

Policy Analysis

No. 554

November 7, 2005

Routing

The Triumph of India's Market Reforms The Record of the 1980s and 1990s

by Arvind Panagariya

Executive Summary

India is popularly viewed as having initiated the process of liberal reforms and the embrace of outward-oriented trade policies starting with the adoption of a major reforms package in July 1991. Subsequently, from 1992 to 2002, India's gross domestic product grew at the impressive annual rate of 6.1 percent. That rate contrasted with the so-called Hindu rate of growth of approximately 3.5 percent during the first three decades of India's economic development. There was also a substantial reduction in poverty during the 1990s. As such, observers have generally seen the Indian experience during the 1990s and beyond as strong evidence that outward-oriented trade policies and pro-market reforms generated large benefits for the people of that country.

A skeptical view has emerged recently, however, which argues that the growth rate in India had shifted in the 1980s, making it impossible to credit reforms with the improved performance of India. If those skeptics were right, it would be a major blow to liberal trade and market-friendly policies, not only with respect to India but to developing countries around the world. But a

closer look reveals that the story is more complex than the skeptics would have us believe.

Three specific points emerge from a detailed analysis. First, growth during the 1980s was patchy, with the last three years contributing 7.6 percent annual growth. Without those three years, growth in the 1980s would look, at best, marginally better than that of the previous three decades. Second, the high growth in the last three years of the 1980s was, in fact, preceded or accompanied by significant liberalization under Prime Minister Rajiv Gandhi, who had vowed to take India into the 21st century when he first took office in 1984. Finally, growth was stimulated partially by expansionary policies that involved accumulation of a large external debt and that ended in an economic crisis. In the end, it was the 1991 market reforms and subsequent liberalizing policy changes that helped sustain growth.

India can still do much to improve its economic performance. For example, India lags behind China largely because India's relatively small industrial sector is hobbled, a problem that must be fixed through a further reduction in tariffs, privatizations, and other liberal measures.

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The debate about Indian growth has implications for the overall debate on globalization.

Introduction

Although public opinion in India continues to move toward the view that liberalization has been good and should be ramped up, the view in some scholarly and policy circles has turned skeptical. Some such observers now argue that the average annual growth rate of gross domestic product (GDP) had hit the 5.6 percent mark in the 1980s, well before the launch of the July 1991 reforms. The growth rate in the 1990s was not much higher. Therefore, critics charge, liberalization cannot be credited with having made a significant difference to growth in India.¹

This paper may seem narrowly focused on India's path to greater wealth. But the debate about Indian growth has implications for the overall debate on globalization and the appropriateness of reforms in other developing nations. A proper evaluation of the Indian case shows the key role that liberal reforms, including in trade and regulation, play in promoting and sustaining rapid economic development in poor countries.

Economic historian J. Bradford DeLong expressed the skeptical view that

the acceleration of economic growth began earlier, in the early or mid-1980s, long before the exchange crisis of 1991 and the shift of the government of Narasimha Rao and Manmohan Singh toward neoliberal economic reforms.

Thus apparently the policy changes in the mid- and late-1980s under the last governments of the Nehru dynasty were sufficient to start the acceleration of growth, small as those policy reforms appear in retrospect. Would they have just produced a short-lived flash in the pan—a decade or so of fast growth followed by a slowdown—in the absence of the further reforms of the 1990s? My hunch is that the answer is yes. In the absence of the second wave of reforms in the 1990s it is unlikely that the rapid growth of the second half of the 1980s could be sustained. *But hard evidence to*

*support such a strong counterfactual judgment is lacking.*²

Harvard University economist Dani Rodrik carries DeLong's skepticism to the next level:

J. Bradford DeLong shows that the conventional account of India . . . is wrong in many ways. He documents that growth took off not in the 1990s, but in the 1980s. What seems to have set off growth were some relatively minor reforms. Under Rajiv Gandhi, the government made some tentative moves to encourage capital-goods imports, relax industrial regulations, and rationalize the tax system. The consequence was an economic boom incommensurate with the modesty of the reforms. Furthermore, DeLong's back-of-the-envelope calculations suggest that the significantly more ambitious reforms of the 1990s actually had a smaller impact on India's long-run growth path. DeLong speculates that the change in official attitudes in the 1980s, towards encouraging rather than discouraging entrepreneurial activities and integration into the world economy, and a belief that the rules of the economic game had changed for good, may have had a bigger impact on growth than any specific policy reforms.³

It is not entirely clear what *policy* message is to be gleaned from this skepticism. Neither DeLong nor Rodrik suggests that the reforms of the 1990s were detrimental to the growth process. DeLong explicitly states that in the absence of the second wave of reforms in the 1990s, it is unlikely that the rapid growth of the second half of the 1980s could have been sustained. Rodrik is more tentative, emphasizing the change in official *attitudes* over the change in *policies*, possibly implying that because the attitudes changed for good, growth would have been sustained even without the reforms of the 1990s.⁴ In this paper, I

Table 1
Annual Growth Rates of GDP, 1951–2003

Year	Growth Rate	Year	Growth Rate	Year	Growth Rate
1951–52	2.3	1969–70	6.5	1987–88	3.8
1952–53	2.8	1970–71	5.0	1988–89	10.5
1953–54	6.1	1971–72	1.0	1989–90	6.7
1954–55	4.2	1972–73	-0.3	1990–91	5.6
1955–56	2.6	1973–74	4.6	1991–92	1.3
1956–57	5.7	1974–75	1.2	1992–93	5.1
1957–58	-1.2	1975–76	9.0	1993–94	5.9
1958–59	7.6	1976–77	1.2	1994–95	7.3
1959–60	2.2	1977–78	7.5	1995–96	7.3
1960–61	7.1	1978–79	5.5	1996–97	7.8
1961–62	3.1	1979–80	-5.2	1997–98	4.8
1962–63	2.1	1980–81	7.2	1998–99	6.5
1963–64	5.1	1981–82	6.0	1999–00	6.1
1964–65	7.6	1982–83	3.1	2000–01 (P)	4.4
1965–66	-3.7	1983–84	7.7	2001–02 (Q)	5.6
1966–67	1.0	1984–85	4.3	2002–03 (Q)	4.4
1967–68	8.1	1985–86	4.5		
1968–69	2.6	1986–87	4.3		

Note: P=Provisional Estimate; Q=Quick Estimate

Source: Author’s calculations based on Government of India, *Economic Survey 2002–03*, Table 1.2.

demonstrate that the skeptical view overstates the growth of the 1980s and understates the reforms of that time.

The Fragility of Growth in the 1980s

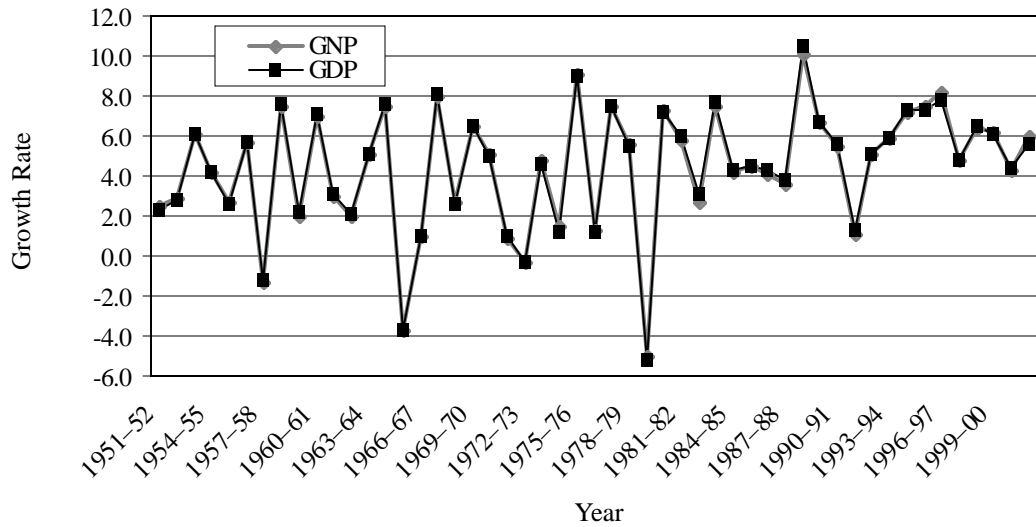
In comparing the performance prior to the July 1991 reforms with that following them, the conventional practice is to draw the line at 1990–91 and thus divide the time period into the decades of 1980s and 1990s. But, because 1991–92 was the crisis year and the 1991 reforms were a response to, rather than the cause of, the crisis, the conventional practice creates a serious distortion. The July 1991 reforms and subsequent changes could not have begun to bear fruit prior to 1992–93. (See Table 1 for yearly growth rates from 1951 to 2003.)

Therefore, for the purpose of this paper, I take 1991–92 as the dividing line between the two periods. The period following the 1991 reforms is defined as starting in 1992–93 and lasting through 2002–03, the 11-year period for which data are available. The pre-1991 period precedes that time range, with the starting date left vague at this point. Though it may be argued that the June 1991 crisis was the result of the policies of the pre-1991 period and that, therefore, the year 1991–92 legitimately belongs in it, where appropriate, I present the analysis with and without this year included in the pre-1991 reform period. *Throughout the paper, unless otherwise stated, the terms “1980s” and “1990s” refer to the pre- and post-1991 reform periods as per the definitions above.*

It is difficult to pinpoint the timing of the upward shift in India’s growth rate (see Figure 1).⁵ Fortunately, however, two impor-

In 1988 anyone looking back at the 10-year experience would have concluded that India was still on the Hindu growth path.

Figure 1
Annual Growth Rates: GNP and GDP



Growth was more fragile in the 1980s than in the 1990s.

tant related facts remain valid regardless of which starting date we choose. First, the years 1988-91, during which the economy grew at the high average annual rate of 7.6 percent, are critical to obtaining an average growth rate during the 1980s that is comparable to

the growth rate in 1990s. Second, the variance of growth rates during the 1980s is significantly higher than that of the 1990s. In this sense, growth during the first period was fragile relative to that in the second and, indeed, culminated in the June 1991 crisis.

Table 2
Average Annual Growth Rates during Selected Periods

Period	Growth Rate
Prior to the Shift in Growth Rate	
1951-52 to 1973-74	3.6
Pre-1991 Reform Period	
1981-82 to 1990-91	5.7
1981-82 to 1991-92	5.3
1977-78 to 1990-91	5.1
Memo	
1974-75 to 1978-79	4.9
1978-79 to 1987-88	4.1
1981-82 to 1987-88	4.8
1988-89 to 1990-91	7.6
Post-1991 Reform Period	
1992-93 to 2001-02	6.1
1992-93 to 2002-03	5.9

Source: Calculated from Table 1.

Table 2 offers the average growth rates for several selected periods. The average annual growth rate during the 11-year period from 1992–93 to 2002–03 that I have defined as the post–1991 reform period (the “1990s”) is 5.9 percent. One obvious criterion for defining the pre–1991 reform period (the “1980s”) is to select 11 years from 1981–82 to 1991–92. The average annual growth rate during that period is 5.3 percent. If we remove the year 1991–92 from the calculation, the average growth rate rises to 5.7 percent.⁶ Either way, growth rates between the 1980s and 1990s are comparable.

But consider the annual average growth rates until 1987–88. For the 10-year period from 1978–79 to 1987–88, the average growth rate is an unimpressive 4.1 percent. In 1988 anyone looking back at the 10-year experience would have concluded that India was still on the Hindu growth path. Indeed, even limiting ourselves to the period from 1981–82 to 1987–88, we get an average growth rate of only 4.8 percent, which is below the growth rate of 4.9 percent achieved during the Fifth Five-Year Plan. Thus, had it not been for the unusually high growth rate of 7.6 percent during 1988–91, we will not have the reason to debate whether the reforms of the 1990s made a significant contribution to growth. The

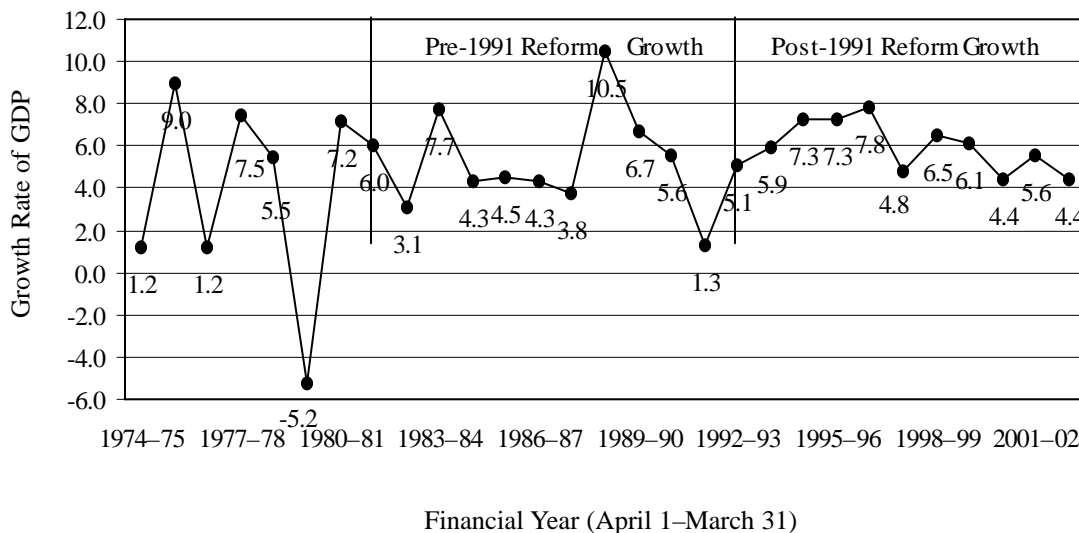
implication is that any explanation of growth in the 1980s must explain the exceptionally high growth during 1988–91.

This discussion suggests that growth during the 1980s was subject to high variance. The point is also apparent in the data plotted in Figure 2. The growth path is visibly more volatile in the 1980s than in the 1990s. More importantly, we can test the hypothesis formally.⁷ The conclusion that growth was more fragile in the 1980s than in the 1990s is supported unequivocally by the data.

What were the sources of the shift in the growth rate in the 1980s, especially the period from 1988 to 1991? In the following sections, I argue that two broad factors account for much of the spurt. First, liberalization played a significant role. On the external front, policy measures such as import liberalization, export incentives, and a more realistic real exchange rate contributed to productive efficiency. On the internal front, freeing up of several sectors from investment licensing reinforced import liberalization and allowed faster industrial growth. Second, both external and internal borrowing allowed the government to maintain high levels of public expenditures and thus boost growth through demand. Unfortunately,

By the mid 1970s, industrialists started pressing the government for the relaxation of controls.

Figure 2
Yearly Growth Rates of GDP



The pre-1991 reforms were introduced quietly and without fanfare.

these factors carried with them the seeds of the June 1991 macroeconomic crisis that brought the economy to a grinding halt.⁸

Connection to Liberalization

To appreciate the role of liberalization in stimulating growth in the 1980s, it is useful to begin with a brief background on import controls in India. In their pioneering study, Jagdish Bhagwati and Padma Desai of Columbia University provide the most comprehensive and systematic documentation of the wide sweep of the interventionist policies that had come to exist by the late 1960s.⁹ As they note, general controls on all imports and exports had been present since 1940. After India's independence in 1947, import controls were relaxed through the expansion of the Open General Licensing¹⁰ list in a stop-go fashion, with the First Five Year Plan (1951–56) representing a period of “progressive liberalization.”¹¹ But a foreign exchange crisis in 1956–57 put an end to this phase of liberalization, and comprehensive import controls were restored and maintained until 1966. In June of that year, under pressure from the World Bank, India devalued the rupee from 4.7 rupees to 7.5 rupees per dollar. The 57.5 percent devaluation was accompanied by some liberalization of import licensing and cuts in import tariffs and export subsidies for approximately a year. But by 1968 intense domestic reaction to the devaluation led India to turn inward with vengeance.¹² Almost all liberalizing initiatives were reversed and import controls tightened. This regime was consolidated and strengthened in the subsequent years and remained more or less intact until the beginning of a period of phased liberalization in the late 1970s.

According to economist Gary Pursell, the severity of the controls was reflected in a decline in the proportion of non-oil and non-cereal imports from a low of 7 percent in 1957–58 to the even lower level of 3 percent in 1975–76.¹³ Since consumer goods imports had been essentially banned, the incidence of this decline was principally borne by machinery,

raw material, and components. The impact on the pattern of industrialization and efficiency was visible. Pursell offers a description of the costs to the economy:

During this period, import-substitution policies were followed with little or no regard to costs. They resulted in an extremely diverse industrial structure and high degree of self-sufficiency, but many industries had high production costs. In addition, there was a general problem of poor quality and technological backwardness, which beset even low-cost sectors with comparative advantage such as the textiles, garment, leather goods, many light industries, and primary industries such as cotton. . . . Although import substitution reduced imports of substitute products, this was replaced by increased demand for imported capital equipment and technology and for raw materials not domestically produced or in insufficient quantities. During the 1960s and the first half of the 1970s, the former demand was suppressed by extensive import substitution in the capital goods industries and attempts to indigenize R&D. By about 1976, however, the resulting obsolescence of the capital stock and technology of many industries was becoming apparent, and a steady liberalization of imports of capital equipment and of technology started soon after.¹⁴

Two factors facilitated the emergence of the liberalization phase. First, as suggested in Pursell's quote above, by the mid 1970s, industrialists were beginning to find the strict regime counterproductive and started pressing the government for the relaxation of controls. A domestic lobby in favor of liberalization of imports of raw materials and machinery had come to exist. At the same time, in the case of raw material and machinery imports that had no import substitutes, there was no counter lobby. Second, improved export performance and remittances

Table 3
Average Annual Growth Rates of Non-Oil Merchandise Exports and Imports in Current Dollars

Year	Exports	Imports
1970–71 to 1974–75	16.2	17.8
1975–76 to 1979–80	13.7	12.3
1980–81 to 1984–85	1.2	7.1
1985–86 to 1989–90	14.4	12.3

Source: Author’s calculations from the data in the Reserve Bank of India, *Statistical Handbook, 2001* (Table 115). RBI cites its source as the directorate general of commercial intelligence and statistics.

from overseas workers in the Middle East had led to the accumulation of a comfortable level of foreign exchange reserves. These reserves lent confidence to policymakers and bureaucrats who had lived in the perpetual fear of a balance of payments crisis.

Against this background, consider successively the reforms undertaken starting in the late 1970s and their impact on the economy.

Reforms of the 1980s

In view of the continuing dominance of leftist ideology in India, the pre-1991 reforms were introduced quietly and without fanfare. Therefore, the term “liberalization by stealth,” often used to describe them, is fully justified. Yet, this description gives the misleading impression that the reforms were marginal or inconsequential to the growth performance. As I will argue below, the reforms were deeper than is generally appreciated and had a distinct impact on the growth rate in the 1980s.

Although the relaxation of industrial regulation began in the early 1970s and trade liberalization began in the late 1970s, the pace of reform picked up significantly only in 1985. Major changes were announced between 1985 and 1988, with the process continuing to move forward thereafter. Indeed, during the latter period, liberalization had begun to take a somewhat activist form. In turn, GDP growth and the external sector registered a dramatic improvement in performance. As already noted, GDP grew at an annual rate of 7.6 percent from 1988–89 to 1990–91. Exports, which had grown

annually at a paltry rate of 1.2 percent during 1980–85, registered a hefty annual growth of 14.4 percent during 1985–90 (Table 3).

Broadly, the reforms of the 1980s, which were largely in place by early 1988, can be divided into five categories. First, the Open General Licensing list was steadily expanded. Having disappeared earlier, the list was reintroduced in 1976, with 79 capital goods items on it. The number of capital goods items on the list expanded steadily, reaching 1,007 by April 1987, 1,170 by April 1988, and 1,329 by April 1990. At the same time, intermediate inputs (used to produce other goods) were placed on the list, and their number expanded steadily over the years. Based on the best available information, this number had reached 620 by April 1987 and increased to 949 in April 1988. According to Pursell, “imports that were neither canalized [monopoly rights of the government for the imports of certain items] nor subject to licensing (presumably mainly OGL imports) increased from about 5 percent in 1980–81 to about 30 percent in 1987–88.”¹⁵ The inclusion of an item into the list was usually accompanied by an “exemption,” which amounted to a tariff reduction on that item. In almost all cases, the items on the list were machinery or raw materials for which no substitutes were produced at home. As such, their contribution to increased productivity was likely to be significant.

The second source of liberalization was the decline in the share of canalized imports. Between 1980–81 and 1986–87, the share of

Low or declining barriers to trade constitute a necessary condition for sustained rapid growth.

Although external debt was helping the economy grow, it was also moving it steadily toward a crash.

these imports in total imports declined from 67 to 27 percent. Over the same period, canalized non-POL (petroleum, oil, and lubricants) imports declined from 44 to 11 percent of the total non-POL imports. This change significantly expanded the room for imports of machinery and raw materials by entrepreneurs.¹⁶

Third, several export incentives were introduced or expanded, especially after 1985, which helped expand imports directly when imports were tied to exports and indirectly by relaxing the foreign exchange constraint. Replenishment (REP) licenses, which were given to exporters and could be freely traded on the market, directly helped relax the constraints on some imports. Exporters were given REP licenses in amounts that were approximately twice their import needs and, thus, provided a source of input imports for goods sold in the domestic market. The key distinguishing feature of the REP licenses was that they allowed the holder to import items on the restricted (and therefore those outside of the OGL or canalized) list and had domestic import-competing counterparts. Even though there were limits to the import competition provided through these licenses, as exports expanded the volume of these imports expanded as well. This factor became particularly important during 1985–90, when exports expanded rapidly.

In addition to a substantial widening of the coverage of products available to exporters against replenishment licenses, Vijay Joshi and I. M. D. Little of Oxford University list the following export incentives introduced between 1985–86 and 1989–90, referring to them as the “quasi-Southeast Asian style” reforms:

- In 1985, 50 percent of profits attributable to exports were made income-tax deductible; in the 1988 budget that was extended to 100 percent of export profits.
- The interest rate on export credit was reduced from 12 to 9 percent.
- In October 1986 duty-free imports of capital goods were allowed in selected export industries. In April 1988 access

for exporters to imported capital goods was increased.

- Exporters were assured that the incentives announced in the export-import policy would not be reduced for a period of three years.¹⁷

The fourth source of liberalization was a significant relaxation of industrial controls and related reforms. Several steps are worthy of mention, including an increase in delicensing, tax reform, and abolition of some controls on price and distribution (see Appendix).

The relaxation of industrial controls reinforced the ongoing import liberalization. In the presence of these controls, firms had to have an investment license before they could approach the import-licensing authority for machinery and raw-material imports. For products freed of industrial licensing, this layer of restrictions was removed. More importantly, under industrial licensing, even for products on the OGL list, machinery imports were limited by the approved investment capacity and raw material imports by the requirements implied by the production capacity. With the removal of licensing, this constraint was removed.

The final and perhaps the most important source of external liberalization was a realistic exchange rate. At least during the years of rapid growth, there is strong evidence of nominal depreciation of the rupee correcting the overvaluation of the real exchange rate. According to Pursell, both the import-weighted and export-weighted real exchange rates depreciated steadily from 1974–75 to 1978–79 with the approximate decline of the former being 30 percent and of the latter 27 percent.¹⁸ This was also a period of rapid export expansion, as discussed below, and foreign exchange reserves accumulation that paved the way for import liberalization subsequently. The years 1977–79 also registered the healthy average annual GDP growth of 6.5 percent. The real exchange rate appreciated marginally in the following two years, stayed more or less unchanged until 1984–85, and once again depreciated steadily thereafter.

Joshi and Little attribute a considerable part of the success in export expansion during the second half of the 1980s to real exchange rate management. They observe that, starting in 1986–87, Indian exports grew considerably faster than world trade and as fast as the exports of comparable developing countries.¹⁹

Impact of the Reforms

The impact of reforms could be seen most clearly on trade flows. Pursell states this succinctly and emphatically: “The available data on imports and import licensing are incomplete, out of date, and often inconsistent. Nevertheless, whichever way they are manipulated, they confirm very substantial and steady import liberalization that occurred after 1977–78 and during the 1980s.”²⁰ He goes on to note that imports outside of canalization

and licensing (i.e., those mainly on the OGL) increased from 5 percent of total imports in 1980–81 to 30 percent in 1987–88. The share of non-POL imports increased from 8 percent to 37 percent over the same period.

Quite apart from this compositional change, there was considerable expansion of the level of imports during the 1970s and the second half of the 1980s. Increased growth in exports due to the steady depreciation of the real exchange rate and remittances from the overseas workers in the Middle East had begun to relax the balance of payments constraint during the first half of the 1970s, leading to the expansion of non-oil imports at the annual rate of 17.8 percent (see Table 3). That rapid expansion continued during the second half of the 1970s with non-oil imports registering an impressive 15 percent

Reforms of the 1980s gave way to more systematic and deeper reforms in the 1990s and beyond.

Table 4
Merchandise Non-oil Exports and Imports as Percent of GDP

Year	Non-Oil Exports as Percent of GDP	Non-Oil Imports as Percent of GDP
1970–71	3.3	3.3
1971–72	3.3	3.3
1972–73	3.6	3.1
1973–74	3.8	3.7
1974–75	4.3	4.3
1975–76	4.8	4.9
1976–77	5.7	4.1
1977–78	5.3	4.4
1978–79	5.2	4.7
1979–80	5.3	4.9
1980–81	4.7	5.1
1981–82	4.5	5.0
1982–83	4.0	4.6
1983–84	3.7	5.0
1984–85	4.0	4.8
1985–86	3.7	5.3
1986–87	3.9	5.6
1987–88	4.2	5.1
1988–89	4.7	5.7
1989–90	5.5	6.0

Source: Calculated from data on exports, imports, GDP, and exchange rates in the Reserve Bank of India, *Statistical Handbook, 2001*. RBI cites its source of the trade data as the directorate general of commercial intelligence and statistics.

Today, all but a handful of goods can be imported without a license or other restrictions.

annual growth rate over the 10-year period spanning 1970–79. In contrast, in the subsequent five years when the real exchange rate appreciated slightly and the income growth slowed down, non-oil imports expanded only 7.1 percent per annum (Table 3). Again, during 1985–90, they grew 12.3 percent. Thus, liberalized licensing rules flexibly accommodated the increased demand for imports during the fast-growth periods.

Alternatively, the impact of liberalization can be seen in the movement in the imports-to-GDP ratio. Table 4 shows non-oil imports as a proportion of the GDP. In 1976–77, this ratio had bottomed out at 4.1 percent. Starting in 1977–78, fortuitously the year in which the real exchange rate depreciated substantially, this ratio began to rise, reaching 5.1 percent in 1980–81. In the subsequent years, it showed a moderate downward trend, reaching 4.8 percent in 1984–85. In 1985–86, when the Rajiv Gandhi era reforms were kicked off, the ratio began to climb up steadily again until it reached 6 percent in the year 1989–90. This rise is especially important since GDP itself grew at a relatively high rate during these years.

In an earlier paper, I have argued that low or declining barriers to trade constitute a necessary condition for sustained rapid growth.²¹ From the discussion and evidence above, it should be clear that India's experience during the 1980s is no exception to this proposition. We may quibble about the magnitude of trade and industrial liberalization during those years. But the fact is that the years of high growth have also seen a reduction in barriers to trade and a sizable expansion of non-oil exports and imports.

It is worth repeating that during the 1980s India was helped by the discovery of oil and the spread of the Green Revolution, which freed up foreign exchange for non-oil, nonfood imports. At the same time, had India not responded by opening up trade and investment rules, the opportunity offered by those developments would have been lost.

The impact of reforms is also seen in higher industrial growth. Discussing the changes

in domestic industrial policy, Ashok Desai notes, "The changes were complex and arbitrary, but they led to an acceleration of industrial growth from 4.5 per cent in 1985–86 to a peak of 10.5 per cent in 1989–90."²² The 9.2 percent rate of industrial growth during 1988–91 was particularly high compared with earlier periods.

According to B. N. Goldar and V. S. Renganathan, the import penetration ratio in the capital goods sector rose from 11 percent in 1976–77 to 18 percent in 1985–86.²³ That trend appears to have continued subsequently. R. N. Malhotra notes that the incremental capital-output ratio, which had reached as high as 6 at times, fell to approximately 4.5 during the 1980s.²⁴ These observations are consistent with the finding by Joshi and Little that the productivity of investment increased during the 1980s, especially in private manufacturing.²⁵

Satish Chand and Kunal Sen of the Australian National University have studied the relationship between trade liberalization and productivity in manufacturing during the 1973–88 period.²⁶ Table 5 presents their findings. According to their measure, and consistent with my earlier discussion, protection declines over the sample period in intermediate and capital goods sectors but not consumer goods sector. Moreover, there is a significant improvement in total factor productivity growth (TFPG) in all three sectors in 1984–88 compared with the two earlier periods. Thus, the jump in TFPG coincides with the liberalization in capital and intermediate goods.

Chand and Sen do some further tests and show that on average a 1 percent reduction in the price wedge (the difference between the Indian and U.S. price) leads to 0.1 percent rise in the total factor productivity.²⁷ For the intermediate goods sector, the effect is twice as large. The impact of the liberalization of the intermediate goods sector on productivity turns out to be statistically significant in all of their regressions.

Joshi and Little also address the issue of the shift in the growth rate. They consider

Table 5
Changes in Protection and Total Factor Productivity Growth by Industry Classification
(unweighted averages)

Industry Classification	Consumer Goods	Intermediate Goods	Capital Goods
Protection (percent change)			
1974–78	4.5	0.4	-1.8
1979–83	-1.1	1.4	1.7
1984–88	-0.4	-5.4	-4.3
Total Factor Productivity Growth (percent)			
1974–78	-0.5	-1.2	-1.6
1979–83	-1.2	-3.1	-1.5
1984–88	5.1	4.8	3.7

Source: Satish Chand and Kunal Sen, “Trade Liberalization and Productivity Growth: Evidence from Indian Manufacturing,” *Review of Development Economics* 6, no. 1 (2002).

the years 1960–61 to 1989–90, dividing them into a low-growth period (from 1960–61 to 1975–76) and a high-growth period (from 1976–77 to 1989–90). Average annual growth rates during these periods were 3.4 and 4.7 percent, respectively.²⁸ A key finding of Joshi and Little is that increased investment cannot be credited with the increase in the growth rate from 1976 to 1990 over that from 1960 to 1976:

Public real investment averaged 7.7 percent of GDP in the first period and 9.9 percent in the second period. Private real investment averaged 12.0 percent of GDP in the first period and 11.7 percent in the second period. Thus the whole of the rise in the investment level took place in the public sector (ignoring errors and omissions). However, the rate of growth of public sector GDP declined (from 7.8 to 7.2 percent a year), while that of the private sector rose (from 2.6 to 3.7 percent a year).²⁹

Joshi and Little attribute the shift in the growth rate to increased demand through fiscal expansion, more efficient use of the existing resources (due to liberalization), and

the rise in the real yield of investment in private manufacturing.³⁰

Neither Joshi and Little nor Chand and Sen separately analyze the period 1988–91, which is crucial to obtaining comparable growth rates between the 1980s and the 1990s. It stands to reason that the results of Chand and Sen would hold even more strongly for this period. The reason is that average annual industrial growth of 9.2 percent from 1988 to 1991 was significantly higher than the 6.2 percent growth achieved from 1984 to 1988. In view of the fact that private investment as a proportion of GDP did not rise, the substantially higher growth in industrial output is likely to be the result of increased productivity and therefore related to the 1980s reforms.

Unsustainable Borrowing

Although the importance of liberalization of industry and trade for the shift in the GDP growth rate during 1980s can hardly be denied, borrowing abroad and government expenditures at home also played a role. As noted above, Joshi and Little have pointed out that during the 1980s the investment-to-GDP ratio rose exclusively in the public sector while it fell in the private sector. At the

The 1990s reforms were also accompanied by the lifting of exchange controls.

Since 1991, India has also carried out a substantial liberalization of trade in services.

same time, the growth rate of public sector output actually fell. Therefore, it is difficult to argue that borrowing abroad contributed to a boost in the growth rate by boosting investment in the 1980s. Nevertheless, it likely helped raise the total GDP growth rate *indirectly* by contributing to the rise in the growth rate of private-sector output.

Thus, for example, the external borrowing helped bridge the considerable gap between exports and imports. Despite faster growth in exports than imports in the second half of the 1980s (due to a sizable initial gap), the absolute difference between imports and exports remained large. Based on the Reserve Bank of India trade data on the balance of payments accounts, total imports-to-GDP ratio exceeded the total exports-to-GDP ratio by 2.5 to 3 percentage points throughout the 1980s.³¹ Accordingly, the higher level of imports was financed partially through external borrowing.

Although foreign borrowing made a positive contribution to growth, it also led to a rapid accumulation of foreign debt, which rose from \$20.6 billion in 1980–81 to \$64.4 billion in 1989–90.³² The accumulation was especially rapid during the second half of the decade with long-term borrowing rising from the annual average of \$1.9 billion from 1980–81 to 1984–85 to \$3.5 billion from 1985–86 to 1989–2000. Moreover, “other” capital flows and errors and omissions turned from a large negative figure in the first half of the decade into a positive figure, indicating an increase in the short-term borrowing in the latter period. The external-debt-to-GDP ratio rose from 17.7 percent in 1984–85 to 24.5 percent in 1989–90. Over the same period, the debt-service ratio rose from 18 to 27 percent.

The growth in debt was also accompanied by a rapid deterioration in the “quality” of debt between 1984–85 and 1989–90. The share of nonconcessional debt rose from 42 to 54 percent. The average maturity of debt declined from 27 to 20 years. Thus, although external debt was helping the economy grow, it was also moving it steadily toward a crash.

A similar story was also evolving on the internal front. While external borrowing helped

relieve some supply-side constraints, rising current domestic public expenditures provided the stimulus to demand, particularly in the services sector. T. N. Srinivasan and Suresh Tendulkar assign much of the credit for the growth during 1980s to this demand-side factor. Defense spending, interest payments, subsidies, and the higher wages following the implementation of the Fourth Pay Commission recommendations fueled these expenditures.³³ Table 6 documents the magnitude of the expansion of current government expenditures at the federal and state levels combined during the second half of the 1980s. During the first half of the 1980s, these expenditures averaged 18.6 percent. In the second half, they rose to average 23 percent with the bulk of the expansion coming from defense, interest payments, and subsidies, of which the average rose from 7.9 to 11.2 percent of the GDP.

As with external borrowing, high current expenditures proved unsustainable. They manifest themselves in extremely large fiscal deficits. As Table 6 shows, combined fiscal deficits at the central and state levels, which averaged 8 percent in the first half of the 1980s went up to 10.1 percent in the second half. Continued large deficits led to a buildup of very substantial public debt with interest payments accounting for a large proportion of the government revenues. They also inevitably fed into the current account deficits, which kept rising steadily until they reached 3.5 percent of GDP and 43.8 percent of exports in 1990–91. The eventual outcome of these developments was the June 1991 crisis.

A Brief Look at the 1990s

The substantial yet half-hearted reforms of the 1980s gave way to more systematic and deeper reforms in the 1990s and beyond. Until 1991 restrictions were the rule and reforms constituted their selective removal according to a “positive list” approach, meaning that an item required a license unless it was on the OGL list. But starting with the July 1991 package, the absence of restrictions became the

Table 6
Fiscal Indicators: 1980–81 to 1989–90 (as percentage of GDP)

	1980–81 to 1984–85						1985–86 to 1989–90	
	(avg.)	1985–86	1986–87	1987–88	1988–89	1989–90	1990–91	(avg.)
Revenue	18.1	19.5	20	20.1	19.6	20.9	19.5	20
Current expenditure	18.6	21.4	22.6	23.1	22.7	24.8	23.9	23
Defense	2.7	3.3	3.8	4	3.8	3.6	–	3.7
Interest	2.6	3.3	3.6	4	4.2	4.6	4.8	3.9
Subsidies*	2.6	3.3	3.4	3.5	3.6	4.2	–	3.6
Capital expenditure	7.5	7.4	8.3	7	6.3	6.5	6	7.1
Total expenditure	26.1	28.8	30.9	30.1	29	31.3	29.9	30.1
Fiscal deficit	8	9.3	10.9	10	9.4	10.4	10.4	10.1

*CSO estimates.

Source: Government of India, Ministry of Finance (various issues), *Indian Economic Statistics—Public Finance*. Cited in Vijay Joshi and I. M. D. Little, *India: Macroeconomic and Political Economy: 1961–91* (Washington: World Bank, 1994).

rule, with a “negative list” approach. This meant that unless an item was explicitly on a restricted list, it could be imported without the license. While the move toward this new regime has been decidedly gradual, with the process still far from complete, the shift in the philosophy is beyond doubt.

To appreciate the wider sweep of reforms in the post-1991 crisis period, consider in detail the reforms in just two key areas: industry and external trade.

Deregulation of Industry

With a single stroke, the “Statement of Industrial Policy, July 24, 1991,” frequently called the New Industrial Policy, did away with investment licensing and myriad entry restrictions on MRTP firms (firms that fell under the Monopolies and Restrictive Trade Practices Act). It also ended public-sector monopoly in many sectors and initiated a policy of automatic approval for foreign direct investment up to 51 percent.

On licensing, the new policy explicitly stated, “industrial licensing will henceforth be

abolished for all industries, except those specified, irrespective of levels of investment.” Exception to this rule was granted to 18 industries. True to the commitment in the policy that “government’s policy will be continuity with change,” this list was trimmed subsequently until it came to include only five sectors, with all of them having justification on health, safety, or environmental grounds.³⁴

The 1991 policy statement also limited the public-sector monopoly to eight sectors selected on security and strategic grounds. All other sectors were opened to the private sector. In the subsequent years, the number of public-sector monopolies has been trimmed, and, today, only railway transportation and atomic energy remain in that category.

The New Industrial Policy did away with entry restrictions on MRTP firms. Again, the policy was notable for its unequivocal renunciation of the past approach:

The pre-entry scrutiny of investment decisions by so-called MRTP companies will no longer be required. Instead,

Within 10 years the ratio of total goods-and-services trade to GDP rose from 17.2 percent to 30.6 percent.

The most disappointing aspect of the 1990s experience has been a lack of acceleration of growth in the industrial sector.

emphasis will be on controlling and regulating monopolistic, restrictive and unfair trade practices rather than making it necessary for the monopoly house to obtain prior approval of Central Government for expansion, establishment of new undertakings, merger, amalgamation and takeover and appointment of certain directors. . . . The MRTP Act will be restructured . . . The provisions relating to merger, amalgamation, and takeover will also be repealed. Similarly, the provisions regarding restrictions on acquisition of and transfer of shares will be appropriately incorporated in the Companies Act.³⁵

Those changes are now in place.

In the area of foreign investment, the policy statement abolished the threshold of 40 percent on foreign equity investment. The concept of automatic approval was introduced whereby the Reserve Bank of India was empowered to approve equity investment up to 51 percent in 34 industries. In subsequent years, this policy was considerably liberalized with automatic approval made available to almost all industries except those subject to public-sector monopoly and industrial licensing. In the 48 industries that account for the bulk of India's manufacturing output, the ceiling for approval under the automatic route is 51 percent. In eight categories, including mining services, electricity generation and transmission, and construction of roads, bridges, ports, harbors, and runways, the automatic approval route is available for equity investments of up to 74 percent. The automatic approval of foreign direct investment up to 100 percent is given in all manufacturing activities in Special Economic Zones, except those subject to licensing or public-sector monopoly. Subject to licensing, defense is now open to the private sector for 100 percent investment, with FDI (also subject to licensing) up to 26 percent permitted.

External Trade

As mentioned, the July 1991 package made

a break from the 1980s approach of selective liberalization on the external trade front by replacing the positive list approach with a negative list approach. It also addressed tariff reform in a more systematic manner instead of relying on selective exemptions on statutory tariffs. In subsequent years, liberalization was extended to trade in services as well.

Merchandise Trade Liberalization

The July 1991 reforms did away with import licensing on virtually all intermediate inputs and capital goods. But consumer goods, accounting for approximately 30 percent of the tariff lines, remained under licensing. It was only after a successful challenge by India's trading partners in the Dispute Settlement Body of the World Trade Organization that those goods were freed of licensing a decade later, starting on April 1, 2001. Today, all but a handful of goods disallowed on environmental, health, and safety grounds and a few others that are canalized, such as fertilizer, cereals, edible oils, and petroleum products, can be imported without a license or other restrictions.

Tariff rates in India had been raised substantially during the 1980s to turn quota rents into tariff revenue for the government. For example, according to the Government of India, tariff revenue as a proportion of imports went up from 20 percent in 1980-81 to 44 percent in 1989-90.³⁶ Likewise, according to the WTO, in 1990-91, the highest tariff rate stood at 355 percent, the simple average of all tariff rates at 113 percent, and the import-weighted average of tariff rates at 87 percent.³⁷ With the removal of licensing, those tariff rates became effective restrictions on imports. Therefore, a major task of the reforms in the 1990s and beyond has been to lower tariffs. That has been done in a gradual fashion by compressing the top tariff rate while rationalizing the tariff structure through a reduction in the number of tariff bands. The top rate fell to 85 percent in 1993-94 and 50 percent in 1995-96. Although there were some reversals along the way (in the form of new special duties and unification of a low and high tariff rate to the latter), the gen-

eral direction has been toward liberalization, with the top rate coming down to 25 percent in 2003–04.

The 1990s reforms were also accompanied by the lifting of exchange controls that had served as an extra layer of restrictions on imports. As a part of the 1991 reform, the government devalued the rupee by 22 percent against the dollar, from 21.2 rupees to 25.8 rupees per dollar. In February 1992, a dual exchange rate system was introduced, which allowed exporters to sell 60 percent of their foreign exchange in the free market and 40 percent to the government at the lower official price. Importers were authorized to purchase foreign exchange in the open market at the higher price, effectively ending the exchange control. Within a year of establishing this market exchange rate, the official exchange rate was unified with it. Starting in February 1994, many current account transactions including all current business transactions, education, medical expenses and foreign travel were permitted at the market exchange rate. Those steps culminated in India accepting the International Monetary Fund's Article VIII obligations, which made the rupee officially convertible on the current account. The exchange rate has been kept flexible (though not freely floating) and has been allowed to depreciate as necessary to maintain competitiveness. It currently stands at approximately 45 rupees per dollar.

Liberalization of Trade in Services

Since 1991 India has also carried out a substantial liberalization of trade in services. Traditionally, services sectors have been subject to heavy government intervention. Public-sector presence has been conspicuous in the key sectors of insurance, banking and telecommunications. Nevertheless, considerable progress has been made toward opening the door wider to private sector participation including foreign investors.

Until recently, insurance was a state monopoly. On December 7, 1999, the Indian Parliament passed the Insurance Regulatory and Development Authority Bill, which

established that agency and opened the door to private entry, including foreign investors. Up to 26 percent foreign investment, subject to licensing by the IRDA, is permitted.

Though the public sector dominates in banking, private banks are permitted to operate, with up to 74 percent foreign direct investment (FDI) allowed. More than 25 foreign banks and approximately 150 foreign bank branches are now in operation. Under the 1997 WTO Financial Services Agreement, India committed to permitting 12 new foreign bank branches annually.

The telecommunications sector has been much more open to the private sector, including foreign investors. Until early 1990s, the sector was a state monopoly. The 1994 National Telecommunications Policy provided for opening cellular as well as basic and value-added telephone services to the private sector, including foreign investors. Rapid changes in technology led to the adoption of the New Telecom Policy in 1999, which provides the current policy framework. Accordingly, FDI is limited to 49 percent in most areas. Up to 100 percent FDI is allowed with some conditions for certain Internet service providers.

The government permits FDI up to 100 percent in e-commerce. Automatic approval is available for foreign equity in software and almost all areas of electronics. The government permits 100 percent FDI in information technology units set up exclusively for exports. Up to 100 percent FDI is permitted in the infrastructure sector, including construction and maintenance of roads, highways, bridges, tunnels, harbors, and airports.

Since 1991 there have been several unsuccessful attempts to bring the private sector, including FDI, into the power sector. The most recent attempt, the Electricity Bill of 2003, replaces the power legislations dated 1910, 1948, and 1998. The bill offers a comprehensive framework for restructuring the power sector and builds on the experience in the telecommunications sector. It attempts to introduce private-sector entry alongside public-sector entities in generation, transmission, and distribution.

The response of the economy to the reforms has been an order of magnitude weaker in India than in China.

Among developing countries, India is unique in having a very large share of its GDP in the mostly informal part of the services sector.

Impact of Liberalization

Trade liberalization had a much more visible effect on external trade in the 1990s than it did in the 1980s. The ratio of total exports of goods and services to GDP in India approximately doubled from 7.3 percent in 1990 to 14 percent in 2000. The rise was less dramatic on the import side because increased external borrowing was still financing a large proportion of imports in 1990, unlike in 2000. But the rise was still significant, from 9.9 percent in 1990 to 16.6 percent in 2000. Within 10 years the ratio of total goods-and-services trade to GDP rose from 17.2 percent to 30.6 percent.

Liberalization also had a significant effect on growth in some of the key service sectors. Overall, the average annual growth rate in the service sector shifted from 6.9 percent during 1981–91 to 8.1 percent during 1991–2001. As Poonam Gupta and Jim Gordon of the International Monetary Fund document, that growth was largely the result of fast growth in communication, financial, business, and community services.³⁸ Given substantial deregulation and opening up to private participation in at least the first three of those sectors, the link of this acceleration to reforms can hardly be denied.

The most disappointing aspect of the 1990s experience, however, has been a lack of acceleration of growth in the industrial sector. The average annual rate of growth in this sector was 6.8 percent during 1981–91 and 6.4 percent during 1991–2001. Given that many of the reforms were aimed at that sector, the outcome is somewhat disappointing. There are at least three reasons for that poor performance. First, because of draconian labor laws, industry in India is increasingly outsourcing many of its activities so that growth in industry is actually being counted as growth in services. Second, because of constraints in the areas of labor, small-scale industry, and power, large-scale firms are still unable or unwilling to enter the market. Finally, large fiscal deficits continue to crowd out private investment.

Industry's lackluster performance is the principal cause for the marginal acceleration of the growth rate in the post-1991 reform

era. The only way India can push its growth rate to the levels experienced by China in the last two decades is by freeing conventional industry of several ongoing restraints.

Looking Ahead: Why India Lags behind China

The response of the economy to the reforms has been an order of magnitude weaker in India than in China. Exports of goods and services grew at annual rates of 12.9 and 15.2 percent during the 1980s and 1990s respectively in China. Imports exhibited a similar performance. Consequently, China's total trade to GDP ratio rose from 18.9 percent in 1980 to 34 percent in 1990 and to 49.3 percent in 2000. The response to reforms in India has been considerably weaker.

On the foreign investment front, differences are even starker. FDI into China has risen from \$.06 billion in 1980 to \$3.49 billion in 1990 and then to a whopping \$42.10 billion in 2000. China was slower to open its market to portfolio investment, but once it did, inflows quickly surpassed those into India, reaching \$7.8 billion in 2000. Even allowing for an upward bias in the figures as suggested by some China specialists and downward bias in the figures for India, there is little doubt that foreign investment flows into China are several times those into India.

Although some differences between the performances of India and China can be attributed to the Chinese entrepreneurs in Hong Kong and Taiwan, who have been eager to escape rising wages in their respective home economies by moving to China, a more central explanation lies in the differences between the compositions of GDPs in the two countries. Among developing countries, India is unique in having a very large share of its GDP in the mostly informal part of the services sector. Whereas in other countries a decline in the share of agriculture in GDP has been accompanied by a substantial expansion of industry in the early stages of development, in India this has not happened. For example, in 1980,

Table 7
Composition of GDP (percent)

	1980	1990	2000
China			
Agriculture	30.1	27	15.9
Industry	48.5	41.6	50.9
Manufacturing	40.5	32.9	34.5
Services	21.4	31.3	33.2
India			
Agriculture	38.6	31.3	24.9
Industry	24.2	27.6	26.9
Manufacturing	16.3	17.2	15.8
Services	37.2	41.1	48.2

Source: World Bank, basic indicators.

the proportion of GDP originating in industry was already 48.5 percent in China, whereas in India it was only 24.2 (see Table 7). Services, on the other hand, contributed only 21.4 percent to GDP in China but as much as 37.2 percent in India.

In the succeeding 20 years, despite considerable growth, the share of industry did not rise in India. Instead, the entire decline in the share of agriculture was absorbed by services. Though a similar process was observed in China, the share of industry in GDP was already quite high there. As a result, even in 2000, the share of services in GDP was 33.2 percent in China compared with 48.2 percent in India.

Why does this matter? Because typically, under liberal trade policies, developing countries are much more likely to be able to expand exports and imports if a large proportion of their output originates in industry. Not only is the scope for expanding labor-intensive manufactures greater, a larger industrial sector also requires imported inputs, thereby offering greater scope for the expansion of imports. In India, the response of imports has been just as muted as that of exports. This is demonstrated by the fact that the Reserve Bank of India has had to purchase huge amounts of foreign exchange to keep the rupee from appreciating in recent years. And even then, it was unsuccessful and

had to let the currency appreciate 5 to 7 percent in nominal terms. Imports have simply failed to absorb the foreign exchange generated by even modest foreign investment flows and remittances.

The same factor is also behind the relatively modest response of FDI to liberal policies. Investment in industry, whether domestic or foreign, has been sluggish. Foreign investors have been hesitant to invest in industry for many of the same reasons as domestic investors. At the same time, the capacity of the formal services sector to absorb foreign investment is limited. The information technology sector has shown promise, but its base is still small. Moreover, this sector is more intensive in skilled labor than physical capital.

Therefore, the solution to both trade and FDI expansion in India lies in stimulating growth in industry. The necessary steps are now common knowledge: bring all tariffs down to 10 percent or less, abolish the small-scale industries reservation, institute an exit policy and bankruptcy laws, and privatize all public-sector undertakings.

Conclusion

The Indian growth spurt prior to 1991 was fragile and volatile. There was a jump in the

Foreign investors have been hesitant to invest in industry for many of the same reasons as domestic investors.

The 1980s reforms provided crucial firsthand evidence that gradual liberalization can deliver faster growth without causing disruption.

growth rate during 1977–79, massive decline in 1979–80, a jump again in 1980–82, return to the Hindu rate during 1982–88 (except 1983–84), a climb up again in 1988–91 and crisis in 1991–92. This volatility in the growth pattern raises doubts about the sustainability of a 5 percent plus growth rate over the long haul. The 1991 crisis only confirmed the fundamental weakness of the underlying forces *ex post*.

In contrast, growth during 1990s has been more robust, exhibiting far less volatility. Whereas in the late 1980s, many observers of India were betting on a crisis any time, there are few takers of such a bet today. Despite well-known vulnerabilities resulting from fiscal deficits that are as large today as in the late 1980s and the slow pace of banking reforms, few pundits are predicting an external crisis today. The external-debt-to-GDP ratio has been declining and foreign exchange reserves at approximately \$120 billion exceed the currency in circulation. Indeed, in a recent careful examination of India's vulnerability to external crises, economist Montek Ahluwalia points to several key weaknesses in fiscal and banking areas and emphasizes the urgency of tackling them. But he stops well short of predicting a crisis because, unlike in the 1980s, the external debt is low and declining, short-term debt is a tiny proportion of the total external debt, and the foreign exchange reserves are very substantial.³⁹

The acceleration of growth during the 1980s relative to that in the preceding three decades was not achieved without important policy changes. In contrast to the isolated ad hoc policy measures taken to release immediate pressures prior to the 1980s, the measures in the last half of the 1980s, taken as a whole, constituted a significant change and an activist reform program. For example, by 1990, approximately 20 percent of the tariff lines and 30 percent of the imports had come under OGL, with significant exemptions on tariffs accruing to the OGL products. Import

licensing on many other products was also eased up considerably.⁴⁰

The 1980s reforms and their success provided crucial firsthand evidence to policymakers that gradual liberalization can deliver faster growth without causing disruption. In turn, this evidence gave policymakers confidence in undertaking the bolder and more far-reaching reforms in the 1990s. While the changes in the 1980s were undoubtedly small in relation to those in the 1990s, they were quite significant when compared with the regime prevailing until the 1970s. In part, this fact explains why the economy, particularly industrial growth, exhibited such a strong response. A key message of the theory of distortions is that the larger the initial distortion, the greater the benefit from its relaxation at the margin. Therefore, the large response to limited reforms is quite consistent with at least the static theory of distortions.⁴¹ In this respect, DeLong's observation that the elasticity of growth to reforms was higher in the 1980s than in the 1990s is not altogether inconsistent with theory, though it must be acknowledged that the response would have been short-lived in the absence of more concerted reforms.

DeLong's contention that we lack hard evidence to support the view that the rapid growth of the second half of the 1980s could not be sustained without the second wave of reforms in the 1990s is untenable. The pre-1991 growth was itself fragile and sporadic. And even then, it ended in a balance of payments crisis. The scenario of the second half of the 1980s involving large amounts of external borrowing could not have been sustained. Absent that, more substantial reforms that improved efficiency, brought foreign investment to the country, and allowed sectors such as information technology to grow constituted the only way to avoid the return to the Hindu rate of growth of the first 30 years of independence. For India and developing countries around the world, the Indian experience confirms the importance of liberal reforms to sustained high growth.

Appendix: The Relaxation of Industrial Controls and Related Reforms in the 1980s

- De-licensing received a major boost in 1985, with 25 industries de-licensed (of these, 16 industries had been out of the licensing net since November 1975). By 1990 this number reached 31. The investment limit below which no industrial license would be required was raised to Rs. 500 million in backward areas and Rs. 150 million elsewhere, provided the investments were located in both cases at stipulated minimum distances from urban areas of stipulated sizes. Traditionally, the industrial licensing system had applied to all firms with fixed capital in excess of 3.5 million rupees. There remained 27 major industries subject to licensing regardless of the size and location of investment. These included a number of major industries like coal, large textile units using power, motor vehicles, sugar, steel, and a large number of chemicals. Products subject to Small Scale Industries (SSI) reservation were also off limits, though the asset ceiling of firms designated as SSI units was raised from Rs. 2 million to Rs. 3.5 million.
- Broad banding, which allowed firms to switch production between similar production lines such as trucks and cars, was introduced in January 1986 in 28 industry groups. This provision was significantly expanded in the subsequent years and led to increased flexibility in many industries. In some industries, the impact was marginal, however, since a large number of separate product categories remained due to continued industrial licensing in those products.
- In 1986 firms that reached 80 percent capacity utilization in any of the five years preceding 1985 were assured authorization to expand capacity up to 133 percent of the maximum capacity utilization reached in those years.
- Firms that came under the purview of the Monopolies and Restrictive Trade Practices Act were subject to different rules could not take advantage of the above liberalizing policy changes. To relax the hold of the licensing and capacity constraints on these larger firms, in 1985–86, the asset limit above which firms were subject to MRTP regulations was raised from Rs. 200 million to Rs. 1,000 million. As a result, as many as 90 out of 180 large business houses registered under the MRTP Act were freed from restrictions on growth in established product lines. Requirement of MRTP clearances for 27 industries was waived altogether. MRTP firms in a number of industries were exempt from industrial licensing provided they were located 100 kilometers away from large cities. MRTP firms were allowed to avail themselves of the general de-licensing measures in which they were not considered dominant undertakings. These measures significantly enhanced the freedom of large firms (with assets exceeding Rs. 1,000 million) to enter new products.
- Price and distribution controls on cement and aluminum were entirely abolished. Decontrol in cement eliminated the black market and through expanded production brought the free-market price down to the controlled levels within a short time. New entrants intensified competition, which led to improvements in quality along with the decline in the price.
- There was a major reform of the tax system. The multi-point excise duties were converted into a modified value-added (MODVAT) tax, which enabled manufacturers to deduct excise paid on domestically produced inputs and countervailing duties paid on imported inputs from their excise obligations on output. By 1990 MODVAT came to cover all subsectors of manufacturing except petroleum products, textiles, and tobacco. This change significantly reduced the taxation of inputs

and the associated distortion. In parallel, a more smoothly graduated schedule of excise tax concessions for SSI firms was introduced, which reduced incentives for them to stay small.

Notes

This paper is based on International Monetary Fund Working Paper no. 04/43. I am grateful to Jagdish Bhagwati, Kalpana Kochhar, and T. N. Srinivasan for their helpful comments. I also thank Rajesh Chadha, Satish Chand, Douglas Irwin, Raghav Jha, Vijay Joshi, Vijay Kelkar, Ashoka Mody, Sam Ouliaris, Jairam Ramesh, Jayanta Roy, Ratna Sahay, Kunal Sen, N. K. Singh, Ian Vásquez, and Roberto Zaghera for their helpful suggestions on earlier drafts of this paper.

1. Many opponents of reform in the political arena, including some in the party that leads the current governing coalition—the United Progressive Alliance—share this view.

2. J. Bradford DeLong, “India Since Independence: An Analytic Growth Narrative,” in *In Search of Prosperity: Analytic Narratives on Economic Growth*, ed. Dani Rodrik (Princeton, New Jersey: Princeton University Press, 2003), p. 186. Emphasis added.

3. Dani Rodrik, “Introduction: What Do We Learn from Country Narratives?” in Dani Rodrik, ed., *In Search of Prosperity*, p. 16.

4. N. K. Singh, who has been directly involved in policymaking in India during the 1980s and 1990s, wrote the following to the author when he was a member of the Planning Commission: “I am somewhat intrigued by the statement of DeLong & Rodrik stressing change in official attitude over change in policies implying that if attitude changed for good, growth would have been sustained even without reforms in the 1990s. Even today, more than change in policies we are struggling with change in attitude. The first reflex of any observer of Indian economy or potential foreign investor would be that while policies may not be so bad it is the attitude particularly of official ones which becomes the Achilles heel. In fact the 80s and even the 90s have seen far-reaching change in policies which have not translated themselves fully into changes in attitudes. This attitudinal change indeed constitutes a major challenge in our reform agenda.” N. K. Singh, quoted with permission from personal correspondence.

5. Jessica Wallack found that with a 90 percent

probability, the shift in the growth rate of GDP took place between 1973 and 1987. The associated point estimate of the shift, statistically significant at the 10 percent level, was 1980. When Wallack replaced GDP with GNP, however, the cutoff point with 90 percent probability shifted to the years between 1980 and 1994. The associated point estimate, statistically significant at the 10 percent level, was now 1987. Wallack herself notes, “Although the evidence for the existence of a break is strong, the data are more ambiguous on its exact timing in the early and mid-1980s.” Jessica Wallack, “Structural Breaks in Indian Macroeconomic Data,” *Economic and Political Weekly* 38, no. 41 (October 2003): 4314.

6. The year 1980–81 was not included because the 7.2 percent growth during that year was preceded by a 5.2 percent decline in GDP in 1979–80 and was, thus, artificially high. See Wallack, pp. 4312–15.

7. I have examined variances of growth rates during the 1990s and 1980s, taking various cutoff dates for the latter period. Irrespective of which cutoff dates we choose for the 1980s, the variance was higher in the 1980s.

8. In passing, the role of excellent agricultural performance in yielding the high overall growth rates during 1988–91 should also be acknowledged. Whereas years 1986–87 and 1987–88 were a disaster for agriculture because of bad weather, the subsequent three years, especially 1988–89, proved unusually good. According to the data in the Indian government’s *Economic Survey 2003*, agriculture and associated activities (forestry and logging, fishing, mining, and quarrying), which accounted for a little more than one-third of GDP, grew at an annual average rate of 7.3 percent during 1988–91.

9. Jagdish Bhagwati and Padma Desai, *India: Planning for Industrialization* (London: Oxford University Press, 1970).

10. The Open General Licensing list identified items that could be imported without a license from the Ministry of Commerce. Any item not on the OGL automatically required a license from the ministry.

11. *Ibid.*, p. 282.

12. Jagdish Bhagwati and T. N. Srinivasan offer a fascinating political economy analysis of the 1966 devaluation. In a key concluding paragraph on page 153, they note, “The political lesson seems particularly pointed with regard to the use of aid as a means of influencing recipient policy, even if, in some objective sense, the pressure is in the ‘right’ direction. The Indian experience is also instructive

for the political timing of devaluation: foreign pressure to change policies, if brought to bear when a government is weak (both because of internal-structural reasons and an impending election, which invariably prompts cautious behavior) can be fatal." See Jagdish Bhagwati and T. N. Srinivasan, *Foreign Trade Regimes and Economic Development: India* (New York: National Bureau of Economic Research, 1975), chap. 10.

13. See Gary Pursell, "Trade Policy in India," in Dominick Salvatore, ed., *National Trade Policies* (New York: Greenwood Press, 1992): 423–458.

14. *Ibid.*, pp. 433–34.

15. *Ibid.*, p. 441.

16. The decline in the share of canalized imports was due to increased domestic production of food grains, cotton, and crude oil and reduced world prices of canalized imports such as fertilizers, edible oils, nonferrous metals, and iron and steel. Good weather and discovery of oil were partially behind the increased domestic output of food grains, cotton, and crude oil.

17. Vijay Joshi and I. M. D. Little, *India: Macroeconomics and Political Economy: 1961–91* (Washington: World Bank, 1994), p. 184.

18. Pursell.

19. According to Joshi and Little, "The real exchange rate was again a critical factor as it depreciated by about 30 percent from 1985/86 to 1989/90. Since Indian inflation in this period rose faster than that of its trading partners, a devaluation of the nominal effective exchange rate of about 45 percent was required and achieved. . . . This reflects a considerable change in the official attitude toward exchange rate depreciation. The change had already begun in 1983, but during 1983 and 1984 action was restricted to keeping the real effective exchange rate constant. From 1985 onward exchange rate policy became more active though the fiction of a fixed basket-peg was still maintained. From a presentational point of view, the sharp devaluation of the U.S. dollar, which began in 1985, helped a great deal. A devaluation of the real effective exchange rate could be secured by keeping the exchange rate or the rupee against the dollar constant, and in fact there was a mild depreciation in terms of the dollar as well. Cabinet approval was sought and obtained to achieve the real effective exchange rate prevailing in 1979 (thus offsetting the competitive disadvantage that had been suffered since then). When that objective had been reached, cabinet approval was again obtained to devalue the rupee further to maintain the competitive relationship vis-à-vis a narrower range of

developing-country 'competitor countries,' many of whom depreciated in real terms along with the U.S. dollar in 1986. This was a sensible exchange rate policy. Policymakers recognized that a real exchange rate devaluation was necessary though the terms of trade were modestly improving, because the debt-service burden had increased and a faster growth of imports was to be expected in the wake of industrial and import liberalization." Joshi and Little, p. 183. This view of the government taking an activist role, shared by the author, is in contrast to the view taken by T. N. Srinivasan and Suresh Tendulkar, *Reintegrating India with the World Economy* (Washington: Institute for International Economics, 2003), p. 23.

20. Pursell, p. 441.

21. Arvind Panagariya, "Miracles and Debacles: Do Free Trade Skeptics have a Case?" <http://www.bsos.umd.edu/econ/panagariya/apecon/polpaper.htm>.

22. Ashok Desai, "The Economics and Politics of Transition to an Open Market Economy: India," *OECD Working Papers* 7, no. 100 (1999): p. 21.

23. B. N. Goldar and V. S. Renganathan, "Liberalization of Capital Goods Imports in India," Working Paper no. 8, National Institute of Public Finance and Policy, New Delhi, 1990.

24. R. N. Malhotra, "Economic Reforms: Retrospect and Prospects," ASCI Foundation Day Lecture, Administrative Staff College of India, 1992.

25. Joshi and Little, p. 260.

26. Satish Chand and Kunal Sen, "Trade Liberalization and Productivity Growth: Evidence from Indian Manufacturing," *Review of Development Economics* 6, no. 1 (2002): 120–32.

27. *Ibid.*, p. 128.

28. In the data used by Joshi and Little, real GDP is measured at 1980–81 prices. As such, their growth rates differ from those computed from real GDP, measured at 1993–94 prices as in this paper. Growth rates for the two periods when 1993–94 is the base year are 3.7 and 4.8 percent, respectively. See Joshi and Little, chap. 13.

29. *Ibid.*, p. 327.

30. See also Sandeep Bhargava and Vijay Joshi, "Faster Growth in India: Facts and a Tentative Explanation," *Economic and Political Weekly* 25, no. 48–49 (1990): 2657–62.

31. The Reserve Bank of India's data differ significantly from the customs (DGCIS) data. Imports such

as offshore oilrigs and defense expenditures that do not go through customs but do enter the balance of payments presumably account for the discrepancy.

32. Joshi and Little, p. 186.

33. Srinivasan and Tendulkar. The Pay Commissions were established to recommend civil service salaries.

34. The five sectors were (1) arms and ammunition, explosives and allied items of defense equipment, defense aircraft, and warships; (2) atomic substances; (3) narcotics and psychotropic substances and hazardous chemicals; (4) distillation and brewing of alcoholic drinks; and (5) cigarettes/cigars and manufactured tobacco substitutes.

35. Government of India, Ministry of Industry, "Statement of Industrial Policy," New Delhi, July 24, 1991, <http://siadipp.nic.in/publicat/nip0791.htm>.

36. Government of India, "Tax Reforms Committee: Final Report, Part II," New Delhi, Ministry of Finance, 1993.

37. World Trade Organization, "Trade Policy Review: India," 1998, http://www.wto.org/english/tratop_e/tpr_e/tp71_e.htm#Government%20report.

38. Jim Gordon and Poonam Gupta, "Understand-

ing India's Services Revolution," paper presented at the IMF-NCAER Conference, "A Tale of Two Giants: India's and China's Experience with Reform," November 14-16, 2003, New Delhi.

39. Montek Ahluwalia, "India's Vulnerability to External Crises," in Montek Ahluwalia, Y. V. Reddy, and S. S. Tarapore, *Macroeconomics and Monetary Policy: Issues for a Reforming Economy* (New Delhi: Oxford University Press, 2003): 183-214.

40. Analysts such as Gurchuran Das tend to ignore the changes made in the 1980s and attribute them to the July 1991 reform. But when one considers the facts that 20 percent of the tariff lines were already under OGL, that another 30 plus percent tariff lines including all consumer and agricultural goods were not freed until the end of 1990s, and the top tariff line was still 110 percent, the July 1991 reform was not as sweeping as it may seem. See Gurchuran Das, *India Unbound: A Personal Account of a Social and Economic Revolution from Independence to the Global Information Age* (New York: Alfred A. Knopf, 2001).

41. One suspects that under plausible assumptions, this result would translate into larger growth responses to larger initial distortions in the endogenous growth models.

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