zou (1998), Lin and Liu (2000), Thiessen (2003), and Martinez-Vazquez and McNab (2003) for recent studies of the effect of fiscal decentralization on economic growth.

⁵ It must be noted that in those countries where macroeconomic instability predated decentralization, for example, in Argentina and Brazil, decentralization may have made the solutions more complex but never impossible [Dillinger, Perry and Webb (2000)]. However, the presence of a soft-budget constraint at the local level of government in many countries continues to represent a threat to macroeconomic stability and therefore potentially to economic growth [Bahl (1999) and Stein (1999)].

local elite capture [Bardhan and Mookherjee (2002)] and more interaction between taxpayers and public officials [Prud'homme (1995) and Tanzi (1996)] which, in turn, may result in more corruption. The empirical evidence seems to suggest that more decentralized systems, especially from the revenue side, tend to be significantly less corrupt [Gurgur and Shah (2000), Fisman and Gatti (2002), and Arinkam, (2004)].⁶

In terms of the regional distribution of resources, Qiao, Martinez-Vazquez, and Xu (2004) find that the more uneven the regional distribution of resources due to increased reliance on market forces and decreased reliance on government fiat to affect fiscal equalization has resulted in a higher rate of economic growth in China over the past twenty years.

Although cross country or panel data studies of the type cited above are useful, they can be quite limited in the number of variables they can handle. There is significant institutional diversity and differences in country experiences that are likely to affect the impact of decentralization policies on economic growth which are difficult to quantify and cannot be captured simply through country dummy variables or country fixed effects estimation. As a result, we believe that there is a lot to be learned from country case studies and comparative case studies. Being able to identify specific traits of the decentralization system that may either impinge upon or facilitate economic growth can complement the knowledge and understanding we glean from econometric studies.

The purpose of this paper is to analyze and compare the decentralization processes in two fast growing emerging economies, namely China and India, with an eye toward examining the affect of fiscal decentralization in these two countries on their respective records of economic growth. The choice of China and India is not only because they are the two largest countries in the world in terms of population, but they also have similarities and differences in their respective approaches to decentralization.

The rest of the paper is organized as follows. In section 2 we review the recent experience with economic growth in China and India. Section 3 reviews the salient features of fiscal decentralization approaches in China and India. Section 4 takes a closer look at how the institutional design of fiscal decentralization in these two countries may be impacting their respective economic growth paths. Section 5 concludes.

2. Record of Economic Growth in China and India

China's rate of economic growth during this period of liberalization has been exceptional. Table 1 shows the rate of growth in output per capita for China as a whole and by province for selected years since 1975. Although there are variations across provinces, these data show that economic growth has been robust and widespread. Between 1980 and 1999, real income per capita in China increased by well over five times. The coastal provinces (Eastern Region in Table 1) that benefited early from the

⁶ The empirical evidence is not unanimous in favor of decentralization, however. Treisman (2000) finds corruption to be higher in federal (as opposed to unitary and supposedly more centralized countries).

inflow of foreign direct investment (FDI) have grown the fastest. For example, from 1980 to 1999, output per capita in Jiangsu Province increased nearly 16-fold.

Several institutional reforms that decentralized governance and the allocation of resources contributed to the high rates of economic growth.⁷ The reforms known as the “production responsibility system” and later the “household contract responsibility system” in the agricultural sector led to substantial income growth in the rural areas. In the mid-1980s, China’s government focused on the development of township and village enterprises (TVEs) to further grow incomes in rural areas and to absorb unemployed farmers. Meanwhile in the urban areas, the reform of the governance of state-owned enterprises (SOEs), allowing profit sharing and retention of profits, and the introduction of different forms of ownership are thought to have significantly contributed to economic growth. Under this system, both private ownership and foreign direct investment (FDI) were allowed in China, and the latter became a powerful engine of economic growth.

India began pursuing market reforms later than many countries, embarking in earnest on the process only in 1991 in the wake of a balance of payments crisis and, like China, is pursuing a gradualist approach. The Government of India’s reform strategy to development includes a more open economy, greater reliance on market forces, a larger role for the private sector, and a restructuring of the role of government, particularly decentralization. In the post-reform period, India has enjoyed robust growth of real GDP per capita, often exceeding 20 percent per annum. As evidenced in Table 2, Andhra Pradesh, Karnataka, and Tamil Nadu are among the major states that are experiencing above average growth rates in real per capita GDP; whereas, the BIMARU states (Bihar, Mahdy Pradesh, Rajasthan, and Uttar Pradesh), among others, have under performed the national economy in terms of growth in real GDP per capita. Like China, there are large regional differentials in economic growth rates.

In contrast to China’s policy of designating economic development zones largely in the coastal region, India has given the states primary responsibility for economic development. Some states have taken advantage of this opportunity, while others have not. This raises the very interesting question of whether the conduct and performance of state governments explain the differences in economic growth among the states. In addition, it would be interesting to know if the structure of the intergovernmental fiscal system created perverse incentives that distort state budget policy which, in turn, results in the poor performance of some states.

3. Fiscal Decentralization in China and India

In this paper, we contend that the structure of a country’s intergovernmental fiscal system plays a crucial role in shaping the conduct and hence performance of sub-national governments which, in turn, has a potentially important influence on a country’s economic growth. Below we briefly describe China and India’s intergovernmental fiscal systems, namely expenditure assignments, revenue assignments, fiscal transfer system,

⁷ See Yao and Zhu (1998).

and borrowing autonomy. We also discuss the fiscal condition of sub-national governments and the quality of their expenditures in both countries with an eye to ascertaining the consequences for economic growth.

China's intergovernmental fiscal system

In China, the general economic reforms initiated in the 1970s were accompanied by several fiscal reforms. After some experimentation during the 1978-83, the Chinese government introduced the first comprehensive reform of the fiscal system in 1984, as the "Fiscal Responsibility System" (FRS). This was a contracting system involving fixed periods of time, in which generally sub-national governments were allowed to retain part of the tax revenues collected after the remittance of a fixed sum to the central government. Despite the appearance of incentive compatibility, local governments found ways to contribute less fiscal resources to the central government via tax exemptions to local enterprises and hiding resources from the central government in extra-budgetary funds. Realizing the shortcomings of the contracting system, the central government adopted the "Tax Sharing System" (TSS) in 1994, with uniform sharing rates and often formula-driven transfers. The TSS reform created separate tax administrations at the central and sub-national levels. From the perspective of intergovernmental fiscal relations, the main goal of the reform was to increase the share of the central government in overall revenues and improve the transparency and stability of revenue assignments. However, the TSS reform left untouched obsolete expenditure assignments inherited from the Mao era, and this has led to the worsening of horizontal fiscal disparities.

Unlike India, China is a unitary country with a population approaching 1.5 billion, an area of 9.6 million square kilometers, and a public sector organized into five tiers of government.⁸ Intergovernmental relations in China are organized in a strongly hierarchical fashion, giving the system significant federalist features. For example, prefectures and cities report exclusively to the provincial governments, and so on throughout the hierarchy, with each level of government reporting to the next highest level. These hierarchical relations are accentuated by the fact that government officials at all levels are appointed, not elected, and the tight political control exercised by the Communist Party up and down all government channels.

By some conventional measures, China is a highly decentralized country with the share of total public expenditures going through sub-national government budgets standing at 70 percent in 2003. However, budgetary autonomy at the sub-national level is limited in several important ways.

China does not have a formal explicit assignment of expenditure responsibilities among the different levels of government. In practice, the actual division of expenditure responsibilities has been determined by sectoral and other specialized laws over the years. These assignments follow, with an important exception, the general principles and

⁸ Below the central government there are 31 provincial level units, and below the provinces there are 331 prefectural level units (of which 236 are cities), 2,109 county-level units (of which 427 are cities), and 44,741 township-level units.

international practice of assigning competencies according to the size of the benefit area. However, the assignments of certain aspects of social security, such as unemployment compensation, are at the sub-national level.⁹ The main responsibility of sub-national government is in the areas of economic development and the provision of social services (i.e., education, health care, housing, and communal services). Since there are no specific central government guidelines on the distribution of responsibilities between the provinces and the lower level governments, provinces use a variety of arrangements, and the center is unable to design policies to deal directly with sub-provincial governments.

The revenue assignments introduced by the 1994 TSS reform distinguished between three categories of taxes: Central Government “own” taxes, local government “own” taxes, and shared taxes between the two levels of government. All the major taxes are nowadays effectively shared between the center and sub-national governments, and the center has recently increased its share in income taxes. However, the TSS reform did not provide provincial governments with any significant degree of tax autonomy and left to the discretion of provincial governments to arrange revenue assignments at the sub-provincial level.¹⁰

One of the features of China’s decentralization system is that there has been a growing mismatch between expenditure and revenue assignments at the sub-national level. While expenditure assignments have been unchanged for decades and demand for services has increased over time, revenues have been increasingly centralized since the 1994 TSS reform. The central government has designed a system of transfers to address these vertical and horizontal imbalances.¹¹ Under the current TSS framework, there are three types of general grants from the central government to sub-national governments: (i) the tax rebate; (ii) general purpose unconditional grants; and (iii) special purpose or conditional grants.¹²

The tax rebate represents by far the largest transfer, over half of the transferred funds, while the other half is more or less evenly divided between general purpose grants and specific purpose grants. The tax rebate was introduced with the TSS reform to obtain the acceptance of the reform by the richer provinces.¹³ The tax rebate transfer is highly

⁹ The inability of many local governments to finance the social safety net has led in recent years to widespread pension arrears and defaults that have forced the central government to intervene with subsidies.

¹⁰ The current arrangements at the sub-provincial level can be roughly grouped into three categories [Shi (1998)]: provincial governments that pass through all local taxes and rebates to sub-provincial levels; those that keep a portion of local taxes and rebates; and those that retain a relatively large portion of all local taxes and rebates.

¹¹ For example, per capita tax revenues in 2003 were 5,391 yuan in Shanghai and 323 yuan in Guizhou Province, an over 16-fold in revenues per capita between the richest and poorest province. The disparities in expenditures per capita are less pronounced than is the case for revenues per capita, proof that the system is somewhat equalizing, but still are considerable. Budgetary expenditures per capita in 2003 were 6,361 yuan in Shanghai, and 741 yuan in Henan Province.

¹² See Zhang and Martinez-Vazquez (2003).

¹³ In essence, the tax rebate sends back to the provinces the amount of VAT and excise taxes that otherwise would have gone to the sub-national governments had the tax assignments prevailing under the contracting

counter-equalizing. The general purpose grants include different forms of unconditional use funds and revenue sharing, and only a small share of all unconditional grants, about 10 percent (or just about 2 percent of all transfers) in 2000, were explicitly designed to serve as an equalization grant. On the other hand, several of the other general purpose grants also pursue equalization objectives. The special purpose grants consist of many different types of conditional transfers administered by central government agencies.

The budget process at all levels of government is regulated by the 1994 Budget Law, which has become largely obsolete. The central government has made only small progress in bringing extra-budgetary funds into the regular budget, and the structure of local budgets remains fragmented, with extra-budget and off-budget funds representing on average 20 percent of all local budgets. More importantly, budgetary autonomy to prioritize expenditures is limited in several significant ways. Sub-national governments are subject to unfunded expenditure mandates, do not have autonomy to make decisions on their staff, and, as we have seen, quite limited revenue discretion.

India's Intergovernmental Fiscal System

The structure of India's intergovernmental system has an in-built imbalance between the revenue raising power and expenditure responsibilities of the states. This imbalance makes the states dependent on fiscal transfers and loans from the Union government. We contend that this structural imbalance and other design features of India's intergovernmental fiscal system accounts for the fiscal condition of the states of India and the low quality of state expenditures. As discussed below, the lack of aggregate fiscal discipline and the low quality of public services at the sub-national level negatively impact India's prospects for continued economic growth.

The Seventh Schedule of India's Constitution contains the exclusive lists of expenditure responsibilities for the Union and state governments as well as the concurrent responsibilities. Any residual functions not listed in the Schedule are assumed to reside with the Union government. The exclusive state list includes responsibilities closely connected to the life and welfare of the people, such as health, education, irrigation, water supply, sanitation, public order, and local government. The concurrent list includes nearly all matters relating to economic and social development. In contrast to China, India has a formal explicit assignment of expenditure responsibilities, and the assignments generally follow the general principles and international practice of assigning competencies according to the size of the benefit area. There is one drawback to the current assignments. Having more than one level of government share concurrent responsibility for an extensive list of expenditures blurs responsibility and accountability for poor service delivery. In addition, India has left decentralization to the discretion of the individual states. With Karnataka and Kerala being possible exceptions, the states are not decentralizing to the local level. This may account for the high rate of absenteeism among teachers and health care workers, among other problems with delivery of state services.

system (prior to the 1994 TSS reform) remained in place and remitted in accordance with the derivation principle.

The assignment of tax powers in India is based on the principle of separation. Although both the Union and state governments impose direct and indirect taxes, these are independent of each other and uncoordinated. All income is taxed by the Union government, except for agricultural income which is assigned to the state-level. In addition, the courts have ruled that the definition of goods does not encompass services, so states cannot include services in the state sales tax base. The Union government is able to tax services through its residual powers and the production of goods through excises. In contrast to the concurrent assignment of tax bases used in other federations, the principle of separation practiced in India narrows the tax base, complicates the administration and enforcement of the tax system, and increases the burden of tax compliance.

Many of the states implemented a destination based VAT on April 1, 2005. The Union government has made a commitment to compensate the states for any loss in revenues from the switch over from the state sales tax to the VAT, to the extent of 100 percent of the loss in the first year, 75 percent of the loss in the second year, and 50 percent of the loss in the third year. It is too early to judge the success of this reform. It may very well be that the existing sub-national VAT is superior to the state sales tax regime that prevailed in all the states prior to implementation of the sub-national VAT. To the best of our knowledge, only Brazil and Canada have any experience with a sub-national VAT. The experience of Brazil does not bode well for the long-term success of India's sub-national VAT. While Canada, like India, has a mixed system with some provinces using sales taxes and others using a sub-national VAT, tax administration in Canada is much stronger than in India. While the VAT in Canada seems to work, it is difficult to extrapolate Canada's success to India because the economic conditions are so different.

In the majority of states, the property (house) tax and the octroi (entry) tax are the most important sources of local tax revenue. However, the revenue productivity of these taxes is low. The property/house tax, in particular, presents a variety of problems that have prevented local bodies from exploiting them to their full potential. The major weaknesses include the absence of an open market in rental and sales transactions; lack of professionally-trained assessors; subjective assessments in a corruption-prone administrative environment; absence of records of landownership and tax mapping; and an increasing number of appeals and litigation cases [Naresh (2004)]. The octroi tax represents a barrier to the physical movement of goods and the development of an integrated national market.

In short, sub-national governments in India lack the authority to implement a broad-based tax on income or consumption. This makes them dependent on fiscal transfers and loan funds to fill the gap between their expenditure responsibilities, which are extensive, and their revenue authority, which is constrained by the principle of separation. We turn now to a description of the transfer system and borrowing authority of the states. Transfers and loan funds are essentially used by the states to plug the gap between recurrent expenditures and own tax revenue. As discussed in detail below, this method of financing has resulted in a number of problems.

India's transfer system consists of three channels of resource flows from the Union government to the states. First, an autonomous Finance Commission determines the sharing of centrally collected tax proceeds between the Union and state governments, and the distribution of grants-in-aid of revenues among the states. The centrally shared taxes are distributed on a formulary basis and are unconditional. In addition, the Finance Commission distributes deficit grants-in-aid on the basis of post-devolution assessed deficits alone. Such a gap filling approach encourages fiscal profligacy.

Planning Commission loan transfers constitute the second channel of resource flow from the Union government to the states and are meant to provide resources to fund the states' development plans. The Planning Commission provides a package of assistance to the states, which comprises grants and loans, according to the Gadgil formula. According to the present version of the formula, the resource transfers are 30 percent grant funds and 70 percent loan funds to non-special category states; and 90 percent grant funds and 10 percent loans to special category states.¹⁴ The Planning Commission transfers are conditional and distributed on a formulary basis. In recent years, the states have been diverting Planning Commission loans to cover current account deficits. The consequence is a declining share of total expenditure on development projects, such as roads, bridges, schools, and hospitals. As a result of the lack of investment in public infrastructure, India's rapid economic growth in recent years is beginning to strain current capacity in the transportation of people and goods and the supply of electricity.

The third transfer channel is the centrally sponsored schemes which the line ministries of the central government negotiate with their state-level counterparts. These are specific conditional matching and non-matching grants for a variety of activities, such as poverty alleviation, family planning, etc, with the total number of schemes exceeding 200. A part of these funds is passed on to the local governments through the State Finance Commissions. The centrally sponsored schemes undermine the fiscal autonomy of the states by diverting resources from state priorities to national priorities, the inducement being the matching component of these grants.

The states are only entitled to borrow domestically. Under Article 293(3) of the Constitution, the Union government, in principle, plays the role of controller or regulator of state debt, as long as the state has outstanding debt or any debt guaranteed by the Government of India. Given that all states are indebted to the Union government, unrestricted power to borrow is effectively blocked. However, there are at least two channels that allow states to break this block: off-budget borrowings and state guarantees. Thus, states have managed to finance large components of their own and their municipalities' capital budgeting needs for projects such as irrigation systems, power projects, and roads by off-budget borrowing with guarantees [McCarten (2003)].

While the states of India account for nearly half of total public expenditures, thus making India appear to be highly decentralized, local governments' share of total government expenditure is less than 4 percent. Despite their constitutional status, local

¹⁴ The 30:70 (90:10) grant to loan division is based on an historical ratio of the investment funds, which are financed by loans, and maintenance costs, which are financed by grants.

bodies have not been endowed with the means to deliver services. In fact, responsibility for basic local goods such as water provision, sanitation, and primary education, has not been transferred to local bodies. Given the population size distribution of the Indian states, the lack of genuine decentralization to local bodies is a serious shortcoming of the current system. For example, Kremer et al. (2004) reports that 25 percent of teachers were absent, and only about half of them were teaching during unannounced visits in a sample of government primary schools. The failure of the states to decentralize service provision down to the local level has contributed to the lack of monitoring, transparency, and accountability in providing local goods and services.

Despite the existence of hierarchical federal structures capable of imposing hard budget constraints on sub-national governments in India, lines of authority and accountability have become vague across levels of government, resulting in a softening of state budget constraints. Persistent and rising revenue deficits have resulted in a widening of the Gross Fiscal Deficit to 5.1 percent of Gross Domestic Product (GDP) in fiscal year (FY) 2003-04 (Revised Estimates). The gap-filling methodology of the Finance Commission and other flaws in the design of the intergovernmental fiscal system have contributed to the softening of state budget constraints, and state budgets have slipped from revenue account surpluses into deficit positions, resulting in steady debt accumulation and deteriorating fiscal condition of the states.

The fiscal condition of the states, in turn, is having a negative impact on the composition of state expenditures. State expenditures are characterized by rising non-development expenditure and stagnant development expenditure as ratios of GDP. State budgets are dominated by committed or non-discretionary expenditure on wages, interest, and pensions. In point of fact, a large share of total state recurrent expenditures goes to wages (39 percent), pensions (11 percent), interest on debt (26 percent), and subsidies to state owned enterprises. The amount of subsidies provided by the states through their budgets is difficult to quantify as they are shown under several headings, besides their implicit nature in under-pricing of public services [Government of India (2000)]. Non-developmental expenditure continues to rise with interest payments as the main stress factor absorbing more than 25 percent of revenue receipts in FY 2003-04 (Revised Estimates), despite the savings achieved under the Debt Swap Scheme. The resulting inflexibility in state budgets stymies efforts at expenditure restructuring, and the result is a poor quality of public services.

Public expenditures in India have failed to deliver basic services. As evidence demonstrates, government schools and health clinics lack teachers, doctors, textbooks and medicines; clean water is unreliable or unavailable; schools do not have access to proper toilets for students and teachers; and roads and transport is inaccessible in many areas.¹⁵ According to international indicators, India lags behind comparable countries in average educational attainment and infant mortality, particularly among the poor [Keefer and Khemani (2004)]. As compared with China, India's literacy rate is 30 percent lower at 61 percent, and the infant mortality rate is twofold [UNESCO (2004)]. In short, India's states have been charged with many responsibilities relating to human and economic

¹⁵ See Peters (2000), Kremer et. al (2004), and Keefer and Khemani (2004).

development, however, the fiscal condition of the states and the low quality of state expenditures means that they are not achieving satisfactory results.

4. Impact of Decentralization of Economic Performance

In this section, we address the basic but fundamental question regarding the extent to which decentralization in China and India has been an agent for growth, or, alternatively, whether the current fiscal decentralization design is hurting the possibilities for faster economic growth in these two countries.

There are some striking similarities between China and India's system of fiscal decentralization, but there are significant differences, too. These differences tend to be more pronounced in the formal structure of the respective intergovernmental systems and much less so with respect to the actual conduct and performance of sub-national governments. Both systems can be characterized as lacking genuine fiscal decentralization beyond the second tier of government (i.e., provinces or states), the result being poor service delivery at the local level (third tier of government). The two systems are characterized by the lack of budget discipline but of a different kind and with different consequences. In China, there is still widespread use of extra-budgetary funds and off-budget accounts, which reduce the overall efficiency of public expenditures due to a lack of proper prioritization. The extra-budgetary funds and the state-owned enterprises (SOE) also provide a form of soft budget constraint to sub-national governments in China.¹⁶ In India, sub-national governments face a soft budget constraint due to gap filling intergovernmental transfers, diversion of capital grants to cover recurrent budget deficits, contingent liabilities, and borrowing through SOEs. As a result, many states are running large budget deficits, resulting in a rising national debt and threatening macroeconomic stability.

Both systems have some problems with expenditure assignments, although these problems are much more significant in China than in India in terms of assigning expenditure to the appropriate level of government. It is interesting to note that in both systems the intermediate level of governments has almost complete discretion to arrange the expenditure responsibilities of lower level governments, which in combination with discretion to set revenue assignments at the local level puts many local governments in both countries in a desperate situation of fiscal distress.

Neither of the two systems provides adequate revenue autonomy at the sub-national level, but India's system clearly performs better on this score. The intergovernmental transfer systems in China and India are in need of reform, but again China's system is not as well developed in terms of equalization grants and overall effectiveness. Perhaps the most significant institutional difference between the two countries systems is that India is a democracy and China is not. The lack of democratic elections and horizontal accountability in China means that sub-national government officials are more likely to look to pleasing their superiors in the vertical hierarchy of government in an effort to get

¹⁶ This is the case to the extent that SOEs have been allowed to borrow from the official bank and have defaulted on their loans.

promoted than to look after the genuine interests and needs of the residents of their jurisdictions. In India, there are democratically contested elections at the local level, but the lack of budget autonomy makes political accountability almost meaningless because practically all decisions of any real consequence are made by state authorities. Though in a different way, India's system also lacks accountability at the local level.

How does all of this impact the prospects for continued economic growth in the two countries? This is a difficult question and one that we can only hope to approximate. Here are some issues that should be highlighted:

(i) The most serious problem for China is the lack of political accountability, and the heavy reliance on extra-budgetary funds is likely to undermine the overall efficiency of government expenditures and potentially slow down the rate of economic growth. On the other hand, the most serious threat to continued economic growth in India is the risk of macroeconomic instability due to the lack of fiscal discipline and the resulting debt accumulation by sub-national governments.

While economic growth is generally believed to be good measure of progress in raising living standards, this need not be the case in every instance. Economic growth can be accompanied by growing levels of industrial pollution, job related injuries, and destruction of natural habitat. In other words, economic growth as measured by national income accounts may result in growing levels of human misery, depending on the quality of economic growth and the distribution of goods and services. China is clearly out performing India in terms of economic growth. The expectation is that democratic elections, as in India, should result in a higher quality of economic growth than in a country like China which does not provide for democratically elected leaders. Undoubtedly, there is evidence to support either claim: China's economy is out performing India's in terms of raising living standards, and, vice versa, India's economy is outperforming China's. The fact is that current methods of national income accounting do not allow us to make reliable comparisons in this regard.

Frankly speaking, much more is known about the effect of macroeconomic instability on economic growth than the effect of political accountability, as recent experience with the lack of sub-national fiscal discipline resulting in macroeconomic instability and steep recessions in Argentina and Brazil attest. Both China and India have serious problems with the lack of fiscal discipline by sub-national governments. However, the threat of a fiscal crisis does not seem to be imminent because government borrowings are largely from domestic markets as opposed to international markets, both countries enjoy high rates of domestic savings, and because of a combination of capital controls, official rationing of credit, and high tolerance for governments' debt accumulation in the domestic credit markets.

(ii) The lack of clear expenditure assignments in both China and India is leading to poor service outcomes in education and health and slowing down human capital development and ultimately future economic growth.

The lack of formal explicit assignments in the case of China and the use of fully concurrent assignments in the case of India are defended as being more flexible and allowing the intermediate level of government to adapt to the peculiar characteristics of

the local entities below them. However, the lack of formal explicit assignments also has disadvantages, which would appear to outweigh the advantages. One disadvantage is that intermediate level governments can push down expenditure responsibilities to the lowest levels of government without adequate funding and assign responsibilities to local governments that appear to lack the capacity or have no comparative advantage in delivering the assigned responsibilities. In addition, the inability of many local governments in both countries to deliver basic social services increasingly makes central governments play the role of rescuer, weakening fiscal discipline and responsibility. The important issue from the perspective of this paper is that substandard social services provided in many local governments in China and India has led to lower rates of human capital accumulation in terms of health and education and therefore very likely to lower rates of economic growth, especially in the long run.

(iii) The fulfillment of capital expenditure responsibilities assigned to the local level is compromised in both countries by the lack of financing, and this has a negative effect on the long run rate of economic growth.

Local governments in China and India are, correctly, responsible for financing the needed infrastructure to deliver the services assigned to them. However, in China sub-national governments are not allowed to borrow and in reality many local governments lack the liquid resources to undertake the required investments. In India, state governments are allowed to borrow, but many of them use these funds to cover deficits in their recurrent budgets. Because of the vast unmet needs for capital infrastructure in both countries, it is likely that economic growth is less than it would have been if local governments were doing a better job of providing for adequate infrastructure to sustain a faster rate of economic growth.

5. Concluding Thoughts

China and India's intergovernmental fiscal systems formally differ in significant ways. In terms of the actual performance of sub-national governments in these two countries, however, there are remarkable similarities. For example, India is a democracy with contested elections at the local level; in China, on the other hand, local officials are appointed by the center. This is big differences in the two systems which should have clear repercussions in terms of horizontal accountability. There is little accountability at the local level in China. However, there is very little accountability at the local level in India as well, because local officials do not have effective control over their budgets since all expenditure responsibilities and revenue assignments at the local level are decided by the states.

Another example of a significant formal difference in the two systems is their respective approaches to sub-national borrowing and budget deficits. In China, local governments cannot run a deficit and officially cannot borrow. In India, sub-national governments can run deficits on both the current and capital accounts and may borrow from domestic sources with the approval of the central government. In terms of budget discipline at the sub-national level, actual performance in both countries is very similar. We have seen that in India there is a considerable problem with budget deficits and debt

accumulation at the sub-national level. In China there are also problems with *de facto* deficits through government arrears, using SOEs for off-budget borrowing, etc. The rate of debt accumulation by sub-national governments in both countries threatens macroeconomic stability in the medium run and therefore the potential for continued economic growth.

In conclusion, neither country is fully using the potential of fiscal decentralization for improving the allocation of resources and thereby achieving their respective growth potentials. Although both countries are experiencing high rates of economic growth, the rates and quality of growth may have been even higher with appropriate reforms of their intergovernmental fiscal systems. Both China and India's approaches to reform of their intergovernmental fiscal systems has been piecemeal and gradual. The advantage of a smooth transition may be increased acceptance by sub-national governments and central government ministries. The main problem with the current reform approach of China and India is the lack of a comprehensive strategy linking in a logical way the different elements of the intergovernmental fiscal systems. Developing such a strategy is complicated, and perhaps it has not been politically feasible. However, gradualism in implementation should not be seen as contradicting the goal of putting in place a coherent system that rationally links the major elements of the system.

References

- Arikan, G. (2004). "Fiscal Decentralization: A Remedy for Corruption?", *International Tax and Public Finance*, Vol. 11, 175-1995.
- Bahl, R. (1999), *Fiscal Policy in China: Taxation and Intergovernmental Fiscal Relations*, 1990 Institute, San Francisco.
- Bahl, R. and J.L. Martinez-Vazquez (2005), "Fiscal Federalism and Economic Reform in China", in *The Dynamics of Federalism: The Political Economy Reality*, T.S. Srinivasan and J. Wallack (eds.), Oxford Economic Press, Oxford.
- Bardhan, P. (2002), "Decentralization of Governance and Development", *Journal of Economic Perspectives*, Vol. 16, No. 4, 185-205.
- Bardhan, P. and D. Mookherjee (2002), "Capture and Governance at the Local and National Levels", *American Economic Review*, Vol. 90, No. 2, 135-39
- Cao, Y., Y. Qian, and B.R. Weingast (1999), "From Federalism, Chinese Style to Privatization, Chinese Style", *Economics of Transition*, Vol. 7, No. 1, 103-31.
- Dillinger, W., G. Perry, G. and S.B. Webb (2000), "Macroeconomic Management in Decentralization Democracies: The Quest for Hard Budget Constraints in Latin America", in *Annual World Bank Conference on Development in Latin America and the Caribbean, 1999: Decentralization and Accountability of the Public Sector: Proceedings of a Conference Held in Valdivia, Chile, June 20-22, 1999*, S. J. Burki and G. E. Perry (eds.), World Bank, Washington, D.C.
- Fisman, R. and R. Gatti (2002), "Decentralization and Corruption: Evidence Across Countries", *Journal of Public Economics*, Vol. 83, 325-45.
- Fornasari, F., S.B. Webb and H. Zou, H. (2000), "The Macroeconomic Impact of Decentralized Spending and Deficits: International Evidence", *Annals of Economics and Finance*, Vol. 1, No. 2, 403-33.
- Government of India (2000), "Report of the Eleventh Finance Commission (2000-2005)", Ministry of Finance, Delhi.
- Gurgur, T. and A. Shah (2000), "Localization and Corruption: Panacea or Pandora's Box", Presented at the IMF Conference on Fiscal Decentralization, November 21, 2001, Washington D.C.
- Keefer, Philip and S. Khemani (2004), "Why do the Poor Receive Poor Services", *Economic and Political Weekly*, February 28, 2004, 935-43.
- Kremer, M., C. Nazmul, H. Rogers, K. Muralidharan and J. Hammer (2004), "Teacher Absence in India: A Snapshot", *Journal of European Economic Association*, September, 2004.

- Lin, J.Y. and A. Liu (2000), "Fiscal Decentralization and Economic Growth in China", *Economic Development and Cultural Change*, Vol. 49, No. 1, 1-21.
- Martinez-Vazquez, J.L. and R.M. McNab (2003), "Fiscal Decentralization and Economic Growth", *World Development*, Vol. 31, No. 9, 1597-1616.
- Naresh, Gautam. (2004), "Property Taxation in India", in *International Handbook of Land and Property Taxation*, R. Bird and E. Slack (eds.), Edward Elgar Publishers, London.
- Oates, W. E. (1993), "Fiscal Decentralization and Economic Development", *National Tax Journal*, Vol. 46, No. 2, 237-43.
- Peters D.H. and V. Kaul (2000), "Improving Health and Education for the Poor", in *India: Reducing Poverty, Accelerating Development*, S. Kathuria and J. Hanson (eds.), Oxford University Press, New Delhi.
- Prud'homme, R. (1995), "The Dangers of Decentralization", *World Bank Research Observer*, Vol. 10, No. 2, 201-20.
- Qian, Y. and B. R. Weingast (1997), "Federalism as a Commitment to Preserving Market Incentives", *Journal of Economic Perspectives*, Vol. 11, No. 4, 83-92.
- Rodden, J. (2002), "The Dilemma of Fiscal Federalism: Grants and Fiscal Performance Around the World", *American Journal of Political Science*, Vol. 46, No. 3, 670-87.
- Rodden, J. and S. Rose-Ackerman (1997), "Does Federalism Preserve Markets?", *Virginia Law Review*, Vol. 83, No. 7, 1521-72.
- Rodden, J., G.S. Eskeland and J. Litvack (2003), *Fiscal Decentralization and the Challenge of Hard Budget Constraints*, MIT Press, Cambridge and London.
- Rodden, J. and E. Wibbels (2002), "Beyond the Fiction of Federalism: Macroeconomic Management in Multitiered Systems", *World Politics*, Vol. 54, No. 4, 494-531.
- Stein, E. (1999), "Fiscal Decentralization and Government Size in Latin America", *Journal of Applied Economics*, Vol. 2, No. 2, 357-91.
- Tanzi, V. (1996), "Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects", in *Annual World Bank Conference on Development Economics*, M. Bruno, and B. Pleskovic (eds.), World Bank, Washington, D.C.
- Thiessen, U. (2003), "Fiscal Decentralisation and Economic Growth in High-Income OECD Countries", *Fiscal Studies*, Vol. 24, No. 3, 237-74.
- Treisman, D. (2000), "Decentralization and Inflation: Commitment, Collective Action, or Continuity", *American Political Science Review*, Vol. 94, No. 4, 837-57.
- Weingast, B. R. (1995), "The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development", *Journal of Law, Economics, and Organization*, Vol. 11, No. 1, 1-31.
- Xie, D., H. Zou and H. Davoodi (1999), "Fiscal decentralization and Economic Growth in the United States", *Journal of Urban Economics*, Vol. 45, No. 2, 228-39.
- Yao, S. and L. Zhu (1998), "Understanding Income Inequality in China: A Multi-Angle Perspective," *Economics of Planning*, Vol. 31, Nos. 2-3, 133-50.
- Zhang, T. and H. Zou (1998), "Fiscal Decentralization, Public Spending, and Economic Growth in China", *Journal of Public Economics*, Vol. 67, No. 2, 221-240.
- Zhang, Z. and J.L. Martinez-Vazquez (2003), "The System of Equalization Transfer in China", International Studies Program Working Paper Series, 03-12, Georgia State University, Atlanta.

Table 1: Growth Rates of Real Gross Provincial Product Per Capita in China

Province	1975	1980	1985	1990	1995	1999
China	7.40	7.83	13.07	4.03	11.79	7.28
Northern Region	8.09	4.55	10.04	2.27	11.78	6.21
Beijing	11.85	10.90	6.09	3.71	11.81	7.28
Tianjing	2.69	8.48	9.35	3.67	14.06	3.85
Hebei	9.38	1.94	11.25	1.02	13.03	8.41
Shanxi	6.14	0.78	5.41	3.34	9.95	-3.42
Inner Mongolia	9.22	1.16	19.72	3.22	7.98	6.99
North-Eastern Region	7.21	9.19	10.33	1.98	6.67	6.02
Liaoning	7.37	11.28	12.86	1.03	6.39	6.13
Jilin	11.17	5.40	7.38	1.17	4.61	5.91
Heilongjiang	5.23	8.22	8.42	4.27	8.74	5.63
Eastern Region	6.51	7.87	15.01	3.53	14.33	8.29
Shanghai	3.82	7.04	12.29	4.57	13.87	-2.32
Jiangsu	4.80	4.08	17.67	1.48	14.66	9.65
Zhejiang	-4.87	15.06	21.50	3.74	15.94	9.32
Anhui	1.57	1.10	14.85	0.09	13.11	6.63
Fujian	0.55	17.90	16.42	6.37	13.71	6.75
Jiangxi	6.89	2.84	13.44	2.28	16.92	6.79
Shandong	27.44	11.89	11.40	7.58	13.70	9.59
Central South Region	7.53	9.61	14.03	6.15	12.77	7.17
Henan	4.54	13.88	11.91	3.94	13.88	7.22
Hubei	9.95	5.22	14.82	3.17	13.55	7.70
Hunan	8.33	4.08	10.83	8.39	9.35	4.62
Guangdong	9.09	14.64	19.05	8.00	13.33	7.14
Guangxi	4.46	8.10	9.06	4.68	10.18	6.84
South-Western Region	9.63	7.07	12.63	4.22	7.94	5.33
Sichuan+Chongqing	12.72	7.98	14.44	4.09	7.67	4.91
Guizhou	7.68	2.71	6.45	3.28	5.97	6.83
Yunnan	2.78	7.22	11.51	5.35	9.78	5.99
North-Western Region	8.49	7.67	12.97	6.22	7.47	7.03
Shannxi	3.57	6.36	15.13	2.21	8.01	7.69
Gansu	14.76	7.74	11.69	6.20	7.21	7.34
Qinghai	5.27	25.20	2.99	7.48	6.43	6.67
Ningxia	2.08	6.39	14.89	1.23	7.19	7.41
Xinjiang	13.11	5.15	13.38	15.54	7.12	5.44
Mean	7.28	7.92	12.30	4.32	10.56	6.15
Maximum	27.44	25.20	21.50	15.54	16.92	9.65
Minimum	-4.87	0.78	2.99	0.09	4.61	-3.42
Coefficient of Variation	79.0	70.0	36.0	71.0	33.0	46.0

Source: www.ccer.org.cn

Table 2: Growth Rates of Gross State Product Per Capita in India

Province	1985	1990	1995	2000
India	15.2	21.3	17.4	21.3
Andhra Pradesh	14.9	28.6	18.3	29.5
Arunachal Pradesh	34.8	27.3	32.3	2.1
Assam	16.0	4.2	4.8	7.1
Bihar	15.6	11.9	-18.7	48.9
Goa	-0.4	48.7	19.7	56.9
Gujarat	13.7	21.5	34.5	16.3
Haryana	21.8	19.9	6.0	25.6
Himachel Pradesh	6.1	26.1	17.2	32.3
Jammu & Kashmir	6.1	1.7	11.6	10.9
Karnataka	9.4	24.2	28.7	43.2
Kerala	3.7	20.1	26.6	23.1
Madhya Pradesh	6.2	21.9	9.9	10.9
Maharashtra	12.0	27.9	31.6	12.6
Manipur	14.6	10.5	5.4	22.8
Meghalaya	7.3	25.0	6.8	29.4
Nagaland	21.8	13.6	5.8	18.0
Orissa	11.2	-1.2	19.4	11.3
Punjab	21.4	13.5	12.6	20.4
Rajasthan	10.4	43.2	9.9	18.2
Sikkim	28.9	70.7	6.1	34.2
Tamil Nadu	21.6	23.2	30.4	30.6
Tripura	-3.1	32.7	13.9	65.3
Uttar Pradesh	8.3	19.8	6.3	10.7
West Bengal	9.5	12.2	25.4	32.5
Andaman & Nicobar Islands	2.3	3.7	19.9	7.1
Delhi	14.5	17.9	5.0	30.0
Pondicherry	7.1	7.6	-4.3	104.4
Mean	12.4	21.3	14.3	27.9
Maximum	34.8	70.7	34.5	104.4
Minimum	-3.1	-1.2	-18.7	2.1
Coefficient of Variation	69.7	71.7	86.4	77.6

Source: Central Statistical Office