THE PARADOX OF INDIA’S NORTH-SOUTH DIVIDE
LESSONS FROM THE STATES AND THE REGIONS

Samuel Paul
Kala Seetharam Sridhar

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The Paradox of India’s North-South Divide
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Abstract

The gap between the southern and northern states of India has widened significantly in recent years in terms of per capita income and poverty reduction. This monograph examines the factors underlying this phenomenon and divides them into proximate and foundational factors. Analysis of the historical data for over four decades shows that the gap between the two regions was much smaller at the outset and that the North (UP) had a head start in some areas. A major finding is that though the South (Tamil Nadu) was somewhat better placed in terms of initial conditions for over two decades, it was only in the post-liberalization period that it could realize its potential and surge forward. While we present extensive quantitative data on proximate and foundational factors, we also present qualitative data to support findings from the quantitative data, based on intensive interviews with officials and scholars in Tamil Nadu and Uttar Pradesh.
Introduction

In recent years, several observers of the Indian scene have noted that the country’s southern states have performed distinctly better than their northern counterparts. Some writers have presented a range of evidence to show that the South has done better than the North in significant respects that matter to the people. Several authors have highlighted economic indicators to show that the South is ahead of the North in terms of development. Thus, the South’s current per capita income is shown to be higher than that of the North’s. South’s human development indicators are claimed to be better than that of the North’s. Others have mentioned less tangible aspects of social life or the functioning of government as areas in which the South is superior. There are two problems with generalizations based on a comparison of such current indicators. They do not shed light on whether this state of affairs has always existed, or is a phenomenon of recent vintage. Nor do they tell us anything about the factors that may have caused the South to perform better on these counts. To find answers to the question of the divergence in performance between regions, one needs to undertake systematic investigations, including a study of past trends, and generate credible evidence that might explain the phenomenon. A search of the literature does not show that such systematic studies have been attempted so far.¹

One reason why this subject is of much research interest is because, if true, it goes counter to the economic doctrine that over time the constituent parts of a country tend to converge in terms of development. The argument is that resources would flow to the less developed areas of the country, setting in motion the process of

¹ A number of studies have attempted to document and explain the patterns of economic growth in Indian states. There is a large literature on convergence/ divergence between states. There is another strand of literature which examines the sources and timing of the shift in Indian output growth since the 1980s. This literature addresses a variety of questions such as: when did the shift in growth occur? Was the shift uniform across states? What were the factors causing the shift? Based on a review of this literature, we find that none of studies have explored issues such as the North-South divide that is the subject of this paper. A detailed literature survey is in Annexure A.2 at the end of the manuscript.
narrowing the gap between regions over time. Even if private resources fail to flow as predicted, public resources would flow and facilitate a move towards convergence. The reference here is largely to the convergence of economic outcomes, such as production of goods and services, employment and standards of living. No one has claimed so far that convergence might occur also on the public governance or cultural fronts. A plausible reason is that these are more complex outcomes that are difficult to measure, and are seldom dealt with by economic analysts.

A second reason why the subject is of interest is because just three decades ago, the popular perception about the North and South was exactly the opposite of what we hear today. Appleby’s report on India’s public administration in 1953 and 1957 identified Uttar Pradesh (UP) (and Bihar) as the best governed states in the 1950s. In the first three decades since Independence, a significant number of people from the South went to the northern and western Indian cities in search of jobs. In many lower level jobs, in both the private and public sector, large numbers of southerners could be found in cities such as Mumbai, Kolkata and Delhi. There was no such migration from the North to the South. For many observers, it was a clear signal that the South had limited employment opportunities, and that its people had lower standards of living, forcing them to go out of their region to improve their lot. In fact, northerners used to look down upon the migrants and consider them backward in many respects. Casual observations of this kind have led observers to conclude that the transformation of the South in development terms is a more recent phenomenon. Again, there is hardly any assessment available as yet of the precise dimensions of this transformation, if indeed it has occurred. But if it turns out to be true, and credible evidence of the underlying factors can be assembled, it will certainly be of public interest and improve our understanding of how economic and social development works.

As noted above, the debate on the subject of North-South divergence has so far been based on journalistic accounts. Economists, on the other hand, have paid more attention to the broader problem of convergence of income and the reasons for income variations across all the states of India. To explain inter-state variations, they have used cross section analyses of data based on which they have identified a plausible set of key variables. There is a consensus that the expected convergence trend is yet to happen in a significant way in the country (see Datt and Ravallion (1998), for instance). Mehrotra (2006) and Pai (2002) are among the few authors who examine this divergence

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2 This was pointed out by Dr.A.K.Singh, Director of Giri Institute of Development Studies, Lucknow. Paul Appleby, Dean of the Maxwell School of Public Affairs, Syracuse University was invited by Prime Minister Nehru in the early 1950s to advise the government of India on public administration.
and explore their causes. Varshney (2012) examines the divergence between the North and South Indian states, but focuses only on social order and entrepreneurship.

Holian (2013) finds that simply being in South India is associated with lower particulate matter levels (to the extent of 64 cubic micrograms). Given that the national ambient air quality standards (NAAQS) for annual average respirable particulate matter is 60 cubic micrograms, he concludes that being in North India by itself is enough to make a city non-compliant with these standards.

The purpose of this monograph is to examine this divergence between the North and the South in depth and seek answers to several questions that it raises. Is the claim of South’s better performance credible and backed by robust evidence? In precisely what respects, has the South performed better than the North? Was the South always on a higher economic performance plateau, or is its better performance the result of a recent turnaround in the South? Is there a set of credible factors that can explain this phenomenon? What lessons and policy implications can we glean from this experience about how development comes about?

Before proceeding to answer these questions, it is necessary to clarify a few definitional matters. Foremost among these is the definition of the North and the South. In this study, the South refers to the four major states of Tamil Nadu (TN), Karnataka (Kar), Andhra Pradesh (AP), and Kerala (Ker). The North consists of Uttar Pradesh (UP), Bihar (Bih), Madhya Pradesh (MP), and Rajasthan (Raj) (also originally known as BIMARU states). These represent the North in our study mainly because they are the largest states and account for the bulk of the northern population.

In the course of the study, we propose to examine the reasons behind the paradox of the divide

3Ramachandra Guha examines the North-South divergence phenomenon from a historical perspective. After offering some evidence in support of the divergence, he goes on to argue that the South had certain historical advantages that may have aided its better performance. He highlights the proximity to the sea coast that all the southern states enjoy and the trade links that have existed for centuries between them and many foreign countries. Indeed, these are important enabling conditions, and have had a significant influence on the course of South’s history. However, these factors have remained constant through history, and cannot explain the paradox that the South was considered economically backward or at least not ahead of the North only three decades ago. The causal factors underlying the North-South divergence phenomenon, if true, must therefore be sought in other developments. (Southern Exceptionalism, Outlook).

4The exclusion of other northern states such as Punjab and Haryana does not pose a problem as they are examples of the few northern states, along with Delhi (a city state) that have performed well in economic terms. In fact, Punjab, Haryana, and the western states of Gujarat and Maharashtra have been high on the economic performance scale ever since Independence. But the debate has never focused on their performance vis-à-vis the four large northern states mentioned above. A number of scholars have mentioned Odisha as being backward, but that is located in the east. As we have reiterated, this study is about the north and south of India, for various reasons described in the text.
between the northern and southern states as defined above and for the reasons described earlier.

A second issue concerns the nature of the historical evidence used in this study. Since we are concerned here with the trends and patterns of developments over long periods, it is essential that we gather as much past data as possible. However, data availability is a problem in that the time series for some of the variables that we need for analysis simply do not exist. The states included in the study have also undergone changes due to reorganization since Independence, making comparisons over time difficult. We have no option but to live with these data limitations, much like a detective who has to solve the crime, using whatever bits of evidence he or she can gather, despite their partial nature.

A final comment is a word of caution. Our reference to the better performance of the South should not be taken to mean that its development outcomes are of the highest order. No writer has made such a claim in the literature. The reference here is only to the relative positions of the regions involved in terms of development. It is not an invitation to the southern states to be complacent, and assume that they have reached a high level of development. India still remains a developing country, and even our better performing states are yet to reach a “middle income country status.”

With the above caveats in mind, in the first phase of our study, we undertook a detailed longitudinal analysis of the performance of one selected southern state – Tamil Nadu – and one northern state – Uttar Pradesh. Chapter 2 presents the indicators we examined to understand the comparative performance of the two states before we delve into a study of the two regions. Chapter 3 attempts to explain the economic divide between the selected states, Tamil Nadu and Uttar Pradesh. Chapter 4 extends the analysis of individual states to the respective regions. The final chapter draws conclusions and summarises the policy implications.

5 The recent power crisis in TN is an example. There are recent reports that the current power crisis in the state was because of the failure of the distribution of power from the low demand southern parts of TN to the high demand, northern part.
Has the South Performed Better than the North?

In this chapter we present a detailed historical analysis of the performance of one selected southern state and one northern state. It not only made the initial exploration more manageable, but also helped us to test our hypotheses and to experiment with different types of data. The states selected for this exercise were Tamil Nadu in the South and Uttar Pradesh in the North. This selection was influenced by the fact that both were metropolitan regions of two large presidencies (Madras and United Provinces respectively) of the British colonial era, and partly because it was easier to track and understand specific developments and policy changes at the level of an individual state rather than at the level of a region consisting of several states. Both of these states would have had common administrative systems, traditions and policies inherited from the British colonial past. Performance variations arising out of differences on this count were therefore likely to be minimal. Similarly, in explaining changes in performance with reference to certain policies or other actions taken in the past, the relevant accounts, data and insights are more likely to be applicable at the state level.

Once an analytical framework was designed, tested and fine-tuned, based on the data from TN and UP, the same framework was applied to the southern and northern regions as defined in the study. The purpose of the second phase was to see whether the same pattern holds good when the relevant states are aggregated and a regional comparison is attempted. If the findings are significantly different, it is clear that generalizations could not be made on a regional basis. At best, the patterns may be similar for some states of the North and South, but not for all. On the other hand, if the patterns and findings reinforce those of the TN-UP comparison, it would lend credibility to our approach and the analytical framework of the present study.

How did we define performance for the TN-UP comparison? We have briefly referred above to the claims of some authors that the South is ahead of the North on several counts. Since there was no detailed discussion of analytical frameworks or data in
prior work on the subject, it is essential that we begin with a discussion of the framework, criteria, and data that we propose to use in order to compare the performance of the selected states.

First of all, we recognize that there are many dimensions of development that are pertinent to a comparison of the performance of our states and regions. There are, for example, economic, social, political and cultural dimensions of development, all of which could be relevant to determining how well a state has performed. While all of them need to be identified and measured if we wish to be comprehensive in our approach, it has to be said that not all of these dimensions lend themselves to precise definition and measurement. Our framework, therefore, will consider only those dimensions that can be defined, identified and measured in a manner that can make comparisons fair and credible.

Second, comparisons will be difficult when the required data do not exist or are incomplete. Hence some dimensions may have to be left out not because of any difficulty in identifying or measuring them, but simply because of a lack of adequate data. For instance, criteria for judging social progress or political development may exist, but the indicators to be used may be partial or the required data may not exist. And the problem may be rendered more difficult as historical data may be incomplete. These limitations have forced us to focus exclusively on the economic dimensions of performance for which credible indicators are available, measurement is feasible, and historical data exist. It is important to add that the economic indicators used may in turn reflect social or political factors and developments as we shall demonstrate below. Hence our inability to directly measure non-economic phenomena need not imply a complete lack of attention to such factors in the present study.

Based on this approach, we examined the economic performance of TN and UP over the past four decades, using two widely accepted criteria for economic evaluation, viz., measures of per capita income and poverty. While we recognize that well-being is a broader concept, in the interests of measurability, we use per capita income as a measure of the economic well-being and standard of living of the people. The proportion of population below the poverty line tells us, at least in part, how fairly income is distributed within a given society. Cultural features are a case in point. Reasonable people may well disagree on the criteria for measuring cultural progress. Accomplishments in art forms, for example, are often unique and difficult to measure and compare.

Towards the end of this chapter, we do examine the status of other development outcomes alongside the primary economic measures.

The time series used for analysis of per capita income is 1960-61 to 2004-05.

The time series used for analyzing poverty is 1973-74 to 2004-05.

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8 The time series used for analysis of per capita income is 1960-61 to 2004-05.

9 The time series used for analyzing poverty is 1973-74 to 2004-05.
Taken together, these two measures provide us a succinct and balanced assessment of the economic progress of the two states. The availability of official data on these two performance outcomes for a long period enables us to see how the development of the two states has evolved over time. It can tell us, for example, whether the performance gap between the two states has narrowed or widened over time.

A comparison of the rates of growth of the net state domestic product (NSDP) of the two states from 1960-61 to 2004-05 yielded a surprising result. Over most of this long period, the growth rates of the two states did not differ much at all. Until the 1980s, growth was slow in both states. Growth rates increased subsequently, but at about the same pace (105 percent over a 15-year period). UP, with its larger size and population, had a much larger NSDP (₹246,998 crores compared to ₹177,335 crores for TN, (at 1999-00 prices) in 2006-07).

A superficial reading of this finding may lead one to conclude that there was no real difference between the two states as far as overall economic growth performance is concerned. A comparison of NSDP, however, does not take into account the changes in the population growth rates that have taken place in the two states. Changes in the size of the labour force and its productivity are determinants of NSDP. Per capita NSDP is the performance measure that takes into account these factors.

We present the historical trends in per capita NSDP in UP and TN in Chart 1, which shows that in 1960-61, TN had a per capita income of ₹5,053 while UP had a per capita income of ₹3,338. TN was ahead on this score by 51 percent. In the early 1980s, this gap had narrowed to 39 percent. By 2005-06, however, the gap between the two states in terms of per capita income had widened significantly to 128 percent. Chart 1 also tells us that the widening of the gap began after the mid-1980s, and became more pronounced since 1992-93. Based on this analysis, we conclude that judged by per capita income, TN was always ahead of UP by a modest margin, but that TN had moved far ahead of UP by 2005 (50 percent vs 128 percent). The economic gap between the two states has thus widened significantly in recent years. The divergence began in 1987-88 and accelerated from 1992-93.

The poverty ratios depicted in Chart 210 shed light on another equally important facet of economic performance. A comparison of the two states on this score shows

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10 It should be noted that the poverty rates depicted in Chart 2 are weighted total poverty rates – based on the rural and urban poverty rates that were obtained from the Planning Commission. We are aware of the problems with the reliability and methodology of official data and the ongoing debate on poverty ratios. However, for lack of a better data source, we use these readily available estimates.

The rural and urban poverty rates were weighted with rural and urban populations for the states and respective years to arrive at the total poverty estimate for each year and state. In fairness to UP, for 2004, the poverty (both rural and urban) data for Uttarakhand has been accounted for, in the interests of comparison with earlier years when UP was undivided.
that during the 1970s and until about 1985, TN was actually at about the same level as or perhaps worse than UP as far as the extent of poverty is concerned. In fact, Datt and Ravallion (1998) report nearly 70 percent rural poverty for Tamil Nadu in 1960 compared with only about 48 percent rural poverty rate for Uttar Pradesh. This suggests that economic deprivation and inequality were much higher in TN earlier on, and that it made a surge in terms of reducing them rapidly at some later point. According to the Government of India’s Economic Survey for 2012-13, the poverty rates for 2009-10 (based on the Tendulkar committee) were at 39.4 percent (rural poverty) and 31.7 percent (urban poverty) for UP and only 21.2 percent and 12.8 percent for TN (rural and urban poverty respectively). When we look at poverty rates (rural and urban) for these states, for 2004–05 (based on the Tendulkar committee), the gap still is quite glaring, at 37.5 percent (rural poverty) and 19.7 percent (urban poverty) for TN and 42.7 percent (rural poverty) and 34.1 percent (urban poverty) for UP.

The combination of a higher level of income and more widespread poverty that is found in TN early on compared to that in UP signals a more unequal distribution of income in the former. But by the 1990s, a significant change in this combination seems to have occurred in TN. By 2005, not only did TN’s per capita income exceed that of UP by a much wider margin than before, but its poverty rate also had declined well below that of UP. In other words, TN’s rising per capita income has been accompanied by a significant reduction in the extent of poverty in the state.
We can now state our finding from this analysis of two important performance outcomes, namely, per capita income and poverty, with respect to TN and UP over the period 1960–61 to 2004–05. The two states were not far apart at the beginning of this period. In fact, TN was worse off in respect to poverty than UP though its per capita income level was somewhat higher than that of UP. By 2005, however, TN had stolen a march over UP on both counts. Its per capita income was higher by 128 percent, as discussed earlier, and its poverty rate had fallen by 59 percent compared to the corresponding outcomes (reduction of 42 percent) for UP. It is this dramatic improvement in terms of economic performance that has put the spotlight on the emerging North–South divide in India. It is a paradox that we could not have predicted this outcome based solely on the track record of the two states over the period 1960–1985.

It is instructive to examine which sector/s led the surge in per capita NSDP that we observe in TN. Charts 3–5 show the trend in the composition of NSDP by sector (agriculture, industry and services, respectively) in the two states. While, as far as the share of agriculture goes, UP has always been above that of TN, in the share of industry, TN scores well over UP for all the years except the last couple of years. It did seem that during the last few years, the share of the industrial sector in UP has caught up with that in TN and surpassed it. It should, however, be remembered that the industrial base of TN has always been a dominant one – with examples of automobiles (Chennai) and textiles (Tiruppur).

11 This might refer more to the surge of the service sector rather than a decline of industry in TN.
The trajectory of the service sector in the two states is an interesting one. Until 1980-81, the two states were more or less identical as far as the service sector share is concerned. However, post-1981, the service sector in UP declined in its share in NSDP when compared with that in TN where there was a constant increase in the share of the service sector in its NSDP (Chart 5). So there are grounds to believe that the service sector led the surge in per capita incomes in TN. This is consistent with the national growth story. It is possible that growth in information technology services explains a part of this surge.
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Chart 5: Share of Services in NSDP, TN and UP

Did a similar transformation occur over time in other states? An analysis of the per capita income levels and poverty rates of other high performers such as Punjab, Haryana, Gujarat and Maharashtra shows that they were always much better off than UP. For instance, in 1980-81, their per capita incomes were respectively ₹8,442, ₹7,506, ₹6,455 and ₹7,102 compared with only ₹3,825 for UP. Not only were their income levels higher, but their poverty rates were much lower than that of UP. That these high performing states continued to do better in 2005 is not newsworthy. But TN’s surge forward is indeed news because it was not in the same league as these high performing states some forty years ago. A deeper probe into this phenomenon is clearly in order. The big question is, what accounts for this dramatic transformation.

Experts have offered a wide range of hypotheses to explain the phenomenon of the economic transformation of countries. Their early models focused primarily on the role of capital as the proximate factor that led to economic growth. The post-World War II experience with the reconstruction of Europe via the Marshall Plan convinced many observers that the injection of capital would lead to the revival and acceleration of economic growth. Some experts even specified the rate of investment necessary for countries to reach the “take off” stage of development.  

But the experience of many developing countries that followed this approach pretty soon demonstrated that investment of capital does not automatically lead to the desired rate of a country’s economic growth. In fact, a number of empirical studies

showed that investment of capital explains only a part of the growth differentials between countries. The unexplained “residual” was often attributed to “technical progress,” a mix of factors that included technology and other influences that tended to enhance productivity, but were difficult to untangle and measure. Romer (1986)\textsuperscript{13} presents a model of endogenous technical change in which the accumulation of knowledge by forward-looking, profit-maximising agents drives long-run growth. Knowledge is an intangible capital input in production with increasing marginal productivity. New knowledge is a product of research technology exhibiting diminishing returns. Further, the production of new knowledge by one firm generates a positive externality for other firms as knowledge cannot be kept secret. The creator can capture only a part of its benefits; a part is available to others without compensation to the creator. Using these assumptions, Romer demonstrates that growth rates can be increasing over time. He presents long-run evidence in support of his model of growth.

In more recent years, measures of human resource development (HRD), the stock of different types of infrastructure, have been brought in as explanatory factors, thus giving greater specificity to the unexplained “residual.” Human resources such as skilled labour are complementary inputs that work with physical capital to produce goods and services. Infrastructure such as power and roads are essential factors without which capital will not be attracted to countries. Even if capital is invested, infrastructure gaps tend to reduce the productivity of capital.

There is also a growing realization that non-economic factors such as the quality of public governance that obtains in a country have an influence on economic growth, although studies that have incorporated such variables are very few. It is governments that generate public goods and create an enabling environment for the productive use of both capital and labour. If a country’s government provides greater political stability, investors are likely to consider its policies to be more stable and predictable, and hence to respond more positively to the country as an investment destination. Similarly, if law and order, and dispute resolution are better in a country, it tends to create a more enabling environment for economic activities. If a government is seen to be more efficient in the creation of public goods such as infrastructure, the chances are that the incentives to invest in the country will be stronger. In brief, there is a greater awareness today that economic growth and progress of countries depend on both economic and non-economic factors that provide the triggers and an enabling environment for the growth process to be sustained.

The incorporation of all these factors into explanatory models of growth, however,

has not been easy. Further, this limitation applies not only to models explaining macroeconomic growth at the national level but also at the sub-national level. In general, explanatory studies have remained partial in their scope mainly because the trend in the literature has been to use variables that are easier to identify and measure, and to ignore factors that are qualitative and difficult to quantify. Thus, much attention may be given to familiar factors such as the market system’s stability, but not to the stability and functioning of the governance system. In the context of our study, this point assumes a special significance. In a federal system, policies affecting the functioning of the market, monetary and trade policies, will be more or less common to all states. The factors that set apart one state from another will be governance and related features that are state specific. Skilled labour and technology can be imported. Substitutes can be found to make up for infrastructure gaps. Power shortage can be relieved through the use of generators or of a national grid. Railways may make up when roads fail. But political regime change is not an option for investors! If political instability or law and order problems are more severe in one state, all that economic actors can do is to plan to invest or operate in another state that has better governance. They have no option in the short run but to live with the quality of governance available in the state once they decide to invest there. Viewed thus, governance systems and practices are the least mobile of the factors considered here.

While our understanding of the factors that contribute to or cause changes in economic growth has improved somewhat, the same cannot be said about the progress being made in specifying and measuring these factors. Comprehensive measures of the factors are not easy to craft. Human resource development and infrastructure, for example, have different components and facets. Literacy, higher education, and institutional quality are pertinent to human resource development. But data pertaining to all of them may not exist or may be difficult to combine in order to get a comprehensive measure. Governance tends to be ignored mainly because it has multiple dimensions, the quantification of which is extremely difficult. Analysts therefore end up using indicators and partial measures of the basic variables involved. Often they have no option but to make use of only factors for which the required data are available.

There is a hierarchy of factors that impact on economic performance. We propose to divide these factors into two categories: proximate and foundational. Proximate factors include those that are believed to have a close and immediate influence on the outcome, namely, economic performance. Literacy, health, public spending, and infrastructure, are examples of proximate factors. Foundational factors are broader factors that create an enabling environment for improved performance. The multiple dimensions of governance such as the rule of law, are foundational in nature. The
long run movement of proximate factors can be impacted by foundational factors. A country or state with oil wealth or foreign aid, for example, may expand its infrastructure significantly. Its ability to effectively use the infrastructure, however, may still be determined by the quality of the state’s governance. On the demand side, pressure from citizens for better governance might also influence the state’s ability to govern effectively. In the short run, proximate factors could act as important determinants of performance, but their influence could be diminished in the long run if foundational factors fail to reinforce them. It is for this reason that most investors tend to assess both sets of factors in the context of their long term planning and strategic decisions. In the present study, we propose to take into account both proximate and foundational factors (which are elaborated below) pertinent to long term performance.

Despite the numerous comparative studies of inter-country and inter-state growth performance, mainly through cross section analysis, we still have no satisfactory theory or model that fully explains these phenomena. A major limitation of such models is that they focus on a snapshot of these phenomena for regions or countries at a single point in time, ignoring influences that impact economic development over a long period of time.14

Part of the problem lies in the difficulty in analyzing and quantifying the historical, institutional and contextual factors that interact with the proximate variables that economists often use in their econometric analysis and in specifying the lead-lag relationships that may exist among these factors. We believe, therefore, that it is more productive to explore in some detail the likely factors and their underlying processes that may have influenced the performance outcomes over time, rather than to work with incomplete models that fail to capture the complexity of the phenomena involved.

The next chapter explores the reasons for the North-South divide, taking first the case of TN and UP.

14 Basu (2009) points out that the role of social norms, institutions and culture have been ignored by economists in understanding economic development. He says that “markets, trade and incentives are critically important for an economy to prosper but so are social norms, institutions and the state.” (p.43-44).
What Explains the North-South Divide?

As noted in the previous chapters, a study of the growth performance of TN and UP over the past four decades shows that significant divergence between them in terms of per capita income and poverty incidence occurred only in the recent past. A perusal of Chart 1 points to 1987–88 as the period when a noticeable upward shift in per capita income took place. A review of charts 3–5 shows that the beginning of the 1980s was about the time when the service sector in TN surged when compared with that in UP. It is during the same decade that poverty incidence of TN fell below that of UP (Chart 2). If we can identify the factors underlying this shift that began in 1987-88, we are likely to find an explanation of the phenomenon. But first, we need to establish the facts of the case.

The primary focus of our analysis is on the changes in trends in per capita income, both because it is a widely accepted summary measure of economic performance, and because we have a longer and more reliable time series for this variable. These trends may have changed over time for two reasons: first, the initial state of the contributory or causal factors may have been at different levels for the two states. Second, changes over time in these factors may have occurred at different rates in the two states.

We start by listing the categories of factors which may have contributed to the observed income divergence between the two states:

1. Human resource capabilities;
2. Urbanization;
3. Basic infrastructure, which enables economic growth to occur;
4. Efficiency of resource utilization;
5. Governance including political stability, and law and order.

Poverty reduction has also moved in the same direction during this period.
The Paradox of India’s North-South Divide:

6. The demand factor arising out of social mobilization.

The first four factors highlighted above are proximate factors while the last two are foundational in nature. Some overlap between proximate factors is unavoidable.

There are multiple indicators of human resource capabilities. We take into account measures of human resource capabilities which indicate education/skills and health. In education, we study the literacy rate, proportion of graduates and trained manpower. In health, we study infant mortality, life expectancy and the total fertility rate.

1. Human Resource Capabilities: Literacy Rate

Literacy rate can be expected to positively affect economic growth and per capita income in the states primarily because it is treated as a proxy for the knowledge and skills of the population. Our assumption is that a higher literacy rate makes people better informed, prepares the ground for higher skills, the ability to deal with technology, and enhance their efficiency at work. These capabilities enable them to generate more output and income.

Chart 6 compares the literacy rate between TN and UP over a reasonably long period of time, during 1961–2011. Phenomena like the literacy rate are stable over short periods of time. Chart 6 shows that TN’s literacy rate has always been at a higher level when compared with that of UP.

We reviewed the trends in the female literacy rate for the two states and the results are identical. TN started off with a much higher female literacy rate (21.27 percent) in 1961 increasing to 80 percent in 2011, when compared with that for UP (only 8.43 percent in 1961) which increased to 70 percent in 2011. We surmise that the steady growth of literacy rate and the female literacy rate may have been an important factor that enabled TN’s economic growth to accelerate in later years. UP’s growth rate has also improved since 1998 and we expect this to contribute to its convergence.

Human capabilities and skills: Graduates

The proportion of graduates (defined as those with university and post-graduate, engineering, medicine, agriculture, veterinary and dairy, technology, teaching and other degrees as a proportion of population above 15 years of age) is expected to affect economic growth and per capita income positively. The proportion of graduates reflects the percentage of population that has attained a certain threshold level of education which equips them with certain skills used in specific kinds of economic

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16 Literacy rate might be a crude measure of the population’s ability to read and write. A more precise measure to this may have been to substitute literacy with those with primary level education. We found that trends in this variable also follow a similar trend as we find with the literacy rate.
activity. Hence an increase in the proportion of graduates (including those with technical skills) enables them to contribute to increased output and income, hence become an engine of economic growth.

When we examined the proportion of graduates for TN and UP during 1971–2001, we found no specific advantage that TN had over UP. In fact, UP had a higher proportion of graduates at the beginning and end of the period. This shows that TN was not always superior to UP with respect to all the factors indicating human capabilities. However, despite this, we observe rising per capita incomes in TN especially (as shown by Chart 1). This is the phenomenon we try to explain with the help of other factors below.\(^\text{17}\)

**Chart 6: Literacy Rate, TN and UP**

\(^{17}\) A major reform that was adopted in TN during the early and mid-1980s was in secondary education, whereby the 11+1+3 system (11 years of schooling plus a year of pre-university, followed by 3 years of university) was replaced with the 10+2+3 system. On 1 July 1978 the government of Tamil Nadu, de-linked the one-year pre-university course from the control of the universities and introduced the 10+2+3 pattern of education, replacing the 11+1+3 pattern followed earlier. Select ‘high schools’ were converted into ‘higher secondary’ schools, offering the Higher Secondary Certificate (HSC) course that continues to be known as ‘+2’ to this day. This is based on the national pattern of 10+2+3 years with 12 years of schooling.

The new 10+2+3 system had the advantage that adolescent students would be in schools longer than was the case earlier and not have to be dislocated from their schools (which is needed). Further, the teachers who were surplus as a result of the abolition of 1 year of pre-university, were sent to do higher studies for which additional seats were created in higher educational institutions. This then bred the advantage that teachers became postgraduates. This system also encouraged teachers to move to rural areas where a mid-tier system of schooling and human capital was created.
**Human capabilities and skills: Trained manpower**

Productive sectors such as industry, mining and agriculture require specialized manpower that meets their needs. We made an attempt to examine the status of this talent pool, over and above general graduates, in the two states. The proportion of technical labour force can be considered as an indicator for the supply of trained manpower that has the potential to increase output and incomes.

We examined the proportion of those enrolled in technical courses such as B.E./B.Sc. (Engg/B.Arch.), medicine, dentistry, nursing, pharmacy, ayurvedic and unani, B.Ed. and B.T. as a proportion of population in the relevant age group (above 15 years) to examine if TN had an edge in this regard compared with UP. It can be considered a measure for the output of technical manpower in the state. We had data on the proportion of technical student enrolment for TN and UP for some recent years. We find that, though in terms of the proportion of graduates, TN does not have an edge over UP, in terms of technical enrolment, TN is well above UP for the recent years for which we had this data. This certainly lends credence to the fact that technical manpower has increased significantly in TN mainly because the state has encouraged the setting up of engineering and other technical colleges in a big way in recent years. It would have been instructive to have this data for earlier time periods covering the 1980s, but it was not available.

**Chart 7: Percentage of technical graduates*, 1961, and technical enrolment, 2004, TN and UP**

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*The percentage is a proportion of population >15 years of age.
Lessons from the States and the Regions

Given the data limitations, we examined the proportion of technical graduates in disciplines such as engineering, medicine, agriculture, veterinary and dairy, technology, teaching and other degrees at the beginning of the period, 1961, and the proportion of students enrolled at the end of our period, 2004, in each of our two states.18

Chart 7 presents this comparison for TN and UP. It shows that while TN was marginally better in terms of technical graduates in 1961, the percentage of TN’s students enrolled in technical courses (as a proportion of population greater than 15 years of age), however small, were well above their counterparts in UP, in 2004. Technical graduates, due to their specific technical skills, must have contributed to TN’s edge in economic growth.

We conclude that TN’s superiority over UP in several education indicators has played a significant role in the higher growth rate achieved by the former.

**Human resource capabilities: Infant mortality rate**

Next we review the relative (health related) human capabilities of the population in TN and UP. Good health and population control can enhance the productivity of the people. We examine a selected indicator of human capabilities – the infant mortality rate. While there are multiple indicators of health, the reason why we choose infant mortality rate is because it can indicate the low level of health care services, morbidity, ignorance of good health practices, poor maternal health as well as overall family health.

Time and again, empirical studies have brought out the finding that hospitalization is one of the most important reasons for indebtedness and abject poverty, especially so in rural areas (see George 2009). Hence we assume that states which have lower infant mortality rates are healthier. A healthy population is capable of producing more output and income. However Ashraf et al (2008) find that the effects of health improvements on income per capita are substantially lower than that quoted by policy-makers and may not emerge at all for three decades or more after the initial improvement in health.

Chart 8 summarizes the three years’ moving average infant mortality rate (IMR) of the population in TN and UP during 1971–73 to 1993–95. It shows that TN’s IMR has always been lower than that of UP, although the disparity in this factor has been slowly declining since the late 1980s/early 1990s. This implies that TN had one more precondition ready for its economic growth to take off, having a healthy population enjoying lower infant death rates, conducive for promoting economic growth.

18 The assumption we make in this comparison is that the proportion of graduates to those enrolled will remain about the same.
The Paradox of India’s North-South Divide:

Human capabilities and skills: Life expectancy

Life expectancy is another key indicator of human resource capabilities, which, it should be recalled, is used in the computation of the human development index (HDI). Life expectancy is the expected (in the statistical sense) number of years of life remaining at birth. Factors that are associated with life expectancy include economic

Chart 8: Infant Mortality Rate, TN and UP

Chart 9: Trends in Life Expectancy, TN and UP
status, education, environment, climate, and health care. We note that higher economic growth is caused by the same factors which contribute to higher life expectancy.

When we reviewed the trends in life expectancy at birth for TN and UP (Chart 9), we find that TN was always higher than that of UP, lending credence to the fact that TN was prepared in terms of its human capabilities for economic growth to take off.

**Human capabilities and skills: Total fertility rate**

It is instructive to examine the total fertility rate (TFR) for TN and UP to examine if TN’s fertility rate has been lower than that of UP. Why is it that a lower TFR is good for economic growth? It is because of its effect on the age distribution giving rise to the “demographic dividend.” As fertility declines, the proportion of children in the population declines and the proportion of population in young working age groups increases. As a result the child dependency ratio decreases and the number of young workers increases. Both these trends are highly conducive to economic growth as it results in a decrease in consumption and increase in production. China is reaping the demographic dividend right now. Kerala and Tamil Nadu have just begun to reap this dividend. It will be some years before UP could realize this dividend. But it will, in another 20 years.

We suggest that the better performance of Tamil Nadu in economic growth is partly due its earlier start-up in demographic transition. TN had a very effective family planning programme for quite some years. Its fertility rate started declining very much earlier than in UP, being much lower than that in UP.

We examined the fertility rates of the population for TN and UP over time during 1971-97. These data indeed lend credibility to the fact that TN’s fertility rate and natural growth rate of population were both always lower than that of UP during this entire period, which testifies to the successful adoption of family planning methods by TN. While lower population growth implies less human resources to produce output, if TN’s per capita income grew rapidly despite the slowdown in its growth rate of population, then it must have been the case that TN population’s productivity was higher, possibly reflecting the impact of its rising literacy and associated skills.

A major factor which helps to explain TN’s economic ascendancy in the late 1980s/early 1990s is its investment in human resources, primarily in health and education, in the post-1960s.\(^\text{19}\) We noted that no major investments were made in the state after 1960s on dams or irrigation, for example. The investment in human capital was dominant and was in two relevant sectors – health and education.

\(^{19}\) Based on discussions with Dr P. Umanath, a current civil servant, and Mr P.V.Rajaraman and Mr R.Poornalingam, former civil servants.
In health, the various programmes focused on a family welfare programme, rather than merely on family planning.\textsuperscript{20} There was a steep rise in sterilizations, and the birth rate was controlled during 1980s. Hence the total fertility rate declined, even well below that of Kerala.

The other part of the investment in human capital was in health-cum-education during the 1980s. A big part of this story was the mid-day meal scheme initiated by the then Chief Minister M.G. Ramachandran’s regime. The focus in this programme was not just feeding, but on nutritional improvement. There was a regular practice for doctors visiting government pre-schools to monitor the nutrition intake amongst children to ensure that there was the right combination of carbohydrates, proteins and vegetables. The local population was involved in the programme whenever it was possible, and their suggestions were included to make the programme locally relevant. This model was subsequently replicated across the country.

There was also a programme for girl children in 1980s and 1990s which included the provision of a grant if the girl child completed 10th standard. The PDS in states such as TN is also universal, not targeted as it is in other states. This may have contributed to the nutritional advancement of the poorer segments of the population.

As a result of the population policy and its efficient implementation, the proportion of children in TN is much lower than that in UP. The proportion of population in

\textbf{Chart 10: Young Working Age Population (15-29 years) as a Percent of Children Below 15 Years}

\textsuperscript{20} This is based on discussions with Mr.P.V.Rajaraman.
the 15-29 age group in TN is much higher than that in UP. We made some calculations for TN and UP for the young working age population (15-29 years) as percent of children below 15 years. The results are summarized in Chart 9. Chart 10 shows that the burden of the child population is far less in TN than in UP. This is a clear reflection of the total fertility decline in TN when compared to that in UP.

Mehrotra (2006) after analysing the data from two National Family Health Surveys (1992 and 1999), addresses the reasons why UP’s social indicators, including the health and education status of the lower castes, are much worse than in Tamil Nadu. He points to the fact that the state government of TN has shown remarkable initiative in its health policies. He states, “... the state (TN) is better prepared than most others in implementing many components of the reproductive health programme that India launched in October 1997.”

Everything said and done, we need to remember that demographic dividend is a passing phase that is beneficial only for a while. While TN is enjoying it now, UP may experience the dividend later.

### 2. Urbanization

There is a lengthy literature that attempts to explain the relationship between urbanization and economic growth. The reason why we expect urbanization to positively affect per capita incomes is that there are agglomeration, scale economies, easier access to new technologies, and increased productivity which accrue to firms in cities.

Thus while urbanization in general has a positive impact on economic growth, we do observe that urbanization has now been occurring more rapidly in countries that have relatively lower levels of per capita income. Cohen (2004) attributes this to the reason that urban change is now more closely related to changes in the global economy than ever before. Hence the causation between urbanization and per capita income is not a simple one-way relationship. Higher per capita income also promotes higher urbanization because of the population’s desire to enjoy higher standards of living and better quality of public services.

While the above discussion highlights that there is a more complex relationship between urbanization and per capita income, we reviewed the urbanization levels of TN and UP over a long period of time to understand the trends. Chart 11 summarizes the trends in urbanization for TN and UP during 1961-2001. The finding from this chart comes as no surprise since we observe TN has always been ahead of UP as far as urbanization is concerned. Moreover since 1991, TN’s urbanization has taken off at a rate greater than that of UP’s, with a marked upward shift occurring only in the

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21 We are grateful to K.C.Zachariah for this chart.
1990s. According to Census 2011, TN is one of the most urbanized states in the country at 48 percent, while UP’s urbanization stands at 22 percent.

TN’s climatic conditions and natural resources are partly responsible for the greater degree of urbanization we observe in the state.\(^{22}\) TN has been a rain-starved state with limited scope for irrigation. Hence most of the state’s economy has been non-agrarian which is one criterion based on which the Census of India defines urban areas.\(^{23}\) Further, in TN, trade became the driver of growth leading to centres of trade turning into cities.

Based on the Census definition, UP was only 22 percent urban according to Census 2011. This might be related to the fact that UP’s lands are very fertile, and are highly suited for productive agriculture. Based on our discussions, we surmise that while a majority of towns in TN would be designated on the basis of the non-agricultural employment criterion, a majority of towns in UP would be designated on the basis of the population criterion.

The colonial government laid the road and railway network. TN’s early network of railways also contributed to the development of towns. This strongly implies that its

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\(^{22}\) This is based on discussions with a current civil servant, Dr.P.Umanath.

\(^{23}\) It may be recalled that the Census of India defines urban settlements as those having the following characteristics.

- a population of five thousand or more;
- b. a minimum density of 1000 people per square mile or 400 persons per square kilometre;
- c. at least seventy five percent of work force outside agriculture.
higher level of urbanization, to begin with, must have been a contributing factor to TN’s higher per capita incomes, which, in turn, led to increased urbanization.

3. Infrastructure

Good infrastructure is necessary not only for increasing the quality of life, but also for increasing productivity and output. Among the critical infrastructure investments that matter for all sectors are electricity, roads and telecommunications. We review measures of critical infrastructure such as installed capacity (for electricity), road length and tele-density for the states to compare their contribution to economic growth.

All sectors depend upon electricity. Installed generating capacity represents the potential to provide energy to the various sectors of the state. Roads represent connectivity to markets and mobility to take up employment.

Similarly, telecommunication infrastructure is essential for connectivity, reducing transaction costs, and increasing organizational efficiencies. The literature conclusively shows that tele-density has a positive impact on growth. A number of researchers have hypothesized that telecommunication infrastructure lowers both the fixed costs of acquiring information and the variable costs of participating in markets (Norton, 1992). They point out that as such infrastructure improves, transaction costs decline and output increases for firms in various sectors of the economy. Sridhar and Sridhar (2007) found positive impacts of mobile and landline phones on national output, when controlled for the effects of capital and labour.

Chart 12: Installed Generating Capacity (per million population), TN and UP

![Chart 12: Installed Generating Capacity (per million population), TN and UP](image-url)

Note: IC = Installed capacity.
The Paradox of India’s North-South Divide:

Chart 13: Road length in TN and UP

Chart 12 compares the installed capacity (for generating electricity) per million population for TN and UP for a long period of time (1960 to 2004) to examine their preparedness for economic growth to take off. We find TN’s installed capacity started at a much higher level in the 1960s than that of UP’s. The gap widened a great deal since the 1980s. Beginning from the late 1980s, TN’s installed capacity generation took off while UP’s declined. There are reasons to believe that there was a boom in wind energy which explains this growth in installed capacity.

Next, as discussed earlier, we compared road length in UP and TN to assess the enabling factors for economic growth to take off. Chart 13 compares road length in TN vis-à-vis that in UP for the period 1970-71 to 2001-02 (it is a moving average). The road length per thousand population has always been higher in TN than in UP, which testifies to the market and employment opportunities available to residents of the state. Investors would have been attracted more to TN than to UP on this score alone. This lends credence to the fact that TN had many preconditions necessary for economic growth, most of which were weak in UP.

Chart 14 compares the telephone penetration (consisting of both landline and mobile phones) for TN and UP for the period for which the data were readily available, 1999-

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24 For the years 2001-04, we have taken into account the data for Uttarakhand to make the data for undivided UP comparable to that during the pre-2000 period.
2004. Even for this relatively recent period, TN’s telephone penetration is higher than that of UP. It is possible that historically also (if we had had the data) UP scored over TN as far as telephone penetration is concerned (quite unlikely). Even if this were to be the case more recently, it is evident from Chart 14 that TN has taken over.

Thus, in terms of all infrastructure indicators, UP was considerably behind TN for a long period.

**4. Resource Utilization and Efficiency of Resource Use**

Investment is a necessary, but not a sufficient condition for growth to take place. The efficiency with which investments are utilized also matter for growth. Two important sectors that use vast public resources are agriculture and social sectors such as education and health. Though agriculture deals with multiple crops, we focus here on food crops and their yield as a measure of efficiency. We also examined development expenditure in the two states.

We examined several measures of resource utilization which show to what extent the states have been able to efficiently use their resources. One measure we choose is the food grain yields of the two states. Food grain yields demonstrate the utilization of

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25 We found that the telephone data for UP did not change post-2000 even after the creation of Uttarakhand because it continued to operate as UP-West circle, while the rest of UP operated as UP-East.
The Paradox of India’s North-South Divide:

Chart 15: Food Grain Yields, TN and UP

Note: FGY-Food grain yield.

land, water and plant resources of the states by the private sector (farmers). The assumption is that the higher the utilization of these resources, the greater the impacts on economic growth, output and income. In fact, Datt and Ravallion (1998) attribute rural poverty reduction among Indian states to differing growth rates of farm yield per acre.

Chart 15 presents the differences in food grain yields between TN and UP over a reasonably long period of time, 1970-2004.26

We note the surprising finding that there is not much of a disparity across the two states as far as food grain yield per hectare is concerned, though UP is better endowed with water, irrigation and soil quality.27 The reason why UP experienced higher food

26 For the post-2000 period, we have added the corresponding data for Uttaranchal to UP to make the state-level comparison valid pre- and post-2000.

27 While the western part of the state is quite fertile and productive, our discussions in UP (with Mr. T.N. Dhar, a former civil servant) pointed to the low productivity of agriculture in the state due to the following factors:

a. Overutilization of urea with the result of steady loss in the productivity of land;
b. The overuse of water;
c. Small size of agricultural land holding due to demographic pressure;
d. Low seed replacement rate (seeds should be replaced every 1.5 years or so, but in UP it’s done only once every 5 years).
grain yields (during the mid-1980s) is because the green revolution spilled over from the prosperous agricultural areas of Punjab to western UP. While TN has greater food grain yields when compared with UP for many years, UP scores over TN for recent years. So we find that this cannot be a factor which explains the differential growth of per capita incomes in the two states.

The second area of resource utilization we choose is developmental spending of the states. The assumption is that whenever states allocate and use resources for development, they create assets which in turn increase their output and incomes. The foremost among these measures we summarize is the per capita developmental spending of states. Developmental spending refers to public investment made in the creation of durable assets such as roads, bridges, higher installed capacity for generating electricity, expenditure resulting in outcomes such as higher enrolment in education, better infant mortality rates, lower birth or death rates.

Further, in UP, agriculture is non-diversified and the value chain is absent. The example is one of potatoes and chips. Further industry clusters which existed such as the Kanpur/Haridwar/Agra leather industry, glass industry in Firozabad (similar to TN’s industry cluster in Tiruppur, Sivakasi) did not prosper. Further, the government’s investment in technology upgradation was minimal, hence the state’s agriculture could not move up the value chain. Hence higher food grain yields failed to make an impact on increasing per capita incomes.

We examined the trends in per capita agricultural NSDP for the two states, and they look quite similar. Clearly then, the agricultural sector did not underlie the rapid surge in per capita incomes we observe in the case of TN.
We examine per capita developmental expenditure in the two states to review if there are disparities across TN and UP. Chart 16 summarizes these differences over time, during 1980-2003. Chart 16 conclusively shows that while the gap between per capita developmental expenditure of TN and UP was within a narrow band until 1990, after 1990, TN’s per capita developmental expenditure grew by leaps and bounds, while UP’s per capita developmental expenditure rose in a linear manner and even declined (post-2001). While this may have been rather the result of rising per capita incomes, the data are testimony to the fact that TN attempted to utilize its resources through its higher developmental spending to create higher levels of output and income than UP did.

Efficiency of resource use

The efficiency with which resources are utilized has impacts on economic growth. If resources are used in a manner which maximizes the useful goods and services derived from those resources, then we may expect greater economic growth to occur. The ‘doing more with less’ slogan indicates the focus on more outputs with fewer inputs (fewer resources). While we focus on outputs with fewer resources, we are unable to examine other resource utilization impacts on equity related aspects such as the wellbeing of the poor, due to data limitations.

In order to examine the efficiency of resource use, we examined expenditure on various sectors (such as roads) which are inputs, and that on respective outcomes such as the change in road length. We understand that outcomes manifest themselves only with a lag after the initial expenditure/investment has been made.

In the case of roads, we used the 1980-85 period for examining expenditure and with a 5-year lag, for observing 1985-90 for the outcome, i.e., road length, since there is a time lag for the spending to produce tangible outcomes.

We found that TN spent a total of ₹92,483 during 1980-85 for creating every additional kilometre of road during 1985-90, whereas UP spent 3.5 times more than that of TN, ₹328,788 over 1980-85 to create an additional kilometre of road during 1985-90. Therefore, in the case of roads, given their relative record of spending, TN fares better than UP in efficiency. This shows that for a given budget, TN was able to build more kilometers of road than UP.

We took another example from the social sector (primary education) to demonstrate the efficiency of resource use in the case of the two states. Two surveys done by the

28 The data for UP include that for Uttarakhal post-2000 to make the pre-2000 and post-2000 UP data comparable.

29 We recognize that the mix of roads (for e.g., rural roads, national and state highways), land terrain, and other factors could make a difference to the cost of roads per km. Nevertheless, these factors may account for only a part of the cost differential noted above.
Public Report on Basic Education in India (PROBE) team in the Hindi-speaking states (in 1996 and 2006), showed that despite the fact that schooling infrastructure had expanded rapidly, classroom activity levels had not improved during the decade. For instance, there was an impressive increase in the number of primary schools between 1996 and 2006, with one out of every four government schools being set up during this decade. Further, the proportion of schools in UP with at least two pucca rooms went up from 26 percent in 1996 to 84 percent in 2006. Next, in 1996, free uniforms and textbooks were provided respectively only in 10 percent and less than half of schools, which increased to more than half of the schools and nearly 99 percent of schools in 2006.

Let us relate the inputs discussed above to outcomes. In rural North India, in 1996, about half of the time, there was no teaching going on in primary schools. However, despite all the increases in resources and inputs during 1996-2006 reported above, a resurvey conducted in 2006 found that nothing had changed with respect to educational outcomes – half of the government schools still had no teaching activity when the investigators arrived.

Dreze and Gazdar (1996) confirm several aspects of the long term neglect in UP as it relates to education. They point out that (p.88-89)

“... it is easy to cite many examples of continued indifference. One of the most telling symptoms in this respect is the sustained decline of real per capita public expenditure on education in recent years – by almost 20 percent between 1991-2 and 1993-4. The number of primary school teachers per capita has also steadily gone down in recent years...further aggravating the spiraling decline of teacher-pupil ratio in the eighties. Similarly the state government has taken little interest in the Total Literacy Campaign, even after the considerable potential of that campaign had been well demonstrated in several other states. The under utilization of large grants earmarked for the promotion of elementary education (received from international agencies as well as the central government) is yet another symptomatic indication of the low priority given to basic education by the state government. Here again, official neglect provoked little challenge from opposition parties, interest groups, the media or the general public.”

TSR Subramanian, in his account as Chief Secretary, UP, records the following (pp.229) which throws light on the state of primary education in the state:

“In 1991, as I was once driving in the mountains in the course of an official visit, I stopped the car on an impulse, to visit a village which was situated on a ridge well above the highway, involving a steep climb on foot for about two kilometers. As I started walking up, the local block development officer who was accompanying me frantically tried to stop me, giving me various excuses. He finally talked about...
a heart condition and I was a bit intrigued about why this functionary was so unwilling. Anyway, leaving him behind, I went ahead, accompanied by my orderly. We found a medium sized village with perhaps two hundred inhabitants. A primary school was located there: Only one teacher was present. After some questioning, I managed to find out that the school had a regular strength of five teachers. However, by mutual arrangement among the teachers, only one would be present on any day; each of the five would take turns of fifteen days at a time, to attend to their teaching duties and take the rest of the time out to attend to other matters. I also discovered to my dismay that the village had not seen an inspection visit by a single block level officer, even though there were some fifteen officers attached to each block. The block level officers conveniently visited only the roadside villages. The village I visited was not particularly inaccessible. Yet, such was the apathy to the villagers’ needs. In a microcosm, we can, at one stroke, understand the failure of development to take hold in the hills. Nearing the end of my visit to the village, I was quite dispirited.\textsuperscript{30}

While we did not have data on classroom activity for the southern states, we found that the Annual Status of Education Reports (ASER) of Pratham, tracks the status of selected educational indicators for all states in the country. We found in 2006, for instance, that the percentage of children out of school in TN was 4.9 in the age group 7–16, 3.6 in the age group 11–14 and 15.8 in the age group 15–16 (both boys and girls), compared with 8.9, 8.9 and 22.6 respectively for UP during that year. Similarly, the proportion of children not going to any government, private school, balwadi or anganwadi, was 57.7 percent in UP for children in the age group 3, whereas it was only 13.1 for TN. We found a similar trend for children not going anywhere in the 4, 5 and 6 age groups in TN vis-à-vis UP. This is despite the fact that TN’s proportion of spending on elementary education during the period 1994-95/2009-10 was a meager 1.67 percent of the total spending on education.

We found evidence from TN’s Human Development Report (HDR) that TN had several important historical developments in the field of elementary education including those from the colonial era, and that its surge in primary education was not an overnight development. For instance, the earliest developments in the field of education in TN were brought on by the advent of the Christian missionaries as early as the beginning of the eighteenth century. Some interesting highlights on the status of girls’ education in TN reported by TN’s HDR revealed that the proportion of boys to girls in elementary schools changed from 4:1 in 1911–12 to 3:1 in 1926–27. The need to open more girls’ schools so as to ensure access for girls was thus recognized. Annexure A.1 contains a detailed description of initiatives on the history

of elementary education in TN, which are excerpts from its HDR.

We were unable to find any such material on the history of elementary or primary education in UP, which itself testifies to the fact that there were probably no important developments in this area in UP which was worth documenting.

Thus we find that lower efficiency in the deployment/utilization of resources, along with other factors, also may have been a key factor in the poorer economic performance of UP when compared with that in TN.

The proximate factors discussed above helped TN to prepare the ground for attracting many new industries. A major factor influencing the location of industry in TN was the setting up of industrial estates in the 1950s which was an initiative introduced by R.Venkitaraman who was industries Minister in the state at the time. Land was freely available and acquired, and infrastructure developed for industry. Land acquisition and compensation, were well managed in TN. Further, a factor influencing the growth of small and medium enterprises was the availability of cheap loans from SIDBI and the TN Industrial and Investment Corporation. Further the utilization of schemes such as the Textile Modernization Scheme, when compared with its allocation, has been very high in TN, compared with that in other states. Based on discussions with industry representatives, we conclude that a relatively peaceful law and order environment, availability of technical manpower, the presence of a good work culture (fewer strikes and lockouts) the promise of good infrastructure and the proximity to ports (Chennai, Ennore and Tuticorin) were major factors influencing the choice of industry to locate there. While a large part of the textile cluster in Tiruppur developed because of the natural availability of cotton in that area, the state government took a number of initiatives to develop conducive infrastructure for location of industry. It should be noted that all budget speeches made by TN’s finance ministers through the 1990s focused on all-weather, motorable roads which provided connectivity from the hinterland to the urban markets, which was a major factor influencing the location choice of industry in the state.

As an outcome of the expansion of industry, there was increasing demand for electricity in the state, with the result that despite continually increasing installed capacities (as our evidence shows), there was a shortage of power. One official with whom we met, quoted the fact that in Coimbatore district alone, the power consumption was nearly 1,000 MW in a recent year, whereas the total consumption of power in the entire state of Bihar was 1,000 MW!31

While corruption continues to be a problem even in TN, public services and infrastructure are delivered much more efficiently (as we have documented in the case of roads and primary education) than in other states.

31 This was based on discussions with Dr.P.Umanath.
The Paradox of India’s North-South Divide:

The foregoing comparison of a range of indicators of human development, infrastructure, urbanisation and efficiency of resource use explains why Tamil Nadu’s per capita income was always higher than that of Uttar Pradesh for several decades. Did the foundational factors too contribute to this outcome?

5. Quality of Governance

It is widely believed that the quality of public governance contributes a great deal to the economic and social progress and development of a country. Governance refers to the functioning of governments and public institutions that impact on economic activities and the lives of citizens. When the processes of public decision making and implementation of policies are carried out with credibility, transparency and accountability, governance is considered good. Given its complex nature and scope, however, it is far more difficult to define and measure governance than all the other factors discussed above. Per capita income is a summary measure of the economic performance of a society. Literacy rates can be used to measure some aspects of human capabilities. But there is no summary measure that reflects the multiple dimensions of governance. Nor is it easy to obtain the necessary data to quantify and measure the relevant dimensions of governance. This is a major reason why most explanatory models of growth and development ignore governance, or merely pay lip service to its importance.

Nevertheless, it is not difficult to see that governance can impact both the supply and demand sides of development. Credible and stable policy regimes, efficient and equitable allocation and utilization of scarce resources, and reliable law and order systems are factors that strengthen the supply side of development. Basic services that citizens and entrepreneurs require are likely to be more efficiently provided under these conditions. Infrastructure will be better built and maintained when these conditions are met. But a good governance regime has a positive impact on the demand side too. Prospective investors, domestic and foreign, are more likely to invest or expand in a state with better governance that is likely to more stable and reliable. In this sense, governance is valued not merely because public functions will be better delivered, but also because it instills longer term confidence in prospective investors to make durable commitments. Reputation and public image of the host matter to them. Governance thus impacts the demand side of development through its influence on the psychology of investors.

As noted above, there are limits to the extent of information we can put together on the quality of governance. Time series data on governance are especially difficult to obtain. After a careful assessment of the core elements that constitute governance and the feasibility of obtaining the necessary information on them, we have narrowed down our choice to four indicators of the quality of governance - political stability
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(which we measure by the tenure of chief ministers), law and order (as reflected in police firings and the proportion of civil to total police) and functioning of the judiciary (reflected in pending cases), though they are by no means comprehensive.

1. Political stability: The tenure of chief ministers

Political stability is central to any system of governance. Frequent changes in government are known to create uncertainty about policies and key public decisions in the minds of economic actors, thus adversely affecting economic performance and social progress. When policy making, implementation of projects and related actions become unpredictable, resources are unlikely to flow into such states or to be utilized efficiently. Though it is difficult to measure all aspects of stability, it is reasonable to assume that the tenure of a chief minister at the state level acts as a proxy for political stability. The stability in the sense of direction and style of functioning he or she brings provides the setting in which key economic actors will take long term decisions. The longer a chief minister’s term, the greater are the chances that stability and continuity of policies and follow up actions will prevail, and greater the probability that continuity of the officials in charge of key departments and programmes or projects will exist. A new chief minister will most likely change his ministers and officials, thus creating further instability. Viewed thus, the tenure of the chief minister can confirm whether a key pre-condition for proper governance is in place.

The above is not to say that tenure is a sufficient condition for good governance. It is an enabling condition that permits those in authority to craft and implement the right policies and programmes. A full and stable five year term, for example, will permit a CM to plan and monitor his or her policies and their implementation without being distracted by political uncertainties and challenges. She/he will be able to take corrective actions and pursue the goals and outcomes promised by the government. Needless to say, a long tenure can also be misused or end up with poor outcomes. If a longer term did not result in positive economic outcomes, it could well be that the CM’s policies and actions were flawed. More detailed probes into what happened in such cases will need to be carried out before a firm conclusion can be drawn.

2. Law and order: police firings and proportion of civil to total police

It is well known that basic law and order conditions are essential for both economic and social progress. Despite improvements in law and order, if the public image of a place is that it is disorderly, it can negatively impact investment decisions and retention of a skilled workforce. Though there are multiple measures of law and order, we have selected a more visible indicator, namely police firings per million population, because it reflects at once key aspects of the peace that prevails in a state. It signals the intensity and extent of inter-group conflicts in a society, the inability of the regime to bring them under control or a combination of both. Because firings are widely
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reported, and add to uncertainty and fear in the minds of people, they can adversely impact the smooth functioning of a society, and its economic enterprises. Being more visible to the public eye, police firings are also less likely to be misreported or manipulated in official records.

The above cannot be said for other types of crime like murders, domestic violence or property related crimes where suppression of facts is more likely to happen. There is also data available with the NCRB regarding crimes such as murders, suicides, property related crimes which can lead to insecurity in the minds of the citizens and investors regarding the nature of governance. There could be some problems with the way in which these crime data are reported. For instance, only when a FIR (first information report) is filed that instances of murders, thefts are recorded. But there is evidence that it is difficult to register an FIR. In events when no FIR is filed, those crime data go unrecorded. However, police firing incidents are reported in a standardized manner at the state level, hence we place more faith in this as a measure of law and order.

A second law and order indicator we choose relates to the proportion of civil to total police (consisting of civil and armed police). The proportion of civil to total police force is an indication of the peaceful conditions prevalent in a state. Only when disturbed conditions exist in a state that para-military forces are called from the centre. Hence the greater the proportion of civil to total police force, the greater the extent of peace, law and order prevailing in the state. A lower proportion of civil police to total police force reflects the prevalence of worsening law and order conditions in the state.

3. Functioning of the judiciary: Pending cases in court

A fair and efficient justice system is a key determinant of the quality of public governance in a state. A rise in pending cases may reflect growing numbers of disputes in society or the judiciary’s failure to deal with them efficiently. Potential investors will view this as a negative factor. Barriers to dispute settlement and the resolution of legal problems can slow down growth and development simply because they add to the costs of engaging in economic and social activities, and reduce public confidence in the larger legal governance system. Once faith in key public institutions is shaken, it is difficult to attract investors and other development actors who need to allocate, augment and manage resources in the state.

These indicators capture three essential ingredients of governance: political stability, law and order, and the dispensation of justice. As noted above, there are other dimensions of governance that also deserve to be considered. Indeed, a comprehensive assessment of governance will call for a review of the functioning of all public

32 We thank Dr.Ajay Kumar Singh for these insights.
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institutions. But precise measurement and quantification of their attributes are by no means easy. Nor is it essential as our three indicators constitute the foundation that enable other institutions, both public and private, to function. Our surmise is that many other aspects of governance will be indirectly captured by the measures discussed above.

One such dimension is corruption, a phenomenon that has received much attention in the literature on growth and governance. The argument is that corruption can adversely affect the quality of governance and the pace of economic growth as it adds to the transaction costs of doing business and weakens the rule of law. There are multiple manifestations of corruption that make it difficult to measure and quantify its extent and impact. Corruption can take the form of monetary bribes, improper use of public power, nepotism, and other non-monetary forms. The nature of corruption is such that reliable evidence on its prevalence is nearly impossible to get. It is possible, however, that the influence of corruption is reflected in the other indicators of governance that we have discussed above. We know, for example, that when political stability declines, the scope and opportunities for corruption tends to increase. When law and order break down, citizens may be forced to resort to corruption to solve their problems and to obtain essential public services. Poor or disorderly governance and corruption may thus go together, one reinforcing the other. In the present study, we have not attempted to incorporate corruption as a separate governance factor for these diverse reasons.

We now turn to a comparison of TN and UP with respect to the governance indicators.

Table 1 summarizes the average tenure of chief ministers of the two states, which we choose as a measure of political stability. The average tenure of chief ministers in TN and UP was not too different in the first period displayed in the table (late 1940s to mid-1960s). In fact, UP was slightly ahead with an average tenure of 1748 days for the chief minister, in contrast to TN’s average tenure of 1692 days. Thereafter, however, the average tenure declined in both states.

Table 1: Average tenure of chief ministers (number of days), TN and UP

<table>
<thead>
<tr>
<th>Period</th>
<th>TN</th>
<th>UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949-50 to 67-68</td>
<td>1692</td>
<td>1748</td>
</tr>
<tr>
<td>1967-68 to 84-85</td>
<td>1393</td>
<td>297</td>
</tr>
<tr>
<td>1984-85 to 08-09</td>
<td>1058</td>
<td>390</td>
</tr>
</tbody>
</table>
But the decline was much steeper in UP, causing a noticeable fall in terms of political stability. Between 1967 and 1985, UP saw 18 chief ministers and periods of President’s Rule. In contrast, chief ministers changed only three times in TN. Since 1986, there has been an increase in the average tenure of chief ministers in UP, while a decline is seen in TN.

However, a clear divergence has persisted all these years between the two states, with the average tenure in UP being substantially below that of TN even during the latter period. Consequent to the changes in the leadership at the top, 420 out of the 500 IAS officers in UP are also reported to have been transferred annually since 1992. Agriculture department secretaries were changed nearly six times in a year in the state.

In fact, in a personal account of his tenure as Chief Secretary, UP, TSR Subramanian states:

“... In the 1990s in UP, the average tenure of a collector in a district was nine months. I was to see, as Cabinet Secretary, that the average tenure of a collector all over India was about thirteen months...In circumstances that are not conducive for the pride of satisfaction in work, how can one expect meaningful results? No wonder we have reached the state in which we are in today...In the current state of affairs, few officers have the thought of contributing anything. An officer merely wishes to extract as much as he can for himself and his family in every successive assignment.”

Judged by the trends in the average tenure of chief ministers, the political stability in TN was significantly greater than in UP, except in the immediate period after Independence. Attention to policy making, control over administration and public expenditure, and public services would have suffered far more in UP than in TN as a result of the frequent changes in the chief minister’s post. TN’s achievement in terms of family planning is a case in point. Greater political stability with the consequent political support to this programme was key to its successful implementation. Such an enabling environment did not exist in UP where frequent changes in chief ministers meant less attention to the programme and its implementation. While the term of the bureaucracy is a function of the tenure of the chief minister which was progressively getting shorter in UP after the 1960s, this also reflected the fact that bureaucrats were mere instruments of the administration and were not allowed to function with certainty in the state.

34 These observations are based on our discussions with officials in UP.
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Our discussions with several officials in TN and UP revealed several other ways in which political stability helps to improve the quality of governance. TN’s governance has been dominated by parties which won a clear majority in elections. While coalition governments entail significant transaction costs, political parties which win a majority are better able to deliver services to citizens, and take more speedy policy decisions.

Further, with regional parties in control, TN was often at the receiving end of the Centre with very few investments in the public sector. This, however, has not acted as a deterrent to the state’s entrepreneurial attitude as the state made its own efforts to attract private investment, with a highly pro-business environment. The result of this effort has been to get automobile manufacturing to the state with firms such as Ford, Hyundai, Mahindra, Ashok Leyland and the TVS group (which was home-grown in TN). Thus the compulsion to attract private investment motivated the state to improve infrastructure and efficiently deliver services.

The India Human Development Report (2012) contrasts governance in UP with that in TN:

“(The) Madras Presidency was relatively more developed in the colonial times as well: post-independence, successive state administrations have built upon this advantage. Policies such as the roll-back of power tariff increase, free power for agriculture, a sustained positive discrimination policy, and a targeted Public Distribution System (PDS) initiated the growth process in the state.”

Chart 17: Police Firing Incidents Per Million Population, TN and UP
With respect to the second indicator, police firings per million population, there is a marked difference between the two states, though our data cover a much shorter period than the chief minister’s tenure. Police firings per million population reveal a mixed trend in UP for some periods than in TN (see chart 17). Furthermore, in TN, there is a substantial decline in this indicator over time, while in UP police firing incidence is on the rise.

Some explanation is in order with respect to the law and order conditions in UP and what led to the worsening law and order there in the 1990s. Our discussions in UP indicated that the ruling parties dominated by upper castes, did not develop the backward classes such as the SC and Muslim population of the state which constituted 20 percent each, due to which the 1990s saw the revolt of the sub-alt erns in the state which was characterized by law and order problems in response to which police firing was used. Because of this, our choice of police firing as a measure of law and order is well-placed.

Chart 18 summarizes our second indicator of law and order, proportion over time of civil to total police (consisting of civil and armed police) in TN and UP. It shows that TN’s civil police strength has been historically much higher than that of UP (where it is around 80 percent and dropping to 60 percent in 1983), hovering around 90 percent of its total police force, testifying to the relatively more stable law and order conditions over there.

The third governance indicator which we reviewed across the two states reinforces a similar trend which we find in the case of the other two indicators. The percentage of pending cases in the courts in UP is much higher than that in TN.
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Chart 19: Percentage of Court Cases Pending Investigation at End of Year

As Chart 19 shows, the initial condition is worse in UP and the deterioration continues over the period for which data are available. In TN, there is a marginal reduction in the percentage of pending cases (–0.29 percent) while the same has increased in UP by 0.75 percent per year. In other words, the functioning of the judiciary has worsened in UP while it has improved somewhat in TN.

The foregoing analysis confirms what many observers have intuitively surmised; that UP’s governance track record remains well below that of TN. Our evidence further shows that at least in respect of three indicators, UP has continued to deteriorate over the period under review. The lack of progress noted in other factors in UP (discussed above) too could be attributed at least in part to the state’s governance record. Poor governance can adversely impact the mobilization and utilization of resources for education, health, infrastructure and other public goods, and result in their suboptimal outcomes, slowing down development in the process.

Of the indicators discussed above, political stability is of critical importance. It is not implied here that the chief minister’s tenure fully ensures stability. What s/he achieves during a stable tenure is what matters. Here, the evidence from TN is impressive. The focus of the chief ministers on development, their attention to the bureaucracy’s delivery of basic services, and their proactive efforts to attract investments to the state reflect the quality of leadership and “political will”, an essential foundation of good governance. This achievement, as we shall see, was aided by the “demand factor” discussed below.

This is not to say that there was no corruption or abuse of power in TN. But the political leadership did deliver despite these problems.
In contrast, in UP, according to several observers, the quality of political leadership is poor, characterized by ‘identity politics’ where real commitment to the state’s public is missing and there are pressures in a coalition government.

A major contributor to TN’s growth was the prevalence of systems and procedures. The bureaucracy and administration are required to deliver on various issues. Various institutions and systems are in place. For instance, Karunanidhi as CM, took special interest in reviewing sales tax collection efficiency which incentivized tax officials to follow up on the administrative procedures to collect taxes. There are systems in place in the GoTN and the coordination between the relevant departments is much better here than in other states.

Another example of TN’s efficiency with respect to procedures and processes is as follows. If there is a project (such as a hospital) which requires the coordination of the public works, planning and finance departments, there is a single file on which everyone (from the above departments) comments, with the result that the time taken for approvals is quite short. Further, the planning and finance departments, respectively responsible for allocation and utilization decisions, were housed in a single department for a long time, which was quite conducive for fast decision making.

All these examples from TN point to the important role bureaucrats need to play in ensuring the seamless orchestration of government machinery. In government, functions and tasks are always split up and differentiated. But putting them back together and interpreting their outcomes is often ignored. TN’s leaders recognized and tackled this problem successfully.

In contrast, in UP, any administrative machinery that came in the way of accomplishing the ulterior objectives of those in power was often ruthlessly crushed with the result that the bureaucracy in that state was incapacitated frequently due to the lack of risk taking of the state government. As an example, TSR Subramanian (2004) in his account as Chief Secretary, UP, records the following (pp.15):

“Sometimes I wonder whether the planning department itself had little to do or was it that the commissioners responsible had little to do? One day I accompanied Virendra Dayal, who was officiating as collector of Moradabad at that time, to Bareilly to attend the divisional planning committee meeting. All the district collectors, district planning officers and the local officers dealing with development matters participated in this meeting. We left for Bareilly at 8.30 AM to attend the meeting scheduled at 10. The drive normally took about one and a quarter hours, but at Clutterbuckgunj, on the outskirts of Bareilly, the jeep had a flat and we were delayed by some twenty minutes. We arrived at the meeting hall a few minutes late. It looked as if the meeting had not started. The head table was empty and the twenty or so participants were outside, laughing and chatting,
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seated on chairs in the main hall. The then officiating commissioner was I D N Sahi who was appropriately nicknamed “I do nothing” Sahi. After about ten minutes, Dayal asked, “When is the meeting starting?” There was laughter all around. We gathered that the commissioner had opened the meeting and stated that he had no comments to make and he hoped that everything was going satisfactorily, everyone immediately agreed that everything was going as well as possible. Thereupon, the commissioner concluded the meeting, since there was no further business to transact. So much for planning and development!”

While Paul Appleby’s report on India’s public administration in 1953 and 1957 identified UP (and Bihar) as the best governed states in the 1950s, this deteriorated in the late 1960s and early 1970s. In 1970s there developed a tilt which was characterized by student unrest and violence. Further, most of India’s Prime Ministers are from UP with the result that the Centre did not want to identify themselves with the state and ignored its developmental needs. The national parties did not encourage local leadership which made for the absence of dynamism. This is consistent with the view that leaders who are representatives of national parties are accountable to their superiors in Delhi.

According to observers and scholars who have studied UP, coupled with the above phenomenon in UP was a system of leaders, bureaucrats and industrial houses exploiting the system for personal gains in nexus. For instance, many a time, chief ministers were elected on the basis of caste, but that did not result in the development of those castes.37

The Demand Factor

Most of the policies, programmes and services provided by governments can be characterized as “supply side” interventions. Governments, for example, invest heavily in infrastructure of all kinds. They establish schools and appoint teachers. They set up health centres and hospitals to provide health care to the people. They provide police stations to receive complaints concerning law and order. The government’s anti-poverty programmes are meant to deliver a variety of welfare benefits to the poor. A major part of governance thus consists of supply side activities that are expected to satisfy the needs of citizens. It is assumed that people want these investments, activities and services and will utilize them once they are supplied.

These developments benefited greatly from the policies and infrastructural support at the political and bureaucratic levels. The expansion of urbanization in the state was in no small measure due to these factors. We have here an example of “social

37 This observation is based on discussions with scholars in Lucknow and Delhi who have worked on UP for a long time.
capital” acting as an instrument for spreading the benefits of development to the different parts of the state and different segments of the population.

Effective governance, however, calls for more than supply side activities by governments. When large numbers of people are unaware of government policies and programmes, they are unlikely to respond to them and take advantage of the benefits being offered to them through these interventions. When there are failures of service delivery or in the administration of justice, people are unlikely to demand corrective action unless they know their rights and there are organisations and instruments to assist them in their struggles. When the demand side is weak, the chances of misallocation and diversion of funds and benefits away from their intended target groups will also be high. Supply side interventions, therefore, need to be complemented by pressure from the demand side for public governance to be effective and responsive.

We hypothesise that the differential performance of states and regions is determined also by the pervasiveness and strength of the demand factor as explained above. There are three ways in which pressure may be exerted from the demand side to improve governance.

First, when the public are more aware of their rights and entitlements, the demand side pressure will be stronger. Well informed citizens are more likely to demand what is due to them and fight the abuses and failures of governance.

Second, when there are organisations that motivate the public and their communities to demand better governance, their capacity and determination to seek what is due to them and to monitor supply side interventions will be enhanced.

Third, organizational support will facilitate both networking and collective action to tackle abuses of public power and to demand greater responsiveness from governments. Organised sectors such as industry and trade are fine examples of how this process works. Unorganised citizens and marginalized communities, on the other hand, are unable to exert demand side pressure precisely because of the absence or weakness of the three factors mentioned above.

In recent years, we have witnessed many examples of how these factors have converged to create citizen pressure for improved governance. The use of new technologies such as the internet, mobiles and social media has significantly aided this process. In an earlier era, this role was played by large scale social movements and their dedicated leaders who worked tirelessly for many decades to strengthen the demand side of governance, and to give “voice” to the public who are at the margins of society.

As noted above, both the demand factor and governance are long term influences that impact economic performance. A historical perspective on their evolution is essential to understand their influence on development outcomes.
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We now turn to an analysis of the role played by the demand factor through social mobilization in the economic performance of the two states under review.

The demand factor in TN played a key role in the spread of education, awareness of rights and motivation to take advantage of the opportunities offered by the states and its new policies. There is historical evidence to support the thesis that education in TN had benefited from the helping hand of the British colonial government in the 19th century. TN led the country in the reservation policy in education that others emulated in later periods. More importantly, the social movements that dominated TN politics and public discourse in the early part of the 20th century created a much greater awareness among the lower castes that constituted the majority of the population about their rights and the need for collective action to claim their entitlements.

Scholars who have documented social movements across India have pointed out that similar movements did not occur in UP or other northern states. In both regions, there were movements that protested caste abuses and brahminical dominance. But the distinguishing feature of the TN social movements was their focus on gaining access to education and economic opportunities such as jobs in government. These movements not only created greater awareness among the backward classes about the need for collective struggles to achieve their ends, but also increased their sense of solidarity and mutual trust among the members, and helped them create vast new networks to mobilize resources and launch collective political and social action to achieve common ends. It was thus that large numbers of schools, colleges, and in recent years engineering colleges were set up by caste and community supported leaders and groups. A similar trend has been noted in the industry sector of TN where again, impressive numbers of small and medium enterprises have been set up by entrepreneurs, who took advantage of their caste and community networks. The governments in power facilitated this process, resulting in a groundswell of private sector development. Among the political leaders who promoted this process in TN were K. Kamaraj, R. Venkataraman, Annadorai and C. Subramaniam. Developments of this kind do not seem to have occurred in UP. The importance of these historical factors, especially social movements, in laying the foundation for strengthening both the demand and supply sides of development in TN cannot be overemphasized.

The historical sequence in which these developments occurred in Tamil Nadu is also quite revealing. In the nineteenth century, the British colonial government set in motion two major policy initiatives that significantly contributed to the development of business and the emergence of social movements by the intermediate and lower

38 Ganshyam Shah (ed), Social Movements in India, Sage, New Delhi, 2004, Chapter 5.
Castes in the Madras Presidency. Development of roads and bridges and improved law and order conditions in the southern districts was a policy initiative that facilitated the expansion of trade and transport, and the creation of a cluster of new towns. In the northeastern part of the Presidency, public investment in massive irrigation dams enabled farmers to increase agricultural output and productivity.

The second policy initiative of the Madras Presidency pertained to education, partly aided by the proactive efforts of the Church and its missionaries in the South. The expansion of the school system in both urban and rural areas enabled the children of all castes to benefit from this policy. The princely states of Travancore and Mysore in the South also encouraged the education of the masses. Until then, education and government jobs were largely the preserve of Brahmins. At the end of the century, over two thirds of the graduates of Madras University were Brahmins. As literacy, and the knowledge of English spread, the lower castes and their leaders became more aware of the need to demand a greater share for them in both education and government. The social movements that emerged were responsible for the colonial government’s “affirmative action” policy of job reservation for non-Brahmins. The dominance of the Brahmins in education and government jobs was thus broken.

The social movements in the South were not limited to concerns about jobs and education. Caste and community based associations in the early twentieth century played a major role in promoting their social welfare and economic progress (Damodaran, 2008). Their trade infrastructure, financed through a communal tax, provided the protection they needed to carry on commerce. These fora enabled members to pool their resources and skills for starting and financing enterprises, educational ventures, and for lobbying with governments for the resolution of their problems. Some of them started their own banks. The Nadars in the southern districts, Gounders and Naidus in the western districts (Coimbatore and Tiruppur) are among the lower caste groups that in later years became successful entrepreneurs in major industries.

These developments spawned a new generation of entrepreneurs from the lower castes in TN. The New York Times (NYT) quotes the story of an entrepreneur Chezi K. Ganesan who splits his time between San Jose and Chennai, running his $6 million a year computer chip-making company. The NYT story relates how his family has come a long way. His grandfather was not allowed to enter Hindu temples, or even to stand too close to upper-caste people. The NYT quotes this entrepreneur

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39 Social movements emerged about the same time in Maharashtra and Gujarat (Bombay Presidency), with similar results. In these western states, cooperatives led by intermediate caste groups such as patidars in Gujarat and Marattas in Maharashtra laid the foundation for the economic progress of the region through the development of dairy, sugar and cotton enterprises on a large scale (Damodaran, 2008).

who said that “Caste has no impact on life today,” in an interview at one of Chennai’s exclusive social clubs, the kind of place where a generation ago someone of his caste would not have been welcome. “It is no longer a barrier.” Thus Nadars created business associations to provide entrepreneurs with credit they could not get from banks. They started charities to pay for education for poor children. They built their own temples and marriage halls to avoid upper caste discrimination.

The NYT article highlights that the Nadars’ spectacular rise from despised manual laborers who made a mildly alcoholic palm wine to business leaders in one of India’s most prosperous states offers significant clues to India’s caste conundrum and how it has impeded economic progress in many parts of the country. The article points out that “...the breakdown of caste hierarchy has broken the traditional links between caste and profession, and released enormous entrepreneurial energies in the south.” This breakdown... (goes a long way in explaining)... why the south has taken such a lead over the north in the last three decades.\(^{41}\)

A distinguishing feature of the early entrepreneurs was their foresight in setting up educational institutions, including engineering and vocational schools that laid the foundation for the surge of technical education in many towns in Tamil Nadu. It is remarkable that those from higher castes (such as the Brahmins and Chettiars) who dominated trade and money lending during this period were not able to block this transformation.

In contrast, the demand side of governance remained weak in UP until very recent times. According to a scholar (Pai (2002, p.30-31)) who has studied these social movements, “More importantly, in contrast to the Bombay and Madras Presidencies, the United Provinces\(^{42}\) underwent no social reform movements which could have shaken the rigid caste hierarchy, introduced egalitarian values and created a climate favorable to the emergence of a Dalit movement.”

While the caste-based movement in Tamil Nadu was bottom-up and was socially sensitive, the caste movement in UP was top-down. Successive UP state governments dominated by the upper castes (read the Congress) focused only on the fertile western part of the state dominated by upper castes such as the Jats and Brahmins. Moreover, the national parties did not encourage local leadership. Overall development of the state needs the development of all the parts.

\(^{41}\) The NYT article quotes that caste is so now crucial to Indian politics that caste-based parties have demanded that caste be included in India’s census, and the government, bowing to pressure, has now started collecting data on caste for the first time since independence. They hope that by showing their large numbers, caste-based parties can force government to set aside more jobs for their communities.

\(^{42}\) During the colonial period, the present state of Uttar Pradesh was called the United Provinces. This was because it was an administrative construct, created by uniting the earlier provinces of Agra and Oudh.
The neglect of the lower castes in UP thus led to a revolt of the sub-altrens (consisting of the OBCs and muslims) in 1990s. While the system was unjust, for various reasons, the revolt did not happen earlier in UP. There was no revolt of the lower castes which happened in TN due to the enlightened policies of the leaders such as Annadorai and others who encouraged reservation for them in educational institutions and with employers. Tamil Nadu set aside 69 percent of government jobs and seats in higher education for downtrodden castes, which helped rapidly move lower caste people into the mainstream. The North did put in place affirmative action policies, but because education was widely embraced, southern people from lower castes were better able to take advantage of these opportunities than northerners. We find evidence of the control of the caste system in UP by Dreze and Gazdar (1996), where they state as follows:

“In pre-independence Uttar Pradesh, the institutional basis of local governance largely derived from the network of social and economic relations associated with zamindari and jajmani. The powerful zamindars dealt with higher levels of political authority, and sometimes also played a role in matters of collective interest at the village level. The jajmani system defined patron-client relations pertaining not only to private transactions but also to some public goods and services. While the services of non-agricultural castes such as carpenters, smiths, barbers...were privately consumed, some castes were responsible for services of a more public nature such as sweeping, sanitation, drainage and street maintenance. Even schooling was largely organized on the basis of traditional caste obligations (in this case involving Brahmin teachers) in many villages. This system of customary obligations was, of course, highly unequal and extremely unjust.”

When compared with what happened in TN, the struggle for social transformation took place in UP much later. As Pai (2002) points out (p.8),

“It was only in 1980s after considerable acceleration of the process of democratization, leading to formation of movements and parties espousing the interests and demands of regional, sectional and oppressed groups, that the BSP was formed in 1984. This coincided...with a slight structural shift in the economy from agriculture towards industry for the first time since independence—a process which provided Dalits the economic potential to assert against upper-caste domination. Under the leadership of the BSP, the Dalit movement in UP entered a new phase of separation and hostility towards mainstream parties and the upper-caste Hindu community...A number of significant socio-economic changes within the Dalit community by the 1980s made this possible. There were considerable improvements in the conditions of Dalits. The terrible poverty and absolute

43 P. 94–95.
dependence on landowners and old patron-client relations disappeared in areas such as the eastern UP plains....Urbanization increased non-land employment opportunities in brick kilns, construction activities, and rickshaw-pulling in the cities. No longer prepared to suffer indignities, the Dalits gave up unclean traditional jobs, such as carrying and skinning dead animals and scavenging. The catalyst for change everywhere has been education..

While the caste-based reservation has been in existence in UP since independence, due to the lack of adequately qualified personnel, many positions in the government and educational institutions remained unfilled. One outcome of poor governance in UP was therefore that funds for developmental purposes remained unutilized (the case of the Integrated Child Development Scheme (ICDS) was cited in our discussions with officials).

In UP and other northern states, a social churning in the nature of what happened in TN, and the consequent creation of institutional networks, which supported education and entrepreneurship, thus did not happen. The Bania and Vaishya groups in UP had a stranglehold over trade, industry and money lending. The lower castes were unable to overcome the barriers to entry erected by these higher castes. The incentives for the farming classes to demand change were also weaker. Farmers who prospered from agriculture were content and used their surpluses for conspicuous consumption rather than invest them in trade and industry. It is no surprise, then, that a new and broad based entrepreneurial class did not emerge in the North.

On the other hand, in TN, the social movements led by the intermediate and lower castes and affirmative action by the state mutually reinforced each other. Starting from caste based associations, a wide variety of non-governmental organizations sprung up in Tamil Nadu in the twentieth century, expanding the scope for networking, exchange of information and serving the diverse needs of society. Their influence on political movements also increased over time. Apart from educational institutions, cooperatives, healthcare institutions, social welfare organizations, civic groups and professional organizations of all kinds emerged in Tamil Nadu in recent decades, making it a leader in the voluntary sector. As education, especially technical education, became more accessible to all, new entrepreneurs appeared on the scene, creating employment and income opportunities for larger numbers of people, notably after Independence.

The India Human Development Report (2011) states that

"Tamil Nadu ... has taken strong measures to ensure the effectiveness of the public health system and its health policies. The Dravidian movement, which began in Tamil Nadu, aimed at providing opportunities to all, irrespective of the caste. With the dual objective of educating all and eradicating superstition, the movement..."
proved to be one of the biggest achievements of the state government. This was one of the main reasons for higher enrolment rates for SC and OBC children in the state. Thus, the real explanation for the better than average health, education, and nutritional status of the populace lies in the social movements and technical interventions initiated by the Government of Tamil Nadu. The Dravidian movement in the state provided socio-political and cultural space for even the deprived sections, making the process of development more inclusive (Mehrotra 2006)."

Sudha Pai (2002, p.7) states additional evidence of the above and explains why UP experienced no lower-caste movement:

“Both industrialization and land reform were expected to release forces of social and economic change. The latter, though limited in scope and poorly implemented, together with the Green Revolution, enabled the first wave of backward class horizontal mobilization. It took place in the North Indian countryside, under leaders such as Charan Singh, against upper-caste socio-economic and political domination. This was seen in the formation of a backwards-led government in 1967 in which, for the first time, a number of backward caste ministers were appointed. The RPI-led Dalit movement in the 1960s, was the first attempt in the post-independence period, to grapple with the issues outlined before, but it proved to be short-lived. This was because its leaders were divided over the ideology and strategy of the Party, particularly, its relationship with the Congress, which was able to absorb it by the late 1960s. Moreover, the existing power structure in UP, in the rural areas in the first two decades after independence, did not allow any space for the RPI to become a strong force and it remained a marginal party. In the districts, the Congress established ‘vote-banks’ or ‘caste-coalitions’ by which the upper-caste leaders could, on the basis of patron-client relationships, mobilize the lower castes. Moreover the Dalit movement in UP, unlike in western and southern India, was taking place in a very rigid and conservative society, which had experienced no strong anti-caste movement in the colonial period. Even today, the Dalits encounter a rigid caste system in the urban areas and open hostility regarding practice of untouchability in some parts in the rural areas. As a result, in the 1970s, except during the Emergency, the Dalits, attracted by Mrs.Gandhi’s ‘Garibi Hatao’ (remove poverty) and Twenty-Point Programme, supported the Congress Party. Thus, UP experienced no lower-caste movement.”

Mehrotra (2006) points out the lessons from Tamil Nadu for UP:

“The lesson of the social transformation in Tamil Nadu is that there are technical interventions needed to transform the health, nutrition and education of the poor..... Those interventions are the responsibility of the state government, since
health and education are state subjects (although they are also on the concurrent list in the Indian Constitution). The state governments are the ones that account for nearly 90 per cent of total government expenditure on health and education. However..... those technical interventions are unlikely to happen without a social mobilisation – a la Tamil Nadu and Kerala.”

It is reasonable to conclude from the foregoing discussion that the social movements that occurred in Tamil Nadu strengthened the demand side of governance in significant ways. They increased the awareness of large segments of the population, especially those of the lower castes concerning their rights and motivated them to exert pressure on the government to reform existing practices and systems and initiate programmes for their development and welfare. They provided the organizational platforms for the people to network with each other, take collective action to promote their common interests, and open the door to new vistas such as entrepreneurship.

Summarizing, in Table 2, we present the initial levels of per capita income in 1960-61 and the rates of growth of per capita income for TN and UP for the two periods, 1960-61 to 1987-88 (defined as I period), and 1987-88 and 2004-05 (defined as the II period). Alongside this, we give the initial levels and the growth rates for a number of factors that could have influenced this growth pattern and the shift observed from 1987-88.

Some points are worth noting from Table 2. It shows that it is not the case that TN was always doing better than UP. In fact, UP was better than TN in some respects to begin with (e.g., proportion of graduates and police firing), and that TN’s surge is recent (e.g., per capita NSDP, urbanization, electricity installed capacity, police firing and percentage of cases pending investigation). Our hypothesis is that both the initial conditions and the rates of change in the selected factors could have led to the divergence observed between the two states.

The foregoing analysis sheds useful light on the role that different factors play in the process of economic growth. We see how the proximate factors of higher levels of human resource capabilities, infrastructure, urbanization, and the quantum and efficiency of public investment are associated with the consistently higher level of per capita income in TN than in UP.

But we also see that the foundational factors, namely, the quality of governance and the demand factor (working through social mobilization), were also stronger in TN when compared to UP. While it is difficult to attribute the contribution of each of these factors to the differential performance of the two states, we suspect that the foundational factors did create an enabling environment for the proximate factors to perform better in TN than in UP. Foundational factors contribute directly through the efficient production, delivery and utilisation of public goods that enhance
Table 2: Initial values and Compound Growth Rates for Selected Indicators: Tamil Nadu and Uttar Pradesh

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Initial values (1960-61 unless otherwise specified)</th>
<th>Tamil Nadu</th>
<th>Uttar Pradesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita net state domestic product * (in ₹)</td>
<td>5053</td>
<td>3338</td>
<td>0.98</td>
</tr>
<tr>
<td>Natural growth rate of population ** (1971-73)</td>
<td>17</td>
<td>22</td>
<td>-0.78</td>
</tr>
<tr>
<td>Literacy rate ***</td>
<td>31.4</td>
<td>20.9</td>
<td>2.63</td>
</tr>
<tr>
<td>Per capita development expenditure @ (in ₹) 1980-81</td>
<td>263</td>
<td>179</td>
<td>11.25</td>
</tr>
<tr>
<td>Percent of urban population *</td>
<td>26.7</td>
<td>12.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Electricity installed capacity per 1000 population *</td>
<td>15.5</td>
<td>5.4</td>
<td>3.26</td>
</tr>
<tr>
<td>Proportion of graduates # 1971</td>
<td>0.75</td>
<td>0.85</td>
<td>5.66</td>
</tr>
<tr>
<td>Food grain yield ** (kilograms/hectare) 1970-71</td>
<td>1342</td>
<td>1015</td>
<td>1.4</td>
</tr>
<tr>
<td>Police firing incidences for 10 lakh population &amp; (1990-91)</td>
<td>0.5 (II period)</td>
<td>0.44 (II period)</td>
<td>NA</td>
</tr>
<tr>
<td>Percentage of cases pending investigation in courts at the end of year &amp; (1990-91)</td>
<td>60.4 (II period)</td>
<td>73 (II period)</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: *refers to the periods 60-61 to 87-88 and 87-88 to 04-05; ** refers to the periods 70-71 to 87-88 and 87-88 to 04-05; *** refers to the periods 60-61 to 87-88 and 87-88 to 00-01; #refers to the period 70-71 to 87-88 and 87-88 to 00-01; @ refers to the periods 80-81 87-88 and 87-88 to 04-05; & refers to the period 87-88 to 05-06.
productivity and incomes. They also contribute indirectly by sustaining proximate factors in the long run.

Interpretation of the Evidence

Let us now see whether the evidence on the different factors presented above sheds any light on the divergent paths of per capita income growth observed in UP and TN. The puzzle to be explained is why TN’s per capita income began to shift upwards markedly compared to that of UP since the mid 1980s. Till this period, per capita incomes were growing in the two states at about the same slow rate. We present below our interpretation of the factors that may have led to this divergence. Differences in the initial conditions with respect to the different factors in the two states could at least in part account for the divergence. Divergent growth rates of the factors over the period we have studied could be another explanation. Furthermore, residual factors that we have not taken into account in the study also could have contributed to the outcome.

1. With respect to most of the factors, TN had higher initial levels than UP. Indicators such as literacy, infant mortality rate (reflecting health status), urbanization, food crop yields per acre, electricity, and roads, TN’s initial conditions were better in human capabilities, urbanization, infrastructure, and resource efficiency, though the degree of superiority varied between the factors. But initial conditions in UP in terms of the stock of all graduates, and political stability as measured by chief minister’s average tenure, were about the same or even slightly better than those in TN. With respect to per capita development spending, TN’s initial condition was only slightly better than UP’s. We conclude that while TN had an edge with regard to the initial conditions of several factors that we have highlighted, it did not have an initial advantage in all of them.

2. The rates of growth of these factors over the period of study were similar in both states for most of the factors. The main exceptions were electricity, development spending, and the chief minister’s average tenure. The first two accelerated by the mid 1980s in TN while the last indicator declined markedly in UP since 1967. With regard to the stock of graduates, a component that reflects technical manpower (engineers) grew much faster in TN than in UP since the late 1980s. There were thus some notable differences in the growth rates of the factors the implications of which need to be considered.

3. A closer look at these two factors is revealing. Technical manpower signals a critical resource that modern industries and the service sector need. Electricity is an essential sector for most economic activities, especially, manufacturing. Both of them have long gestation periods of five years or more before the output comes on stream. A perusal of the data clearly shows that TN had encouraged investment
in these two critical sectors much before per capita income had begun to climb. Organizing the supply of these factors well ahead may have played a key role in the transformation that TN experienced from the mid 1980s. It is reported that TN has a total of over 540 engineering colleges in 2008 compared to 11 colleges in the 1970s. UP, on the other hand, has less than half this number though it had a headstart in this arena in the 19th century. Better governance, strategic thinking, a proactive industrial policy or a combination of these factors may well have contributed to what TN managed to achieve in this arena.

4. A surprising finding is that despite the edge that TN had in terms of the initial conditions, the growth rate of per capita income in both the states remained sluggish during a major period of our study. Between 1961 and 1985, per capita income grew at a mere one per cent per year in TN and UP. It tells us that an edge in terms of initial conditions need not automatically result in faster growth for a country or a state. They may have been necessary conditions, but do not fully explain what triggered the take-off of the TN economy. At best, we can conclude that the potential for economic growth existed more in TN than in UP for the reasons set out above, but that the potential was not exploited for some reason.

5. For an explanation of the puzzle, we need to turn to the policy shifts that occurred in the Indian economy since the mid 1980s. It was during Rajiv Gandhi’s regime that the first steps towards decontrol and liberalization occurred in India. Delicensing of industries and more liberal policies towards foreign investment were adopted during this period. In 1991, Prime Minister Narasimha Rao and Finance Minister Manmohan Singh further opened up the Indian economy and created favourable conditions for private sector investment, both domestic and foreign. It also happened to be the period when the winds of liberalization were blowing across the globe, facilitating capital and technology flows into developing countries. Needless to add, the policy shift was national, with all the states free to take advantage of the opportunities it offered.

6. The marked upward shift in per capita income and the subsequent reduction in poverty that TN experienced since the mid 1980s can be attributed to the flow of substantial investments into the state. Though investment data are not available for the entire period of our study, we find that during 2000-06, TN attracted foreign investment proposals worth ₹8,500 crore while UP received a mere ₹15 crore. That year, TN had the third place in the country in FDI, after Delhi–Haryana, and Maharashtra. Per capita development spending also moved up much faster in TN than in UP, though the uptrend began only after TN’s per capita income growth had accelerated. The poorer performance of UP on both counts could well have been due also to the weaknesses in the foundational factors and the resultant inability to stem its relative decline in terms of political stability and other law and order indicators.
Lessons from the States and the Regions

In summary, we have demonstrated that though for a long period, the per capita income levels of TN and UP were not far apart, a marked upward shift in per capita income and a reduction in poverty levels occurred in TN relative to UP since the mid 1980s. We have offered an explanation of the underlying factors behind this striking divergence between the two states. We have concluded that the upward shift in per capita income and downward trend in poverty reduction that occurred in TN relative to UP could be explained only in part by the advantage the former had in terms of human capabilities, infrastructure, and internal resources. These were reinforced by TN’s better showing in terms of political stability and law and order, a reflection of its relatively better governance than in UP. Similarly, TN had undergone a remarkable period of social transformation decades before that in UP. It significantly strengthened the ability and willingness of large sections of the population to demand better governance from the state.

Surprisingly, despite these advantages, for nearly 25 years, TN’s growth record was no better than that of UP, mainly because the national policy regime was restrictive and limited the scope for potential investors to take advantage of the differential conditions prevailing in our states. The potential for faster growth these pre-conditions created were exploited more fully and effectively only when major policy shifts occurred at the national and global levels, facilitating the massive flow of investment resources into the state.

The foregoing analysis sheds useful light on the role that different factors play in the process of economic growth. We see how the proximate factors of higher levels of human resource capabilities, infrastructure, urbanization, and the quantum and efficiency of public investment are associated with the higher level of per capita income in TN than in UP. For nearly 25 years (1961-85), TN was way ahead of UP with respect to literacy, infant mortality, urbanization, installed power generating capacity, and roads. In terms of per capita development expenditure and technical education, the gap between the two states was much smaller. These proximate factors contributed to the per capita income surge in TN in the period after 1985. They provided the inputs and other resources that prepared the ground for TN to make the leap, leaving UP behind.

Our analysis also shows that the foundational factors, namely, the quality of governance and the demand factor (working through social mobilization), were stronger in TN when compared to UP. During the period 1961-85, TN’s record in terms of political stability (the Chief Minister’s tenure), ratio of civil police to the total police force, and the pendency of court cases was well above that of UP. Police firings, another law and order indicator, however, shows a mixed trend, with UP’s record getting worse in later years.

44 In China too, progress in terms of education and health had occurred well before economic performance surged in a big way.
On the demand side, we have already offered a wide range of evidence to show that TN had a head start in terms of social movements that helped vast segments of the population to demand their rights and access the services offered by government. Social and political mobilization of this scale and scope has occurred in UP only in more recent decades. These two foundational factors have worked in an interactive fashion in TN. Leaders in government responded positively to the signals from the grassroots (social movements) and strengthened the proximate factors mentioned above. The population at large was better prepared through social mobilization to take advantage of the public goods and services thus provided.

While it is difficult to attribute the contribution of each of these factors to the differential performance of the two states, we surmise that the foundational factors did create an enabling environment for the proximate factors to perform better in TN than in UP. Foundational factors contributed directly through the efficient production, delivery and utilisation of public goods that enhance the productivity and incomes of people. They also contributed indirectly by sustaining the proximate factors for long periods.

Two other comments are in order. First, though the focus of our analysis has been on explaining the income divergence between TN and UP, it should be noted that TN’s lead in terms of human resource capabilities, urbanization, infrastructure and investment has been maintained in tact even in the recent years. Income growth has therefore not been at the cost of these other important development outcomes. In fact, rising incomes seem have permitted TN to generate the resources and capacity to sustain these outcomes.

Second, our analysis also offers some hopeful signs of the trends in UP. In terms of both literacy and infant mortality, the gap between UP and TN has narrowed in the years since 1985. There is a similar positive move in recent years on the political and social mobilization front too. As the proximate and foundational factors in UP turn increasingly positive and converge, we can expect the economic performance of UP to catch up with TN.

Rising above the details of the individual states which have been studied extensively in this chapter, the next chapter focuses on the divide between the northern and the southern region.
Lessons from the States and the Regions

Southern Region Vs. Northern Region

We now make an attempt to extend the two-state analysis to the two regions and ask whether India’s southern region is ahead of the North recently since the 1990s. In this, we particularly note that in the 1960s, the southern region was behind that of the North in terms of the incidence of rural poverty. To answer the question of the recent surge of the South, we have aggregated the performance data of the states in the two regions for purposes of comparison. It should, however, be noted that we could not make the analysis of the regions exactly identical to that of the individual states, due to lack of availability of all data. If, in the course of our analysis, we find that the resulting pattern is similar to what our comparison of TN and UP showed, we may conclude that the southern region has indeed pulled ahead, leaving the northern region behind.

Charts 20 and 21 show how the two regions have performed with respect to per capita income and poverty reduction respectively over a forty and thirty-year period (respectively 1960-61 to 2004-05 and 1973-74 to 2004-05). A perusal of the charts affirms the pattern of change that we have already seen in our comparison of TN and UP. The two regions differed only by 39 percent in terms of per capita income in 1960-61 while the gap had widened to 101 percent by 2004-05. The southern per capita income rose faster since 1992-93 compared to that of the North. But prior to this period, the annual per capita income growth rates of the two regions was low and similar (average growth rate of 1.78 percent for the South and 2.20 percent for the northern states during 1960-91). The economic surge of the South is thus a recent phenomenon.

Similarly, on the poverty front, some of the northern states were better off compared to their southern counterparts. In fact, in 1960-61, the average rural poverty of the four northern states was only 55 percent when compared with the average rural poverty levels in the southern states (66 percent) (based on data from Ravallion and Dutt (1998)). But by 1973, the southern states’ poverty levels had fallen well below those of the northern states. Judged by the criteria of per capita income growth and

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poverty reduction, the North-South divide in India is a significant phenomenon that has emerged in the past decade and a half.
Lessons from the States and the Regions

Are the factors associated with the North-South divide similar to what we found in our analysis of TN and UP? Our hypothesis is that the same factors may have been at work here too, though the specific historical factors and sequences may not have been the same. We turn to an analysis of these factors in the following section.

Human Capabilities, Skills and Awareness

Similar to our analysis in the TN-UP section, we choose the literacy rate, and the proportion of graduates in the southern and northern states as indicators of education. We choose the infant mortality rate of population and life expectancy as our measures of health.

The reasons why we may expect the literacy rate to affect the economic growth have been explained in the earlier section. Charts 22 and 23 summarize the literacy rate historically since 1951 respectively for the southern and northern states.

Chart 22: Literacy Rate, Southern States, 1951-2011

While the literacy rate in the northern states increased from only 10 percent (most of the states) in 1951 to a little above 70 percent in 2011 (Madhya Pradesh), it increased from 40 percent in 1951 (Kerala) to nearly 94 percent (Kerala) over this period. Apart from Kerala which is an outlier with respect to the literacy rate, the other southern states (Andhra Pradesh) also made a leap forward from only 13.2 percent literacy in 1951 to nearly 68 percent literacy in 2011. Overall, the weighted average literacy rate in the southern states increased from 23.5 percent in 1951 to nearly 79 percent in 2011, recording a threefold increase.
In the northern states, the weighted literacy rate increased from only 10.4 percent in 1951 to 68 percent in 2011, registering nearly a six-fold increase. Since this is consistent with the trends in that for TN and UP, we surmise that the literacy rate must have been one of the pre-conditions necessary for economic growth to have taken off in the southern states as a whole, similar to that in TN.

Next, we review trends in the proportion of graduates in the South and the northern states. We have discussed the expected impacts of the proportion of graduates on per capita incomes and their rationale in the context of the TN-UP analysis, and hence require no repetition. It is sufficient to note that the proportion of graduates indicates those in the population with a threshold level of education with specific set of skills, required for certain firms or industries.

Charts 24 and 25 summarize the trends in the proportion of graduates in the South and northern states respectively. While the individual state TN does not have a distinct edge over UP in terms of the proportion of graduates, the other southern states seem to be a little ahead of the northern states on this account. In fact, TN is the laggard among the southern states as far as the proportion of graduates is concerned. In fact, both Karnataka and Kerala have more than 6 percent of their population above 15 years, as graduates, while AP have 5.5 percent and TN has only 4.8 percent graduates as of 2001. If we take the weighted proportion of graduates
in all southern states, it increased from 0.83 percent in 1971 to 5.5 percent in 2001, registering 7 times growth.\(^4^6\)

\(^4^6\) The data on graduates for 2001 had been obtained from the Census of India 2001, based on which the proportion of graduates had been computed as a proportion of those above 15 years in 2001. At the time
As far as the northern states are concerned (Chart 25), the maximum proportion of graduates are in MP at 5.2 percent followed by UP at 5.1 percent; Rajasthan and Bihar are laggards at 4.3 percent and 4.4 percent of graduates respectively as of 2001. The weighted average proportion of graduates in all the northern states increased from 0.83 percent in 1971 (the starting point for both the regions in terms of the proportion of graduates was the same) to only 4.9 percent in 2001, registering a six fold increase.

Given that there is not much difference in the growth of the proportion of graduates in the two groups of states, it is plausible that an explanation of the southern growth story lies elsewhere — in the presence of a larger labor force with technical skills in the southern region when compared with those in the northern states. In fact, the current evidence is that intake into engineering colleges in the four southern states account for nearly 53 percent of all intake into engineering colleges in the country while the North has a mere 16 per cent.47

Infant Mortality Rate of Population

The infant mortality rate (IMR) is chosen as a measure of the health of the population for reasons discussed in the earlier chapter. Just as we did in the case of the TN-UP

![Chart 26: Infant Mortality Rate of Population, Southern States, 1971-1997](image)

this research was completed, data on the number of graduates (which is part of the C series), had not been released by Census 2011.

47 See Banerji and Muley (2007).
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analysis, we compared the IMR of population across the southern and northern states. Charts 26-27 summarize this respectively for the southern and northern states. The weighted average IMR of population in the southern states declined from 98.2 in 1971 to 50.5 in 1997, registering a fall of 47.6 percentage points. In the northern states, on the other hand, the weighted average IMR fell from 156.7 in 1971 to 83.4 in 1997, recording a reduction of nearly 73.4 percentage points, much higher than that in the southern states. Hence the southern states did not have an advantage in this factor compared with the northern states, and hence differences in this across the two regions may not have been a factor influencing economic growth in the two regions.


Next, we reviewed trends in life expectancy for the southern and northern states. As explained earlier, life expectancy can signal some pre-conditions such as good health care, environment and other factors which are necessary for economic growth to take off and vice-versa. Charts 28 and 29 summarize trends in life expectancy respectively for the southern and northern states. The charts show that the southern states were always above that of the northern states as far as life expectancy is concerned, 1971-2011. We find that over 1971-2011, on average, life expectancy at birth in the southern states was 63 years, whereas in the northern states, over the same period, it was only 56 years on average. This lends support that better human capabilities in the southern states over a long period of time may have contributed to economic growth taking off there.
Installed Generating Capacity

As discussed earlier, installed generating capacity of electricity is a critical input for industries and services. We found in the case of the TN-UP analysis that TN had much higher installed capacity in the 1960s than that of UP’s. Further, beginning
from the late 1980s onwards, TN’s installed capacity generation took off while UP’s declined.

We reviewed the installed generating capacity of the southern states versus the northern states to examine if the TN-UP story holds good. Charts 30-31 respectively summarize


Chart 31: Installed Generating Capacity Per Million Population, Northern States, 1960-2004
the trends in installed generating capacity of electricity in the two regions for a reasonably long period of time, 1960-2004.

The charts confirm what we learned in the case of the individual states. The weighted installed capacity per million population had always been higher in the southern states beginning with 10.23 (000 KW) in 1960, compared with only 6.35 (000 KW) for the northern states. The installed generating capacity per million population for Kerala was much lower than for the other southern states. With this caveat, while there was a continuous surge in the weighted (with population) installed capacity of the southern states, there was in fact a decline in the northern states in the late 1990s (1996 to be precise) and since then has been diverging. This shows that the southern states were prepared to take the plunge when the economic reforms of 1991 took place, whereas the northern states simply did not have the prerequisites in place for economic growth to occur.

Urbanization

Finally we examine another important indicator of disparities between the two regions – urbanization. The findings here are consistent with what we find in the two state analysis. Charts 32-33 present the urbanization rates for the South and northern states separately. Not only is the average proportion of urban population higher in the southern states to begin with compared with their northern counterparts, but their rate of urbanization has also proceeded at the same rate, with the result that

**Chart 32: Trends in Urbanization, Southern States, 1971-2011**

- Andhra Pradesh
- Karnataka
- Kerala
- Tamil Nadu
the northern states are only half as urbanized as their southern counterparts. For instance, the average proportion of urban population in the southern states was 31 percent over 1971-2011 compared to only 19 percent for the northern states. The southern states’ urbanization was on average 42 percent in 2011 when compared with only 22 percent for the northern states. So it does appear that the northern states failed to benefit from the benefits of agglomeration and urbanization economies with passage of time, compared with the South.

Public Investment

Next we examine trends in public investment and look at per capita developmental expenditure in the southern region versus that in the northern states. Per capita developmental expenditure, as discussed earlier, could be important as it results in the creation of productive assets. The hypothesis is that the southern states spend more on developmental expenditure.

We present the per capita developmental expenditure of the southern and northern states during 1980-2004 in Charts 34-35.

Chart 34 shows that the per capita developmental expenditure of all the southern states very closely clustered during the entire period we examine. Interestingly, Chart 34 shows a similar trend for the northern states, with the exception of MP (which started at a much higher level than the other northern states) during the period we examine. When we examine the average weighted (weighted with population) per capita developmental expenditure, the southern states have experienced a much steeper
increase starting from only ₹208 in 1980 which increased to ₹2,812 in 2003-04, compared with the northern states which started with a higher ₹474 but increasing only to ₹1,623 per capita in 2003-04. Thus what we notice is an upward shift in investment spending after the increase in incomes. This could be a result of increasing revenues and must not have been a causal factor for increasing incomes.48

Chart 34: Per Capita Developmental Spending, Southern States, 1980-2003

Chart 35: Per Capita Developmental Spending, Northern States, 1980-2003

48 We do not have the detailed data on developmental outcomes in the eight states for us to make a comparison of relative efficiencies of spending.
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Governance

A comparison of the North and South in terms of the three indicators of governance, average tenure of chief ministers, police firing cases per million population, and proportion of pending cases in the state judiciary is summarized respectively in Table 3, and Charts 36-37.

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. No. of days (weighted), South</th>
<th>No. of CMs South</th>
<th>Avg. No. of days (weighted), North</th>
<th>No. of CMs North</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-61</td>
<td>831</td>
<td>29</td>
<td>1268</td>
<td>25</td>
</tr>
<tr>
<td>1980-81</td>
<td>717</td>
<td>30</td>
<td>449</td>
<td>42</td>
</tr>
<tr>
<td>2000-01</td>
<td>914</td>
<td>31</td>
<td>663</td>
<td>41</td>
</tr>
</tbody>
</table>

Note: Average number of days includes the tenure of president’s rule.

The southern region has performed distinctly better than the northern region on all the dimensions (except police firing incidents for which the evidence is mixed). We find that the police firing incidents in the South are dominated by Andhra Pradesh (1987-2002), which was characterized by frequent naxalite disturbances during which there was a sharp increase in the number of police firing incidents. It should be noted that Andhra Pradesh which is high on this score (law and order problems) is lowest on the per capita income front among the southern states (implied in Chart 20). By and large, police firing incidents in the southern states have always been at a lower level than is the case in the North (Charts 36 and 37). On average, the proportion of pending cases in courts in the Northern states have also been higher than that in the South (Chart 38).

Overall, these findings are similar to what we learned from the UP-TN comparison. It is significant that the North started with a better record in terms of CMs’ tenure than the South, but experienced a clear decline in later periods. As noted earlier, we have captured only some dimensions of governance through these indicators.

Our findings here do not imply that governance was of the highest order in any of?

There were some outliers in the south as far as police firing incidents were concerned (1991, Karnataka and Andhra Pradesh, throughout). The outlier in the north with respect to police firing is Madhya Pradesh, which experienced frequent police firing due to naxalite disturbances. But, when we remove these outliers, the north has a higher police firing incidence compared to the south.
the states under review. In fact, allegations and evidence of corruption, abuse of power, and injustice have existed in both regions. But in a relative sense, based on these indicators, we have concluded that governance was better in the South than in the North during the period under review though the enabling conditions may have been better in the North at the outset. A more detailed assessment might have shed much more light on the quality of governance in the two regions. Further analysis of
what was done during a CMs’ tenure, for example, would have given us insights into how policies, implementation might have differed between the states involved.

The role of social movements as a precursor to the growth of education and the spread of entrepreneurship is borne out at the level of regions too (see Damodaran (2008)). Like TN, Kerala also had seen strong social movements early in the 20th century that promoted greater awareness and interest in education among the lower castes that had not received such opportunities in the past. Andhra Pradesh and Karnataka that were part of the erstwhile Madras Presidency had also witnessed a similar awakening and networking among their lower caste groups. The “social capital” created through this process in the region strengthened the demand side of governance and laid the foundation for more widespread education through institutions established by communities and caste groups. The explosion of technical education in the South in the 1990s could also be traced to this phenomenon. There was hardly any comparable development of educational institutions through non-governmental initiatives in the northern states. Mehrotra (2006) says as follows:

“Until these social mobilisations happen in the northern states that are lagging behind – the so-called BIMARU (Bihar, Madhya Pradesh, Rajasthan, UP) states – there is a role for the central government to trigger actions at the state level to ensure some empowerment of the lower castes in these states. With the exception of Madhya Pradesh (which has been far more successful at effective social service delivery compared to the other three Hindi-belt BIMARU states within the last
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decade), there is growing evidence that these state governments have been unwilling to devolve transfer functions and finance on basic health and education to the panchayati raj institutions.

“It is only if the central government turns the screw on these state governments might they be more proactive and make decentralization work, consistent with the spirit of the 1993 constitutional amendment mandating the creation of local government institutions. The central government could make fiscal transfers to state governments conditional upon functions and finance being devolved in the health and education sectors to the panchayats. Transferring these functions and finance will help make functionaries (teachers, doctors, auxiliary nurse midwives and nurses) at least partly responsive and accountable to their clients they are meant to serve, rather than to a superior official in a line ministry. Such an institutional mechanism of accountability to local clients will help to empower the poor and the lowest castes — who are, as we have seen.....excluded from access to basic services.”

According to the India Human Development Report (IHDR) (2011), the poorer states, namely, Bihar, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, Chhattisgarh, and West Bengal, account for 56 per cent of the Scheduled Caste (SC) and 55 per cent of the Scheduled Tribe (ST) population of the entire country. In relation to this, it states the following:

“There is a two-way relationship here; poorer states are so because there are large proportions of the excluded social groups (who are generally poorer) living there; conversely, in the poorer states the different development programmes do not reach the targeted population–especially the economically and socially deprived sections.”

The next chapter summarizes and concludes our primary observations regarding the paradox of India’s North-South Divide, including the cases of TN and UP.
Conclusions and Policy Implications

This study has examined whether the economic divide between India’s North and South is a real phenomenon or a product of media hype. After establishing that the North-South divide does indeed exist, and that it is a fairly recent phenomenon, we investigated the underlying factors that may have led to this outcome. The factors examined by us included both proximate factors and foundational factors. The study applied this framework first to analyse the historical experience of TN and UP and later extended it to probe the historical experience of the two regions. We summarise below the main conclusions and policy implications of the study.

1. As in the case of TN and UP, the economic divide between India’s North and South is also a relatively recent phenomenon. The economic performance of the South began to surge ahead by the late 1980s when the Government of India had launched a modest regime of liberalization. Three out of the four northern states had also shown an acceleration of their growth rates during this period, but their pace of growth was not fast enough to catch up with the South. In the 1990s, the gap between the North and South widened even more with the result that the South’s per capita income was more than double that of the North by 2005. The incidence of poverty in the South had also declined at a faster rate than the North during this period.

2. The evidence from the two regions reinforces our earlier conclusion about the convergence of both proximate and foundational factors in explaining the North-South divide. The two regions differed significantly with respect to literacy, urbanization, infant mortality of population (health status), and infrastructure, especially, electricity, and the gap widened in favour of the South over the study period. But the gap in terms of the proportion of graduates in the population was negligible. Further analysis, however, shows that despite this seeming similarity, engineering education had surged ahead in the South, leaving the North way
behind. It reflects a strategic move by the southern states in response to certain policy shifts that the North had failed to exploit. Among the proximate factors, public investment does not seem to explain the North-South gap in economic performance. In fact the northern states had a headstart in this regard as per capita development spending was higher in the North than in the South in the early decades after Independence, but the latter overtook the North in the 1990s. A closer probe reveals that the increase in public investment in the South was financed by the rising revenues of its state governments. The foundational (governance related) factors also showed the South to be way ahead of the North. We conclude that the proximate and foundational factors highlighted in our TN-UP comparison may have played a dominant and joint role in explaining the differential in the long term growth performance of the two regions too. Explanations that consider just one or two of these factors may provide only a partial understanding of what lies behind the development outcomes observed at the national and regional levels.

3. Though the per capita development spending in the northern states was higher than that of the South in the early decades, it did not translate into higher growth rates of literacy, health status or infrastructure (proximate factors) in the North. Our surmise is that this phenomenon signals the lower resource efficiency achieved by the North relative to the South. The increased resources deployed in the North did not result in a correspondingly larger volume of public goods as was shown in the UPTN comparison. This outcome may have resulted also from the weaknesses in the foundational factors. A government that suffers from greater political and administrative instability, and law and order problems is less likely to make optimal and efficient use of its resources. When the demand side is weak as a result of the ignorance of large segments of the population then again governance will remain inefficient and unresponsive. Diversion of resources, delays and corruption are likely to increase under these conditions. The net result will be slower progress in terms of the proximate factors.

4. Our analysis of the two regions also shows that their growth rates remained similar, but low, for a very long period of over two decades. A similar pattern was evident in our study of TN and UP too. Our earlier finding that even when the preconditions in terms of the factors mentioned above are present, a region might not perform well in the context of a restrictive policy regime is thus reaffirmed. In fact, the South’s growth rate was lower than that of the North for over two decades despite its better preparedness in terms of preconditions. The final outcomes thus depend not only on the factors that strengthen the supply side, but also on factors that create incentives to invest, take risks, and expand economic

50 Kerala in the South does not fit this pattern.
activities. It was only after the move towards liberalization began in the late 1980s that the investors turned positive. A case in point is the expansion of engineering education in the South from the early 1990s that resulted in its remarkable dominance in technical manpower. The South, as of 2006, accounted for 53% of the student intake of engineering colleges in India while the North had a share of only 16% (Banerjee and Muley (2007)). The decision of numerous entrepreneurs to enter this field reflects the joint influence of the proximate and foundational factors along with a liberalized policy regime that permitted such investments. The same policy was available in the North, but no such large scale investments took place in the northern states. Is it reasonable to speculate that their relatively poorer record in terms of governance may have acted as a barrier in this regard?

5. The demand factor too followed a similar pattern between the northern and southern regions. Social movements that energized the lower castes and strengthened their ability to demand better governance from the state were at work in the southern states way ahead of their northern counterparts. The role of social movements in strengthening the demand factor and as a precursor to the growth of education and the spread of entrepreneurship is borne out at the level of regions (see Damodaran (2008)). Like TN, Kerala also had seen strong social movements early in the 20th century that promoted greater awareness and interest in education among the lower castes that had not received such opportunities in the past. Andhra Pradesh and Karnataka that were part of the erstwhile Madras Presidency had also witnessed a similar awakening and networking among their lower caste groups. The “social capital” created through this process in the region may have laid the foundation for more widespread education through institutions established by communities and caste groups. The explosion of technical education in the south in the 1990s could also be traced to this phenomenon. There was hardly any comparable development of educational institutions through non-governmental initiatives in the northern states.

6. It is difficult to say whether the same set of proximate and foundational factors are adequate to explain the differential performance of all countries and regions. Specific country contexts may reveal the role of yet other factors that we may have ignored here. It is also possible that the weakness in one factor may be compensated by the strength of another. As noted in an earlier section, the absence of educated manpower could be offset through the import of trained personnel from other places. It is possible for the state to intervene and achieve certain outcomes when the private sector is not developed enough to play this role. The most difficult factors to import or substitute will be in the area of governance. A cursory look at other better performing states in India confirms that they are
closer to the southern states than to the North in respect of governance. Rajasthan, the best performing state among the northern states, also has relatively better governance indicators than the other three.

7. This study does not offer a standard recipe for achieving development outcomes or a formula to plan for or sequence the preconditions for growth. This is because the historical legacies and endowments available in different country and regional contexts tend to vary a great deal. These in turn will determine how and when the preconditions for economic growth will be created. But even if the preconditions are created, restrictive policy regimes can result in a failure to utilize the full potential of the preconditions. In the present case, it is the liberalization policies and the global opportunities that became available in the late 1980s and 1990s that enabled the South to surge ahead at a faster pace than the North. But the responses of different states with the right preconditions need not be the same. In TN, the proximate and foundational factors facilitated the inward flow of resources for investment in manufacturing and services. As a result, both domestic and foreign investment expanded at a fast pace in TN. In Kerala that had similar educational endowments, a major response was for the workforce to go abroad in large numbers (migration) as local policies did not create a proper environment for investment. Kerala’s per capita income also rose significantly despite the different path it adopted. In both cases, people of the two states were able to respond to the new opportunities, raise their income levels and achieve a fair measure of poverty reduction. It was preconditions such as education, improved health status and an enabling environment in terms of governance (in relative terms) that enabled them to craft their own responses and strategies to take advantage of the unfolding economic opportunities.

Our analysis has highlighted the importance of historical factors in the development of countries and regions. This is not to say that “history is destiny”. We do not believe that historical advantages or disadvantages are the sole determinant of the future. There are many examples of countries that have overcome the burden of history through the imaginative use of new opportunities and smart ways of exploiting their strengths. Some have taken the export route while others have adopted innovative strategies for the development of infrastructure, human resources and new industries that raised their income levels. Yet others have borrowed ideas from external sources and built on the external assistance available to them.

We believe this has implications for states like UP especially with regard to the demand factor and governance where much more needs to be done. Many things

51 In the past few years, some of the Northern states such as Bihar have stepped up their growth rates, though it is too early to assess how inclusive and sustainable their growth is.
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have changed over the last 50 years. Today, new technologies are available to empower citizens with knowledge of their rights, duties and entitlements. Social media have become a powerful force for networking and collective action that can strengthen the demand side of governance. Education can be extended and improved through the use of new technologies. More resources are available for development today than some decades ago. Best practices in governance can be borrowed and adapted from other states and countries. Once there is political will, there are many such avenues that our lagging states can pursue to shake off the burden of history and move forward.
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References


Data Appendix

Data sources for education/health and urbanization indicators are the Census of India. Literacy and urbanization rates for 2011 for all states are based on provisional totals released by Census 2011.

Historical data on the infant mortality rate are obtained from the publication, Sample Registration System: Statistical Report 2006, published by Census of India. Data on life expectancy were obtained from the Sample Registration System, and provided to us by Prof. Irudaya Rajan of the Centre for Development Studies, Trivandrum.

NSDP data are from the Central Statistical Organization (compiled by the Economic and Political Weekly Research Foundation (EPW-RF)). Data on total and developmental expenditures by sector (education, sports and culture, energy, roads and bridges, public health and medical facilities) are from the EPW Research Foundation.

Annual time series data on the population in various states are from the EPW-RF.

Poverty data are from the Planning Commission.

Law and order indicators such as the number of police firing incidents, proportion of pending cases in the court, and the proportion of civil to total police force are all from the National Crime Record Bureau.

Infrastructure measures such as installed capacity of electricity are from the Central Electricity Authority, Ministry of Power, Government of India.

Data on telephone penetration are from the Department of Telecommunications (DoT).

Data on road length are from the CMIE.

Data on the proportion of technical degree holders are from the Ministry of Human Resources Development’s publication, Selected Educational Statistics.
Historical Roots of Education in TN

Education in the Early Years of Madras Presidency

Government enquiry into the state of education in Madras Presidency, initiated by Sir Thomas Munro in 1822, showed that there was approximately one school per thousand population and that the number of boys taught was one-fourth of the total school age population. It also showed that the instruction imparted in these indigenous institutions was of little practical value tending to burden the memory rather than to train the intellect. A board was, therefore, appointed to organize a system of public instruction, and an annual grant of 50,000 was sanctioned for the establishment of schools. In 1826, 14 collectorate and 81 taluk schools, with a central school at Madras, were opened. In 1836, this scheme was pronounced a failure and the schools were abolished as inefficient. In 1840, a University Board was constituted by Lord Ellenborough’s Government to organize and establish a central school and a few provincial schools.

In 1841, the central school was converted into a high school; in 1853, a college department was added to it and later it developed into the Presidency College. In 1854, the Court of Directors issued its memorable dispatch regarding education. Thereupon the Department of Education, with the Directorate of Public Instruction and its inspecting staff was organized; the so-called Madras University was re-modelled and designated the Presidency College; a normal school was established; zilla or district schools were opened; and the grant-in-aid system was introduced. While there were 460 educational institutions in 1853 with 14,900 pupils, by 1904, this number had risen to 26,771 with 784,000 pupils.

Source: TN HDR, 2003, Box 1.1.
The earliest developments in the field of education in the State were brought on by the advent of the Christian missionaries as early as the beginning of the eighteenth century. Though the English East India Company had started a school at Fort St George in 1673 for educating the children of its own employees, it was the missionaries who were responsible for spreading education among the local population. The Report of the Elementary Education Survey of the Madras Presidency, 1925, gives us some interesting insights into the history and progress of elementary education in the State. The report points out that there were three agencies managing elementary schools in the province:

i) private bodies, mission and non-mission including private individuals and teacher managers;

ii) local boards and municipal councils; and

iii) government.

Three distinct periods are also traced in the spread of elementary education in the province:

i) The early period up to 1910;

ii) The middle period from 1911–20; and

iii) The period from 1921 onwards.

The earliest period is characterized by major changes in policy, both regarding the medium of instruction, agency to start and run elementary schools as well as the methodology of funding of aided institutions. Though early initiatives like Munro’s minute of 1820 made some headway in vernacular education, these were often cancelled by contradictory policies such as Macaulay’s directives on English as the medium of instruction. Progress was made after Wood’s despatch of 1854, which introduced the system of grant-in-aid for encouraging private participation in primary education.

Spurred by the national movement under leaders like G.K. Gokhale, there was a marked shift in the educational policy of the government from 1910 onwards, marking the second period in educational development in the Madras Presidency. The Government of India agreed to subsidize the opening of elementary schools in every village with more than 500 inhabitants. In pursuance of this policy, a liberal recurring grant of Rs 5 million was sanctioned out of Imperial subsidies which enabled the Provincial Government to subsidize district boards for the opening of such new schools.

The third major breakthrough in the spread of education came with the Madras Elementary Education Act 1920. Under this act, local bodies were given the responsibility for elementary education and were also given powers to levy special cess to raise funds for education. The act also directed the local bodies to introduce compulsory primary education in selected areas based on their financial position. Some interesting highlights on the status of girls’ education in the State in a recent article reveal that the proportion of boys to girls in elementary schools changed from 4:1
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in 1911–12 to 3:1 in 1926–7. A report published on ‘Development of Women’s Education’ (1929) revealed the various obstacles that stood in the way of girls’ education. Since the society at large and the backward communities in particular had not accepted co-education as a system, there was a need to open more girls’ schools so as to ensure access for girls. But the limited funds for education were used up for the opening and development of boys’ schools for which there was much more public clamour and support. Private aided agencies also were not keen to open girls’ schools which would necessarily serve a more limited group of children. Further, the spread of girls’ education was severely hampered by the non-availability of trained women teachers, especially among Hindu and Muslim women. In March 1927, as against 39,000 male teachers in higher and lower elementary grade, there were only 6000 women teachers, which was considered ‘satisfactory’ by the authorities at that time.

Source: TN HDR, 2003, Box 5.1.
Annexure A.2:

Literature Survey

A number of studies have attempted to document and explain the patterns of economic growth in Indian states. There is a large literature on convergence/divergence between states. There is another strand of literature which examines the sources and timing of the shift in Indian output growth since the 1980s. This literature addresses a variety of questions such as: when did the shift in growth occur? Was the shift uniform across states? What were the factors causing the shift? Based on a review of this literature, we find that none of studies have explored issues such as the North-South divide that is the subject of this paper.

Kurian (2000), taking a holistic view of development, drew attention to inter-state disparities by presenting recent data for states on demographic characteristics, social characteristics, magnitude and structure of SDP, poverty ratio, developmental and non-developmental revenue expenditures, indicators of physical infrastructure development and of financial infrastructure. The paper found that a sharp dichotomy between the forward and backward groups of states had emerged.\(^5\) This paper does not explain the causes of the observed dichotomy. It is also only cross-sectional, and clubs together all states with high per capita income and others with low per capita income, without making a distinction as to when these changes occurred.

Virmani (2006) finds that the growth rate of manufacturing in Indian states accelerated after 1980-81, and this contributed to the acceleration in growth of GDP from 1981-82. The most important innovation of this paper is the use of a rainfall index to remove the confounding effect of large droughts.

In contrast to Virmani (2006), Balakrishnan and Parameswaran (2007) find that the break in growth rate of GDP occurs in 1978-79—with the 1978-79 take off in growth occurring prior to the positive break in manufacturing (1982-83). However this paper does not look at the sub-national level.

Thus the interest of all these studies appears to be to examine when a break appeared in the growth rate of Indian states without worrying about why and how the break occurred.

\(^5\) Kurian’s (2000) forward group consists of Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu. The backward group comprises of Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal.
In all fairness, in addition to the literature which summarizes the disparities among the states and the timing of a shift, there is also a stream which makes an attempt to explain the interstate growth differentials.

Panel data regressions by Shand and Bhide (2000) examine variations in the size, income and structural characteristics of Indian states. It analyses total and per capita net state domestic product for the period 1970-71 to 1995-96. Sectoral analysis showed that reform in agriculture will yield the most benefit as growth in this sector is positively and significantly related to overall growth. Infrastructure and human development were found to be other important determinants.

Rao et al (1999) analysed the determinants of growth of per capita SDP with data for the 14 major states. The coefficient on the initial income variable was significantly positive in the regressions for longer periods 1965-94, 1970-94 and 1975-94. The variable indicating private investment was found to be the most important determinant of growth. Next in importance was the literacy variable.

The analysis of Nagaraj et al (2000) used panel data for 17 states for the years 1960-94. The growth regression included, apart from lagged per capita SDP, the share of agriculture, the relative price of agricultural and manufactured goods, several infrastructure indicators and fixed effects for states as explanatory variables. Evidence for conditional convergence was found. The results of the study suggested that focusing investment efforts on physical infrastructure (electricity, irrigation and railways), and social infrastructure (human development) would raise the overall effectiveness of public investment and raise growth.

Ghate and Wright (2008) find that the ratio of Indian to US per capita output over the past 45 years has displayed a distinctive “V”–shaped pattern. They carry out preliminary investigations of correlates of the “V-factor”, using a new panel data set for Indian states from 1960 to 2005. Ghate and Wright (2005) observe that:

- V-States were on average more urbanised and more literate;
- They were somewhat more industrialised, and somewhat less dependent on agriculture;
- They spent somewhat less on development spending (revenue expenditure) than non-V states.

Rodrik and Subramanian (2005) argue — in similar vein to Virmani (2006) — that the improvement in India’s economic performance was driven by policy changes. In particular, Rodrik and Subramanian argue that the trigger for India’s upward break in growth — which they pin down to around 1980 — occurs because of an “attitudinal shift” on the part of the national government in 1980 in favor of businesses. While largely cross-national, this is one paper which takes into account the importance of non-economic factors in growth which needs to be noted.

Datt and Ravallion (1998) study the causes of rural poverty in a developing rural economy and ask the question as to why some Indian states have done better than others at reducing rural poverty.

53 Their approach in using the US as a benchmark may be debatable, but given the US is the head of the technological frontier, and the standard neo-classical model would predict that growth rates converge to the country on the technology frontier, their choice is somewhat understandable.
They model the evolution of various poverty measures using pooled state-level data for the period 1957-91. Differences in trend rates of rural poverty reduction were attributed to differing growth rates of farm yield per acre and differing initial conditions; states starting with better infrastructure and human resources saw significantly higher long-term rates of poverty reduction. Deviations from trend were attributed to inflation (which hurt the poor in the short term) and shocks to farm and non-farm output. This paper, while being quite insightful, unfortunately does not cover institutional factors such as the existence of the minimum support price to farmers and their impact on reducing rural poverty.

Basu (2004) provides empirical evidence, from a study of sixteen major Indian states for the period 1980-2001, that under the economic reform process, the better institutional mechanism could actually help economies to grow faster with a higher level of economic well-being. This paper estimates economic well-being index (by aggregating fifteen socio-economic variables, i.e., education, infrastructure, technological progress, income, and so on) and an index of good governance (by aggregating thirteen variables indicating rule of law, government functioning, public services, press freedom, and the like) by multivariate statistical measures. Panel regression showed that governance measures, and economic policy variables are crucial to explain differential level of development performance across states in India during the last two decades. It is worthy of note that this is one of the few papers to take into account the impact of governance and institutional factors on differential economic performance of the states. However, it is not clear how variables such as press freedom for instance, would be different across the states.

While the differential rate of growth among Indian states and the issue of convergence have been extensively probed in the literature, as is clear from the literature review above, no one has looked at what explains the differential growth records of the northern and the southern Indian states, using historical data. Very few studies have gone beyond the standard economic variables to take into account non-economic factors such as political stability and law and order, for example, which impinge upon economic activities and investment decisions.

Mehrotra (2006) highlights the fact that for nearly two decades, Uttar Pradesh had a movement to mobilise the dalits and the other backward castes of that state. However, UP’s lower castes had, before the mobilisation began, and still have, the worst social indicators in the state and in the country. He explains how earlier in the last century, Tamil Nadu also experienced a mobilisation of the dalits and backwards, but managed to transform the social indicators in health, nutrition, fertility and education after independence. Thus, while UP’s mobilisers of the dalits have focused exclusively on capturing power, the gains to the lowest castes have been entirely of a symbolic nature, unlike in TN.

Pai (2002), based upon extensive fieldwork in western UP, government reports and interviews with Dalit leaders, while highlighting the BSP’s considerable achievements, explores the reasons for the party’s failure to harness the forces of Dalit assertion in UP.

Varshney (2012) explores social order and entrepreneurialism in India, focusing on some economic contrasts between the North and South. It examines the depth of Southern transformation and identifies the mechanisms of transformation by concentrating on a particular Southern caste, the Nadars. It also considers the commercial implications of an emerging political revolution in a Northern state, bringing a Dalit party to power. Furthermore, it comments on Alexis de Tocqueville’s
argument that the settlements on either side of the Ohio river, Kentucky and Ohio, were identical in all respects except for slavery, and that slavery influenced their landscapes of economic dynamism and listlessness. Finally, he analyses lower castes in the North; the divergence between Northern and Southern India in terms of state-level economic growth rates and growth rates in per capita income; growth rates in both rural and urban enterprises; and growth rates of enterprises owned by other backward castes.
Cities in India suffer from inadequate data and information, which has undermined their ability and that of analysts and policy makers to comprehend the complex forces shaping cities and to develop and implement effective urban policies. Given the importance of cities in the country’s economic growth and development, a review is done of the country’s four major cities - Delhi, Mumbai, Kolkata and Chennai, in this report. While it is clear that no existing studies present a state of cities in India’s context, not collecting this information has disastrous consequences for cities, since they would not be in a position to understand their own growth nor predict their future planning for public services. This research attempts to fill in this vacuum. In this report, indicators and benchmarks are developed for six thematic areas that capture the dynamics and potential of India’s mega cities: history and governance, demographics, economic dimensions, infrastructure & public services, resources, quality of life. Policy makers, city officials, investors, real estate developers, infrastructure agencies, financiers, industry, credit rating agencies, the educated general public, and researchers would be interested in the research since it has implications for the business environment and quality of living in the cities.

This publication has its genesis in an evaluation study that Public Affairs Centre did for the Expenditure Reforms Commission, Government of Karnataka, on three programmes – one centrally-sponsored infrastructure development programme, the Urban Infrastructure Scheme for Small and Medium Towns (UIDSSMT), one state-funded infrastructure programme, the Mukhya Mantrigala Nagarothana Yojane (MMNY), and a centrally-sponsored urban poverty alleviation programme, the Swarna Jayanthi Shahari Rozgar Yojana (SJSRY).

The ERC wanted to know if centrally-sponsored infrastructure schemes were any different from the state-sponsored schemes in terms of their cost-effectiveness. It was found that centrally-sponsored schemes are much better in terms of contracting, since their agreements tend to be more complete in terms of the time frame, budget, output and outcomes to be accomplished. However, in terms of programme implementation, it found that state-sponsored schemes were much better since the infrastructure is eventually locally owned and used.

The recommendations of this report were incorporated in the Expenditure Reforms Commission’s Third Report to the Government of Karnataka in May 2011.
Lessons from the States and the Regions

Transforming Karnataka into a Vibrant Knowledge Society: An evaluation of the work of Karnataka Jnana Aayoga Government of Karnataka, 2013
Satyajeet Nanda • Nivedita Kashyap • Meena Nair • R. Suresh

The Karnataka Jnana Aayoga (Karnataka Knowledge Commission) achieved the distinction of being the only state-level knowledge commission in India to complete its term of five years in 2013. This report analyses the major achievements of the KJA in this period, and attempts to identify the key reasons for successes and failures in its activities, from the viewpoints of the planners of its programmes, the implementers of these, and those who were expected to benefit from them. Insights are also offered on the unique opportunities offered by such a Commission for stimulation of knowledge processes within governance institutions and their expression in public spaces of academics and the common citizenry.

Citizens Fighting Corruption – Results and Lessons of an Innovative Pilot Programme in India, 2013
Vinay Bhargava • Indira Sandilya • Alexander Varghese • Harish Poovaiah

The Citizens Against Corruption (CAC) project on which this report is based is an innovative pilot project started in 2009 with support from the Department for International Development, UK through its global Governance and Transparency Fund. CAC is implemented in South Asia by a partnership of the Public Affairs Centre (PAC), Bangalore, India and the Partnership for Transparency Fund (PTF) – a US-based international NGO committed to helping citizens fight corruption.

This report shows that there is hope in curbing corruption. It presents efforts and results achieved by 14 grassroots Non-Government Organizations (NGOs) spanning four diverse states in India (Odisha, Karnataka, Rajasthan and Uttarkhand) in helping citizens engage to produce positive results to reduce corruption and improve service delivery.

The real heroes in the stories presented in this report are the citizen volunteers and the progressive public officials who worked hard and selflessly to make a difference in the lives of real people living in remote and poor areas.

A Life and Its Lessons: Memoirs, 2012
Samuel Paul

Samuel Paul, well-known scholar, institution-builder and social activist, tells his life story and distills the lessons of experience learnt from a wide range of institutions, both national and international, with which he was associated. In a long and distinguished career, he has been the Director of the Indian Institute of Management, Ahmedabad, adviser to the United Nations, ILO and the World Bank, founder and first chairperson of PublicAffairs Centre, Bangalore, author of “citizen report cards” and other pioneering tools of social accountability. His reflections on the success and sustainability of institutions offer important insights of relevance to practitioners, scholars and students alike. The story is told in a lucid style, with candour, wit and sensitivity to the great social challenges of our time.
Improving Governance the Participatory Way, 2012

Meena Nair • K. Prabhakar • Prarthana Rao • Poornima G.R.

This publication records the implementation of a successful initiative by Public Affairs Centre (PAC), in partnership with grassroot organizations like Centre for Advocacy and Research (CFAR), Society for People’s Action for development (SPAD), and Association for Promoting Social Action (APSA) in creating an effective participatory citizen-provider engagement model which helped improve the quality of service delivery in selected Maternity Homes run by the Bruhat Bengaluru Mahanagara Palike (BBMP or Greater Bangalore Municipal Corporation).

The initiative which began in the form of a study of the quality of services in these Maternity Homes by using well known Social Accountability Tools such as Citizen Report Cards (CRC), Budget Analysis and Community Score Cards (CSC), led to the formation of Maternity Home Monitoring Committees (MHMCs) in the catchment areas of three Maternity Homes. These MHMCs not only monitor services at the Maternity Homes, but also undertake awareness building activities on maternal health entitlements during their regular interactions with community members in the Maternity Home catchment areas, in cooperation with Maternity Home staff members and BBMP officials.

Phase II of the project attempts to replicate the model in more Maternity Homes and Referral Hospitals along with budget advocacy on better implementation of incentive schemes.

Social Audit of Public Service Delivery in Karnataka, 2012

M. Vivekananda • Dr. S. Sreedharan • Malavika Belavangala

This publication offers an insight on how citizens at the receiving end view the public services delivered to them by the service providers. The social audit, by using the citizen report card methodology, was carried out in Karnataka by the Public Affairs Centre, Bangalore as desired by the Department of Planning, Programme Monitoring and Statistics, Government of Karnataka covering seven services viz. public bus transport, food and civil supplies through public distribution system, veterinary health care, pension schemes, services of primary health centres and district hospitals, government high schools and nemmadi kendras.

The social audit was carried out through a random sample survey of the users of selected public services in eight selected districts of Karnataka using a mix of household and exit interviews. In addition, a few case studies, based on the opinions and comments received from the stakeholders on the services surveyed, are also presented, in order to enlighten the quality aspects of these services.
15. Citizen’s Audit of Public Services in Rural Tamil Nadu (Catalyst Trust, Public Affairs Centre), 2001.
17. New Media and People’s Empowerment: The Second Public Affairs Lecture (Dr. Mallika Sarabhai), 2002.
24. Holding a Mirror to the New Lok Sabha (Samuel Paul, M. Vivekananda), 2005.
29. Setting a Benchmark: Citizen Report Card on Public Services in Bhubaneswar (Public Affairs Centre, Centre for Youth and Social Development), 2005.
31. Holding the State to Account: Lessons of Bangalore’s Citizen Report Cards (Samuel Paul), 2006.
41. Study of Sarva Shiksha Abhiyan Initiatives on Universalisation of Elementary Education in Karnataka with Special Reference to Concerns of Gender and Equity (Sita Sekhar, Meena Nair, K. Prabhakar, Prarthana Rao), 2009.
44. Towards a Vibrant Knowledge Society: A Stakeholder Audit of the Karnataka Jnana Aayoga (Shweta Gaur, Nivedita Kashyap, Meena Nair, R. Suresh), 2011.
46. Citizen Monitoring and Audit of PMGSY Roads: Pilot Phase II (Public Affairs Centre), 2012.
47. Improving Governance the Participatory Way: A pilot study of maternal health services for urban poor in Bangalore (Meena Nair, K Prabhakar, Prarthana Rao, Poornima G. R.), 2012.
51. Social Audit of Public Service Delivery in Karnataka (M. Vivekananda, Dr. S. Sreedharan, Malavika Belavangala), 2012.
52. Transforming Karnataka into a Vibrant Knowledge Society (Satyajeet Nanda, Nivedita Kashyap, Meena Nair, R. Suresh), 2013.

**PAC Books by other Publishers**

The Paradox of India's North-South Divide:
PUBLIC POLICY RESEARCH GROUP

The Public Policy Research Group at PAC has the following objectives:

♦ Conduct academic and/or professional research on important sectoral and intersectoral issues of policy relevance.

♦ To strengthen policymaking and implementation through systematic research.

♦ Provide knowledge of the larger setting in which improvements in public service delivery and urban infrastructure take place.

♦ Enable the building of a comprehensive socio-economic database of cities in the country, so that PAC can become the clearinghouse of such information.

♦ Influence policymakers, civil society and other stakeholders with such research through dissemination of findings.

♦ Collaborate with other institutions in the above-mentioned endeavour.