Financial Sector Reforms and Manufacturing Growth in India: A Preliminary Analysis

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I.INTRODUCTION

Manufacturing growth in India in recent years presents somewhat of a mixed picture. After a period of recession between 1996-97 and 2001-02, India's manufacturing sector is currently recording fast rates of growth of output (see Figure 1). A number of Indian manufacturing firms in fields such as automobiles and pharmaceuticals are attracting global attention, best exemplified in a recent headline from the *Fortune* magazine, 'Manufacturing takes off in India'.[1] India is gaining a reputation as a centre for manufacturing design and innovation. At the same time, however, India's manufacturing sector is showing signs of weaknesses too. Most recently, the appreciation of Indian Rupee has significantly reduced the competitiveness of many export-oriented industries in the country such as textiles and engineering. Tirupur, the largest source of exports of knitwear garments from India, has been badly hit. Job retrenchments in this textile town have crossed 7000 and, according to some reports, will further rise to 50,000 by the end of the current financial year (that is, by March 2008) if the trend of Rupee appreciation is not reversed.[2]

This paper finds that India's manufacturing sector is showing signs of dichotomous growth. While one segment of Indian manufacturing is, as noted above, growing at fast rates and achieving international technological standards, a large part of the country's manufacturing sector is lagging behind in growth. While economic reforms have helped the international ambitions of a group of fast growing Indian firms, certain features of the reform process have been harmful to the interests of large numbers of relatively small firms in the country. This paper analyses India's financial sector reforms and how they have contributed to this dichotomy in manufacturing sector growth in India.

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[1] See the report 'Manufacturing takes off in India' by John Elliot, *Fortune*, 19 October, 2007.
[2] See the report 'Tirupur Exporters Seek More Sops', 25 November, 2007, in <www.newindpress.com>

II. RECENT TRENDS IN MANUFACTURING GROWTH

Scholarly analyses of industrial and especially manufacturing growth in post-independence India have identified three important growth phases. The early years of Indian planning, from 1950 to the mid-1960s, constitutes the first growth phase. Indian industry grew at respectable rates during this period. In the second growth phase between the mid-1960s and the late 1970s, Indian industry experienced a long period of stagnation. The third phase began with India's industrial sector staging a revival of growth in the 1980s (see Table 1).

India's industrial policy framework began to be liberalized from the late 1970s, and this process accelerated with the major economic reforms initiated in the year 1991. The measures to liberalize India's industrial policy framework from the late 1970s included deregulation and delicensing in certain industries, according a greater role to the private sector, and a gradual shift from direct physical controls to indirect controls (see Raj, 1984; Chandrasekhar, 1988; Ahluwalia, 1991, p.5). Wide ranging measures for economic liberalization were initiated in India after 1991-92. According to Ahluwalia (1995, p.14), the changes that the reforms after 1991 brought in were "fundamental" in nature compared to the "marginal" changes only in the previous decade. Import licensing was done away with for most goods except consumer goods; import-weighted tariff declined to 27 per cent from the pre-1991 level of 87 per cent; and exchange rates were devalued by 20 per cent (Ahluwalia and Little, 1998, pp. 4-5). Many have argued that industrial deregulation and liberalization have opened up greater opportunities for growth.

In India, registered factories comprise all factories that employ more than ten workers and operate with the aid of electric power as well factories that employ more than twenty workers without the aid of electric power. All registered factories constitute the factory sector. Manufacturing activities of registered factories are classified under registered manufacturing. All other manufacturing activities are classified under unregistered manufacturing. Annual Survey of Industries (ASI) published by the Central Statistical Organization (CSO) is the major source of statistics on registered factories.

Industrialization in India has not been successful as regards generation of employment. Many scholars have written on the failure of Indian industry to provide employment to the large labour reserves in the country (Bhagwati and Chakravarty, 1969; Patnaik, 1994). Even in 2000-01, the total number of workers employed in India's factory

sector (consisting of 131,268 registered factories) was only 8 million. Factory sector employment was just 1.98 per cent of India's total working population of 402 million in 2001. Factory sector also accounted for only 15.6 per cent of the 51 million employed in the manufacturing sector (see Table 2). The rest of the manufacturing employees worked in the unregistered manufacturing sector. Studies have shown that the bulk of unregistered manufacturing in India employ traditional technologies. Also, workers in the unregistered manufacturing sector survive largely under exploitative and poor working conditions.

As discussed earlier, India's manufacturing sector output has grown at relatively fast rates from the 1980s. However, on a closer analysis, we find many signs of weaknesses in India's post-1980 manufacturing growth experience. First, annual rate of growth of manufacturing incomes in India is seen to have declined in the period between 1991-91 and 2004-05 compared to the period between 1980-81 and 1990-91 (see Table 1). If we consider manufacturing sector growth in the whole period after 1991-92, a clearer picture emerges (see Figure 1). Growth over the previous year of manufacturing sector in India was negative in 1991-92 and only 4.1 per cent in 1992-93. Year-on-year growth of manufacturing sector rose to very high levels in the next three years, peaking at 14.9 per cent in 1995-96. These were also the initial years of liberalization in India. However, India's manufacturing sector entered a period of relative stagnation in growth in the period between 1996-97 and 2001-02. Growth of manufacturing sector appears to have climbed to higher levels again after 2002-03 (see Figure 2).

Secondly, the post-1980 period has had a poor record in employment generation. The 1980s is often called the decade of "jobless growth" in Indian manufacturing. The revival in growth of output witnessed in this period was not accompanied by adequate generation of employment. Only 484,000 jobs were generated in India's registered factory sector between 1979-80 and 1990-91 (Thomas, 2002). Several explanations have been offered. It is argued that labour retrenching was difficult after the introduction of job security regulations in the late 1970s, and this forced employers to adopt capital-intensive production techniques (Fallon and Lucas, 1993 cited in Goldar, 2000). According to another view, capital-intensive techniques were adopted because of the increase in real wages in the 1980s (Ahluwalia, 1991; Ghose, 1994). According to Nagaraj (1994), the "overhang" of employment that existed in the 1970s was intensively used in the 1980s, thus generating only a few additional employment opportunities in the later decade.

Compared to the 1980s, manufacturing growth in the 1990s was more employment generating. 1763,000 new jobs were created in India's registered manufacturing between 1991-92 and 1997-98 compared to 484,000 jobs only in the earlier decade (Thomas, 2002). Goldar (2000) attributes two major reasons for this positive change: slowdown in growth of real wages and faster growth of small and medium-sized factories, which are more labour intensive than large sized factories. Nagaraj (2000) contested the views of Goldar, and argued that faster employment generation in the 1990s was due to the investment boom in that decade. At the same time, Nagaraj (2001) pointed out that faster employment generation in the 1990s was only in registered manufacturing, whereas the unregistered sector witnessed negative employment growth between the mid-1980s and mid-1990s. This is an important finding because almost 3/4th of India's manufacturing employment is in the unregistered sector.

There is clear evidence of a decline in manufacturing employment in India in recent years (see Table 3 and Figures 2 and 3). Factory sector employment in India was 10.1 million in 1997-98 but it declined to 7.9 million in 2003-04. Correspondingly, employment in India's organized sector (of which factory sector is a component) declined from 28.2 million in 1997-98 to 26.5 million in 2003-04 (Table 3). Figure 2 summarises India's experience with respect to generation of factory employment between 1981-82 and 2003-04. Growth of employment in India's factory sector was stagnant in the 1980s, showed some improvement in the 1990s, but declined again after 1997-98 (see Figures 2 and 3).

Thirdly, there has also been a slowdown in the growth of the number of factories in India's factory sector in the post-1980 compared to the decades before that. The generation of new firms within the factory sector has been especially slow since the mid-1990s (see Figure 4).

At the same time, there are signs of growing capital and skill intensity within the factory sector in India, and this is the fourth major aspect of the post-1980 manufacturing growth experience. As Figure 5 shows, fixed capital per employee and fixed capital per factory show a constantly upward trend. The rise in capital intensity has been more rapid after the 1980s (see Figure 5).

A decline in the number of workers per factory and a simultaneous increase in the number of supervisors per factory is a good indicator of the growth of capital and skill intensity in India's factory sector (see Figure 6). Number of workers per factory in India's

factory sector declined from 80 in the late 1950s to 70 in the late 1960s. Between 1985-86 and 1997-98, number of workers per factory ranged between 58 and 56, after which this number fell sharply to 47 in 2003-04 (see Figure 6). Between 1985-86 and 1995-96, number of supervisors per factory increased from 16 to 18; this number subsequently declined to 13 by 2003-04 (see Figure 6).

There has been a growing divergence between the real earnings of workers and supervisors in India's factory sector. Average wages of workers have been rather stagnant from the 1980s, whereas average salaries of supervisors have grown much faster (see Figure 7).

Therefore, an analysis of data from the factory sector indicates that generation of employment and growth of new firms have been stagnant from the 1980s. At the same time, output growth has been fast from the 1980s except for a period of slow growth between 1996-97 and 2001-02. There has also been increasing capital and skill intensity in India's factory sector. The dichotomous nature of India's manufacturing sector can be understood fully only through a thorough analysis of the unregistered sector. We have not attempted this in the present paper. Yet, a plot of incomes from registered and unregistered sectors over the period from 1950-51 to 2002-03 clearly indicate a growing divergence in growth of incomes from the registered and unregistered sectors. The unregistered sector consisting small-scale enterprises are lagging behind in growth especially after the 1980s (see Figure 8).

The rest of this paper attempts to understand how financial sector reforms in India, which gained momentum from the 1990s, contributed to the dichotomous nature of growth in India's manufacturing sector, discussed above.

III. KEY ASPECTS OF INDIA'S FINANCIAL SECTOR REFORMS

India initiated important measures for financial sector reforms from the 1990s, and these reforms have major implications for industrial growth in the country.[3] The major aim of the reform process was to improve allocative efficiency in financial markets and, at the same time, ensure macroeconomic stability in the economy (RBI, 1993; Rangarajan, 1997 cited in RBI, 2003). Deregulation of interest rates was considered important for enhancing allocative

[3] See also Joshi and Little (1996), ch.4 on India's financial sector reforms.

efficiency in financial markets and for developing interest rate as an instrument for monetary transmission (RBI, 2003).

The notable aspects of the Indian reforms were the following. First, they included major steps for liberalization of the country's financial system. The mechanism for interest rate controls in India has been dismantled; the dismantling of administered interest rates occurred in stages (RBI, 2003, V7-8). For issuing large loans, banks in India had to obtain prior approval from the Reserve Bank of India; with the reforms, this constraint has been removed. The limits on the levels of Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) to be maintained by Indian banks have been relaxed.[4] Secondly, the reforms have resulted in a considerably reduced role for the state in allocation of credit; the reforms in credit regulation involved a shift in focus from micro-regulation to macro-management of credit (RBI, 2003). In the pre-reform period, targets were assigned to the banking system in India with respect to lending to priority sectors such as agriculture and small-scale industries. These targets have been relaxed as part of the reform process.[5]

On the monetary-fiscal coordination, several reform measures were introduced. In June 1992, an auction system was introduced for the Central Bank's market borrowings, thus ensuring that a larger proportion of fiscal deficit will be financed by borrowings at market-related interest rates. Subsequently, RBI reduced SLR to 25.0 per cent by October 1997. In September 1994, the Government and the RBI agreed to eliminate the automatic monetisation of the Centre's fiscal deficit; by April 1997, *ad hocs* would be replaced by a system of ways and means advances to the Central Government at market-related rates (RBI, 2003). RBI (2003) noted that ways and means advances allowed the Central Bank to impose some degree of market discipline on the Centre's fiscal activism. Thirdly, new measures where introduced that allowed the Reserve Bank to contain volatility in the market and facilitate the smooth progression of market borrowings (RBI, 2003, V-7).

Thirdly, important reforms have been initiated with a view to encourage competition and ensure greater transparency in the operations and accounting practices of the financial sector. The private sector including foreign institutional investors (FIIs) have been allowed entry into the Indian financial sector. The Insurance Bill approved by the Indian Parliament in 2000 permitted foreign insurance companies to operate in the Indian market. Investment

[4] See Ahluwalia (2002) and Chandrasekhar and Ghosh (2004).
[5] See Chandrasekhar and Ghosh (2004).

norms were liberalised in the 1990s following which nationalised banks in India have been offered greater freedom to participate in the financial market, including in the sale of equity to the private sector. Banks were eligible to invest in commercial paper, units of mutual funds and the secondary equity market. By October 1993, they were allowed to invest five per cent of their previous year's deposit mobilisation in capital markets. The sub-ceiling in regard to corporate equity was withdrawn in May 1994. By May 2001, the limits on bank's exposure to stock markets was set at five per cent of the total advances (including CPs) as on March 31 of the previous year (RBI, 2003).

Foreign banks have been given permission to access India's domestic market. At the same time, the government specified new norms on capital adequacy and 'bad debts' in the banking sector. The government set up the Securities and Exchange Board of India (SEBI) in 1992 as a regulatory board on stock market transactions in India. However, over the reform years, there has been a progressive relaxation of the regulations set by SEBI (Chandrasekhar and Ghosh, 2004, pp.99-100; Ahluwalia, 2002).

Lastly, the government initiated policies to raise the degree of financial openness in India. The rules for taking money in and out of the country have been relaxed. Non-resident Indians (NRIs) have been offered liberal conditions for making investments in the country. Foreign institutional investors (FIIs) have been allowed to invest in India's stock markets (Chandrasekhar and Ghosh, 2004, pp.99-101).

IV. CREDIT POLICY REFORMS AND THEIR IMPACT ON INDUSTRIAL GROWTH

How has the monetary policy fared with respect to increasing credit availability in the Indian economy, particularly for the industrial sector? After all, the key objective of the monetary-fiscal reform package in India was to restrict the flow of bank's funds to the Government by *fiat* and thereby free a larger volume of resources for credit creation. Over the years after 1993-94, the gap between deposit rates and lending rates has also come down in India. However, the Indian experience, so far, with respect to increasing credit creation in the economy has not been very encouraging.

First, RBI (2003) points out that the "simultaneity of the processes of money and credit creation" was weakened in India during the 1990s. As the share of foreign assets of

the banking sector in M3 rose, the share of domestic credit in M3 correspondingly declined: from 115.7 per cent in 1989-90 to 89.6 per cent in 2001-02 (RBI, 2003, p. V-14). More importantly, even after the monetary-fiscal reforms, net bank credit to the Government as a proportion of total domestic credit did not decline in the 1990s compared to the 1980s and 1970s. Although the net Reserve Bank support to the Government declined, investments by the banking system in government securities showed an upward trend. Therefore, even as SLR was brought down to 25 per cent, scheduled commercial banks' investments in government securities increased from 25.3 per cent of deposits as in March 1990 to 37.3 per cent of deposits in March 2002 – that is, almost 12 percentage points above the statutory requirements (RBI, 2003, p. V-14). At the same time, credit disbursed by scheduled commercial banks showed a deceleration in growth during the years between 1996-97 and 2001-02 (growing at 15.1 per cent compared to 19.5 per cent during the years between 1992-93 to 1995-96) (RBI, 2006, p.130).

Several factors originating from demand and supply side have been attributed to the slowdown in bank credit in the second half of the 1990s. On the supply side, banks have been highly risk averse in regard to expanding their loan portfolio. The introduction of prudential norms in the mid-1990s, which revealed relatively high level of non-performing assets (NPAs) with banks, and the revised requirements of capital adequacy ratio (8.7 per cent at end-March 1996) were factors that limited bank's ability to lend (RBI, 2006, p.130). Given the constraints they faced, banks found that government securities, which offer risk-adjusted returns, are an attractive option for investments. Consequently, banks' investments in government securities continued to rise even after the withdrawal of SLR requirements.

At the same time, there were many demand-side factors too that constrained credit expansion of banks. During the latter part of the 1990s, India's corporate sector was facing intense competitive pressures and, as a consequence, focussed its energies on restructuring rather than expansion of existing capacities. As part of their restructuring plans, Indian firms began to meet their financing needs increasingly through retained earnings and less through borrowings. Improvements in corporate profitability during this period also aided this trend. Debt-equity ratio of the corporate sector declined from an average of 85.5 per cent during the period from 1990-91 to 1994-95 to 65.2 per cent during the period from 1995-96 to 1999-2000 (RBI, 2006, p.130). Another reason for the slow growth of credit demand was the rise in real interest rates. Despite the reduction in CRR, bank rate and reverse repo rate --

measures that were part of an accommodative monetary policy pursued by RBI -- nominal interest rates in India refused to climb down. This along with the falling inflation rate resulted in rising real interest rates. Industrial slowdown during the period from 1996-97 to 2001-02 was another reason for the reduced demand for bank credit during this period (RBI, 2006, p.130).

India's corporate firms now have improved access to the domestic and international capital markets, and this is yet another factor behind the slow growth of demand for bank credit. Indian companies have raised large capital through the issue of commercial paper, external commercial borrowings (ECBs), global depository receipts (GDRs) and American depository receipts (ADRs) (see Table 4).

As Table 5 shows, credit channelled to the industrial sector was at a slower pace during the 1990s and through the period 2000-01 to 2004-05 compared to the 1980s. As a proportion of total outstanding credit, credit extended to the industrial sector fell down considerably, from 48.7 per cent as in March 1990 to 38.8 per cent in March 2005. There was a similar decline in agriculture's share in total outstanding credit (see Table 6). It is important to note that while the shares of agriculture and industrial sectors in total bank credit in India declined between 1990 and 2005, the corresponding share of personal loans and professional services showed an increase, from 9.4 per cent to 27 per cent. Especially noteworthy is the fast growth of housing loans during this period, whose share in total credit rose from 2.4 per cent in March 1990 to 11 per cent in March 2005 (see Table 6).

There was a significant drop in credit channelled to the priority sectors. As a proportion of non-food gross bank credit, priority sector advances declined from 40.1 per cent in March 1990 to 36.3 per cent in March 2006 (see Table 7). Within the priority sector advances, the share of agriculture fell from 40.9 per cent in March 1990 to 33.8 per cent in March 2006 (RBI, 2006, p.134). Going by various indicators, it is clear that credit flow to the small scale industry (SSI) sector has clearly decelerated in recent years. Average annual growth of advances to the SSI sector slowed down from 13.6 per cent during the 1990s to 9.5 per cent during 2001-06. The share of the SSI sector in total priority sector advances fell from 44 per cent in March 1998 to 18 per cent in March 2006. The proportion of SSI credit in net bank credit (NBC) was 15.7 per cent in March 1990 but declined to 8.6 per cent in March 2004 (RBI, 2006, p.139).

V. SAVINGS, CREDIT, AND INDUSTRIAL GROWTH: A SHORT REVIEW OF POLICIES FROM THE LATE 1960s

The failure of recent credit policy reforms to channel resources to the industrial sector must be seen against the experience in this regard during an earlier era. In India, the period from the late 1960s was one of enhanced state intervention in economic development. An important feature of state intervention during this period was measures to increase India's savings rate. Although India's planners had identified low rate of savings as one of the fundamental obstacles to the country's development, very little progress was achieved with respect to accelerating savings rate until the late 1960s. According to Pradhan *et al.* (2003), the strategies adopted in Indian planning to raise savings rate involved restraining the expansion of consumer goods while allowing investments in basic and capital goods to build up. This strategy did not yield much positive results because of the low level of financial deepening and the low propensity to save in India's agrarian economy (Pradhan *et al.*, 2003).

Policy measures from the late 1960s beginning with the bank nationalization in 1969 helped to create an organized financial architecture in India. Green revolution and other strategies for agricultural revival contributed to an increase in agricultural output and propensity to save in the agricultural sector. Rapid spread of bank branches was another factor that aided the mobilization of bank deposits. Population per bank office was 65,000 in 1969 which fell to 15,000 in 1984 (Sen, 2007). Athukorala and Sen (2002) estimated that a 1 per cent increase in bank density was associated with a 0.03 per cent increase in the private saving rate. Deposits as a percentage of national income increased from 15.2 per cent in 1969 to 37.9 per cent in 1984 (Sen, 2007).Another factor that helped the mobilization of bank deposits was the positive real interest rates that the RBI maintained during this period (Pradhan *et al.*, 2003).

Sen (2007) showed that the acceleration in India's economic growth took place in the late 1970s. Financial deepening played an important role in triggering private equipment investment from the mid-1970s and, according to Sen (2007), this private equipment investment was the chief stimulant for overall economic growth acceleration in the country. Further, commercial banks whose deposit base increased after the 1970s started investing in bonds and debentures of term lending institutions and state owned insurance mutual funds. These investments were eventually channelled into the private corporate sector through term

lending institutions and corporate firms. A part of the increase in savings financed public investment too, which showed a marked increase from the mid-1970s. There was considerable acceleration of public investments in infrastructure, especially petroleum, electricity and railways, and this was a factor behind the revival of industrial growth in the country from the 1980s (Ahluwalia, 1991; Sen, 2007).

As part of the policies that began in the late 1960s, government introduced priority lending requirements for commercial banks in India. This policy decision increased the volume of credit available for small-scale industries and thereby gave a boost to small-scale industrial production in the country. Sharad Chari's research illustrated how state credit played an important role in building the knitwear industrial cluster in Tiruppur, which accounted for 85 per cent of the cotton knitwear production in India in 1997. Chari's (2000) ethnographic study of State Bank of India's (SBI) Tiruppur branch office, established in 1923, showed that there was a marked change in the bank's lending strategies from the late 1960s. As part of a decision taken by SBI at the national level, Tiruppur Branch office became more liberal in giving loans to small entrepreneurs; disbursement of loans became more need-based than security-based. Chari (2000) argued that SBI's liberal credit policy was an important factor that helped the remarkable transformation of peasant workers into small-scale entrepreneurs in Tiruppur (Chari, 2000).

VI. INDUSTRIAL GROWTH DURING THE ERA OF FAST-PACED LIBERALIZATION

There has been an acceleration of liberalization measures in India from the late 1990s. While the overall growth experience in India in the recent years has been impressive, the fast pace of reform measures have imposed new strains on the economy, which were particularly unfavourable to the small-scale sector. Measures for trade liberalization proceeded at a much faster rate after 1998. The removal of tariff and quantitative restrictions were in many cases more than what was required under World Trade Organization (WTO) commitments (Chandrasekhar and Ghosh, 2004). On 1 April, 2001, India finally removed quantitative restrictions on imports of manufactured consumer goods and agricultural products (Ahluwalia, 2002). Beginning with the budget of 1997, the government offered various tax

concessions particularly to the corporate sector. Measures have also been initiated to liberalize India's capital account.

Savings and Investment Rates

The fast-paced reform measures have been a factor behind the slow growth of savings and investment rates in the Indian economy. India's savings and investment rates stagnated at a relatively high level during the period from 1996-97 to 2001-02. There was deterioration in government finances during this period of time, which was a result of increases in non-development expenditures and negative savings in public administration. Public sector as a whole recorded negative savings, and aggregate domestic savings ratio in the country fell from 25 per cent to 23 per cent of GDP (Pradhan *et al.*, 2003).

The fall in public sector savings over the years from the early 1980s need further discussion. Public sector savings as proportion of GDP had reached 4.3 per cent in 1981-82. However, from 1983-84, public sector saving in India witnessed almost a steady decline (except for short recoveries in 1985-86 and 1991-92), falling to 0.6 per cent of GDP in 1993-94. Public sector savings recovered over the next four years but turned negative in 1998-99. A major feature of this decline in public sector savings has been the dissavings by public administration, which touched -5.4 per cent of GDP in 1999-00, a year after the implementation of the Fifth Pay Commission recommendations (Pradhan *et al.*, 2003, pp.153-4). Pradhan *et al.* (2003) also showed that economic reforms had the effect of reducing the saving potential of public sector and simultaneously increasing the saving potential of household and corporate sectors. Various subsidies and tax exemptions, large salary increases to government employees, uneconomic pricing of goods produced by public enterprises, failure of government agencies to collect user charges, as well as overstaffing, inefficiency and corruption are factors that reduced public sector savings (Pradhan *et al.*, 2003).

Decline in public investment has been an important factor that slowed down investment in infrastructure projects. The stagnation of public investment in infrastructure has had highly undesirable consequences for growth of small-scale industries.

Steps in the Direction of Capital Account Convertibility

There have been measures in India for progressive liberalization of the capital account. Nachane (2007) pointed out that there has been a 'creeping movement' over the years in the direction of capital account convertibility. Most of the recommendations made by the first committee on capital account convertibility appointed in 1997 under the chairmanship of S.S. Tarapore have already been implemented. Tarapore Committee had recommended that Indian companies could make direct investments in foreign companies to the tune of $50 million. Not only that this recommendation has been implemented, the limit for this investment has been raised to $100 million. Restrictions on end use of ECBs for rupee expenditures are removed, and exporters are allowed to retain 100 per cent of forex earnings in foreign currency accounts. A new committee has been appointed again under the chairmanship of S.S. Tarapore which has produced a roadmap for taking India further forward on the road to capital account convertibility. The new Committee recommendations raise the limits on investments by Indian corporates abroad (Nachane, 2007).

From the 1990s, there has been a significant increase in capital flows to India. At the same time, there has also been growing volatility associated with these capital flows. Portfolio investments made by Foreign Institutional Investors (FIIs) have rapidly expanded in India in recent years. Portfolio finance flows to India was relatively stable during the period between 1992 and 2003, but increased sharply in the years after. The cumulative net inflow of portfolio investment into India between 1990-91 and 2002-03 was US$ 24263. In the next three years, that is, between 2003-04 and 2005-06, the cumulative flow of portfolio investments was US $33184 (see Table 8). Portfolio investments exceeded 60 per cent of total foreign investment (sum of foreign portfolio and direct investments) in India between 2003-04 and 2005-06 (see Table 8). Compared to FDI, portfolio investments are more volatile and subject to 'sudden reversals' as occurred during the East Asian Financial crisis.[6] Other important components of capital flows to India – External Commercial Borrowings (ECBs) and bank deposits by Non-resident Indians (NRIs) – are also highly short term in nature. In 2005-06, portfolio investments, ECBs and NRI deposits, all of which are short-

[6] On the volatility of portfolio flows, see the evidence given in Kohli (2001). See also Rao and Dutt (2006).

term flows exhibiting high volatility, accounted for 67 per cent of total capital flows to India (see Tables 8 and 9).

The Impact of Liberalized Capital Flows on Economic Growth

What has been the impact of liberalized capital flows on the growth of real sectors of the economy in India? Many studies have noted that the impact has been very limited. Nagaraj (1997) showed that capital flows were directed to inter-corporate investment, mergers and acquisitions, and also to fuel the real estate boom. At the same time, Nagaraj (1997) found that the ratio of Gross Fixed Capital Formation to the supply of long term funds available to the manufacturing sector in India fell significantly during the period 1992-96. Ajit Singh (1998) found that any rise in capital formation on account of stock market activity was nullified by a fall in internal corporate funding, possibly due to lower profitability (Singh, 1998).

Data for recent years show that inflows on account of invisibles -- mainly receipts from software services and remittance incomes from migrant workers -- have played a more important role than capital inflows in maintaining India's balance of payments (BOP) within limits. For example, in 2005-06, India's deficit in trade account was US$ 51.6 billion (see Table 9). Total capital inflow to India in 2005-06 was US$ 25.7 billion -- not large enough to offset the deficit in the trade account. The factor which pulled up India's balance of payments was, therefore, the surplus on invisibles, which was US$ 40.9 billion in 2005-06. Private transfer of incomes by India's migrant workers in foreign countries is an important component of the surplus on invisibles: US$ 24.1 dollars in 2005-06. Another equally large component of the surplus on invisibles is receipts from software services, which in 2005-06 was US$22.1 billion.[7] It is important to note that private remittances from workers abroad were almost as large as total capital flows. Private remittances from workers were also much larger than capital inflows from higher income professionals, represented by bank deposits from non-resident Indians (NRIs) (which was only US$ 2.8 billion in 2005-06) – despite the several incentives offered by the government to attract NRI investments (see Table 9).

[7] *Source:* Data compiled in *Handbook of Statistics on Indian Economy,* published by the Reserve Bank of India.

With increases in capital flows, there is the possibility of appreciation of Indian Rupee, which in turn will reduce the competitiveness of India's exports. The Reserve Bank of India has taken a policy decision to allow the value of the Rupee to be determined by market forces; it will influence the value of the Rupee only by purchase and sale of foreign exchange. During periods of heavy inflows of foreign capital – 1993-95 and 1997-98, for instance – RBI has intervened in the market by purchasing dollars. This has resulted in a large accumulation of foreign exchange reserves. As shown in Table 10, India's foreign exchange reserves increased from US$ 4 billion in 1989-90 to US$ 38.0 billion in 1999-00 and US$151.6 billion in 2005-06. In 1989-90, just before the reforms, India's reserves position had fallen to very low levels: enough to cover only 1.9 months of imports. Foreign exchange reserves as actual import cover reached much higher levels in recent years: it was 16.9 months of import cover in 2003-04. The worrying aspect about reserves, however, is that the build up of reserves has not led to increases in investment activity.

It was expected that the measures for financial sector liberalization would result in a reduction of interest rates in India. In turn, this would lead to a fall in the cost of capital and give a positive impetus to investment and economic growth in the country. However, contrary to expectations, domestic interest rates continue to remain high in India. The inability to reduce interest rate is associated with the government's loss of autonomy in determination of interest rates. With the policies of financial liberalization, interest rate on government securities replaced bank rate of the Reserve Bank of India as the basic determinant of interest rates in the country (Chandrasekhar and Ghosh, 2004). Nachane (2005) points out that as the process of financial liberalization gathers momentum, the demand for bank deposits is determined by the 'spread' (between nominal interest rates on money and near money assets) rather than the level of nominal interest rates. Compared to the Central Bank, market forces have a greater say on the on the determination of spread. Also, with financial liberalization, the link between monetary and macroeconomic variables is weakened, leaving the monetary authorities with less scope for intervening in the real markets (Nachane, 2005). In a period of liberalized rules for external capital flows, the lowering of interest rates on government securities will raise the possibility of major capital outflows from the country. As a result, the government has only limited freedoms as regards

the reduction of nominal interest rates on government securities and, thereby, cause a decline in real interest rates (Chandrasekhar and Ghosh, 2004).[8]

Increased Vulnerabilities to the Economy as a Result of Financial Liberalization

Patnaik (2003) explains the possibility of deindustrialization – unemployment of hitherto employed industrial workers – as a consequence of the economy's opening up for trade and financial flows. This form of deindustrialization can occur even in a situation where domestic manufacturers are capable of withstanding foreign competition. Sudden inflows of speculative foreign capital can lead to exchange rate appreciation, cheapening of foreign goods relative to domestic goods, and consequently, deindustrialization and unemployment. As capital flows into the country, trade deficits widen, not as a result of rise in investments but through a decline in savings rate in the economy. Panaik (2003) points out that bulk of the capital flows are in the nature of capital-as-finance, not as capital-in-production. If capital inflows are not channelled to productive purposes, the Central Bank holds these capital inflows as reserves. There are many factors that prevent the use of foreign exchange reserves for investment purposes. First, private investment in India has been demand-constrained rather than finance-constrained. This explains the rather unusual phenomenon of stagnation in gross fixed capital formation in the private sector as a share of GDP even when forex reserves were piling up. Secondly, the strong influence of neoclassical economics in the realm of policymaking militates against the use of forex reserves for rising public investment. Thirdly, there are problems arising from the use of capital flows which are 'short term' in nature for financing investments which are 'long-term' in nature: Problems also arise as a result of borrowing in foreign exchange for investing in projects which do not earn foreign exchange (Patnaik, 2003).

Mihir Rakshit (2003) has also pointed to the growth retarding features of capital flows to India in recent years. India is a demand deficient economy, and in a demand deficient economy, capital flows will result in a reduction in current output, investment and consequently future production potential. In addition to the costs on account of servicing the capital receipts, capital flows also leads to appreciation of currency, increases in trade deficits and widening of the output gap. Therefore, Rakshit (2003) notes, when Indian

[8] See also Chandrasekhar and Pal (2006).

companies raise money abroad for domestic investments or when State governments receive loans from international agencies such as the World Bank, it has the effect of capital inflows to a demand deficient economy, and therefore such inflows will retard growth. Similarly when capital flows in the form of FDI or FPI do not result in domestic capital accumulation, economic growth will be retarded. Rakshit (2003) notes clearly that in a demand deficient economy like India, governments should try to achieve the goal of capital accumulation by employing domestic and not foreign resources.

VII. CONCLUSIONS

Manufacturing sector in India has been exhibiting some degree of dichotomy in growth in recent years. While a small segment of this sector is growing in technological capabilities and attracting global attention, large numbers of relatively small industrial firms in India are lagging behind. In particular, generation of employment and growth of new firms have slowed down in India's factory sector in the post-1980 period. The expansion of unregistered manufacturing has lagged behind that of registered manufacturing (largely the factory sector), and the divergence in growth between the two has been widening. This paper attempts to understand how financial sector reforms have contributed to such growth divergences in Indian manufacturing.

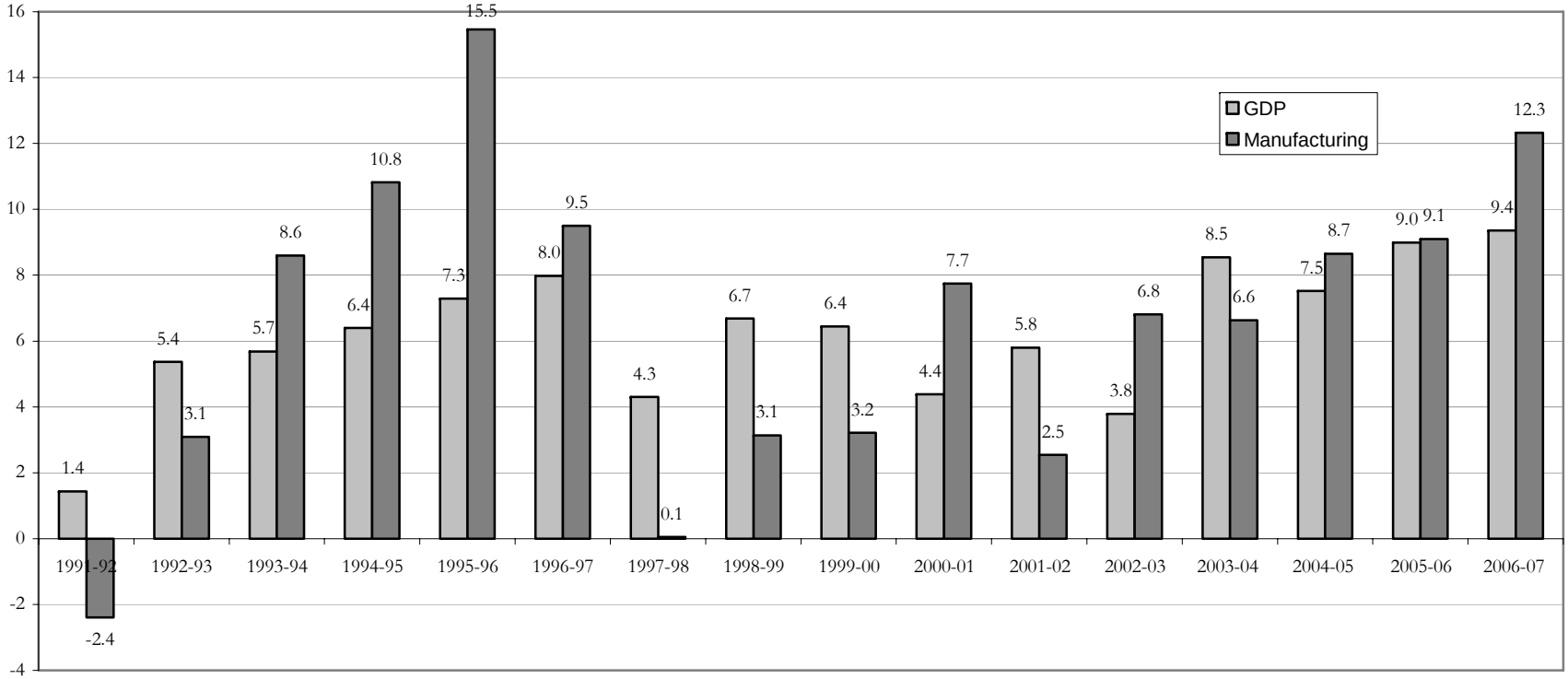
As part of the reform process, new measures were introduced to liberalize the money and credit markets in the country. An important objective of the reform process was to improve allocative efficiency in financial markets and increase credit availability in the economy. However, irrespective of the reforms, credit disbursed by scheduled commercial banks showed a deceleration in growth between 1996-97 and 2001-02. At the same time, banks' investments in government securities continued to be high, as they accounted for 37.3 per cent of deposits in March 2002 – almost 12 percentage points above the statutory requirements. Credit channelled to the industrial and agricultural sectors as well as priority sectors including small scale industry as a share of total bank credit declined in the post-1990 period. During the same period, however, the share of credit allocated for personal loans and especially housing loans showed a significant increase.

It may be remembered here that an important factor behind the revival of India's economic growth from the late 1970s was the increase in private and public investment after

the mid-1970s. Policies from the late 1960s beginning with the bank nationalization in 1969 helped the process of financial deepening in the country, which in turn triggered the rise in investments. Policies for allocation of credit to the priority sectors particularly small scale industry have given a boost to small-scale industrial production in the country.

There has been a 'creeping movement' from the late 1990s in the direction of capital account convertibility, and this has increased the vulnerabilities faced by the economy. Portfolio investments, external commercial borrowings and bank deposits by NRIs, all highly volatile in nature, account for a high proportion of total capital flows to India in recent years. Studies have noted that the recent surge in capital flows have not made any significant positive contribution to economic growth in the country. On the other hand, large capital flows have resulted in accumulation of foreign exchange reserves. In turn, this has led to appreciation of the Indian Rupee and reduction in competitiveness of India's manufactured exports. At the same time, policies for financial sector liberalization have resulted in a loss of autonomy for the government in the determination of interest rates. Consequently, the reforms have not led to a reduction in interest rates and fall in the cost of capital for industry.

Figure 1: *Rates of Growth over the Previous Year of India's Total GDP and Manufacturing GDP at Factor Cost (at Constant 1999-00 Prices), 1991-92 to 2006-07*



Notes: GDP is Gross Domestic Product. The figures for 2005-06 and 2006-07 are based on quick estimates and revised estimates respectively.
Source: *National Accounts Statistics* published by Central Statistical Organization (CSO), available from Reserve Bank of India website.

Table 1: *Rates of Growth of Manufacturing Incomes (at constant 1993-94 prices) in India, 1950-51 to 2004-05, in %*

Time period	Rate of growth
1950-51 to 1964-65	5.67
1965-66 to 1979-80	3.88
1980-81 to 2004-05	6.66
1980-81 to 1990-91	7.52
1991-92 to 2004-05	6.66

Notes: Rates of growth are calculated by semilogarithmic regression.
All growth rates are statistically significant at less than 5 per cent level.
Source: Calculations based on *National Accounts Statistics* published by CSO, available from EPWRF and <www.rbi.org.in>

Table 2: *Employment in the Factory Sector and Other Sectors, India, 2001*

	Numbers in millions
Workers in manufacturing	51.2
Factory sector workers	8.0
Workers other than cultivators and agricultural labourers	168.1
Total workers	402.2
Factory sector workers as a % of workers in the manufacturing sector	15.62
Factory sector workers as a % of total workers	1.98

Notes: Employment refers to the sum of main and marginal workers.

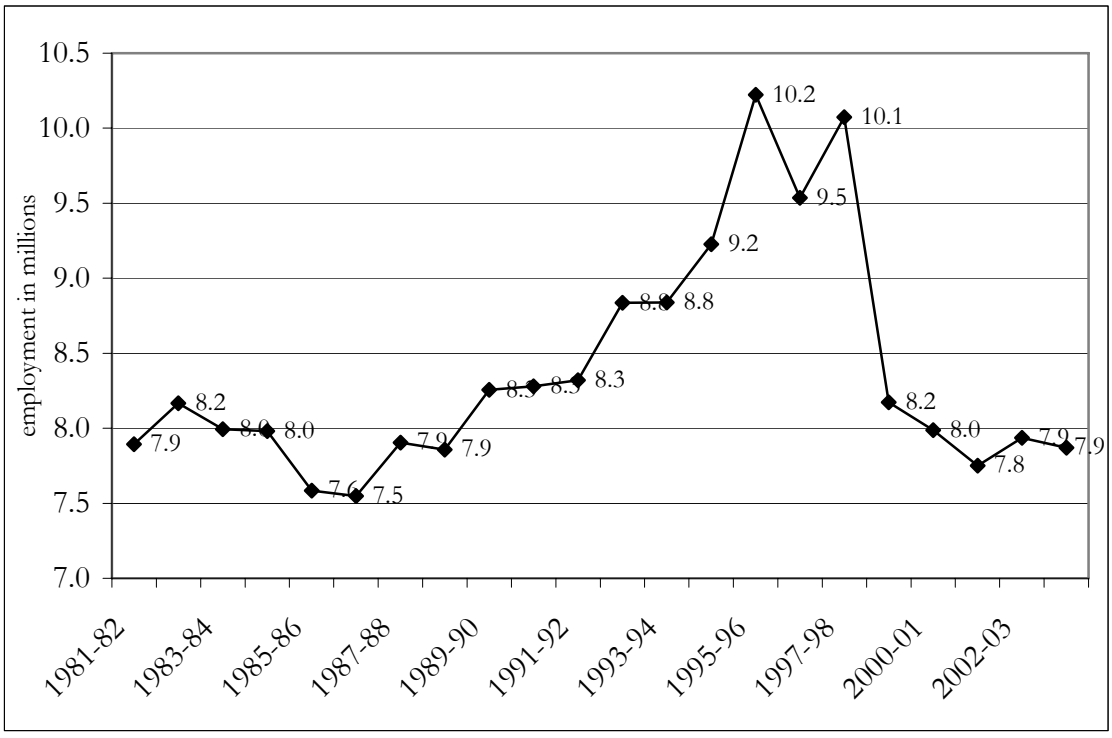
Sources: Census of India 2001 from <www.censusindia.net>; data on factory sector from Annual Survey of Industries 2000-01.

Table 3: *Employment in India's Factory Sector and Organized Sector, various years, numbers in millions*

	Factory Sector	Organized Sector
1960	3.8	--
1970	5.0	17.8
1981-82	7.9	23.8
1991-92	8.3	27.1
1997-98	10.1	28.2
2003-04	7.9	26.5

Sources: Annual Survey of Industries, various issues, *Handbook of Statistics on Indian Economy,* Reserve Bank of India, from < www.rbi.org.in>

Figure 2: *Employment in India's Factory Sector, 1981-82 to 2003-04, numbers in millions*



Source: Annual Survey of Industries, various issues.

Figure 3: *Log of Employment and Gross Value Added, India's Factory Sector, 1959-60 to 2003-04*

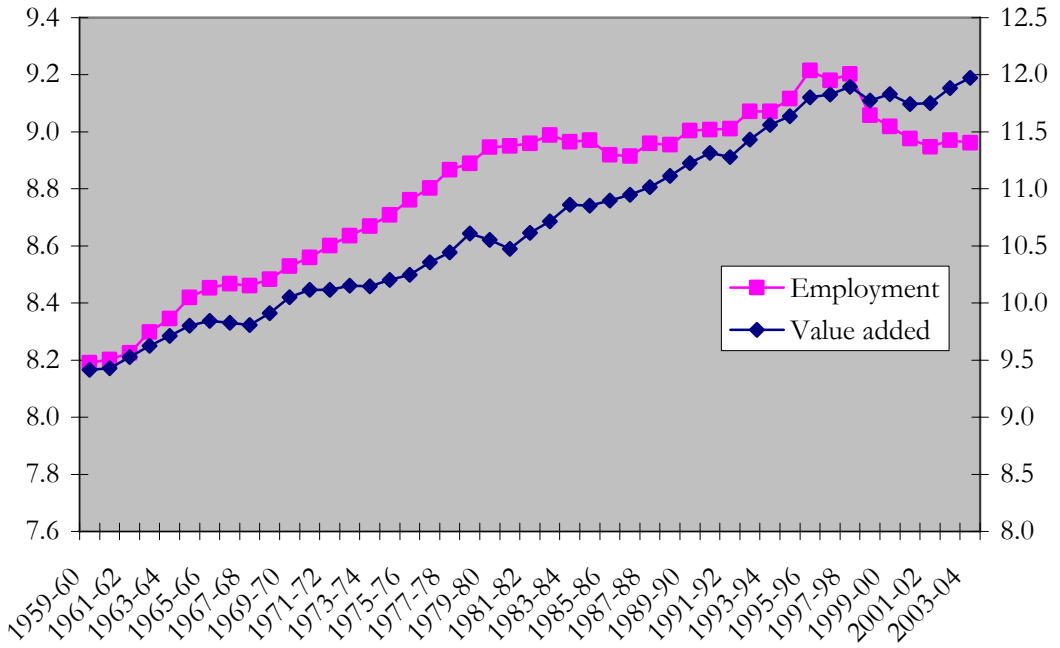
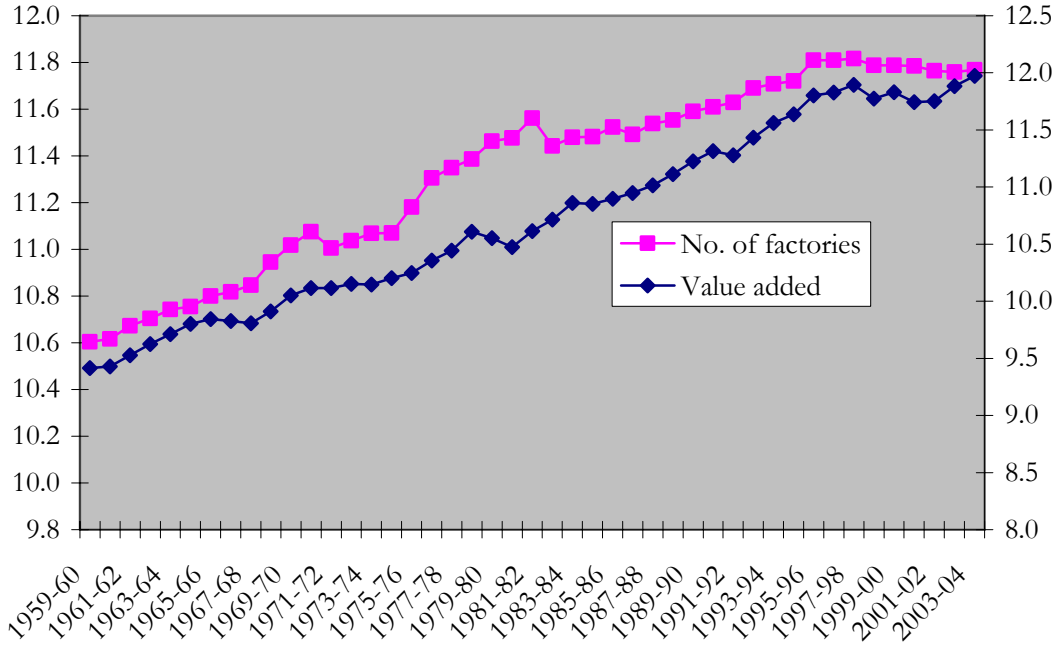
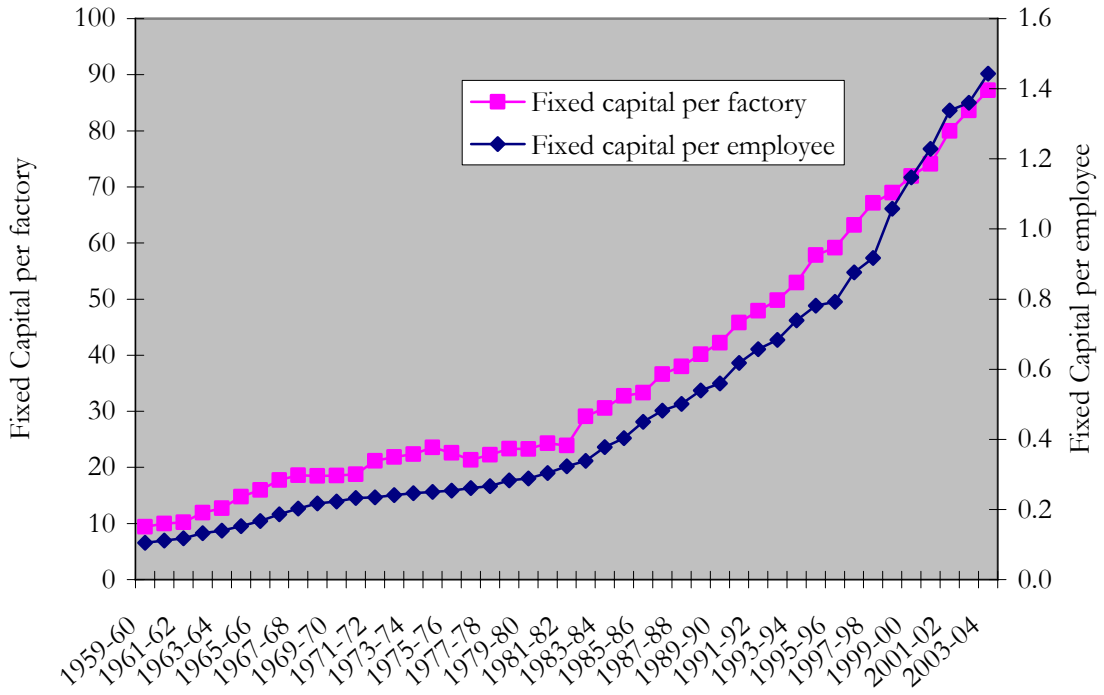


Figure 4: *Log of Number of Factories and Gross Value Added, India's Factory Sector, 1959-60 to 2003-04*



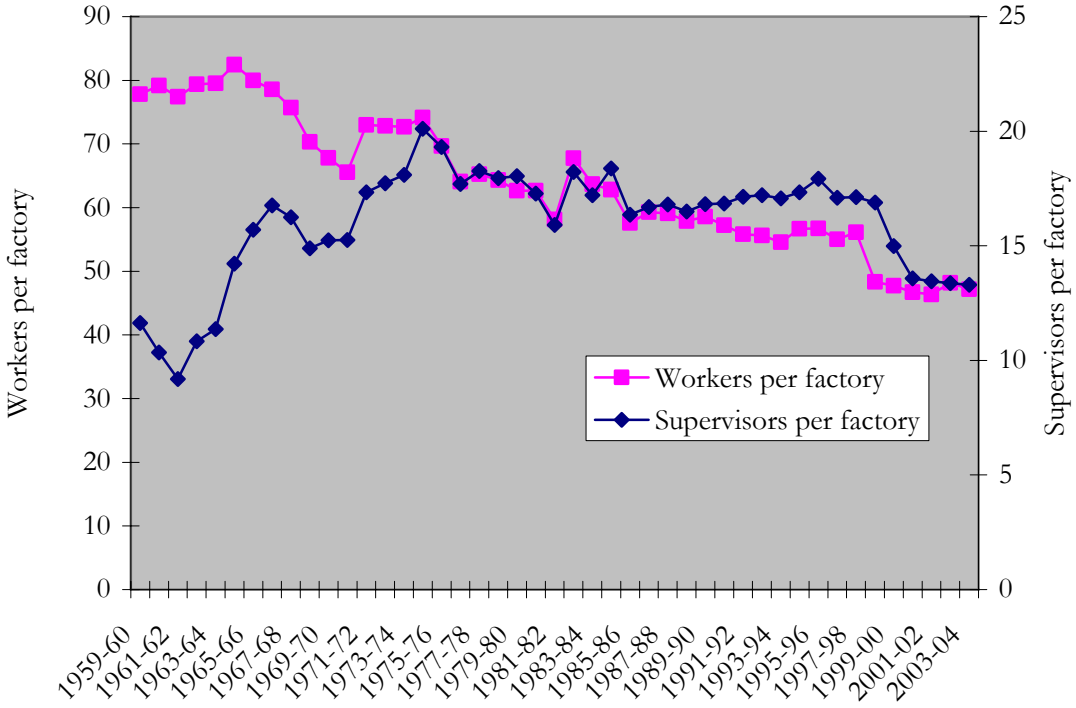
Source: ASI Factory Sector, data for various years

Figure 5: *Fixed Capital per Factory and Fixed Capital per Employee, India's Factory Sector, 1959-60 to 1997-98, in Rupees Million*



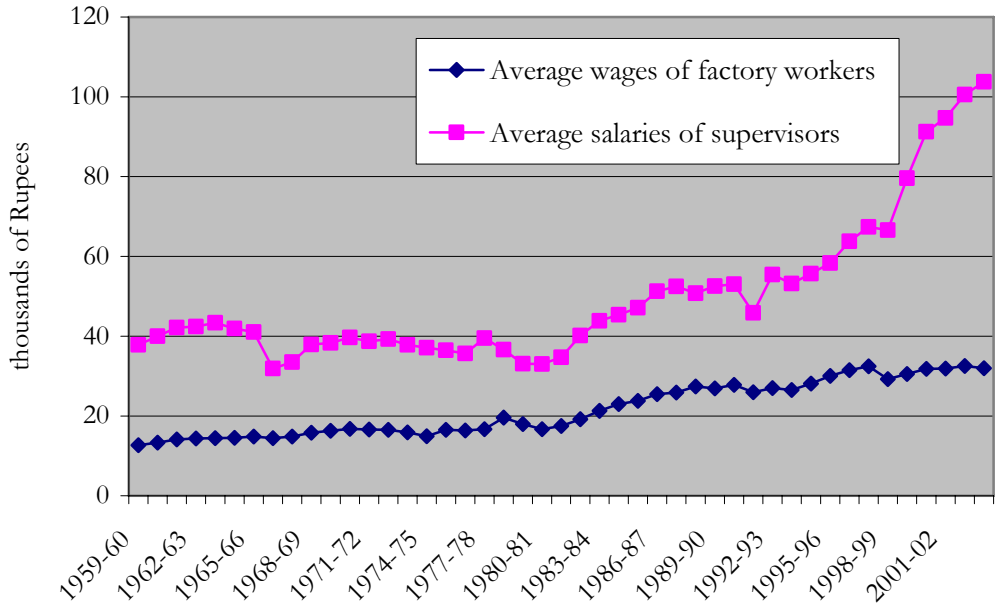
Notes: A fixed capital stock series at constant prices was built from the book value of capital reported in ASI, using the perpetual inventory accumulation method. Wholesale price indices for machinery and machine tools with base 1993-94 have been used to deflate figures for capital investment.
Source: ASI Factory Sector, data for various years

Figure 6: *Workers per Factory and Supervisors per Factory, India's Factory Sector, 1959-60 to 2003-04, in actual numbers*



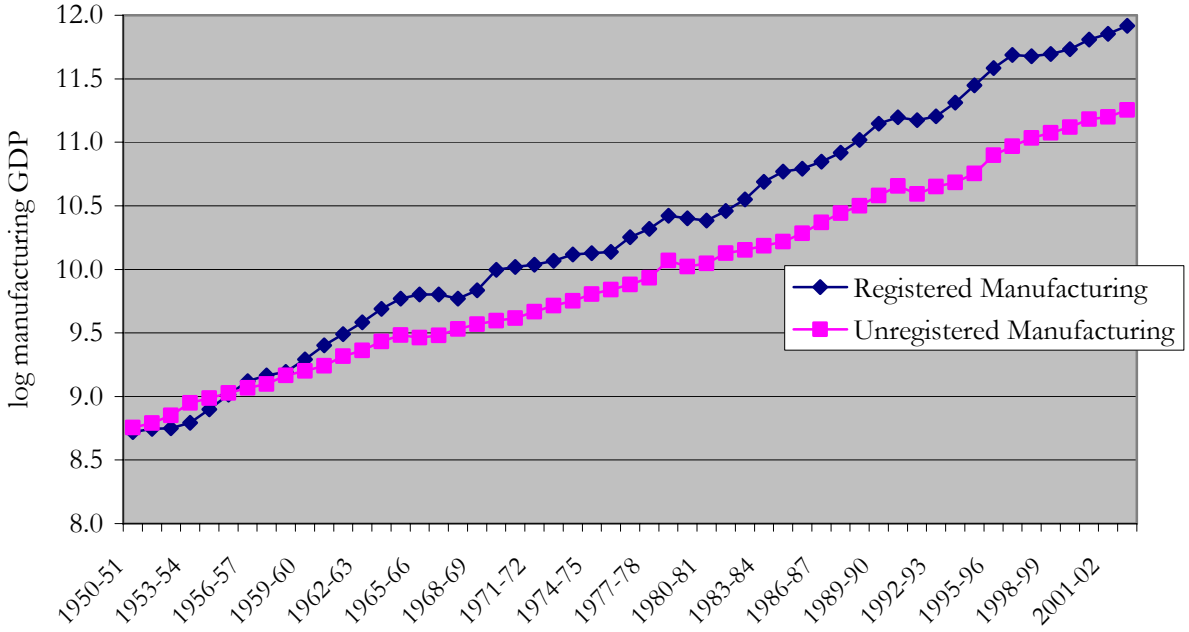
Notes: Number of supervisors was obtained by subtracting number of workers from number of employees.
Source: ASI data for factory sector, various issues

Figure 7: *Average Annual Earnings by Workers and Supervisors (at constant 1993-94 prices), India's Factory Sector, 1959-60 to 2003-04, in Thousands of Rupees*



Notes: Annual earnings was deflated by Wholesale Price Index for manufactured products (1993-94 = 100).
Earnings by supervisors was obtained by subtracting total wages to workers from total emoluments to employees.
Source: ASI data for factory sector, various issues

Figure 8: *Log of Registered and Unregistered Manufacturing Gross Domestic Product of India, at constant 1993-94 prices, 1950-51 to 2002-03*



Source: Calculations based on *National Accounts Statistics* published by CSO, available from EPWRF and <www.rbi.org.in>

Table 4: *Non-Bank Sources of Funds for Industry in India, 1997-98 to 2005-06*

Year	Capital Issues	ADR/GDR Issues	External Commercial Borrowings	Issue of CPs	Financial Assistance by FIs (net)	Retained earnings	Depreciation Provision
1997-98	2,171	--	14,028	854	--	6,873	11,312
1998-99	2,484	--	-2,504	3,270	--	4,517	12,944
1999-00	2,350	2,144	2,993	893	--	4,678	14,710
2000-01	2,505	3,433	-3,182	183	9,084	5,186	15,759
2001-02	1,951	1,528	-11,308	1,378	-3,469	2,584	17,451
2002-03	642	3,426	-3,593	-1,475	-5,672	8,288	18,306
2003-04	2,422	3,098	16,098	3,382	2,723	15,645	20,408
2004-05	10,456	2,960	41,106	5,104	7,885	28,384	22,697
2005-06	13,781	7,262	45,078	-1,517	8,687	48,402	28,883

Notes: ADR is American Depository Receipts; GDR is Global Depository Receipts; CP is Commercial Paper; and FIs are Financial Institutions.
Source: Reserve Bank of India (2006), p. 137.

Table 5: *Compound Annual Growth Rate of Credit Disbursed by Commercial Banks in India, by Sectors, 1980-81 to 2004-05*

Sectors	1980-81 to 1989-90	1990-91 to 1999-00	2000-01 to 2004-05
Agriculture	18.1	10.6	22.2
Industry	17.4	15.4	15.9
Transport operators	13.6	9.4	11.2
Professional services	20.7	16.8	30.4
Personal loans	25.3	22.7	37.7
Trade	11.8	17.3	12.6
Finance	29.2	25.6	27.4
Total bank credit	17.2	16.0	20.2

Source: Basic Statistical Returns of Scheduled Commercial Banks in India, various issues, Reserve Bank of India cited in Reserve Bank of India (2006), p.131.

Table 6: *Distribution of Outstanding Credit of Scheduled Commercial Banks in India by Sectors, as per cent of Total Outstanding Credit, 1990 to 2005*

	End-March						
	1990	1995	2000	2002	2003	2004	2005
Agriculture	15.9	11.8	9.9	9.8	10.0	10.9	10.8
Industry	48.7	45.6	46.5	41.4	41.0	38.0	38.8
Transport	3.2	1.9	1.8	1.4	1.2	1.3	1.2
Personal loans and professional services	9.4	11.3	14.4	16.8	19.6	25.3	27.0
Of which							
Loans for purchase of consumer durables	0.4	0.3	0.6	0.5	0.4	0.5	0.6
Loans for housing	2.4	2.8	4.0	5.0	6.5	9.7	11.0
Trade	13.9	17.1	15.6	15.4	13.8	11.5	11.2
Financial institutions	2.1	3.8	4.8	5.7	6.7	6.7	6.4
Miscellaneous	6.8	8.5	7.1	9.5	7.7	6.2	4.6
Total credit	100	100	100	100	100	100	100

Source: Basic Statistical Returns of Scheduled Commercial Banks in India, various issues, Reserve Bank of India cited in Reserve Bank of India (2006), p.132

Table 7: *Outstanding Priority Sector Advances as Proportions of Non-Food Gross Bank Credit, End-March 1990 to End-March 2006, Proportions in per cent*

Year	All priority sector advances	Agriculture advances	SSI advances
1990	40.1	16.4	15.4
1991	37.8	14.8	15.1
1992	37.4	15.0	15.0
1993	35.5	14.2	14.3
1994	36.9	14.5	15.5
1995	34.7	13.0	15.0
1996	33.0	12.2	14.4
1997	33.8	12.5	14.3
1998	34.6	12.1	15.1
1999	35.2	12.2	14.9
2000	35.1	11.8	14.1
2001	36.0	12.1	13.0
2002	36.3	12.6	11.8
2003	34.1	11.9	9.7
2004	36.2	12.4	9.0
2005	38.2	12.5	7.5
2006	36.3	12.3	6.4

Notes: SSI is Small-scale industry.
Source: Handbook of Statistics on Indian Economy, 2005-06, Reserve Bank of India, cited in Reserve Bank of India (2006), p.134.

Table 8: *Foreign Investment Inflows in India, 1990-91 to 2005-06: Foreign Direct Investment, Foreign Portfolio Investment and Total*

	Direct Investment, in US $million	Share in total, in %	Portfolio Investment, in US $million	Share in total, in %	Total Investment, In US $million
1990-91	97	94.2	6	5.8	103
1991-92	129	97.0	4	3.0	133
1992-93	315	56.4	244	43.6	559
1993-94	586	14.1	3567	85.9	4153
1994-95	1314	25.6	3824	74.4	5138
1995-96	2144	43.8	2748	56.2	4892
1996-97	2821	46.0	3312	54.0	6133
1997-98	3557	66.1	1828	33.9	5385
1998-99	2462	102.5	-61	-2.5	2401
1999-00	2155	41.6	3026	58.4	5181
2000-01	4029	59.3	2760	40.7	6789
2001-02	6130	75.2	2021	24.8	8151
2002-03	5035	83.7	979	16.3	6014
2003-04	4322	27.5	11377	72.5	15699
2004-05	5652	37.8	9315	62.2	14967
2005-06	7751	38.3	12492	61.7	20243

Source: Data compiled in *Handbook of Statistics on Indian Economy,* published by Reserve Bank of India, available at <www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>

Table 9: *Key Components of India's Balance of Payments, Selected Years, Figures in millions of US dollars*

Item		1991-92	1995-96	1999-00	2003-04	2005-06
I	*Merchandise*					
	A) Exports, f.o.b.	18477	32311	37542	66285	104780
	B) Imports, c.i.f.	27914	43670	55383	80003	156334
	Trade balance (A-B)	*-9437*	*-11359*	*-17841*	*-13718*	*-51554*
II.	*Invisibles, net*	*-243*	*5449*	*13143*	*27801*	*40942*
III.	*Current account (I+II)*	*-9680*	*-5910*	*-4698*	*14083*	*-10612*
IV.	*Capital account (A to F)*	*7188*	*4689*	*11100*	*17338*	*25664*
	A) Foreign investment	103	4805	5191	15678	20180
	B) External assistance, net	2210	883	901	-2754	1522
	C) Commercial borrowings, net	2248	1275	313	-2928	1933
	D) Rupee debt service	-1193	-952	-711	-376	-572
	E) NRI deposits, net	1536	1103	1540	3642	2789
	F) Other capital	2284	-2425	3866	4076	-188
V.	*Overall balance (III+IV)*	*-2492*	*-1221*	*6402*	*31421*	*15052*
VI.	*Monetary movements (VII+VIII+IX)*	*2492*	*1221*	*-6402*	*-31421*	*-15052*
VII.	Reserves (increase -/ decrease +)	1278	2936	-6142	-31421	-15052
VIII.	IMF, net	1214	-1715	-260	0	0
IX.	SDR allocation	0	0	0	0	0

Notes: NRI is Non-Resident Indians; IMF is International Monetary Fund; and SDRs are Special Drawing Rights of IMF.
Source: Data compiled in *Handbook of Statistics on Indian Economy,* published by Reserve Bank of India, available at <www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>

Table 10: *India's Foreign Exchange Reserves, in billions of US dollars and as import cover in months*

	Reserves in billions of US dollars	Import cover of reserves in months
1989-90	4.0	1.9
1990-91	5.8	2.5
1995-96	21.7	6.0
1999-00	38.0	8.2
2002-03	76.1	14.2
2003-04	113.0	16.9
2004-05	141.5	14.3
2005-06	151.6	11.6

Source: Data compiled in *Handbook of Statistics on Indian Economy,* published by Reserve Bank of India, available at <www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>

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