

# India on the Growth Turnpike: No State Left Behind

Arvind Panagariya<sup>\*</sup>

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\* The author is Professor of Economics and Jagdish Bhagwati Professor of Indian Political Economy at Columbia University. He can be reached at [ap2231@Columbia.Edu](mailto:ap2231@Columbia.Edu). Work on this paper has been supported by Columbia University's Program on Indian Economic Policies, funded by a generous grant from the John Templeton Foundation. The opinions expressed in the paper are those of the author and do not necessarily reflect the views of the John Templeton Foundation. Grateful thanks are due to R. C. Mody for pointing out an important error in an earlier draft of the paper.

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Vijay Kelkar is that rare policy economist who can see economic policy reforms necessary to promote growth and poverty alleviation before anyone else, effectively communicate the rationale behind them to policy makers and wider public and sometimes even successfully implement them himself. In a paper published in 1999 (Kelkar 1999), Vijay spelt out the entire gamut of reforms necessary to place the economy on a higher-growth path. While the then National Democratic Alliance (NDA) government implemented many of these reforms, many others remain on the current agenda of most reform-minded economists.<sup>1</sup>

In this remarkably succinct four-page article, published in the *Economic and Political Weekly*, Vijay even called for “innovative measures for creating a social safety net, such as the employment guarantee schemes of Maharashtra” that the United Progressive Alliance (UPA) went on to introduce years later under the title of the “National Rural Employment Guarantee Scheme.” In the paper, Vijay also pointed out that India needed to replace product based subsidies including those on food by “food stamps and education vouchers” that find overwhelming support among economists today but, unfortunately, meet resistance from politicians who instinctively go for more opaque instruments.

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<sup>1</sup> In the paper, Kelkar (1999) emphasized the need for the “parliament to adopt the Fiscal Responsibility Act,” “simultaneous action both at the center and the states to increase user charges particularly of electricity, water, transport, etc,” “privatization of non-strategic public sector enterprises including banking sector,” promotion of “transparency and good governance,” “an independent monetary authority by giving greater independence to the Reserve Bank of India,” “strengthening of independent regulatory agencies such as SEBI, TRAI, CERC, etc, and treating their independence at par with that of the judiciary,” “reduction of both short-term and long-term real interest rates,” “competition in product markets and the services sector by allowing free entry and freer international trade,” “flexibility in labor markets, reform of “laws of bankruptcy and corporate control” and “financial markets,” “innovative measures for creating a social safety net, such as the employment guarantee schemes of Maharashtra,” replacing product based subsidies including food subsidies by “food stamps and education vouchers for meeting the needs of the socially disadvantaged and weaker sections of society” (“government can be a financier but need not be a producer of such services”) and taking the reforms “to the level of the states.”

Kelkar (1999) also understood and emphasized before most others the connection between reforms and the demographic pattern in the Indian context. But rather than mindlessly claim the inevitability of accelerated growth just because India now had a younger labor force that was getting younger by the day, as many commentators erroneously do, he powerfully cited this phenomenon as the *reason* for the urgency of reforms. Putting his background in Physics to good use, he argued (Kelkar 1999, p. 2329):

The reason for emphasizing urgency [of reforms] is the unique state of our demographic transition. In the next couple of decades India will have the once-in-a-lifetime chance of having a population structure where the share of the working population will be the largest. After these decades, the process of aging will catch up and the vigor of the working population will decline. When a satellite is put into orbit, it requires high velocity to ensure exit from the earth's gravitational force, similarly, if our economy is to exit from the gravitational pull of poverty, it requires an exit velocity of double-digit growth rate over the next two decades.

Vijay also has an uncanny ability to predict big economic changes before other analysts even when the latter are armed with large-scale forecasting models. While I like to claim the credit for being the first to predict India's shift to 5 to 7 percent growth path in a paper (Panagariya 1994) cautiously titled "India: A New Tiger on the Block?" in view of the fragility of reform process at the time, Vijay was perhaps the first to predict the shift to the current near-double-digit growth path in his K. R. Narayanan Oration (Kelkar 2004) boldly titled "India: On the Growth Turnpike." He was clearly among the first to appreciate the breadth and depth of the reforms Prime Ministers Rajiv Gandhi,

Narasimha Rao and Atal Bihari Vajpayee had by then cumulatively put in place. To underline the point, it is worthwhile to recall the concluding paragraph of his oration in its entirety:

Now, I would like to sum up. Thanks to painstaking policy reforms initiated over the last two decades by successive Governments, I believe that India is at the threshold of 'a golden age of growth', with India's democratic framework being a key growth fundamental. It seems to me that, over time, India has paid the 'fixed costs' of democracy in terms of the creation of institutional infrastructure, traditions and conventions. Further, India's democratic system has also internalized what Prime Minister Vajpayee calls *Coalition Dharma*, showing that coalitions can provide stable government and push economic reforms. This means that in the future, the economy can reap the dividends from the resultant systemic stability. Thus, India - riding the wave of growth fundamentals such as demographic transition, human capital accumulation, improved incentive structures, diffusion of new technologies such as IT, total factor productivity accelerators through 'network industries', and an improved security environment - will be growing at growth rates which can be above 10% per annum i.e. double digit growth rates. There is an ineffable sense of joy for me personally, and professionally, to see India embark on this growth odyssey, a journey that I call 'India: On the growth turnpike'.

The shift to double-digit or even higher growth Vijay had predicted has so far not come true but something very close to it has happened. India clocked the steady annual average growth of 8.5 percent for six years beginning in 2003-04 and ending in 2008-09.

Even during the crisis year of 2008-09, the country pulled off an impressive 6.7 percent growth and recovered in the second quarter of 2009-10—the latest quarter for which we have the data—to 7.9 percent. The country is almost certain to perform even better in the remaining two quarters of the financial year 2009-10.

Against the backdrop of these developments, I recently asked Vijay whether in his view India could transition to growth rates of 10 percent or higher even recognizing the reluctance of the UPA to carry forward the reform agenda. His answer was an emphatic yes. The reason, according to him, is the momentum and energy he has witnessed in almost every one of India's states that he visited as the Chairman, Thirteenth Finance Commission as a mandatory part of the Commission's consultation process.

This then is the long-winded background to the present paper. The paper honors Vijay by undertaking a detailed investigation of growth in various states of India in recent years to throw light on his hypothesis of India's impending transition to double-digit growth. My conclusion, in nutshell, is that data support Vijay's observation during his state visits in one important respect: growth momentum has reached almost all states in India. Since 2003-04, the year in which the national shift to 8 to 9 percent took place, virtually every state has grown faster than in any of the previous periods for which data are available. Nearly all of them have also crossed the 6 percent threshold of growth. If we combine this shift with the hypothesis Jagdish Bhagwati and I offered in our *Wall Street Journal* (Bhagwati and Panagariya, 2004) that increased prospects of change turn the electorate more demanding and therefore create a more favorable environment for growth-enhancing reforms, especially at the level of the state, a sound basis for Vijay's optimism is established.

The remainder of the paper is divided into four sections. In Section 1, I identify large and small states and Union territories and examine the growth experience in 18 larger states representing 93 percent of India's population. I show that every single one of these states has seen its growth accelerate during 2003-04 to 2008-09 relative to all prior periods no matter how we define these periods. In Section 2, I consider the impact on poverty in these same states. I show that between 1993-94 and 2004-05, which can be largely identified as the post-reform period, poverty fell in every one of these states. In Section 3, I repeat this analysis for the smaller states and UTs accounting for the remaining 7 percent of the country's population. The smaller states include the three newest states carved out of Madhya Pradesh, Bihar and Uttar Pradesh in November 2000, six tiny states created out of Assam beginning with Nagaland in 1963, Sikkim and Goa. I demonstrate that the same broad pattern found in the larger states applies to smaller states. With rare exceptions, growth has significantly accelerated in all smaller states and UTs during 2003-09 and poverty has declined uniformly between 1993-94 and 2004-05. Indeed, data exhibit such an impressive decline in poverty in the six states carved out of Assam that I feel forced to speculate whether this may not have resulted from sampling and non-sampling errors.

## **1. Growth: No State Left Behind**

Any state level analysis must begin with the qualification that the quality of the data for states is not as good as that for the country as a whole.<sup>2</sup> The Central Statistical Organization (CSO), which compiles the data, specifically warns at the bottom of each

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<sup>2</sup> Although formally the Central Statistical Organization (CSO) is the source of the State-level data, the latter are actually compiled by respective states. CSO simply reproduces the data it receives from the states.

table that the data are not strictly comparable across states and Union Territories (UTs) due to differences in “methodology of compilation”. There are also bound to be differences in the underlying prices at which output is valued in different states. Additionally, we encounter difficulties in comparison over time since the CSO provides data for different periods using different base years. Nevertheless, these data being the only ones available and surely of much better quality than those available for most developing countries, there is ample justification for inferring some broad trends.

I begin with a broad perspective on the Indian states and UTs from the economic standpoint. Table 1 reports the Net State Domestic Product (NSDP) in all 28 states except Nagaland and four UTs (Andaman & Nicobar, Chandigrah, Delhi and Puducherry) in the descending order in the year 2006-07.<sup>3</sup> While data for many states and UTs are available for years 2007-08 and 2008-09, 2006-07 is the latest year for which they are available for all states except Nagaland and the four UTs.

The key observation from Table 1 is that once we get past Jammu and Kashmir, the remaining states and UTs are tiny from the national perspective. Of the 31 states and UTs listed, last 10 produced output worth less than 100 billion rupees or \$2 billion. Going by the information available for 2005-06, Nagaland also falls below these thresholds. This leaves only 20 states and Delhi with NSDP exceeding 100 billion rupees. Whereas it is important to analyze the smaller entities—8 states and 3 UTs— from the standpoint of welfare of their respective citizens, at least in an accounting sense, economic outcomes in them have very limited consequences for the country as a whole. This conclusion calls for focusing at least the initial analysis on the 20 larger states and

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<sup>3</sup> The remaining UTs—Dadra and Nagar Haveli, Daman and Diu and Lakshadweep—are tiny and not considered in this paper.

Delhi. Out of this smaller group, three states—Chhattisgarh, Jharkhand and Uttarakhand—were created only recently in November 2000. Therefore, our initial focus is on 17 states and Delhi, which together accounted for 93 percent of the population as per 2001 census. We will return to the small states and UTs and the recently created states later.

Before I turn to the growth experience of the restricted set of states and Delhi, however, it is useful to examine the pattern of per-capita NSDP across all 28 states and four UTs. The latest year for which we have NSDP data for all states and UTs is 2006-07. For most but not all states and UTs, it is also available for the following two years. Therefore, in Table 2, I report per-capita NSDP for years 2005-06, 2006-07 and 2007-08 at 1999-2000 prices for all states and UTs when available. The states and UTs are now ranked from the highest to lowest per-capita NSDP in the year 2005-06. There are occasional shifts in the rankings between two adjacent entities during 2006-07 and 2007-08 but not drastic movements.

Three points regarding per-capita NSDP may be gleaned from table 2. First, Chandigarh, Goa and Delhi in that order exhibit per-capita income levels that are exceptionally high relative to all other states and UTs. Chandigarh is the capital of both Punjab and Haryana—two of the most prosperous states—and Delhi of India. Goa is the smallest state by area and attracts tourists from around the world. Given these special circumstances of the top three, Haryana and Maharashtra in that order are the richest states. Even in these cases, the closeness of Haryana to Delhi and the presence of Mumbai in Maharashtra play a crucial role. Second, based on 2005-06 data, strictly speaking, only 43 percent of the population enjoys income above the countrywide

average. Andhra Pradesh is the last state to qualify as having income above India-wide average. If we take a slightly more relaxed attitude, however, and count Sikkim, Uttarakhand and West Bengal as more or less having income equal to the countrywide average, the proportion of population enjoying the national per-capita income rises to 51.8 percent. Finally, Madhya Pradesh, Uttar Pradesh and Bihar, accounting for 30.1 percent of India's population remain the three poorest states of India. Per-capita incomes in these states at 1999-2000 prices remained below 15,000 rupees in 2007-08. In considering the growth experience below, special attention will have to be paid to these and other states at the low end of per-capita income spectrum.

I finally turn to the growth experience of the 17 largest states and Delhi. For expositional convenience, in the rest of the paper, I will refer to Delhi as a state as well. Given this UT has its own Chief Minister and cabinet to look after most aspects of its local administration, this is not altogether without justification. Table 3 reports the average annual growth rates of NSDP for selected periods between 1981-82 and 2008-09 for the 18 states. Based on the sharpness of differences in the national growth rates, I have divided the post-1980 period into two parts in my book *India: The Emerging Giant* (Panagariya 2008, chapter 1): 1981-82 to 1987-88 and 1988-89 and beyond. Given the smaller number of years exhibiting 8 to 9 percent growth rate at the time I wrote the book, I also hypothesize the emergence of a second break in the growth rate in the year 2003-04. This hypothesis is now a reality requiring a division of post-1980 period into 1981-82 to 1987-88, 1988-89 to 2002-03 and 2003-04 to 2008-09.<sup>4</sup> Accordingly, in the

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<sup>4</sup> The CSO does not provide a single series of the Net State Domestic Product at the state level. Instead, the NSDP data for 1980-81 to 1993-94 are provided at 1980-81 prices, those for 1993-94 to 1999-2000 at 1993-94 prices and those for 1999-2000 to 2008-09 at 1999-2000 prices. I use these data to first compute

first three columns with numbers in Table 3, I report the average annual growth rates during these periods labeled 1981-88, 1988-2003 and 2003-09, respectively. For those who like to think of 1991-92, the year in which systematic reforms at the national level began, as defining the dividing line, I also report the average growth rates for periods 1981-82 to 1991-92 and 1992-93 to 2002-03 in the last two columns of Table 3, respectively. The states are listed in the declining order of per-capita NSDP in the year 2005-06.

Several points emerge from the growth rates in Table 3. First and most strikingly, for every single state in the table, growth rate during 2003-09 exceeded that in every preceding period, however defined. Growth momentum has now penetrated all large states, which together account for 93 percent of the total population as per 2001 census. Second and related, with the exception of Jammu and Kashmir and Assam, both of which have been subject to insurgencies, every single large state and Delhi have grown 6 percent or faster during the last six financial years. Even Jammu and Kashmir and Assam are not far behind, respectively growing 5.7 and 5.5 percent annually during this period. In comparison, only one state (Delhi) during 1981-88 and nine states during 1988-2003 grew at rates of 6 percent or higher. Third, some of the poorest states have shown some of the highest growth rates during 2003-09. Rajasthan, Orissa and Bihar, all of them among bottom six states (respectively ranking 13<sup>th</sup>, 15<sup>th</sup> and 18<sup>th</sup>), grew at annual rates of 9.4, 9.4 and 8.4 percent, respectively. Growth rates in Orissa and Rajasthan exceed those in all states except Delhi, Gujarat and Haryana. Finally, the bottom six states, which account for 41.8 percent of the population as per 2001 census, have together grown at the

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the annual growth rate for each year and then, treating the resulting growth rates as a single series, compute the average annual growth rates shown in Table 3.

annual average rate of 7.1 percent during 2003-09.<sup>5</sup> This rate is in contrast to 3.8 percent during 1981-88 and 4.0 percent during 1988-2003. A major breakthrough for the bottom two-fifths of India seems clearly to be in the making.

As a footnote, I may state that in my book, published two years ago, I had already noted the signs of a turnaround in the bottom six states in Table 3. The evidence emerging in the recent years more firmly establishes that trend. In a key paragraph in the book (Panagariya 2008, p. 164), I had states,

According to Table 8.2, among the six bottom states, only Assam saw a clear decline in its growth rate in Phase IV [1988-2004] over Phase III [1981-88]. Among the remaining five, Rajasthan, Madhya Pradesh and Orissa saw a clear and significant rise in the growth rates of per-capita net domestic product in Phase IV. Bihar saw a sharp decline from 2.1 percent during Phase III to -0.3 percent during 1988-94 but recovered to 2.8 percent during the longer phase of 1994-04. Uttar Pradesh had the opposite fate: its growth rate rose from 1.7 percent in Phase III to 2.2 percent during 1988-94 but fell to 1.2 percent during 1994-04.

## **2. Poverty: Progress Everywhere**

Development economists have seen growth not as an objective in itself but as an instrument of poverty alleviation. It is therefore important to ask if rising incomes have been translating into reduced poverty. Here it is important to remind at the outset that while rapid growth is likely to speed up poverty alleviation, even slow growth is expected to eventually eradicate poverty. While low per-capita incomes in the states such as Bihar,

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<sup>5</sup> Because the NSDP for Madhya Pradesh for 2008-09 is not available, the underlying six-state growth rate for this last year is computed on the basis of the remaining five states only.

Uttar Pradesh and Madhya Pradesh are likely to be associated with higher poverty levels, rising income levels even in these states are likely to be associated with reduced poverty.

Table 4 reports the proportion of the population below the official poverty line in the 18 largest states in 1983, 1993-94 and 2004-05. Two clear observations follow from the data. First, poverty declined or remained unchanged in every single state shown in Table 4 in the post-reform decade of 1993-94 to 2004-05. Growth during this period has been inclusive across the board. Poverty also declined in most states between 1983 and 1993-94 but there are four exceptions: Haryana, Himachal Pradesh, Jammu and Kashmir and Assam. The rise in Assam and Jammu and Kashmir was 1 percentage point or less but larger in Haryana and Himachal Pradesh. If we consider the entire period from 1983 to 2004-05, poverty declined in every single state.

The second observation flowing from Table 4 is that while one can hardly expect the ranking according to poverty rates to match that according to per-capita income, there is broad correspondence between the two. High per-capita income states, listed in the upper half of Table 4, exhibit lower poverty levels on the average than lower-per-capita income states, listed in the lower half of the table. Madhya Pradesh, Uttar Pradesh and Bihar are the bottom three states by per-capita income and they have the highest poverty ratios. Delhi, Haryana, Punjab, Himachal Pradesh and Kerala are among the states with highest per-capita incomes and lowest poverty ratios. Maharashtra, Tamil Nadu and Karnataka are the three exceptions that show high poverty ratios despite their relatively high per-capita incomes. Precise reasons why this is the case requires closer investigation.

Before I conclude the discussion, it is useful to check the relationship of per-capita incomes to another possible even if crude indicator of poverty: the number of telephones

per hundred individuals or tele-density. Even if the absolute level of this indicator does not reflect poverty since it has been almost surely rising much faster than poverty is declining over time, it may still give us some idea of relative magnitudes of poverty across states. It may be hypothesized that most people want to own a telephone but are unable to do so unless they reach a minimum level of income. If this hypothesis is correct, in a phase when the cost of owning a telephone is rapidly declining, tele-density will achieve higher levels in states with lower poverty ratios than those with higher poverty ratios.

Table 5 reports tele-density for the 18 largest states with the states continuing to be listed in the declining order of per-capita NSDP in 2005-06. The pattern turns out to be remarkably consistent with the above hypothesis. In broad terms, states in the upper half of the table show higher tele-density than those in the lower half. Setting aside the anomalous case of Assam, which is richer than Orissa, Madhya Pradesh and Uttar Pradesh but has a slightly lower tele-density than them, the bottom four states by per-capita income also exhibit the lowest tele-density and highest poverty ratios.

### **3. Smaller and Newer States and Union Territories**

Let me now briefly turn to the remaining 14 smaller and newer states and Union Territories that I have excluded from the discussion up to this point. At 7 percent, these states and UTs represent only a tiny proportion of Indian population. Nevertheless, given the large absolute size of the country, their inhabitants currently number approximately 80 million. Of the 14 entities to be discussed in this section, 11 enjoy statehood and 3 are Union Territories. The states in this group were conferred statehood at different times, the earliest one being Nagaland in 1963 and the latest ones Chhattisgarh, Jharkhand and

Uttarakhand in 2000. The three Union Territories are Andaman and Nicobar Islands, Chandigarh and Puducherry. I first consider the three largest states among the group of 11 to be covered in this section: Jharkhand, Chhattisgarh and Uttarakhand. These are also the newest states.

### *3.1. Three Newest States*

Jharkhand, Chhattisgarh and Uttarakhand were created out of Bihar, Madhya Pradesh and Uttar Pradesh, respectively, in November 2000. As per 2001 census, the three states together accounted for 5.48 percent of the country's population. This means the remaining states and UTs account for just 1.5 percent of the country's population.

One way to judge the performance of these new states is to compare them to respective mother states. This is partially done in Table 6, which provides per-capita incomes of the new states, their respective mother states and how the former stack up relative to the latter in years 1999-2000 and 2005-06 to 2008-09.<sup>6</sup> Uttarakhand began at a per-capita income level 1.4 times that of Uttar Pradesh in 1999-2000. By 2006-07, the latest year for which the necessary information is available, it had raced off to per-capita income twice that of its mother state. Chhattisgarh began at per-capita income nine-tenths that of Madhya Pradesh but steadily bridged the gap and achieved an impressive 30 percent lead over the latter by 2007-08. Finally, Jharkhand began at per-capita income twice that of Bihar and has lost ground relative to it since its creation. It rebounded in 2008-09 in relative terms but not enough to recover its original 1999-2000 lead. Based on press accounts, it is almost certain that during the years under consideration, Uttarakhand

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<sup>6</sup> Even though the states were actually created in November 2000, the Central Statistical Organization is able to compute and report the data for them beginning in 1993-94 presumably because it has data at the level of the district.

and Chhattisgarh were led by administrations superior to the respective mother states while in the case of Jharkhand the opposite was true.

Next compare the relative growth rates of NSDP and poverty ratios for the three newest states and their respective mother states shown in Table 7. Three observations follow from this table. First, the three newest states have fully shared in the rapid growth during 2003-09, each of them growing faster than 9 percent per year. These rates exceed the growth rates in the prior period by wide margins. Second, all three states have grown faster than their respective mother states during 2003-09. Finally, the poverty ratio in each of the three newest states remains extra-ordinarily high. In two cases (Uttarakhand and Chhattisgarh) the poverty ratio is higher than the corresponding mother state. But since we do not have the poverty data in a prior period, we cannot judge the performance of the newest states relative to the mother states in poverty alleviation. It is possible that they were born with larger poverty ratios.

### *3.2. Smaller Northeastern States, Sikkim, Goa and UTs*

I finally turn to the remaining eight states and three UTs accounting for 1.53 percent of the country's population as per the 2001 census. Of the former, six—Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura—have been carved out of Assam at various times beginning with Nagaland in 1963 and account for 1.14 percent of India's population. Goa was turned from a UT to state in 1987 and Sikkim was turned from an autonomous region within the Indian Union to a state in 1975. As already noted, three smaller UTs are: Chandigarh, Andaman and Nicobar Islands and Puducherry.

Table 8 reports per-capita incomes of the eight states and three UTs in three recent years. I first list the six states carved out of Assam followed by Sikkim and Goa and then

the three UTs in alphabetical order. In each case, the name of the state is followed by the year in which it was created. The differences between Goa and the three UTs on the one hand and the remaining states on the other are stark. The former group enjoys per-capita incomes well above the national average while the latter systematically falls below it. Indeed, Chandigarh and Goa in that order have the highest per-capita NSDP in the country (followed by Delhi). It is quite clear that a long history of insurgencies and conflicts in various tribal regions of Assam have led to a division of the original state into ever-smaller states without delivering significant income gains.

In the final table, Table 9, I report the growth rates as well as poverty ratios for the eight smallest states and three UTs. The pattern we have observed for larger states continues to reproduce itself here as well. With rare exceptions, growth rates during 2003-09 are significantly higher than in the prior period. The only anomalous case is that of Puducherry, which experienced a large 11.9 percent decline in its NSDP in 2004-05 leading to an overall low growth of 3.1 percent during 2003-08. Poverty rates spring something of a surprise. In all six states carved out of Assam and Sikkim, poverty rates have been cut in half or less between 1993-94 and 2004-05. Whether this change is real or the outcome of some statistical quirk needs to be investigated.

#### **4. Conclusions**

Perhaps the single most important and robust conclusion to come out of the detailed exercise undertaken in this paper is that as India has moved on to the growth turnpike, accelerated growth has reached every single state. On the poverty front, all states have seen the rate of poverty decline between 1993-94 and 2004-05 largely representing the

post-reform period. Of course, poverty rates from 2004-05 do not reflect the full effect of the accelerated growth since this phenomenon had just set in prior to the 2004-05 survey.

An important aspect of this impressive growth story is the phenomenal growth some of the poorest states have experienced in recent years. Three of the bottom six states among the larger states have grown 8 percent or more annually during 2003-04 to 2008-09: Rajasthan and Orissa have grown 9.4 percent each and Bihar 8.4 percent. Likewise, all three of the newest states, which were carved out of three of the poorest four larger states have grown at rates exceeding 9 percent. In concluding this extra-ordinary story, I can justifiably join Vijay Kelkar in expressing “personal and professional joy” in seeing India not only push ahead full-speed on the growth turnpike but also carry all its parts—big and small and rich and poor—with it.

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Table 1: Net State Domestic Product (NSDP) at factor cost in 2006-07 at 1999-2000 prices in descending order of magnitude

State	NSDP in 2006-07 (billion rupees at 1999-2000 prices)	NSDP in 2006-07 (\$Billion)*
MAHARASHTRA	3276.0	72.3
UTTAR PRADESH	2100.4	46.4
WEST BENGAL	1865.7	41.2
ANDHRA PRADESH	1854.6	41.0-0
TAMIL NADU	1853.1	40.9
GUJARAT	1499.3	33.1
KARNATAKA	1300.2	28.7
RAJASTHAN	1036.2	22.9
KERALA	1004.3	22.2
DELHI	893.1	19.7
HARYANA	879.4	19.4
MADHYA PRADESH	864.3	19.1
PUNJAB	810.6	17.9
BIHAR	748.3	16.5
ORISSA	607.5	13.4
ASSAM	437.8	9.7
JHARKHAND	421.4	9.3
CHHATTISGARH	361.8	8.0
UTTARAKHAND	206.4	4.6
HIMACHAL PRADESH	193.1	4.3
JAMMU & KASHMIR	185.6	4.1
GOA	85.0	1.9
CHANDIGARH	79.9	1.8
TRIPURA	78.9	1.7
MEGHALAYA	48.0	1.1
PUDUCHERRY	41.6	0.9
MANIPUR	38.7	0.9
ARUNACHAL PRADESH	23.7	0.5
MIZORAM	19.7	0.4
ANDAMAN & NICOBAR	13.2	0.3
SIKKIM	13.0	0.3
TOTAL	22840.5	504.4

\*The conversion into U.S. dollars is done at the average financial year exchange rate of rupees 45.2849 per dollar reported in Table 149 in RBI (2009).

Source: State related tables in RBI (2009).

Table 2: Per-capita NSDP at factor cost in descending order of per-capita NSDP in 2005-06

STATE / UNION TERRITORY	Per-capita NSDP (rupees per year at 1999-2000 prices)			Share in Population (2001 census)
	2005-06	2006-07	2007-08	
	CHANDIGARH	66134	70361	
GOA	52201	56021	60232	0.13
DELHI	48885	54821	60189	1.35
PUDUCHERRY	36397	38488	40931	0.09
HARYANA	32975	37314	39796	2.06
MAHARASHTRA	28683	30982	33302	9.42
ANDAMAN & NICOBAR ISLANDS	28637	31009	.	0.03
PUNJAB	28487	30041	31439	2.37
HIMACHAL PRADESH	27443	28639	30586	0.59
KERALA	27220	30044	32961	3.1
TAMIL NADU	25558	28320	29445	6.07
GUJARAT	25487	27027	.	4.93
KARNATAKA	21913	22952	25226	5.14
TRIPURA	21524	22987	.	0.31
ANDHRA PRADESH	21334	22835	25044	7.41
SIKKIM	20777	22167	23761	0.05
UTTARAKHAND	20355	22178	.	0.83
WEST BENGAL	20212	21753	23229	7.79
MIZORAM	18616	19220	19750	0.09
MEGHALAYA	18501	19292	20094	0.23
NAGALAND	18318	.	.	0.19
ARUNACHAL PRADESH	18081	20087	20570	0.11
JAMMU & KASHMIR	16086	16817	17590	0.99
RAJASTHAN	15541	16460	17334	5.49
CHHATTISGARH	14694	15660	16740	2.03
MANIPUR	14559	15047	15270	0.21
ASSAM	14419	15152	15857	2.59
ORISSA	13957	15528	16149	3.58
JHARKHAND	12950	14252	15303	2.62
MADHYA PRADESH	12567	12881	13299	5.87
UTTAR PRADESH	10758	11334	11939	16.16
BIHAR	6719	8167	8703	8.07
ALL-INDIA	20868	22580	24295	100

Source: Tables related to macro and state-level data in RBI (2009).

Table 3: Annual average growth rates of NSDP at factor cost with states listed in the descending order of per-capita NSDP at factor cost in 2005-06

YEAR	1981-88	1988-2003	2003-09	1981-92	1992-2003	1981-2009
DELHI	7.7	7.8	11.2*	7.9	7.6	8.4
HARYANA	4.6	6.6	10.0	5.9	6.1	6.8
MAHARASHTRA	4.2	6.7	8.9*	6.3	5.4	6.5
PUNJAB	5.5	4.2	6.1	5.3	3.8	4.9
HIMACHAL PRADESH	3.3	6.5	7.5*	4.6	6.6	5.9
KERALA	1.3	6.1	9.4*	3.5	5.8	5.5
TAMIL NADU	4.8	5.5	8.6	5.4	5.1	6.0
GUJARAT	2.8	7.8	10.3#	7.0	5.3	6.8
KARNATAKA	5.1	6.0	7.7	5.5	6.0	6.1
ANDHRA PRADESH	5.2	6.2	8.6*	5.7	6.0	6.4
WEST BENGAL	4.2	5.9	6.9*	4.4	6.5	5.7
JAMMU & KASHMIR	0.9	4.7	5.7*	2.9	4.3	3.9
RAJASTHAN	4.1	6.7	9.4	7.6	3.8	6.6
ASSAM	4.1	3.0	5.5	3.9	2.6	3.8
ORISSA	2.7	3.9	9.4	3.4	3.7	4.8
MADHYA PRADESH	3.6	4.3	6.0*	4.1	4.1	4.5
UTTAR PRADESH	4.1	3.7	6.1	4.3	3.2	4.3
BIHAR	4.3	4.2	8.4	3.3	5.4	5.1

\*This growth rate is based on the average of growth rates from 2003-04 to 2007-08 since the NSDP for this state for 2008-09 is still not reported.

# This growth rate is based on the average of growth rates from 2003-04 to 2006-07 since the NSDP for this state for 2007-08 and 2008-09 are still not reported.

Source: Author's calculations using state-level data in RBI (2009).

Table 4: Poverty ratios with states listed in the descending order of per-capita NSDP in 2005-06

States/UT	1983	1993-94	2004-05
Delhi	26.2	14.7	14.7
Haryana	21.4	25.1	14
Maharashtra	43.4	36.9	30.7
Punjab	16.2	11.8	8.4
Himachal Pradesh	16.4	28.4	10
Kerala	40.4	25.4	15
Tamil Nadu	51.7	35.0	22.5
Gujarat	32.8	24.2	16.8
Karnataka	38.2	33.2	25
Andhra Pradesh	28.9	22.2	15.8
West Bengal	54.9	35.7	24.7
Jammu & Kashmir	24.2	25.2	5.4
Rajasthan	34.5	27.4	22.1
Assam	40.5	40.9	19.7
Orissa	65.3	48.6	46.4
Madhya Pradesh	49.8	42.5	38.3
Uttar Pradesh	47.1	40.9	32.8
Bihar	62.2	55.0	41.4
All India	44.5	36.0	27.5

Source: Adapted from Table 18 posted on the Planning Commission website accessed on January 10, 2010.

Table 5: Tele-density [number of phones per 100 people] as of March 31, 2009 with states listed in descending order of per-capita NSDP in 2005-06

State	Telephones per 100 Individuals
Delhi	140.18
Haryana	43.67
Maharashtra	50.95
Punjab	58.25
Himachal Pradesh	55.8
Kerala	58.48
Tamil Nadu	59.92
Gujarat	45.16
Karnataka	45.21
Andhra Pradesh	39.59
West Bengal	33.6
J&K	32.76
Rajasthan	37.15
Assam	20.65
Orissa	23.3
Madhya Pradesh	23.79
Uttar Pradesh	24.28
Bihar	17.78
Total	36.98

Source: Telecom regulatory Authority of India (2009).

Table 6: Three newest states: real and relative per-capita NSDP

STATE / UNION TERRITORY	Per-capita NSDP (rupees per year)					Share in Population (2001 census)
	1999- 2000	2005- 06	2006- 07	2007- 08	2008- 09	
UTTARAKHAND (2000)	13516	20355	22178			0.83
CHHATTISGARH (2000)	11629	14694	15660	16740	17684	2.03
JHARKHAND (2000)	13260	12950	14252	15303	16294	2.62
UTTAR PRADESH	9749	10758	11334	11939	12481	16.16
MADHYA PRADESH	12384	12567	12881	13299		5.87
BIHAR	5786	6719	8167	8703	9586	8.07
UTTARKHAND/UTTAR PRADESH	1.4	1.9	2.0			
CHHATTISSGARH/MADHYA PRADESH	0.9	1.2	1.2	1.3		
JHARKHAND/BIHAR	2.0	1.6	1.6	1.8	1.7	

N.A. stands for “not available.”

Source: RBI (2009) and the author’s calculations.

Table 7: Three newest states: growth and poverty

State	Growth rate of NSDP		Poverty
	1994-2003	2003-09	ratio
UTTARAKHAND	4.8	9.4*	39.6
CHHATTISGARH	2.0	9.1	40.9
JHARKHAND	3.7	9.3	40.3
Uttar Pradesh	3.3	6.1	32.8
Madhya Pradesh	3.4	6.0^	38.3
Bihar	5.7	8.4	41.4

\*Based on data until 2006-07 only.

^Based on data until 2007-08 only.

Source: Growth rates are calculated by the author using NSDP figures in the tables in RBI (2009) and poverty figures are from the Planning Commission website.

Table 8: Per-capita NSDP at 1999-2000 prices in smaller states and UTs

STATE* / UNION TERRITORY	Per-capita NSDP (rupees per year)					Share in Population (2001 census)
	1999-2000	2005-06	2006- 07	2007- 08	2008-09	
ARUNACHAL PRADESH (1987)	13990	18081	20087	20570		0.11
MANIPUR (1972)	11549	14559	15047	15270		0.21
MEGHALAYA (1972)	14355	18501	19292	20094		0.23
MIZORAM (1986)	16443	18616	19220	19750	20483	0.09
NAGALAND (1963)	13819	18318	.	.		0.19
TRIPURA (1972)	14119	21524	22987	.		0.31
SIKKIM (1975)	14890	20777	22167	23761		0.05
GOA (1987)	42296	52201	56021	60232		0.13
ANDAMAN & NICOBAR ISLANDS	24005	28637	31009	.		0.03
CHANDIGARH	44502	66134	70361	75480		0.09
PUDUCHERRY	30865	36397	38488	40931		0.09
ALL-INDIA	15881	20868	22580	24295	25494	100

\*Year next to a state's name indicates the time of conferral of statehood.

Source: RBI (2009).

Table 9: Smaller states and UTs: growth and poverty

State*/UT	Annual Growth in				
	NSDP		Poverty Ratio		
	1994-2003	2003-08	1983	1993-94	2004-05
ARUNACHAL PRADESH (1987)	3.9	6.9	40.9	39.4	17.6
MANIPUR (1972)	3.7	6.5	37.0	33.8	17.3
MEGHALAYA (1972)	6.7	6.1	38.8	37.9	18.5
MIZORAM (1986)	6.6	4.0	36.0	25.7	12.6
NAGALAND (1963)	7.3	7.5^	39.3	37.9	19.0
TRIPURA (1972)	8.2	8.0^	40.0	39.0	18.9
SIKKIM (1975)	6.3	8.3	39.7	41.4	20.1
GOA (1987)	6.7	10.2	18.9	14.9	13.8
ANDAMAN & NICOBAR ISLANDS	4.1	8.8^	52.1	34.5	22.6
CHANDIGARH	10.0	11.5	23.8	11.4	7.1
PUDUCHERRY	13.5	3.1	50.1	37.4	22.4

\*Year next to a state's name indicates the time of conferral of statehood.

^Excludes year 2007-08.

Source: Per-capita incomes and population from tables in the RBI Handbook, 2009. The year of statehood is from official websites of various states.