Expenditure Implications of India's State-level Fiscal Crisis

Stephen Howes, Rinku Murgai and Marina Wes[1]
World Bank.

Abstract

India's states have significant developmental expenditure responsibilities. While the "fiscal crisis" which engulfed India's states in the late nineties led to higher deficits and debt levels, it was also associated with a rapid increase in expenditure levels, and it might be thought that this would have increased the development effectiveness of the state governments. However, a closer look at the data reveals that this is not the case. The main positive fiscal development in the post 1996/97 period is a pick up in real growth in government capital expenditure. In other respects, the fiscal crisis weakened the developmental and poverty impact of state governments especially in the poor states. Real growth of expenditure in health and education slowed, in some cases halted, and the efficiency of government expenditure fell as liquidity constraints tightened and non-salary expenditures were crowded out.

1. Introduction

India's state governments are significant, in some cases dominant, funders of a number of areas critical for enhancing growth and reducing poverty: in 2000/01, 57% of India's total government capital expenditure was financed by the states, as was 97% of irrigation maintenance, 39% of road maintenance, 90% of public health expenditures, and 86% of public education expenditures. If there is a link from state-level fiscal policy to poverty reduction, it likely runs through the expenditure side. In the late nineties, state government expenditure increased rapidly: aggregate state-government expenditure increased from 13.9% of GDP in 1996/97 to 15.4% in 2001/02. Since revenues were stagnant if not falling, this increase of expenditure could only be supported by much higher borrowing, and deficits rose as a result to unsustainable levels. Yet, it might be argued, at least the increase in state government expenditure levels should have had a positive developmental impact. While there has been considerable discussion of the macroeconomic impact of higher deficits in the late nineties (see Pinto and Zahir, 2004, for a recent review), the developmental impact of changes in the overall level and composition of expenditure have received less attention. They are the focus of this paper. Section 2 describes the nature of the state-level fiscal crisis of the late nineties. Section 3 reviews the empirical evidence on the impact of public expenditures on poverty reduction and human development, to highlight priority areas where public spending can make a difference. Section 4 examines the impact of the fiscal crisis on these priority areas.

Before proceeding, we note that this paper is part of a larger research effort underway at the World Bank to explore various dimensions of India's state-level fiscal crisis, and its aftermath. Other topics covered are tax trends and reforms, expenditure reforms, and fiscal federalism.. The work has been synthesized into a draft report *State Fiscal Reforms in India: Progress and Prospects.*

2. The state-level fiscal crisis of the late nineties

There has been a pronounced deterioration in India's fiscal performance since the mid-nineties. The general government (combined center and state) deficit has increased from 6.8% of GDP in 1996/97 to 10.1% in 2002/03. The deterioration in state government finances has been particularly pronounced: the share of the state government deficit in India's general government deficit has risen to 46% in 2002/03, from about 35% in the early 1990s.

[1] This paper presents the personal views of the authors, not those of the World Bank. We are grateful to Smita Kuriakose for terrific research assistance.

As Figure 1 shows, from at least the mid-eighties onwards, India's states enjoyed a fairly constant fiscal deficit.[2] With rapid growth, low interest rates, and only a small primary deficit, the combined state-level debt stock actually fell from 19.3% of GDP in 1985/86 to 17.8% in 1996/97. All this changed abruptly in the late nineties. In 1998/99, the fiscal deficit jumped from 2.9% of GDP the previous year to 4.3%, around which level its has since stabilized. As a result, the state-level debt stock which was actually falling in the first half of the nineties reversed its downward course in 1997/98.

What explains this reversal in fiscal consolidation at the state level? Figure 2 looks at expenditure and revenue trends. Whereas, since the early nineties, state government expenditures had fallen as a percentage of GDP, this trend was reversed in 1996/97, and by 1999/00 expenditure had increased from 13.9% to 15.4% of GDP. This was not matched by a corresponding increase in revenue. To the contrary, the state-level revenue/GDP ratio fell from around 12% in the late eighties and early nineties to 10.0% in 1998/99. Both own-revenues and GoI transfers fell, though the latter more so, as its share in total revenue declined from slightly above 40% up to 1993/94 to 36% in the late nineties. Revenues have since recovered from the low of 1998/99, but have not been able to do more than return to the pre-crisis level.

Figure 1: State deficits and debt levels

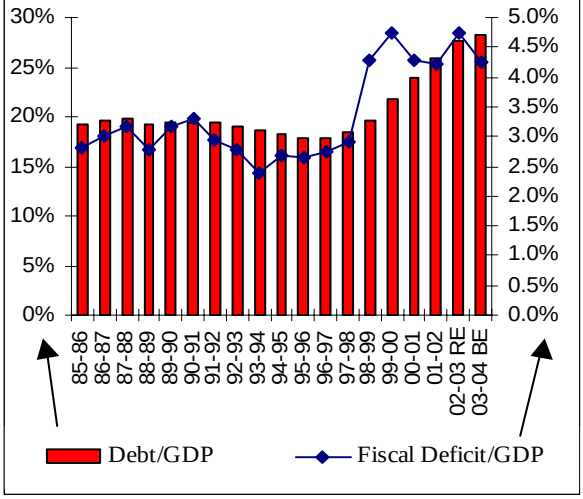
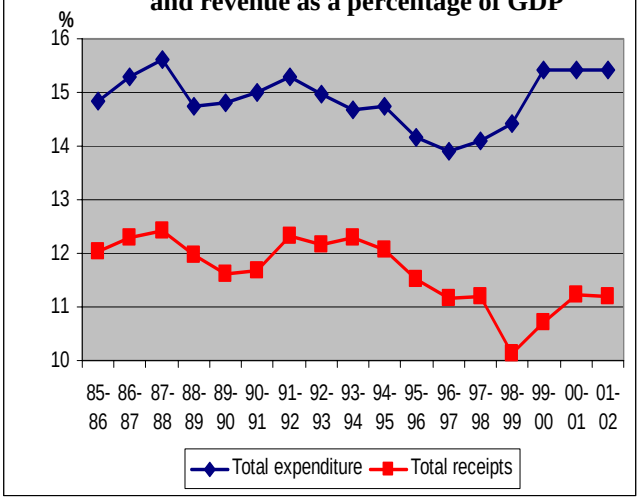


Figure 2: India's states' total expenditure and revenue as a percentage of GDP

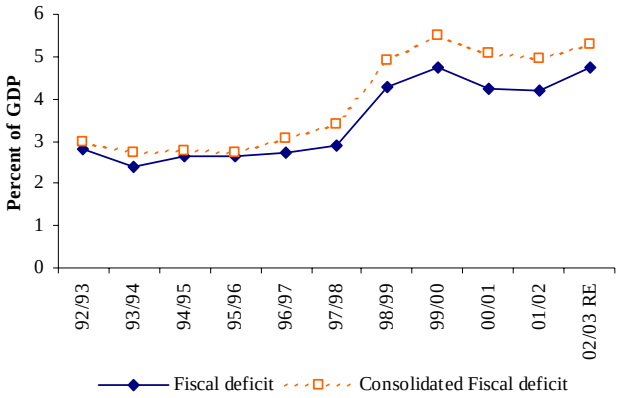


The increase in expenditures alongside stagnating if not declining revenues could only be supported by much higher borrowing by state governments (a 10 percentage point increase in the rate of debt to GDP took place over the past six years). Despite central government control over state government borrowings being enshrined in the constitution, state governments were able to increase their borrowing largely by drawing on sources over which the Government of India (GoI) exercises no active control: there was a boom in "small savings" loans, a relatively expensive form of debt with high administratively-determined interest rates; and state governments borrowed from their own employees by impounding promised salary increases into their provident funds.

[2] The source for tables and figures, unless otherwise mentioned in the text is the state fiscal data published annually by the Reserve Bank of India. These figures are actuals up to 2001/02 for all states, and as a percentage of GDP at market prices. 2002/03 figures are revised estimates, and 2003/04 figures are budget estimates.

Off-budget liabilities also increased rapidly in the late-nineties. The most significant off-budget liability is in the power sector. Estimated losses before subsidy of state electricity utilities rose threefold between 1996/97 and 1999/00, and reached 1.4% of GDP by 1999/00. Cash-strapped governments were unable to meet their subsidy obligations to their electricity companies. Thus an increasing proportion of power sector losses were met off budget, in large part through arrears to central utilities, which were estimated to have reached 1.9% of GDP by 2001 (Government of India, 2001). If the full amount of power sector losses are included, rather than only the partial subsidy payments, the fiscal deficits of the states rise even more sharply (Figure 3).

Figure 3: States' fiscal deficit including power



Source: Power sector data from GoI (2002, 2003);

State-government guarantees have also risen sharply since 1996, and their quality has declined. State-government guarantees, like state debt, had fallen in the first half of the nineties and by March 1996 had reached 4.4% of GDP down from 6.1% in March 1991. However, guarantees, again like debt, reversed course in the second half of the nineties, and by March 2002, outstanding guarantees of state governments were estimated at 7.3% of GDP. Their quality has fallen because an increasing proportion of government guarantees go to back borrowing by government-owned special purpose vehicles whose debt servicing will revert entirely to the budget. Such liabilities, albeit off budget, are thus in the nature of actual rather than contingent state government liabilities.

Does what is described above amount to a "fiscal crisis"? There was certainly a sense of crisis in the late nineties. The influential *India Today* in its February 14, 2000 issue titled its cover story: "States Going Broke: Bankruptcy Stalking a Collapse of Public Services[3]". Underlying the headlines was the reality that the policy stance for the period beginning 1998/99 was clearly unsustainable, as well as a clear increase in fiscal stress. On the unsustainability issue, it suffices to note the rapid increase in borrowing and debt stock associated with higher deficits. In 1998/99, state governments as a whole borrowed 68% more than they had the previous year. Ratcheted up in this sudden manner, borrowing by state governments has since remained high. To observe the increase in fiscal stress, one needs to look beyond pure fiscal indicators. As we will see in section 4, salaries, pensions and interest rose rapidly in the late nineties, and reached 86% of revenues in 1999/00, up from 68% in 1997/98. State governments, with limited borrowing sources, started experiencing severe liquidity problems. The Reserve Bank of India runs an emergency overdraft facility for state governments. In 1997/98, the average number of days in overdraft for a state was 32. This rose to 88 in 2000/01 and 117 in 2001/02. There were numerous reports in the late-90s of state governments "closing the treasuries" since they no longer had the cash to pay bills. Fiscal distress is also evident from their borrowing from their employees through the impounding of salary increases to the provident fund, as mentioned earlier. Borrowing from the provident fund tripled in nominal terms between 1997/98 and 1999/00 (reaching 0.9% of GDP). State governments lacked the cash to pass on the promised increase to workers, and were only able to do so by promising part of the increase (with interest) when the employees retired. There were also several reported cases in which the Government of India provided states with medium-term loans basically as a bail out. Finally, one can also note a sharp accumulation of arrears. We have already noted the build-up of arrears in the power sector

[3] Srinivasan (2000)

due to non-payment of subsidy obligations by government. Comprehensive data on arrears on salaries and other bills is not available. The Government of Tamil Nadu (2003) reports that, as of 2002, it faced unpaid bills of Rs 31 billion (2% of the states domestic product), including salary/pension arrears of Rs 18 billion.

Since the late 1990s, the combined states' primary deficit has fallen, but borrowing levels remain high, and the debt stock continues to rise despite a fall in interest rates. Certainly, the fiscal deterioration gave rise to an intense reform effort at the state level to return deficits to sustainable levels. Another positive spin-off of the crisis, it might be argued, is the rapid increase in state expenditure levels, which, even if not sustainable, should have given a boost to development. This argument presumes that at least some types of state government expenditures matter for development outcomes. Another view holds that state government expenditures are so inefficient and ineffectual that changes in expenditure level are likely to have made no difference. In the next section, we review empirical evidence on the importance of different types of state government expenditures for poverty reduction.

3. Impact of state government expenditures on poverty reduction and human development

We first review the evidence on the impact of various types government spending on poverty and human development outcomes, and then consider whether, given the evidence, expenditure levels in identified priority areas are adequate, or need to be increased.

In the aggregate, state government development expenditures appear to have been growth promoting and poverty reducing. A study by the Reserve Bank of India (2002) found that, whereas government consumption has no long-lasting effect on output, infrastructure spending by government crowds in private investment. Using state-level poverty measures spanning 1960 to 1994, and controlling for other factors such as agricultural and non-farm productivity growth, Ravallion and Datt (2002) find that poverty declined more in states that had higher development expenditure.[4] Linking individual items of expenditure to poverty reduction and growth provides some tentative evidence of which types of government expenditures matter the most. Gulati and Bathala (2002) estimate that public investment in infrastructure (including irrigation and power) has had a significant impact on agricultural growth, both directly and through its complementary effect of crowding-in private investment. Fan et al. (2000) find that government spending on productivity-enhancing investments, such as rural roads, agricultural research and development, and education appears to have been particularly effective in reducing rural poverty, but not investments in irrigation or health. Spending on rural and community development programs was also found to have successfully helped reduce poverty by generating employment for the poor, although it had no growth-enhancing effects.

Box 1 reviews the evidence on the impact of government spending on both health and education outcomes. The link between education spending and outcomes is fairly straightforward. Most schools in India are government funded: only 5% of primary schools, and 20% of secondary schools are not (World Bank, 2003). Providing more and better education costs money, and generally states with better education indicators spend more on schools (Mehotra, 2004) though quality of spending also matters (Filmer and Pritchett, 1999). Himachal Pradesh, whose literacy level increased from 32% in 1971 to 77% in 2001, and whose achievements in school education have been described as a "schooling revolution" (PROBE, 1999) has a teacher-pupil ratio of only 23 (Sood, 2003), compared to the national average of 50, and a level of 90 for Bihar. HP has higher levels of expenditure than any of the major states per enrolled child, and three and a half times the level of Bihar. (World Bank, 2004a)

[4] Development expenditure is a broad category of expenditure. It includes social services and economic services. It excludes administrative expenditure and interest payments

Box 1: Evidence on the Impact of Government Expenditure on Health and Education Outcomes

Econometric investigations of the impact of government expenditures on human development outcomes have drawn mixed conclusions, highlighting the important role that public spending has played in reducing poverty but also the reality that India is not getting the returns it should from its public expenditure. World Bank (2004a) finds a positive relationship between a states health and education outcomes and its health and expenditure spending, respectively. However, Filmer and Pritchett (1999), using a different data source (the 1992/93 National Family and Health survey) show no relation between state per student education expenditures and enrollments, but do find some education expenditures (e.g., spending on textbooks, arguably a better proxy for school quality than total expenditures) are strongly correlated with enrollments, particularly amongst the poor. In the case of health expenditures, the presence of public heath care facilities has been found not to have any significant effect on infant or child mortality (World Bank, 1998). This could be due to one of two effects: either public spending does not translate into actual services rendered due to poor quality and composition of spending, or given the extensive private participation in medical services, increases in public output might partially displace private care leaving the net increase modest. There is much evidence to suggest that the public health system is beset with quality problems but, despite this, there are also examples of successes. Public efforts have had a substantial impact on communicable disease control. In the state of Maharashtra, for example, immunization is a powerful explanation of child health, along with the mother's education and the family's income (World Bank, 2002). Opening public health facilities in areas that currently have no public or private facilities is also found to make a substantial contribution toward reducing infant and child mortality in Maharashtra. Child vaccination rates have increased at an impressive rate since the mid-eighties (although coverage seems to have shrunk in recent years, according to the Reproductive and Child Health Surveys); Oral Re-hydration Therapy has protected millions of children from diarrhea at low cost; and salt iodization has reduced iodine deficiency in several states (Dreze and Sen, 2002).

The link between public expenditures on health and health outcomes is more complex. Econometric investigations into this subject have drawn conflicting results, as Box 1 shows. Part of the reason is that the determinants of health are as much outside of the sector as within. Studies often find clean water and sanitation, access to roads and electricity, education of the mother, and indoor air pollution to be significant determinants of health outcomes (World Bank, 2004a; van der Klauw and Wang, 2004; Jalan and Ravallion, 2003). The quality of government expenditure in health also appears to be lower than in education (on which see the next para.). And, unlike in education, most expenditure on health is in fact in the private sector, which accounts for 85% of total health spending in India. For all these reasons, it is much more difficult to say that additional spending on health will translate into better health outcomes.

The link between public spending and outcomes in both health and education is undermined by the poor quality of expenditure. In education, the composition of spending is heavily skewed towards salaries even though learning achievements appear to be much more responsive to increases in non-salary inputs than salaries (Kingdon, 1996; Filmer and Pritchett, 1999). Human development spending brings disproportionate benefits to the rich especially in health (World Bank, 1998; Mahal et al., 2001). The absence levels of service providers are very high, again especially in the health sector: a recent survey found that 44% of doctors and 39% of other health-workers in public facilities were absent at any given time, compared to 25% of teachers in public primary schools (Devarajan and Shah, 2004). Corruption is a serious problem, which undermines spending efficiency (Government of Karnataka, 2001). The strength of the case for increasing spending levels in health and education, and indeed infrastructure, depends on the extent to which quality can be improved. But improving quality may itself imply more expenditure. For example, with salaries fixed, spending more on non-salary inputs will require an increase in aggregate expenditure. Teachers may be more likely to be motivated in a well-equipped classroom; doctors perhaps more likely to attend to their work if they have drugs to dispense. And human development expenditures are likely to become more progressive as they increase in size (Lanjouw and Ravallion, 1999). The mid-day school meal scheme, which has recently been instituted in a large number of states, provides a good

example of how good quality additional expenditures can really make a difference in the social sectors (Box 2).

Box 2. Mid-day Meals

In mid-1995, the Government of India launched a centrally sponsored scheme, the National Programme of Nutritional support to Primary Education, under which cooked mid-days meals are to be served to children in all government and government-aided primary school: the central government provides the grains for free, and the state government provides cooking and logistical facilities. Orders from the Supreme Court in 2001 on a "right to food" litigation led to the widespread introduction of this scheme across most of India. An evaluation of the scheme in three states (Rajasthan, Chattisgarh, and Karnataka) shows that the scheme has helped improve school enrolment as well as attendance, in addition to eliminating classroom hunger and breaking caste and class barriers. In particular, the study finds that enrollment increased on average by 15% in the three states covered in the year in which the mid-day mean was introduced, and notes that "qualitative data point firmly in the direction of a significant improvement in daily attendance. The study points to some shortcomings that need to be urgently addressed – inadequate infrastructure in some areas, insufficient monitoring of quality standards, need for more varied and nutritious menus etc. However, the experience so far also shows that public expenditure on the mid-day meals program has the potential to contribute significantly to both educational and social outcomes.

Source: Dreze and Goyal, 2003

Even if it is admitted that there is a clear need for additional resources in priority areas, it could be argued that much infrastructure and perhaps even social sector spending could be undertaken by the private sector. However, private sector funding of infrastructure has not lived up to expectations in India. The 1996 *India Infrastructure Report* projected that the achievement of GDP growth of over 7% will require an increase in investment in infrastructure from the prevalent levels of about 5 to 5.5% to about 8% of GDP by 2005/06" (Mohan, 2000, p. 2027). The report targeted significant increases in both public and private spending on infrastructure – including a doubling of private infrastructure spending to over 2% of GDP by the late nineties, and then further increases – but none of this has occurred, and levels of infrastructure spending have actually declined. Global trends also show a downturn in private sector funding of infrastructure (Harris, 2003). In such an environment, looking to the private sector for funding can at best be a partial solution to meeting India's infrastructure requirements, and reversing the long-term trend of declining government capital expenditure does seem important.

The general superiority of a policy of relying on greater private sector funding of education and health services is also far from clear. The poor, especially in rural areas, are heavily dependent on government-funded schools. Health services are already dominated by the private sector, but there are complaints of poor quality, irrational drug use, and overcharging in large segments of the private health market (Misra, Chatterjee, and Rao, 2003).[5] The private sector, even if its quality improves, cannot be a perfect substitute for greater state involvement as it is likely to overlook positive externalities in critical areas of public health, such as eradication of communicable diseases, the incidence of which is still very high in India, especially among the poor (Dreze and Sen, 2002).

Given their importance for poverty-reduction and human development, and the magnitude of the task, the level of public expenditures on priority areas is low in India. Public sector investment in infrastructure is about 3% of GDP while private infrastructure investment is about 1% giving a total of 4% of GDP

[5] India's health system in fact has one of the highest degrees of private-sector orientation in the world: comparable ratios for East Asia and Latin America are 60% and 50% respectively (Dreze, 2004).

invested in infrastructure annually (Howes and Murgai, 2004).[6] This compares to levels of about 5% of GDP invested in infrastructure up to the mid-nineties, and 6-8% in the East Asian countries (Mody, 1997), to whose rapid growth rates India aspires. Infrastructure maintenance is also very low, despite very high returns. For example, it has been estimated that the return to a rupee of spending in highway maintenance is upwards of Rs 7, and that maintenance expenditure on state highways is only 42% of the optimal value (World Bank, 2004b).

Education funding is also inadequate if the national goal of universal education until the age of 14 is to be met. Although some progress was made towards this goal during the nineties, several states have a long way to go. Even states which have achieved universal enrolment face high level of drop-outs: for example, in Karnataka, only 69% of children who start school complete elementary school (Year 7) and only 30% reach and 15% pass Year 10. While no doubt existing resources could be spent more effectively, there is also a great need for more resources. A study of public primary schools points to large, overcrowded classrooms (with an average pupil-teacher ratio of 50, but higher than 150 in some cases), inadequate infrastructure (84% of schools lacked a toilet, 54% lacked drinking water), and a lack of teaching aids (PROBE, 1999).

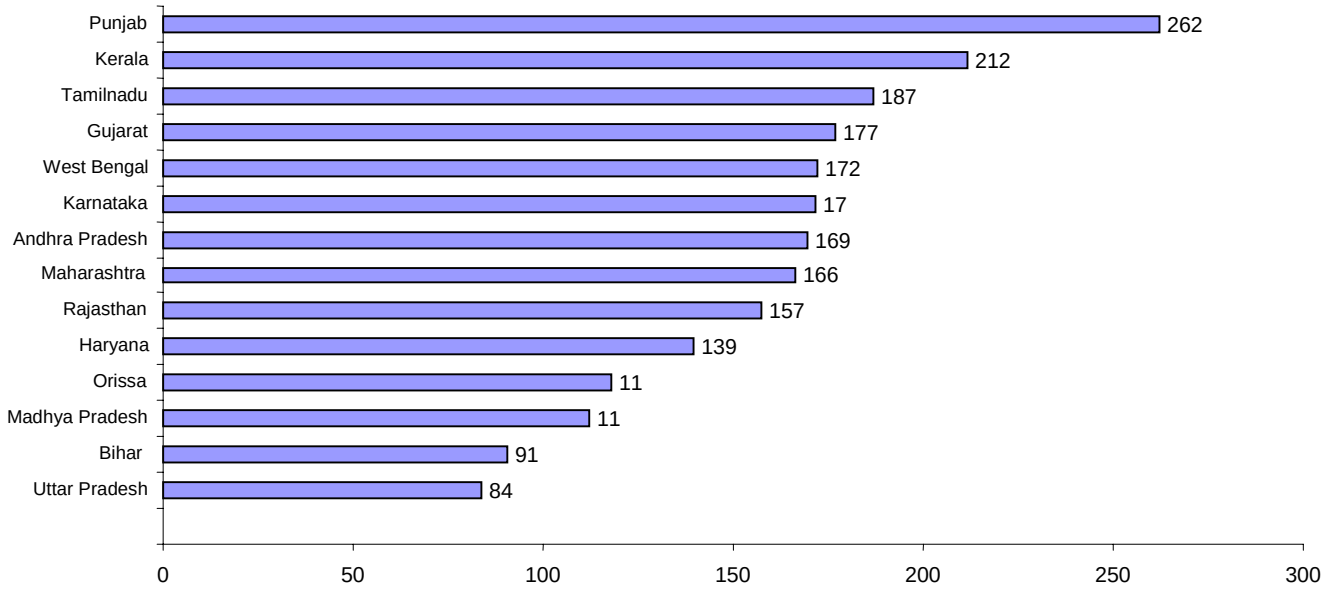
With respect to health, India faces an ongoing crisis, with health indicators not only stagnating, but among the worst in the world. To quote a recent report: "According to the latest National Family Health survey (1998-99), half of all Indian children are undernourished and half of all adult women suffer from anemia. At the time of the survey, 30 per cent of all children under the age of three had fever, another 20 per cent had diarrhea, and another 20 per cent had symptoms of acute respiratory infection. Even after allowing for some overlap between these different groups, this suggests that at least half of all Indian children below three suffer from one of these conditions at any given point of time" (Dreze, 2004). Attacking this health crisis should be an urgent if not top priority for India's governments today. Yet, India's level of public expenditure on health, at about 1% of GDP, is among the lowest in the world, even in South Asia. Again, while a major overhaul of expenditure effectiveness is in order, there is much that could be done with more resources in the health sector, as well as in the other sectors, which have an impact on health, such as water and sanitation. Rural health centers are often dilapidated, and lacking in basic facilities, such as electricity, drugs and basic medical equipment, making them dysfunctional and disused.[7] Immunization in particular needs more resources, since it is one service which is overwhelmingly delivered by the public sector (the private sector only accounts for 10% of immunizations in India) and where utilization is still low: in several states, below 50%.

[6] General government capital expenditure, most of which is for infrastructure, is about 2.5% of GDP, of which the state government share is slightly more than 50%.

[7] According to a recent health facility survey conducted by the International Institute for Population Sciences (Mumbai), only 69 per cent of Primary Health Centres (PHCs) have at least one bed, 20 per cent have a telephone, and 12 per cent enjoy "regular maintenance". In Bihar, a large majority of PHCs make do without electricity, a weighing machine or even a toilet. (Dreze, 2004).

If priority expenditures are inadequate, they are particularly so in the low-income states. Without exception, per capita expenditures in priority areas are significantly lower in poorer than richer states.[8] Using 2000/01 data, on an average per capita basis, low income states spend only 57% as much as middle- and high-income states on health and education, 54% as much on capital expenditure, 64% on roads maintenance, and 42% on irrigation maintenance. The differences between individual states can be even more striking. Figure 4 illustrates with the case of health spending: there are five states which spend at least twice as much as the two lowest spending states, Bihar and Madhya Pradesh.[9] Differences in public expenditures across states are reflected in much lower access to public services in the poorer states. Even more striking is the finding that the poor in the richest six states have better access than even the non-poor in the bottom five states (Paul et. al., 2004).

Figure 4: Per capita recurrent expenditure on health among 14 major states of India, 2000/01



Expenditures in poor states, though lower on a per capita basis, are often higher as a percentage of state domestic product. For example, public investment in 2000/01 was 2.5% in the low-income states and 1.9% in the other states. This difference does not appear to be enough, however, to check growth dispersion, where the better-off states are enjoying faster growth, and, based on available evidence, a better investment climate and higher private investment (World Bank 2004c, CII and World Bank, 2002).

On balance, given the evidence on the links between government spending and outcomes, the magnitude of poverty and human development challenges facing India, and problems with private sector provision, there seems to be a strong case for higher public spending in priority areas. But equal attention should be given to improving the quality of expenditure.

[8] For the purpose of this paper, we define those states as having per capita income of Rs 10,000 or less in 1999/00 (in 1993/94 prices) as being poor or low income. We consider only the 16 major states. Seven qualify as low income states: Bihar, Chhatisgarh, Jharkand, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh. For comparability over time, the newly-created states are included with the states from which they were created.

[9] Nine states spend two times or more on education per capita than MP and Bihar: the two lowest spending states; Punjab and Maharashtra's spending is more than three times.

4. The impact of the fiscal crisis on poverty-reducing expenditures

From the preceding section it is clear that, to analyze the developmental impact of the rapid increase in expenditure in recent years, we need to understand the areas in which the expenditure increased. Three main factors pushed up government expenditure in the second half of the nineties. First, there was a major public-sector wage settlement (implementation of the Fifth Central Pay Commission), which flowed down from the center to the states starting in 1997/98. This resulted in real wages being increased by about 30%. Civil servants already enjoyed a large premium over their private sector counterparts prior to these increases, and there is no evidence that these increases led to any increases in productivity.[10] As Figure 5 shows, this reversed the existing trend of a declining salaries/GDP ratio, which in turn was the outcome of a policy of hiring restraint in position through the nineties, as well as less-than-full wage indexation. From 1991 to 1997, the combined size of the state government civil services increased by only 5% (Howes and Murgai, 2004). Note that, as Figure 5 shows, the salary bill has since started to fall again, largely because hiring restraint has been intensified: there has been no net hiring since 1997. Second, pensions which had been growing slightly faster than the rate of GDP through the nineties due to rapid growth in the number of pensioners started to grow much more rapidly in the later nineties as the public-sector wage settlement indexed pensions to real wages. Third, interest payments had also been growing as a percentage of GDP over the nineties, even in the earlier years as the state debt stock fell, because the interest rates facing state governments progressively increased over this period.[11]

Recognizing these as the sources of expenditure growth drastically influences the way one sees the rapid increase in aggregate expenditure. Pension and interest payments, although contractual obligations of the government, are non-operational expenditures, and certainly unproductive from the perspective of poverty reduction. While aggregate expenditure increases from 13.7% in 1996/97 to 15.2% in 2001/02 (Figure 6), taking out interest and pension payments, the increase in expenditure is only from 11.2% of GDP in 1996/97 to 11.3% of GDP in 2001/02. If, in addition, one takes out the cost of the real salary increases of the late nineties, on the reasonable grounds that these increases led to no change in the quality or quantity of government inputs, one finds, as Figure 6 shows, that aggregate expenditure actually continued to fall as a percentage of GDP post 1996/97 and reached a low of 10.2% in 2001/02. Thus, at least at the aggregate level, appearances are deceptive, and the underlying picture, from a developmental perspective, is that the increased spending of the late nineties did little if anything to promote development.[12]

We now turn to examine trends in some expenditure categories which might be thought to be of particular relevance to the developmental goals of state governments. Table 1 compares for the 16 major states growth rates for five important types of state-level expenditure: health, education, roads maintenance, irrigation maintenance, and capital expenditure. Analysis only up to 2000-01 is possible since, for individual states and expenditure categories, this is the latest data for which actuals are available. At first glance, health and education spending appear to have done very well in the last five years post 1996/97 with average real increases of 7.4% and 4.7%, compared to 3.1% and 2.5% in the six years leading up to 1996/97. However, deflation simply by price indices ignores the impact of the Fifth Central Pay Commission real wage increases in these labor-intensive sectors. Factoring in wage increases alters the picture dramatically. Now education shows an average real spending increase of only 1.3% in the five years post 1996/97, and health of –0.4%, both significantly less than the pre-crisis rates of growth.

[10] Glinskaya and Lokshin (2004) show that the average public-private sector wage differential increased from 92% in 1993/94 to 133% in 1999/00.

[11] Financial sector reforms starting in the early nineties resulted in deficit financing closer to market rates, and as mentioned earlier, states also became increasingly dependent on high interest small savings loans.

[12] The 2002-03 revised estimates and the 2003-04 budget estimates show a mild increase, but expenditure estimates are normally biased upwards, and it remains to be seen whether they will be confirmed by actuals.

Figure 5: Salaries, pensions and interest payments for India's states as a percentage of GDP

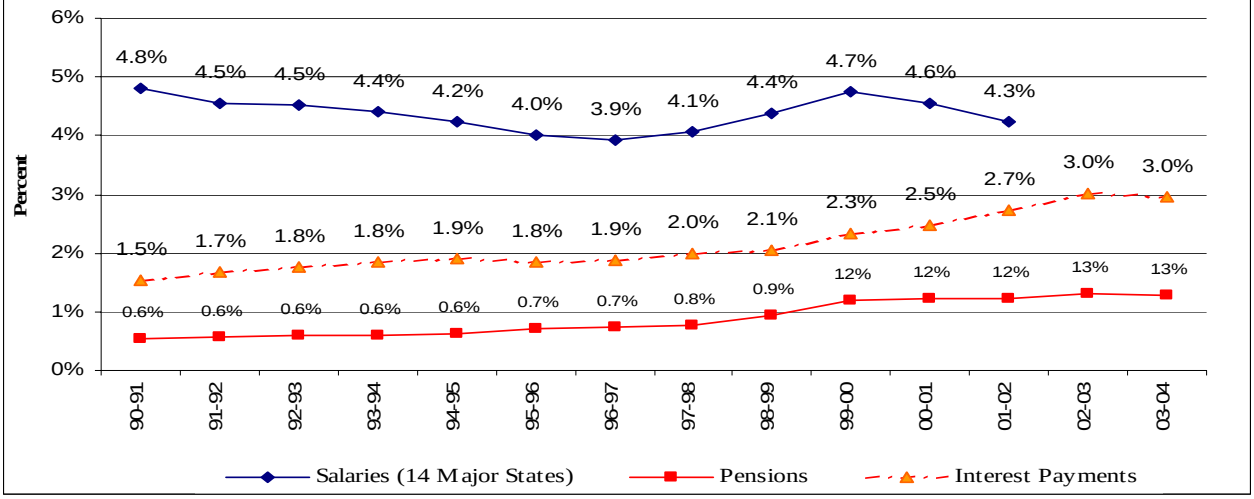
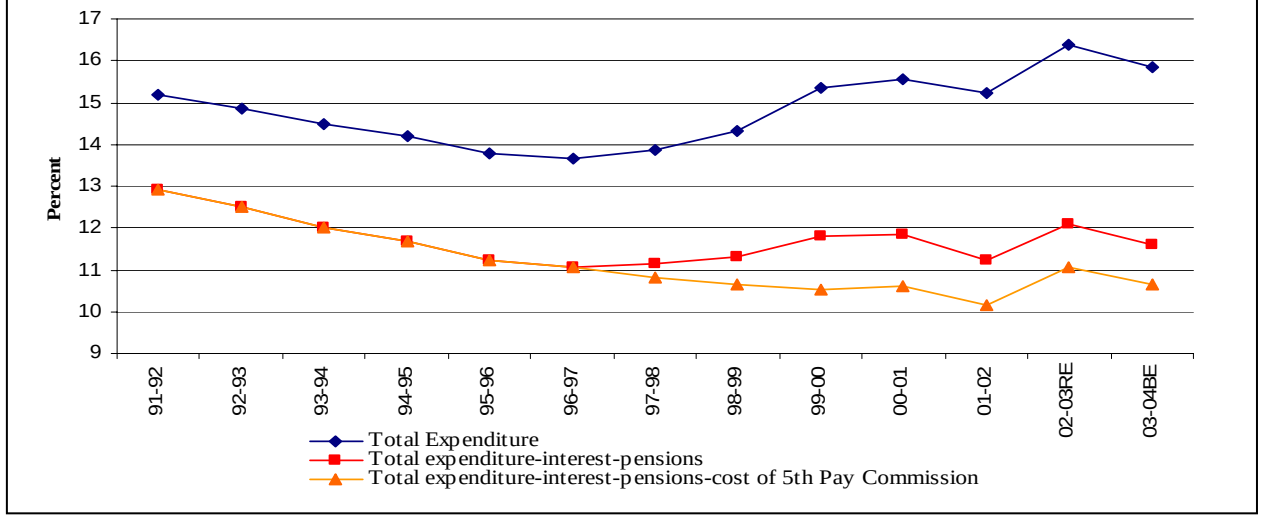


Figure 6: Aggregate expenditure trends for India's states as a percentage of GDP



Notes and source: Salary data has been provided by N.J Kurian. Salary data is for 14 major states and does not include the three newly formed states. Other data is for all states. Also see the notes to Table 1.

The picture is more positive for infrastructure spending. Capital investment by state governments was virtually flat in real terms in the first half of the nineties, but resumed growth in the second half of the nineties with an annual average real growth rate of 4.7%. This contrast between the two halves of the nineties may be overdrawn. Capital expenditure is lumpy and volatile, and the dividing year 1996/97 was an unusually low year for capital expenditure figures.[13] There is also evidence that in 1998/99 and 1999/00, recorded expenditure on capital payments was inflated.[14] At the same time, however, the growth

[13] State capital expenditure as a ratio of GDP was 2.0%-2.1% of GDP for 1991/92 to 1996/96 but fell to 1.6% in 1996/97. From 1997/98 to 2001/02 the ratio was in the range of 1.6%-1.8% of GDP.

[14] So-called "Public Account borrowing" increased rapidly during the worst years of the fiscal crisis. This is a practice in which expenditures are booked under a public account, but not incurred. The increase in the balance of the public account is then defined as deficit-financing for the booked expenditure. Expenditure booked in this way are by definition not incurred in the year in which they are booked, and experience shows that in fact they are often not incurred. This mechanism is often used at a time of fiscal stress to prevent the need to show deep cuts in areas such as capital expenditure. Public account borrowing increased from 0.3-0.5% of GDP pre-1998/99 to 1.0% of

in guarantees probably also allowed increased capital spending by government enterprises. While the news about capital spending is good, in terms of volume of expenditure, capital expenditure is only about 10% of total expenditure, and slightly less, on average, than education expenditure, for example. Maintenance spending shows a mixed picture post-crisis: average roads maintenance growth increased from 0.9% to 2.5%, while average irrigation maintenance growth fell from 4.8% to 1.0%.

Table 1: Average real growth rates of expenditures in some key sectors (16 major states)

	1990/91- 1996/97	1996/97- 2001/02	
		Adjusting for price increases only	Adjusting for price & wage increases.
Education	3.1%	7.4%	1.3%
Health	2.5%	4.7%	-0.4%
Irrigation maintenance	4.8%	1.0%	---
Roads maintenance	0.9%	2.5%	---
Capital expenditure	0.1%	4.7%	---

Notes: We assume that the ratio of salary to total current spending in education is 90% and in health 75%. We calculate wage inflation using data from Figure 5 on the assumption that there was no net hiring post 1996-97 and that any excess in the increase of the wage bill over the rate of inflation is due to increases in real wages. 1996-97 is the dividing year, since implementation of the Fifth Central Pay Commission wage hikes began in 1997-98. Maharashtra is excluded from roads maintenance calculations, since the figures display lack of comparability over time.

The category-specific post-crisis expenditure trends are also disturbing from the perspective of regional equity. Table 2 presents the same data as in Table 1, but disaggregated into the two categories of low-income states and others, using the same classification of states as earlier (see footnote 8). The poor states show negative real spending growth post-crisis in irrigation maintenance and health, and no real growth in the education.

Table 2: Average real growth rates of expenditures in some key sectors (Low-income states and others of the 16 major states)

	Low Income States		Other States	
	1990/91- 1996/97	1996/97- 2001/02	1990/91- 1996/97	1996/97- 2001/02
Education	2.8%	0.0%	3.3%	2.1%
Health	2.2%	-1.6%	2.8%	0.3%
Irrigation maintenance	2.6%	-1.5%	6.0%	2.2%
Roads maintenance	1.5%	2.9%	0.4%	2.2%
Capital Expenditure	-3.8%	5.4%	2.8%	4.3%

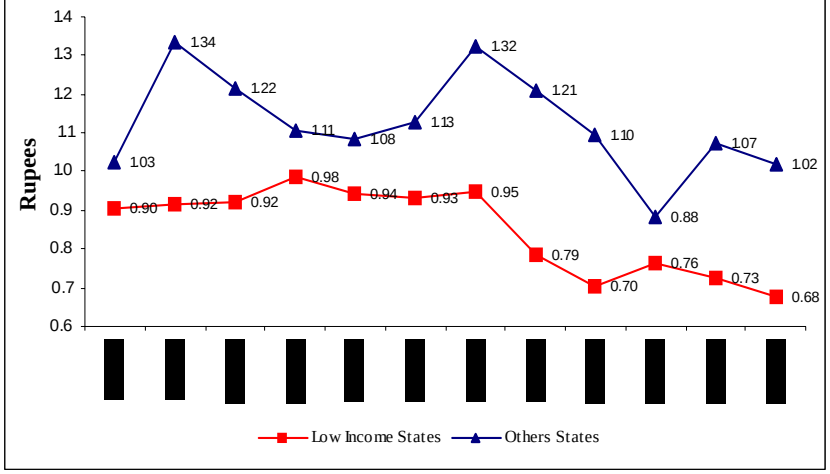
Notes: See Table 1. For capital expenditure, the growth rates are calculated for the period 1996/97- 2001/02, as revised estimates appear unreliable. We adjust for price and wage increases.

As we have seen, one area of rapid growth through the nineties was the fiscal losses of the power sector, which, whether subsidies are paid on time or not, ultimately devolve to the state government. This was likely to have done little to help poverty reduction. Analysis of power subsidies show that they are highly regressive and inefficient (Howes and Murgai, 2004). For example, only 10% of the subsidy provided to farmers for free or very cheap electricity benefits farmers below the poverty line (Howes and Murgai, 2003). Power shortages and quality problems caused by the weak financial health of the sector as well as

GDP in 1998/99 and 0.8% in 1999/00. This implies that the official capital expenditure figures exaggerate growth in capital expenditure at least in the worst years of the crisis, 1998/99 and 1999/00, if not for the entire post-crisis period.

the high tariffs imposed on industry to cross- subsidize other consumers both impose a heavy cost on India's industry (CII and World Bank, 2002).

Figure 7: Non-salary operating recurrent spending per rupee of salary spending (14 major States)



The fiscal crisis not only slowed growth in key areas, it also worsened the quality or efficiency of spending. The rapid growth in salary, pension and interest payments crowded out non-salary recurrent expenditure. Figure 7 shows, for the 14 major states (not including the newly created states), the ratio of non-salary operating expenditure (recurrent expenditure excluding salaries, pension and interest) to salary expenditure. This ratio gives a rough-and-ready measure of expenditure quality: a low ratio indicates that government does little other than pay its staff (current and former); a higher ratio indicates that the staff have resources to work with and allocate. In 1990/91, rich and poor states alike spent about Rs. 0.9-1 on non-salary operating recurrent expenditure for every rupee of salary expenditure. This ratio improved in the first half of the nineties, marginally for the poor states, considerably for the better-off states, but then started to worsen with the onset of the fiscal crisis. By 2000/01, this ratio for the better off states at 1.1, was marginally better than at the start of the nineties, but for the poor states it had fallen precipitously to 0.7, a roughly 25% fall from the early nineties. Given that there was virtually no hiring in the second half of the nineties, it is ironic that all states, but especially the poorer ones, should, nevertheless, at the end of the nineties, have at their disposal significantly fewer non-salary resources per civil servant than they had midway through the nineties. There are indeed many anecdotal accounts from the late nineties of teachers without chalk, and doctors without drugs (Saxena, 1999).

Second, the liquidity crisis which accompanied the fiscal crisis (discussed in Section 2) in all likelihood also reduced expenditure efficiency. With many states entering into long periods of emergency overdraft, having to resort to frequent ad hoc stops to all payments, and in some cases finding it difficult to pay salaries, let alone contractors bills, the time taken to pay bills must have increased, which in turn must have made it harder to finish projects, as well as more expensive, as contractors built these increased lags into their payment expectations.

5. Conclusion

State governments are important funders of important development expenditures in India, such as primary education and health, public capital investment, and road and irrigation maintenance. Despite concerns about the quality of expenditure, the balance of evidence suggests that these are indeed expenditure categories in which more and more effective spending will lead to more poverty reduction and faster human development. The late nineties saw a sharp increase in aggregate state-level expenditure. This has been costly in terms of debt: state government debt per capita rose from Rs.1,940 in 1996/97 to Rs. 3,420 in 2001/02.[15] Such a build-up of debt might have been worthwhile if it had resulted in an additional thrust being given to poverty reduction in the country. In reality, however, the increase in aggregate expenditure achieved little.

[15] In 1993/94 prices.

While it is well known that interest, pensions and salaries shares of expenditure increased in the late nineties, we have shown in this paper that, once one adjusts for the large increases in interest and pension payments, and for the large real salary increase in the second half of the nineties, aggregate expenditure continues in the post-crisis period the downward trend observed through the first half of the nineties. The only positive fiscal development in the post-1996/97 period is an increase in real growth in state-level capital expenditure. In other respects, the fiscal crisis weakened the developmental and poverty impact of state governments by slowing down real growth of expenditure in education, and halting real growth in health expenditure. The efficiency of government expenditure was also adversely affected by a crowding out of non-salary expenditures. The poorer states in particular suffered. They show lower real expenditure growth in all the expenditure categories than the middle-income and rich states; less than half the growth in capital investment; and zero or negative real growth in education, health, and irrigation maintenance.

It is difficult, and perhaps too early, to say whether what impact these expenditure trends had had on the rate of poverty decline in India. Abhijit Sen (1996) has argued that the slow-down in development spending in the nineties as a whole reduced the rate of poverty reduction in that decade, but there is an extensive debate about the rate of poverty reduction in the nineties, so a conclusive verdict on this is unlikely to emerge. Education indicators are improving rapidly, but health indicators only slowly (World Bank, 2004a). What one can say is that the slow real expenditure growth, in some cases negative, in particular in the poorer states, and the deterioration in the quality of expenditure, both of which were observed in the late nineties, contrasts with the need, as Section 3 showed, for a large expansion in spending and quality of spending in these areas, especially in the low income states.

The purpose of this paper was to establish the diminution of agency with respect to poverty reduction of the state governments as a result of the fiscal crisis; we have seen in fact that, at least relative to the size of the economy, this is a longer term trend, stretching back over the nineties. Looking forward, state governments now face the very difficult task of increasing expenditure in priority areas while reducing deficits to sustainable levels. In other papers associated with this research project, we explore the reform options open to state governments to improve expenditure allocation and efficiency and increase revenue, as well as the options open to the central government to improve the federal fiscal framework within which India's state governments operate.

References

Confederation of Indian Industries and World Bank. 2002. *Competitiveness of Indian Manufacturing: Results form a Firm Level Survey*.

Devarajan, Shantayanan and Shekhar Shah. 2004. "Making Services work for India's Poor. *Economic and Political Weekly* 39(9): 907-19.

Dreze, Jean and Amartya Sen. *India: Development And Participation.* Oxford University Press: New Delhi.

Dreze, Jean and Aparajita Goyal. 2003. "Future of Mid- Day Meals." *Economic and Political Weekly,* November 1.

Dreze, Jean. March 12, 2004. "India's Health Services." *The Hindu.*

Fan, Shenggen, Peter Hazell, and Sukhadeo Thorat. 2000. "Government Spending, Growth, and Poverty in Rural India." *American Journal of Agricultural Economics* 82(4): 1038-51.

Filmer, Deon and Lant Pritchett. 1999. "Educational Enrollment and Attainment in India: Household Wealth, Gender, Village and State Effects." *Journal of Educational Planning and Administration* 13(2): 135–64.

Glinskaya, Elena and Michael Lokshin. 2004. *Wage Differentials between Public and Private Sectors in India.* Washington DC.

Government of India, Planning Commission. 2001. "Report of the Expert Group on Settlement of SEB Dues." New Delhi.

Government of India, Planning Commission. 2002. "Annual Report (2001-02) on The Working of State Electricity Boards and Electricity Departments." New Delhi.

Government of India. 2003. *Economic Survey 2002-03.*

Government of Karnataka. 2001. *Karnataka, Towards Equity, Quality and Integrity in Health: Final Report of the Task Force on Health and Family Welfare.* Bangalore.

Government of Tamil Nadu. 2003. *Budget Speech.*

Gulati, Ashok and Seema Bathala. 2002. *Capital formation in India agriculture: trends, composition, and implications for growth*. Occasional paper 24, National Bank for Agriculture and Rural Development, Mumbai.

Harris, Clive. 2003. *Private Participation in Infrastructure in Developing Countries: Trends, Impacts, and Policy Lessons.* Working Paper 5, World Bank, Washington DC.

Howes, Stephen and Rinku Murgai. 2003. "The Incidence of Agricultural Power Subsidies in Karnataka." *Economic and Political Weekly* 38(16): 1533-35.

Howes, Stephen, and Rinku Murgai. 2004. *Subsidies and Salaries: Issues in the Restructuring of Government Expenditure in India.* Paper presented at IMF-NIPFP conference on fiscal policy, January 2004.

Jalan, Jyotsna and Ravallion, Martin. 2003. "Does Piped Water Improve Child Health for Poor Families in Rural India?" *Journal of Econometrics* 112: 153-173.

Kingdon, Geeta Gandhi. 1996. "Student Achievement and Teacher Pay: A Case Study in India," DEP No. 74. STICERD (London: London School of Economics).

Lanjouw, Peter and Ravallion, Martin. 1999. "Benefit Incidence, Public Spending Reforms and the Timing of Program Capture" *The World Bank Economic Review* 13(2): 257-73

Mahal, Ajay, Janmeya Singh, Farzana Afridi, Vikram Lamba, Anil Gumber and V Selvaraju. 2001. *Who Benefits from Public Health Spending in India*. World Bank, Washington DC.

Mehotra, S. 2004 "Reforming Public Spending on Education and Mobilizing Resources: Lessons from International Experience." *Economic and Political Weekly,* February 28.

Misra, Rajiv, Rachel Chatterjee, and Sujatha Rao. 2003. *India Health Report.* Oxford University Press: New Delhi.

Mody, Ashoka. 1997. *Infrastructure Strategies in East Asia: The Untold Story*. Economic Development Institute of the World Bank.

Mohan, Rakesh. 2000. "Fiscal Correction for Economic Growth: Data Analysis and Suggestions." *Economic and Political Weekly*, June 10.

Paul, Samuel, Suresh Balakrishnan, K Gopakumar, Sita Shekhar, and M. Vivekananda. 2004. "State of India's Public Services: Benchmarks for the States." *Economic and Political Weekly* 39(9): 920-934

Pinto, Brian and Farah Zahir. 2004. "India: Why Fiscal Adjustment Now" *Economic and Political Weekly*, March 6.

Pritchett, Lant and Deon Filmer. 1999. "What Education Production Functions *Really* Show: A Positive Theory of Education Expenditures." *Economics of Education Review* 18(2): 223-39.

PROBE team in association with Center for Development Economics. 1999. *Public Report on Basic Education in India.* Oxford University Press: New Delhi.

Ravallion, Martin and Gaurav Datt. 2002 "Why has Economic Growth Been More Pro-Poor in Some States of India than Others?", *Journal of Development Economics* 68: 381-400

Reserve Bank of India. 2002. *Report on Currency and Finance 2000-01*. Mumbai.

Reserve Bank of India. 2003. *Report On Currency and Finance 2001-02*.Mumbai.

Reserve Bank of India. 2003. *State Finances: A Study* of *Budgets of 2002- 03*. Mumbai.

Saxena, N.C. 1999. "Medium-Term Fiscal Reforms Strategy for States." Draft Discussion Paper, Available at http://planningcommission.nic.in/reports/articles/ncsxna/fiscal.htm.

Sen, Abhijit. 1996. "Economic Reforms, Employment and Poverty: Trends and Options." *Economic and Political Weekly*, Vol. 31(35-37).

Sood, Akshay. 2003. "Himachal Pradesh: Critical Issues in Primary Education." *Economic and Political Weekly*, June 21.

Srinivasan, T.N. 2000. *India's Fiscal Situation: Is a Crisis Ahead?;* at www.econ.yale.edu/srinivasan/fiscalsituation.pdf

Van der Klaauw, Bas and Limin Wang. 2004 *Child Mortality in Rural India.* Washington, DC.

World Bank. 1996. *India:Primary Education Achievement and Challenges.* South Asia Country Department II, Washington DC.

World Bank. 1998. *Reducing Poverty in India: Options for more Effective Public Services.*

World Bank. 2002. *India, Maharashtra: Reorienting Government to Facilitate Growth and Reduce Poverty*.

World Bank. 2003. *India: A Policy Note on The Grant-in-Aid System in Indian Education.* Report No.3 South Asia Human Development Sector.

World Bank. 2004a. *Attaining The Millennium Development Goals In India: How Likely and What Will It Take To Reduce Infant Mortality, Child Malnutrition, Gender Disparities and Hunger- Poverty and to Increase School Enrollment and Completion?* Mimeo.

World Bank. 2004b. *Public Financing of Highways: A Policy Note.* New Delhi.

World Bank. 2004c. *Unlocking the Growth Opportunities in Andhra Pradesh: An Agenda to Achieve the Vision 2020 Growth Target.* New Delhi.