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The Indian Economy in Global Context

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Abstract

This paper reviews Indian economic policy and performance. It traces first how the economy evolved from independence through the 1980s. The early emphasis on industrialization through import-substitution led to a restrictive trade regime and sluggish growth in exports. Pervasive government regulations and controls over private economic activity during this period also impeded economic efficiency and growth, which led to increasingly acute structural problems in the 1980s. The balance-of-payments crisis of 1991 spurred bold reform measures by the government to address underlying structural issues. These reforms, although implemented slowly, have had many positive effects on the economy, in particular, faster growth, increased openness, and fewer controls over economic activity. But there are still formidable challenges to be overcome by future reforms. This paper discusses how improved infrastructure, better-functioning labor markets and widened private ownership could sustain and accelerate economic development.
Since Indian independence, a great deal of economic progress has been made. By any measure – life expectancies, infant mortality rates, nutritional standards, literacy and educational attainments, or real per capita incomes - the Indian people are considerably better off than they were a half a century ago. Yet there is a certain impatience and uneasiness: for all of the many achievements, there is a strong sense that more rapid improvements in these and other indicators of well being are quite possible. And, if they are possible through realignment of existing policies, per capita incomes for many Indians are still so low that more rapid growth is manifestly desirable.

It is the purpose of this paper to provide an overview of the strengths and weaknesses of Indian economic policy and performance to date, to set the stage for an analysis of policies and policy changes which can enable even better performance in the future. Such an assessment necessarily entails an examination of Indian economic policies and performance in comparative perspective. In-depth analysis of particular policies then follows in later chapters.

The towering international economist of the 1960s and 1970s, Harry G. Johnson, once heard an economist start a comment with “In a country like India…”. He did not let him finish his thought, but interrupted to ask ,“What other country is there like India?” He was, of course, right, but while there is no other country like India, it is nonetheless the case that inferences relevant to India can be drawn from experiences, achievements, and effects of reforms in other countries. So, with due recognition that growth rates among Indian states and regions differ significantly (see Ahluwalia, Chapter 3 in this volume), and that comparisons of growth rates and other indicators economy-wide may be misleading given India’s size and diversity, we nonetheless proceed with an assessment of performance to date, of bottlenecks to further improvements in performance, and of the potential for improved performance were these bottlenecks addressed.

Section 1 provides a brief survey of the evolution and structure of the economy prior to the 1990s. Section 2 then analyzes the reforms of the 1990s and economic performance during the decade. Section 3 traces the response of the economy in the 1990s to the reforms. Section 4 then analyzes some of the key areas, not discussed in depth in later papers in this volume, that still offer great potential for accelerating growth if reforms are carried out. Section 5 concludes.
1. **The Evolution and Structure of the Indian Economy.**

There are many good economic histories of India’s economic evolution since Independence, and that economic history is well known. Nonetheless, any effort to assess priorities to improve economic performance must be made in light of an understanding of the evolution of policy and the economy at least since Independence. Here, we do that with a very broad brush, and the interested reader may consult any of the references in footnote 1.

The natural starting point is that Indian per capita incomes were very low in the late 1940s and early 1950s, and there had been little improvement in living standards over the previous century. Real income per capita is estimated to have grown at an average annual rate of only 0.7 percent between 1870 and 1913, and of only 0.2 percent over 1913 to 1950.

Table 1 gives estimates of per capita incomes of selected Asian countries for 1950 and 1974. Indian per capita income was estimated at U.S. $95 (in 1974 prices) in 1950. While some countries probably had lower per capita incomes (such as Burma - now Myanmar - in Asia and several African countries), India was poor even by standards of developing countries. However, differentials in estimated per capita incomes were generally not high - the Philippines was estimated to have a per capita income about 70 percent higher than India, while Malaysian per capita income was thought to be almost four times as high.

Certainly, achieving higher living standards for the Indian people was seen to be a major goal after independence. A great deal of thought and discussion in planning for independence focused on the need for rapid economic growth and rising living standards. Nehru and Gandhi had, indeed, differed on what economic policy should be, but the two leaders agreed on the centrality of economic developmental goals as a top priority after independence.

At independence, India was a predominantly agricultural economy, with more than 70 percent of the population deriving its livelihood from agriculture, and just under 50 percent of GDP originating in agriculture. The Nehruvian view - derived predominantly from Fabian Socialism - endorsed the need for rapid development led by state economic activity and planning. The first few years after independence were naturally focused predominantly on establishing institutions. Even then, a First Five Year Plan was formulated, although it did little more than bring together various projects that were already underway or in the advanced planning stage.
Interestingly, the early planning documents regarded the chief barrier to accelerated growth as the then-low Indian savings rate, and set out a twenty-five year perspective. The Planning Commission documents stated that a major challenge was to raise the Indian savings rate to 20 percent and concluded that, if that could be attained, Indian economic growth could achieve a satisfactory rate of 5 percent annually.5

The Second Five Year plan (1957-1962) articulated a philosophy of state responsibility for development, and laid down much of the strategy that was to be followed in Indian economic policy until the 1990s. The goal of increasing savings remained, although the plan itself provided for more expenditures than could be financed by foreseeable revenue sources. The Second Plan recognized the importance of education, infrastructure, and so on, but it focused on a strategy for rapid industrialization through development of heavy industry, especially for production of capital goods.

By that time, it had been decided that certain industries (the “commanding heights” of the economy) were to be reserved to the state, some industries were to be jointly developed by the state and private industry, and some activities were to be reserved to private industry.6 Within the plan, targets were established for production levels. These were given to state enterprises. For private sector production, targets were to be implemented through investment licensing, under which the authorities would not grant licenses for more additional capacity than was sanctioned under the plan.7 Indeed, investment licenses specified the MAXIMUM permitted output of factories and owners in the private sector were not permitted to produce more than their licensed amount without amending the license.8

The underlying philosophy of the Second and subsequent Plans was that Indian development would have industrialization as the major “engine of growth” and that through import-substitution policies would be used to stimulate growth, especially in the manufacturing industries. Influenced heavily by P. C. Mahalanobis, whose economic model ignored foreign trade and assumed that domestic investment was limited by the domestic ability to produce capital goods, the general philosophy was to push heavily to “make machines to make machines”, while simultaneously encouraging cottage industry (as had been advocated by Gandhi) to provide employment. Both because the policy makers (and Indian public) were suspicious of foreign trade – after years of colonial rule and in the aftermath of the great
depression - and because export growth lagged while import demand accelerated in response to the expenditure patterns generated by the Plans with consequent “foreign exchange shortage”, domestic production of import-competing goods was encouraged by imposing a regime of import licensing and preventing imports of goods when domestic producers were deemed able to meet domestic demand.

Although India’s monetary and fiscal policies were relatively conservative contrasted with those in a number of developing countries, the upward shift in demand for imports arising from the Plan pattern of expenditures and a rate of inflation above that in the rest of the world combined to lead to increasing rupee overvaluation. That overvaluation, plus the pull of resources into import-substitution induced by the high levels of protection (both from tariffs and from the unavailability of import licenses), discouraged export production and exporting. The “export pessimism” of the early years, which was one rationale for adopting import-substitution policies, became a self-fulfilling prophecy.

Consequently, Indian export growth was sluggish during the period when the world economy was expanding rapidly in the 1950s and 1960s, and India’s share of world markets fell. Table 2 gives some pertinent data. As can be seen, exports grew at an average annual rate of less than 1 percent in the 1950s, and at 4.60 percent in the 1960s (when the average annual rate of growth of world exports was well above 10 percent). Even in the 1970s and 1980s, Indian export growth rates were below world rates, and India’s share fell continuously until the end of the 1980s: India’s average share of world trade for that decade averaged only one half of one percent. Only in the 1990s - after policy reforms to be discussed later - did India’s share of world markets begin to recover, as exports grew more rapidly than world trade as a whole.

This sluggish growth of exports was accompanied by a falling share of exports in GDP during the 1950s and 1960s. For the decade of the 1960s as a whole, India’s exports averaged only 4.25 percent of GDP. Reflecting the “foreign exchange shortage”, even imports averaged only 5.83 percent of GDP, as their growth rate also plummeted (see column 2 of table 2) in response to the strict import licensing regime at that time.

Indeed, overall economic growth was sharply reduced during the balance of payments crisis of 1966-67. The crisis, which was manifest in the foreign exchange position of the government, was greatly intensified by poor harvests. The devaluation of 1966, however, was a
failure in several regards: 1) the poor harvest itself resulted in worsened economic conditions; 2) the additional foreign exchange that had been committed by foreign governments and multilateral institutions (to support the devaluation and accompanying policy measures) was not forthcoming; and 3) the devaluation raised the rupee reward for exporting very little, if at all, as export subsidies were simultaneously removed. In some instances, the rupee subsidy per dollar had been greater than the increase in the rupees per dollar accompanying devaluation.

Despite initial liberalization moves accompanying devaluation, including shifts of some commodities to open general licenses, the overall trade regime was probably more restrictive by the early 1970s than it had been in 1964-65. Moreover, other measures (such as the restrictions on large industrial houses with gross assets exceeding Rs. 20 crores under the Monopoly and Restrictive Trade Practices Act which came into effect in 1970) also increased the degree of detailed regulation by the government of the Indian economy.

It should also be noted that an increasing number of economic activities took places in the public sector. State owned enterprises had been built in industries such as steel, fertilizer, heavy chemicals, machine tools, and so on. Even hotels were owned by the public sector. In some of these cases, state owned enterprises operated alongside private sector firms whereas in others the state enterprise was a monopoly. Public corporations were established and given monopoly positions in activities as diverse as insurance, importation of bulk consumer goods (canalization) under which only the government entity could import items such as petroleum and export goods such as sugar. Naturally, telecoms, railroads, and other infrastructure activities were also in public hands. In the late 1960s, the banks were all nationalized. Hence, in addition to the government’s controls over the private sector, publicly-owned entities themselves undertook a great deal of economic activity.

By the late 1970s and early 1980s, it was obvious to many that the pervasive regulation and controls over private economic activity by the government had had effects opposite to those intended and had inhibited economic efficiency and economic growth. Indeed, when Rajiv Gandhi became Prime Minister, he declared that his primary objective was to “rationalize” controls. The intent was clearly to reduce the number of overlapping and sometimes even inconsistent regulations.
Despite that campaign, which raised the ceiling below which licenses were not needed and simplified procedures in some instances, most analysts did not regard the results as having significantly reduced the regulatory burden. Joshi and Little (1996) concluded that “Rajiv Gandhi had embarked upon some liberalization in 1985. Although he seems to have quickly lost interest, this helped to put such reform on the political agenda.”

Meanwhile, by the 1980s, other structural problems were becoming more and more evident and acute. Two in particular deserve mention. First, India’s infrastructure - which was widely recognized to be of inadequate quality and quantity even during the 1960s and 1970s - became increasingly stretched, as economic activity (despite the low rate of growth) led to increased demands on infrastructure at a rate greater than supply was increasing. Second, it became increasingly apparent that public sector enterprises, which had been established in order to accelerate economic growth, were not achieving these goals. Rates of return were low or even negative, and, instead of fostering economic growth, these enterprises became a drain on public resources (and one of the factors therefore accounting for the inability to increase infrastructure availability pari passu with increases in real GDP).

However, during that same period, the government’s fiscal stance became significantly more expansionary. Table 3 gives an indication of this behavior over the 1980s. As can be seen, the share of government spending in GDP (including “lending” – much of which is not repaid – to the states) rose rapidly during the decade, while revenues grew much more slowly. By the end of the decade, India’s fiscal deficit (financed primarily from domestic borrowing) was averaging well above 8 percent of GDP - an unsustainable number. In addition, the current account deficit had risen significantly and was above 2 percent of GDP in each year in the second half of the 1980s.

In the short run, the effect of this expansion was to accelerate the rate of economic growth, as can be seen from Table 5. The average annual rate of growth of real GDP was 5.4 percent in the first half of the 1980s, and 6.3 percent in the second half. In the short term, that apparently improved economic performance considerably reduced any political pressure or impetus to tackle underlying structural problems, and per capita incomes rose at a rate well above that experienced in India over any previous period.
At first, the current account deficit absorbed some of the excess demand created by the fiscal expansion, but inflation nonetheless accelerated, reaching an average annual rate of over 7 percent in the second half of the 1980s, and 13.5 percent by 1991. In addition, the current account balance was deteriorating during the latter part of the 1980s and 1990, and debt was building up. By 1990, imports had to be cut back as financing was simply not available. The underlying problem was that growth spurred by excess aggregate demand resulting from fiscal deficits was unsustainable. Not only were the current account deficit and the inflation rate rising, but the Iraqi invasion of Kuwait, and subsequent events a year earlier, had resulted in a sharp increase in the price of oil, and a drop in workers’ remittances as workers in the Gulf were repatriated. These events were the trigger leading to a crisis in 1991, although it is clear that the then-mix of policies was unsustainable and would have resulted in a crisis at some point, perhaps a little later in the 1990s.

Before recounting the measures taken during the crisis, and the ways in which those began the reform process, it is useful to pause and assess the state of the Indian economy as of the early 1990s. Despite the problems just enumerated, the Indian economy of the late 1980s was markedly different from that of the 1950s, and progress had been made on a number of fronts. Per capita income was significantly higher, and had grown more rapidly than in pre-Independence years, although the rate of growth of per capita income was well below that of many other developing countries and India remained a very poor country. Life expectancy at birth, which was 32 years based on data from the 1950-51 Census, rose to 41.3 in 1960-61, 45.6 a decade later, 50.4 in 1980-91 and was 59.2 by 1990-91. Infant mortality rates which were still 151 per thousand in 1965 had fallen to 70 per thousand by 1994. While still way in excess of comparable rates in industrial countries, which are typically below 10 per thousand, this represented considerable progress in delivery of health care.

Data on school enrollment rates in India are highly suspect. Official data show enrollment rates in primary school to have risen to 74 percent by 1965, reached an estimated 98 percent by 1983 and become almost universal by the early 1990s, while secondary school enrollments rose from 27 to 34 percent of the eligible age group over the same time period. However, estimates based on data from the National Sample Survey and the National Council of
Applied Economic Research show a much lower percentage of children in school, especially primary school, so these numbers should be interpreted with caution.

Even so, there was a significant improvement in access to schooling. Reflecting this, whereas the literacy rate among the adult population was estimated to be only 18.3 percent in 1951, it increased to 28.3 percent by 1960, 34.4 percent by 1971, 43.6 percent by 1981, and 52 percent by 1991. The latest reported National Sample Survey estimate for 1996-97 put literacy at 62 percent. While that still leaves considerable room for improvement, poor educational attainments of the bulk of the population cannot be the drag on growth that they were in earlier decades. Moreover, the combination of longer life expectancy and improved access to schooling itself signifies an increase in well-being for much of the population. There is ample room for improvement in education, however, as is discussed in the chapters by Kochar and Foster and Rosenzweig in this volume.

Another significant change from the 1950s to 1990 was that the rate of population growth had fallen from almost 3 percent per annum to about 2 percent. That drop significantly reduced the challenges associated with provision of basic education and health to the growing population and gave rise to hope for further declines in the population growth rate.

Estimates of poverty rates, while always fraught with difficulties, indicated a considerable reduction in the proportion of those below various poverty lines: for example, the headcount ratio (the proportion of the population living below the poverty line) was estimated to have fallen from 57.33 in 1970 to 37.48 in 1990 in rural areas and from 45.89 in 1970 to 34.76 in 1990 in urban areas. Most other poverty indicators showed similar declines.

Moreover, agricultural production had grown considerably, at an average annual rate of 2.8 percent per year from 1965 to 1980; and agricultural value added at constant prices had increased at an average annual rate of 3.1 percent from 1980 to 1990. Food production per capita was estimated to have increased by 3 percent over the decade of the 1970s, and by 12 percent over the decade of the 1980s. At the same time, agriculture’s share in national income had fallen from around 50 percent in 1960 to 32 percent by the mid 1980s, as industrial and service output and value added had grown at a more rapid rate.

Industrial growth, by contrast, was regarded as having been less satisfactory. This was the economic activity on which the Five Year Plans had focused, and into which resources had been
poured. Industrial economic activity grew at an average annual rate of 5.4 percent from 1960 to 1970, 4.4 percent during the next decade, and at an average annual rate of 7.1 percent from 1980 to 1990. These rates were relatively low both in contrast with rates achieved in other countries and also given the resources devoted to investment in industry. There was also considerable evidence that total factor productivity in Indian manufacturing had been falling over the years. Ahluwalia (1991) estimates that the total factor productivity growth rate (which takes into account increases in both labor and capital inputs) in manufacturing had been only 0.2 percent in the 1959-66 period, fallen to minus 0.3 percent in the period 1966-7 to 1980, and then risen to 3.4 percent annually in the years 1980-81 to 1985-86.

In light of India’s abundance of unskilled labor, it is noteworthy that the manufacturing sector as a whole had increased employment at annual rates of less than 4 percent prior to 1980, and in fact shed labor (at a rate of 0.7 percent annually) during the years of positive productivity growth in the first half of the 1980s.

As already discussed, the public sector’s economic activities had risen sharply. By the late 1970s, it is estimated that 62.1 percent of total “productive capital” was in state owned enterprises, as was 26.7 percent of employment. By contrast, industrial value added originating in public sector enterprises was only 29.5 percent of the total. Data for the 1980s suggest that the imbalance between private sector and public sector productivity increased further: the estimated overall real rate of return on investment in state owned manufacturing enterprises is estimated to have been no more than 2 percent. T.N. Srinivasan summarized the situation well:

“Thus, by and large, the public sector has acted as a brake on private sector development. Choice of location, technology, employment and pricing policies of the public sector had become...politicized so that efficient development was precluded. Far from generating resources, the public sector had become a monumental waste and liability for taxpayers. It is true that the industrialization strategy did generate a diversified industrial base, and a capability for designing and fabricating industrial plants and machinery. But the strategy virtually ignored considerations of scale economies, vastly restricted domestic and import competition, constrained technological upgrading through licensing and purchase of foreign technologies, encouraged capital-intensive production and discouraged employment generation that was further constraints by the high costs of hiring and firing imposed by our restrictive labour laws. The consequence was a high cost and
globally uncompetitive industrial sector which was also out of tune with India’s capital scarcity and labour abundance.”

As of 1991, the public sector still dominated economic activity. Not only were public sector enterprises overmanned and inefficient, but controls over private sector economic activity had intensified. Import licenses and investment licenses were still required for all but small-scale businesses in the private sector. Considerable red tape and delay was associated with the receipt of an import license, and there were prohibitions against imports of many goods including an almost-blanket prohibition of imports of consumer goods and of goods where indigenous productive capacity was deemed available. Rates of protection were extremely high even for those goods whose importation was permitted. India averaged among the highest average rates of protection against imports in the world, even without taking into account the effect of quantitative restrictions and import prohibitions.

Some manufacturing activities were reserved for small-scale businesses; others were still reserved to the public sector; and some could be undertaken by both private and public entities. Virtually the entire financial sector was publicly owned, including insurance. In most regards India remained heavily controlled and provided a difficult environment in which to do business.

In addition, business infrastructure provision was poor. Telephone service was hard to get, at least legally, and was of poor quality. Other communications were little better. Ports were high-cost, with slow turnaround times. Roads were highly congested, resulting in heavy reliance on railway transport for goods. Even domestic air travel was in excess demand and often subject to major uncertainties given the domestic monopoly of Indian Airlines. Government-owned banks rationed credit slowly to established enterprises, while insurance companies, also government owned, were high-cost and provided only a small range of coverage.

Government expenditures themselves were not allocated in ways conducive to rapid growth. Much of the rapid increase in expenditures in the late 1980s had been the result of changes in the provision of subsidies - for fertilizer, for electricity, for water, for food consumption by the poor, and for exports. By 1990, subsidies as a proportion of central government expenditures had reached 11.6 percent of the entire central government expenditure and 2.3 percent of GDP. Total plan “assistance to the states” was 12.1 percent of total central
government expenditure, while non-plan “loans to the states” constituted an additional 7.1 percent of central government expenditures and 1.4 percent of GDP. Many of these expenditures, including loans to states were intended to help the poor (such as fertilizer and electricity subsidies to farmers). But the evidence was that a very large fraction of the expenditures ended up in the pockets of the well-to-do among the eligible groups, and simultaneously encouraged waste of scarce water, power, fertilizer, etc., while leading at the same time to poor financial results for public sector enterprises in these areas and thus reducing the capacity for further investments.

Thus, as of 1990-1991, India had not corrected the underlying structural problems of the relationship between the public and the private sector, and was allocating government resources to activities that in many instances were detrimental to growth. The GOI had maintained growth during the late 1980s only by increasing fiscal deficits. By 1990, debt ratios were high and foreign exchange reserves were falling. In January 1991, the GOI reached agreement with the IMF for a large loan. Despite that foreign exchange reserves continued to dwindle, workers’ remittances plummeted (due both to the impact of the Gulf War and to anticipation of an exchange rate change), and the deterioration in the economic situation continued.


A new government, with P. V. Narasimha Rao as Prime Minister and Manmohan Singh as Finance Minister, came to power in mid-1991. It was apparent that a crisis was at hand: the current account deficit was running at an annual rate of about U.S. $10 billion, while reserves were down to about two weeks of imports. This situation arose in spite an IMF loan of $1.8 billion in January 1991 and sharp cuts in imports starting earlier in the year (imports, which had been $23.4 billion in 1990 were $21.1 billion in 1991). Exports, discouraged in part by excess demand in the domestic economy, and in part by the appreciation of the real exchange rate, were falling in dollar terms. Inflation, as already mentioned, had reached 13 percent in 1991, and workers’ remittances from abroad, which had been flowing into the country, had dried up.

Previous foreign exchange crises had also been triggered by inability to continue voluntary debt service as foreign exchange reserves diminished, and the response had been a traditional stabilization program: the most notable had been those of 1966-67 and 1981. Finance
Minister Singh addressed the stabilization measures rapidly. But he went beyond the traditional stabilization package, announcing a program of economic reforms that constituted a significant reversal of some of the most egregious aspects of earlier policies of regulation and government intervention in the economy.

The stabilization itself entailed several measures. Underpinning the program was a reduction of the fiscal deficit, initially from 8.1 percent of GDP in 1990-91 to 5.7 percent of GDP in 1992/93. It was announced that the government intended to reduce the deficit still further over coming years, but that intention was not realized.

A second important measure was a devaluation of the rupee. At the same time, export subsidies were abolished and an import entitlement scheme for exporters was announced. Between 1991 and 1993, a dual exchange rate (with a free market rate for exporters) in fact prevailed, but the exchange rate was finally unified in 1993. Joshi and Little (1996, P. 50) estimate the net real devaluation between 1991 and 1993 to have been about 25 percent.

Within a year, the combined impact of the fiscal tightening and the exchange rate change resulted in a reduction in the current account deficit from 2.3 percent of GDP in 1990 (despite import controls) to 0.7 percent of GDP in 1993. Inflation fell, but not as much as had been targeted. Even with recession, the wholesale price index rose 11.9 percent in 1992, 7.5 percent in 1993, 10.5 percent in 1994 and 9.3 percent in 1995.

Overall, the stabilization aspects of policy in 1991 bore short-term success. But longer-term issues regarding fiscal policy remained. These are addressed in Srinivasan’s paper in this volume on the fiscal problem and are not dealt with further here. Suffice it here to say that, as of 2000, a sustainable budgetary situation of the center and the states had not been achieved, and the pattern of expenditures (and especially subsidies) was not conducive to rapid growth.

What was unusual about the government’s response to the 1991 crisis was that the Prime Minister and Finance Minister began addressing the underlying structural issues which had hampered earlier growth. In addition to the traditional (and necessary) stabilization measures, a series of other policy measures were enacted in rapid succession in the first two years after reforms which quickly and significantly reduced the negative effects of controls on domestic economic activity.
These “structural” reforms represented a surprising departure from the general direction of policy that had been in place since the 1950s. The most significant structural reforms, reviewed briefly below, were focused on the trade and payments regime, on the one hand, and on the domestic financial sector, on the other. However, there were a number of other important measures which effectively reduced the extent to which the public sector both undertook economic activity and controlled and influenced the profitability of alternative activities in the private sector.

Before turning to some of the key measures, it should be noted that the reforms that were implemented were, by and large, implemented slowly. While the 1991-93 measures certainly signaled that change was afoot, change was far less marked than in many other countries’ reform episodes. Indeed, while momentum for further controls and regulation of the economy was reversed, change was gradual and piecemeal. Some have even referred to the reforms of this early period as “reform by stealth”. For that reason, even where significant reforms were achieved, there remains a great deal to be done - as is discussed in Section 4.

The Indian trade and payments regime as of 1991 was highly restrictive. Little and Joshi (1996) concluded that, “In June 1991, India was the most autarkic non-communist country in the world. Despite a little liberalization in the 1980s all imports were subject to licensing or were prohibited. Licenses were in general granted only on proof that there was no source of indigenous supply…All ‘bulk items’ (e.g. cereals, petroleum, ores, metals, fertilizers) …could be imported only by a government monopoly.” In the first two years of the reforms, measures liberalizing the trade regime included: 1) the removal of import licensing requirements for most imports (although prohibitions on the import of consumer goods remained); 2) the beginning of a program of tariff reductions; 3) restrictions on inflows of foreign direct and portfolio investment were significantly eased; 4) a number of export restrictions were removed or relaxed (although some remained).

As already mentioned, at the beginning of the crisis, the exchange rate was devalued. Subsequently, small changes were made, but the major change took place in 1991, with the 19 percent real devaluation. That in itself, of course, liberalized the trade regime as the quantity of imports demanded fell in response to higher import prices, thus making licensing less restrictive, while the quantity of goods available for export increased in response to their higher price.
Tariffs, which stood at an average rate of 125 percent (with the highest rate at 355 percent) in 1991, were successively lowered until, by 1995, the peak rate was 50 percent with the average probably under 40 percent. The import licensing regime was replaced by a “negative list”, which listed all those goods (including consumer goods) which could NOT be imported. Those items not so listed were eligible for importation without license. Thus, not only were tariffs lowered, but the protection domestic producers received from quantitative restrictions on imports (and prohibitions when indigenous supply was available) was removed as well.

Measures were also taken to encourage exports. Exchange rate depreciation was one measure; reduction of protection through tariffs and removal of quantitative restrictions on imports also made exporting more attractive. In addition, some goods whose export had been permitted only through government trading companies were decanialized.

Similarly, the Government of India for the first time attempted to attract foreign direct and portfolio investment by reducing and removing restrictions on it. Until 1991, foreign investment was permitted only in cases in which it provided technology transfer, and equity participation above 40 percent was generally not permitted. In July 1991, foreign technology agreements, foreign direct investments, and industrial licensing were all liberalized. In some circumstances, the RBI was allowed to give automatic approval to foreign acquisition of equity, and in many other instances, procedures were greatly simplified. The percentage shares of domestic firms that could be owned by foreigners were increased, and efforts were made to simplify the approvals process. Finally, export controls were removed in some cases, and relaxed in others. Nonetheless, restrictions remains, especially when agricultural exports were involved.

Thus, between 1991 and 1995 (with liberalization concentrated in 1993 and 1994), the Indian trade and payments regime was substantially liberalized. However, despite repeated tariff reductions, Indian tariffs still remain high by world standards, as other countries have also been lowering their tariffs. One of the areas in which further reform is called for and which is not covered in one of the background papers is the trade regime, a topic to which we therefore return in Section 4.

The financial sector was likewise significantly liberalized, but again from a very illiberal base and with gradual reforms. Over two-thirds of financial assets in India were held in banks by 1991. The banks themselves had been nationalized since 1969 and were subject to two sets of
reserve requirements that effectively meant they held more than half their assets in government paper. The banks were also subject to “directed lending” whereby some of the remaining portion of their assets was to be extended in loans to specified activities, such as agriculture.

Moreover, it was generally agreed that the quality of the banks’ portfolios was poor, and that the quality of the banks’ portfolios had deteriorated significantly during the 1980s. Bank supervision and accounting rules were lax: for example, income was booked when it accrued (even if it was not received), so that it was difficult for anyone to ascertain the true state of the banks’ assets and liabilities. The real rate of return to the banks on their assets in the latter half of the 1980s was estimated to be about 0.15 percent, a very low figure by any standard; this reflected the low quality of their loan portfolios.

While “resource mobilization”, in the form of higher savings, had been achieved since Independence, the quality of resource allocation achieved by the banks was poor. It was even then recognized that this was a significant constraint on satisfactory macroeconomic performance and growth. In the structural reforms of the early 1990s, therefore, a number of measures were taken to attempt to improve that performance.

Recognizing that the poor state of the financial system was a significant drain on economic growth, the government of Prime Minister Narsimha Rao appointed a Committee on the Financial System under the chairmanship of M. Narasimham (known as the First Narasimham Committee). The conclusions of this committee formed the basis for significant financial reforms. In 1992, the Reserve Bank of India issued revised standards for income recognition, asset classification and provisioning, and established new capital adequacy standards meeting the Basle Accord. These were in full force by 1996. The government also established a Board of Financial Supervision within the Reserve Bank of India. In addition, the RBI strengthened its own monitoring procedures for banks.

At the same time, appropriate revenue recognition rules and other accounting changes exposed the true weakened state of the banking system: nonperforming (NPAs) assets constituted about 24 percent of the total loan portfolio of the public sector banks (virtually the entire banking system). In the strongest banks, the proportion was 8-10 per cent while in the weakest, it was 25-40 percent! While they are still high, NPAs had fallen to 16 percent of gross advances in 1997-98. Restructuring of bank portfolios was therefore of vital importance, and the banks were
mostly recapitalized by 1995. A second Narasimham Committee also advocated the adoption of capital adequacy standards commensurate with the riskiness of loans and advocated a level of 10 percent for most Indian loans to the private sector; this was incorporated into law in the Budget for 1998-99, to be phased in gradually.

Although problems remained and remain in the banking sector, especially with regard to the efficiency of bank management and the extent of directed credit, there is no doubt that the first round of reforms was “just in time”. In hindsight, it seems evident that a financial collapse may have been imminent.

At the same time as bank restructuring was taking place, interest rate ceilings were being removed, and interest rates were freed to a considerable degree. Banks may now set lending and deposit rates on most accounts except for export credits, savings accounts, and loans of less than Rs. 2 lakh. Directed lending, however, remains important. As of March 1999, it still constituted about 33 percent of gross bank lending. In addition, banks are still considered to be very high cost, and inefficiently run, with overmanning and high staff costs. Their operating expenses average between 2.5 and 3 percent of total assets, which is very high by international standards. This is a significant factor in maintaining high lending rates from banks. To the extent that labor market regulations and failure to privatize the banks account for these high costs, the reforms that would support improvement in this area are discussed further in Section 4.

Another aspect of financial reform, which has not proceeded as far as did financial deregulation, has been the introduction of competition into the banking system. Banks are still primarily government-owned, although the percentage of permitted private equity has been increased. Anecdotal evidence suggests that banks are still relatively high-cost, and that efforts to reduce costs and increase efficiency have to date been limited. Entry into banking is still relatively difficult, and certainly not encouraged.

It was mentioned above that about two-thirds of Indian financial assets are in the banking system. For the non-banking components of the financial system, a Securities and Exchange Board of India (SEBI) was established in 1988, but given statutory powers to oversee securities markets, etc., only in 1992, with strengthened powers in 1995. For the primary equity market, SEBI has considerably improved oversight, insisting on adequate reporting in prospectuses and requiring restitution when false information is provided. Although problems remain, and there is
considerable scope for further improvements, there is little doubt that SEBI’s authority and use of it have significantly improved the efficiency of the primary equity market in India.

SEBI was also assigned the task of improving the working of the Indian stock exchange. Here, changes came about in part in response to the opening of the National Stock Exchange as the Bombay Stock Exchange responded to competition. Screen-based trading has begun, depositories have been established, and the market is considerably more transparent than it was previously.

Less was accomplished in the early 1990s with respect to Development Finance Institutions and to insurance. Nonetheless, the overall impression is, and should be, that the early years of reform, from 1991 to 1994 or 1995, were years of significant changes in regulation, in institutional arrangements, and in other factors affecting the financial environment in which businesses undertook their activities.

In addition to reforms in the financial sector and in the trade and payments regime, the Rao government tackled a variety of other problem areas. Efforts were made to improve telecoms by changing the regulatory framework and other means; these efforts are described in Section 4. Likewise, the monopoly of Indian airlines was broken up, and entry was permitted into the airline, and a number of other, industries. Efforts were also made to reform the power sector in light of the urgent need for additional power, but to date these have not had as much of an impact as they were expected to due to remaining bottlenecks (see Section 4).

To be sure, there were areas where reforms were either nonexistent or very, very tentative. Chief among these, to which attention returns in Section 4, are labor markets, operation of state-owned-enterprises, and efforts to privatize existing national entities (beyond selling minority equity, as mentioned above). And, there were a number of other areas in which the government was fully cognizant of difficulties but unable to address the issues, as with the state of infrastructure, as discussed in Section 4.

Nonetheless, the period starting in 1991, and especially the first few years, stands in marked contrast to earlier years in Indian economic policy making. For the first time, not only was it acknowledged that reforms were highly desirable, and indeed essential if growth was to accelerate, but reforms were actually begun. Despite the agenda discussed in Section 4, sight should not be lost of the significance of that change.
3. Economic Growth over the 1993-2000 Period

The momentum for reform was greatest in the years immediately following the crisis of 1991. By the mid-1990s, reforms had largely stalled. While there were some further changes in the control and regulatory environment and the role of the public sector, by and large the major changes had taken place in the first half of the decade. In part because governments were not secure and in any event consisted of coalitions, no major new initiatives were undertaken.

Nonetheless, economic growth accelerated markedly during the 1990s, due in large part to the stimulus given by the reforms themselves. While there is some evidence that, in 1998 and 1999, the stimulus to growth had diminished, it nonetheless seems clear that what was done in the early 1990s was sufficient to enable the country to attain a more satisfactory economic performance than at any earlier point. Growth rates reached 7 and 8 percent during the late 1990s. Moreover, analysts and policy makers alike became convinced that growth rates of 7 percent and more were achievable, something which would have been vigorously contested only a decade earlier. Nonetheless, all observers agree that reforms have lost their momentum and that, if the economy is to be able to attain and sustain a growth rate of 7 percent or more, the momentum for reform will once again have to be regained.

In this section, we assess economic growth during the 1990s. In Section 4, we then examine the key areas in which reforms are urgently needed.

To assess economic growth, it is useful to start with data on fiscal and current account behavior over the period since the crisis. These data are given in Table 4. As can be seen, central government expenditures as a percentage of GDP have been reduced, falling from 20.4 percent of GDP in 1991 to 18.4 percent by 1997 and 17.6 percent in 1998. Government revenues also declined, although by a lesser proportion, so that the fiscal deficit fell from around 7 percent of GDP in 1993 to 5.3 percent in 1998. Reflecting this, the current account deficit fell from its very high levels of the late 1980s to more moderate and sustainable levels of around 1 to 1.5 percent by the mid 1990s.

Table 5 gives the key macroeconomic indicators for the 1990s. As can be seen, after 1991, the growth rate of real GDP rose markedly, reaching 7.4 percent in 1994 and 7.6 percent in 1995, but falling somewhat thereafter. At the same time, the rate of inflation fell from its high of 13.5
percent in 1991 to 7.5 percent by 1993, but then rose to 10.5 percent in 1994. Only after 1995 did it drop significantly to the 5-7 percent range and the current account, as previously mentioned, remained at very manageable levels. Thus, the key macroeconomic indicators have performed well, and the average rate of economic growth reached unprecedented highs.

There were disquieting signs on the fiscal front, however. First, as already seen and as is explored in Srinivasan’s paper (this volume), the fiscal deficit was not reduced as much as had been announced at the outset of the reforms. Second, the composition of government expenditures has not been altered to increase their efficiency. The need for infrastructure and other public sector investments is very great, and yet prospects for increased resources in the public sector do not appear good: reallocation of resources is clearly called for. Third, investment as a percentage of GDP has remained fairly stagnant, despite the pressing need for new investments in a number of areas. If one were to assess fiscal performance since the crisis, the conclusion would have to be that the initial stabilization package met with some success, but that reforms faltered before the underlying structural problems of inefficient expenditures and inelastic sources of revenue could be tackled.

Success was greater in some other areas. Export performance improved notably. Table 2 gives data on exports in the decades since independence. As can be seen, export volume grew at an average annual rate of 11.45 percent from 1991-97 - almost double the highest rate achieved in any prior decade. This was reflected in an increased share of exports of goods and services in GDP by the latter part of the 1970s - 9.94 percent, compared to 5.83 percent in the 1971-80 decade and 6.52 percent in the 1980s. The growth of export earnings was rapid enough to reverse India’s declining share in world trade: having started at 1.42 percent in the 1950s, it had fallen to a low of 0.49 percent in the 1980s. Then, in the 1991-1997 period, it rebounded to 0.58 percent.

Reflecting import liberalization, imports also grew rapidly over the 1990s, rising at an average annual rate of 14.36 percent, to a 10.61 percent share of GDP. Import liberalization no doubt served to enable Indian businesses to compete more effectively abroad, as well as to obtain needed capital and intermediate goods at more competitive rates in a timely way. Even then, there had been little liberalization of consumer goods imports by the late 1990s.

4. An Overview of Priorities for Reform as of 2000
As of 2000, it was clear that the Indian economy has changed markedly over the post-crisis years. Growth rates did accelerate (although there are questions as to the sustainability of these higher rates without a new wave of reform), the economy was opened considerably, and the extent to which controls stifled economic activity had been reduced.

As in all growing economies, however, the degree to which regulations and controls are harmful to growth and living standards changes as economies grow. The set of import substitution policies under which growth in many developing countries reached 6-7 percent in the 1950s and 1960s, for example, constrained growth to rates of at most 3-4 percent by the 1980s. The same is probably true for India: removal of some of the inefficiencies resulting from the trade regime, the structure of the financial sector, and industrial licensing clearly permitted a spurt of growth. Whether growth at the rates of the late 1990s is sustainable without further reforms is questionable; what is unarguable is that, with further reforms, it is likely (in the absence of adverse developments internationally or other major setbacks) that growth rates could rise to the 7-8 percent range over the next decade.

Some essential changes were already in motion in 2000. A decade earlier, most analysts would have regarded the low levels of educational attainments of much of the Indian labor force as constituting a potentially serious constraint on the rate of growth. Improvements in access to education have probably reduced the severity of that bottleneck, although much needs to be done to improve access to secondary education and quality of primary education. Since those issues are discussed by Kochar and Foster and Rosenzweig in their chapters in this volume, they are not further addressed here.

Another much-needed step has been the removal of barriers to imports of consumer goods and a significant reduction of protection to domestic producers of consumer goods. Not only will there be gains to Indian consumers and an allocation of resources to more efficient uses, but in addition, competition is likely to spur increased efficiency of consumer goods producers in India. Relaxation of restrictions on the imports of consumer goods were negotiated under the WTO, and licensing and quota restrictions for 714 consumer goods imports were relaxed on April 1, 2000, although they were still going to be subject to 44 percent import duty. It was announced that another 715 items were to be removed from licensing and quota restrictions a year later.
Further gradual reforms are taking place in the financial sector as well. The insurance industry is being opened up, and improvements in banking regulation, supervision, and incentives, continue. In the fall of 1999, after a coalition government was reelected, it fought through and won a new insurance law, which permitted foreign investment in insurance companies (up to 25 percent of equity) and otherwise began liberalizing insurance law.

Other issues require additional attention. Most analysts believe that there remain considerable bottlenecks, red tape, and bureaucratic delays associated with doing business in India. These are, of course, difficult issues to quantify, but their importance emerges repeatedly in the papers by Forbes, Murthy and Saxenian (this volume).

Further fiscal measures are urgently needed. Public sector fiscal deficits, as discussed in depth by Srinivasan, with the higher market-determined interest rates at which the government is currently borrowing, mean that the government is perilously close to an ‘internal debt trap’, having to borrow simply to continue debt-servicing obligations at an increasing rate. Moreover, the government’s continuing borrowing has kept interest rates relatively high. To the extent that inflation has been avoided, it has been by restraining private investment through these interest rates. Addressing the fiscal issue is essential if only to avoid destabilizing the entire macroeconomy; but, in addition, it will release investment resources for productive uses in other sectors of the economy.

As in most developing countries, issues of governance are also important. Not only is there an urgent need for increased efficiency and timeliness of the court and legal system, but issues of corruption and evasion will need to be addressed. Whether they can be better dealt with head-on, or whether a gradual and piecemeal approach will be more conducive to strengthening the commercial code and governance institutions is an open question, and one not addressed in this volume.

While action on these fronts is clearly desirable, achieving a 7-8 percent rate of economic growth over the coming decade will clearly require other measures. Perhaps most obviously, but not necessarily most important, existing infrastructure capacity and quality, and present prospects for expansion and improvement, are inadequate. During the 1990s, it is widely believed that rapid growth was possible because there was slack in the system. But by the end of the decade, the growth of the 1990s had already pushed infrastructure utilization well above the
optimum. It seems unquestionable that there will be strong diminishing returns to economic activity unless means are found for improving infrastructure quality and quantity. Since this is not the subject of a separate chapter in this volume, the situation and problems confronting the delivery of infrastructure are discussed first.

But while infrastructure is the most obvious bottleneck, there are others. To date, little has been done with regard to privatization or exit of uneconomic state owned enterprises. Similarly, it is increasingly recognized that existing labor laws will require significant changes if growth is to be maintained and accelerated. Each of these areas is briefly discussed following the discussion of infrastructure; failure to cover them in depth is simply a reflection of capacity limits as to what can be accomplished at one conference.

**Infrastructure.**

That infrastructure is a bottleneck to Indian growth is widely recognized. What is not so often recognized is the extent to which even the existing stock of infrastructure serves as a growth barrier. In this section, we first briefly address the issue of the linkages between infrastructure and growth, and then consider some of the indicators of the extent to which India’s infrastructure lags behind that of most other countries. We then turn to the potential for addressing this critical issue for individual infrastructure sectors.

**Negative Effects of Infrastructure Inadequacy on Economic Performance.** That infrastructure is essential to support economic activity is self-evident. If there is no road, or if telecommunications facilities do not exist, it is not possible for producers to enter into market activity with other areas. But the fact of physical availability does not tell even half of the story. When infrastructure facilities are inadequate, they impinge heavily on producers’ costs, and hence on the productivity and efficiency of other resources. If roads are badly maintained and full of potholes, for example, trucks’ economic lives are significantly shortened and the time goods and drivers are in transit increases. Both of these effects represent real costs which must be deducted from the price received by producers when goods are sold in the market at their point of delivery.

For many products in today’s world, delays in transport and communications serve as an even more serious bottleneck. Many producers themselves use just-in-time inventory, and will not deal with suppliers whose deliveries are tardy or unreliable. Especially for products that are
intensive in the use of unskilled labor, buyers are seeking low-cost sources. When poor infrastructure adds to costs and simultaneously creates uncertainty in delivery times (or inability to be assured of instantaneous communications), buyers are likely to seek alternative sources in this competitive world environment.

In India’s case, high costs imposed on producers by infrastructure are no doubt a significant factor in raising costs to producers, both domestically and those who may be potential exporters. In addition, however, perceptions of India’s infrastructure are so negative that they probably constitute a significant barrier to foreigners’ willingness to undertake direct foreign investment in India.

In 1999, the World Economic Forum (1999) asked businessmen to rank countries according to the adequacy of their overall infrastructure, and of its various segments. Altogether, 59 countries were ranked. Of those 59, India was ranked 55th in terms of the ‘adequacy of overall infrastructure’, and 50th of 59 in the importance accorded to infrastructure by the government. For individual components of infrastructure, only railroads fared significantly better, where India was ranked 28th of 59. For adequacy and efficiency of road infrastructure (55th), port facilities (53rd), telecommunications (51st), and air transport (45th), India was ranked well down the scale.

Quantitative rankings tend to confirm these perceptions. In telephone penetration (measured by main lines per 100 population), India was 57th; in rate of filling orders for new connections, India was 50th; in kilometers of road per million persons India was 41st, and in investment in telecommunications per inhabitant India was 52nd.

There are some estimates as to the costs of this poor infrastructure. It is estimated that India lost between $5 and $6 billion annually because of the slow speeds and other inadequacies of the roads on which commercial vehicles have to operate. Likewise, it is estimated that at least $70 million was lost annually due to container delays in ports. While it is more difficult to estimate losses for what is not there, estimates are that as much as $23 billion information technology export revenues and 650,000 jobs failed to materialize over an 8 year period because of the state of telecommunications infrastructure.

These estimates include only fairly tangible items. Electricity shortages and voltage fluctuations impose considerable costs on firms (and even households that buy electric generators). And much cargo is loaded on small ships at Indian ports only to be transferred to
larger vessels in Singapore, Colombia, and Hong Kong. *India Today* put the cost of poor infrastructure at about 3 percent of GDP annually, which is about two-thirds of what is spent annually on infrastructure.\(^6\)

In addition to these losses, there are heavy penalties, especially for the poor, who cannot compensate with electric generators, bottled water, or other substitutes for existing public infrastructure.\(^5\) Not only are there costs in terms of health and well-being, but opportunities to engage in productive activities are limited by the scope of the market.

**Power.** It is difficult to estimate the relative needs in different infrastructure sectors. Many see the shortage of power as the most critical constraint. During the 1990s, power use grew at about 1.5 times the rate of growth of output, but supply was not increased commensurately, despite the fact that power supply per capita had tripled over the 1975-1995 period. Relative to power supplies elsewhere, India’s lag is huge. Korea, Malaysia and Argentina, for example, have per-capita capacities between 5 and 8 times higher than India’s. China’s power supply per capita was judged to be about the same as India’s and is now 1.9 times as high.\(^5\)

While there are opportunities for sizable increases in operating efficiencies,\(^4\) increased capacity will be essential if power capacity is not to serve as a severe bottleneck to growth. Problems in increasing capacity are several fold: obviously the desirable amount of investment is large, but the return may be high if investments are wisely done. In most countries in these circumstances, profits from existing companies would provide a sizable share of financing for new plants. But, the Indian domestic power producers are generally loss-making entities. The SEBs consistently made losses in the 1990s, rising from 12.7 percent on invested capital in 1991-92 to 21.1 percent in 1998-99.\(^5\) Part of this loss resulted from the large subsidies implicit in the low price of electricity to farmers and other consumers: for example, compared with an average cost of generation and distribution of power of Rs 1.86 per kilowatt in 1996-7, the average price to farmers was only Rs. 0.21 and that to all domestic consumers was only Rs. 0.90. Industrial users paid more than average cost, but from all users of power, the average revenue for that year was Rs. 1.49, which covered only 80 percent of average cost. Hence, the electric power producers require financing simply to cover operating costs, much less to finance new capacity.

While measures have been taken to encourage private investors in the power sector, those investors too are likely to be deterred by the ability of SEBs to price electricity at
uneconomically low rates until the problem of pricing is realistically addressed. Meanwhile, those industrial users paying high prices are either locating inefficient (but lower cost) captive power suppliers than the SEBs or they are at a competitive disadvantage.

Both because of the critical importance of increasing power capacity and production and because changing the pricing of electricity would itself do much to make usage more efficient and generate some of the needed additional funding (directly through increased profits of the electricity producers and through the increased attractiveness of power investments to foreign investors), reform of the relationships of center and states with regard to electricity pricing is clearly a high priority for reform. Even with such reforms, additional financing from the center would probably in any case have a high rate of return. But given the fiscal difficulties confronting the center, failure to reform pricing policies would inevitably result in smaller investments in power capacity than appear economically warranted.

Telecommunications. For telecoms, significant efforts at reforms were underway in the 1990s, and there have been significant improvements in both quality and availability of service. However, the starting base was so low that much remains to be done.

It was already mentioned that as of the mid-1990s, international data show India to have been well down the list in terms of the number of telephone lines per 100 inhabitants and investment in telecommunications per 100 inhabitants. Indeed, the country also had the lowest telecommunications revenue of the 53 countries covered in the 1996 survey, despite having the 4th largest telecommunications staff (behind the United States, China, and Russia), with 421,060 employees. Interestingly, India had 18.6 telephone main lines per 1000 people in 1997 contrasted with 444.0 in Korea, 107.0 in Brazil, 250.0 in Turkey, and 96.0 in Mexico. There were 33.7 mainlines per employee, compared to 294 in Korea, 224 in Argentina, and 114 in China. Average telephone faults, usually chosen as the best available indicator of the quality of service, were 196 per hundred mainlines in 1995, compared to 3 in Brazil, 18 in Korea, and 82 in Cote d’Ivoire. Waiting time for a phone in months in 1995 was 12.17, whereas it stood at 4.2 months in Turkey, 2.84 months in Morocco, and 0.68 months in China. By contrast, it stood at 79.68 months in Bangladesh, the country with the longest reporting waiting time among the 21 countries covered.

Accelerating growth will certainly shift the demand for quality and timely telecommunications services up rapidly. The importance of both quality and availability of
reliable telecommunications services cannot be exaggerated, especially in the context of India’s need to integrate further with the global economy. Historically, the telecom sector in India has been dominated by the Department of Telecommunications (DoT) and two government-run companies: VSNL – which still controls a large part of international communications – and MTNL – which operates local telephone services in major cities.

The DoT first attempted to introduce competition in the area of basic telecom services in 1994 but private operators were burdened with licensing fees which the government companies did not have to pay. Moreover, auctioning of licenses took place with restrictions on the number of entrants, evidently for purposes of maximizing revenue: Srinivasan appears to believe that the auction charges essentially were high enough so that monopoly, rather than competition, would prevail.\(^5\) The resulting process resulted in a vicious bidding war between companies to acquire the license in each calling circle. As was later discovered, many overly-optimistic bidders had bid well beyond their capacities and subsequently were unable to keep their commitments and so were forced to default. Six years later, the basic telecom service sector is stagnant: private operations have been rolled out in a limited way in only two of the 13 basic circles for which service licenses were auctioned.\(^6\)

Five years after this fiasco, the government attempted to jump-start the liberalization process with the New Telecom Policy (NTP) of 1999. Under this, the government has recently decided to introduce much-awaited competition into the national long distance sector on a revenue sharing basis. Unlike its earlier experiment at liberalization, the government has not limited the number of potential entrants this time around. Instead, the sector is open to anyone subject to an entry fee and a net-worth requirement. Furthermore, the government has also decided to introduce competition - and eliminate VSNL’s monopoly - in the international long distance market much earlier than the commitment given to the WTO. Finally, efforts are on to resuscitate the competition into the basic telecom services through easier entry norms. Under current proposals, fifteen vacant circles will be opened to unrestricted entry, on a revenue-sharing basis, subject to an entry fee and a net-worth requirement - analogous to the framework governing the national long-distance sector.

Apart from improving service quality, the impending competition in the national long-distance market promises to reduce prices for households and businesses significantly and to
provide a boost to the information technology sector. All this while, the DoT - in its bid to cross-subsidize local calls - has been keeping long-distance charges exorbitantly high. Long-distance rates within India are between four and fourteen times as high as similar calls within the U.S.\textsuperscript{60} And this mark-up is reflected in the accounts of the DoT. In 1998-99, for instance, the fixed and operational cost of national long-distance services constituted only fourteen percent of its revenues from this sector! To address this imbalance, the Telecom Regulatory Authority of India (TRAI) - established as a regulator of the industry in 1999 - twice reduced long-distance rates in 1999-2000.\textsuperscript{61} However, competition in this sector promises to bring further price relief to consumers and households.

**Railroads.** As indicated above, railroads are in relatively better condition than other forms of transport and communications. The Indian Railway system is the second largest in the world, and modernization is occurring, but much remains to be done. It is estimated that 63 percent of the 40,000 route miles were still under broad gauge as of 1996, while electrified networks covered only 22 percent of the total route length. Moreover, the railroads are certainly operating at, if not above, full capacity, and expansion will have to occur to accommodate rapid economic growth.

As in other infrastructure sectors, pricing is a major problem. The railroads are required to charge low prices for “social obligations”, including the transport mass consumption goods such as sugarcane, salt, and edible oils. These goods are carried below cost, as are passengers on short distance second class and season tickets. For these reasons, the railroads themselves have had low profitability, which restricts the degree to which they can self-finance maintenance, modernization, and capacity expansion, and at the same time low profitability deters other investors.

**Ports.** Whereas railroads are overburdened, port capacity and organization is an even more pressing issue. The India Infrastructure Report, 1996, (IIR) indicated that, in 1994-95, seven of the eleven major ports were operating at capacity levels above 100 percent. Indian ports are also inefficient when compared with their competitors in nearby countries. Only 7 percent of traffic in Indian ports in 1994 was containerized, despite the great potential for efficiency gains. India had an average ship turnaround of 7 days in 1993-94, contrasted with 6-8 hours in
Singapore. The World Bank estimates that the cost burden to importers and exporters because of these and other inefficiencies is about $250 million per year.\(^6\)

Not only are delays long, but there is low labor and capital productivity in Indian ports. The IIR reports that the number of units handled per crane per hour is 7 in Mumbai, 15 in Chennai, 26 in Colombo, and 32 in Singapore.

While it is evident that increases in port capacity will require investment in modernization, it is likely that there is ample scope for efficiency improvements within the existing infrastructure, or with relatively low investments. Reforms in the organization of ports may be an area where the capital costs of improvements are significantly less than in some other areas of infrastructure.

**Relatively Untouched Areas.**

While it is clear that infrastructure needs will have to be addressed and that the fiscal gap must be closed, there are other areas where reform has barely started, and where appropriate measures can significantly accelerate economic growth. These include reform of labor markets, increased efficiency and effectiveness of the commercial code and judicial system, and the restructuring of state owned enterprises.\(^6\)

Of course, there are close linkages between various parts of the economy, and improvements in the functioning of any market has spillovers to other parts. One of the key factors affecting the demand for labor in India, for example, is the reservation of a number of industries to small scale firms. These reservations, intended to protected small-scale producers from competition they presumably cannot handle from larger firms, have severe effects on many aspects of Indian economic activity: reservation penalizes successful small firms and creates a barrier to their expansion; since small-scale firms are normally labor-intensive, the inability to expand probably represents a significant deterrent to exporting in just those labor-intensive areas where Indian industry might have a considerable competitive advantage if allowed to expand (and small-scale firms suffer a number of disadvantages in export markets). Rakesh Mohan covers these, and other detrimental, effects of small-scale reservation in his chapter in this volume, so that the impact of reservation is not further considered here, although it is perhaps one of the politically easier reforms to undertake. Likewise, improvements in the flexibility and
functioning of financial markets can have positive spillover effects on exports, on the ability of competitive firms to expand, and thus on the demand for labor.

Nonetheless, if India is to achieve anywhere nearly her growth potential, it seems evident that reforms in labor laws will be essential. Attention turns next to the importance of these reforms.

**Labor Markets.** At an aggregate level, the average real wage in an economy cannot for long increase at any rate significantly different from that at which the average productivity of labor grows. Employers cannot be induced to employ workers when the wage is above the (marginal) productivity of those workers, and when real wages are high, employers hire fewer workers at high wages at the expense other workers who might find employment.

There are many determinants of labor productivity. Among them, the quality of labor is important, and is heavily influenced by the quality of education and the level of educational attainment of the labor force. Improving the “human capital” of India’s labor force (including access to health care as well as education) is clearly an important task in the years ahead. Since educational reforms are covered in this volume, they are not further considered here.

At any given time, the educational attainments and work experience of the labor force are largely a given, and as such it is conditions of employment (the amount and quality of machinery and equipment with which workers work, the efficiency of the organization in which they are employed, and so on) that influence the productivity of labor. Labor market regulations affecting those variables affect productivity, and hence, for given wages, the degree to which employers will demand labor or will instead either use machinery or produce less than they otherwise would have.

When efforts are made to regulate the labor market, policy makers face several trade-offs. They can attempt to enforce higher wages only at the cost – at least – of lower employment, and they may drive economic activity “underground” or to the “informal sector” at even lower wages. They can attempt to protect the job rights of existing workers only at the cost of encouraging employers to adopt capital-using techniques (as the advantage to hiring labor diminishes when employers must accept that they have no future flexibility) and hence reduce the number of new jobs. And, when benefits for workers (such as housing, education, and health
services) are mandated, those benefits raise employers’ costs in much the same way as wage increases do.

Indian labor regulation, which was intended to protect workers, has clearly had unintended side effects. These have included locking workers and employers into jobs (and thus both reducing labor mobility to places where it earns the highest return and discouraging employers from hiring additional workers), giving workers’ unions sufficient power so that productivity has fallen (with random and unpredictable strikes), and discouraging the development of labor-intensive industries which might otherwise have a competitive advantage in export markets.

Contrast of the evolution of the labor market in India and in East Asian countries is instructive. In East Asia, where labor laws are considerably less restrictive and flexibility in the labor market is much greater, employment in manufacturing grew at an average annual rate of 6.43 percent over the 1972-92 period, while real wages in manufacturing grew at an average annual rate of 5.3 percent. By contrast, in India, the growth rate of employment was 1.83 percent, and that of real wages 1.12 percent. Flexibility in East Asia was therefore accompanied by a more rapid growth of both employment and real wages.

Not only has regulation of the labor market discouraged the growth of employment and productivity in those activities subject to the law, but it has pushed many activities into the unorganized sector. It is estimated that the annual rate of growth of employment in the organized sector over the 1981-1991 decade was 1.58 percent, contrasted with 2.73 percent in the unorganized sector.

Job security in India also appears to be so rigid as to provide disincentives for workers, remove employers’ ability to discipline workers, and to be a major deterrent to employing new workers. In the public sector, workers “have enjoyed almost complete job security since independence”, and large private sector firms employing over 100 workers may not retrench any worker who has been employed for over 240 days without permission from the government. Even with permission, the firm must give the employee three months notice, as well as 15 days’ wages for each year of service with the employer. It is reported, however, that permission is “almost never granted”. Promotions are based almost entirely on seniority, especially in the public sector, which accounts for 70 percent of employment in the organized sector. As aptly put
by Agrawal (1997), “...Firms are not able to rationalize their operations and labour force in response to changing market conditions. Even loss making firms (referred to as ‘sick’ firms) are not allowed to close down but given subsidized credit and other facilities to continue operation. The subsidies given to the loss making firms sometimes help to keep the product prices artificially low which in turn may spread sickness to other firms in the industry as well. In addition, these subsidies give perverse incentives to become ‘sick’ and to remain ‘sick’, resulting in a huge and ever increasing drain on public resources... It also leads to valuable capital and labour resources getting locked-up in inefficient production...” (P. 162) Agrawal further notes the tendency of Indian firms to use casual and contract workers who are not protected by these laws and regulations.

While the absence of a safety net and low living standards may make total reform of the labor market extremely difficult, it is evident that a number of measures could increase flexibility: the length of time required before employees cannot be retrenched could be increased to 2-3 years; more use could be made of bonuses instead of wage increases, which would permit reduction of bonuses when firms have difficult years; a mechanism could be devised to permit employers to discipline workers for excessive absences or malfeasance in their jobs; rules governing union formation, conditions for strikes, and union responsibilities could be gradually changed to reduce the incidence of rivalry-related difficulties; and ‘sick’ firms should be permitted to exit even if some public assistance for laid-off workers is substituted.

It is difficult to estimate how much benefit would come from these reforms, especially without specifying in advance the degree of relaxation of rules that might occur. Nonetheless, it is evident that the present state of labor market regulation in India discourages the growth of employment, retards the development of export activities reliant upon the use of unskilled labor, and in fact creates a growing wedge between the privileged workers in the organized sector and the others in the informal sector.

Privatization and ‘Sick’ Enterprises. The fact that ‘sick’ enterprises cannot simply be closed down has already been mentioned. That has the effect of keeping resources in low-productivity industries or firms that could otherwise be employed elsewhere in the economy. Likewise, when public sector enterprises are loss-making (or making unacceptably low rates of return on invested capital), keeping them functioning by covering their losses from the
government revenues not only causes fiscal problems (as discussed by Srinivasan) but it also has deleterious effects on other producers.

When state-owned enterprises are effectively operating under a ‘soft’ budget constraint, any would-be entrants to the industry are confronted with the knowledge that, despite any possibility that they might be able to produce more efficiently, they may have to compete with loss-making firms who do not pay a penalty for cutting prices. Moreover, the fact that there is no strong penalty to managers of state owned enterprises or to firms that do poorly in the private sector undoubtedly serves as a disincentive.

Given the large size of India’s public sector enterprises, and the extent to which its size has swelled by acquisition of ‘sick’ enterprises, it is probable that there is room for a large improvement in productivity and efficiency of the Indian economy if means can be found for improving the efficiency of the activities carried out by these enterprises. To be sure, some enterprises will simply have to be closed down, as they may simply be uneconomic. But for many others, there are doubtless significant opportunities for efficiency improvement with appropriate managers and incentives and a relaxation of some of the restrictions (such as those on the employment of labor discussed above).

In most discussions of privatization, analysis is divided into two or three parts: 1) what is involved in privatization of small shops and other small-scale enterprises; 2) the means for privatizing state-owned enterprises that compete with either other private sector producers or with imports and 3) the problems associated with privatization of entities that have a significant degree of monopoly power.

The first category, small shops and enterprises, hardly exists in India. At any event, privatization is fairly easy and can be achieved in a reasonably short time. This has been the experience of Eastern European countries as well as those developing countries which had small-scale state-owned firms.

The second category should also be fairly easy. With competition either from other domestic firms or for imports, the chief problem is that of appropriate valuation of enterprises. Experience suggests that the gains from privatization can come about both because the new owners can achieve efficiencies the public sector cannot (as, for example, shedding workers or uneconomic locations) or by reorganizing production in a more efficient manner. Especially in
the latter case, it is difficult for would-be acquirers of public-sector enterprises to know what the new rate of profitability would be. Experience suggests that it is desirable to privatize fairly rapidly, paying more attention to providing conditions under which the newly-privatized entities can function effectively than to maximizing the amount of revenue the government gets. Of course, processes for privatizing must be transparent if the process is to be politically acceptable, but it is not possible to ascertain ex ante how much individual producers will be able to achieve productivity gains. These same considerations apply to ‘sick’ enterprises. To the extent that restructuring can enable them to survive (as for example by shedding labor), that should of course be encouraged. But clearly means must be determined by which truly sick enterprises can be permitted to cease their activities.

As of 1999, Srinivasan pointed out that the Disinvestment Commission had achieved little. 64 public sector enterprises had been referred to the Commission, which had made recommendations on 58. The recommendations in only 13 cases were or are being implemented. As Srinivasan (1999, p 10) notes, “Reducing the commission’s power and delaying actions on its recommendation send the most unfortunate signals about the disinvestment process to foreign and domestic investors who are the potential purchasers of divested equity.”

More generally, over the last decade the government has consistently fallen short of disinvestment targets by significant proportions. The average target achievement rate every year has been an abysmal 10 percent barring 1998-99, when the target was met largely due to the creation of cross-holdings among various PSUs.

It is in the third category of privatization – where there may be natural monopoly – that is the most difficult. Ironically, it is this area where India appears to have concentrated most effort to date. A number of questions can be raised as to the reasons why these – at least partial - ‘natural monopolies’ should have been subject to privatize first, or, more to the point, why privatization of the enterprises with built-in competition did not happen sooner. But, at present, partial private ownership has been established, and in some instances, new entrants have been encouraged to enter and to compete with former monopolies. But a clear definition of the framework for these activities (such as which parts will be competitors, which natural monopolists, the criteria for regulation of natural monopolists and for setting their prices, the
criteria for permitting specified percentages of foreign ownership, and so on) will certainly accelerate the rate at which infrastructure investments can increase.

5. Conclusions

The Indian economy in the year 2000 is vastly different than it was prior to the beginning of reforms in the early 1990s. Quite clearly the reforms to date have improved the functioning of the economy and permitted a higher rate of economic growth than was regarded as attainable on a sustainable basis in earlier decades.

But economic growth at rapid rates requires continuing reform efforts: a policy framework that was adequate to permit 4-5 percent growth 20 years ago would no longer sustain that growth rate, much less a higher one. And the more progress is made with reform in some sectors, the greater the payoffs to reforms elsewhere. Thus, achieving further reforms will increase the payoffs from those reforms already undertaken, but simultaneously will increase the payoffs to be achieved by still-further liberalization.

This paper has provided a brief overview of India’s development and economic policies relating to economic growth to date. It has also focused on some aspects of economic policy which are not covered by other papers in this volume. But the remaining papers in this volume also stress crucial aspects and issues to be faced by policy makers. Reducing fiscal deficits, as is discussed by Srinivasan, is desirable in order to avoid another macroeconomic crisis along the lines of 1991; but it is also desirable in order to free resources for more productive investments. Additional resources for investment, in turn, can make the challenges involved in further financial restructuring somewhat more tractable.

Likewise, if the Reservation of Small-Scale Industries policies were significantly changed, as is discussed by Rakesh Mohan, that could have a significant impact on the efficiency with which resources are used throughout the economy: some small firms would grow large enough to become significant exporters; since small firms are often labor-intensive, their expansion would provide for greater employment growth.

But more rapid growth of output and employment will also increase the returns to improving the quality and availability of education, as is discussed by Kochar and Foster and Rosenzweig.
All of these reforms will improve Indian economic performance and growth. In so doing, they will make investing in India, by Indians and by foreigners, more attractive. But, as discussed in the paper by Annalee Saxenian and the contributions of Naushad Forbes, Narayan Murthy, and others, there are also many bureaucratic processes and red tape whose removal could improve economic efficiency, providing scope for yet further efficiency gains.

Hence, all of the discussion in this volume focuses on areas of Indian economic policy reforms where policy changes could have potentially sizable effects on growth and living standards. Even if all of these reforms, and more, were carried out and the Indian economy were to achieve an 8-10 percent growth rate over the next decade, there would still be room, ten years hence, for another conference which considered further reforms to sustain and accelerate growth. The question is not whether further reforms will be on the agenda: it is whether reforms will take place fast enough to accommodate an 8-10 percent annual rate of growth, or whether, instead, they will proceed at a sufficiently relaxed pace so that 5-6 percent growth will be the norm.
Table I. Comparative Per Capita Incomes and Growth Rates, Selected Asian Countries, First Quarter Century of Development (1974 constant prices)

<table>
<thead>
<tr>
<th>Country</th>
<th>Per Capita Income 1950</th>
<th>Growth Rate, 1950-74</th>
<th>Per Capita Income 1974</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burma (Myanmar)</td>
<td>57</td>
<td>2.3</td>
<td>100</td>
</tr>
<tr>
<td>China, Peoples’ Republic</td>
<td>113</td>
<td>4.2</td>
<td>320</td>
</tr>
<tr>
<td>India</td>
<td>95</td>
<td>1.5</td>
<td>138</td>
</tr>
<tr>
<td>Indonesia</td>
<td>103</td>
<td>2.0</td>
<td>169</td>
</tr>
<tr>
<td>Malaysia</td>
<td>350</td>
<td>2.6</td>
<td>665</td>
</tr>
<tr>
<td>Philippines</td>
<td>168</td>
<td>2.8</td>
<td>340</td>
</tr>
<tr>
<td>South Korea</td>
<td>146</td>
<td>5.1</td>
<td>504</td>
</tr>
<tr>
<td>Taiwan</td>
<td>224</td>
<td>5.3</td>
<td>817</td>
</tr>
<tr>
<td>Thailand</td>
<td>132</td>
<td>3.6</td>
<td>319</td>
</tr>
</tbody>
</table>

Table 2. Indian Export Performance 1950 to 1997

<table>
<thead>
<tr>
<th>Period</th>
<th>Exports Average Annual Growth Rate Over Period</th>
<th>Imports</th>
<th>Exports Percent of GDP</th>
<th>Imports</th>
<th>Share of India’s Exports in World Exports (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-1960</td>
<td>0.7</td>
<td>8.6</td>
<td>6.3</td>
<td>8.0</td>
<td>1.4</td>
</tr>
<tr>
<td>1961-1970</td>
<td>4.6</td>
<td>0.3</td>
<td>4.2</td>
<td>5.8</td>
<td>0.9</td>
</tr>
<tr>
<td>1971-1980</td>
<td>6.8</td>
<td>8.7</td>
<td>5.8</td>
<td>6.7</td>
<td>0.5</td>
</tr>
<tr>
<td>1981-1990</td>
<td>6.1</td>
<td>3.9</td>
<td>6.5</td>
<td>8.4</td>
<td>0.5</td>
</tr>
<tr>
<td>1991-1997</td>
<td>11.4</td>
<td>14.4</td>
<td>9.9</td>
<td>10.6</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Notes:
1. Growth rate of exports and imports was computed using a volume index based on data for export and import values and unit value indices given by the International Monetary Fund in International Financial Statistics.
2. Exports and imports as a percentage of GDP represent exports of goods and services. Other data are for merchandise trade alone.
3. The percentage constituted by Indian exports of world exports was calculated as an average over the period. In 1997, Indian merchandise exports were 0.63 percent of world exports.
Table 3. Macroeconomic Imbalances during the 1980s (all numbers are percentages)

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Expenditures/GDP</th>
<th>Government Revenues/GDP</th>
<th>Fiscal Deficit/GDP</th>
<th>Current Account Deficit/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>18.3</td>
<td>11.8</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>17.8</td>
<td>12.3</td>
<td>5.6</td>
<td></td>
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<tr>
<td>1982</td>
<td>18.6</td>
<td>12.6</td>
<td>6.0</td>
<td>-1.3</td>
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<tr>
<td>1983</td>
<td>18.7</td>
<td>12.3</td>
<td>6.4</td>
<td>-1.0</td>
</tr>
<tr>
<td>1984</td>
<td>20.3</td>
<td>12.7</td>
<td>7.6</td>
<td>-1.2</td>
</tr>
<tr>
<td>1985</td>
<td>22.3</td>
<td>13.8</td>
<td>8.5</td>
<td>-2.0</td>
</tr>
<tr>
<td>1986</td>
<td>23.7</td>
<td>14.4</td>
<td>9.3</td>
<td>-2.0</td>
</tr>
<tr>
<td>1987</td>
<td>22.8</td>
<td>14.4</td>
<td>8.4</td>
<td>-2.0</td>
</tr>
<tr>
<td>1988</td>
<td>22.2</td>
<td>14.1</td>
<td>8.1</td>
<td>-2.5</td>
</tr>
<tr>
<td>1989</td>
<td>22.7</td>
<td>14.8</td>
<td>7.9</td>
<td>-2.4</td>
</tr>
<tr>
<td>1990</td>
<td>21.6</td>
<td>13.5</td>
<td>8.1</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

Note: Government expenditures include center lending to states.

Table 4. Fiscal Stance After the Reforms

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Expenditures/GDP</th>
<th>Government Revenues/GDP</th>
<th>Fiscal Deficit/GDP</th>
<th>Current Account Deficit/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>20.4</td>
<td>14.5</td>
<td>5.8</td>
<td>-1.6</td>
</tr>
<tr>
<td>1992</td>
<td>20.0</td>
<td>14.2</td>
<td>5.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>1993</td>
<td>18.9</td>
<td>11.8</td>
<td>7.0</td>
<td>-0.7</td>
</tr>
<tr>
<td>1994</td>
<td>18.4</td>
<td>12.7</td>
<td>5.6</td>
<td>-0.5</td>
</tr>
<tr>
<td>1995</td>
<td>16.8</td>
<td>12.6</td>
<td>5.1</td>
<td>-1.5</td>
</tr>
<tr>
<td>1996</td>
<td>16.9</td>
<td>12.6</td>
<td>4.9</td>
<td>-1.5</td>
</tr>
<tr>
<td>1997</td>
<td>18.4</td>
<td>12.6</td>
<td>5.8</td>
<td>-0.7</td>
</tr>
<tr>
<td>1998</td>
<td>17.6</td>
<td>12.3</td>
<td>5.3</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Notes: Government expenditures are central government expenditures including loans (net of repayments) to the states. Government revenue, expenditure, and deficit figures for 1997 and 1998 are preliminary.

Table 5. Macroeconomic Indicators, 1980s and 1990s

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of Growth of Real GDP</th>
<th>Rate of Inflation</th>
<th>Investment/ GDP</th>
<th>Current Account Deficit/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-85</td>
<td>5.4</td>
<td>6.8</td>
<td>22.8</td>
<td></td>
</tr>
<tr>
<td>1986-90</td>
<td>6.3</td>
<td>7.4</td>
<td>23.9</td>
<td>-2.2</td>
</tr>
<tr>
<td>1991</td>
<td>0.4</td>
<td>13.5</td>
<td>22.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>1992</td>
<td>5.5</td>
<td>11.9</td>
<td>24.0</td>
<td>-1.6</td>
</tr>
<tr>
<td>1993</td>
<td>4.8</td>
<td>7.5</td>
<td>21.3</td>
<td>-0.7</td>
</tr>
<tr>
<td>1994</td>
<td>7.4</td>
<td>10.5</td>
<td>23.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>1995</td>
<td>7.6</td>
<td>9.3</td>
<td>26.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>1996</td>
<td>7.0</td>
<td>5.9</td>
<td>21.9</td>
<td>-1.5</td>
</tr>
<tr>
<td>1997</td>
<td>4.5</td>
<td>5.2</td>
<td>23.4</td>
<td>-0.7</td>
</tr>
<tr>
<td>1998</td>
<td>6.8</td>
<td>6.9</td>
<td>21.8</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

REFERENCES


World Bank, various years, *World Development Reports (WDRs)*, World Bank, Washington, D.C.


3 See for example, Nehru’s (1958, P. 402) address to Congress in 1936: “I believe in the rapid industrialization of the country; and only thus, I think, will the standards of the people rise substantially and poverty be combated.”

4 Data are from OECD (1967) and Government of India, Central Statistical Organization (1967), and refer to 1950-51.

5 See the discussion by Chakravarty (1987). Sir Arthur Lewis had first articulated the view that increasing the rate of savings, and thus presumably of capital formation, was the central challenge for raising the rate of growth from earlier very low levels to satisfactory levels in all developing countries.

6 See Bhagwati and Desai (1970), especially Chapter 6.

7 Officials issuing investment licenses therefore kept track of the amount of additional capacity that was to be built under the Plan. Once licenses had been issued in that amount, no more were given. This led some to obtain licenses in order to preclude their competitors’ increases in capacity, although they had no intention of using the entire permitted capacity increase themselves.

8 In later years, these restrictions were somewhat relaxed. At first, production of up to 125 percent of the licensed amount was permitted. Thereafter, further liberalization occurred. For example, starting in 1975, 15 engineering industries were granted automatic approval for increases in licensed capacity at the rate of 5 percent per year, over and above the 125 percent rule. In the 1980s, the 125 percent rule was amended to 133 percent of best past production. See Ahluwalia (1985), and Government of India, *Economic Survey*, various issues.

9 See Bhagwati and Srinivasan (1975), Part III, for a full discussion of the failure of the 1966 devaluation.

10 It was also widely believed that there had been a considerable amount of “false” exports where nonexistent exports were reported in order to receive the export subsidy. When the subsidy was eliminated, false recording stopped and so recorded exports dropped. Whether “actual” exports dropped is more problematic.

11 In the case of steel, private steel companies were even taxed to help finance public sector steel production.


This estimate is from Ahluwalia, M. (1999), P. 2.

The estimated rate of population growth between 1965 and 1980 was 2.3 percent; between 1980 and 1990 it was 2.1 percent; it subsequently has fallen further and is put at 1.8 percent for the 1990-1997 period. Estimates are from World Bank, *World Development Reports*, various years.

Data are from Tendulkar (1998), Pp. 288-290. These numbers are based on the Planning Commission’s criterion that monthly total per capita expenditures of less than Rs. 49 (rural) and Rs. 57 (urban) in 1973-74 prices constituted poverty.

There is evidence that the various poverty indicators all rose somewhat during the crisis and its immediate aftermath. However, preliminary data from the National Council of Applied Economic Research suggest that the number in poverty dropped sharply once growth accelerated in the mid-1990s. The poverty gap indicator for the rural areas is estimated to have risen from .032 in 1990-91 to .042 in 1992 before falling back to .031 in 1993-94 (the latest year for which data are presented) while the urban poverty gap is estimated to have stood at .033 in 1990-91, risen to a peak of .036 in 1993, and then fallen to .026 in 1994. See Indira Gandhi Institute of Development Research (1997), P. 64.


Ahluwalia (1991), Tables 3.1 and 3.2.

See Bardhan (1984), P. 102.


Small-scale reservation continues to this day. It has a number of significant negative consequences, in part because small-scale industry is normally labor-intensive and could potentially successfully export, but the necessary expansion is not possible. The effects of reservation are not analyzed in detail in this paper because they are the focus of the paper by Rakesh Mohan in this volume.

The political reaction in India to inflation seems stronger than that in many countries. One hallmark of the Indian economy until the 1980s had been the low rate of inflation and the relatively conservative fiscal policy. It is likely that there would have been a strong political imperative to reduce excess demand and bring down the rate of inflation in 1991 even if there had not been balance of payments difficulties.

The initial level of the primary deficit (not including debt service) was lower but the proportionate reduction was about the same. See Joshi and Little (1996), Chapter 2 and Srinivasan (2001, this volume) for particulars.

One of the many reason for concern with the fiscal situation is the infrastructure deficit. Although the GOI intends to attract private foreign investment to support infrastructure development, it is clear that much infrastructure expenditure must be financed by the government. Since there is obviously an upper bound on government expenditures, expenditures on subsidies will obviously reduce the resources available for financing the expansion of infrastructure capacity and the improvement of services from it.
29 See the paper by Forbes in this volume for an analysis of how the private sector was affected by the elimination and/or relaxation of some controls.

30 Policy makers pointed out that the pace of reforms was such that there was no year in which real income actually fell.

31 Joshi and Little (1996), P.63.

32 In the initial stage of reforms, a dual exchange rate system was introduced under which there was a free market which was used for most transactions and a controlled rate which was used for certain categories of imports. See IMF (1992).

33 It was at this time that 100 percent foreign ownership of power projects came to be permitted.

34 Joshi and Little (1996), P. 113, tell us that in 1991 24 percent of the advances of public sector banks were non-performing.

35 Joshi and Little (1996), P. 113.

36 The vital importance of the quality of bank lending for economic growth has been better appreciated since the Asian financial crisis of 1997-98. Especially in countries such as India, in which banks account are a very large proportion of finance for economic activity, the quality of their lending directly and importantly affects the rate of growth.

37 Reserve Bank of India (1999).

38 One purpose of interest rate ceilings was to make it low cost to finance the government’s borrowing requirements. Changing these procedures after 1991 was of great importance, and constituted a major reform. It is not further dwelt on here because the crucial changes have already been effected.

39 Reserve Bank of India Website.

40 Reserve Bank of India (1999).

41 Of course, the major factor is the high demand for bank loans relative to supply, given that banks are constrained to place such a high fraction of their resources in government paper.

42 See the paper by Srinivasan (this volume) for a thorough exploration of the fiscal position and the relationship between the budget of the Center and total government expenditures and revenues.

43 This reduction in the fiscal deficit undoubtedly had a number of effects. Among them, it permitted the unfreezing of interest rates without undue increases in them. Had the fiscal deficit remained at earlier levels, either monetary policy would have had to be tightened with (probably unacceptable) pressure for higher interest rates or the rate of inflation would have accelerated rapidly.

44 Of course, even if adverse international circumstances do occur, those countries whose economies are most flexible will best be able to cope.

45 The Times of India, “Doors Now Wide Open For Consumer Goods Imports”, P. 1. It was also announced that special economic zones (SEZs) would be established outside of Indian customs jurisdiction in an effort to spur exports. These zones, however, were to be subject to Indian labor laws.


Much of Hong Kong’s early success as an exporter is attributed to the ability of buyers in other countries to obtain reliable delivery on short notice. See Morawetz (1981).

Data in the next several paragraphs are from India Infrastructure Report (1996).


The World Bank estimates the of the 27 cities in Asia with population over 1 million, India’s four largest cities are among the five worst in terms of water availability, and that 1.5 million children under the age of 5 die annually from water-borne diseases (as reported in Financial Times, March 17, 2000). 150 million households are still without electricity, and 2.8 million people are still awaiting telephone connections. Half of all villages are not yet connected by all weather roads, and the traffic fatality rate is estimated to be 25 times that in the U.S. (Electricity information is from India Today, January 31, 2000. Telephone information is from International Telecommunications Union, 1998. Road information is from Indira Gandhi Institute of Development Research (1997)).

Data are from United Nations, Energy Statistics Yearbook, various years. In 1975, India generated 143 kilowatt hours per capita contrasted with China’s 173, Egypt’s 279 and Korea’s 151; in 1995, the comparable figures were 448 for India, 839 for China, 787 for Egypt, and 4567 for Korea.

It is estimated that the State Electricity Boards (SEBs) have plant load factors of between 55 and 60 percent, contrasted with private and central power sector plants which run close to 70 percent. Simply raising the load factors by 10 percentage points would increase the supply from SEBs by about 18 percent. In addition, it is estimated that India suffered transmission and distribution losses of 18 percent in 1990, well above the international standard of 10 percent, and greater than those of any other countries reported except Nigeria and Bangladesh.

Data are from Government of India, Ministry of Finance (2000).

For instance, the tenuous financial position of the Maharashtra State Electricity Board (MSEB) has meant that it has, on occasion, defaulted on its payments to the local subsidiary of the U.S. power company, Enron, and has had to be bailed out by the state and central government.

Ahluwalia (1998), P. 103, for example, cites telecommunications reforms as a relative success.

Srinivasan (1999), P. 62.


Efforts at rebalancing tariffs on the part of TRAI, thus far, have inevitably led to conflicts between TRAI and DoT. But, as concluded by Srinivasan (1999, P. 63), “For Indian telephony to grow and be efficient, someone has to set the right prices in uncompetitive markets, and manage the process by which companies interconnect with each other so that multiple systems can still operate together as a single national telecommunications system. A respected, independent regulator is necessary to absorb and deflect all of the short-term political heat that naturally is created…”

These estimates are reported in the IIR. It should be noted that these estimates are costs to existing importers and exporters and do not include the exports and imports that do not occur because of the port situation.
Further reforms in the financial and other sectors are also highly desirable, but probably not of such pressing importance as beginning to change the labor market and state-owned-enterprise structures.

Any 10 percent of employees have a right to form a union in India. This was a reform from the rule prior to 1991 which permitted any 7 employees to form a union. Even with the 10 percent rule, this permits a large number of unions, rivalries between them, unpredictability of strikes (called by various unions), and an inability of management to establish meaningful dialogues with union leaders (who change frequently). Agrawal (1997) reports that, based on ILO statistics, over the periods 1972-81 and 1982-92, India lost an average of 4.07 and 5.74 workdays per employee due to strikes, contrasted with 0.08 and 0.010 days in Thailand for the same periods, and 0.333 and 0.168 for France, although he notes that the number of days lost to strikes declined somewhat in the mid 1990s.

The material in this section is drawn from Agrawal (1997), pp. 156 ff.

Agrawal (1997), P. 161.

Agrawal (1997), P. 161.

Srinivasan (1999), P. 8, believes that some industries facing competition from imports should receive moderate tariff protection for a period of time after privatization, although he also notes the desirability of rapid reduction in the rates of import duty.