India's Long-Term Growth Experience
Lessons and Prospects

Sadiq Ahmed
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Acknowledgments

Much has been written about India's growth experience. The monograph seeks to synthesize the existing knowledge and underlying debate about India's long-term growth. It seeks to answer two key questions: what explains growth, and what needs to be done to further accelerate and sustain rapid growth? Comments from Marina Wes, Deepak Mishra, Priya Basu, Ahmad Ahsan, Dipak Dasgupta, and Ajay Chhibber of the World Bank are gratefully acknowledged. The main results of the research were presented at two seminars, one in May 2006 at the Bangladesh Bank, Dhaka, and the other in October 2006 at the Indian Council for Research on International Economic Relations (ICRIER) in Delhi. I am deeply indebted to the participants for their perceptive comments, which helped me sharpen the research and analysis in several respects. In particular, I thank Syed Mainul Ahsan and Salehuddin Ahmad of the Bangladesh Bank and Rajiv Kumar of ICRIER for sponsoring those seminars. Bala Bhaskar Naidu provided valuable research assistance. Any errors are solely my responsibility.
Foreword

Rapid growth since 1980 has transformed India from the world's 50th ranked economy in nominal US dollars to the 12th largest in 2003. When income is measured in regard to purchasing power parity, India's economy moves to fourth place, after the United States, Japan, and China. Along with income expansion, India's increasingly outward orientation is making it an important player in the global economy. Already it is a major global service provider in the area of information technology and related services. The growing optimism about India's economy is leading to a surge in international investors' interest, and at home the debate has shifted from a concern with the ability to sustain an annual growth rate of 6 percent to the prospects for increasing this to a sustained growth rate of 8 percent.

What factors have allowed India to achieve such rapid rates of growth? How can India sustain the growth momentum? These are important questions and are the subject of this monograph. Considerable research has been done to look into these issues, and there is a debate going on concerning these issues. The monograph draws on this research and seeks to provide clarity to this debate.

To answer the first question India's growth experience is broken down into two distinct phases: the first phase running from 1950 to 1980 (phase I) and the second from 1980 to 2004 and still ongoing (phase II). The analysis of this monograph shows that India's movement to a higher growth path happened in phase II, owing mainly to a major shift in development strategy and associated policies, which
started in the 1980s. In phase I, the development strategy was inward looking and relied on a command and control type of environment. In phase II, it became outward oriented and relied on market incentives. Key reforms included continued prudent macroeconomic management, which kept inflation and current account deficits under control during the period as a whole; exchange rate and trade liberalization; financial sector liberalization; and domestic investment deregulation. Deregulation and outward orientation along with broadly prudent macroeconomic management yielded dramatic results as the economy became more open and competitive, private investment expanded, and productivity surged.

The growth sustainability question concerns India's ability to increase the annual growth rate to 8 percent and sustain that level. India has already achieved the 8 percent growth rate target during 2004-06. This monograph argues that this growth rate can be sustained because of a number of favorable factors: a growing labor force, a falling dependency ratio, rising savings and investment rates, expanding foreign direct investment with related technology transfer, and a dynamic private sector. To convert these favorable factors into growth opportunities, the policy and institutional reforms must continue. In particular, reforms must address the key constraints to growth: fiscal policy, infrastructure, labor market inflexibility, upgrading of labor force skills, and public service delivery. India is slowly making progress in reducing fiscal deficits, but more needs to be done to strengthen revenue mobilization and switch expenditure from wasteful subsidies in favor of infrastructure and human development spending. In regard to infrastructure, an additional 5 to 6 percent of GDP needs to be invested
to meet the infrastructure challenge through a combination of carrying out fiscal reforms and mobilizing private resources. The lessons of experience with private participation in infrastructure suggest the importance of an adequate deregulation strategy, encouragement of competition, proper pricing to preserve enterprise incentive, and proper regulatory framework to protect public interest. Concerning job creation, an overhaul of labor laws for the formal sector with a view to ensuring a proper balance between employment flexibility and the protection of workers’ rights is a major reform priority. At the same time, the skill constraint has to be relaxed by investing much more heavily in basic education than what was invested in the past, with a special focus on quality. Finally, although the private sector has prospered from past reforms, the public sector has lagged behind substantially owing to the inadequacy of related reforms. The problems include poor efficiency, poor services, weak accountability, and inadequate financial resources. Reforms entail a major overhaul of the underlying institutional arrangements for public services. This is yet another area of reform challenge for India.
India’s Emerging Global Significance: Can Growth Accelerate Further?

India’s rapid growth since 1980 is transforming it into a modern economic power. When income is measured in nominal US dollars, India’s economy is found to have risen from a low rank of 50 in 1979 to the world’s 12th largest economy in 2003 (Figure 1.1). When income is measured in relation to purchasing power parity, India’s 2003 ranking climbs to the world’s fourth largest economy, behind only the United States, China, and Japan (Figure 1.2). Although India continues to be classified as a low-income country in terms of per Capita nominal US dollars because of its huge population, if present rates of growth continue, India should reach low middle-income status by the end of this decade.\(^1\) Importantly, in regard to purchasing power parity, India on aggregate will likely become the third largest economy after the United States and China.

In regard to the global impact on trade and investment flows, the potential implications of this transformation, if sustained, are substantial. In regard to its share of total international trade and investment flows, India is still a small player because of the closed nature of the Indian economy until the 1980s. But as a result of
INDIA'S LONG-TERM GROWTH EXPERIENCE

Figure 1.1
World's Largest Economies, 2003


Figure 1.2
World's Largest Economies in PPP Terms, 2003

the recent opening up of the economy, slowly but steadily India is gaining strength based on the rapid growth in the export of goods and services (Figure 1.3). In particular, services exports have surged since 2001 (World Bank 2004a). India's advantage in this line of business is drawing international attention, inducing many global services based on computer technology to locate to India. Private capital flows including foreign direct investment were initially very limited but are now showing dynamism. Thus, foreign investment (direct as well as portfolio) climbed from a meager US$100 million in 1990 to an average of about US$13 billion per year during 2003–04 (Government of India 2005).

India's economic transformation is a recent development. Even during the 1970s, the debate in India centered on what could be done to push the economy out

Figure 1.3
Growth in Export Values, 1990–2003

of the narrow bounds of the historical 3 percent annual growth rate. Critics humorously called this low average annual growth rate the "Hindu growth rate." Few would have predicted that this "sleeping giant," vested with the world's second highest population, would suddenly start rolling and sustain an average growth rate of about 6 percent per annum over the past 25 years. Indeed, there are some signs that the growth rate could accelerate even further. For example, during 2002–05 the annual average growth is estimated at 7.9 percent. Not surprisingly, there is growing optimism about the country. The debate has accordingly shifted to the following question: Can the growth accelerate to 8 percent per year and be sustained at that level? A related question is what factors have allowed India to shift from the 3 percent per year growth path to a 6 percent plus growth path?

These are important questions, and associated research has fueled a very lively debate. There are two aspects of this debate. The first concerns the factors underlying India's long-term growth. One view believes that India's experience is a reflection of the "triumph" of liberalization policies over state-led "command and control" policies. A second view thinks that India's experience shows the importance of "heterodox" policies in supporting growth. A third view regards India's growth as an outcome of a business-friendly attitudinal shift in India's policy making since 1980 rather than the result of liberalization policies.

The second aspect of the debate relates to the sustainability of growth. The growth pessimists are concerned that India is facing a number of binding constraints
that will make it difficult for India to sustain even the 6 percent growth rate. So, sustaining 8 percent growth rate is highly unlikely. Related to this is the concern that the easy reforms have taken place and the second generation reforms have been more halting because of political constraints. Pessimists also worry about the low employment elasticity of growth, the perceived imbalance of growth with heavy reliance on services relative to manufacturing that threatens sustainability, and the growing personal and interstate income inequalities that could fuel social unrest and disrupt the growth process. The optimists believe that although the social, political, and economic constraints are serious and need to be addressed, the overall environment for economic expansion remains highly positive. Optimists see the demographic pattern of an underused and growing labor force as an opportunity rather than a constraint, which can be worked to India’s favor through policy reforms including education and training. The high and rising national savings rate, which is also benefiting from the demographic transition to a lower dependency ratio, along with the growing foreign investment, is yet another positive factor for growth. Similarly, the technology transfer and adoption options are many and offer the prospects for continued good progress with total factor productivity, another favorable factor for sustained growth. Regarding the concern with the growth imbalance between manufacturing and services, the imbalance is seen as the result of policy outcomes rather than an inherent weakness of an unsustainable growth process. The risks to growth for manufacturing are similar to the risks for services. Finally, the strength of the business community, a powerful and vocal
middle class, and increasing global integration are unleashing private sector dynamism not seen in the past. These forces are putting pressure on the political players to address the emerging policy constraints to growth.

This monograph reviews the debate in the context of India's long-term growth experience, opportunities, and challenges. It examines the factors that helped India achieve rapid economic growth during the past 25 years. On the basis of this review, the main constraints that are likely to cause worries for growth in the future are analyzed and the policies that are needed to ease these constraints are highlighted.

The monograph is organized as follows. After the introduction of the main theme and issues in Chapter 1, Chapter 2 examines the evolution and structure of India's long-term growth. Sectoral composition, the employment issue, and the state-level context of the growth experience are considered in this chapter. Chapter 3 analyzes the determinants of growth in a growth accounting framework. Chapter 4 reviews the policy framework that underpins the past growth effort, and Chapter 5 provides a brief review of the emerging constraints and identifies the priorities for future reform. Finally, Chapter 6 provides some concluding remarks.

NOTE

1. For a definition of income categories, see World Bank 2005a.
Evolution of India’s Long-Term Growth

This chapter reviews India’s long-term growth in relation to total and per Capita GDP growth; the changing composition of growth by the three broad sectors of agriculture, industry, and services; the implications for employment; and the growth experience by states. Sectoral composition provides useful information about the relative dynamism of these components and allows a better understanding of the employment question. Similarly, because states have important flexibility in their policies, their growth experience also allows a better understanding of the determinants of growth.

Trend in Total and per Capita GDP Growth: 1950–2004

Figure 2.1 shows the pattern of India’s long-term growth. There are two distinct growth periods: a first phase from 1950 to 1980 (phase I) and a second phase from 1980 to 2004 (phase II). The first phase is characterized by slow growth in both absolute and per Capita terms. In this period, India grew at an average pace of only 3.6 percent per annum in absolute terms and 1.2 percent in per Capita terms. In the second
Figure 2.1
India's Long-Term Growth, 1950-2004

Source: Estimated from the data from the World Bank's Global Database, August 2005.

phase, growth accelerated to 5.7 percent in absolute terms and 3.8 percent in per Capita terms. Within these two broad phases there are some interesting variations. During phase I, the decades of 1950–60 and 1960–70 experienced almost identical growth rates (4 percent per year). But growth dipped substantially during 1970–80 (3 percent per year), causing per Capita annual income to virtually stagnate at below 1 percent. Indeed, this decade saw the slowest pace of economic expansion since independence. In phase II, the decades of 1980–90 and 1990–2000 both experienced fairly rapid growth (5.8 and 5.5 percent per year, respectively), but importantly, growth rate accelerated further during 2000–2004 (6.2 percent per year). In addition,
if the effect of the estimated growth rate for 2005 (8.2 percent) is added and the most recent years are examined, the acceleration becomes quite prominent (Figure 2.2). Thus, the average annual rate of growth for the period of 2002–05 is estimated at 7.9 percent.

**Figure 2.2**

India’s Recent Growth Path, 2001–05

![Graph showing India's recent growth path, 2001-05.](image)


Fast growth rate since 1980 has placed India among the top nine rapidly growing economies of the world (Table 2.1). This is a list of countries that have grown by 5 percent or more per year during the past 23 years. Interestingly, India consolidated its gain during 1990–2003, rising from its ranking as the eighth fastest growing economy during 1980–90 to the third fastest expanding economy during 1990–2003. The growth
INDIA'S LONG-TERM GROWTH EXPERIENCE

Table 2.1
The World’s Fastest Growing Countries, 1980–2003
(percent per annum)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>10.3</td>
<td>2</td>
<td>9.6</td>
<td>1</td>
<td>10.0</td>
<td>1</td>
</tr>
<tr>
<td>Botswana</td>
<td>11.0</td>
<td>1</td>
<td>5.2</td>
<td>6</td>
<td>7.6</td>
<td>2</td>
</tr>
<tr>
<td>Korea</td>
<td>9.0</td>
<td>3</td>
<td>5.5</td>
<td>5</td>
<td>7.3</td>
<td>3</td>
</tr>
<tr>
<td>Singapore</td>
<td>6.7</td>
<td>6</td>
<td>6.3</td>
<td>2</td>
<td>6.5</td>
<td>4</td>
</tr>
<tr>
<td>Oman</td>
<td>8.4</td>
<td>4</td>
<td>4.3</td>
<td>8</td>
<td>6.3</td>
<td>5</td>
</tr>
<tr>
<td>India</td>
<td>5.7</td>
<td>8</td>
<td>5.9</td>
<td>3</td>
<td>5.8</td>
<td>6</td>
</tr>
<tr>
<td>Thailand</td>
<td>7.6</td>
<td>5</td>
<td>3.7</td>
<td>9</td>
<td>5.6</td>
<td>7</td>
</tr>
<tr>
<td>Mauritius</td>
<td>6.0</td>
<td>7</td>
<td>5.2</td>
<td>6</td>
<td>5.6</td>
<td>7</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5.3</td>
<td>9</td>
<td>5.9</td>
<td>3</td>
<td>5.6</td>
<td>7</td>
</tr>
</tbody>
</table>


The surge of the past 3 years (2002–05), if sustained during the next few years, will further strengthen India’s position. This could make India the world’s second fastest growing economy after China. However, despite the rapid growth of the past 25 years in per Capita terms, India is still a very low income economy given the very late start of its development. Thus, measured in nominal US dollars, India’s per Capita GNP in 2005 was a mere 2 percent of that of the United States. In purchasing power parity terms, the share rises to 8 percent, still a small proportion of the US per Capita income. Clearly, there is a huge amount of catching up still to be done.

Sectoral Composition of Growth

The broad sectoral composition of growth for different decades is shown in Table 2.2. Agriculture grew the slowest, at only 2.5 percent per year during 1960–2004. In contrast to that, both industry and services grew
more than twice as fast at about 5.7 percent per year. When compared by growth phases, all sectors show better growth performance in phase II than in phase I. Within phase I, the decade of 1970–80 was generally a difficult period for growth, especially for agriculture. Industrial growth also slowed in this period. Together, they pulled down GDP growth to only 3.1 percent per year, the slowest pace of expansion in any decade since 1950. More generally, except for 1980–90, agriculture grew at 3 percent or less, mainly at 2.5 percent or below. This growth is considerably weaker than that in China or even Pakistan. The industrial sector maintained a steady pace of growth, at 5.5 percent or more per year, for most of the 54-year period except for the deceleration during 1970–80. Acceleration in the expansion of the services sector provided the main impetus to the GDP growth surge after 1980. Thus, the annual average services growth climbed from 4.5 percent during 1950–80 to 7 percent during 1980–2000.

Table 2.2
India's Sectoral Composition of Growth, 1950–2004

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950–60</td>
<td>3.0</td>
<td>6.2</td>
<td>4.3</td>
<td>3.9</td>
</tr>
<tr>
<td>1960–70</td>
<td>2.3</td>
<td>5.5</td>
<td>4.8</td>
<td>3.7</td>
</tr>
<tr>
<td>1970–80</td>
<td>1.5</td>
<td>4.0</td>
<td>4.4</td>
<td>3.1</td>
</tr>
<tr>
<td>1980–90</td>
<td>3.4</td>
<td>7.1</td>
<td>6.7</td>
<td>5.6</td>
</tr>
<tr>
<td>1990–2000</td>
<td>2.5</td>
<td>5.6</td>
<td>7.6</td>
<td>5.6</td>
</tr>
<tr>
<td>2000–2004</td>
<td>2.3</td>
<td>6.1</td>
<td>8.2</td>
<td>6.3</td>
</tr>
<tr>
<td>1950–80</td>
<td>2.3</td>
<td>5.2</td>
<td>4.5</td>
<td>3.6</td>
</tr>
<tr>
<td>1980–2004</td>
<td>2.9</td>
<td>6.3</td>
<td>7.3</td>
<td>5.7</td>
</tr>
<tr>
<td>1950–2004</td>
<td>2.5</td>
<td>5.7</td>
<td>5.7</td>
<td>4.5</td>
</tr>
</tbody>
</table>

These differential sectoral growth rates have brought about a major structural transformation in the Indian economy. That is illustrated in Figure 2.3. The agricultural sector's share of GDP shrank dramatically throughout the period, falling from 58 percent in 1950 to only 21 percent in 2004. The industrial sector's share of GDP rose from 15 percent to 27 percent during the same period. Most notably, the services sector's share surged from a low of 27 percent in 1950 to more than 52 percent in 2004. Interestingly, industry's share of GDP has remained virtually unchanged at 27 percent since 1990, and services' share moved up from 41 percent to 52 percent, showing its dynamism. This structural change of the economy has obvious implications for employment and the income of the labor

**Figure 2.3**
Sectoral Share of GDP, 1950–2004

force. Unlike agriculture's rapidly declining share of GDP, employment's share did not fall as much. As a result, average productivity and wages grew much slower in agriculture compared with in manufacturing and services (Virmani 2004a, 2004b; World Bank 2006a). In tandem, people relying on labor income from agriculture benefited less from overall GDP growth than workers employed in services and manufacturing.

**Labor Force, Employment, and Real Wages**

The somewhat unusual pattern of services-led growth has fed some concerns about the sustainability of growth as well as a worry about labor absorption (Kohli 2006). How unusual is India's growth experience in regard to sectoral composition? This issue has been studied in some detail in a new research by Kochar et al. (2006). The study concludes that although the share of manufacturing in output and employment in 1981 was at a normal level when compared with countries at a similar level of development and size, this share lagged behind during 1980-2002. In contrast the share of services in output and employment was below the norm in 1981, but although the output share of services surged ahead during 1980-2002, the employment share lagged behind. The study also finds evidence that India's services and manufacturing sectors tend to exhibit skill-intensive growth that is more typical of advanced industrial countries as opposed to East Asian countries.

Do these findings verify the pessimism expressed by Kohli? Kochar et al. (2006) explain this pattern of growth
as reflecting partly the policy bias in India’s education policies since the early days in favor of higher and scientific education as opposed to basic education and training and partly the effect of labor market policies that reduce employment flexibility and discriminate against labor-intensive enterprises. Clearly, therefore, this slower than expected growth of manufacturing is partly the result of a policy-induced constraint (inflexibility of the labor market) that has lowered the expansion of labor-intensive manufacturing rather than an inherent weakness of the growth process in phase II. Similarly, as we shall see later in more detail, the services sector’s surge in phase II is the result of reforms, including greater openness to global markets. The risks to its sustainability are linked to global downturn and the absence of further reforms, factors that will also hurt manufacturing growth. So, the sustainability of overall growth is not dependent on the relative balance between growth in services versus growth in manufacturing.

The issue of low employment creation is a substantial one. What is the evidence? Unfortunately comparable long-term labor force and employment data are not available. We have more recent data pieced together from various sources in a recent employment study done by the World Bank (2006a). On the supply side, labor force grew by 1.7 percent during 1983–2000 (Table 2.3). The labor force is becoming better educated, although the average level remains very low when compared with the East Asian economies (ibid.). Also, the education gap between rural and urban workers on the one hand and between female and male
Table 2.3

<table>
<thead>
<tr>
<th></th>
<th>1983/84</th>
<th>1999/2000</th>
<th>Growth Rate (percent per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor force (million)</td>
<td>312.9</td>
<td>408.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Urban</td>
<td>63.1</td>
<td>100.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Rural</td>
<td>249.8</td>
<td>308.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Employment</td>
<td>265.1</td>
<td>360.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Regular</td>
<td>39.0</td>
<td>57.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Casual</td>
<td>79.3</td>
<td>120.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Self-employed</td>
<td>146.8</td>
<td>182.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Employment share</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>66.7</td>
<td>58.7</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>12.0</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>21.3</td>
<td>29.2</td>
<td></td>
</tr>
</tbody>
</table>


workers on the other is quite striking. On the demand side, employment actually grew faster than the supply of labor, although the overall elasticity of employment to GDP growth is low (only 0.3 percent). The faster aggregate growth of employment relative to the labor supply is also reflected in rising real wages (Table 2.4).

What then is the employment concern? The employment and real wage concerns are actually driven by low overall employment elasticity of growth, differential sectoral impact of employment, and the differential rates of wage increases between sectors and by gender. First, although real wages grew economy-wide, the growth was slower than the expansion of per Capita
Table 2.4

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages of Salaried Worker/Casual Worker (ratio)</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1.0</td>
<td>2.0</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Non-agriculture</td>
<td>1.9</td>
<td>2.3</td>
<td>2.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Casual Workers (Rs per day)</td>
<td>1983/84 Male</td>
<td>1983/84 Female</td>
<td>1999/2000 Male</td>
<td>1999/2000 Female</td>
</tr>
<tr>
<td>Agriculture</td>
<td>16.4</td>
<td>11.0</td>
<td>26.0</td>
<td>18.3</td>
</tr>
<tr>
<td>Non-agriculture</td>
<td>23.8</td>
<td>11.7</td>
<td>38.3</td>
<td>23.9</td>
</tr>
<tr>
<td>All activities</td>
<td>18.0</td>
<td>11.1</td>
<td>29.3</td>
<td>18.9</td>
</tr>
<tr>
<td>Public work</td>
<td>19.5</td>
<td>11.9</td>
<td>31.5</td>
<td>25.9</td>
</tr>
</tbody>
</table>

income for low-skilled workers. This is a reflection of the overall low employment elasticity of GDP growth. Second, real wages grew much slower in agriculture as compared with non-agriculture. That is due to the slow growth in average labor productivity in agriculture, the very low levels of educational attainment of agricultural workers, and the relatively slow growth in demand for labor in low-skill, labor-intensive non-agricultural activities. As a result, there is continued strong reliance on agriculture for employment. Thus, although the output share of agriculture has slumped from 40 percent in 1980 to only 25 percent in 2004, the employment share declined only marginally from 66 percent in 1983/84 to 59 percent in 1999/2000 (World Bank 2006a). The much slower growth of employment in industry and services relative to their contribution to growth in output has constrained the overall employment elasticity of output and the growth of real wages economy-wide. Third, there are substantial wage differentials between male and female workers. Finally, the wage differential between skilled and unskilled workers has widened (ibid.). These findings suggest the need to address two key policy challenges moving forward. First, there is a need to redress the dualistic pattern of skills by focusing on ways to upgrade the skill profile of the large bulk of the uneducated or low-skilled work force through appropriate reforms in education and training policies. Second, there is a need to remove the constraints to labor market flexibility to allow a more labor-intensive pattern of growth.
Regional Pattern of Growth: State-Specific GDP

In India's decentralized political environment in which policies, resources, and institutions differ substantially by states, understanding the pattern of growth by states is an important dimension of the growth diagnostics. Detailed reviews of state-level growth performance are available in Ahluwalia (2002a), Bhattacharya and Sakthivel (2004), and Krishna (2004). Unfortunately, reliable state-specific GDP data are available from only 1960 onward. The rates of growth by decade since 1960 are shown in Table 2.5. Not surprisingly, growth has varied significantly by states and by decades. During the low-growth phase (1960–80), most states grew slowly and close to the Indian national average. The exceptions were Haryana, Punjab, and Orissa. The higher growth in these three states was largely due to strong growth in agriculture. During the second phase of rapid national growth (1980–2003), a number of states took the lead in contributing to the growth acceleration: Gujarat, Karnataka, Maharashtra, Rajasthan, and West Bengal. The average growth in these states equaled or exceeded the national average. A few states grew at about the national average: Haryana, Tamil Nadu, and Andhra Pradesh. But a number of states lagged behind the national average, especially Bihar, Orissa, and Uttar Pradesh. The faster-growing states on average registered significantly higher rates of expansion in industrial and service sectors as compared with the lagging states.

Earlier we saw that agriculture on average grew much less rapidly than services and manufacturing, especially during the high growth phase. An interesting question
### Table 2.5
Regional Pattern of India’s Growth, 1960–2003

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</tr>
</thead>
<tbody>
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<td>3.0</td>
<td>3.1</td>
<td>6.3</td>
<td>5.6</td>
<td>4.9</td>
<td>3.1</td>
</tr>
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<td>Bihar</td>
<td>2.3</td>
<td>3.1</td>
<td>4.8</td>
<td>3.6</td>
<td>0.2</td>
<td>2.7</td>
</tr>
<tr>
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<td>5.3</td>
<td>6.2</td>
<td>11.0</td>
<td>4.1</td>
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<td>4.5</td>
<td>6.4</td>
<td>4.9</td>
<td>6.3</td>
<td>5.2</td>
</tr>
<tr>
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<td>3.1</td>
<td>5.1</td>
<td>7.8</td>
<td>3.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Kerala</td>
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<td>2.2</td>
<td>3.6</td>
<td>5.5</td>
<td>4.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>2.9</td>
<td>4.6</td>
<td>6.0</td>
<td>5.8</td>
<td>6.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>2.1</td>
<td>3.0</td>
<td>5.1</td>
<td>3.8</td>
<td>6.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Orissa</td>
<td>9.8</td>
<td>2.9</td>
<td>2.8</td>
<td>4.4</td>
<td>6.7</td>
<td>6.4</td>
</tr>
<tr>
<td>Punjab</td>
<td>4.6</td>
<td>4.8</td>
<td>5.2</td>
<td>4.7</td>
<td>2.8</td>
<td>4.7</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>4.7</td>
<td>1.0</td>
<td>7.4</td>
<td>4.7</td>
<td>5.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>2.8</td>
<td>1.7</td>
<td>5.6</td>
<td>6.4</td>
<td>1.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>2.5</td>
<td>3.0</td>
<td>5.0</td>
<td>3.5</td>
<td>1.7</td>
<td>2.8</td>
</tr>
<tr>
<td>West Bengal</td>
<td>2.2</td>
<td>3.1</td>
<td>4.3</td>
<td>6.7</td>
<td>7.1</td>
<td>2.7</td>
</tr>
<tr>
<td>All India Average</td>
<td>3.7</td>
<td>3.1</td>
<td>5.6</td>
<td>5.6</td>
<td>6.0</td>
<td>3.4</td>
</tr>
</tbody>
</table>


Is, to what extent are the differences in state growth rates explained by the magnitude of the state's reliance on the weakly expanding agriculture sector? The share of agriculture in Gross State Domestic Product (GSDP) is shown in Figure 2.4. A number of interesting results are seen. First, the share of agriculture fell for all states, indicating that the non-agricultural activities expanded relatively more rapidly in all states. Second, it is true that the poorest states of Bihar, Orissa, and Uttar Pradesh remain relatively more reliant on agriculture than the richer states of Maharashtra, Gujarat, Tamil Nadu, and Kerala. Third, yet it is also true that some of the rapidly expanding states such as
West Bengal and Haryana and moderately growing states such as Andhra Pradesh and Madhya Pradesh have shares of agriculture that are larger than the national average. Finally, Haryana and Punjab, both rich states, have a very strong agricultural base. But, although Haryana has successfully diversified its economy and sustained rapid growth, Punjab stagnated during the 1990s because of its weak ability to broaden growth outside agriculture. These results suggest that a simple correlation between dependence on agriculture, the level of state per Capita income, and the overall rate of growth will be misleading. Agriculture plays a substantial role in many states. But the dynamic
EVOLUTION OF INDIA’S LONG-TERM GROWTH

ones have diversified more rapidly and benefited from a more buoyant non-agriculture sector.

Given the initial differences in the states’ incomes, the differential growth rates, along with variable progress in tackling population growth, have brought about substantial differences in the per Capita income of the states (Figure 2.5). The gap between the rich and poor states widened particularly rapidly since the 1990s. The widening income gap between states has generated a substantial debate about liberalization policies and the convergence of growth (Ahluwalia 2002a; Bajpai and Sachs 1996; Purfield 2006). This divergence in per Capita state incomes has also led to large differences in the standard of living across states and progress with poverty reduction. Not surprisingly, the incidence of poverty is highest in the poorest states of Bihar, Orissa, and Uttar Pradesh. The state-level income inequalities have contributed to both a growth pessimism based on the fear of a social backlash and a populist view that India’s rapid growth has not benefited the poor.

Growth, Poverty, and Human Development

Although the focus of this monograph is on growth, it is useful to take a summary look at the poverty and human development outcomes to dispel the populist view that higher growth benefits only a few and as such the emphasis on growth is misplaced. At the global level, there is convincing empirical evidence that growth and poverty reduction are positively correlated (Dollar and Kraay 2001). Table 2.6 summarizes the
Figure 2.5
Indian States' Per Capita Income Trends, 1960–2002

### Table 2.6
India's Development Indicators by Growth Phases

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>GDP growth (% p.a.)</td>
<td>3.6</td>
<td>5.7</td>
</tr>
<tr>
<td>per Capita GDP growth (% p.a.)</td>
<td>1.2</td>
<td>3.8</td>
</tr>
<tr>
<td>National poverty incidence (%)</td>
<td>45.3 (1951-52); 48.4 (1977-78)</td>
<td>43.0 (1983-84); 26.0 (1999-2000)</td>
</tr>
<tr>
<td>Urban poverty (%)</td>
<td>35.5 (1951-52); 40.5 (1977-78)</td>
<td>35.7 (1983-84); 23.5 (1999-2000)</td>
</tr>
<tr>
<td>Rural poverty (%)</td>
<td>47.4 (1951-52); 50.6 (1977-78)</td>
<td>45.3 (1983-84); 27.0 (1999-2000)</td>
</tr>
<tr>
<td>Life expectancy (years)</td>
<td>45 (1962); 54 (1980)</td>
<td>54 (1980); 63 (2003)</td>
</tr>
<tr>
<td>Infant mortality rate (per 1,000)</td>
<td>146 (1960); 115 (1980)</td>
<td>115 (1980); 60 (2003)</td>
</tr>
<tr>
<td>Adult literacy rate</td>
<td>18.3 (1951); 43.6 (1981)</td>
<td>43.6 (1981); 64.8 (2001)</td>
</tr>
</tbody>
</table>

average poverty and selected human development outcomes for India during the two growth phases. The results are quite striking, although not surprising. Progress with poverty reduction was very slow in both urban and rural areas during phase I. The pace of poverty reduction picked up substantially in phase II, supported by the acceleration in growth. Progress with human development was similarly better in phase II. So, it is reassuring that higher growth did allow India to make faster progress in improving the well-being of its citizens. State-level analysis shows not only that poverty was reduced in all states but that there is also a similar positive correlation between growth and poverty (Deaton and Kozel 2005; World Bank 1997). The incidence of poverty tends to be lowest in the high per Capita income states and highest in the slow-growing, low-income states. So, a part of the development challenge is to find ways to accelerate growth in the lagging regions rather than abandon the growth acceleration effort. Nevertheless, there is also evidence that income inequality increased (Deaton and Kozel 2005), and human development indicators remain weak by international standards, including the quality of health and educational outcomes. These facts suggest that along with more rapid growth India needs to pay stronger attention to improving equity. The education and training and labor market reforms mentioned earlier are important elements of a policy reform package to improve equity in India.

NOTES
1. For a more nuanced and detailed review of India's long-term growth experience and phases of growth, see Virmani (2004a).
2. For a good review of growth and equity issues, see World Bank 2005b.
Determinants of Growth: Growth Accounting

Following the seminal work on growth by Solow (1956), the growth accounting analysis shows that growth per unit of labor depends on capital accumulation and factor productivity. Increase in one or both can raise the rate of growth. Capital accumulation in turn depends on the rate of investment. In a market economy, investment depends on profitability. The profitability of investment depends in part on the price of capital, which is affected by the national savings rate and external capital flows. External capital flows also have an effect on the ability to acquire new technology and thereby affect total factor productivity. How have these elements played out in India?

Savings and Investment

Figure 3.1 shows the trend in savings and investment. Over the longer term, India’s savings and investment rates have increased substantially. Both savings and investment rates have grown steadily throughout all the decades, rising from the low levels of 10 to 12 percent, respectively, during the 1950s to the 23 percent range in the 1990s. The national savings rate surged further to 27 percent during 2000–2004, buoyed by
inflow of remittances. Overall, the average investment rate in phase II (23 percent of GDP) was much higher than that in phase I (15 percent of GDP). It is clear therefore that the higher growth rate since the 1980s has indeed been supported by a more rapid pace of investment.

**Total Factor Productivity**

The emphasis on total factor productivity (TFP) results from the theory that the sustainability of growth over
DETERMINANTS OF GROWTH: GROWTH ACCOUNTING

The longer term will depend on the ability to make continuous TFP improvements. Without improvements in TFP, diminishing returns to factor accumulation will drive down the growth rate over the longer term. Several studies have analyzed developments in India's TFP. The more recent ones include Rodrick and Subramanian 2004, Virmani 2004b, Acharya et al. 2003, and Bosworth and Collins 2003. The results of these studies are summarized in Table 3.1. Despite differences in assumptions and methodology, there is a remarkable degree of consistency in the studies' results. The stylized facts appear to be as follows: First, TFP has played an important role in pushing long-term growth in India. Second, there has been a significant increase in TFP and its contribution to growth in phase II. Indeed, international comparison of TFP contribution to growth done by Bosworth and Collins (2003) suggests that India scored very low during 1960–80 (at only 10 percent) compared with other countries. However, the contribution of TFP surged to 57 percent during 1980–99, which is in the top performer category.

Growth Accounting: A Summing Up

The evidence summarized above suggests that the acceleration in India's rate of growth in phase II over phase I occurred as a result of both a sharp increase in capital accumulation and a strong improvement in productivity. The surge in the national savings rate observed during 2000–2004 and evidence of increasing foreign capital inflows suggest that financing does not appear to be a constraint to further increases in the
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</thead>
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<tr>
<td><strong>GDP</strong></td>
<td>3.8</td>
<td>3.4</td>
<td>5.3</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td><strong>TFP</strong></td>
<td>1.4</td>
<td>0.7</td>
<td>2.0</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td><strong>Proportion of GDP growth explained by TFP (%)</strong></td>
<td>38</td>
<td>21</td>
<td>38</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td><strong>B. Virmani</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net domestic product (NDP) per worker</strong></td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td>2.4</td>
</tr>
<tr>
<td><strong>TFP</strong></td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Proportion of per worker NDP growth explained by TFP (%)</strong></td>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td>69</td>
</tr>
<tr>
<td><strong>C. Bosworth and Collins</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GDP per worker</strong></td>
<td>1.9</td>
<td>0.7</td>
<td>3.9</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td><strong>TFP growth</strong></td>
<td>0.7</td>
<td>-0.5</td>
<td>2.5</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td><strong>Proportion of per worker GDP growth explained by TFP (%)</strong></td>
<td>40</td>
<td>negative</td>
<td>64</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td><strong>D. Rodrick and Subramaniam</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GDP per worker</strong></td>
<td>1.8</td>
<td>0.9</td>
<td>3.7</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td><strong>TFP</strong></td>
<td>1.2</td>
<td>0.5</td>
<td>2.9</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td><strong>Proportion of per worker GDP growth explained by TFP (%)</strong></td>
<td>67</td>
<td>56</td>
<td>78</td>
<td>73</td>
<td></td>
</tr>
</tbody>
</table>

investment rate. The better prospects for foreign investment also suggest stronger opportunities for accumulation of better technology, which is a positive factor for total factor productivity and growth.
4

Policy Framework for Supporting Growth

From an accounting perspective, there is no disagreement that the per worker growth rate depends on the investment effort and the pace of productivity growth. The debate has centered on what determines the investment rate and productivity growth. This has translated into a debate about the role of specific policies in supporting growth. A summary of this debate can be found in Ahmed (2006). In regard to India, the controversy is about the role of deregulation policies versus “attitudinal changes.” The implications of liberalization policies for supporting growth in India have been studied extensively (Acharya 2006; Ahluwalia 2002b; Krueger and Chinoy 2002; Panagariya 2005; Virmani 2005; World Bank 2000, 2003). These studies have provided evidence that the growth momentum since the 1980s has much to do with pro-market reforms. The reforms started in the 1980s but accelerated in the 1990s. This received wisdom has been challenged recently in a new study that concludes that “growth was triggered by an attitudinal shift on the part of the national government towards a pro-business (as opposed to pro-liberalization) approach” (Rodrick and Suramanian 2004, from the abstract).
A careful review of the debate appears to suggest that this has less to do with the substance and more with the choice of time period and the interpretation of associated reforms. In regard to the time period, the distinction between the two sub-periods of phase II, 1980–90 and 1991–2004, is overdrawn. The facts are clear: the upward shift in the growth path occurred after 1980, not 1991. But to argue that growth during 1980–90 occurred as a result of attitudinal changes rather than pro-market reforms is misleading. The government’s shift from an inward-looking, command-and-control economy to an outward-oriented, incentive-based, private sector-led economy is indeed at the heart of the reforms during phase II. Calling them “pro-business” rather than “pro-market” does not change the substance that these reforms were directed at improving the incentives for the private sector. As Panagariya (2005), Virmani (2005), and Joshi and Little (1998) have shown, some significant pro-market reforms took place during 1980–90. Many others took place after the crisis of 1991. Reforms in both periods were geared to improving incentives for the private sector. During 1980–90, the government signaled its change in development strategy through reforms that were easy wins. A large share of the growth impact came from better use of existing capacities reflected in TFP improvement. From 1991 to 2004, more fundamental market-oriented reforms took place. A larger share of the growth response in this period came from capital accumulation, although TFP contribution remained substantial. Importantly, most researchers agree that without the reforms of the 1990s, the growth spurt of the 1980s could not have been sustained.
Against the backdrop of the above, this monograph shows that the low investment effort and low productivity improvements of phase I were the result of weak incentives and low efficiency resulting from a highly controlled and inward-looking economy. The exchange rate was overvalued and inflexible, trade and capital flows were highly restrictive, the financial sector was heavily controlled under public ownership, and investment regulations were overwhelming. In phase II, the exchange rate was made flexible, exchange controls were removed, financial sector was reformed, trade restrictions were progressively removed, and investment was deregulated. So, essentially, in the first phase, the Indian economy was inward looking and managed by state-led command-and-control interventions. In the second phase, the economy was more outward oriented and driven by the private sector through market-based incentives. These are two different development strategies and policy regimes with markedly different growth outcomes. Below, we look at underlying policies in some greater detail.

Macroeconomic Stability

It is now well accepted that macroeconomic stability is an essential condition for sustained long-term growth. It is, however, also recognized that macroeconomic stability is a necessary but not sufficient condition for growth. For example, if macroeconomic stability is maintained through tight controls over monetary, fiscal, exchange, and trade policies, the likely outcome will be macroeconomic stability with low growth. Consequently, the policy challenge is to preserve
INDIA’S LONG-TERM GROWTH EXPERIENCE

macroeconomic stability while supporting high growth. Related to this, there is a debate about the role of individual policies in reconciling macroeconomic stability with growth. In India, this debate has centered on the appropriate role of fiscal policy.

Two key indicators of macroeconomic stability are the internal balance, measured by the rate of inflation, and the external balance, measured by current account deficits. The trend in inflation is shown in Figure 4.1. Relative to the rest of the world and other non-oil-exporting developing countries, on average India has experienced significantly lower inflation over the longer term. Inflation was especially low in the 1950s, started

![Figure 4.1](Image)

**Figure 4.1**

Inflation in India, 1950–2004

climbing up during the 1960s to the 1990s, and fell sharply during 2000–2004. This pattern is broadly consistent with the international experience. On the whole, inflation was higher in phase II than in phase I. Yet, even during phase II the average annual inflation rate was below 8 percent and significantly lower than the world inflation rate. India's inflation rate compared with that of other developing countries looks rather tame, even for phase II. The overall conclusion is that on balance India's long-term development is characterized by a fairly stable internal macroeconomic environment. This result is valid for both growth phases, although the inflation rate was higher in phase II.

In regard to external balance, the trend in current account deficits and other related indicators are shown in Table 4.1. As in the case of internal balance, India on average has maintained good control over its external balance over the longer term. Low current account deficits have allowed India to maintain low external debt-to-GDP ratios. However, there are major differences in India's external sector results during phase I and phase II.

In phase I, India was essentially a closed economy with a very low trade-to-GDP ratio. So, the low current account deficits, debt, and debt service payments in this period are more a reflection of tight trade controls rather than deft external management. India faced frequent episodes of short-term external payments problems because of low export earnings and reserves even with substantial import controls (Joshi and Little 1998). In phase II, a substantial opening up of the trade regime took place. During the initial period
INDIA'S LONG-TERM GROWTH EXPERIENCE

Table 4.1
India's External Balance, 1950–2004 (percent)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Current a/c deficit/ GDP (period average)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External debt/GNI</td>
<td>1.1</td>
<td>4.8</td>
<td>15.0</td>
<td>11.0</td>
<td>27.0</td>
<td>19.0</td>
</tr>
<tr>
<td>External debt/exports</td>
<td>16</td>
<td>100</td>
<td>396</td>
<td>137</td>
<td>325</td>
<td>105</td>
</tr>
<tr>
<td>Debt service/exports</td>
<td>2.0</td>
<td>5.0</td>
<td>7.0</td>
<td>9.0</td>
<td>32.0</td>
<td>19.0</td>
</tr>
<tr>
<td>Foreign reserves (US$ bl)</td>
<td>1.8</td>
<td>0.4</td>
<td>0.8</td>
<td>6.9</td>
<td>1.5</td>
<td>126</td>
</tr>
<tr>
<td>Reserves (% of annual imports)</td>
<td>1.64</td>
<td>0.17</td>
<td>0.38</td>
<td>0.46</td>
<td>0.06</td>
<td>1.34</td>
</tr>
</tbody>
</table>


of the opening up, the external balance weakened, leading to the external crisis of 1991 (Acharya 2006; Ahluwalia 2002b; Krueger and Chinoy 2002; Srinivasan 2002). Following this crisis, there was a sharp improvement in the external balance contributing to rapid declines in external debt-gross national income (GNI) and debt service-export ratios, a current account surplus, and a huge buildup of reserves. So, notwithstanding the crisis of 1991, India's external balance was markedly stronger in phase II.

The overall result is that on average India has maintained a stable macroeconomic environment. But this has been associated with two sharply different growth phases. We will argue below that policies that allowed India to maintain macroeconomic stability were very different in these two phases. In phase I, policies for macroeconomic stability were not conducive to growth.
POLICY FRAMEWORK FOR SUPPORTING GROWTH

Whereas in phase II, the policy combination allowed India to accelerate growth while maintaining sound macroeconomic management. India's experience verifies the well-known analytical conclusion that macroeconomic stability is necessary, but not sufficient, for rapid growth.

POLICIES FOR INTERNAL BALANCE

Although a coordinated approach to macroeconomic policies is necessary to reconcile growth targets with macroeconomic stability, it is customary in an open economy to attach primacy to monetary policy for price stability, to exchange rate for stability of the balance of payments, and to fiscal policy for growth. Over the longer term, price stability depends primarily on monetary stability (Cagan 1974; Friedman 1973). In a developing economy, the level of monetization will increase over time. Allowing for that, the rate of expansion of the money supply should normally be aligned with the growth of real economic activity (GDP) and the target inflation rate. The relationship between inflation, real growth, and monetary expansion for India is shown in Table 4.2. As expected, there is an almost one-to-one long-term relationship between the rate of growth of the money supply and inflation, less the growth of GDP. The upward rise in inflation in phase II is explained by the increase in the money supply per unit of GDP relative to phase II. The increase in money supply is partly a reflection of increased monetization of the economy and partly a function of the long-term inflation target. Whether India targets inflation at 7 to 8 percent or 5 to 6 percent over the longer term is a debatable policy issue, which in a globally integrated
Table 4.2
Money, GDP, and Prices, 1950–2004

<table>
<thead>
<tr>
<th>Decade Average</th>
<th>Growth Rate of Money (M1)</th>
<th>Growth Rate of Real GDP</th>
<th>Inflation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950–60</td>
<td>4.0</td>
<td>3.9</td>
<td>2.2</td>
</tr>
<tr>
<td>1960–70</td>
<td>9.5</td>
<td>3.7</td>
<td>6.1</td>
</tr>
<tr>
<td>1970–80</td>
<td>11.7</td>
<td>3.1</td>
<td>7.8</td>
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<tr>
<td>1980–90</td>
<td>15.3</td>
<td>5.6</td>
<td>8.9</td>
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<tr>
<td>1990–2000</td>
<td>15.1</td>
<td>5.6</td>
<td>9.0</td>
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<tr>
<td>2000–2004</td>
<td>14.8</td>
<td>6.3</td>
<td>3.8</td>
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<tr>
<td>1950–80</td>
<td>8.4</td>
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<td>1980–2004</td>
<td>15.1</td>
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<tr>
<td>1950–2004</td>
<td>11.4</td>
<td>4.5</td>
<td>6.6</td>
</tr>
</tbody>
</table>


environment also needs to be seen in the context of the world inflation outcome. On the whole, the ability to contain India's inflation rate at substantially below the world rate and the rate prevailing in non-oil-exporting, developing countries during both phases is a testimony to the sound conduct of monetary policy. This is particularly encouraging because India faced many external shocks and the associated adverse effects of imported inflation during phase II when it opened up the economy as opposed to the closed economy environment of phase I.

POLICIES FOR EXTERNAL BALANCE

The trend in real exchange rate is shown in Figure 4.2. During most years in phase I, India’s real exchange rate was highly overvalued relative to the current real rate (Gulati and Pursell 1995; Srinivasan 1998). Between 1950 and 1985, India essentially followed a
fixed exchange rate policy. The nominal rate was fixed at Rs 4.78 per US$1 from 1950 to 1965. It was devalued in two steps, by 33 percent in 1966 and by another 18 percent in 1967, when it became clear that the overvalued exchange rate was not sustainable. The new rate of Rs 7.5 per US$1 remained fixed until the mid-1970s, after which the rate was slowly adjusted upward until 1980. In phase II, the real exchange rate was allowed to depreciate sharply to realign India from a closed to an open economy. Thus, since 1981, the nominal exchange rate was made much more flexible within the environment of a managed float. India formally moved to a market-based exchange rate in 1992. The real exchange rate depreciated until 2000 in line with market sentiments. The appreciation since then is an indication of the strength of India’s external balance, reflecting the sharp build-up of foreign exchange reserves noted in Table 4.1.
INDIA'S LONG-TERM GROWTH EXPERIENCE

The exchange rate flexibility since the 1980s, along with trade opening up and deregulation (see below), had a substantial positive effect on exports. India’s exports performance virtually stagnated during 1950–70. Exports as a share of GDP fell from 7.8 percent in 1950 to below 4 percent in 1970 (Figure 4.3). Exports recovered in the 1970s reaching 7 percent of GDP by 1980. In phase II, exports grew slowly during the 1980s, but expanded rapidly during 1990–2004. As a result, the share of exports climbed from about 8 percent of GDP in 1990 to 19 percent in 2004.

CONDUCT OF FISCAL POLICY—STABILIZATION VERSUS GROWTH

The conduct of fiscal policy has been a subject of intense debate in India, especially in the second phase

Figure 4.3
Trend in Export Performance, 1960–2004


50
of growth. In the early years after independence, India's fiscal stance was conservative. The average fiscal deficit during 1950–70 was 3 to 4 percent of GDP (see Figure 4.4). Fiscal expansion started in the 1970s and surged in the 1980s. Since then, despite some efforts to curb the deficits, they have remained large. Thus, for more than 35 years India has maintained fairly large fiscal deficits, building up a huge domestic public debt and large interest payment obligations. For example, debt-to-GDP ratio has now reached 90 percent, and interest payment obligations have climbed from less than 1 percent of GDP during the 1950s to 6.5 percent in 2005. This is larger than the total public investment in 2005, illustrating the burden of past deficits. Yet, the macroeconomy has been broadly stable while

**Figure 4.4**

*India's Fiscal Deficits, 1950–2005*

![Bar chart showing India's fiscal deficits from 1950 to 2005.](chart)

growth has accelerated. At the heart of the controversy is indeed whether India’s expansionary fiscal policy has been a source of long-term sustained growth.

The analytical basis for using fiscal deficits to push growth is provided by the Keynesian view that in an economy with unemployed resources, demand creation through fiscal stimulus could provide a boost to growth. Coordinated monetary policy and exchange rate management would ensure price and balance of payments stability. This is a fairly persuasive and neat framework. How relevant is this to India’s case?

A simple-minded approach to India’s experience would seem to validate that view. Growth and fiscal deficits were relatively low during phase I. Growth did pick up substantially in phase II along with large and rising fiscal deficits. Except for the short-term crisis in 1990/91, macroeconomic stability was also preserved. But this is too simplistic a view and does not stand up to careful scrutiny of the reality in India.

As per theory, depending on how the deficits are financed, large fiscal deficits would tend to become unsustainable because (i) if deficits are financed by domestic borrowing, then they would tend to crowd out private investment by raising domestic interest rates; (ii) if deficits are financed by money creation, then this will feed on inflation; and (iii) if deficits are financed through external borrowings, they will contribute to balance of payments crisis. In the case of India, much of the deficits were financed through non-bank domestic sources, which partly explains why these deficits did not contribute to high rates of inflation or
to balance of payments pressures over the longer term. Yet, during 1980–90, large fiscal deficits did create demand pressure on the balance of payments, leading to the external payments crisis of 1990/1991. The crisis was addressed quickly through a series of far-reaching reforms including more flexible management of the exchange rate and substantial trade liberalization (Acharya 2006; Ahluwalia 2002b; Krueger and Chinnoy 2002; Srinivasan 2002).

What were the effects of fiscal deficits on interest rate and private investment? This issue was researched thoroughly in a recent paper (Pinto and Zahir 2003). The study concludes that there is indeed evidence that large fiscal deficits in India have put pressure on real interest rates and crowded out private investment. Other studies also reached similar conclusions (Reynolds 2001; World Bank 2000). In the past, government control over interest rates through dominant public sector banking made it easier to divert resources to the public sector at low cost. With the gradual liberalization of the financial markets, as has taken place recently, the crowding out effects could become more severe than that in the past.

Did these deficits contribute to growth? In the short term, with excess capacity, a generalized demand stimulus could lead to growth acceleration. Over the longer term, the growth impact will depend on whether or not fiscal deficits are used to finance investments that are complementary to private investment (e.g., infrastructure) and the degree of crowding out. In the case of India, there is some evidence that fiscal stimulus did boost growth in the 1980s. Liberalization policies created
incentives to utilize existing capacities better. Fiscal stimulus created the demand for this (Srinivasan 2002). During the longer term, the implication of large fiscal deficits for growth has varied over time. In the initial years, the fiscal deficits did contribute to financing a growing public investment (Figure 4.5), but as interest cost grew and tax effort faltered, the public investment rate begun to fall. So, over the longer term, these deficits have become a constraint to growth (Acharya 2006; Ahluwalia 2002b; Ferro et al. 2004; Srinivasan 2002; World Bank 2003). This is partly because the growing public debt has created a huge debt servicing burden, as noted earlier. Also, a significant part of the fiscal deficit is financing current spending, including subsidies.

**Figure 4.5**

Public Investment and Fiscal Deficit, 1950–2005

![Graph showing public investment and fiscal deficit from 1950 to 2005](image)

*Source: Economic Survey 2005–06, Ministry of Finance (Government of India 2005).*

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The shrinking fiscal space has limited the capacity to finance investments in infrastructure and human capital at both the federal government and the state government level. There is evidence of fiscal stress in many states, thereby constraining development prospects (World Bank 2005b).

SUMMARY OF EVIDENCE—IMPLICATIONS OF MACROECONOMIC POLICIES FOR GROWTH

India's experience brings out several interesting points about the relationship between macroeconomic policies and growth. First, for more than 50 years, India on average has maintained a fairly stable macroeconomic environment. In regard to internal balance, the average long-term inflation rate has been about 6.6 percent per annum, below the world average of 8.8 percent and substantially below the average for low-income economies (12.5 percent). Concerning external balance, India kept its average current account deficit at about 1.3 percent of GNI per year, thereby restricting its external debt to only 19 percent of GNI as of 2004. Exports have surged from less than 8 percent of GDP in 1950 to 19 percent in 2004, reserves have increased from less than 17 percent of annual imports in the 1960s to 134 percent of 2004 imports, and the external debt service burden in 2004 was below 20 percent of exports. Second, the policies that allowed macroeconomic stability during phase I were fundamentally different from policies that supported macroeconomic stability during phase II. In the first phase, macroeconomic stability was maintained through monetary tightening, control over the exchange rate, trade barriers, and exchange controls. The policies were not
aimed at supporting private investment. Not surprisingly, they adversely affected private investment and growth. They, along with other regulatory restrictions, were an important reason for relatively low private investment and low factor productivity during this period. In the second phase, monetary policy was somewhat less tight than that in the first phase but remained within prudent limits, thereby keeping the inflation rate significantly below average rates for the world and for developing countries. Most important, the exchange rate was made flexible sequentially, until this became market determined. Exchange controls were progressively eliminated, and trade policies were liberalized. These policies spurred private investment and exports, which in turn were an important factor for rapid growth. Third, the conduct of fiscal policy yielded mixed results. In an effort to break out of the low-growth syndrome of phase I, India adopted an expansionary fiscal policy stance in phase II. This policy had some initial success, and public investment increased, contributing to higher growth. However, the momentum could not be sustained. Much of the deficit was financed domestically. As a result, the domestic debt and interest burden surged, reducing the availability of resources for public spending in infrastructure. Also there is some evidence of the crowding out of private investment. So, even though the long-term adverse effects of large fiscal deficits on macroeconomic stability were offset by monetary, exchange rate, and trade policies, the efficacy of expansionary fiscal policy for sustained growth has proven limited owing to the growing fiscal debt service burden and the crowding out of private investment.
Policies for Improving Incentives for Private Investment

The incentives for domestic and foreign private investment are affected by the overall investment climate (World Bank 2004c). Several factors influence the attractiveness of the investment climate: property rights and security of doing business, access to markets, and the cost of doing business.

PROPERTY RIGHTS AND SECURITY OF DOING BUSINESS

These have partly to do with law and order, the functioning of the judiciary, and the like, and partly with the government's strategy and attitude toward the private sector. In phase I, India's development strategy emphasized public investment and production for most of the organized economy. The attitude toward private enterprise could at best be described as benign neglect. Not surprisingly, the bulk of formal sector output, employment, and investment occurred in the public sector (Joshi and Little 1998; Virmani 2005). Private enterprise dominated informal sector comprising agriculture, much of which was of the traditional type with relatively small holdings, medium and small manufacturing, and informal services. There was a big shift in development strategy in the second phase, as government policy moved away from the emphasis on public production and investment to private production and investment (Virmani 2005). This is the change in "attitude" described by Rodrick and Subramanian (2004) as "probusiness," which paid off rich dividends. However, improvements in the legal framework to support a modern private sector in areas such as the ease of...
conflict resolution, bankruptcy laws, and the like have not moved as rapidly (World Bank 2004b).

ACCESS TO MARKETS

In phase I, India's imports were heavily restricted with an associated loss of efficiency and competitiveness (Acharya 2006; Bhagwati 1998; Joshi and Little 1998; Pursell 1992; World Bank 2004d). Import restrictions were used to support the import substitution industrialization drive as well as to manage the balance of payments. Export subsidies and occasional devaluation were used to push exports. Some significant initial efforts were made to reduce quantitative barriers after 1975 and continued through the first decade of phase II (Joshi and Little 1998; Panagriya 2005; Virmani 2005). But the main trade liberalization effort was made after the 1991 external crisis (Acharya 2006; World Bank 2004d).

The evolution of India's trade policy is illustrated in Table 4.3. During phase I, non-trade barriers (NTBs) were the main instrument of trade policy. Import controls with varying degrees of severity were used to regulate the balance of payments as well as to support the import substituting industrialization strategy. During phase II, the policy of gradual relaxation of import controls initiated in 1975 was continued. By this policy change, more import items were allowed under the Open General Licensing Scheme. As a result, imports grew substantially during 1975-90. Nevertheless, even as late as 1991, some 95 percent of import items were subjected to some kind of restrictions. At the same time, the tariff rates were increased primarily to raise revenues. Thus, as of 1990, the average tariff rate was 128 percent,
with the maximum rate at 300 percent. Since 1991, India's trade regime has undergone a rapid transformation (Table 4.3). Import controls were dismantled through a series of steps, and by 2001 these restrictions were officially eliminated. In practice, some restrictions on both imports and exports have remained, although they fall legally within the limits of the framework of India's commitments to the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (World Bank 2004d). The peak and average tariff rates were brought down substantially, the latter falling from 300 percent in 1990 to 30 percent in 2004, and the former declining from 128 percent in 1990 to 22 percent in 2004. Clearly, India's trade regime today is vastly more liberal than it was in 1990.

Table 4.3  
Evolution of India's Trade Policy

<table>
<thead>
<tr>
<th>Trade Policy Indicator</th>
<th>1990</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports subject to non-tariff barriers (NTBs) (%)</td>
<td>95</td>
<td>28</td>
<td>0 to small</td>
</tr>
<tr>
<td>Average tariff (%)</td>
<td>128</td>
<td>40</td>
<td>22</td>
</tr>
<tr>
<td>Import-weighted tariff (%)</td>
<td>87</td>
<td>30</td>
<td>n.a.</td>
</tr>
<tr>
<td>Peak tariff (%)</td>
<td>300</td>
<td>40</td>
<td>30</td>
</tr>
</tbody>
</table>

Sources: World Bank 2000, 2004d.

Along with the flexibility of the exchange rate, the effect of trade liberalization on trade growth was remarkable. Exports, which had fallen from 8 percent of GDP in 1950 to only 4 percent in 1970, showed some recovery, increasing to 6 percent of GDP in 1980. Since then, responding to a more flexible exchange rate and reduction in trade barriers, exports grew sharply to 19 percent of GDP in 2004. Similarly, the import share
initially fell from about 8 percent of GDP in 1950 to 4 percent in 1970, illustrating the severity of import controls. Imports recovered to 10 percent of GDP by 1980 and accelerated to 22 percent in 2004. As a result, the overall share of trade grew from only 14 percent of GDP in 1980 to 41 percent in 2004 (Figure 4.6). Although this is still lower than China's trade share, the change is quite remarkable. Trade liberalization has played an important role in supporting the expansion of private investment and growth during the second growth phase. For example, Chand and Sen (2002) and Topalova (2004) find empirical evidence that trade liberalization has raised total factor productivity (TFP) in Indian manufacturing. Similarly, Virmani (2005)

![Figure 4.6 India Trade Openness Indicator, 1950–2004](image)

finds that lower trade protection and depreciation of the real exchange rate had significant positive effects on the growth of TFP in manufacturing.

Although there was limited progress with trade reforms during 1980–90, it is misleading to conclude that trade reforms are not needed to support rapid growth. The external crisis of 1991 suggests that without trade liberalization and the flexibility of the exchange rate, India's ability to sustain the rapid growth of 1980–90 would not have been possible. So, from this longer-term perspective, trade liberalization is an important determinant of rapid long-term growth in India.

COST OF DOING BUSINESS

Several factors affect the cost of doing business. Research done at the World Bank suggests that the key factors include regulatory barriers to entry and exit, availability of financial services at competitive prices, availability and cost of infrastructure, and flexibility of labor laws.

Regulatory Barriers

The emergence of myriad controls for economic management during the first phase has been well documented. Good descriptions of the evolution of these controls is available in Bhagwati and Desai (1970), Joshi and Little (1998), and Virmani (2005). The controls regulated investment, production, and distribution activities in all three broad economic sectors—agriculture, industry, and services. Thus, there were controls over the amount of investment, the type of activities, location, employment, ownership, and pricing. Such was the reach of these controls that a special
India's Long-Term Growth Experience

Term was coined to ridicule the system: the reign of India's licensing raj. The adverse effects of these controls on private investment and economic performance have been tremendous (Joshi and Little 1998; Krueger and Chinoy 2002; Virmani 2005). The deregulation drive started in the 1980s but gained momentum after the 1991 crisis (Panagariya 2005; Virmani 2005). In addition to the substantial trade deregulation described earlier, many of the regulatory barriers to private investment were removed. These include the elimination of investment licensing; sharp cutback in activities subject to public sector monopoly; substantial reduction of regulatory restrictions on foreign investment; opening up of domestic and foreign investments in services such as airline, telecoms, and power (areas previously under public monopoly); and privatization.

Financial Sector Reforms

During the first phase, India moved rapidly to a state-owned and heavily regulated financial sector. Thus in 1955, India's largest private bank, the Imperial Bank of India, was nationalized and renamed the State Bank of India. In 1956 the life insurance business was nationalized. An array of specialized financial entities was created to provide long-term finance and to guide financial resources to activities through state interventions. Interest rates were controlled by the state. In this environment there was no capital market and all enterprises had to rely for financing on state-owned banks, insurance companies, and specialized financial institutions. The financial depth (measured by M2/GDP) was initially stagnant for well over two decades (1950-70) at about 23 percent of GDP. Eventually, the spread of public banking including in rural areas,
low inflation, and high domestic savings, all supported the growth of banking resources despite the controls. Thus, the financial depth grew from 23 percent of GDP in 1970 to 37 percent in 1980. However, credit was misallocated to the so-called priority sectors without regard to the financial rate of return. Similarly, the massive drive to spread public banking to rural areas without regard to profitability lowered the banking sectors' profitability. So both the efficiency and the financial health of the system suffered (Basu 2005; Joshi and Little 1998; World Bank 2000). Importantly, the financing needs of a modernized private sector were not met because of the lack of an appropriate capital market.

Phase II saw the implementation of major financial sector reforms in a series of steps. Financial sector reforms were initiated in 1985. The initial emphasis was to deregulate interest rates and to deepen the financial market by introducing additional money market instruments (Basu 2005). Financial reforms were considerably strengthened after the crisis of 1991 (Basu 2005; World Bank 2000). Based on the recommendations of the Narasimham Committee Report, a sweeping set of market-friendly reforms were implemented. These reforms were strengthened in 1998. The 1998 reforms further deregulated interest rates, reduced reserve requirements to raise bank profitability, strengthened prudential norms and disclosure rules, tightened banking supervision, further developed monetary and foreign exchange instruments, enhanced the flexibility of banks to manage their own portfolio by reducing the scope for directed credits, increased banking sector competition through a greater role for foreign and domestic
INDIA'S LONG-TERM GROWTH EXPERIENCE

private banks, and initiated the development of a modern capital market. The impact of the reforms has been far-reaching. The ratio of M2/GDP has sharply increased from 37 percent in 1980 to 66 percent in 2004 (Figure 4.7). Banking sector profitability has increased, and the health of the financial sector has improved (Basu 2005; World Bank 2000). Importantly, a buoyant capital market has emerged, which has considerably increased the financing options for business.

**Impact of Deregulation Reforms**

Along with the flexibility of the exchange rate, the impact of trade, investment, and financial deregulation on private investment has been remarkable. The private investment rate as a share of GDP surged from

![Figure 4.7](image-url)

**Figure 4.7**

Trend in Financial Depth, 1950–2004

*Source: International Financial Statistics, IMF.*

64
10.8 percent of GDP in 1970–80 to 18.2 percent in 2000–2005 (Figure 4.8). Much of the response until the late 1990s came from the domestic private sector. Foreign direct investment was sluggish, partly because the deregulation drive was a bit conservative initially. Thus, in 1990/91 net foreign investment was only US$103 million, and it grew to US$2.3 billion in 1998/99. This pattern, however, is now changing in response to stronger efforts to deregulate and improve the business environment for foreign private investment. Thus, foreign investment increased to US$13.7 billion (2 percent of GDP) in 2003/04.

**Figure 4.8**

Private Investment Trend, 1950–2005

*Source: Economic Survey 2005–06, Ministry of Finance (Government of India 2005).*
INDIA'S LONG-TERM GROWTH EXPERIENCE

Availability of Infrastructure

It is now well recognized that the availability of efficient and affordable infrastructure services is a necessary condition for growth. This is reinforced by the business responses to the Investment Climate Assessment in India and elsewhere (World Bank 2004b, 2004c). Several studies analyzing India's growth prospects identify infrastructure as among the most important constraints to future rapid growth (Ahluwalia 1998, 2002b; Krueger and Chinoy 2002; McKinsey 2001; World Bank 2004b, 2006a). In this era of global competition, good infrastructure can make the difference between a competitive firm and a non-competitive one. For example, a recent study of horticulture export prospects for India shows dramatically how poor infrastructure constrains the expansion of this potentially high-growth export activity (World Bank 2005d).

From the early years after independence and well up to 1990, India relied almost entirely on public investment as the main instrument for infrastructure supply (World Bank 2000). Between 1960 and 1990, on average, India spent some 4.5 percent of GDP on infrastructure. The average investment rate grew from about 4 percent in the 1960s, to 4.5 percent in the 1970s and further to 5 percent in the 1980s (Joshi and Little 1998). Although these investment rates were reasonable during the initial years and helped build relevant capacities, there are serious concerns about the efficiency of service and asset maintenance owing to poor management and inappropriate pricing policies (Ahluwalia 1998; World Bank 2000). Infrastructure management is also constrained by the division of responsibilities between the federal government and the state governments.
Thus, electricity and water are primarily state subjects. Performance by states has been uneven, depending on the ability to manage complicated political issues related primarily to the pricing of electricity and water.

As GDP growth accelerated during the second phase, the demand for infrastructure grew. At the same time, public investment contracted owing to fiscal problems (Ahluwalia 1998; World Bank 2000). Given the magnitude of the required additional resources (conservatively estimated at 5 to 6 percent of GDP per year) for maintenance and new investment, it became clear that continued reliance on the public sector alone would not work. So, some serious rethinking about engaging the private sector for infrastructure supply started in the 1990s along with efforts to improve the efficiency of the public supply. A major policy of deregulation was initiated in the latter half of the 1990s, and there has been some remarkable progress in areas such as airline services, telecommunications, and ports (Ahluwalia 1998; World Bank 2003, 2006a). Reforms have entailed removal of entry barriers, greater competition, proper pricing of services, and establishment of regulatory authorities. Progress in other areas, such as power, land transport, and water, was less encouraging.

The poor performance of the power sector is among the most notable failures of public policy in India. The source of the difficulty is almost similar in all South Asian countries: provision of electricity through weak and inefficient public entities. The problem is compounded by government control over prices and poor sector governance. As a result, the entities are financially constrained, have serious generation and transmission
losses (mostly owing to theft), and have low installed capacities owing to inadequate investment. Indeed, over the years, the capacity of the electricity utilities to finance investment from their own resources has weakened, leading to substantial reliance on the government. Fiscal problems of state governments in India are partly a reflection of high subsidies to electricity entities. The growing fiscal deficit in turn has constrained the ability to fund the required investment in the electricity sector as well as in other infrastructure. Efforts to reform these entities and encourage the private supply of electricity have met with limited success (Ahluwalia 1998; Sundar and Deb 2001). This is mainly because reforms have not addressed the fundamental constraint: electricity must be viewed as a commercial product; it should be produced and priced primarily on the basis of demand and supply, although appropriately modified through regulatory policies to protect the public interest. The principles are well known, but political constraints have prevented fundamental reforms. Indeed, state elections have often been won and lost on the basis of whether or not governments agree to provide free electricity for farmers.

In transport, the problems relate to roads and highways and railways. In regard to roads and highways, a key constraint is funding, for both new investments and maintenance, owing to fiscal problems. In the past, the chief emphasis of government investment in the road subsector was on district and rural roads to promote connectivity. The focus on highways was limited. More recently, the government has started investing heavily in major interstate corridors with support from international sources. Some limited progress has also been
made in promoting the concept of toll roads. Yet, the funding needs are enormous. Maintenance of the road network is inadequate, thereby reducing the supply of services from the road network. In railways, the issues concern poor management, low prices, overstaffing, and traffic safety (Mohan 1996). The problems and reform options are well known (ibid.). Implementation is constrained by politics; the railway union has a huge voice in national politics, and no government has risked its political capital to take on this powerful union.

In water, the issues are similar. The responsibility for providing drinking water and irrigation lies with state governments. Poor pricing and management have limited both new investment and water availability from existing facilities. In regard to irrigation, public investment has financed major irrigation schemes. Private investment has concentrated on power-driven deep tube wells. Heavily subsidized electricity to farmers has led to inefficient water use and overexploitation of ground water. Public irrigation facilities are characterized by poor operations and maintenance (O&M) owing to financial constraints. Poor maintenance has contributed to substantial water losses, thereby reducing the supply to users. Water charges are very low and do not cover even the efficient O&M needs. Fiscal constraints at the state level have also reduced new investment in public irrigation.

Overall, the state of infrastructure shows a mixed picture. Reforms during the 1990s have opened up infrastructure to private investors. Very good progress has been made in telecommunications and airline services.
INDIA'S LONG-TERM GROWTH EXPERIENCE

Some encouraging progress has also been made in ports. But reforms in power, roads, railways, and water are inadequate. Along with a very tight fiscal situation, which has constrained public investment and spending on O&M, the overall availability of infrastructure services in these areas is inadequate relative to need. This is a major constraint to future rapid growth and requires substantially more attention.

Labor Regulation

As a key production input, labor market flexibility is an important determinant of firm profitability in any modern economy. In India, except for minimum wages, all other labor laws in effect apply to only the formal sector. This sector comprises the industrial establishment with more than 10 workers and all government services. In 1981, the size of the formal sector was estimated at 23 million (9 percent of the total labor force). Of this, some 68 percent of formal sector employment was provided by the public sector (Joshi and Little 1998). Much of this was in government services, including public utilities. Public sector manufacturing accounted for only 25 percent of formal employment. Over time, as liberalization proceeded and the private sector grew, the relative employment share of the public sector fell. Importantly, the share of public sector employment in formal manufacturing reduced further. So, essentially, labor laws are of substantial interest to the formal manufacturing and to new private investment in the services sector, especially infrastructure.

There are some 47 federal laws and 157 state regulations relating to labor relations (World Bank 2006b). The state governments are responsible for implementing
these laws. So, actual implementation varies by states. Labor laws fall into two main categories: those that tend to affect wage decisions and those that affect hiring and firing, closure, and employment conditions. Interventions in wage setting include minimum wages, wage board awards, dearness allowance, and bonus payments. Market wages in the formal sector tend to be higher than minimum wages. Therefore, it is not a major issue for employers. The wage board awards are not binding unless the state government itself adopts the awards. Dearness allowance and bonus payment requirements can cause some discomfort. Overall, though, wage interventions tend to be more of an irritant than a major constraint to private enterprise (Joshi and Little 1998; World Bank 2006b). But laws relating to employment, closure, and employment conditions are stringent and are an important constraint to private investment.

Investment climate assessments show that the issue of managing labor lay-off is the biggest challenge. The employment termination decision was initially guided by the Industrial Disputes Act of 1947. The lay-off process under the act was fairly mild: the law applied only to permanent workers in establishments with 50 or more workers and required 15 days of compensation for each year of service. Over the years, through various amendments the law was made more and more demanding. In 1976, employment termination was made illegal for all enterprises with employment in excess of 300 workers, even if an enterprise was seeking to close down, without previous permission of the government. This restriction was extended to firms with 100 plus workers in 1982.
The other clause of the Industrial Disputes Act that has created major concern is the dispute resolution mechanism. Experience shows that the specified dispute resolution mechanism creates incentives for adjudication rather than reconciliation and has led to an overload of the system. For example, some 533,000 labor disputes were pending in 2005, with more than 28,000 cases for more than 10 years (World Bank 2006b).

Another labor regulation concerns the employment of temporary workers. As a means of avoiding the employment inflexibility created by the Industrial Disputes Act, entrepreneurs have tended to establish smaller firms (fewer than 100 workers) and hire temporary workers. Indeed, contract labor has assumed an increasingly important role in recent years. To regulate this type of employment, the government enacted the Contract Labor Regulation and Abolition Act; however, there is confusion about the act's relevance and application.

The costs of these labor regulations are significant in relation to lost jobs. Research shows that manufacturing value added, employment, and the number of factories are all adversely affected in states with more restrictive labor laws. Estimates suggest that India may have failed to create about 2.8 million formal manufacturing jobs owing to the two clauses of the Industrial Disputes Act mentioned earlier (World Bank 2006b). Although the disputes resolution and the retrenchment barriers are both problematic for job creation, they affect different sectors in different ways. Although dispute-related regulations cost more jobs in capital-intensive industries, retrenchment-related regulations affect labor-intensive industries more adversely.
POLICY FRAMEWORK FOR SUPPORTING GROWTH

The need for labor regulations to protect workers' interests is understandable, and the regulations must be honored by employers. The question is one of balance. The present plethora of laws and regulations are unnecessary and hurt employment. These must give way to simpler regulatory laws that protect labor rights while also providing the flexibility of employment decisions necessary in a changing global environment. This is a major priority for future reform.

Reforms at the State Level

In India's decentralized political environment, state regulations and constraints can also affect growth. We saw in Chapter 2 that the growth at the state level has varied considerably between the two growth phases. A number of studies have looked into the issue of reforms and state-level performance (Ahluwalia 2002a; Favaro and Lahiri 2004; Howes et al. 2003; Purfield 2006; World Bank 2006b). Results confirm the hypothesis that faster-growing states on balance have carried out more reforms in deregulation and better fiscal management than have slower-growing states. Although initial conditions pertaining to advantages related to the location of existing industry, infrastructure, and human development did help, states with more reform-minded governments were able to attract more investment and push the growth rate at a faster pace than in the lagging states. Thus, faster-growing states on average have a better investment climate, leading to higher labor productivity and better returns to investment (World Bank 2004b).
The differential growth performance and the growing gap between rich and poor states suggest the need to manage this problem more actively than in the past. A review of the constraints in the lagging regions shows that apart from weaker policy performance in these regions, there are important constraints that require special attention from policymakers in the center (World Bank 2006b). Although commodity markets appear to be getting better integrated across states and wage differentials are declining, there is still an important unfinished agenda in regard to a more integrated national economy across states. The gap in infrastructure and human development between the rich and poor states is another major factor that requires more attention and responses from the federal government. This has important implications for the allocation of fiscal transfers. The main challenge though is a political one: how to induce better economic and political governance in the lagging regions to allow implementation of better policies.

NOTES

1. The rationale for defining macroeconomic stability in this way is explained in Ahmed (2006).
2. For the 1950–70 period, the fiscal deficit is estimated as the difference between public savings and investment.
3. Foreign investment data were obtained from Economic Survey, 2005–06, Ministry of Finance (Government of India 2005).
Emerging Constraints to Sustained High Growth

The debate in the 1990s was about whether India's rapid growth of 6 percent per year could be sustained. The debate in 2006 has shifted to whether growth can be pushed up to a higher level of 8 percent per year and sustained at that higher pace. The shifting nature of the debate reflects the growing optimism about India's remarkable economic transformation and associated good results in relation to more rapid growth. As we saw in Chapter 2, the average rate of growth is on an increasing trend and average annual growth was above 7 percent in 2004-05. It reached the 8 percent growth rate in 2005. Although that is encouraging, the associated question of what India needs to do to sustain such rapid growth is an important one.

Growth Opportunities and Constraints

India's growth experience and associated structural changes have unleashed a number of growth opportunities as well as growth constraints. Opportunities include a dynamic private sector willing and able to respond dramatically to incentives; an expanding global market, especially in services, that gives India tremendous potential to raise its market share based
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on its demonstrated comparative advantage in this area of global enterprise; an expanding labor force that could be harnessed with adequate investment in education and training; and a high domestic savings rate that could provide the base for attracting foreign investment and technology. India’s ability to convert these opportunities to its benefit will very much depend on its ability to address and ease the growth constraints.

Chapter 3 noted that India’s growth surge in phase II was fueled by increases in the rate of investment and productivity. Future growth will depend on how these factors play out.

Savings and Investment Rates

India’s savings and investment rates showed an increasing trend during 2000–2003. The average rates have grown from 23 percent and 22 percent of GDP, respectively, during 1990–2000 to 25 percent and 23 percent, respectively, during 2000–2005. The savings and investment rates have increased further during 2004–05 to 27 percent and 25 percent, respectively. These rates are encouraging, but are significantly lower than those found in rapidly growing East Asian economies (Figure 5.1). It is important to note that there is no mechanical relationship between growth and capital accumulation, and one cannot specify a necessary rate of investment to sustain a specific rate of growth because capital intensity of production can vary and much also depends on technical progress and the efficiency with which capital is used (productivity growth). India’s past experience shows that very effectively; the average capital intensity of production was relatively lower than that in East Asian economies, and TFP
growth played a much more significant role than capital accumulation in increasing GDP per worker. Indeed, high rates of capital accumulation without improvements in TFP could simply hide a great deal of inefficiency. Nevertheless, it is most likely that sustained growth rate in the 8 to 10 percent range per year will require significantly higher investment rates than the present 25 percent rate. That is because India’s infrastructural needs are substantial, as are its needs for skilled labor. Both will require higher investment. Average investment rates in the range of 30 percent or above are most likely required. Therefore, one important constraint to more rapid growth that will need to be addressed is how to raise the rate of investment to the 30 percent plus range.
Chapter 3 showed that TFP increased substantially in phase II. Indeed, the fact that TFP growth explains more than 60 percent of India’s GDP growth per worker during phase II is a remarkable result. The rapid productivity and investment growth of phase II were underpinned by a major change in development strategy and associated policies. Prudent monetary management, flexibility of the exchange rate, financial sector deregulation, trade liberalization, and investment deregulation have all served India well. These reforms must continue to their next stages. Yet, because of a number of constraints, it is not obvious that further increases in investment rate or productivity improvements will automatically happen simply by continuing the present policy framework. These constraints include fiscal policy, infrastructure, labor market inflexibility, low investment in education, and public service delivery. There is a consensus that these constraints adversely affect the investment rate, productivity, and employment.

**Fiscal Policy Constraint**

Fiscal policy constrains growth by limiting the ability of the federal and state governments to invest adequately in human development and infrastructure. Chapter 4 explained that the option of creating fiscal space through a larger deficit is not feasible because of its likely adverse effects on private investment. What is the way out? There are two major policy implications. First, the tax effort can be enhanced through appropriate changes in the tax structure and administration. The possible options have been well studied.
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and reviewed (Acharya 2006; Favaro and Lahiri 2004; Government of India 2001a, 2001b, 2002a, 2002b). At 16 percent of GDP, India’s tax effort is low by international standards, and a 2 to 3 percent increase in the tax collections as a percent of GDP appears to be a reasonable goal. Second, and perhaps even more important, the quality of public spending can be substantially improved. That requires both carrying out expenditure switching actions, away from extensive subsidies to more funding for human development and infrastructure, and increasing the efficiency of spending. A good review of related issues is available in Favaro and Lahiri (2004). The high level of subsidies on a range of goods and services is costing India some 3 to 4 percent of GDP. There is a consensus that these subsidies are not well targeted and the opportunity cost is high. The subsidies administered through price controls (e.g., electricity prices) also have serious adverse implications for service providers. Yet, the federal and state governments are locked in as a result of political pressure. In a tight fiscal environment, there is a need for a renewed debate about and effort to revisit the subsidy issue and make changes as required.

INFRASTRUCTURE CONSTRAINT

A survey of investors confirms the serious nature of this constraint. Some observers also argue that the growth of the manufacturing sector is less dynamic than that of the services sector partly because of this constraint. The resolution of this situation requires a substantial increase in investment and the efficiency of infrastructure service delivery. Securing the estimated additional

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investment in the range of 5 to 6 percent of GDP necessary for augmenting the supply of infrastructure and improving its maintenance will not be easy. Fiscal reforms noted earlier will be necessary to create fiscal space for public investment in infrastructure. But given the magnitude of the financing needs, other competing priorities, and experience with the slow pace of implementation of past fiscal reforms, it is essential to rely more on private financing of infrastructure. India's rising national savings rate and growing foreign capital inflows suggest that such financing should be possible provided the enabling environment to attract private sector in infrastructure supply is sharply improved. The experience so far is mixed, with a great deal of success in the areas of telecommunications and airlines, encouraging results in ports, but discouraging outcome in electricity supply. The lessons from these mixed experiences can be drawn on to develop a cohesive infrastructure development strategy. Lessons include the importance of an adequate deregulation strategy, encouragement of competition, proper pricing to preserve enterprise incentive, and proper regulatory framework to enable private investment while protecting the public interest. Moving ahead with a comprehensive infrastructure development strategy is perhaps the most pressing reform required to ensure a higher growth path.

LABOR MARKET CONSTRAINT

In addition to infrastructure, the inflexibility of the labor market is a major constraint to the dynamism of the large-scale manufacturing sector. With a relatively abundant labor force, India can be expected to have a comparative advantage in labor-intensive
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manufacturing enterprises. For this advantage to be realized, among other things the labor market must be flexible. Yet, the restriction on labor flexibility imposed by the Industrial Disputes Act constrains the growth of such enterprises. Ensuring the fair treatment of labor and protecting the workers' rights are essential. But this need not be inconsistent with employment flexibility. An overhaul of labor laws with a view to ensuring a proper balance between employment flexibility and protecting workers' rights is another key reform priority.

SKILLS CONSTRAINT

It was noted in Chapter 2 that India has a dualistic pattern of skills development. On the one hand, the large bulk of the labor force either is illiterate or has low levels of education and, on the other, there is a very limited but highly skilled labor force that competes effectively internationally. Although the average level of education of the labor force has shown some improvement, the level remains very low especially in comparison with East Asian economies. This dualistic pattern of skill formation emerged partly from generally low levels of public spending on education and an education policy that has been biased since independence against basic education and in favor of higher and specialized education. The bias has also been accentuated by an industrial policy during phase I that emphasized investment in capital-intensive heavy industries and the inflexibility of the labor market resulting from the unhelpful labor laws noted earlier. Although the investment in highly skilled labor has paid off for India in phase II by allowing it to benefit from an expanding global market for services, this has
constrained the needed transformation of its large pool of unskilled workers into more productive and skilled labor. The lack of labor market reforms has tended to keep the bias against expansion of labor-intensive manufacturing even during phase II. So, along with the reform of labor laws, India needs to invest much more heavily and conscientiously in basic education than it has in the past. Special efforts are needed to improve education quality. Reform of education and training is essential to take advantage of the favorable demographic pattern reflected in a growing labor force and to convert the large pool of low-productivity labor in agriculture into a semi-skilled/skilled labor force for the manufacturing and formal services sectors.

PUBLIC SERVICE DELIVERY CONSTRAINT
The deregulation strategy has yielded very good results in a booming private sector and higher investment and incomes, which is creating enormous demand pressure on the public sector for various services. Yet, the public sector response has lagged behind substantially. That slow response is emerging as a major constraint to growth and human development. The imbalance reflects the inadequate capacity and low efficiency of the public sector to address the needs of a rapidly transforming economy. There are two dimensions of this challenge. The first relates to the ability to adapt to the changing role of the public sector from the command-and-control type of environment of phase I to the incentive-based environment of phase II. The second relates to direct service delivery.

The experience so far with the adaptation of the public sector to a more deregulated economy is mixed.
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The ability of the federal government to develop and implement economywide reforms has shown good progress, as demonstrated by the successful implementation of wide-ranging reforms of the past two and a half decades. The role of the Planning Commission, the main institution responsible for developing and implementing the command-and-control economy, has slowly but surely changed to that of indicative planning and incentives. But progress at the federal agency level and at the state level is mixed. Similarly, progress in establishing regulatory agencies is also mixed.

In regard to direct service delivery, the record in health, education, water, roads, irrigation, and electricity is weak. A number of recent studies (World Bank 2006b, 2006c) have done a comprehensive analysis of the key issues relating to public service delivery and the way forward. The associated reform challenges are enormous. The issues include low efficiency, poor services, poor accountability, and weak finances. Resolution of these issues requires an overhaul of the entire public service delivery system. Reforms are under way in several federal- and state-level service agencies with some encouraging results (World Bank 2005c). The lessons of these experiences can be helpful in designing broader public sector reforms. The associated institutional reforms involve a number of common principles: establishing clear responsibility for service delivery based on measurable performance indicators in regard to outputs and outcomes, providing operational and financial autonomy to the service agency, ensuring accountability for the delivery of agreed services, and enforcing sanctions for nonperformance (World Bank 2006b).
Summary and Conclusions

Rapid growth since 1980 has transformed India from the world’s 50th ranked economy in nominal US dollars to the 12th largest in 2003. When income is measured in purchasing power parity, India’s economy moves to fourth place, after the United States, Japan, and China. Along with income expansion, India’s increasingly outward orientation is making it an important player in the global economy. Already it is a major global service provider in the area of information technology and related services. The growing optimism about India’s economy is leading to a surge in international investors’ interest, and at home the debate has shifted from a concern with ability to sustain an annual growth rate of 6 percent to the prospects for increasing this to a sustained growth rate of 8 percent.

Although there are differences in economic policies between and within decades, from a broad development strategy perspective, India’s growth experience can conveniently be broken down into two phases: the first phase running from 1950 to 1980 (phase I) and the second phase from 1980 to 2004 and ongoing (phase II). The analysis in this monograph shows that India’s transformation to a higher growth path occurred in phase II, owing mainly to a major shift in development strategy and associated policies starting in the 1980s.
IN INDIA'S LONG-TERM GROWTH EXPERIENCE

In phase I, the development strategy was inward looking and relied on a command-and-control type of environment. In phase II, the development strategy became outward oriented and relied on market incentives. Key reforms included continued prudent macroeconomic management, which kept inflation and current account deficits under control over the period as a whole; exchange rate and trade liberalization; financial sector liberalization; and domestic investment deregulation. Deregulation and outward orientation along with broadly prudent macroeconomic management yielded dramatic results as the economy became more open and competitive, private investment expanded, and productivity surged. Thus, the trade-to-GDP ratio moved up from 23 percent in 1980 to 41 percent in 2004, private investment increased from 7 percent of GDP in 1980 to 17 percent in 2004, and the average rate of growth increased from 4 percent per year during 1950–80 to 6 percent during 1980–2004. The contribution of total factor productivity to GDP per worker increased from an average of 10 percent per year in phase I to more than 60 percent in phase II.

The encouraging outcomes of phase II reforms have boosted India's economic prospects. The policy challenge now is whether the growth rate can be expanded to 8 percent and maintained at that level. This more rapid growth rate is necessary to make faster progress in enhancing the living standards of India's citizens. Notwithstanding the past rapid growth, India's per Capita income is very much behind that of the Organization for Economic Co-operation and Development countries, and there is a great deal of catching up to do.
The first priority of course is to ensure that ongoing reforms continue to their next stages. Yet, because of a number of constraints, it is not obvious that further increases in the investment rate or continued productivity improvements will occur simply by continuing with the present policy framework. There is a consensus that these constraints adversely affect the investment rate and productivity and must be addressed to achieve higher growth. The constraints concern fiscal policy, infrastructure, labor market inflexibility, upgrading of labor force skills, and public service delivery.

Fiscal policy constrains growth by limiting the ability of the federal and state governments to invest adequately in human development and infrastructure. The option of creating fiscal space through a larger deficit is not feasible because of its likely adverse effects on private investment. What is the way out? There are two major policy implications. First, the tax effort can be enhanced through appropriate changes in the tax structure and administration. Second, and perhaps even more important, the quality of public spending can be substantially improved. That improvement requires both carrying out expenditure switching actions, away from extensive subsidies to more funding for human development and infrastructure, and increasing the efficiency of spending.

Resolution of the infrastructure challenge requires a substantial increase in investment and the efficiency of service delivery. Mobilizing the additional investment in the range of 5 to 6 percent of GDP, which is necessary for augmenting the supply of infrastructure and improving its maintenance, will not be easy.
Fiscal reforms noted earlier will be required to create fiscal space for public investment in infrastructure. But, given the magnitude of the financing needs, other competing priorities, and experience with the slow pace of implementing fiscal reforms in the past, it is essential to draw more on private financing of infrastructure. There are some positive experiences with private financing of infrastructure in areas such as telecommunications, airlines, and port services. The key lessons include the importance of an adequate deregulation strategy, encouragement of competition, proper pricing to preserve enterprise incentive, and proper regulatory framework to protect public interest. Moving ahead with a comprehensive infrastructure development strategy is perhaps the most pressing reform needed for higher growth.

With a relatively large labor force, India can be expected to have a comparative advantage in labor-intensive manufacturing enterprises. For this advantage to be realized, among other things the labor market must be flexible. Yet, the restriction on labor flexibility imposed by the Industrial Disputes Act constrains the growth of such enterprises. Ensuring fair treatment of labor and protecting workers' rights are crucial. But this need not be inconsistent with employment flexibility. An overhaul of labor laws for the formal sector with a view to ensuring a proper balance between employment flexibility and the protection of workers' rights is a major reform priority.

India has a dualistic pattern of skill development. On the one hand, most of the labor force has a low level of education and, on the other, there is a very limited
but highly skilled labor force that competes effectively internationally. Although the average level of education of the labor force has shown some improvement, the level remains very low especially in comparison with East Asian economies. This dualistic pattern of skill formation emerged partly from an education policy that has been biased since independence against basic education and in favor of higher and specialized education. So, along with labor law reforms, India needs to invest much more heavily and conscientiously in basic education than it did in the past. Special efforts are needed to improve education quality.

Although the private sector has prospered from the reforms, the public sector has lagged behind substantially owing to the inadequacy of related reforms. That slow response is emerging as a major constraint to growth and human development. The imbalance is showing up as the inadequate capacity and low efficiency of the public sector to address the needs of a rapidly transforming modern economy. The public sector's adaptation to a more deregulated economy and its changing role have shown mixed results. The ability of the federal government to develop and implement economywide reforms shows good progress, as demonstrated by the successful implementation of wide-ranging reforms of the past two and a half decades. But progress with policy implementation in many federal agencies and at the state level is mixed. Similarly, progress with the development and implementation of effective regulatory actions is also mixed. In regard to direct service delivery, the track record in health, education, water, roads, irrigation, and electricity is weak. Problems include poor efficiency, poor services,
weak accountability, and inadequate financial resources. Reforms require a major overhaul of the underlying institutional arrangements for public services. That is yet another area of reform challenge for India.
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