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The Evolution of Fiscal Decentralization in China and India: A Comparative Study of Design and Performance

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The economic policies of China and India are enormously important, not only to the citizens of these two populous countries but increasingly to the vitality of the global economy. Both countries have abandoned Soviet-style central planning and are now decentralizing economic decision making by pursuing market-oriented reforms and

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devolving fiscal functions to local governments. In 1994, China reformed its tax system by assigning taxes to the central government and creating a national tax administration to collect taxes assigned to the central government. In contrast, in 1991, India tried to revitalize its economy by deregulating its economy and, in 1992, further decentralizing its fiscal system from state to local governments.

The purpose of this paper is to compare and contrast the design and performance of China and India's intergovernmental fiscal systems. We pay particular attention to the fiscal effects of changes to their respective intergovernmental systems. Performance is measured by the overall and average rate of expenditure (revenue) decentralization and the interregional variation in the average rate of expenditure (revenue) decentralization. To this end, we make use of a unique dataset on the fiscal operations of the central and sub-national governments of both countries for the period 1985 through 2005. Our comparative analysis seeks to identify strengths and weaknesses in China and India's fiscal systems. To the best of our knowledge, no quantitative comparison of China and India's fiscal systems has been undertaken so far, making this study the first of its kind.[1]

There is a large theoretical literature describing the advantages of fiscal decentralization. In his seminal article, Tiebout (1956) shows that many competing jurisdictions seeking to attract residents and a mobile population ready to move to the jurisdiction offering the best tax-expenditure bundle can lead to an efficient allocation of resources in the local public sector. Oates (1972) contends that, in the absence of scale economies and inter-jurisdictional spillovers, decentralized provision of local public goods is always superior in terms of economic efficiency to centralized and therefore uniform provision of local public goods.

According to Buchanan (1976), differences in the benefits and costs of providing government services—henceforth net fiscal residuals—across regions may induce migration from regions with low net fiscal residuals to regions with high net fiscal residuals. As people move in response to differences in net fiscal residuals, the cost of providing a constant level of local public goods increases due to increased congestion of local public goods, and, as people leave regions with low net fiscal residuals, the cost of providing a constant level of local public goods decreases due to decreased congestion of local public goods. Thus, in Buchanan's model, differences in net fiscal residuals among the regions of a country induce migration which, in turn, eliminates interregional differences in net fiscal residuals. In equilibrium, there is no incentive for people to move from one region to another.

One potential drawback of the Tiebout-Oates-Buchanan model of fiscal decentralization, particularly in the context of China and India, is the assumption of a highly mobile population moving in response to differences in net fiscal residuals among regions of a

[1] There are a number of studies providing comparative descriptions of China and India's fiscal systems. See, for example, Rao (2003), Martinez-Vazquez and Rider (2006), and Singh (2007).

country. This assumption applies to very few countries. It certainly does not apply to traditional societies, like those of China and India, where people have strong attachments to particular localities due to local customs, local languages, and ethnic fractionalization. In such circumstances, elimination of net fiscal residuals among the regions of a country with relatively immobile populations can only be achieved by purposeful central government policies to transfer resources to local governments. In the absence of intergovernmental equalization transfers, large interregional discrepancies can emerge in the quantity and quality of local government service provision. The risk is that growing fiscal disparities can jeopardize social cohesion and political stability.

Indeed, there is concern that growing interregional disparities within both countries are weakening national cohesion and solidarity. Spahn (2007) points out that achieving social cohesion and a sense of national identity is particularly challenging in these two large countries. Political unrest and regional separatist tendencies are on-going concerns. Consequently, there is a need for centripetal policies, such as equalizing transfers, to help address the concerns of aggrieved ethno-linguistic minorities and other potential secessionists.

Another potential drawback of the Tiebout-Oates-Buchanan model is that it is too simplistic. In their model, many jurisdictions competing for residents and a mobile population willing to move in response to differences in net fiscal residuals is sufficient to achieve allocative efficiency in the public sector. In other words, “voting with your feet” serves as an accountability mechanism that assures fiscal discipline and efficient resource allocation by local governments. However, in mature federal countries, there are multiple accountability mechanisms that promote efficiency and fiscal discipline among local governments. One such accountability mechanism is popularly elected local government officials. If the residents of a jurisdiction are unhappy with the performance of their local government, they can vote the “bums out.” In fact, Stigler (1957) contends that representative democracy works best when government is closest to the people. In his view fiscal decentralization strengthens the democratic process. However, voting as an accountability mechanism works best when there are competing political parties, and people vote according to their interests rather than strictly according to ethnic or caste affiliations.

Another important accountability mechanism is allowing local governments to go to the market to borrow the necessary funds to finance capital expenditures. A local government that is living within its means is able to borrow at lower costs than a local government that is living beyond its means. Thus, the quest for high bond ratings and thus lower interest payments on local debt obligations creates strong financial incentives for local governments to achieve and maintain fiscal discipline. Finally, the rule of law, an independent judiciary, and a vibrant civil society, particularly freedom of the press, are also important accountability mechanisms in mature democracies.

Even with all of these accountability mechanisms in place, however, there is still significant waste, fraud, and inefficiency among local governments in many mature federal countries.

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One only has to look at the substandard performance of public schools in the United States to realize that a federal system with an array of accountability mechanisms does not ensure efficient resource allocation in the public sector.[2]

Since many of these accountability mechanisms are missing in China and India, they must rely on vertical accountability mechanisms, like audits. However, vertical accountability mechanisms often are vulnerable to political manipulation. Thus, to gauge the performance of a given fiscal system, it is important to look not only at its design but also to look at empirical measures of its performance.

We find that there are remarkable similarities in the design and performance of China and India's intergovernmental fiscal systems. More specifically, compared to the international average, both countries have highly decentralized expenditure assignments and fairly centralized revenue assignments, making local governments reliant on central government transfers to finance their responsibilities. In addition, sub-national governments in both countries engage in off-the-books and hidden borrowing. We also find that there are considerable and growing disparities in the rates of expenditure decentralization among sub-national governments within both countries. Lack of fiscal discipline and growing fiscal disparities among sub-national governments create risks to future economic growth and to social cohesion, in the absence of policy reforms to address these issues.

The remainder of this article is organized as follows. Section 2 briefly describes China and India's fiscal systems. Section 3 discusses the performance of their respective systems, and section 4 concludes.

A Description of China and India's Fiscal Systems

A convenient way to organize the following discussion of China and India's fiscal systems is to describe the pillars of their intergovernmental fiscal systems, namely the expenditure assignments, revenue assignments, system of intergovernmental transfers, and regulation of subnational borrowing. We proceed below by describing the pillars of China's fiscal system, with special emphasis on the 1994 tax sharing system (TSS) reforms (*fenshui zhi*).[3] We also briefly explain China's system of extra-budgetary finance. Then, we turn to a description of the pillars of India's fiscal system, with a special focus on the 1992 constitutional amendments.

[2] There is an extensive literature on high expenditures per pupil and poor performance of America's public school students in international rankings. See, for example, Papham (2004).

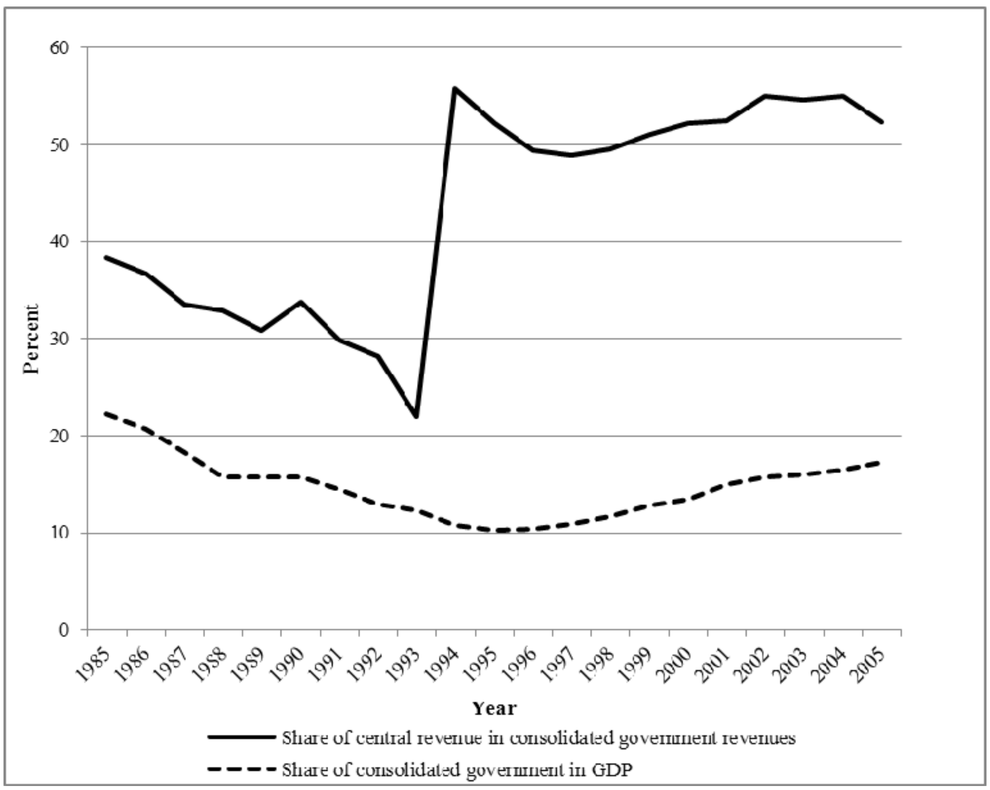
[3] The 1994 reform of the tax sharing system centralized tax revenue collections and introduced the current system of intergovernmental transfers.

China's fiscal system

China is a unitary country with five hierarchically arranged levels of government, comprised of one central government; 34 provincial level governments, including 22 provinces, five autonomous regions, four municipalities directly under the central government, and two special administrative regions, namely Hong Kong after 1997, Macao after 1999, and the claimed province of Taiwan. There are about 333 prefectures, including autonomous prefectures and cities divided into districts; 2,856 counties, including autonomous counties, small cities not divided into districts, districts within large cities; and 40,906 townships.

The recent evolution of China's fiscal system has been a gradual movement in the direction of greater fiscal decentralization. In 1978, fiscal reforms started with the devolution of resources and decision-making power to sub-national governments and state owned enterprises (SOEs). Although these initiatives provided sub-national governments with incentives to develop their local economies, the uncontrolled decentralization and case-by-case bargaining between the central and sub-national governments led to a sharp decline in central government revenues.

Figure 1 (China): The Share of Consolidated General Government Revenue in GDP, and the Share of Central Government Revenue in Consolidated Revenues, 1985-2006



Source: National Statistics Bureau, China

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More specifically, as shown in Figure 1, consolidated government revenues dropped from slightly more than 20 percent of Gross Domestic Product (GDP) to approximately 10 percent of GDP, between 1985 and 1993. Meanwhile, the central government's share of revenues dropped from 38.4 percent of consolidated revenues to 22 percent. These trends were the result of the proliferation of tax exemptions granted to local state owned enterprises (SOEs) and the shifting of taxes by sub-national governments from budgetary to extra-budgetary accounts. Prior to the 1994 TSS reforms, local governments collected the major share of domestic taxes, and transferred the central government's share of local taxes to the central government. By moving revenues off-budget, local governments were able to retain a greater share of local revenues. As discussed in greater detail below, the decline in the two-ratios – the decline in consolidated revenues as a share of GDP and the decline in the central government's share of consolidated government revenues - led the central government to initiate the 1994 TSS reforms with a view to re-centralize revenues.

The first pillar: China's expenditure assignments

Table 1 summarizes China's current expenditure assignments. Many expenditure responsibilities are shared by the central government and sub-national governments, including social security, education, medical services, public health, and economic development. Although statutorily China's expenditure assignments involve extensive concurrent expenditure responsibilities, sub-national governments accounted for more than 74 percent of consolidated expenditures in 2005 as opposed to 47.5 percent in 1984. The system of expenditure assignments is on the whole unchanged since the initiation of economic reforms in 1978. A heavy burden of providing basic public services rests largely on sub-national governments. More specifically, 98 percent of health expenditures were shouldered by sub-national governments in 2007. Furthermore, the politically centralized system makes it easy for the central government to shift expenditures to sub-national governments, although, as we will see below, major revenues have been recentralized since enactment of the 1994 TSS reforms.

The second pillar: China's revenue assignments

As summarized in Table 2, the central government is assigned the major share of the broad-based and productive taxes. Taxes exclusively assigned to sub-national governments are low-yielding taxes, such as slaughter taxes. Meanwhile, the 1994 TSS reforms divided tax administration into two systems: the National Tax Service (NTS) and the Local Tax Service (LTS). The NTS is responsible for the collection of exclusively central taxes and all shared taxes. The LTS collects exclusively local taxes. As a result of this clear-cut division of responsibility, sub-national governments are no longer able to conceal local resources in extra-budgetary accounts.

Table 1: Statutory Expenditure Assignments, 1993 and 2007 (percent)

Assignment of function	Main Responsibilities	1993		2007	
		central	sub-national	central	sub-national
Exclusive responsibility of the central government	National defense	100	0	100	0
	Foreign affairs, aid and debt service	100	0	100	0
	International trade policies	100	0	100	0
	National fiscal and monetary policies	100	0	100	0
	National infrastructure	100	0	100	0
	Operation of the central government and central judicial organs	100	0	100	0
	National projects	100	0	100	0
	Technical renovation, research and development by central SOEs	100	0	100	0
	Macroeconomic control, coordination among regions, redistribution like transfers among regions	100	0	100	0
Exclusive responsibility of sub-national governments	Local parks, recreation, fire safety and other local public services	0	100	0	100
	Sub-national projects, infrastructure and housing	0	100	0	100
	Technical renovation, research and development by sub-national SOEs	0	100	0	100
	Operation of sub-national governments and sub-national judicial organs	0	100	0	100
	Sub-national water, power, sewage, waste disposal and welfare	0	100	0	100
Concurrent responsibility	Expenses on economic development such as capital investment and accumulation	69	31	69	31
	Education and culture	11	89	7	93
	Public health and sanitation	49	51	2	98
	Science and technology	33	67	52	48
	Social security such as pensions and unemployment insurance	1	99	6	94
	Subsidies on agriculture and others	10	90	9	91
	Public security	25	75	17	83
	Expenditures on industry, transportation and commerce including environmental protection, urban maintenance and construction	32	68	34	66
	Administration expenses	8	92	25	75
	Interest payments on debts	100	0	94	6

Source: Jin (2009, p. 64).

Table 2: China's Statutory Revenue Assignments, 1993 and 2007 (percent)

Assignment of functions	Main Revenues	1993		2007	
		central	sub-national	central	sub-national
Exclusively assigned to the central government	Customs duties	100	0	100	0
	Value added taxes and excise taxes on imports	100	0	100	0
	Tax reimbursements for export of foreign trade businesses	100	0	100	0
Exclusively assigned to sub-national governments	Urban maintenance & construction taxes (other than from railways corporations, banks, & non-bank financial institutions like insurance businesses)	0	100	0	100
	Vehicle and vessel sales, use taxes	0	100	0	100
	Profit remittances from sub-national SOEs	0	100	0	100
	Real estate taxes in urban and township areas and land use-related taxes	0	100	0	100
	Stamp taxes other than those on security	0	100	0	100
	Deed taxes	0	100	0	100
	Fixed asset investment regulation taxes (suspended in 2000)	0	100	0	100
	Banquet taxes (mostly abolished in 2002)	0	100	n.a.	n.a.
	Agricultural taxes (abolished in 2005)	0	100	n.a.	n.a.
	Slaughter taxes (abolished in 2006)	0	100	n.a.	n.a.
Shared taxes	Value Added Taxes (VAT)	12	88	75	25
	Product / Excise taxes	57	43	100	0
	Corporate Income Taxes (CIT)	78	22	64	36
	Personal Income Taxes (PIT)	0	100	60	40
	Business taxes	8	92	3	97
	Stamp taxes on security transaction	50	50	97	3
	Agricultural sector taxes	8	92	97	3
	Other taxes	n.a.	n.a.	20	80
Actual tax shares	Tax revenues	21	79	58	42
	Non-tax revenues	98	2	24	76
	Total revenues	33	67	54	46

Source: Jin (2009, p. 63).
Notes:
(1) CIT in 1993 refers to SOEs only.
(2) The product taxes were replaced by excise taxes/consumption tax in 1994.
(3) Taxes on the agricultural sector include husbandry tax, contract tax, special agricultural product taxes, arable land use tax and other agriculture-related taxes and charges.

The three bottom rows of Table 2 show actual tax and non-tax revenue shares in total revenues by level of government before and after the TSS reforms. In 1993, before the TSS reforms, the share of sub-national tax revenues in total revenues was 79 percent, with the remaining 21 percent of revenue accruing to the central government. However, in 2007, the situation was reversed: the central government share of total revenues was 58 percent, with the remaining 42 percent accruing to sub-national governments. This re-centralization of revenues is mainly the result of the 1994 TSS reforms. As a result, the percentage of shared tax revenues in consolidated tax revenues increased from 55 percent in 1994 to 70 percent in 2005. As a result of the 1994 TSS reforms, the previously poor inland provinces became even worse off in terms of revenue capacity because their limited own revenues were centralized. This revenue centralization makes them even more dependent on central transfers as well as on hidden sub-national borrowings.

In the case of China, there exists another critical source of finance. That is off-budget finance, which exists at both the central and sub-national levels of government. Off-budget finance consists mainly of extra-budgetary funds together with user fees and various levies. Off-budget finance by sub-national governments is under the full discretion of sub-national governments. The size of extra-budgetary funds grew rapidly in the 1980s and 1990s, finally becoming equivalent in size to budgetary funds in 1991.[4] As a result of several policy reforms associated with the 1994 TSS reforms, which shifted extra-budgetary funds to budgetary funds, extra-budgetary funds began to decline.[5] In 2005, extra-budgetary expenditures dropped to about 16 percent of budgetary expenditures. Since the taxes associated with off-budget funds are levied on the same tax base as budget funds, off-budget funds, like extra-budgetary revenues, are positively related to own source revenues, which is an important source of interregional disparities in per capita provincial expenditures.[6]

The third pillar: China's system of intergovernmental transfers

A fiscal system, like China's, with highly centralized revenues and highly decentralized expenditures makes sub-national governments dependent on intergovernmental transfers to fill the gap between their expenditure responsibilities and revenue capacity. In 2005, transfers from the central government to sub-national governments accounted for 57 percent of total central government expenditures and 46 percent of sub-national revenues, including extra-budget accounts.

The current transfer system was introduced in China by the 1994 TSS reforms. There are three types of central government transfers to sub-national governments: tax rebates, general-purpose grants, and special-purpose grants. Tax rebates are distributed on a derivation basis to address the political opposition of high-income sub-national

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[4] See Wong (1998) for the size evolution and detailed categories of off-budget funds.

[5] See, for example, State Council Document No. 29 (1996).

[6] See, for example, Wong (1998) for detailed empirical investigation of extra-budgetary funds, and Zuo (1996) for a discussion of local levies.

governments to the TSS reforms. Accordingly, tax rebates conflict with the equalization goal of the TSS reforms. To achieve greater horizontal fiscal equalization, the share of tax rebates was decreased from 75 percent in 1994 to 19 percent in 2008; whereas the share of general purpose grants increased from 4 to 38 percent during the same period. Special-purpose grants compromise a third type of intergovernmental transfer and are intended to realize specific objectives of the central government. The share of special-purpose grants in total transfers also increased from 21 percent in 1994 to 43 percent in 2008.

The fourth pillar: China's regulation of sub-national borrowing autonomy

Although sub-national governments are prohibited from borrowing except upon special approval of the central government, almost all sub-national governments are circumventing these restrictions by borrowing "off the books." Qiao and Shah (2006) describe the channels of local government borrowings. Examples include borrowing from local commercial banks by enterprises controlled by sub-national governments, such as local SOEs, with local government guarantees; establishment of new companies through collective financing by local governments or employees of local SOEs; borrowing from pension funds, unemployment insurance funds, or government employee salary funds; borrowing from extra-budgetary funds, and so on. Interestingly, these sub-national borrowings are having an equalizing effect on per capita provincial expenditures. The risk, however, is that uncontrolled and hidden borrowing by sub-national governments may lead to macroeconomic instability.

India's fiscal system

India is a federal republic comprising five levels of government: the central government (the Union), 28 states, seven union territories (the states), including the National Capital Territory of Delhi, and three tiers of local government. In rural areas, the three tiers of local government consist of about 610 districts (Zilla Parishads), 6,000 blocks (Samiti Panchayats), and 250,000 villages (Gram Panchayats), and in urban areas, municipal corporations, municipalities, and councils constitute the third-tier of local government.[7]

India has a parliamentary system of government in which the prime minister, as the head of the central government and the cabinet, are chosen by the party or party coalition that wins a majority of votes. Compared to the leader-subordinate relationship in the center-provincial framework of China, the executive officers of the Union government of India and those of the state governments are accountable, first, to the corresponding legislatures and, second, to the voters, though a guiding administrative relation exists among the tiers of government. It is the legislative power that dominates in this institutional framework.

[7] Data were retrieved in December 2008 from http://districts.gov.in/, Government of India, National Informatics Centre (NIC).

Since its foundation in 1947 up to the early 1990s, India was a two-tier federation with a constitutional demarcation of responsibilities and finances between the Union and the state governments, which have separate legislative, executive, and judicial organs of governing. Fiscal decentralization did not go beyond the state level until the 1992 constitutional amendments granting statutory recognition to the third-tier governments in rural and urban areas, although these local self-governing bodies existed long before 1947.

Only after 1992 did local governments gain constitutional status and federal recognition with the 73rd and 74th Constitution amendments granting more powers and fiscal resources to local governments and limiting state government interference in local, democratic self-governance. The 11th schedule of the Constitution assigns 29 expenditure items to rural bodies, and the 12th schedule assigns 18 expenditure items to urban local bodies. However, as Rao and Singh (1999) point out, several institutional failures—including a clear centripetal bias in the distribution of fiscal powers, overlapping tax bases in contrast to the separation principle of tax powers, and constitutionally endorsed taxation of inter-state trade—have resulted in many economic distortions that may hinder genuine fiscal decentralization and the development of a common market.

Before the 1980s, fiscal centralization dominated the national economy. Beginning in the mid-1980s, fiscal decentralization was the focus for revitalizing the economy. Fiscal decentralization, together with other economic reforms, has brought about high fiscal deficits and high debts as well as large economic growth rates. The consolidated gross fiscal deficit of the central and state governments increased from 7.4 percent of GDP in 1980 to 9.4 percent of GDP in 1990. The combined outstanding liabilities of the central and state governments increased from 54 percent of GDP in 1984 to 67 percent in 1990. The economic reforms initiated in the 1980s did not change the fundamental fiscal framework. Driven by the fiscal deficit and debt crisis in the early 1990s, the Government of India began a process of deregulation, privatization, and liberalization of the economy, together with a broadening of the tax base, compressing expenditures, and strengthening state fiscal discipline with the Fiscal Responsibility and Budget Management Bill in 2000. The new round of economic reforms has resulted in a lower fiscal deficit to GDP ratio as well as remarkably higher annual rates of economic growth. As a result, the combined central and state gross fiscal deficit was reduced from 9.4 percent of GDP in 1990 to 6.7 percent of GDP in 2005, although high outstanding liabilities remain, particularly at the state level.

The first pillar: India's expenditure assignments

Expenditure assignments, as provided for in Article 246 of the Constitution (also known as the Seventh Schedule), have three clear lists that specify all functions exclusively assigned to the Union government (List I - Union List), exclusively to the state governments (List II - State List), and concurrent assignments (List III - Concurrent List). Table 3 shows the statutory expenditure assignments. The murkiness lies in the concurrent responsibilities in List III, in which the role of the states is unclear. A large share of state revenues is used to cover recurrent expenditures, such as administrative services, payroll, pensions, and interest

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on loans. Among total sub-national expenditures, the share devoted to non-development expenditures increased from less than 19 percent in 1980 to 34 percent in 2005. In the meantime, over 60 percent of agricultural services and nearly 90 percent of educational, public health, family welfare, electricity, and irrigation expenditures are shouldered by state governments.

The second pillar: India's revenue assignments

Table 4 summarizes India's revenue assignments, as provided for by the three lists of the Seventh Schedule. The most productive taxes are assigned to the Union for the purpose of macroeconomic stabilization and redistribution. At the same time, the states are assigned a number of tax handles. However, from the viewpoint of productivity and buoyancy, only the sales and purchase taxes are important. Since the 80th Amendment to the Constitution in 2000, the net proceeds of all Union taxes and duties have been changed to shared taxes between the Union and states. Further, the 88th Amendment to the Constitution in 2003 includes taxes on services in List I as shared revenues with the states.

Table 3a: India's Statutory Expenditure Assignments, Union List

Main Responsibilities	Assignments
National defense and others related to intelligence & forces of the Union	List I Union List
Foreign affairs, foreign loans & public debts	
International trade, treaties, conferences, and social order on the high seas	
International civil affairs like naturalization, migration, & pilgrimages, etc.	
National fiscal and monetary tools like currency, Reserve Bank of India, Post Office Savings,	
Bank, lotteries, banking, insurance, stock market, future market, & other derivative markets.	
National infrastructures like airways, railways, national highways, national waterways, maritime shipping & navigation, lighthouses, ports, posts & telegraphs, telephones, wireless, broadcasting, properties of the Union.	
Interstate trade and commerce, intellectual property rights protection	
Establishment of standards of weight and measure; regulation of goods to be exported abroad or interstate	
Natural resources regulation, cultivation, manufacture, and sale for export of opium	
Coordination and standardization of higher education and research	
National heritages and institutions, Union public services, All-India services, Census	
Elections to Parliament and Legislatures of the states, Offices of President	
Operation of the Union government, Parliament and the Union judicial organs	
Audit of the accounts of the Union and the States	
Interstate migration and quarantine	
Jurisdiction and powers of all matters on List I except the Supreme Court; Any other matter not in List II or List III	

Source: Jin (2009, p. 72).

Table 3b: India's Statutory Expenditure Assignments, Concurrent List

Main Responsibilities	Assignments
Criminal laws & procedures about the matters not in List I & II	List III Concurrent List
Transfer of property other than agricultural land; Many domestic civil laws concerning marriage, family, and so on.	
Contracting other than agricultural land; bankruptcy and insolvency, trust and trustees	
Administration of justice except the Supreme Court and the High Courts	
Vagrancy; nomadic, and migratory tribes; national environment, animal and plants protection	
Economic and social planning including family planning; Commercial and industrial monopolies, combines, and trusts	
Trade unions; industrial and labor disputes; charities and religions	
Social security and social insurance, welfare of labor; education and legal, medical, and other professions	
Interstate public health; vital statistics; price control; Mechanically propelled vehicles, factories, boilers, electricity, and publishing presses	
Jurisdiction and powers of all matters on List III except the Supreme Court	

Source: Jin (2009, p. 72).

Table 3c: India's Statutory Expenditure Assignments, State List

Main Responsibilities	Assignments
Public order except that subject the control of the Union	List II State List
Operation of State governments & local governments, the Legislatures of the states, the State judicial and correction organs, and elections at the State level	
Public goods and services such as public health & sanitation, pilgrimages, social relief, regulation of intoxicating liquor, burials & cremations, public libraries & museums, communications not in List I, water, land, fisheries, gas, markets & fairs, inns, sports, entertainments, gambling, incorporations other than those in List I	
Agriculture, Trade and Commerce within the State	
Public debt of the State. Treasure trove	
Jurisdiction and powers of all matters on List II except the Supreme Court	

Source: Jin (2009, p. 72).

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A COMPARATIVE STUDY OF DESIGN AND PERFORMANCE

Table 4: India's Statutory Revenue Assignments

Main tax revenues	Assignments
Taxes on income other than agricultural income Duties of customs including export duties Duties of excise on tobacco and other goods Corporation tax Estate duty with respect to property other than agricultural land Taxes on the capital value of the assets, exclusive to agricultural land Estate duty with respect to property other than agricultural land Duties with respect to succession to property other than agricultural land Terminal taxes on goods or passengers carried by railway, sea, or air, on railway fares and freights. Taxes other than stamp duties on transactions in stock exchanges and future markets letters of credit, policies of insurance, transfer of shares, debentures, proxies, and receipts Taxes on the sale or purchase of newspapers and on advertisements published Taxes on the consignments of interstate goods trade or commerce Taxes on services Residuary tax powers not specified in List II and III Fees in respect of any of the matters in List I	List I- Union List
Recovery in a State of claims with respect to taxes and other public demands including Stamp duties other than duties or fees collected by means of judicial stamps Fees with respect to any of the matters in List III	List III- Concurrent List
Taxes on agricultural income Duties with respect to succession to agricultural land Estate duty with respect to agricultural land Taxes on lands and buildings Taxes on mineral rights Duties of excise on certain goods manufactured or produced in the state Taxes on the entry of goods into a local area for consumption, use or sale Taxes on the consumption or sale of electricity Taxes on the sale or purchase of goods except newspapers and advertisements on them Taxes on advertisements other than advertisements published in the newspapers Taxes on goods and passengers carried by road or on inland waterways Taxes on vehicles, boats, and animals; tolls Taxes on professions, trades, callings, and employment Capitation taxes Taxes on luxuries, entertainment, and gambling Rates of stamp duty with respect to documents other than those specified in List I Fees in respect of any of the matters in List II	List II- State List

Source: Jin (2009, p. 73).

The third pillar: India's system of intergovernmental transfers

The vertical and horizontal imbalances created by the expenditure and revenue assignments are recognized and addressed through a complex system of intergovernmental transfers. There are several channels through which intergovernmental transfers are received by sub-national governments. The first channel is the tax share in centrally levied taxes, which are determined and transferred by the Finance Commission of the Union. The recommendations and transfer formulas of the Finance Commission have relied heavily on per capita income to measure the backwardness of the recipient states. The second channel is through the Central Planning Commission in the form of grants and loans. In general, these plan grants and loans were initially project oriented, but they were later based on a formula known as the Gadgil formula, which has been modified several times, with a proportionate mix of grants and loans. These grants and loans can be roughly classified into two categories: central assistance and additional central assistance. The third channel is through central ministries, under which a broad range of development programs known as Centrally Sponsored Schemes (CSSs) are initiated by the Union and implemented by various departments of the states. The number of CSS types is estimated at over 400 and cover a variety of development tasks like poverty alleviation, family planning, irrigation, and education.

Among the three main components of gross devolution, shares in central taxes and central grants follow a similar increasing trend, while loans from the Union have decreased significantly since 2003 to less than 10 percent of total gross devolution. Because of the pressure to lower fiscal deficits and debts, the Union cut back on loans. Grants from the Union, non-plan schemes, CSSs, and state plan schemes account for more than 90 percent of sub-national revenues. The multiplicity of transfer channels, together with lack of coordination between the Finance Commission and the Planning Commission, undermines the fiscal autonomy and fiscal discipline of sub-national governments thereby weakening accountability.[8]

The fourth pillar: India's regulation of sub-national borrowing

Sub-national borrowing is permitted in India, though with restrictions. If a sub-national government owes money to the Union, then the sub-national government must receive permission from the central government to borrow. Since all states have outstanding debts to the Union, the central government has effective control over sub-national borrowing. Besides borrowing in the form of plan loans from the Union, subnational governments can issue domestic bonds and contract policy loans from international organizations. Since 2003, central loans have declined, and states have resorted to more market borrowings, which involve heavy interest payments at the state level. Like China, the states of India have substantial "off the books" and hidden borrowings through SOEs.

India's intergovernmental fiscal system is characterized by an absence of substantial fiscal resources available to the third-tier of local government, unclear expenditure assignments between the central and state governments, transfer multiplicity without coordination, high transfer dependence, and excessive sub-national borrowing.

[8] Additionally, Bahl et al. (2005) and Heredia-Ortiz and Rider (2005) point out several shortcomings of transfers by the Planning Commission.

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Performance of China and India's Intergovernmental Systems

Below we evaluate the performance of China and India's intergovernmental fiscal systems using standard criteria, namely, the decentralization ratio, which is defined as the share of sub-national government expenditures (revenues) in general government expenditures (revenues). In addition, we calculate the average rates of expenditure and revenue decentralization, where the average rate of expenditure (revenue) decentralization is the average share of provincial (state) expenditures (revenues) in consolidated government expenditures (revenues). This new measure accounts for the fact that countries differ in the number of sub-national governments. Failing to account for the number of sub-national governments can make the conventional measure of fiscal decentralization misleading.

We also examine the evolution of interregional variation in the average rates of expenditure and revenue decentralization in China and India during the period 1985 through 2005. We measure interregional variation in average rates of expenditure (revenue) decentralization using the coefficient of variation, which is the standard deviation of the decentralization ratio divided by the mean of the ratio, multiplied by 100.

Table 5 shows that China and India's expenditure decentralization ratios, averaged over the 1993-2007 period, are 70.6 percent and 42.3 percent, respectively. Based on a sample of 78 countries, the time-averaged decentralization ratio of China ranks first and that of India seventh. As a non-federal country, China's decentralization ratio substantially exceeds the average for federal countries of 35.5 percent. In terms of the number of government tiers, China and India rank well above the sample average of 3.6 and the federal average of 3.8.

Figure 2 depicts the conventional measure of expenditure decentralization. In both countries, the degree of decentralization has been growing. Over the 21 year period, expenditure decentralization in China and India increased by 23 percent and 43 percent, respectively. The figure also shows that China's expenditure system is substantially more decentralized than that of India. Keep in mind that China decentralized expenditures to local governments; while India's system is generally "stuck" at the state level, with some notable exceptions. The difference in decentralization ratios between the two countries remains relatively constant over time.

Table 5. Expenditure Decentralization Ratios for Selected Countries, Averages for the Period 1993-2007

Country 1/	OECD 2/	Federal country 3/	Tiers 4/	Ratio (In Percent)	Country 1/	OECD 2/	Federal country 3/	Tiers 4/	Ratio (In Percent)
China 5/	0	0	5	70.6	Uganda	0	0	6	20.8
Colombia	0	0	3	63.1	Belgium	1	1	4	20.8
Canada	1	1	4	57.6	Romania	0	0	3	19.8
Switzerland	1	1	3	48.6	Albania	0	0	3	19.0
Denmark	1	0	3	46.1	Peru	0	0	4	17.7
United States	1	1	4	45.5	Czech Republic	1	0	3	17.3
India 5/	0	1	5	42.3	Bulgaria	0	0	4	16.2
Russian Federation	0	1	4	40.8	France	1	0	4	15.7
Argentina	0	1	3	39.8	Serbia	0	0	na	14.6
Australia	1	1	3	39.2	Turkey	1	0	4	13.3
Germany	1	1	4	38.7	Zimbabwe	0	0	5	13.2
Kazakhstan	0	0	4	36.8	Malaysia	0	1	3	12.9
Brazil	0	1	4	35.8	Slovenia	1	0	2	12.6
Finland	1	0	3	33.8	Luxembourg	1	0	3	11.9
South Africa	0	0	3	33.3	Israel	1	0	3	11.5
Belarus	0	0	4	33.3	Slovak Republic	1	0	4	10.2
Sweden	1	0	3	32.7	Chile	1	0	4	9.8
Spain	1	1	4	32.2	Croatia	0	0	3	9.3
Tajikistan	0	0	4	30.8	New Zealand	1	0	3	8.3
Norway	1	0	3	30.0	Portugal	1	0	4	8.2

(*To be continued on next page*)

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Table 5. Expenditure Decentralization Ratios for Selected Countries, Averages for the Period 1993-2007 (Continued)

Country 1/	OECD 2/	Federal country 3/	Tiers 4/	Ratio (In Percent)	Country 1/	OECD 2/	Federal country 3/	Tiers 4/	Ratio (In Percent)
Austria	1	1	4	29.1	Paraguay	0	0	3	8.1
Ukraine	0	0	4	26.5	Morocco	0	0	3	6.3
Azerbaijan	0	0	3	25.7	Armenia	0	0	3	6.2
Mexico	1	1	3	25.3	El Salvador	0	0	3	5.9
Netherlands	1	0	3	24.9	Thailand	0	0	5	5.6
Ethiopia	0	1	5	24.1	Mauritius	0	0	3	5.4
Georgia	0	0	4	24.1	Guatemala	0	0	4	5.1
Kyrgyz Republic	0	0	4	23.9	Greece 6/	1	0	4.5	4.6
Iceland	1	0	2	23.6	Kenya	0	0	6	4.3
Latvia	0	0	3	23.1	Fiji	0	0	5	3.7
Italy	1	0	4	22.7	Costa Rica	0	0	4	3.5
Lithuania	0	0	3	22.6	Iran	0	0	4	3.4
Poland	1	0	3	22.6	Cyprus	0	0	3	3.1
Moldova	0	0	3	22.4	Dominican Republic	0	0	3	3.0
Mongolia	0	0	n.a.	22.3	Nicaragua	0	0	4	2.9
Ireland	1	0	3	22.2	Panama	0	0	4	2.5
United Kingdom	1	0	4	22.1	Congo, Republic of	0	0	4	2.4

(*To be continued on next page*)

Table 5. Expenditure Decentralization Ratios for Selected Countries, Averages for the Period 1993-2007 (Continued)

Country 1/	OECD 2/	Federal country 3/	Tiers 4/	Ratio (In Percent)	Country 1/	OECD 2/	Federal country 3/	Tiers 4/	Ratio (In Percent)
Estonia	1	0	3	21.5	Lesotho	0	0	3	1.7
Bolivia	0	0	4	21.4	Malta	0	0	3	1.2
Hungary	1	0	3	21.4	Jamaica	0	0	2	1.0
Overall average								3.6	20.8
OECD average								3.4	24.5
Federal average								3.8	35.5

Sources: The decentralization ratio is calculated based on data from the IMF's Government Finance Statistics. The federation dummy and the number of government tiers are derived from Treisman (2008). The country selection is based on data availability.

Notes:

1/ Countries are ranked by their expenditure decentralization ratio, which is defined as the share of sub-national expenditures in general government expenditures.

2/ Number of tiers including the central level.

3/ Dummy variable taking on a value of one if the country is an OECD member.

4/ Dummy variable taking on a value of one if the country is classified as Federal by Treisman (2008).

5/ Data averaged over the period 1993-2005.

6/ 4.5 because eparchies (i.e., administrative subdivisions of prefectures) exist in some prefectures.

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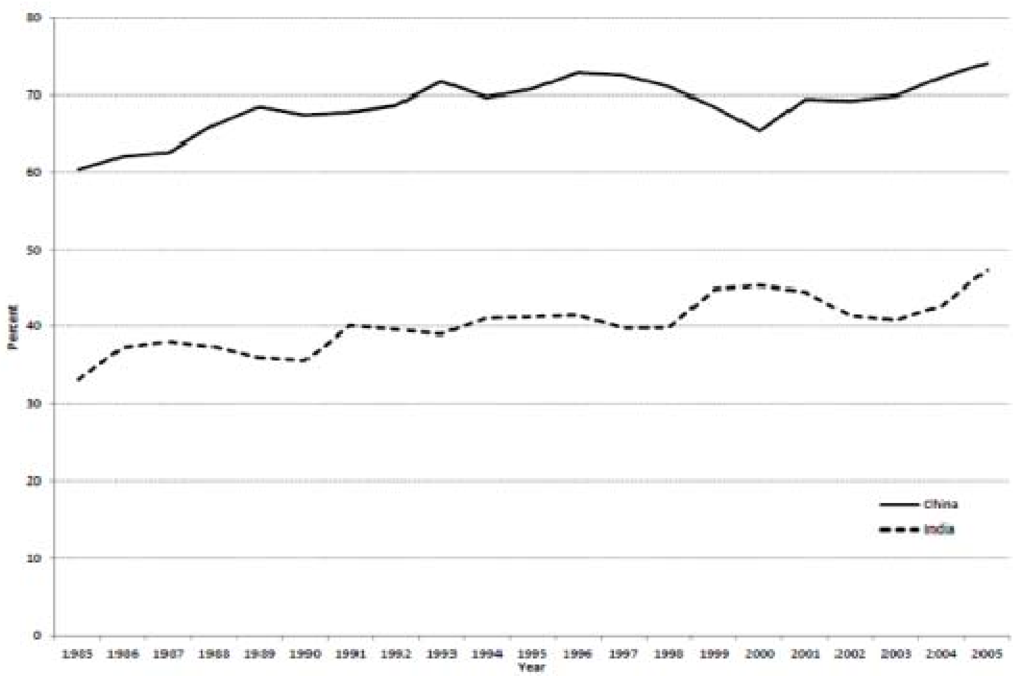
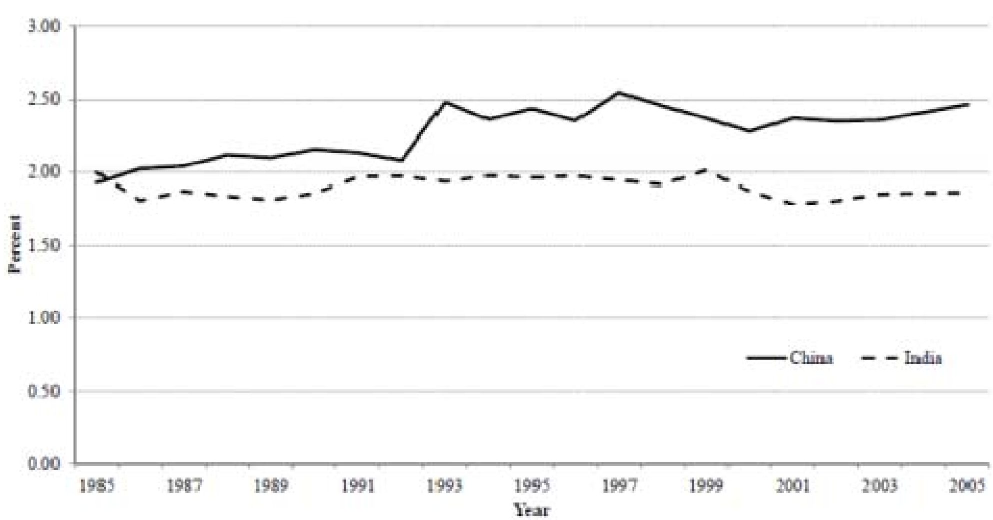
Figure 2: Expenditure Decentralization in China and India, 1985–2005 (percent)



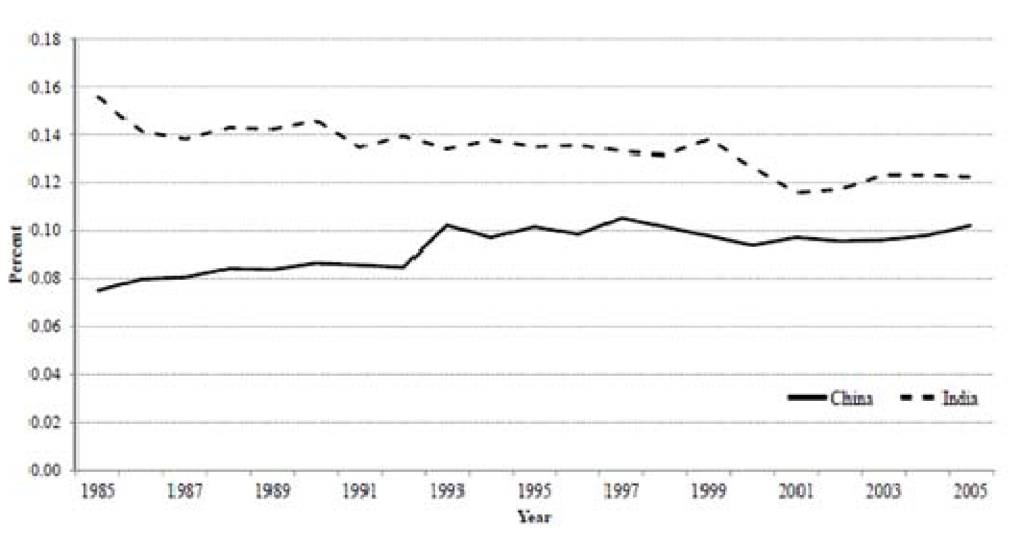
Sources: Based on data from the National Statistics Bureau and Ministry of Finance in China and Budget documents of the Government of India.

Figure 3: Average Expenditure Decentralization in China and India, 1985-2005 (percent)

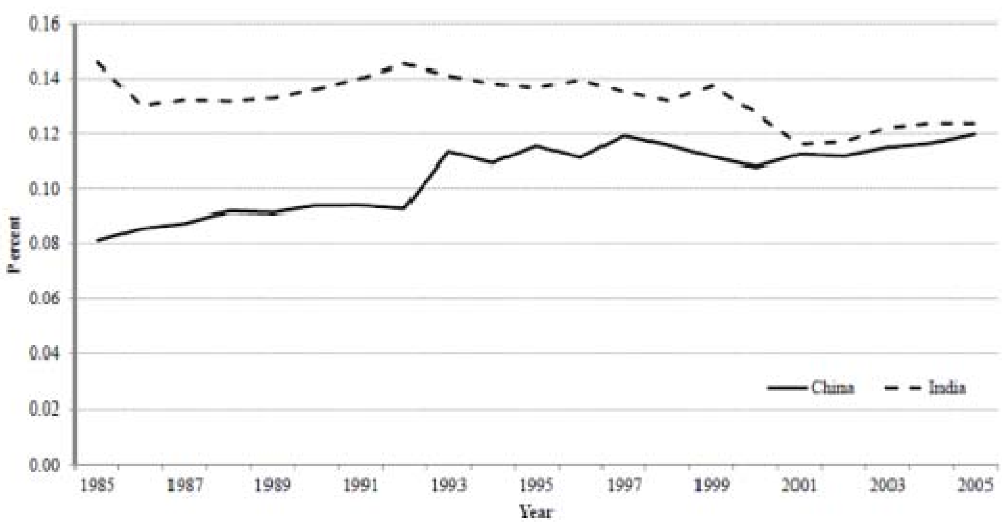
Panel (a): Unweighted



Panel (b): Population Weighted



Panel (c): GRP Weighted



Sources: Based on data from the National Statistics Bureau and Ministry of Finance in China and Budget documents of the Government of India.

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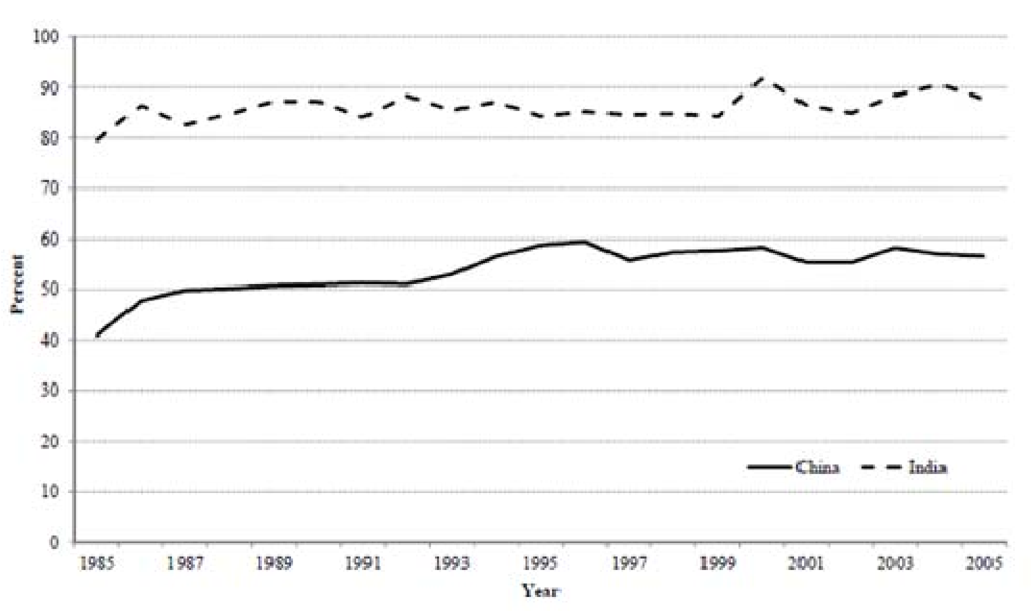
Figure 4: Coefficient of Variation in Expenditure Decentralization, 1985–2005 (percent)



Sources: Based on data from the National Statistics Bureau and Ministry of Finance in China and Budget documents of the Government of India.

Panel (a) of Figure 3 shows the average rate of expenditure decentralization in China and India for the period 1985 through 2005. While India's average rate of expenditure decentralization is relatively stable during this period, China's average rate of expenditure decentralization is growing, and China is slightly more decentralized than India. Panels (b) and (c) of the figure show population weighted and gross regional product (GRP) weighted average rates of expenditure decentralization. According to the weighted averages, India is slightly more decentralized than China, suggesting that the more populous and higher income states of India are more decentralized than those of China. In addition, the weighted averages show that China and India's rates of expenditure decentralization are converging.

Figure 4 shows the evolution of the coefficient of variation for the average rate of expenditure decentralization in China and India between 1985 and 2005. Three patterns are apparent in this figure. First, as suggested by the value of the coefficient of variation during this period, which never drops below 50 in the case of China and 80 in the case of India, there is considerable interregional variation in the rate of expenditure decentralization in both China and India. Second, there is considerably more interregional variation in expenditure decentralization in India relative to China. Third, the coefficient of variation in the average rate of expenditure decentralization is trending up over time.

Figure 5 presents the evolution of the conventional revenue decentralization ratio for the period 1985 to 2005. In line with our earlier findings, we observe a substantial drop in China's revenue decentralization ratio in the first few years after the 1994 TSS reforms. Eventually, in 2005, China's revenue decentralization ratio settles down to a rate of 48 percent. In contrast, India's revenue decentralization ratio has been increasing steadily from 37 percent in 1985 to 48 percent in 2005.

Figure 6 shows the average rate of revenue decentralization in China and India between 1985 and 2005. Using the unweighted average, the rates of revenue decentralization for China and India are remarkably similar over time. Turning to the population and GRP weighted averages, we see the same pattern as in the case of the average rate of expenditure decentralization, namely India's weighted-average rates of revenue decentralization are slightly greater than those of China, but they are converging over time.

Figure 7 depicts the evolution of the coefficient of variation (CV) in the average rate of revenue decentralization for China and India between 1985 and 2005. The CV of the average rates of revenue decentralization for China and India are remarkably similar during this period. Likewise, there is considerable interregional variation in the rate of revenue decentralization, and the variation appears to be trending upward in both countries over time.

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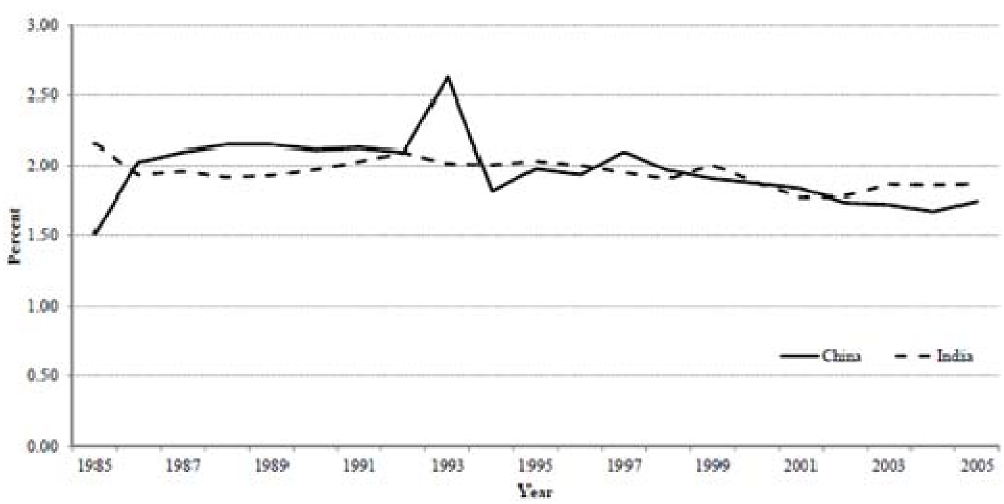
Figure 5: Revenue Decentralization in China and India, 1985–2005 (percent)

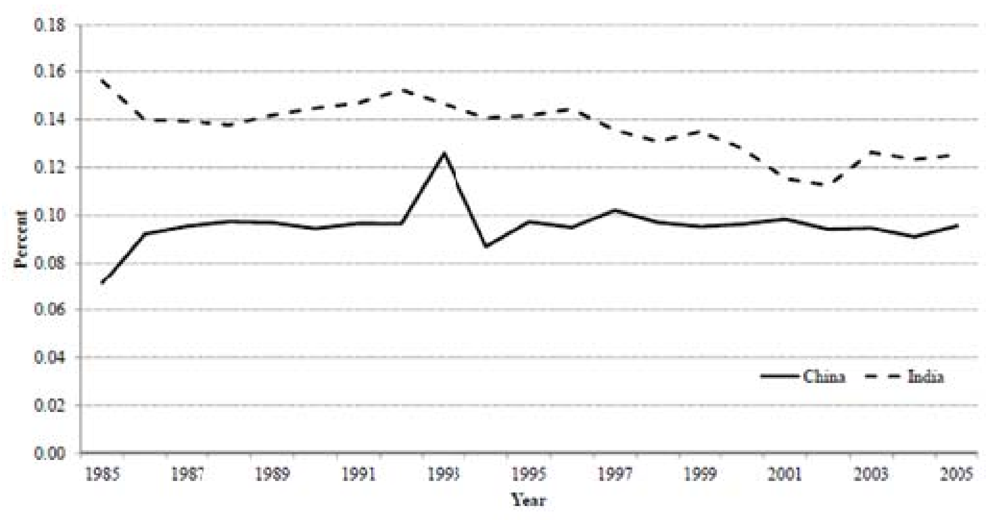
Sources: Based on data from the National Statistics Bureau and Ministry of Finance in China and Budget documents of the Government of India.

Figure 6: Average Revenue Decentralization in China and India, 1985–2005 (percent)

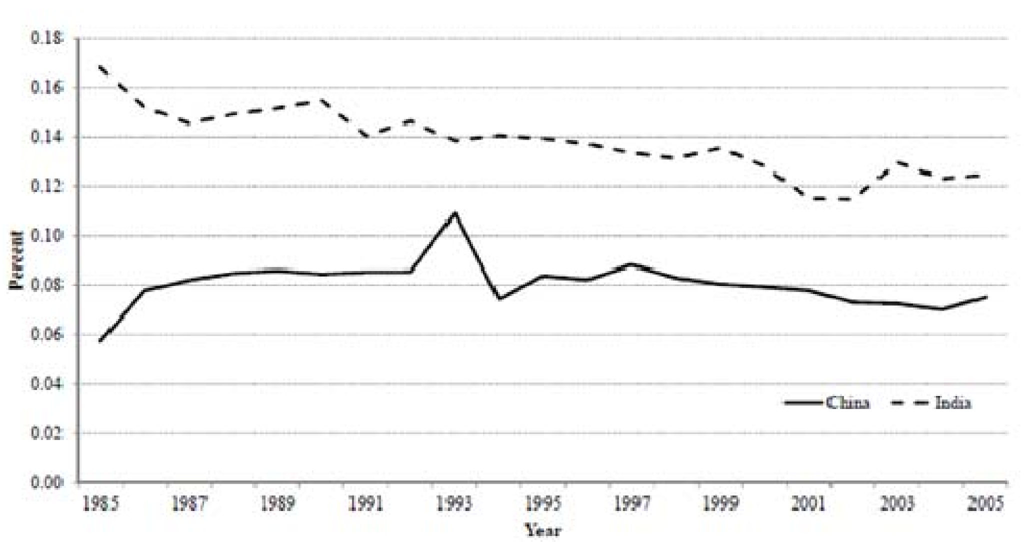
Panel (a): Unweighted



Panel (b): Population Weighted



Panel (c): GRP Weighted



Sources: Based on data from the National Statistics Bureau and Ministry of Finance in China and Budget documents of the Government of India.

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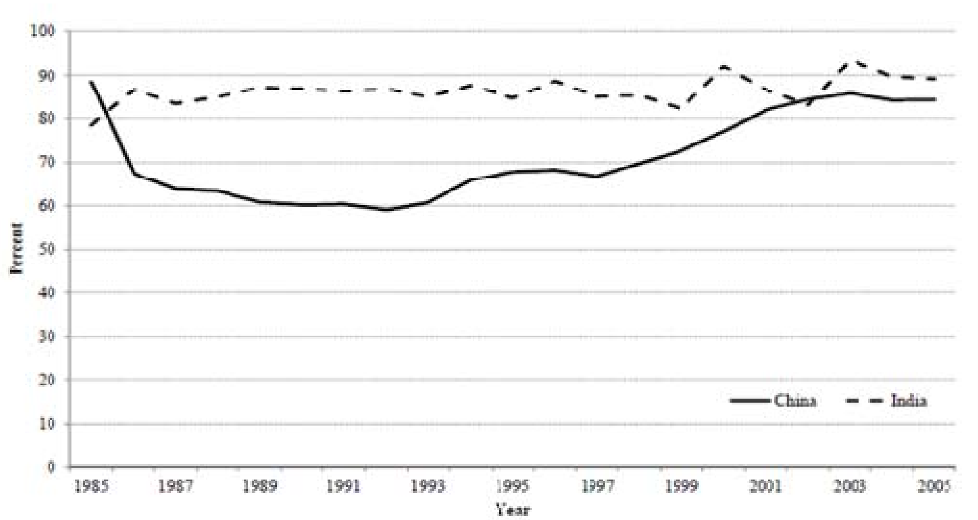
Figure 7: Coefficient of Variation in Revenue Decentralization, 1985–2005 (percent)



Sources: Based on data from the National Statistics Bureau and Ministry of Finance in China and Budget documents of the Government of India.

Conclusion

There are remarkable similarities in the design and performance of China and India's intergovernmental fiscal systems. Both countries have highly decentralized expenditures assignments and highly centralized revenue assignments. These assignments create a vertical fiscal gap, which can only be addressed by substantial intergovernmental transfers leading to transfer dependency. Finally, there is considerable off the books and hidden borrowing by sub-national governments in both countries, despite prohibitions against borrowing without the permission of the central government.

In the case of China, the assignment of redistributive programs, like social security and unemployment insurance, to local governments does not appear to be appropriate in the long run, unless these assignments are accompanied by central government transfers. In the case of India, expenditure assignments are often concurrent rather than exclusive. This arrangement creates coordination issues and makes it difficult for citizens to know which level of government is accountable for poor performance. We also see that there is considerable and growing interregional variation in the rate of expenditure decentralization in China and India. This development may point to the need for equalization transfers in both countries; otherwise, growing interregional disparities in the quantity and quality of local government service provision may threaten national cohesion.

The starkest difference in the fiscal systems of China and India is that expenditure decentralization in China focuses on the third-tier of local government and skips the second-tier of government. In contrast, India's fiscal system is "stuck" at the second tier of government, with some notable exceptions like the states of West Bengal, Karnataka, and Kerala where there has been more progress in decentralizing expenditures to local governments.

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