Chapter 4

Analysis of Investment in States in India

4.0.0 According to Mohan (2002) a characteristic of the rapid development of East Asian economies in the 1980's and 90's was the 5-6 percent compounded increase in per capita income over a long period of 25 years. One of the main reasons for this achievement was the extremely high rate of investment. This included not only domestic investment but also foreign direct investment (FDI). Their attractiveness to set up businesses, ability to invest was one of the best measures of their relative competitiveness. This criteria is in the view of this researcher therefore one of the best to measure the relative competitive advantage of Indian states. However, while doing this analysis, since data is not available for all states and since this lack of data for the smaller and less important states does not significantly affect the results of the analysis, therefore this researcher proposes to limit the analysis in this Chapter only to major states as defined in Chapter 1.

4.0.1 Exact data on the actual total investments (excluding FDI for which data is available from the India Investment Centre of the Government of India (IIC) ) made in each of the states is not available from any source and one has to make assessments based on the data from the various studies/ surveys carried out by different organisations from time to time.

4.0.2 This researcher is only going to examine three recent surveys viz. the ones carried out by Business Today (BT) along with Gallup (a polling organisation) conducted in 2003 (hereinafter called the BTG survey) as a follow up of their two earlier studies of 1995,1997 and 1999, the results of which have been summarized in the Business Today
issue of September 28, 2003; the study carried out by the Rajiv Gandhi Institute of Contemporary Studies (RGICS) for the Confederation of Indian Industry (CII) in September 2000 (hereinafter called the RGICS study) and the study conducted by Goswami, Arun, Gantakolla, More, Mookherjee of the CII and Dollar, Mengistae, Hallward-Driemier and Iarossi of the World Bank (January 2002) wherein 1099 manufacturing companies operating in four major industrial sectors, viz. textiles, garments, pharmaceuticals and consumer electronics were surveyed to give their subjective views on the best states to invest in (hereinafter called the CII/ WB study). Even though there are some differences between their assessment of states, which are discussed later in this Chapter, most of these surveys give the same group of states as the best, good and worst states to invest in.

4.0.3 In the BTG survey, there is a perceptual ranking (i.e. the perception of investors with regard to the state), factual ranking (the position of the state based on actual realities) and once the eight important (out of a battery of) parameters were identified for each category of respondents (viz. CEOs and policymakers), a nett score for every state under each of the parameters was derived using

\[ \text{nett score} = \text{[percentage saying a parameter is important] x [(number of best state mentions x 2 + number of second best state mentions x 1 + number of worst state mentions x -2 + number of second worst state mentions x -1)]} \]

The nett scores for each state on all parameters were added to arrive at an interim score for each state. This was done for each category of respondents separately. The interim scores were used to rank the states within each respondent category. The interim scores
from the CEOs and policymakers categories were combined in the ratio of 60:40 to arrive at a total composite score and final ranking. A weight of 70:30 was assigned to perceptual and factual scores and the final ranking arrived at. Out of the top ten states the first five viz. Maharashtra, Andhra Pradesh (AP), Karnataka, Gujarat and Tamil Nadu are in the west and south. The relatively backward and isolated states viz. Bihar, Jharkhand, Assam, and the states in the north-east are relatively low in ranking.

4.0.4 In the RGICS study the ranking of states on twelve criteria including investment climate has been done (the survey has been discussed in detail earlier in Chapter 2 (Table 2.12)). Here even though Gujarat continues to have the best investment climate in India Punjab, Madhya Pradesh (MP), Goa, Karnataka, Tamil Nadu, Himachal Pradesh (HP), Haryana and AP have all been placed above Maharashtra. However, the fact remains that out of the top ten states with the best investment climate six are in the west and south of India.

4.0.5 The CII/WB survey ranks only ten states only on criteria affecting the investment climate. Here Gujarat and Maharashtra emerge as the states with the best investment climate in India. The next best states are three states in the South of India.

4.0.6 Despite some differences between the three studies/ surveys with regard to the exact position of states in attractiveness for investment, competitiveness, still the position of the states in the south and west being in the top ten and the states like Assam, Bihar and the states in the north-east being at the bottom is undisputed.
4.0.7 Further even though there are wide variations between states in the investments made by the Government of India, still it is the ability of the state governments themselves to make investments which determines its competitive advantage.

4.0.8 As discussed in detail later in Chapter 9 since the responsibility for establishing the major part of the physical and social infrastructure required to sustain development such as power, roads, irrigation, education is the responsibility of the states and local authorities, the flow of private sector investment to a state is to a large extent dependent on the volume and composition of state government investments in this sector.

4.0.9 The earlier policy of the states of giving extensive tax concessions and incentives in sales tax and other local levies in order to attract large investments in backward areas has been discontinued as the chief ministers on the request of the Union Finance Minister (a meeting attended by this researcher when he was holding additional charge of the post of Principal Secretary (Finance) of the State of Maharashtra) agreed and implemented the harmonisation of sales tax rates and the phasing out of sales tax-based incentives from the year 2000 (even though the other agreement on the introduction of value added tax has still not been implemented).

4.1.0 The BTG survey (2003) says that there has been plenty of movement among the top states. Nine out of the top fifteen have moved at least one notch up in the rankings from 1999; the rest, except Maharashtra and Tamil Nadu have dipped. Hard incentives such as tax relief’s and subsidies are important for moving MP, HP and Rajasthan up. Maharashtra has a clear edge on all infrastructural metrics such as power and proximity to markets, but it is AP which is perceived to be more industry friendly in terms of policy.
making, implementation and quality of administration. Karnataka scores high on labour availability, infrastructure like telecommunications and advanced banking facilities. HP and Haryana which figure in the top ten states, enjoy better perception than factual data should allow. West Bengal and Kerala are low on perception even though on factual rank they are among the top 10. Even Bihar the factual rank of 13 is much higher than the perception of last.

4.1.1 Tamil Nadu has a large pool of educated and relatively disciplined work force. It is comfortable on the power front but poor on roads and water (this is improving due to the world bank for roads and rain water harvesting). Despite investor friendly policies HP, MP and Rajasthan have poor infrastructure. Maharashtra attracted the maximum investment up to March 2003 viz. 250837 crores, Gujarat 198096 crores, AP 135625 crores, Tamil Nadu 80487 crores out of an all India total of 12,27,633 crores. Out of Rs. 162736 crores exports from India in 1999-2000 Maharashtra’s share was Rs. 40731 crores. Out of Rs. 202509 crores exports from India in 2000-2001 Maharashtra’s share was Rs. 63898 crores. Out of Rs. 167039 crores exports from India in 2001-2002 Maharashtra’s share was Rs. 66938 crores. In foreign direct investment (FDI) out of Rs. 285921 crores received by India from August 1991 till March 2003 Maharashtra’s share was Rs. 49615 crores (17.35 percent).

4.1.2 However, recent events such as the reported financial straits of the Government of Maharashtra, the adverse publicity due to the mishandling of the rehabilitation efforts after the earthquake of 26-1-2001, the riots after the Godhra rail burning incident in Gujarat have shown that these states cannot afford to rest on their laurels.
4.2.0 The BTG survey (2003) shows that the attractiveness of the southern states to investment has improved because of the flexibility of the state governments on policies, policy implementation, quality of local administration, the quality of power, the education facilities, etc. AP which was twenty second in 1996, leapt to fifth in 1997, third in 1999 and is now second all because of the systematic efforts of the state in attracting investments with its Chief Minister (CM) acting as a Chief Executive Officer (CEO) and received the third highest FDI in India till April 2003 viz. Rs. 1357 billion. Karnataka which was fourth in 1997, went down to sixth in 1999, is now third all because of the systematic efforts of the state in attracting investments with its CM acting as a CEO and the speed of response and handholding. The computer software and biotech clusters in Bangalore have worked in a self-reinforcing cycles and in a virtuous circle. In the last three years Karnataka has been the third largest recipient of FDI while AP has remained a distant sixth (Indian Express August 23, 2003)).

4.3.0 The BTG survey also shows that one of the northern states viz. Punjab is high on many of these competitiveness factors and therefore it has improved its position slightly from seventh in the 1997 and 1999 surveys to sixth in the 2003 survey because it has improved its perceptual rank to fifth. However, Delhi’s position has deteriorated from sixth in the 1997 survey and fourth in the 1999 survey to fourteenth because of exorbitant real estate prices, patchy infrastructure and the lack of real powers and the Supreme Court’s directive of December 2000, pushing some 39,000 polluting units out of Delhi (that put a question mark on further industrialization in Delhi) even though it has attracted more than 12 percent of the foreign direct investment flowing into the country.

4.3.1 This deterioration in Delhi’s position has occurred because of the power shortages created by the high transmission and distribution losses (a euphemism for the stealing of power), despite the privatization of the erstwhile Delhi Vidyut Board as a joint venture with the Bombay Suburban Electric Supply Company (BSES) and the change in its name into the BSES Rajdhani Power Limited.

4.4.0 The BTG Survey also concludes that the HP, MP and Rajasthan are gaining ground because investor-friendly policies are luring investors, but the three have a long way to go in terms of infrastructure. The three states have emerged as the big winners in the latest survey over the earlier surveys. MP has jumped seven places to No. 8 (it moved from 16th in the 1997 survey), HP’s moved up from 14th to 10th and Rajasthan from 11th (it moved from 13th in the 1997 survey) to 9th.

4.4.1 The conclusion of the BTG survey is that these three states are revving up. HP has a new industrial policy (unveiled in 2003) which is a big hit with investors. According to this it has offered a 100 year excise exemption and a five year income tax to select industries including pharmaceuticals and floriculture. It is therefore not surprising, that investors are pouring in. MP is also getting its act together, it has the highest number of projects under implementation and the Indore Special Economic Zone (SEZ) (the first in the country). This is despite the loss of Chhattisgarh where most of the minerals, water
and tourist destinations were located. Thus MP has been ranked as the eighth-best state to invest in despite scoring a low tenth position in perception.

4.4.2 Rajasthan is attracting unusual industries such as GE’s BPO centre because of Jaipur’s pool of well educated English-speaking graduates and easy access to Delhi.

4.5.0 The BTG survey also states that even though states like West Bengal, Uttar Pradesh and Kerala are victims of perception. The mere availability of relatively good infrastructure in these states (they are sixth, ninth and tenth respectively among Indian states) isn’t enough to attract investments because they are perceived as poor for investors (they have been ranked as twenty fifth, twenty fourth and twenty ninth respectively in perception) for a variety of reasons.

4.5.1 A similar situation prevails in Bihar where its factual position is thirteenth but its perceptual rank is the thirty first (i.e. the last). Despite its relatively better factual position the complete absence of governance in Bihar, ensures that it continues to languish at the bottom of the league of all states as in the previous surveys.

4.6.0 The natural beauty of the last group of states on the northern and eastern borders of India Viz. Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Sikkim, Tripura and Jammu & Kashmir makes them attractive tourist destinations. However, the security precautions due to terrorism which have had to be taken such as no cellular phones being permitted in Jammu & Kashmir till recently, insurgency in Assam, Nagaland and Mizoram, inner line and other restrictions in the other states keeps them on the fringes of development. In most of these states, there is considerable scope for growing fruits and their export, hydroelectric (hydel) power potential which is cheap and
this power could be exported to power short states. They could also make considerable
gains from cross border trade.

4.6.1 Despite the above potential advantages these nine states account for barely three per
cent of the total investment in India virtually all of this by the government of India, even
though there is a generous array of incentives on offer to private investors.

4.7.0 The flow of private investment into a state is also dependent on the volume and
composition of the investments made by the state government itself. According to a study
conducted in 1999 by the Business Intelligence Unit (hereinafter called the BIU study)-a
Chennai-based policy research and consultancy firm investments by the state
governments plays a considerable role in total investment in their respective states. In the
federal polity which India is with a large number of subjects in the state list (i.e. for
which only the state governments are responsible), and the responsibility for a majority of
the physical infrastructure viz. power, roads, irrigation is vested with the individual
states. They also have the responsibility for developing the social infrastructure necessary
to sustain the growth in the services sector.

4.7.1 The way the states compete for investment has changed completely due to the
growing recognition of the linkages between the policies of the state government and the
inflow of private investment. Earlier the states aggressively wooed investors by offering
an array of tax-concessions and sops. These have now been virtually stopped after a
decision in a meeting (which this researcher also attended when he was holding
additional charge of Principal Secretary (Finance) of Maharashtra) of State Finance/
Chief Ministers with the Union Finance Minister when it was unanimously resolved to
harmonise sales tax-rates, and phase out sales tax-based incentive-schemes from January, 2000. This was done (despite investors rating such concessions as crucial to their investment decisions) as it was estimated that the states had given away more than 25 per cent of their potential revenues in the form of various sales-tax exemptions and deferment schemes and could no longer afford such exemptions/ deferral.

4.7.2 According to some studies the fiscal deficits of all state governments, amounting to Rs. 94738.5 crores (a crore is equal to ten million) as per the revised estimates for 1999-2000 is already equivalent to 3.50 per cent of India's Gross Domestic Product (GDP). The National Council of Applied Economic Research (NCAER) is of the opinion that the revenue-losses inflicted by incentives outweigh the benefits generated by the investment lured in. This is aggravated by the parlous condition of state government finances making it difficult for them to finance investment from their own budgetary sources.

4.7.3 This ranking of states is supported by the CII-WB study which ranked the states on the best states to invest in. This shows a strong correlation between the subjective judgements of the managers and the per capita SDP of the states which gives an R-squared value of 0.6582, if the data for Delhi (which is an outlier according to the study) is not considered. If Delhi is considered then the R squared value for the entire sample becomes 0.28. The CII-WB study has used various parameters such as labour productivity (value added per worker and value added/ labour cost (in wage units)), number of visits by government officials, blended median cost of power, percentage of firms having their own generator sets and compared these with their ranking on investment climate. It has found that greater average value added per worker, lesser
number of average visits by government officials and lower number of firms having their own generator sets has a positive correlation with investment climate.

4.7.4 The relationship between labour productivity and investment climate is shown in Exhibit 4.0.

### Exhibit 4.0

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the State</th>
<th>Sample</th>
<th>Value added/ worker (Rs.)</th>
<th>Value added/ labour cost (in wage units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Maharashtra</td>
<td>250</td>
<td>244.6</td>
<td>4.52</td>
</tr>
<tr>
<td>2.</td>
<td>Gujarat</td>
<td>70</td>
<td>172.4</td>
<td>4.37</td>
</tr>
<tr>
<td>3.</td>
<td>Tamil Nadu</td>
<td>101</td>
<td>193.1</td>
<td>5.93</td>
</tr>
<tr>
<td>4.</td>
<td>Karnataka</td>
<td>132</td>
<td>178.0</td>
<td>4.10</td>
</tr>
<tr>
<td>5.</td>
<td>Andhra Pradesh</td>
<td>157</td>
<td>161.1</td>
<td>4.75</td>
</tr>
<tr>
<td>6.</td>
<td>Delhi</td>
<td>176</td>
<td>152.9</td>
<td>3.62</td>
</tr>
<tr>
<td>7.</td>
<td>Punjab</td>
<td>25</td>
<td>243.6</td>
<td>5.89</td>
</tr>
<tr>
<td>8.</td>
<td>Kerala</td>
<td>17</td>
<td>281.6</td>
<td>6.64</td>
</tr>
<tr>
<td>9.</td>
<td>West Bengal</td>
<td>109</td>
<td>124.3</td>
<td>4.00</td>
</tr>
<tr>
<td>10.</td>
<td>Uttar Pradesh</td>
<td>62</td>
<td>163.6</td>
<td>3.90</td>
</tr>
</tbody>
</table>

States with the best 320 225.2 4.49
States with good 390 174.2 4.67
States with medium 201 163.5 4.18
States with poor Inv.Clim. 188 137.7 4.18

Source: Table 3 of the CII and World Bank study.

4.7.5 If the data for Kerala are ignored because of the small sample size and a relatively large number of outlier responses, then Maharashtra one of the two states with the best investment climate has the highest value added per worker. The positive correlation is clear if the samples for Maharashtra and Gujarat are considered together, then their value per worker is Rs. 225.20. Thereafter the value added per worker declines continuously as one proceeds group wise from the best to the poor investment climate states. The difference in value added per worker between the two best investment climate states and the three poor investment climate states is almost 64 percent.
4.7.6 The basic conclusions of the study are that the states with the best and good investment climate enjoy higher value added per unit of labour cost vis-à-vis the States with medium and poor investment climates.

4.7.7 The relationship between the lower number of visits per annum by government officials and the investment climate of the states is shown in Exhibit 4.1.

Exhibit 4.1

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the State</th>
<th>Number of visits by Government Officials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td>11.5</td>
</tr>
<tr>
<td>Best Investment Climate</td>
<td></td>
<td>11.3</td>
</tr>
<tr>
<td>1.  Maharashtra</td>
<td></td>
<td>11.9</td>
</tr>
<tr>
<td>2.  Gujarat</td>
<td></td>
<td>8.3</td>
</tr>
<tr>
<td>Good Investment Climate</td>
<td></td>
<td>9.8</td>
</tr>
<tr>
<td>3.  Tamil Nadu</td>
<td></td>
<td>5.5</td>
</tr>
<tr>
<td>4.  Karnataka</td>
<td></td>
<td>11.0</td>
</tr>
<tr>
<td>5.  Andhra Pradesh</td>
<td></td>
<td>13.4</td>
</tr>
<tr>
<td>Medium Investment Climate</td>
<td></td>
<td>12.7</td>
</tr>
<tr>
<td>6.  Delhi</td>
<td></td>
<td>5.9</td>
</tr>
<tr>
<td>7.  Punjab</td>
<td></td>
<td>43.1</td>
</tr>
<tr>
<td>Poor Investment Climate</td>
<td></td>
<td>13.7</td>
</tr>
<tr>
<td>8.  Kerala</td>
<td></td>
<td>12.3</td>
</tr>
<tr>
<td>9.  West Bengal</td>
<td></td>
<td>10.2</td>
</tr>
<tr>
<td>10. Uttar Pradesh</td>
<td></td>
<td>14.9</td>
</tr>
</tbody>
</table>

Source: Adapted from Table 4 of the CII and World Bank study.

4.7.8 If Punjab which is an outlier is ignored then exhibit clearly establishes that as a rule the states with the best and good investment climates tend to lesser number of visits than the states with the medium and poor investment climates.

4.7.9 The relationship between investment climate and the mean cost of power are shown in Exhibit 4.2.

Exhibit 4.2

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the State</th>
<th>Frequency</th>
<th>Mean cost Rs./ Kilo watt hour (kwh.)</th>
<th>Median cost Rs./kwh.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td>949</td>
<td>4.43</td>
<td>4.15</td>
</tr>
<tr>
<td>Best Investment Climate</td>
<td></td>
<td>273</td>
<td>4.14</td>
<td>4.10</td>
</tr>
<tr>
<td>1.  Maharashtra</td>
<td></td>
<td>218</td>
<td>4.09</td>
<td>4.05</td>
</tr>
<tr>
<td>2.  Gujarat</td>
<td></td>
<td>55</td>
<td>4.35</td>
<td>4.22</td>
</tr>
</tbody>
</table>
Good Investment Climate 335 4.04 4.00
3. Tamil Nadu 129 3.91 4.00
4. Karnataka 114 3.98 4.00
5. Andhra Pradesh 92 4.28 4.09
Medium Investment Climate 183 4.61 4.50
Poor Investment Climate 158 4.43 4.15
8. Kerala 14 4.71 2.71
9. West Bengal 37 3.93 4.03
10. Uttar Pradesh 107 6.14 4.80

Source: Adapted from Tables 9 and 10 of the CII and World Bank study.

4.7.10 It shows that the mean cost of power of the best and good investment climate is considerably lower than the states with medium or poor investment climate. The high median cost for Delhi and UP was mainly due to the inefficiencies and power thefts. Till recently both also have very poor public power systems. However, with the trifurcation of the Uttar Pradesh State Electricity Board (into production, transmission and distribution companies) and the privatization of the Delhi Vidyut Board into generation and distribution companies things are expected to improve.

4.7.11 Due to the poor, uncertain and unstable power supply from the public grid many companies have to have their personal generators. The relationship between investment climate and percentage of firms having their own generator sets are shown in Exhibit 4.3.

Exhibit 4.3
Percentage of firms having their own generator sets in states

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the State</th>
<th>Average percentage of firms with their own generators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td>70.0</td>
</tr>
<tr>
<td>Best Investment Climate</td>
<td></td>
<td>45.0</td>
</tr>
<tr>
<td>1. Maharashtra</td>
<td></td>
<td>44.4</td>
</tr>
<tr>
<td>2. Gujarat</td>
<td></td>
<td>47.1</td>
</tr>
<tr>
<td>Good Investment Climate</td>
<td></td>
<td>75.8</td>
</tr>
<tr>
<td>3. Tamil Nadu</td>
<td></td>
<td>82.2</td>
</tr>
<tr>
<td>4. Karnataka</td>
<td></td>
<td>76.4</td>
</tr>
<tr>
<td>5. Andhra Pradesh</td>
<td></td>
<td>70.0</td>
</tr>
<tr>
<td>Medium Investment Climate</td>
<td></td>
<td>85.5</td>
</tr>
<tr>
<td>6. Delhi</td>
<td></td>
<td>85.1</td>
</tr>
<tr>
<td>7. Punjab</td>
<td></td>
<td>88.0</td>
</tr>
</tbody>
</table>
4.7.12 It shows a fairly strong correlation between investment climate and the percentage of firms having their own generator sets. The gap between these two states with the best investment climate and the other states with good, medium and poor investment climates is dramatic, with the states with good investment climates having an average of almost 76 percent (Tamil Nadu has a high of over 82 percent) and states with the medium and poor investment climates this percentage was around 85 percent. Installation of generators on this scale raises the weighted average cost of power and the total costs for firms in these states.

4.7.13 The overall subjective ranking of states with regard to investment climate in the CII-WB study measured by the percentage of respondents saying the state was best minus the percentage of respondents saying it was the worst is shown in Exhibit 4.4.

Exhibit 4.4
Subjective ranking of states with the best to worst investment climates

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the State</th>
<th>% saying the best minus the % saying the worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Maharashtra</td>
<td>38.6</td>
</tr>
<tr>
<td>2.</td>
<td>Gujarat</td>
<td>23.1</td>
</tr>
<tr>
<td>3.</td>
<td>Tamil Nadu</td>
<td>8.6</td>
</tr>
<tr>
<td>4.</td>
<td>Karnataka</td>
<td>7.8</td>
</tr>
<tr>
<td>5.</td>
<td>Andhra Pradesh</td>
<td>6.6</td>
</tr>
<tr>
<td>6.</td>
<td>Delhi</td>
<td>1.6</td>
</tr>
<tr>
<td>7.</td>
<td>Punjab</td>
<td>-0.7</td>
</tr>
<tr>
<td>8.</td>
<td>Kerala</td>
<td>-16.1</td>
</tr>
<tr>
<td>9.</td>
<td>West Bengal</td>
<td>-21.9</td>
</tr>
<tr>
<td>10.</td>
<td>Uttar Pradesh</td>
<td>-32.6</td>
</tr>
</tbody>
</table>

Source: From Table 2 of the CII and World Bank study (report in the Economic Times, Mumbai of 9 January 2002)
4.7.14 The CII-WB study shows that on almost all the parameters of the study which are state government dependent the best and good states fare better than the medium and poor states.

4.8.0 The total investment in a state is significantly dependent on the availability of funds with the Government of the state. This has four components:

(a) the ability of the State Government to itself invest;
(b) investment by the Central Government in the state;
(c) investment by the local private sector (including multinationals already in India); and
(d) investment by foreign parties / multinationals (FDI coming for the first time from outside India).

4.8.1 The ability of the State Government to itself invest depends on their the availability of finances with them and for this purpose the Revenue deficit, the GFD, the outstanding liabilities (because provision for them to be paid in time has to be made) and their own tax revenues are crucial. The percentage ratio on each of the first group of parameters as a percent of net state domestic product (NSDP) in 1999-2000 is shown in Exhibit 4.5. The percentage ratio on each of the second group of parameters in 2000-2001 is shown in Exhibit 4.6.

### Exhibit 4.5
How Solvent are states
(Ratios as a percent of NSDP in 1999-2000)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the state</th>
<th>Revenue deficit</th>
<th>Gross fiscal deficit</th>
<th>Outstanding liabilities</th>
<th>Own tax revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Orissa</td>
<td>6.8</td>
<td>9.9</td>
<td>48.2</td>
<td>4.5</td>
</tr>
<tr>
<td>2.</td>
<td>Bihar</td>
<td>4.9</td>
<td>5.1</td>
<td>37.7</td>
<td>5.0</td>
</tr>
<tr>
<td>3.</td>
<td>Punjab</td>
<td>4.3</td>
<td>7.1</td>
<td>35.6</td>
<td>6.3</td>
</tr>
<tr>
<td>4.</td>
<td>Rajasthan</td>
<td>3.9</td>
<td>5.9</td>
<td>32.0</td>
<td>5.0</td>
</tr>
<tr>
<td>5.</td>
<td>Uttar Pradesh</td>
<td>5.6</td>
<td>7.0</td>
<td>31.1</td>
<td>8.0</td>
</tr>
<tr>
<td>6.</td>
<td>Kerala</td>
<td>5.6</td>
<td>7.0</td>
<td>31.1</td>
<td>8.0</td>
</tr>
</tbody>
</table>
4.8.2 Considering the solvency of major states exhibit 4.5 shows that if a cutoff figure of 3 percent of NSDP for revenue deficit is taken then with the exception of Kerala in the south and Haryana in the north all the states below this figure are in the south and west and above this figure are in the north and east.

4.8.3 Exhibit 4.5 also shows that if a cutoff figure of 5 percent of NSDP for GFD is taken then with the exception of Gujarat in the west and Haryana and MP in the north all the states below this figure are in the south and west and above this figure are in the north and east.

4.8.4 Exhibit 4.5 further shows that if a cutoff figure of 25 percent of NSDP for outstanding liabilities is taken then with the exception of Haryana in the north all the states below this figure are in the south and west and above this figure are in the north and east.

4.8.5 Exhibit 4.5 further shows that if a cutoff figure of 7 percent of NSDP for own tax revenues is taken then with the exception of Haryana in the north all the other states are above this figure are in the south and west and below this figure are in the north and east.

4.9.0 The fiscal indicators of states by themselves are important but their ratios are even more important. Exhibit 4.6 shows these.
Exhibit 4.6
How bad are the fiscal indicators of states?
(Ratios as a percent in 2000-01)

<table>
<thead>
<tr>
<th>Name of the state</th>
<th>Non-development to total expenditure</th>
<th>Interest payments to revenue receipts</th>
<th>Own tax revenue to revenue expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Karnataka</td>
<td>29.7</td>
<td>16.2</td>
<td>53.9</td>
</tr>
<tr>
<td>2. Tamil Nadu</td>
<td>32.9</td>
<td>16.3</td>
<td>56.3</td>
</tr>
<tr>
<td>3. Madhya Pradesh</td>
<td>34.0</td>
<td>17.4</td>
<td>34.8</td>
</tr>
<tr>
<td>4. Maharashtra</td>
<td>34.6</td>
<td>18.4</td>
<td>56.9</td>
</tr>
<tr>
<td>5. Andhra Pradesh</td>
<td>29.9</td>
<td>20.2</td>
<td>45.8</td>
</tr>
<tr>
<td>6. Bihar</td>
<td>36.8</td>
<td>20.9</td>
<td>20.5</td>
</tr>
<tr>
<td>7. Gujarat</td>
<td>23.4</td>
<td>21.4</td>
<td>39.4</td>
</tr>
<tr>
<td>8. Haryana</td>
<td>33.0</td>
<td>21.8</td>
<td>54.9</td>
</tr>
<tr>
<td>9. Kerala</td>
<td>37.4</td>
<td>22.6</td>
<td>49.9</td>
</tr>
<tr>
<td>10. Punjab</td>
<td>43.6</td>
<td>23.8</td>
<td>40.1</td>
</tr>
<tr>
<td>11. Rajasthan</td>
<td>36.7</td>
<td>27.0</td>
<td>35.4</td>
</tr>
<tr>
<td>12. Uttar Pradesh</td>
<td>38.7</td>
<td>30.4</td>
<td>31.7</td>
</tr>
<tr>
<td>13. Orissa</td>
<td>37.8</td>
<td>30.9</td>
<td>25.3</td>
</tr>
<tr>
<td>14. West Bengal</td>
<td>35.3</td>
<td>35.8</td>
<td>28.3</td>
</tr>
</tbody>
</table>


4.9.1 If a cutoff figure of 35 percent of non-development to total expenditure is taken then with the exception of Kerala in the south and MP and Haryana in the north all the states below this figure are in the south and west and above this figure are in the north and east.

4.9.2 A factor which should be helpful in increasing investment in states is the interest on internal debt of the state + loans which the state is able to raise for development purposes compared to total receipts. Exhibit 4.6 also shows that if a cutoff figure of 20.5 percent of interest payments to revenue receipts is taken then with the exception of Gujarat and Kerala in the south and west and MP in the north and east all the states below this figure are in the south and west and above this figure are in the north and east.

4.9.3 Another factor which should be helpful in increasing investment in states is the availability of its own funds which is the ratio of its own tax revenues to revenue expenditure. Exhibit 4.6 further shows that if a cutoff figure of 50 percent is taken for this
ratio then with the exception of AP and Kerala (this is only marginally below 50 percent) in the south and Haryana in the north and east all the states above this figure are in the south and west and below this figure are in the north and east.

4.9.4 The exhibits 4.5 and 4.6 show that with some exceptions the states in the south and west have lower revenue deficits, GFDs, outstanding liabilities and greater own tax revenues, higher non-development to total expenditure, lower interest payments to revenue receipts and higher own tax revenue to revenue expenditure. In short because of the above position, with some exceptions more money is available with the states in the south and west for investment purposes and thus their ability to invest greater amounts in infrastructure. Because of their greater ability to invest, most of the states in the west and south were able to get their investments in infrastructure right (this was despite having to pay much higher wages to their servants due to the recommendations of the Fifth Central Pay Commission) to attract further investments while the some of the large states in the North viz. UP and MP were not able to get their investments in infrastructure right to be able to attract higher investment.

4.10.0 A further factor adding to the investment in the states is the amount of Government of India assistance/ plan investment in the state’s annual/ five year plans.

4.10.1 Since states vary in their size/ population and their stage of development the best measure for this is the per capita central government investment in the annual plans of the states and in particular the growth in the per capita central government investment in their annual plans. Exhibits 4.7 and 4.8 give the respective positions on these two criteria.

Exhibit 4.7
### Per Capita Central Investment in State Plans

**In Rupees**

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Name of the State and the category in which they fall</th>
<th>Year</th>
<th>1997-98</th>
<th>1998-99</th>
<th>1999-2000</th>
</tr>
</thead>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Arunachal Pradesh</td>
<td></td>
<td></td>
<td>4734</td>
<td>5162</td>
<td>5406</td>
</tr>
<tr>
<td>b) Assam</td>
<td></td>
<td></td>
<td>510</td>
<td>553</td>
<td>608</td>
</tr>
<tr>
<td>c) Himachal Pradesh</td>
<td></td>
<td></td>
<td>1106</td>
<td>1538</td>
<td>1334</td>
</tr>
<tr>
<td>d) Jammu &amp; Kashmir</td>
<td></td>
<td></td>
<td>2546</td>
<td>2724</td>
<td>2861</td>
</tr>
<tr>
<td>e) Manipur</td>
<td></td>
<td></td>
<td>1817</td>
<td>2092</td>
<td>2266</td>
</tr>
<tr>
<td>f) Meghalaya</td>
<td></td>
<td></td>
<td>1593</td>
<td>1789</td>
<td>1958</td>
</tr>
<tr>
<td>g) Mizoram</td>
<td></td>
<td></td>
<td>3679</td>
<td>3870</td>
<td>4298</td>
</tr>
<tr>
<td>h) Nagaland</td>
<td></td>
<td></td>
<td>2375</td>
<td>2278</td>
<td>2506</td>
</tr>
<tr>
<td>i) Sikkim</td>
<td></td>
<td></td>
<td>4525</td>
<td>4893</td>
<td>6213</td>
</tr>
<tr>
<td>j) Tripura</td>
<td></td>
<td></td>
<td>1306</td>
<td>1832</td>
<td>1960</td>
</tr>
<tr>
<td><strong>2. Non Special Category</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Andhra Pradesh</td>
<td></td>
<td></td>
<td>290</td>
<td>409</td>
<td>421</td>
</tr>
<tr>
<td>b) Bihar</td>
<td></td>
<td></td>
<td>183</td>
<td>200</td>
<td>233</td>
</tr>
<tr>
<td>c) Goa</td>
<td></td>
<td></td>
<td>562</td>
<td>575</td>
<td>653</td>
</tr>
<tr>
<td>d) Gujarat</td>
<td></td>
<td></td>
<td>255</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>e) Haryana</td>
<td></td>
<td></td>
<td>358</td>
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<tr>
<td>f) Karnataka</td>
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<td></td>
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<td>239</td>
<td>318</td>
</tr>
<tr>
<td>g) Kerala</td>
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<td></td>
<td>253</td>
<td>239</td>
<td>318</td>
</tr>
<tr>
<td>h) Madhya Pradesh</td>
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<td></td>
<td>196</td>
<td>274</td>
<td>282</td>
</tr>
<tr>
<td>i) Maharashtra</td>
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<td></td>
<td>243</td>
<td>205</td>
<td>162</td>
</tr>
<tr>
<td>j) Orissa</td>
<td></td>
<td></td>
<td>395</td>
<td>445</td>
<td>554</td>
</tr>
<tr>
<td>k) Punjab</td>
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<td></td>
<td>441</td>
<td>305</td>
<td>325</td>
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<tr>
<td>l) Rajasthan</td>
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<td></td>
<td>232</td>
<td>274</td>
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<td>m) Tamil Nadu</td>
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<td>297</td>
<td>284</td>
<td>260</td>
</tr>
<tr>
<td>n) Uttar Pradesh</td>
<td></td>
<td></td>
<td>250</td>
<td>275</td>
<td>386</td>
</tr>
<tr>
<td>o) West Bengal</td>
<td></td>
<td></td>
<td>306</td>
<td>357</td>
<td>426</td>
</tr>
</tbody>
</table>

Source: Answer to Lok Sabha Unstarred Question No. 1448 (Ministry of Planning & Programme Implementation) as reported in The Hindu Business Line of March 15, 2001.

**Exhibit 4.8**

Growth in per capita Central investment in State plans

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Name of the State</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Special Category</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>a) Arunachal Pradesh</td>
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<td>244</td>
<td>672</td>
<td></td>
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<tr>
<td>b) Assam</td>
<td>43</td>
<td>55</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>c) Himachal Pradesh</td>
<td>432</td>
<td>-204</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>d) Jammu &amp; Kashmir</td>
<td>178</td>
<td>137</td>
<td>315</td>
<td></td>
</tr>
<tr>
<td>e) Manipur</td>
<td>275</td>
<td>174</td>
<td>449</td>
<td></td>
</tr>
<tr>
<td>f) Meghalaya</td>
<td>196</td>
<td>169</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>g) Mizoram</td>
<td>191</td>
<td>428</td>
<td>619</td>
<td></td>
</tr>
<tr>
<td>h) Nagaland</td>
<td>-97</td>
<td>228</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>i) Sikkim</td>
<td>368</td>
<td>1320</td>
<td>1688</td>
<td></td>
</tr>
<tr>
<td>j) Tripura</td>
<td>526</td>
<td>128</td>
<td>654</td>
<td></td>
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<tr>
<td><strong>2. Non Special Category</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>a) Andhra Pradesh</td>
<td>119</td>
<td>12</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>b) Bihar</td>
<td>183</td>
<td>200</td>
<td>233</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Goa</td>
<td>13</td>
<td>78</td>
<td>91</td>
</tr>
<tr>
<td>d)</td>
<td>Gujarat</td>
<td>45</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td>e)</td>
<td>Haryana</td>
<td>140</td>
<td>26</td>
<td>166</td>
</tr>
<tr>
<td>f)</td>
<td>Karnataka</td>
<td>21</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>g)</td>
<td>Kerala</td>
<td>-14</td>
<td>79</td>
<td>65</td>
</tr>
<tr>
<td>h)</td>
<td>Madhya Pradesh</td>
<td>78</td>
<td>8</td>
<td>86</td>
</tr>
<tr>
<td>i)</td>
<td>Maharashtra</td>
<td>-38</td>
<td>-43</td>
<td>-81</td>
</tr>
<tr>
<td>j)</td>
<td>Orissa</td>
<td>50</td>
<td>109</td>
<td>159</td>
</tr>
<tr>
<td>k)</td>
<td>Punjab</td>
<td>-136</td>
<td>20</td>
<td>-116</td>
</tr>
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<td>l)</td>
<td>Rajasthan</td>
<td>42</td>
<td>44</td>
<td>86</td>
</tr>
<tr>
<td>m)</td>
<td>Tamil Nadu</td>
<td>-13</td>
<td>-24</td>
<td>-37</td>
</tr>
<tr>
<td>n)</td>
<td>Uttar Pradesh</td>
<td>25</td>
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<td>136</td>
</tr>
<tr>
<td>o)</td>
<td>West Bengal</td>
<td>51</td>
<td>69</td>
<td>120</td>
</tr>
</tbody>
</table>


Note a negative figure indicates that Central investment in the State's plan has decreased in per capita terms from the year with which it is being compared.

1) 1998-99 over 1997-98
3) 1999-2000 over 1997-98

4.10.2 The two exhibits show that the special category states in the north–east and along the borders of India enjoy a significantly greater (between 4 to 10 times) per capita central investment in their state plans as compared to the per capita investment in the non special category states. It is the special category states with the exception of Assam and in one year Nagaland which enjoy a significantly greater increase over the non special category states.

4.11.0 The last component affecting the total investment in States is foreign direct investment (FDI).( This is discussed in detail in Chapter 7 (Exhibits 7.4 and 7.5)).

4.11.1 The figures (Business Line 11th December 2002) clearly show that out of a total FDI of Rs. 3555002 received from August 1991 till July 2002 it was the eight states in the south and west (particularly the western state of Maharashtra with the highest figure of around 14 percent over the eleven year period) which drew in over 36 percent and Delhi which attracted 9.52 percent i.e. the states in the west and south plus Delhi attracted 45.52 percent of FDI up to July 2002.
4.11.2 In the last three years (2000-2002) (Indian Express August 23, 2003) this has been changed and further aggravated with Delhi surging ahead of Maharashtra to a figure of 28.86 percent of the all India FDI (reflecting to some extent the recent perception of Maharashtra's weaknesses). However, Maharashtra was a close second with 28.17 percent. Thus once again it was the eight states in the south and west which drew in over 45 percent of the FDI into India. In these years the states in the west and south plus Delhi attracted over 74 percent of FDI (almost three fourths).

4.11.3 AP and Gujarat which earlier were attractive states for FDI having received over 5 percent and 3.7 percent of all India FDI respectively, in the eleven year period up to July 2002 received reduced /very little FDI during the three year period 2000-2002 i.e. slightly over 2 and under 1 percent respectively (reflecting to some extent the recent perception of their weaknesses viz. weaknesses in the power sector and lack of infra structure outside the twin cities of Hyderabad and Secunderabad in the case of AP and the earthquake in Kutch and the later riots in the case of Gujarat).

4.11.4 Thus the states in the south and west and Maharashtra in particular added the advantage of FDI to their other competitive advantages such as nearness to markets, etc.

4.12.0 Finally as a confirmation of the above discussion the investment ranking of the states as per the RGICS study is shown in exhibit 4.9.

Exhibit 4.9
Investment ranking of the states

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Investment rank</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>8</td>
<td>0.1</td>
</tr>
<tr>
<td>Bihar</td>
<td>16</td>
<td>-1.8</td>
</tr>
<tr>
<td>Delhi</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Goa</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>State</td>
<td>Rank</td>
<td>Score</td>
</tr>
<tr>
<td>-----------------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>Gujarat</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Haryana</td>
<td>12</td>
<td>-0.2</td>
</tr>
<tr>
<td>Karnataka</td>
<td>10</td>
<td>-0.1</td>
</tr>
<tr>
<td>Kerala</td>
<td>5</td>
<td>0.3</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>11</td>
<td>-0.2</td>
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<td>1.0</td>
</tr>
<tr>
<td>Orissa</td>
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<td>-1.4</td>
</tr>
<tr>
<td>Punjab</td>
<td>7</td>
<td>0.3</td>
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<tr>
<td>Rajasthan</td>
<td>13</td>
<td>-0.4</td>
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<tr>
<td>Tamil Nadu</td>
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<td>0.3</td>
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<td>Uttar Pradesh</td>
<td>14</td>
<td>-1.3</td>
</tr>
<tr>
<td>West Bengal</td>
<td>9</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Source: RGICS study on “How are the states doing”.

4.12.1 The rankings of the RGICS confirm the position of the western and southern states and Delhi being the foremost in investment. Gujarat and Maharashtra clearly reflect their premier position. However, there is a major difference between the RGICS and the BTG surveys in the position of Delhi (viz. first and fourteenth).

4.13.0 The conclusion is that as concluded by the BTG and CII/WB surveys and the RGICS rankings it is the states in the west and south and Delhi which have been able to maximize investment (including attracting FDI) in India. This is because of greater urbanization, the consequent higher literac
References

2. Business Intelligence Unit, Chennai “Role of the State Governments in the total investment in a state” study conducted in 1999.
13. Presentation by the Principal Secretary (Finance), Finance Department, Government of Maharashtra to the Committee of Secretaries on the Fiscal and Revenue deficits of the state, (2001).
17. The Rajiv Gandhi Institute of Contemporary Studies, New Delhi(RGICS) for the Confederation of Indian Industry (CII) “How the States are doing” (September 2000).
18. Website of the India Investment Centre (who have taken it from the Secretariat for Industrial Approvals (SIA) of the Ministry of Industry, Government of India.