Growth in India's State Economies Before and With Reforms: Shares and Determinants

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Introduction

The overall growth performance of the Indian economy has been characterized by substantial regional variation in growth over the decades (Shand and Bhide (2000). This is despite the focus in successive Five-Year Plan policies and programs on reducing the incidence of poverty and of achieving balanced regional development (Bhide and Shand 1999).

Shares of the All India Gross Domestic Product (GDP) among the 14 major states[1] varied in 1998-99 from 13.1% for Maharashtra to 2.2% for Orissa (Table 1). The regional distribution of population also varied widely, ranging from 168.6 million for Uttar Pradesh (17.9% of the total) to Haryana's 19.7 million (2.1%).

These distributions did not coincide, leading to a wide dispersion of average income per capita among states. In 1998-99, the range was from US$657 down to $159.

From 1951, a range of policies for balanced development was introduced, including industrial licensing, area specific development programs, fiscal incentives for industries to locate in "backward areas", and equated pricing policies for a key industrial input such as steel. Development of educational, health and physical infrastructure at the state level was also a goal of the planning process on an equitable basis. Rules for allocation of resources from the Central

[1] India today has 28 states and Union Territories. The latter have fewer powers of fiscal management and administration as compared to the states. The 14 states (taking the states of Uttar Pradesh, Madhya Pradesh and Bihar before their subdivision in 2000) that are considered in this study, due to limitations of data on the other states, account for about 92% of India's total population as per the Census of 2001.

government to the states have been established for the same purpose both through the Planning Commission with the "Gadgil formula" and through the Finance Commission[2].

Substantial structural change has also taken place that has altered the relative importance of sectors in the economy, transforming the economy from an agrarian emphasis to one of growing prominence of the industrial and service sectors at the national level. This too has varied regionally owing to differences in state level sector growth rates. At the national level, share of agriculture and allied activities has come down from 54.7% in GDP in 1960-61 to half that level in 2000-01.

A close understanding of the regional patterns of growth within India is desirable for several reasons. First, central importance in policy continues to be the objective of achieving and sustaining a higher overall growth rate in the Indian economy. Policy makers need insights on past performance at state level in order to formulate future policy directions more effectively. Second, high levels of foreign and domestic investment are needed to reach the growth target. Foreign and domestic investors need information on state level performance and prospects to guide their choice of location between states. Third, there are fiscal problems in the states, which are exacerbating those at the Centre, and the issue of fiscal stability now requires these problems at state level to be addressed. Finally, with greater decentralization of policy making process consequent to the economic reforms in the 1990s, information on the states' performance is important for the policy makers at the state level also. Policies will be based on such assessments in each state.

Under the federal system of government in India, the States play a key role. States have exclusive jurisdiction over public health, roads and bridges (other than national highways),

[2] The transfer of resources from the Central government to the states is needed under the federal structure of Indian government given the wide vertical fiscal imbalances. Transfers are achieved mainly through two mechanisms. One, through the recommendations of a Finance Commission, constituted every five years, deals with the imbalances in the revenue account of the states. These transfers include tax revenue sharing and grants on revenue account. The transfers are increasingly based on a variety of indicators including fiscal performance of the states. The second mechanism is the Planning Commission transfers as assistance to states for their plan expenditures. The original formulation used for the Fourth Five Year Plan (1969-74) was termed the 'Gadgil formula', named after the Deputy Chairman of the Planning Commission at the time, included criteria for devolution such as population, per capita income and ongoing projects of irrigation and power. The formula

agriculture, power, water supply and irrigation, urban services, and play a major role in education.

The economic reforms that began in the early 1990s brought to the fore the role of State governments in attracting new investments from the private sector needed for growth. In the previous regime of centralized planning, the states' role was largely limited to lobbying for public sector investment. Private investment was influenced by the incentives offered by the states for such investments, but the centralised planning process laid down the criteria for new investments. In the new environment of liberalised economic policies, state governments are increasingly recognising the need for a more competitive approach to attracting new investments in their own states.

This change in the perception on the part of the state governments is also due to the emergence, and frequent election, of regional level political parties at the state level and their need to improve economic performance as an important electoral appeal. The industrial policies announced by the various states in the mid-1990s reflect the recognition at state level of the need for a pro-active policy towards attracting private investment.

The economic reforms in the 1990s at the national level have also led to a greater focus on the activities of the States. The dominance of central planning and the grip of economic controls have waned with the change in focus to market-driven and private sector-fuelled development and by growing globalisation. There is a shift towards decentralization of government, with local urban and rural government strengthened by the Constitutional amendments of 1992. It is recognized too that the priority areas in government expenditure for development are in physical infrastructure (roads, waterworks, power), and in social infrastructure (schools, hospitals, family planning), where public funding and provision are determined mainly by State governments.

While there is evidence of changes in perception of the role of the states among the policy makers in the various policy statements, actual implementation of the new policies is less

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has since been revised in subsequent Plans and now includes criteria such as tax effort, fiscal management and national policies towards literacy, female welfare programs and land reforms.

impressive. Lahiri and Fardoust (2000) have commented "As a direct consequence of …economic and political developments of the past decade, appropriate policy responses, expenditure allocations and revenue efforts of the Indian State governments have become very important for growth and welfare. Perhaps, most States have lagged behind the central government in introducing economic reforms in the post 1991 period. This relative lack of progress is evident in the areas of tax reforms, disinvestment and liberalization of rules and procedures. A large majority of the States has followed shortsighted, populist policies that have harmed their economic and social development. The composition of expenditures as well as the stock of infrastructure assets has deteriorated with the neglect of cost recovery mechanism for maintaining public assets. Reform at the State level is critical for the country."

Clearly a large part of the onus for stimulating economic development and attracting the necessary investment resources lies with the States. Their capacity to rise to this challenge is central to the theme of this paper. States "will be competing more intensely than before, in market place for resources in future and, States may find it somewhat difficult to place a significant responsibility on the Centre for their relative performance" (Reddy 2000).

This paper profiles India's regions and most progressive states, with particular reference to recent growth, development and investment outcomes. It examines growth rates, and shares and their determinants.

Recent Performance of State Economies

- **Growth Rates of Gross State Domestic Product (GSDP)**

In the 1990s, the reform period is generally regarded as having commenced in 1993-94. The economic crisis occurred in 1990-91 with its major impact in 1991-92. The economy recovered from the crisis in 1992-93, so both the years 1991-92 and 1992-93 show the impact of the crisis and the subsequent recovery and do not reflect the impact of reforms on overall growth performance. So with this in view, we consider the reform period to have commenced in 1993-94. and examine the growth performance from 1993 to 1999 (i.e. FY1993-94 to FY1998-99) in terms of average annual growth rates and growth shares of GSDP compared with the pre-reform period of 1980-90. We first highlight the features and contrasts in the growth performance of states during the decade of the 1980s and the reform period 1993-99. We then proceed with an analysis of variables that are likely to have influenced the growth rate performance and thus have policy implications.

The All India average growth rate (GDP) for 1993-99 was 6.6% per annum, a significant increase on the average of 5.7% for 1980-90, as were the average for the 14 major states at 6.1% and 5.4% respectively (Table 2 and Figure 1).

For further analysis the 14 major states have been grouped into high, medium and low performing economies (HPSE, MPSE and LPSE) according to their average growth rates of GSDP in the 1993-99 reform period (Table 2 and Figure 2). The four states with the most improvement in growth rates over the 1980s are Karnataka, Maharashtra, Tamil Nadu and Gujarat. As a group, they averaged a growth rate of 7.4% per annum in real GSDP during the period 1993-99, well above the 5.9% per year average for 1980-90. All four showed a marked acceleration in growth, particularly Karnataka (5.7% to 8.1%) and Tamil Nadu (5.6% to 7.4%). West Bengal also showed a substantial increase, but on the basis of a number of other indicators discussed below, it was not included in the HPSE group.

A second group of six states recorded average growth rates around the 14-state average of 6.1% per annum in 1993-99 and were grouped as medium performing state economies (MPSEs). These comprised West Bengal, Andhra Pradesh, Kerala, Haryana, Madhya Pradesh and Rajasthan. In this group, there was no consistent improvement in growth rates over the 1980s. While there were significant increases for West Bengal, Kerala and Madhya Pradesh, there were decreases for Andhra Pradesh, Haryana and Rajasthan.

The remaining four states were grouped as low performing state economies (LPSE). Their reform period growth rates were well below the All India and 14 state averages, in the range of 5.1% down to 4%. The group, which comprised Orissa, Punjab, Uttar Pradesh and Bihar, all recorded average growth rates in the 1990s well below those in the 1980s as did the LPSE group (4.9% down to 4.4%).

- **Sectoral Growth Rates**

A sectoral breakdown of growth rates for the three state performance groups provides more detailed evidence on the origin of shifts in growth rates from pre-reform 1980s to the reform period of the 1990s (Table 3 and Figure 3). Principal findings are:

- Agricultural growth rates were not significantly higher in the 1990s over the 1980s. This is not surprising, as it is generally agreed that this sector received no direct benefits from reforms in the 1990s, though it could have benefited indirectly from liberalisation of industry. The HPSEs and LPSEs showed a reduction in growth rates and only the MPSE group showed an improvement. Four of the six states in the MPSEs registered significant improvements in the growth rate of agriculture in the 1990s. In the other groups, state performances were also mixed.

- In the industrial sector, there were increases in average growth rates in the 1990s over the 1980s for the HPSE and MPSE groups but a reduction for the LPSE group. In the HPSE group, average growth rates increased impressively in Karnataka and Maharashtra and slightly in Gujarat, but fell in Tamil Nadu. In the MPSE group there

were increases for two of the six states and reductions in three giving a marginal increase overall. In the LPSE group, there were decreases in growth rates in all the four states.

- In the services sector, average growth rates rose from 7% in the 1980s to 8.9% in the 1990s in the HPSE and increases were recorded in all four states. Average growth rates held almost steady in the MPSE group but fell in the LPSE group. In the MPSE, the increases matched the reductions. In the LPSE, lower growth rates were recorded by Uttar Pradesh, Orissa and Bihar and only Punjab gained.

- Overall, the better growth performance during the reform period of 1993-99 over the 1980s was principally due to higher growth rates of both industry and services. This in turn was due almost wholly to the improved performance of the HPSE in these sectors. For the MPSE group, only agricultural growth was significantly higher. In the LPSE group, growth declined in all the three sectors.

- **Growth in Per Capita Incomes**

  - Growth rates of average per capita incomes for the three performance groups in 1980-90 and 1993-99 (Table 4) shows substantial increases for the HPSE (from 3.9% to 5.9%) and MPSE (from 2.9% to 4.1%), while in the LPSE group, there was a reduction in the growth rate from 2.7% to 2.5%.

  - In 1980-90, the range in growth rates of per capita incomes over the three groups of 1.2% was quite narrow. In 1993-94 to 1998-99, it had increased substantially to 3.4%, which indicates widening disparities between the three groups and reflects the relatively rapid increase in average per capita income in the HPSEs and the lack of improvement in the LPSEs.

- Within the HPSEs, increases in per capita growth rates occurred for all four states but particularly for Karnataka, Maharashtra and Tamil Nadu. In the MPSE group, increases in growth rates were most notable for West Bengal and Kerala and less so for Andhra Pradesh and Madhya Pradesh, while Haryana and Rajasthan showed reductions. In the LPSEs, Orissa and Bihar showed slight increases, but Punjab and Uttar Pradesh experienced reductions in per capita growth rates.

- **Levels of Per Capita Income**

  - Per capita incomes in 1998-99 show a wide gap between averages for HPSEs (Rs 22,234 and US$529) and LPSEs (Rs 10,058 and US$239) (Table 5). As argued above, this gap has widened from the 1980s due to the higher growth rates in per capita incomes of the HPSEs relative to the LPSEs.

  - The rankings of some states on average per capita incomes do not reflect their location in the state growth performance groups. This is because past growth rates of these states differed from those in the reform period of the '90s. For example in the HPSE group, Karnataka and Tamil Nadu had slower growth rates in the past and showed lower per capita rankings. In contrast, Haryana and Punjab had higher growth rates in the past, which gave high per capita rankings, but left them in lower performance groups in the 1990s.

- **State Growth Shares**

  - The HPSE, led by Maharashtra, contributed 16.3% of growth in the reform period, which was 1.9% more than in the 1980s (Table 6) Gujarat, Tamil Nadu and Karnataka all showed increases in shares over the pre-reform period, particularly Karnataka (2.7%). The HPSE group as a whole contributed 39% of total growth in the reform period, which was a substantial 8% increase over the share in the 1980s.

- In the MPSE group, West Bengal recorded the highest growth share of 6.8% in the reform period, which was 1.9% higher than in the 1980s. Andhra Pradesh, Madhya Pradesh and Rajasthan all had significant growth shares in the reform period but lower than in the 1980s, particularly Andhra Pradesh with a 2% reduction. Kerala and Haryana had modest growth shares but improved on the 1980s. The MPSE group as a whole contributed a substantial 26.6% share with reforms, but this was marginally less (0.1%) than in the 1980s.

- In the LPSE group, Uttar Pradesh recorded a relatively high growth share of 7.3% with reforms but this represented a 3% share reduction from the 1980s. Bihar, Punjab and Orissa had low growth shares with reforms and lower than in the 1980s, particularly Bihar (-1.6%) and Punjab (-1.1%). The LPSE group contributed 15.2% of growth with reforms, which was 5.9%, less than in the 1980s.

- Thus only 7 of the 14 major states achieved increases in GSDP growth shares with reforms, which indicates a highly concentrated and skewed distribution of growth shares across the country. The growth share with reforms was 81.2%, an increase of 2% over the 1980s.

- **Growth Shares by Sectors**

- In the HPSE group, there were increases in growth shares with reforms in all three sectors, but particularly in industry (13.4%) and services (6.6%) (Table 7). In agriculture, the gain came from Gujarat exclusively. In industry it came from all states but Tamil Nadu, which recorded a slight reduction.

- The MPSE group showed a strong increase in growth shares in agriculture, a lower increase for industry and a share reduction for services. The LPSE group showed a reduction in growth shares in all three sectors.

- With these changes, the dominance of the HPSE group in growth shares has substantially increased with reforms in both industry and services sectors, with the gap in shares widening, especially between the HPSE and LPSE groups.

- **Sectoral Shares in GSDP**

The varying growth rates between sectors in individual states and groups have substantially altered the relative importance of sectoral shares in GSDP (Table 8). In the HPSE group, the share of agriculture fell from 25.6% in the 1980s to 21.6% with reforms. In the MPSE groups, the pre-reform shares were higher, but also fell significantly with reforms. The same pattern emerged for industry. In services the acceleration of growth rates with reforms in all three groups substantially increased the dominance of the shares in GSDP. It reached 50% for the HPSE group but was not much lower in the other two sectors at 47%.

Determinants of GSDP Growth and Shares

- **Investment**

Growth of investment is a key determinant of GSDP growth rates as it affects the short-term growth performance through its impact on aggregate demand as well as the long-term performance through its impact on the creation of productive capacity in the economy. The key components of investment are private and public sector investment. Private investment comprises domestic and foreign direct investments. Public investment comprises capital outlays in the budget and resources mobilised by public sector units (PSUs) outside the budget, such as borrowings.

There is no single time series that covers all these types of investment for India at the state level, so it is necessary to choose proxies that best represent the components. Those selected here for

private domestic investment[3] are the state-level growth rates and shares of disbursements of credit from the All India Financial Institutions (AIFI), and total proposed industrial investment by the companies/agencies listed in the stock exchanges in the country. The proxy used for foreign direct investment is total approvals for foreign direct investment, as there is no series available for actual foreign direct investment at state level. The proxy used for public sector investment is total state capital outlay.

- **Private Investment - Domestic**

Disbursements by All India Financial Institutions are a proxy for domestic private investment activity and thus for domestic private capital formation (Table 9 and Figure 4). This is a reliable variable though in recent years, assistance has also been given to restructuring (financial), but it is still a good proxy. The significance of states, or performance groups of states, depends on their rate of growth of, and shares of, disbursement. Data for the 1993-99 reform period show:

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- The HPSE group was by far the most dominant. The average annual rate of growth of real disbursement (18.9%) was higher than those of the other two groups[4].
- The rankings of disbursement growth rates of individual states within the HPSE group were high but not all were in the top four, e.g. Tamil Nadu. They were the top four states in terms of disbursement shares over the period.
- The overall share of the HPSE group was dominant at 60% of the total over the period.

[3] The sources on private sector investment in India comprise the following:

a) Data on sanctions and disbursement of assistance / credit provided by the All India Financial Institutions
b) Data on Foreign Direct Investment provided by the Secretariat for Industrial Approvals, Government of India
c) CMIE data on total investment: is a good proxy but reflects only book value of investment, not in real terms
d) CMIE data on investment under implementation: is also a good proxy for actual investment, but again the values are nominal.
e) Annual Survey of Industries data on Gross Fixed Capital Formation: are useful, but in this study, these are used for only three years.

[4] Disbursements are calculated in real terms by deflating the nominal values by the wholesale price index for manufactured products.

- The average rate of increase for the MPSE group of 12.4% was well below that of the HPSE but higher than LPSE group.
- The MPSE group's share of disbursements (21%) was substantial.
- The average rate of growth of disbursement of the LPSE group (12.2%) was the least among the three performance groups as also was its share of total disbursements (13%).
- The exception was Uttar Pradesh, which had a low rate of growth of disbursement of 13.3% in keeping with its classification in the LPSE group, but because of its size, it was ranked fifth in terms of disbursement share over the period (7.4%).

A second measure of private investment is given by total proposed industrial investment. This combines investment through Industrial Entrepreneurs' Memoranda (IEM) and Letters of Intent (LOI) for the period from August 1991 to November 2000 (Table 10).

- The HPSEs dominated with a 54.6% share.
- This group itself was dominated by two states – Maharashtra (21.8%) and Gujarat (17.4%). Their investment proposal shares were disproportionately high in relation to their population shares of 9.6% and 5.1% respectively.
- The MPSE group attracted a 22.3% share of proposed investment, with Andhra Pradesh (7.2%) and Madhya Pradesh (7%) as the two largest state recipients.
- Shares of investment proposals for West Bengal (3.5%) and Kerala (1%) were low, and well below their population shares of 8.3% and 3.4% respectively.
- The LPSE group attracted only 16.8% of total proposed investment, and achieved this share only because of Uttar Pradesh with 8.2% and Punjab with 4.3%.
- UP and Bihar's shares were disproportionately low in relation to their population shares of 17.9% and 10.5% respectively.

- **Private Investment - Foreign Direct Investment Approvals**

In the absence of actual foreign direct investment data, FDI approvals provide a good proxy for changes in the investment climate. However, it is not a satisfactory proxy for actual FDI as the latter is a varying fraction of approvals. A recent calculation showed investment "actuals" as only 37% of approvals from January 1991 to August 2000 (Nabhi, 2001 p.31). Highlights of the statewise data on FDI approvals for the period August 1991 to January 2000 (Table 11) are:

- The HPSE group dominated, attracting 33.3% of total approved investment
- MPSEs (15.4%) accounted for less than half that amount and LPSEs less than half that of the MPSE group (6.9%)
- In the HPSE group, Maharashtra alone received 13.7% of approvals, while Karnataka (7.6%) and Tamil Nadu (6.7%) and Gujarat (5.3%) were also very significant
- In the MPSE group, Madhya Pradesh (4.5%), Andhra Pradesh (4.2%) and West Bengal (3.7%) attracted significant proportions of approvals
- In the LPSE group, only Orissa (3.8%) attracted a significant proportion of approvals. Uttar Pradesh and Bihar were virtually ignored.

- **Public Investment**

Public sector investment was measured for each state over the 1993-99 period with the proportions of total state capital outlays for development to the All India total over the period (Table 12). Capital outlays are drawn from the state budgets only and do not include resources mobilised by public sector undertakings outside of the budget, such as by borrowing. It is a reasonable proxy for infrastructure investment by state governments. The highlights were:

- The high growth (HPSE) group of four states accounted for 34.1% of total state government capital outlay during the 1993-99 period. This was on a par with the 34.9% outlay of the MPSE group of six states and considerably greater than the 18.4% allocated by the LPSE group. The group pattern is

consistent with a positive association between public capital outlays and GSDP growth rates of states.

- At individual state level, Maharashtra dwarfed other states with a share of 15% of total capital outlays. Rajasthan was second placed with 8.5%.

- **Total Investment**

Shares of states and state groups reflect the contrasts given by other investment measures above. For total investment, in both 1999 and 2000, there was a steep reduction in shares from HPSE to LPSE groups – from 42% to 18% (Table 13). The same pattern held for investment under implementation in the two years.

- **Infrastructure**

Variables were constructed to represent both economic and social infrastructure.

- **Economic**

A composite index of economic infrastructure was calculated for the mid-1990s comprising a range of variables comprising (Table 14):

- percentages of villages electrified,
- number of irrigation pumps energised per geographical area,
- electricity generation capacity per population,
- road lengths per geographical area,
- railway length per geographical area,
- telephone lines per population, and
- post offices per population

The overall index is a simple average of all the sub-indices.

- The indices for the three state performance groups show a positive association with growth performance, between the HPSEs and the other two groups with an index value of 131.0 for the HPSE, 103.4 for the MPSE and 106.2 for the

LPSE groups. There is no clear distinction between the two lower performance groups.

- At a more disaggregated level, the positive link between high economic infrastructure index values and high GSDP growth rates is more apparent when we consider Tamil Nadu, Maharashtra and Gujarat with relatively high index value, and Orissa and Bihar in the LPSE group, which had the lowest index values.
- Clearly, this association did not hold consistently for all individual states. Punjab had the highest index value (185.3) but was in the LPSE. Kerala (177.5) was in the MPSE group. On the other hand, Karnataka with average infrastructure (102.8) was in the HPSE group and Madhya Pradesh (82.2) and Rajasthan (85.6) had low index values but were in the MPSE group.
- This suggests that relatively favourable economic infrastructure does not guarantee high growth performance, nor does relatively poor infrastructure necessarily prevent high growth rates. Clearly, there are other factors that influence economic growth.

➢ **Social**

A composite index of social indicators was also constructed from variables including number of hospital beds, female literacy and infant mortality rate (IMR). The values for the major 14 states and their performance groupings (Table 15) indicate:

- The three state performance groups showed a positive association between growth rates and this index, with average index values ranging from 130 for the HPSE group, to 117.1 for the MPSE and to 90.7 for the LPSEs. This strongly suggests that high GSDP growth rates are associated with better social infrastructure.
- Individual states' infrastructure rankings generally matched their grouping in growth performance, but there were exceptions. Kerala enjoyed the highest

state index value (243.6), but was placed in the MPSE group. Also, third ranked Punjab (133.6) was in the lowest growth group.

- As for economic infrastructure, these findings suggest that high index values and rankings for social infrastructure alone do not ensure high growth performance.

❑ State-Level Economic Reforms

➢ Power

The financial performance of State Electricity Boards (SEBs) has deteriorated in the 1990s. SEBs are required to achieve a 3% rate of return on fixed assets in service. In 1998-99, 10 of 17 had achieved positive returns, but of these only three had met the minimum target return (and with subsidies). The Plant Load Factor (PLF), an important indicator of operational efficiency in thermal power plants, has remained low for SEBs at around 60% in the late 1990s. They have also continued to experience high transmission and distribution losses. The gross subsidy of the state power sectors has risen to around 36% of the gross fiscal deficit of state governments in 1999-2000.

The restoration to financial health of the SEBs and the improvement in their operational efficiency are critical issues for the sector and the state governments and must be a key part of reform programs.

Basic requirements for these reforms are enabling legislation, organizational reforms and the setting up of the State Electricity Regulatory Committees (SERCs). Progress with these requirements has been variable and generally slow (Table 16):

- In the HPSE group, Karnataka is the most advanced state with power reforms, where a Bill has been passed, generation and transmission unbundled and a SERC established. In Gujarat, the reforms bill has been drafted, technical studies initiated and a SERC constituted. The two other

states have no legislative measures, are studying restructuring and tariff rationalization, and have set up SERCs.

- The MPSE and LPSE groups exhibit similar or more variability in progress towards satisfying each requirement.
- The reform process in the state power sectors is still at an early stage.

➢ **Fiscal Reform**

An important element of reform programs envisaged for the Centre and the States is the elimination of revenue deficits and reduction of fiscal deficits as key measures for the conduct of prudent and accountable fiscal policy and to facilitate greater macro-economic stability. Fiscal deficits have an impact on growth performance through the influence of fiscal stability or instability and through restrictions on funds available for developmental purposes.

- **Fiscal deficits**

Comparison of average fiscal deficits from 1994 to 1998 for the three state performance groups (Table 17) show:

- ✓ a negative association of growth rates and size of fiscal deficits. Deficits increase from 3.1% for the HPSE group to 5.1% for the LPSEs and suggest that greater fiscal responsibility has been exercised by the faster growing states.
- ✓ This pattern was also fairly consistent among states within each growth performance group. The lowest average state fiscal deficit was 2.9% for Maharashtra. The highest was 6.7% for Orissa.

- **Public Debt**

Public debt is another aspect of fiscal responsibility of the states. A comparison of debt as a percentage of GSDP with growth performance at state level in 1993-94 and 1999-2000 (Table 18) shows:

- ✓ a negative association between size of debt and growth rates. In 1993-94, debt rose from 15.6% of GSDP for HPSEs to 21.3% for MPSEs and to 31.4% for LPSEs.
- ✓ In 1999-2000, debt had grown for all three performance groups, rising to 16.7% for HPSEs, 25.3% for MPSEs and 35.3% for LPSEs.
- ✓ Debt had grown faster for the two slower performing state groups. Average annual debt growth was only 1.6% for HPSEs, but was 3% for LPSEs and 4.5% per annum for MPSEs.
- ✓ Rising interest and repayment bills are hampering the lower growth states much more than the high performers.

Analysis of Average Growth Performance of the States

Correlation analysis was applied to test relationships between growth rates of GSDP and of each of the three sectors, with each other, with shares each of the three sectors in real NSDP and of their industry components, with per capita levels of the three sectors and their industry components, and with indexes of infrastructure and social development (Table 19).

- In the 1980s,
  - the growth rate of real GSDP was most strongly and positively correlated with the growth rate of agriculture and less so with the other two sectors.
  - The growth rate of each sector was weakly correlated with those of the other sectors.
  - The growth rate of real GSDP was weakly correlated with the share of each sector in real NSDP

- There were sizeable positive correlation coefficients for growth rates and shares of agriculture in real NSDP
- There were substantial negative coefficients for growth rates of industry and shares of industry and of services.
- The growth rate of agriculture was substantially and positively correlated with per capita infrastructure and its components of electricity, gas and water, and transport, communications and communication.

- In the post-reform period of the 1990s:

  - The growth rate of real GSDP was most strongly and positively correlated with the growth rate of services and less so with agriculture and industry.
  - The growth rate of each sector was again weakly correlated with those of the other sectors.
  - The growth rate of real GSDP was strongly and negatively correlated with the share of agriculture in real NSDP and positively correlated with the share of services.
  - The growth rates of services was positively correlated with the share of industry in real NSDP and negatively correlated with the share of agriculture in NSDP.
  - The growth rate of agriculture was negatively correlated with its share in real NSDP.
  - The growth rate of real GSDP was positively and strongly correlated with infrastructure and with transport, storage and communications within infrastructure
  - This was principally due to the strong positive correlation between growth of services and these variables.
  - There was a strong positive correlation between growth of real GSDP and per capita public administration and the social development index.
  - This was also due to the strong positive correlation between growth of services and these variables.

- Thus in the pre-reform period, linkages appeared strongest between the growth of real GSDP and of agriculture and its determinants, in contrast with the post-reform period when the linkages for real GSDP growth were strongest through service growth and its determinants.

Concluding Remarks

The ordering of the 14 major states into three performance groups based on their rates of growth of GSDP in the reform period of 1993-99 has been fruitful in a number of ways. First, the ordering suggests some important geographical differentiation. The four HPSEs are maritime states and the three states with the most potential to become HPSEs (West Bengal, Andhra Pradesh and Kerala) are also maritime. Only one coastal state, Orissa, is excluded from this pattern. By contrast, states in the LPSE group, together with the relatively low performers in the MPSE group, are all northern hinterland states.

Second, the ordering revealed a consistent pattern with a range of variables considered as determinants of growth rates. All of these variables behaved in the expected fashion In their association with GSDP growth rates. These associations suggest several messages.

- A central message is given by the strong positive association between GSDP growth rates and investment levels in the reform period of the 1990s in the government and private sectors. This held for public and private sectors, and for the latter, for domestic and foreign direct investment with few state exceptions. It also held for total investment most recently, with few state exceptions.
- A second message is the importance of adequate economic and social infrastructure. This was manifest most strongly at the low end of the GSDP growth rates. States that rated low on these indexes were low growth states. This is consistent with investment flows.
- This gives rise to a third message for state governments in the light of the strong inverse associations between fiscal deficits and debt levels and GSDP growth rates.

State governments with high fiscal deficits and growing debt levels choke off the flow of government outlays on fixed capital formation. Moreover they fail to provide the necessary investment environment for investors. Corroborative evidence was found in the low rates of investment in the power sector during the 1990s, particularly in the LPSE and MPSE groups.

- A fourth message is the need for state governments to develop effective policy packages to accelerate growth in all three sectors simultaneously. The record of the 1990s reveals disappointing performances for most major states in industrial and agricultural sectors in the new era of economic reform. States have to be able to identify and promote investment opportunities on a sectoral basis that will be competitive enough to attract investment flows.
- At this point, the most prospective states for elevation to the HPSE group are those showing the best signals on key development variables of infrastructure, investment and policy environments. West Bengal already has a GSDP growth rate to qualify in the HPSE group. But the question is whether this can be sustained. Many of the other indicators put this in question. A first concern is its low ranking for industrial growth and its relatively narrow industrial base. Second, is its low ranking for economic infrastructure. Third, is its low ranking for a number of investment indicators, including low shares in proposed industrial investment in the 1990s and in FDI approvals. Fourth, the state has a weak record on fiscal responsibility and debt control.
- Andhra Pradesh is a second candidate for promotion. In many respects, this state closely parallels its neighbour Karnataka, but without the latter's high growth performance. In the 1990s, it was fourth ranked in agricultural sector growth and third ranked for industrial growth. Its weakness was in services, as Karnataka's was in agriculture. It is endeavouring to rectify this, particularly with the promotion of its expanding IT sector for which the state has a number of considerable advantages. It was ranked not far below Karnataka in economic and social infrastructure and was lower ranked in a majority of key investment indicators including FDI approvals and average growth rate and shares of private investment. It has an ambitious and visionary government policy on agricultural, industrial and service industry

development, including measures to attract new foreign investment. It is making a strong competitive pitch for its IT sector. It needs firmer fiscal control, but overall, it has the potential to lift performance progressively to reach HPSE status.

- Other states currently are more seriously disadvantaged by weaknesses in investment performance (Kerala, Haryana and Punjab) or weak infrastructure (Madhya Pradesh and Uttar Pradesh) or both (Orissa, Rajasthan, and Bihar) and are unlikely candidates for promotion in the short to medium term. Some of the reasons for the widening disparities, and the ways they can be narrowed have been identified in the above analysis, and can be a source of guidance for policy makers.
- The correlation analysis supports the view that service sector growth has been the prime driving force during the reform period, replacing agriculture in this role prior to the reforms, and that economic and social infrastructures are key influences on service sector growth. Further research is needed to deepen the analysis of determinants of growth in the reform period.

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Table 1. Regional Variation in the Size, Population and GSDP per Capita of India and its Major States, 1998-99.

State	GSDP Rs billion	% of All India	Population million	% of All India	GSDP/Capita in 1998-99 Rs	US$	Ranking
Maharashtra	1718	13.1	90.7	9.6	27,650	657	1
Uttar Pradesh	1100	12.3	168.6	17.9	10,189	242	12
Tamil Nadu	813	7.5	61.6	6.5	19,014	452	6
Andhra Pradesh	755	7.0	75.1	8.0	15,198	361	8
Gujarat	749	6.9	48.0	5.1	21,312	507	4
West Bengal	734	6.8	78.6	8.3	14,001	333	9
Madhya Pradesh	655	6.1	79.2	8.4	11,462	272	11
Karnataka	636	5.9	51.8	5.5	17,433	414	7
Bihar	493	4.6	99.2	10.5	6,680	159	14
Rajasthan	460	4.3	53.2	5.6	11,800	280	10
Punjab	385	3.6	23.4	2.5	23,460	558	2
Kerala	351	3.2	32.2	3.4	19,576	465	5
Haryana	290	2.7	19.7	2.1	22,151	527	3
Orissa	234	2.2	35.7	3.8	10,031	238	13
14 States	9372	86.6	917.0	97.2	14981	356	
All India	10818	100.0	943.0	100.0	16,532	393	

Source: Central Statistical Organisation, Government of India, New Delhi, available at the India States' Reform Forum 2000: Fiscal and Governance Reforms for Poverty Reduction, November 23-25, 2000, Taj Palace Hotel, New Delhi (www.statesforum.org)
Note: Gross State Domestic Product (GSDP) at state level and Gross Domestic Product (GDP) at the national level are in constant 1993-94 market prices

Table 2. High, Medium and Low Performance State Economies in India

State	% Average Annual Growth Rates of GSDP 1980-90	1993-99
High Growth		
Karnataka	5.7	8.1
Maharashtra	6.3	7.7
Tamil Nadu	5.6	7.4
Gujarat	6.4	6.8
Medium Growth		
West Bengal	4.3	6.9
Andhra Pradesh	6.7	6.3
Kerala	3.3	6.3
Haryana	6.3	5.6
Madhya Pradesh	4.3	5.4
Rajasthan	7.2	5.3
Low Growth		
Orissa	5.4	5.1
Punjab	5.7	5.0
Uttar Pradesh	5	4.3
Bihar	4.4	4.0
14 States	5.4	6.1
HPSEs	5.9	7.4
MPSEs	5.2	5.9
LPSEs	4.9	4.4
All India	5.7	6.6

Source: Central Statistical Organisation, Government of India, New Delhi, available at the website of the India States' Reform Forum 2000: Fiscal and Governance Reforms for Poverty Reduction, November 23-25, 2000, Taj Palace Hotel, New Delhi (www.statesforum.org)