

**Economic growth and employment generation in India:
Old problems and new paradoxes**

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I. Introduction

This paper is concerned with a consideration of what is probably the central process in equitable growth - the generation of productive and remunerative employment. This is of course a concern that is as old as the study of economic growth itself, and underlies all the debates about the possibilities of "trickle-down" of growth. But it has acquired particular resonance in India in the recent past because of the apparent transformation of the economy and increase in its growth potential, which has surprisingly (and unfortunately) not been accompanied by commensurate increases in remunerative employment. The introductory considers why the recent Indian experience is of particular interest, and identifies some conceptual issues in the growth-employment linkage. The next section describes the pattern of growth in India over the past two decades, and the macroeconomic policies associated with this pattern. The third section assesses the employment performance over the same period, in both aggregate and sectoral terms. It also considers changes in the nature of the labour market and trends in wages. The final section attempts to bring together these different dynamics through a consideration of the enmeshing of government policies and consequent processes, and discusses the possibilities for developing strategies that are more explicitly concerned with productive employment generation.

India is currently regarded (along with China) as one of the "success stories" of globalisation, likely to emerge into a giant economy in the 21st century. The success is defined by the relatively high and sustained rates of growth of aggregate and per capita national income; the absence of major financial crises that have characterised a number of other emerging markets; and some reduction in income poverty. These results in turn are viewed as the consequences of a combination of a "prudent" yet extensive programme of global economic integration and domestic deregulation, as well as sound macroeconomic management.

¹ This paper incorporates work done for the ILO and . It also reflects substantial discussions with Abhijit Sen and Prabhat Patnaik.

There is no doubt that the country has sustained a high and accelerating rate of growth over the past 25 years. According to official figures, GDP growth has accelerated from its "Hindu rate" origins of around 3.5 per cent per year in the sixties and seventies to annual rates of 5.4 per cent in the 1980s, 6.3 per cent during the decade starting 1992-93 and more than 8 per cent over the past three years. Since this acceleration has occurred in a context of limited inflation, the government is now targeting a further rise to 9 and even 10 per cent over the Eleventh Plan.

Despite these clear positives, there are important areas of concern. Recent economic growth has been marked by increasing inequalities, both spatial and vertical within regions. High rates of growth in services and more recently in industry have been associated with stagnant agricultural incomes and a pervasive agrarian crisis with falling financial viability of much cultivation. There has been a reduction in the rate of poverty reduction even as rates of growth of per capita income have doubled. Important indicators such as those relating to food and nutrition security have deteriorated for significant sections of the population. And critically, the economic growth process in India exhibits a problem which is increasingly common throughout the developing world: the apparent inability of even high rates of even high rates of output growth to generate sufficient opportunities for "decent work" to meet the needs of the growing labour force.

This particular disjunction is crucially related to the economic policy regime, which has involved a substantial degree of internal and external liberalisation, especially in terms of more open trade and capital accounts. There are reasons to believe that the pattern of manufacturing growth under an open economic regime tends to be such that the responsiveness of employment growth to the growth in output declines. It is worth noting that the combination of high output growth and low employment growth, is a feature that has characterised both India and China during the years when they have opened their economies to trade and investment.

There are several reasons for this. The most obvious is the impact of trade liberalisation on the pattern of demand for goods and services within the country. As tastes and preferences of the elites in developing countries are influenced by the "demonstration effect" of lifestyles in the developed countries, new products and processes introduced in the latter very quickly find their way to the developing countries when their economies are open. Further, technological progress in the form of new products and processes in the developed countries is inevitably associated with an increase in labour productivity. Producers in developing countries

find that the pressure of external competition (in both exporting and import-competing sectors) requires them to adopt such technologies.² Hence, after external trade has been liberalised, labour productivity growth in developing countries is more or less exogenously given and tends to be higher than prior to trade liberalisation. This is the probably the primary cause of the growing divergence between output and employment growth in the case of Indian industry and some services. Meanwhile, employment and livelihood in the primary producing sectors, and particularly agriculture, are hit by the combination of more open trade and reduced government protection of inputs and output prices.

In addition, financial liberalisation, and particularly exposure to open capital flows, puts fairly strong constraints on fiscal behaviour even as it typically involves declining tax-GDP ratios. This means that government tend to become constrained in terms of increasing expenditure, and less able to increase demand during recessions as well as engage in expansionary policies explicitly designed to increase employment levels. All these are strong reasons for the theoretical expectation that economic growth will not necessarily result in higher rates of employment expansion, especially of more "decent work".

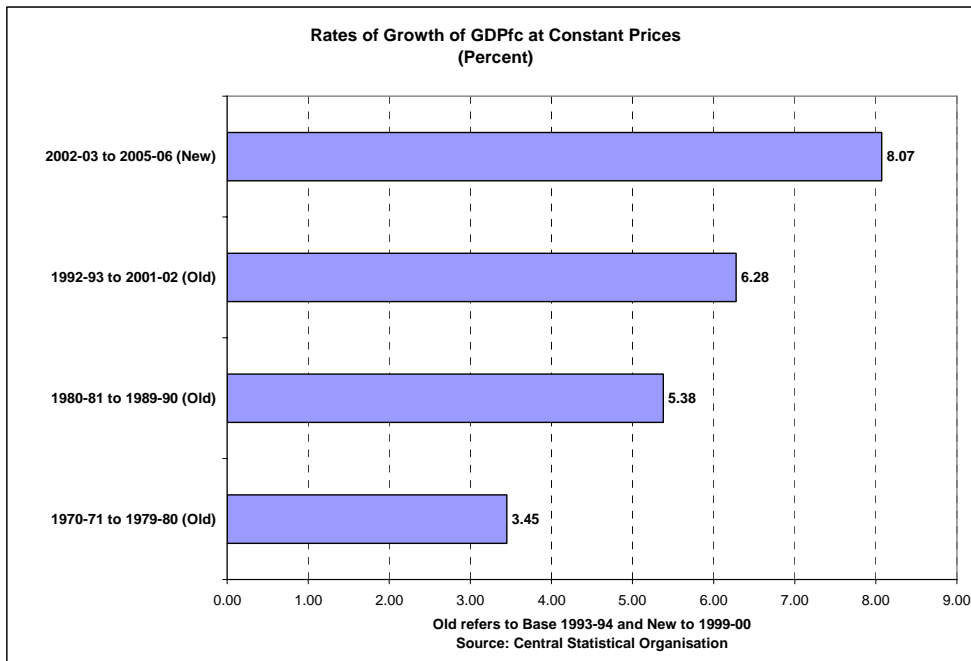
This indeed is what emerges from a more detailed consideration of the patterns of growth and employment dynamics in India. In sum, the basic picture of "the problem and the paradoxes" relating to growth and employment generation in India is as follows. The problem is the old one - indeed, the most basic one - that has confronted development policy for at least half a century: how to ensure that employment patterns are such as to ensure decent livelihoods for the citizenry as a whole. But the paradoxes are indeed new: the fact that aggregate output growth rates have accelerated but not generated much employment; the fact that falling real wages and falling wage shares have not led to more labour being demanded by employers; the increase in petty self-employment not only in agriculture and services but even in industry, even as the corporate sector grows apace in share of income. These issues are considered in more detail below.

² These factors have been elaborated upon by Prabhat Patnaik "Technology and unemployment in an open underdeveloped economy", IDEAs Working Paper 2006/1, www.networkideas.org.

II. Macroeconomic policies and the pattern of growth

It is now accepted that after a period of deceleration in industrial growth during the late 1960s and 1970s, widely considered a period of "stagnation", India moved from a path characterised by a slow 3 per cent "Hindu rate of growth" on to a rather creditable growth trajectory involving GDP growth of around 5 to 6 per cent per annum from the early 1980s. This is important to note - that the recovery from a period when growth decelerated sharply starting in the mid-1960s did not begin with the "economic reform" of 1991, but a decade earlier.³ However, as Chart 1 indicates, the recent period suggests a movement towards an even more rapid growth trajectory, with annual rates of real GDP growth in excess of 8 per cent over the past three years.

Chart 1: Annual rates of growth of real GDP



The explicit aims of the neoliberal economic reform process adopted from 1991 onwards were: (i) to do away with or substantially reduce controls on capacity creation, production and prices, and let market forces influence the investment and

³ Chandrasekhar and Ghosh (2004) elaborate on this argument.

operational decisions of domestic and foreign economic agents within the domestic tariff area; (ii) to allow international competition and therefore international relative prices to influence economic decisions; (iii) to reduce the presence of state agencies in production and trade; and (iv) to liberalise the financial sector by reducing controls on the banking system, allowing for the proliferation of financial institutions and instruments and permitting foreign entry into the financial sector. These were all based on the notion that greater freedom given to private agents and market functioning would ensure more efficient and more dynamic outcomes. The government's aim was also to restructure production towards areas of international "comparative advantage" (defined in static rather than dynamic terms). These areas were seen as inherently more labour-intensive, which led to the further prediction that, after an initial brief period of net job loss, such a strategy of trade liberalization would actually create more employment over time in more sustainable ways.

These aims translated into successive changes in the pattern of regulation in different sectors as well as in aggregate macroeconomic policies. By the early years of the current century, therefore, the Indian economy had undergone the following policy changes:

- reduction in direct state control in terms of administered prices and regulation of economic activity;
- privatization of state assets, often in controversial circumstances;
- rationalization and reduction of direct and indirect tax rates, which became associated with declining tax-GDP ratios;
- attempts to reduce fiscal deficits which usually involved cutting back on public productive investment as well as certain types of social expenditure, reducing subsidies to farmers and increasing user charges for public services and utilities;
- trade liberalization, involving shifts from quantitative restrictions to tariffs and typically sharp reductions in the average rate of tariff protection, as well as withdrawal of export subsidies;
- financial liberalization involving reductions in directed credit, freeing of interest rate ceilings and other measures which raised the real cost of borrowing, including for the government;
- shift to market determined exchange rates and liberalization of current account transactions;
- some capital account liberalization, including easing of rules for Foreign Direct Investment, permissions for non-residents to hold domestic financial assets, easier access to foreign commercial borrowing by domestic firms, and later even freedom for domestic residents to hold limited foreign assets.

There was one area in which the reforms in India over most of the period were more cautious when compared with many other developing countries: capital account liberalization. While there were certainly some changes in this area - primarily in terms of easing the rules for FDI and allowing foreign portfolio investment - external financial liberalization was still relatively limited, and this meant that the Indian economy was not subject to sharp and potentially destabilising flows of capital, either inflows or outflows, over this period. Further, the Indian economy was not really chosen to be a favourite of international financial markets until the very recent period from 2002 onwards. Meanwhile, greater stability was imparted to the balance of payments by the substantial inflows of workers' remittances from temporary migrant workers in the Gulf and other regions, which amounted to more than all forms of capital inflow put together and ensured that the current account was characterised by either low deficits or even surpluses in most years.

It has already been observed that the transition to a higher economic growth trajectory was associated in the 1980s with the fiscal stimulus provided by the state in a context of import liberalization. In the 1990s, this fiscal stimulus was much weaker, declining in the first part of the decade and only increasing somewhat from 1997 onwards. The growth performance was more uneven, with deceleration in agricultural output growth and fluctuating performance in manufacturing. Since the 1990s liberalization was not accompanied by any new dynamism in the commodity-producing sectors of the economy, the expansion of services proved to be crucial over this later period.

Despite the weakened fiscal stimulus, both in terms of public investment and aggregate expenditure, the role of the state remained crucial, since it was the state that determined the contours of tax reductions, deregulation and other policies that allowed for economic growth based on the demands of a relatively small and dominantly urban section of the population. The explosion in the consumption of the upper quintile of the population, which fed this growth, involved increased inequality, both across regions of India and within regions across different economic and social categories. There was also a widening gap between incomes in agriculture and non-agriculture, such that the ratio of per worker domestic product in non-agriculture to that in agriculture increased from about 2 in the 1950s to well over 4 in the 1990s.

As Table 1 shows, the phase of higher growth since the 1980s has been associated with some amount of structural change, although perhaps not as much as might be expected. Investment rates have increased over time, which is only to be expected in a developing economy achieving higher rates of per capita income, but the rate of increase actually slowed down, and the last decade shows almost no change in the investment rate. Meanwhile, the share of agriculture in GDP has

fallen along predictable lines in the course of development, but there has been little increase in the share of the secondary sector, which has not changed at all since the early 1990s. Rather, the share of the tertiary sector has increased dramatically, to the point where it now accounts for around half of national income.

Table 1: Structural change in the Indian economy

Period (year starting April)	Investment rate	Per cent of GDP		
		Primary	Secondary	Tertiary
1950-52	15.5	59	13.4	27.6
1960-62	19.4	53.1	17.3	29.6
1970-72	23.8	46.6	20.4	33.0
1980-82	22.0	41.3	21.8	36.9
1990-92	26.0	34.4	24	41.6
2000-02	26.2	26.1	24.7	49.2

Source: CSO, National Accounts Statistics, various issues.

Such changes in output shares were not accompanied by commensurate changes in the distribution of the workforce. The proportion of all workers engaged in agriculture as the main occupation has remained stubbornly above 60 per cent, despite the collapse in agricultural employment generation of the most recent decade and the fall in agriculture's share of national income. It is also intriguing that the higher rates of investment of the last two decades have not generated more expansion of industry, but have instead been associated with an apparent explosion in services, that catch-all sector of varying components.

For some time now the rate of growth of services GDP has been much higher than the rate of growth of overall GDP. As a result the share of services in GDP, which was around a third in the mid-1970s, had risen to more than a half by 2004-05. More than sixty per cent of the increment in GDP during the period 1993-94 to 2004-05 was due to an increase in GDP from services. Services have also contributed significantly to the recent acceleration of the growth rate, with rates of growth of services GDP touching 8.2, 9.9 and 10.1 respectively in the three years ending 2005-06. Though, construction has performed even better, with corresponding figures of 10.9 12.5 and 12.1 per cent respectively, given the high share of services in overall GDP, that sector would account for an overwhelming share of the higher rate of growth.

This trajectory does make India's growth experience unusual, if not unique. The sharp increase in the share of services in GDP in India has occurred at a much lower level of per capita income than characterised the developed countries when they experienced a similar expansion. Of course, there are reasons why growth in developing countries today would reflect a premature expansion of services. To start with, globally manufacturing units today rely as much or more on management and control as on technology to raise productivity and reduce costs. This has increased the services component in manufacturing GDP. The pressure to reduce costs leads to the outsourcing of many of these functions, resulting in the services component of manufacturing GDP appearing as a separate revenue stream and generating a consequent increase in services GDP. Inasmuch as liberalisation leads to a faster adoption of imported best practice technologies in developing countries, they too would tend to reflect this tendency. Secondly, the communications revolution has cheapened the cost of communication services, resulting in a much greater and earlier use of such services. Not surprisingly, the reach of and revenues from communication services has increased substantially in developing countries, contributing to an increase in GDP from services. Finally, the shift in emphasis in government spending from participation in production to provision of a range of public services tends to increase the share of public administration (not to mention defence) in GDP. Overall, these factors could trigger a diversification of economic activity in favour of services at an earlier stage of development than that expected on the basis of the historical experience of the developed countries of today.

However, even these factors cannot explain the Indian experience, which is unlike many other similarly placed developing countries in that GDP from services now exceeds 50 per cent of the total. In the Indian case, an important difference has been, at the margin, is an increase in the exports rather than domestic supply (and consumption) of services. Services were earlier considered non-tradeables since they required in most cases the presence of the supplier at the point of provision. But modern developments have made a number of services exportable through various modes of supply, including cross-border supply through digital transmission. Such exports do seem to play an important role in India. Exports of software services, which amounted to an average of 7.1 per cent of services GDP during 2000-01 to 2002-03, stood at an average of 11.2 per cent during 2003-04 to 2005-06 and close to 14 per cent in 2005-06. Software and business (largely IT-enabled) services dominate services exports, accounting for around 54 per cent of the total during 2004-06 and a massive 66 per cent in the first quarter of 2006-07.

This could certainly be reason to argue that services exports expansion facilitated and pushed by liberalisation has contributed to the recent acceleration of growth rates. However, this gain from trade has been accompanied by losses in other areas. A concomitant of the rapid trade-led expansion of services has been the relatively poor performance of the commodity-producing sectors. What is more, specific commodity producing sectors may be experiencing a process of retrogression which the aggregate growth figures could conceal. This is, unfortunately, definitely true in the Indian case.

While the factors accounting for the acceleration in GDP growth are still being debated, another unusual feature of this growth since the 1980s has received less attention: the growing disproportionality between agricultural and non-agricultural growth. The disparity in the rate of growth of agricultural and non-agricultural GDP increased significantly after the 1970s, with the process being particularly marked after the mid-1990s. What is particularly remarkable is that the acceleration of non-agricultural growth during the 1990s was accompanied by a decline in the rate of agricultural growth. During the period 1999-00 to 2004-05, while agricultural GDP had grown at 1.7 per cent, the trend rate of growth of non-agricultural GDP exceeded 7 per cent. The disproportionality is visible even when the comparison is restricted to industrial and agricultural growth (Table 2). Yet, intertemporally speaking, inflation has been low, pointing to a new potential for non-inflationary growth of the system.

Table 2: Annual GDP growth rates by sector
(per cent per year)

	Total	Manufac turing	Mining & Quarrying	Electri city	Food grain	Non- Food	All Agri culture
1950-51 to 1964-65	7.2	7.1	5.9	13.6	3.0	3.9	3.3
1965-66 to 1979-80	4.7	3.8	6.9	6.2	3.0	2.6	2.9
1965-66 to 1974-75	4.3	2.7	9.4	3.8	3.4	3.0	3.2
1975-76 to 1984-85	4.9	4.3	6.6	7.3	2.5	2.9	2.6
1985-86 to 1994-95	6.2	6.2	4.2	8.3	3.1	5.7	4.1
1994-95 to 2004-05	5.0	6.4	2.9	5.1	0.7	-0.5	0.6

Source: Calculated from data in RBI, *Handbook of Statistics on Indian Economy*.

These trends suggest that domestic agricultural growth is now not a constraint on the growth of the non-agricultural sector. This does mark a

structural shift in the pattern of growth, particularly when compared with the first three decades of post-Independence development, when the agricultural bottleneck was seen as an important factor responsible for the failure of the strategy of development based on the Mahalanobis model. This in turn meant that the agrarian constraint on non-agricultural growth was a problem that needed to be addressed if non-agricultural growth had to be sustained.

This was also a partial guarantee of some balance in the pattern of growth, such that this disproportionality was self-correcting. This was not just because price movements triggered changes in private investment allocation, as some have suggested. Rather, governments that initially responded to inflationary crises and/or balance of payments problems by curtailing expenditure, soon sought to improve agricultural performance in order to revive non-agricultural and overall growth. That is, when faced with inflationary crises, the Indian government was forced to address the factors responsible for slow growth in agricultural output and productivity, which had agrarian distress as its concomitant. In fact, the adoption of Green Revolution strategy was a response to the overall impasse in development resulting from poor agricultural growth.

The fact that the self-correcting mechanism has not been operative during the 1990s and the first half of this decade, when the disproportionality in non-agricultural and agricultural growth widened considerably, suggests that structurally the Indian economy has changed from a position where it was hampered by the agricultural bottleneck, which constituted a supply side constraint on growth to one where agriculture appears to be demand rather than supply constrained.⁴ This implies that non-agricultural growth could accelerate while agriculture was languishing, with no self correcting mechanisms in sight.

There are many factors explaining this change. One element of change in the environment of obvious relevance was the transformation of the world of international finance that, for the first time, provided "emerging markets" like India access to private international finance. It is now widely held that the Indian government exploited that opportunity during the 1980s, to overcome the development impasse of the 1970s. Deficit-financed expenditure was used to accelerate non-agricultural growth, and the resulting disproportionality between non-agricultural and agricultural growth was managed by using imports financed largely with external debt to change the structure of domestic supplies and dampen inflation.

⁴ Chandrasekhar (2006) provides a detailed elaboration of these changes.

However, this alone does not constitute the full explanation. Rather the change in economic regime instituted since the mid-1980s, and especially since 1991, has changed the pattern of growth in a way that has resulted in structural shifts in the nature of intersectoral linkages. An obvious change in the pattern of growth, which allows for growing disproportionality between agricultural and industrial growth, is a change in the pattern of demand and production, involving a reduction in the direct agricultural-input dependence of the non agricultural sector. As Sastry *et al.* (2003: 2392) have shown, the available input-output tables for the Indian economy indicate that: "In 1968-69 one unit of rise in industrial output was likely to enhance demand from agriculture by 0.247 units, which was reduced to 0.087 by 1993-94. On the other hand, in 1968-69, one unit rise in industry was to cause 0.237 units demand from the services sector, which increased to 0.457 units in 1993-94."

Finally, the lack of responsiveness of non-agricultural employment growth to the growth in non-agricultural production meant that the demand for wage-goods associated with a given rate of non-agricultural growth was lower than it was earlier—an issue we examine below. This too relaxed the agricultural constraint on non-agricultural growth.

III. Trends in employment

In the 1990s, it became fashionable among critics of the plan-led, mixed economy -based strategy to argue that it was this very strategy that was responsible for the slow rate of employment growth. It was suggested that export pessimism and an inward looking import substitution policy had discouraged employment-intensive export production and imposed high-cost capital-intensive production which had low linkage effects with the rest of the economy and did not lead to more use of labour. A concomitant of this argument, as noted above, was that the opening up the economy to more liberal external trade and foreign investment would not only generate a higher rate of output growth but also automatically create a restructuring of production which would mean a significant increase in labour-intensive production and therefore also substantial increases in employment.

However, evidence yielded by the quinquennial National Sample Surveys on Employment and Unemployment, indicated that at least by the end of the 1990s

this expectation was not realised.⁵ These surveys (conducted in 1983, 1987-88, 1993-94 and 1999-2000) revealed a sharp, and even startling, decrease in the rate of employment generation across both rural and urban areas during the 1990s. Indeed, so dramatic were the fall of work force participation and the slowdown in the rate of employment growth that they called into serious question the pattern of growth over this decade.

The rate of growth of employment, defined in terms of the Current Daily Status (which is a flow measure of the extent of jobs available) declined from 2.7 per cent per year in the period 1983-94 to only 1.07 per cent per year in 1994-2000 for all of India. This refers to all forms of employment - casual, part-time and self-employment. For permanent or secure jobs, the rate of increase was close to zero. In rural areas, the decline in all employment growth was even sharper, from 2.4 per cent in the 1983-94 period to less than 0.6 per cent over 1994-2000. This included all forms of employment, whether undertaken as the principal or subsidiary activity and for part of the day. This was well below the rate of growth of population. In both rural and urban areas, the absolute number of unemployed increased substantially, and the rate of unemployment went up as well. The daily status unemployment rate in rural India as a whole increased from 5.63 per cent in 1993-94 to 7.21 per cent in 1999-00, and was more than 15 per cent in some states. In addition to this, there was a sharp decline in the rate of growth of labour force. More people declared themselves to be not in the labour force, possibly driven to this by the shortage of jobs.

Even on the basis of Usual Status (as opposed to Current Daily Status) employment, there was a very significant deceleration for both rural and urban areas, with the annual rate of growth of rural employment falling to as low as 0.67 per cent over the period 1993-94 to 1999-2000. This was not only less than one-

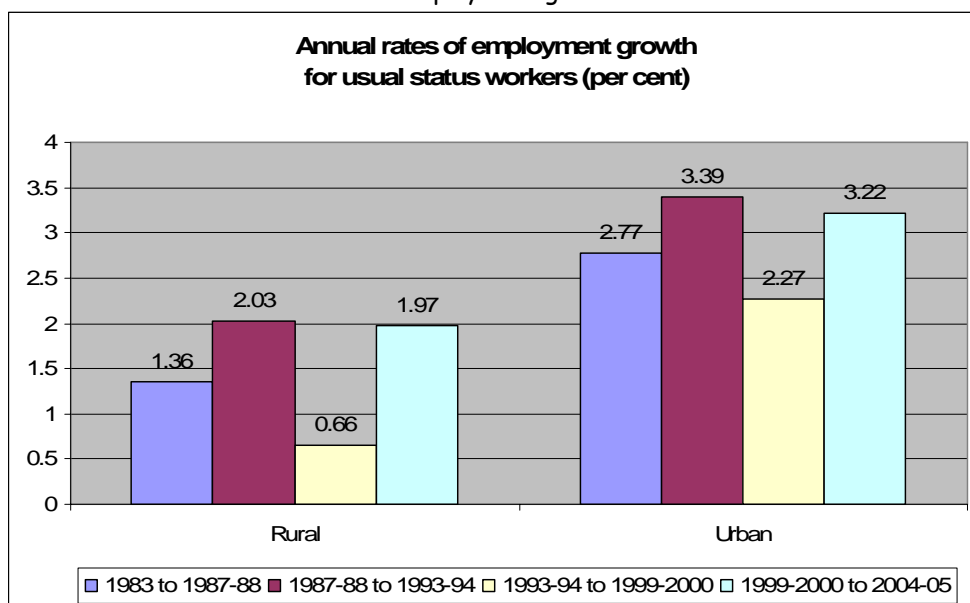
⁵ The NSS data on employment is based on the distinction between "principal" and "subsidiary" status of activity as well whether the person is "usually" engaged in the activity. Thus, a person is classified as "usual principal status" according to the status of the activity (or non-activity) on which the person spent a relatively longer time of the preceding year. The activities pursued by a person are grouped into three broad categories : (a) working or employed (b) seeking or available for work (i.e. unemployed) and (c) not in the labour force. A "non-worker" (on the basis of the usual principal status) is someone whose major part of time in the preceding year was spent as either unemployed or not in the labour force. However, he or she could still be involved in some economic activity in a subsidiary capacity - when this is usually the case the person is referred to as a "subsidiary status worker". The two categories together - usual workers by both principal and subsidiary status - constitute "all usual workers".

third the rate of the previous period 1987-88 to 1993-94, but was also less than half the projected rate of growth of the labour force in the same period. Some of this was because of the decline in public spending on rural employment programmes since the mid-nineties. As a percentage of GDP, expenditure on both rural wage employment programmes and special programmes for rural development declined from the mid-1990s. The total central allocation for rural wage employment programmes was already only 0.4 per cent of GDP in 1995-6, but it declined further to a minuscule 0.13 per cent of GDP in 2000-1.

Recent trends

While these were the trends during the 1990s, the recently released NSS survey - the 61st Round, covering 2004-05 - suggests that there have been notable changes in the employment patterns and conditions of work in India over the first half of this decade, with indications of a revival of employment growth, as shown in Chart 2.

Chart 2: Employment growth rates



Sources: NSSO "Employment and Unemployment Situation in India, various issues; and Census of India, 1981, 1991 and 2001.

While aggregate employment growth (calculated at compound annual rates) in both rural and urban India was still slightly below the rates recorded in the period 1987-88 to 1993-94, it clearly recovered sharply from the deceleration of the 1993-94-1999-00 period. The recovery was most marked in rural areas, where the

earlier slowdown had been sharper. This in turn reflects an increase in labour force participation rates for both men and women, as evident from Table 3. This includes both those who are actively engaged in work and those who are unemployed but looking for work.

Table 3: Labour force participation rates

	Usual status (PS+SS)			Current daily status		
	1993-94	1999-2000	2004-05	1993-94	1999-2000	2004-05
Rural males	56.1	54	55.5	53.4	51.5	53.1
Rural females	33	30.2	33.3	23.2	22	23.7
Urban males	54.3	54.2	57	53.2	52.8	56.1
Urban females	16.5	14.7	17.8	13.2	12.3	15

Source: NSSO "Employment and Unemployment Situation in India, various issues.

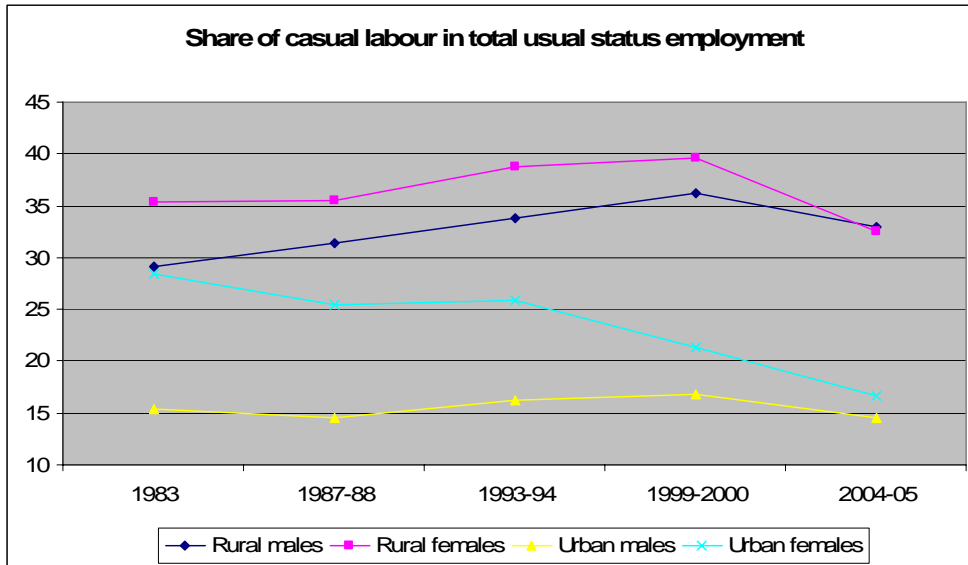
For rural males, labour force participation rates have recovered to the levels of the earlier decade, now and conform to broader historical norms. Similarly, rural females show labour force participation rates only slightly higher than in 1993-94. However, for both males and females in urban areas, the latest period indicates significant increases in labour force participation according to both usual status and current daily status definitions.⁶

One of the more interesting features that emerge from these data is the shift in the type of employment. There has been a significant decline in wage employment in general. While regular employment had been declining as a share of total usual status employment for some time now (except for urban women workers), wage employment had continued to grow in share because employment on casual contracts had been on the increase. But the latest survey round suggests that even casual employment has fallen in proportion to total employment, as indicated in Chart 3.

For urban male workers, total wage employment is now the lowest that it has been in at least two decades, driven by declines in both regular and casual paid work. For women, in both rural and urban areas, the share of regular work has increased but that of casual employment has fallen so sharply that the aggregate share of wage employment has fallen. So there is clearly a real and increasing difficulty among the working population, of finding paid jobs, whether they be in the form of regular or casual contracts.

⁶ It should be noted that this aggregate increase incorporates declining rates of labour force participation among the youth, that is the age group 15-29, and a rise for the older age cohorts

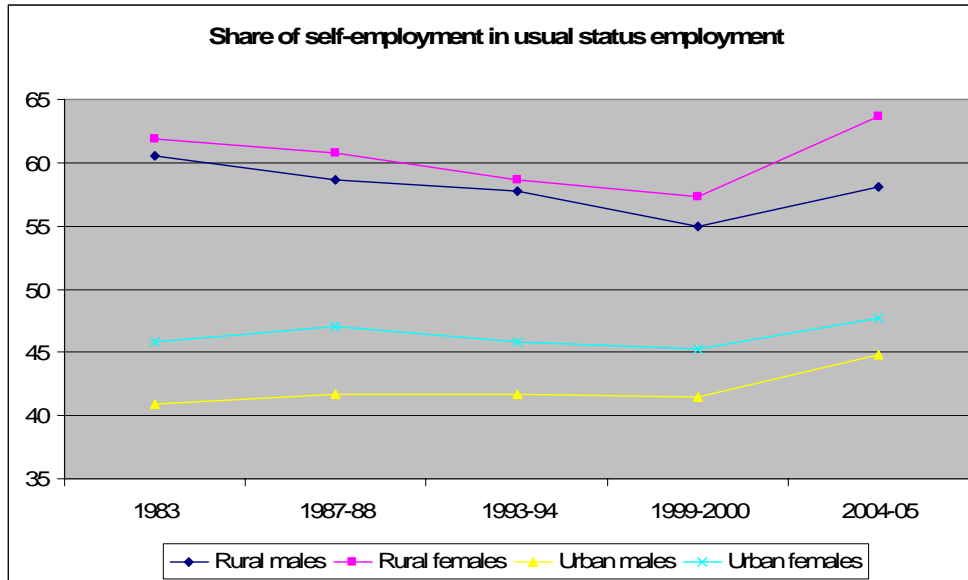
Chart3: Casual Labour in total employment



Source: NSSO "Employment and Unemployment Situation in India, various issues

The fallout of this is indicated in Chart 4 - a very significant increase in self-employment among all categories of workers in India. The increase has been sharpest among rural women, where self-employment now accounts for nearly two-thirds of all jobs. But it is also remarkable for urban workers, both men and women, among whom the self-employed constitute 45 and 48 per cent respectively, of all usual status workers. All told, therefore, **around half of the work force in India currently does not work for a direct employer**. This is true not only in agriculture, but increasingly in a wide range of non-agricultural activities.

Chart 4: Self-employment in total employment



Source: NSSO "Employment and Unemployment Situation in India, various issues

This in turn requires a significant rethinking of the way analysts and policy makers deal with the notion of "workers". For example, how does one ensure decent conditions of work when the absence of a direct employer means that self-exploitation by workers in a competitive market is the greater danger? How do we assess and ensure "living wages" when wages are not received at all by such workers, who instead depend upon uncertain returns from various activities that are typically petty in nature? What are the possible forms of policy intervention to improve work conditions and strategies of worker mobilisation in this context?⁷

Table 4 provides the details of which industry workers are engaged in. While as expected there has been a significant decline in agriculture as a share of rural employment, the share of manufacturing employment has not gone up commensurately for rural male workers. Instead, the more noteworthy shift for rural males has been to construction, with some increase in the share of trade, hotels and restaurants. For urban males, on the other hand, the share of trade, hotels and restaurants has actually declined, as it has for other services. Manufacturing is back to the shares of a decade ago, still accounting for less than a

⁷ This significance of self-employment also brings home the urgent need to consider basic social security that covers not just general workers in the unorganised sector, but also those who typically work for themselves, which is what makes the pending legislation on this so important.

quarter of the urban male work force. The only consistent increases in shares have been in construction, and to a lesser extent transport and related activities. Interestingly, the big shift for urban women workers has been to manufacturing, the share of which has increased by more than 4 percentage points. A substantial part of this is in the form of self employment. Other services continue to account for the largest proportion of women workers, but the share of trade hotels and restaurants has actually fallen compared to 1999-2000.

Table 4: Employment by industry
[per cent of employment according to Usual Status (PS+SS)]

	1993-94	1999-2000	2004-05
Agriculture			
Rural males	74.1	71.4	66.5
Rural females	86.2	85.4	83.3
Urban males	9	6.6	6.1
Urban females	24.7	17.7	18.1
Manufacturing			
Rural males	7	7.3	7.9
Rural females	7	7.6	8.4
Urban males	23.5	22.4	23.5
Urban females	24.1	24	28.2
Construction			
Rural males	3.2	4.5	6.8
Rural females	0.9	1.1	1.5
Urban males	6.9	8.7	9.2
Urban females	4.1	4.8	3.8
Trade, hotels & restaurants			
Rural males	5.5	6.8	8.3
Rural females	2.1	2	2.5
Urban males	21.9	29.4	28
Urban females	10	16.9	12.2
Transport, storage & communications			
Rural males	2.2	3.2	3.9
Rural females	0.1	0.1	2
Urban males	9.7	10.4	10.7
Urban females	1.3	1.8	1.4
Other services			
Rural males	7	6.1	5.9
Rural females	3.4	3.7	3.9
Urban males	26.4	21	20.8
Urban females	35	34.2	35.9

Source: NSSO "Employment and Unemployment Situation in India, various issues

These activity rates, combined with projections of population growth from the Registrar General based on Census 2001, allow us to estimate the growth of employment by broad category over the period 1999-2000 to 2004-05 and compare it with the earlier period. The results are shown in Table 5. While there has been a slight recovery in the rate of growth of agricultural employment, this is essentially because of a significant increase in self-employment on farms (dominantly by women workers) as wage employment in agriculture has actually fallen quite sharply. However, urban non-agricultural employment certainly appears to have accelerated in the latest period. In rural areas, this is the case for both self and wage employment, although the rate of increase has been more rapid for self employment. In urban areas, the increase has been dominantly in self employment. Such expansion would indeed be a sign of a positive and dynamic process if it is also associated with rising real wages, or at least not falling real wages. Therefore, in order to appreciate the nature of this new employment, it is important to examine the trends in real wages and remuneration for self-employment over this period.

Table 5: Growth rates of employment
(Annual compound rates per cent)

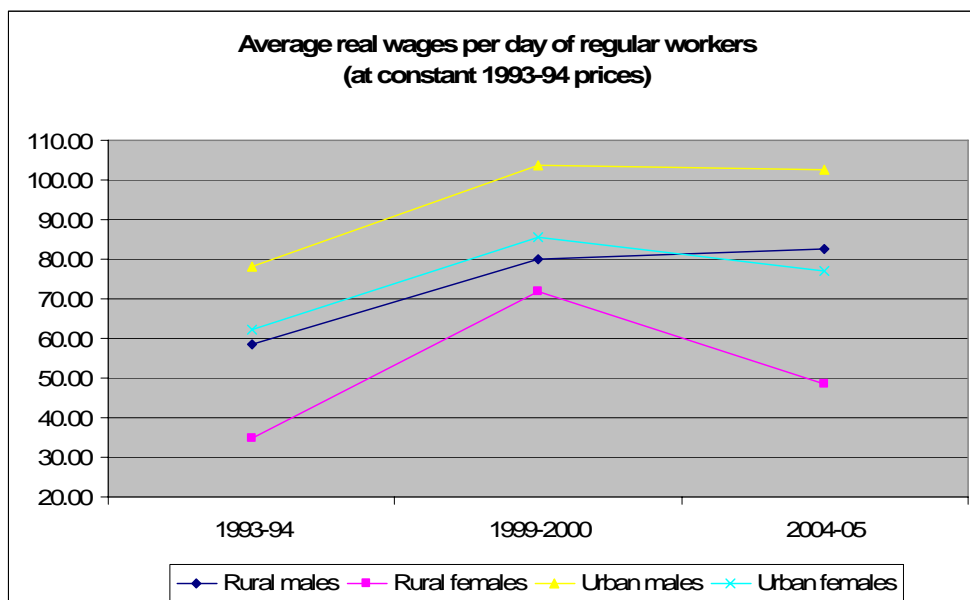
	1993-94 to 1999-2000	1999-2000 to 2004-05
Agricultural self employment	-0.53	2.89
Agricultural wage employment	1.06	-3.18
Total agricultural employment	0.03	0.83
Rural non-agri self employment	2.34	5.72
Rural non-agri wage employment	2.68	3.79
Rural total non-agri employment	2.26	5.27
Urban non-agri employment	3.13	4.08
Secondary employment	2.91	4.64
Tertiary employment	2.27	4.67
Total non-agricultural employment	2.53	4.66

Sources: NSSO "Employment and Unemployment Situation in India, various issues; and Census of India, 1981, 1991 and 2001.

Real wages of workers in regular jobs

Chart 5 presents the average wages of workers by category, in constant 1993-94 prices.⁸ It is evident that for most categories of regular workers, the recent period has not been one of rising real wages. While real wages have increased slightly for rural male regular employees, the rate of increase has certainly decelerated compared to the previous period.⁹ The economy has therefore experienced a peculiar tendency of falling real wages along with relatively less regular employment for most workers.

Chart 5: Real wages of regular workers



⁸ All the wage data used here refer to the wages received by workers in the age group 15-59 years. In this chart as well as in the following charts and tables in which real wages are presented, the current price wage data have been deflated by the Consumer Price Index for Agricultural Labourers for rural workers and the Consumer Price Index for Industrial Workers for urban workers.

⁹ The behaviour of real wages of regular female workers in rural areas deserves some comment. The sharp increase in 1999-2000 may result from statistical error, since it reflects a large - and unlikely - increase in wages of only one category of such workers - those women workers who had up to primary education only. Therefore the changes in such wages are unlikely to be as sharp as suggested by the data.

This is corroborated by what has been happening to wages within organised industry. This is worth a more detailed examination, since there is a general perception of industrial dynamism in the Indian economy at present, fed by reasonably high, even if not remarkable, rates of industrial growth especially since the mid 1990s. While the average rate of growth of manufacturing production in the decade up to 2004-05 has been 5.83 per cent per year, the most rapid growth has been experienced in the consumer durable sector, which has registered annual rates of growth of more than 9 per cent.

What is seldom noted is that this output growth, while marginally better than that recorded over the 1980s, has also exhibited an increase in volatility. The average annual growth of manufacturing production over the period 1994-95 to 2004-05 (at 6.4 per cent) was slightly higher than that of the period 1980-81 to 1990-91 (6.2 per cent). However, in the 1980s, all years (excepting two) were characterised by rates of growth near or above the average rate. But in the subsequent period after 1994-95, annual rates at or above the average were far less frequent.¹⁰

Several factors explain the greater instability. First, public expenditure has been more unstable in the past decade. This is partly because of variations in the government's degree of adherence to its irrational fiscal deficit targets, partly because of a sudden burgeoning of public expenditure towards the end of the 1990s because of the implementation of the Fifth Pay Commission's recommendations and partly because of the influence of the political business cycle. A second factor in increased volatility of manufacturing production was trade liberalisation. This led to a sudden increase in access to domestically assembled or produced import intensive manufactured goods, and promoted such production. But it also adversely affected other domestic production through greater import competition.

Finally, instability resulted from the specific way in which the market for manufactures has been expanded, especially in urban India, during the years of neo-liberal reform: through a boom in housing and consumer credit. One consequence of financial liberalisation and the excess liquidity in the system created by the inflow of foreign capital, has been the growing importance of credit provided to individuals for specific purposes such as purchases of property, consumer durables and automobiles of various kinds. This implies a degree of dissaving on the part of individuals and households. It also implies that financial institutions, which are

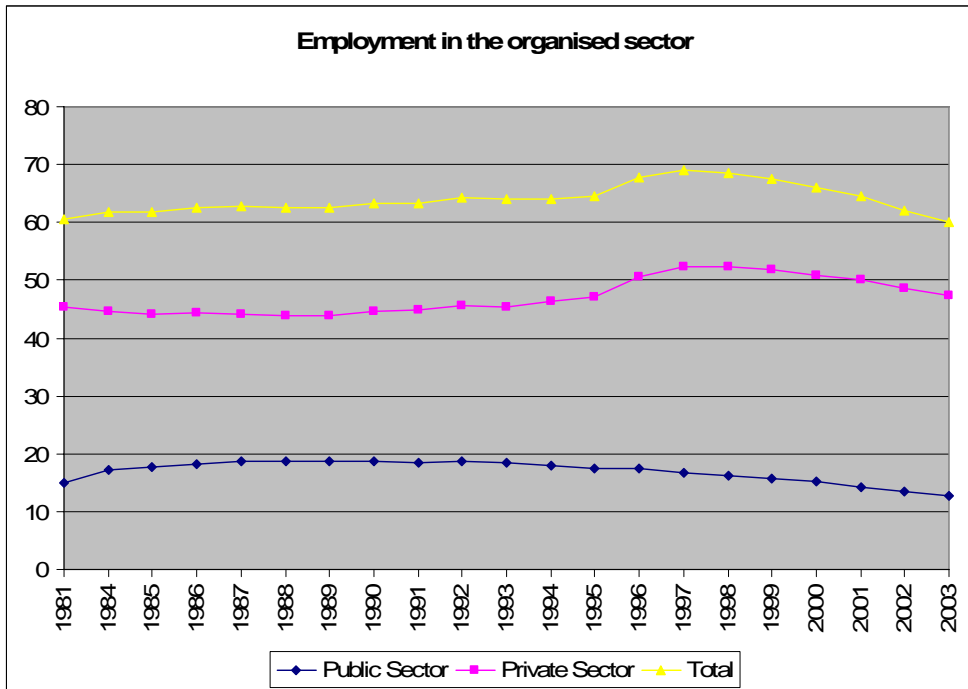
¹⁰ Value added figures from the ASI point to an even greater degree of volatility.

willing to provide such credit without any collateral, are betting on the inter-temporal income profile of these individuals, since they are seen as being in a position to meet their interest payment and amortisation commitments based on speculative projections of their earnings profile. These projections are speculative because with banks and other financial institutions competing with each other in the housing and consumer finance markets, individuals can easily taken on excess debt from multiple sources, without revealing to any individual creditor their possible over-exposure to debt.

One implication of the expansion of the market for manufactures through these means is that the occurrence and the extent of such an expansion depends crucially on the "confidence" of both lenders and borrowers. Since there is a strong speculative element involved in lenders providing credit and borrowers increasing their indebtedness, the state of confidence of both parties matters. When such confidence is "good" we can experience growth or even a mini-boom. When such confidence is low in the case of either borrowers or lenders, we can experience recessionary conditions. This makes a degree of volatility in the demand for manufactures inevitable. An important implication of debt-financed manufacturing demand is that it tends to be concentrated in a narrow range of commodities that are the targets of personal finance, such as construction materials, automobiles and consumer durables. To the extent that such production is capital- and import-intensive in nature, the domestic employment and linkage effects of this expansion would be limited, and manufacturing growth would become increasingly dependent on speculative factors.

These features of recent industrial growth may help to explain the apparently negative relation between output and employment growth in organised industry. Chart 6 indicates that aggregate employment in the organised manufacturing sector has fallen in absolute terms since 1997. Public organised employment has been falling since the early 1990s. However, private organised employment grew between 1993 and 1997, but thereafter has also fallen.

Chart 6: Organised employment



Source: CSO - Annual Survey of Industries, various issues.

One striking feature of the organised manufacturing sector during the years of liberalisation has been a sharp and persistent increase in labour productivity as measured by the net value added (at constant prices) generated per worker. As Chart 7 shows, labour productivity tripled between 1981-82 and 1996-97, stagnated and even slightly declined during the years of the industrial slowdown that set in thereafter, and has once again been rising sharply in the early years of this decade.

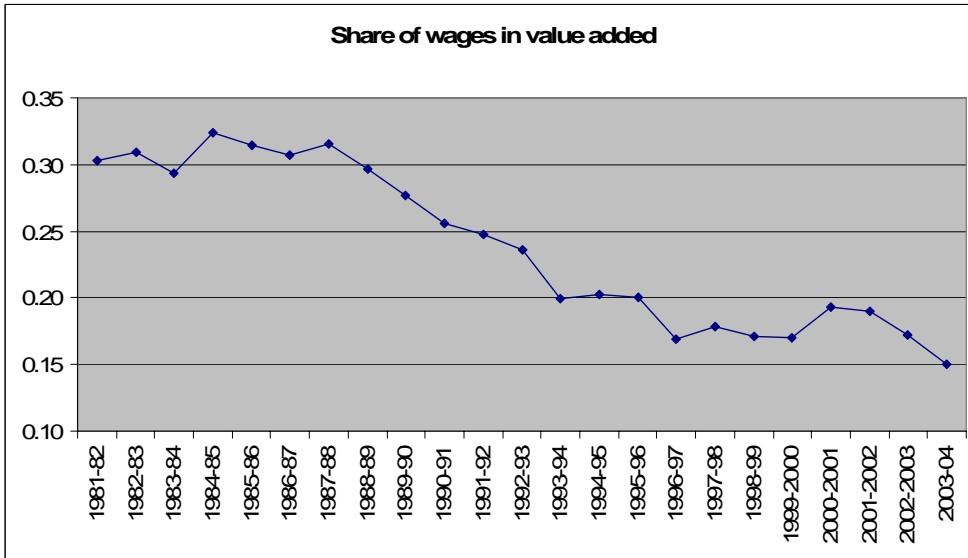
However, the benefits of this labour productivity increase went largely to those deriving rent, interest and profit incomes, rather than workers. This is clear from Chart 8, which shows that the share of wages in value added, which was stable through much of the 1980s, has been declining almost consistently since the late 1980s till 1996-97 and then after a period of stability fell sharply to less than half of its level in the mid 1990s.

Chart 7: Labour productivity



Source: CSO - Annual Survey of Industries, various issues.

Chart 8: Wage share of value added



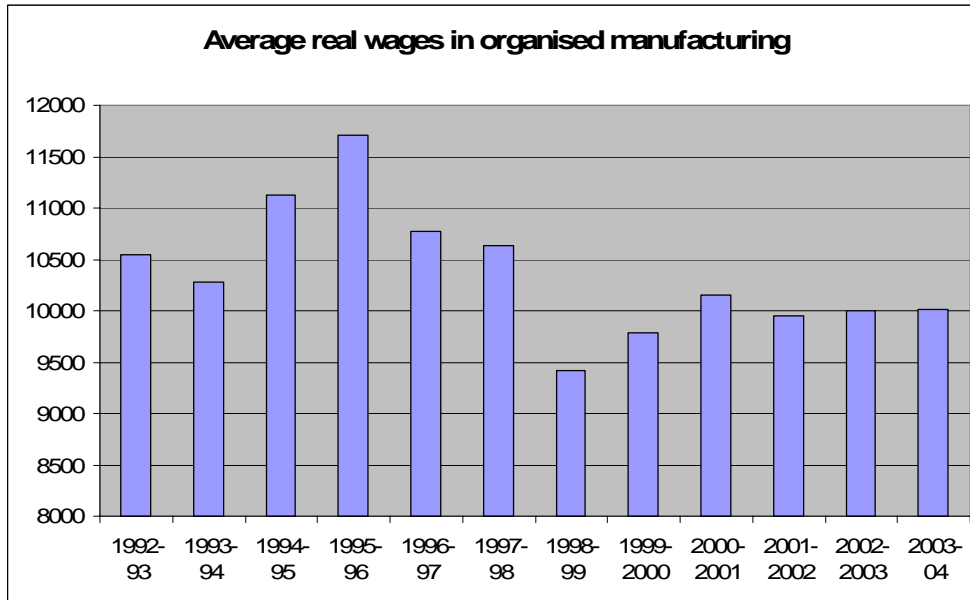
Source: CSO - Annual Survey of Industries, various issues.

This was the result of two developments: the fall in the number of workers and the decrease/stagnation in real wages of those workers, even as the value of output kept increasing. The absolute decline in the number of workers was already evident from Chart 6. Restructuring of the public sector has meant that public sector manufacturing employment which was rising during the 1980s, was on the decline during the years of liberalisation and fell particularly sharply after 1997. Private organised manufacturing employment which was stagnant during the 1980s, rose marginally during the early 1990s and particularly sharply during 1995-97, after which it has declined to return to its mid-1990s level by 2003. In the event, aggregate (public and private) organised manufacturing employment rose from 6.1 million in 1981 to 6.4 million in 1994 and 6.9 million in 1997, and then declined sharply to 6 million in 2003.

Meanwhile, contrary to public perception, the average real wage of workers in the organised manufacturing sector has been more or less constant right through the 1990s. As Chart 9 shows, average real wages increased in the early years of the 1990s, until 1996-96, and then fell quite sharply. The subsequent recovery after 1998 has been muted, and real wages have stagnated since 2000. As a result, real wages in the triennium ending 2003-04 were around 11 per cent lower than real wages in the triennium ending 1995-96.

This is despite the rapid growth in industry, and contributes to an explanation of the explosion in corporate profits in the very recent period. There could not be stronger confirmation of the dramatically reduced bargaining power of workers in organised industry over the past decade. Together, these have ensured that the benefits of the rise in labour productivity have largely gone to the surplus earners in the sector, who have been the main beneficiaries in the organised manufacturing sectors of the policies of liberalisation in general and trade liberalisation in particular.

Chart 9: Manufacturing real wages



Source: CSO - Annual Survey of Industries, various issues.

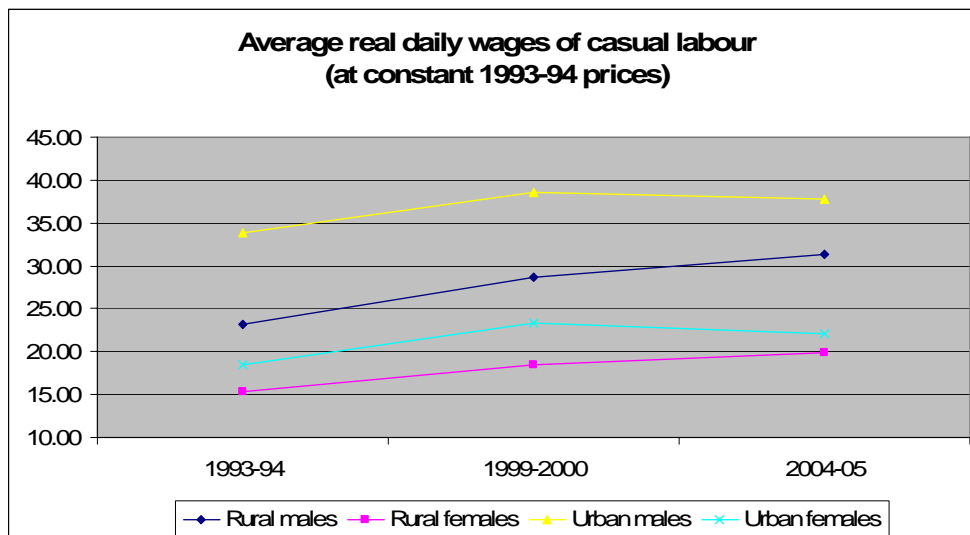
What is particularly striking is that even falling real wages in a context of relatively strong growth in organised industry and rising labour productivity have not been sufficient to ensure growth in employment. The negative effects of openness on employment generation have been strong enough to offset any supposed "benefits" of labour becoming cheaper in real terms for employers. This new trend therefore suggests that greater employment generation is not a necessary result of more growth in organised industry - indeed, it could even be associated with falling employment in future as well.

Real wages of other workers

As noted earlier, regular employment has been declining for male workers in particular, and in any case accounts for a minority of the work force in India. So it may be more relevant to see what has happened to the wages of casual labourers. This is presented in Chart 8. As evident, real wages of casual labour appear to have increased slightly in rural areas, although once again the rate of increased has slowed down compared to the previous period. However, in the case of both men and women workers in urban areas, real wages for casual work on average declined compared to 1999-2000. This is truly remarkable for a country in which real GDP

has been growing at an average rate of 8 per cent over this period, and where much of this growth has been concentrated in urban areas.

Chart 8: Real wages of casual workers

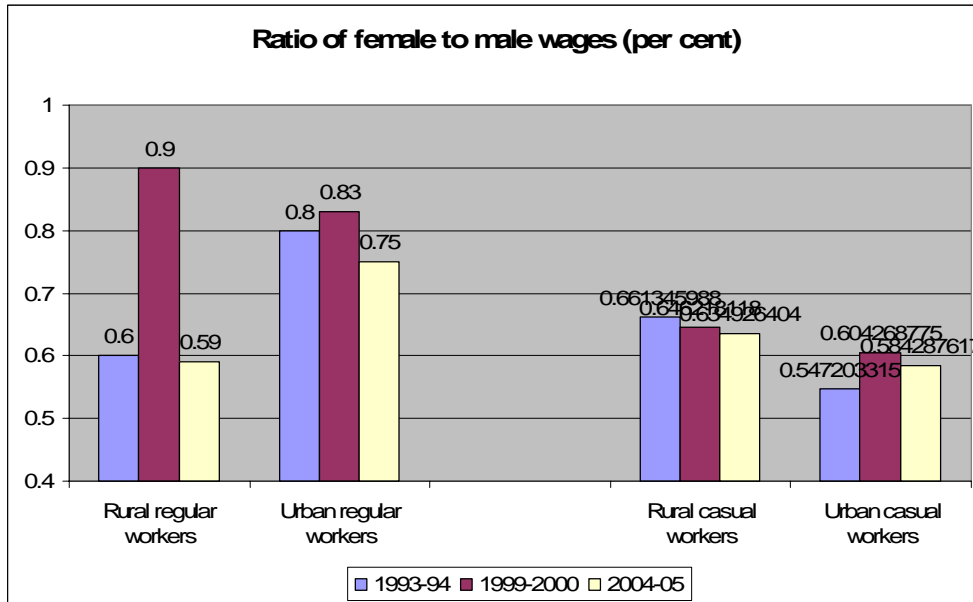


Note : Nominal wages deflated by CPIAL for rural workers and CPI-IW for urban workers.

Sources: NSSO "Employment and Unemployment Situation in India, various issues; and Government of India, Economic Survey, various issues.

It was already evident from the earlier discussion that the gender gap in wages tends to be quite large. There is also evidence that it has been increasing over time. Chart 9 shows average female wages as a percentage of male wages for regular and casual workers. A number of features emerge from this. First, this ratio is relatively low even by the standards of other developing countries, although not as low as Southeast Asia. Second, the gender gap in wages has increased for all categories of workers - urban and rural, regular and casual - between 1999-2000 and 2004-05. (Once again the particularly sharp changes for rural regular workers may however reflect a data error for 1999-2000.) Third, the gender wage gap tends to be much larger for casual work than for regular work.

Chart 9: Gender wage gaps



Source: NSSO "Employment and Unemployment Situation in India, various issues

The issue of the gender gap in regular work is particularly interesting, because this type of female employment has increased in the latest period. It now accounts for around 36 per cent of all urban women workers, even though it is still less than 4 per cent of all rural women workers. Therefore it is worth examining the trends in real wages of women in regular jobs. Table 6 presents this data. As noted above, there are likely to be problems with the recorded information on average real wages in 1999-2000, specifically of urban regular women workers who are literate or have up to primary level education. However, even if we ignore this particular number, the trends revealed by the Table are startling. Over the first half of this decade, real wages of regular women workers declined for every category of education level, and in both rural and urban areas!

In rural areas the average decline in regular women workers' real wages over the first five years of this decade was by 32 per cent, and in urban areas by 10 per cent. Even if we ignore the outlier, the decline in real wages in other categories was substantial. Illiterate women workers in regular employment in rural areas faced average wage cuts of 20 per cent, while those who had secondary and higher secondary education faced average cuts of nearly 30 per cent! It should be noted that more than 66 per cent of all rural women workers were illiterate, and 37 per cent of urban women workers were illiterate. In urban areas, illiterate women

workers experienced the sharpest declines in real wages, at more than 22 per cent. Graduate women had the lowest real wage decline of around 5 per cent - but the point is that even for this category, real wages on average fell.

Table 6: Average daily wages of regular women workers by education level
(Rs. per day at constant 1993-94 prices)

	1993-94	1999-2000	2004-05
Rural			
Not literate	17.98	25.39	20.33
Literate & up to primary	23.92	101.69	27.17
Secondary & Higher			
secondary	57.61	79.40	57.00
Graduate and above	72.16	100.71	98.26
All	34.86	71.79	48.66
Urban			
Not literate	26.75	31.62	24.54
Literate & up to primary	30.11	39.30	32.65
Secondary & Higher			
secondary	70.93	88.91	75.80
Graduate and above	98.59	143.22	135.65
All	62.31	85.58	77.20

Note : Nominal wages deflated by CPIAL for rural workers and CPI-IW for urban workers.

Sources: NSSO "Employment and Unemployment Situation in India, various issues; and Government of India, Economic Survey, various issues.

All this should be seen in conjunction with dramatically increasing rates of open unemployment, especially for women. While space does not allow for a detailed discussion of the issue here, unemployment rates according to the latest survey are the highest ever recorded. Unemployment measured by current daily status, which describes the pattern on a typical day of the previous week, accounted for 8 per cent of the male labour force in both urban and rural India, and between 9 and 12 per cent of the female labour force.

The real expansion in employment has come in the form of self-employment, which now accounts for around half of the work force in India. The increase has been sharpest among rural women, where self-employment now accounts for nearly two-thirds of all jobs. But it is also remarkable for urban workers, both men and women, among whom the self-employed constitute 45 and 48 per cent respectively, of all usual status workers. This makes the issue of remuneration in self-employment a particularly important one. If working people are moving away from

paid jobs to more independent and more remunerative forms of self-employment, then that is certainly to be welcomed. But if they are forced to take on any activity on their own in order to survive, simply because a sufficient number of paid jobs is not available, then that is another matter altogether. This is especially the case for less educated workers without access to capital or bank credit. Self-employment for such workers often means that they are forced into petty low productivity activities with low and uncertain incomes. The latest NSS report confirms this, with some very interesting information about whether those in self-employment actually perceive their activities to be remunerative. This information is presented in Table 7.

Table 7: Perceptions regarding remuneration in self-employment

	Per cent finding their self-employed activity remunerative	Per cent finding this amount of Rs. per month remunerative					
		0-1000	1001-1500	1501-2000	2001-2500	2501-3000	>3000
Rural males	51.1	12.9	17.5	16.5	11.4	12.9	27.3
Rural females	51.4	34.2	23.5	15.4	8.9	7.2	9.9
Rural persons	51.2	21.2	19.7	16	10.5	10.7	20.5
Urban males	60.9	4.9	8.2	9.9	7.2	12.2	56.5
Urban females	50.9	32.8	20.2	12.6	7.7	8.1	18.3
Urban persons	58.6	10.4	10.6	10.4	7.4	11.5	48.9

Source: NSSO "Employment and Unemployment Situation in India, September 2006"

It turns out that just under half of all self-employed workers *do not* find their work to be remunerative. This is despite very low expectations of reasonable returns - more than 40 per cent of rural workers declared they would have been satisfied with earning less than Rs. 1500 per month (approximately \$33 or just above a dollar a day), while one-third of urban workers would have found up to Rs. 2000 (\$44) per month to be remunerative. As is to be expected, the material expectations of women workers were far below those of men, yet despite this, around half of self-employed women did not find their activity to be remunerative. Even in the case of the relatively most satisfied group of self-employed workers, the urban males, around two-fifths did not find their activity to be paying economically.

This suggests that a large part of the increase in self-employment - and therefore in employment as a whole - is a distress-driven phenomenon, led by the

inability to find adequately gainful paid employment. So the apparent increase in aggregate employment growth in the most recent period appears to be more an outcome of the search for survival strategies than a demand-led expansion of productive income opportunities. This is probably why employment generation has emerged as not only the most important socio-economic issue in the country today, but also the most pressing political concern. In the 2004 general elections, the electorate decisively rejected policies that have implied reduced employment opportunities and reduced access to and quality of public goods and services. This was also associated with the demand for and subsequent formulation of the National Rural Employment Guarantee Act, under which the central government will guarantee the provision of 100 days employment for every rural household, for a range of public works.

Employing the young

Since much is currently being made of the potential "demographic dividend" that could accrue to India because of the young population bulge, it is worth examining what is happening to employment among the youth. While aggregate labour force participation rates have risen, the same is not true of the youth. As Table 8 shows, labour force participation rates have fallen quite substantially for male rural youth, and not increased for young women in rural areas either. In urban areas, there is a slight recovery of labour force participation rates from the low levels of 1999-2000, but only for young women in the age group 20-24 years is there evidence of any real increase.

It is certainly possible that falls in labour force participation among the youth result from their delayed entry into the work force, partly because they are extending their years of education. If this is so, it would be a positive sign, indicating a greater degree of skill formation in the young labour force of the future. However, this is not the dominant reason. Except for rural females, where the ratio was very low to start with, there has been very little increase in the proportion of those reporting themselves as usually engaged in education. For young urban females, there was actually a decline in such a proportion.

Table 8: Labour force participation rates of youth, according to Usual Status (principal and subsidiary activities)

	15 - 19 years	20 - 24 years
Rural Males		
1987-88	63.0	91.8
1993-94	59.8	90.2
1999-00	53.2	88.9
2004-05	52.9	89.1
Rural Females		
1987-88	41.5	48.4
1993-94	37.1	46.9
1999-00	31.4	42.5
2004-05	33.1	43.5
Urban Males		
1987-88	42.9	79.2
1993-94	40.4	77.1
1999-00	36.6	75.2
2004-05	38.1	76.9
Urban Females		
1987-88	16.9	22.5
1993-94	14.1	23.0
1999-00	12.1	19.1
2004-05	14.4	25

Source: NSSO, Employment and Unemployment Situation in India, Sept 2006

What is more disturbing is that, despite the fact that labour force participation rates among the young population have decreased or not increased much (except for urban women in the age group 20-24 years), open unemployment rates have increased. Table 9 reveals that youth unemployment was substantially higher than unemployment across all the working age population, and what is more it also increased across all categories of young people - men or women, rural or urban. So the youth are far more prone to be actively seeking work and not finding it. Given that open unemployment by "usual status category" has generally been low in India because of the absence of any sort of social protection for the unemployed, it is disturbing to note that as many as 6-8 per cent of young rural males and 12-14 per cent of urban male youth describe themselves as available for work and seeking it but not finding it. The proportions of young women describing themselves as usually unemployed are even larger.

Table 9: Unemployment rates among young people and overall population

		Rural India			Urban India		
		15-19	20-24	All 15+	15-19	20-24	All 15+
Males							
Usual Status	1993-94	3.3	4.9	2.0	11.9	12.6	5.4
	1999-00	5.5	5.2	2.1	14.2	12.8	4.8
	2004-05	7.9	6.2	2.1	14	12.5	4.4
Current Daily Status	1993-94	9.0	10.3	5.6	16.2	17.0	6.7
	1999-00	13.1	11.7	7.2	19	17.1	7.3
	2004-05	15	12.9	8.0	18.4	15.8	7.3
Females							
Usual Status	1993-94	1.9	2.8	1.3	12.8	21.7	8.3
	1999-00	3.2	4.9	1.5	13.2	19.4	7.1
	2004-05	6.7	9.3	3.1	15.6	25.8	9.1
Current Daily Status	1993-94	8.3	8.2	5.6	18.6	28.5	10.4
	1999-00	12.8	12.1	7	18	25.9	9.4
	2004-05	12.6	14.9	8.7	16.4	27.3	11.6

Source: NSSO, Employment and Unemployment Situation in India, various issues.

The current daily status criterion describes the nature of activity on a typical day of the reference week, and therefore can be thought of as a "flow" measure of work possibilities. By this indicator, open unemployment levels for the young are truly alarming, accounting for nearly 20 per cent of urban young men in the age group 15-19 years and 30 per cent of urban women in the age group 20-24 years. These numbers translate into an estimated 36 million young people of between 15 and 29 years who were "usually unemployed" at the start of 2005, and as many as 58 million young people who were unemployed on any particular day.

If this is a true description of labour markets in India at present, it has significant implications. One concern relates to the possibility of missing the window of opportunity provided by a large young population, because the economic growth process simply does not generate enough jobs to employ them productively. Another important concern follows from this, in terms of the negative social impact of growing numbers of young unemployed. If the economy does not generate adequate employment of a sufficiently attractive nature, the demographics could deliver not a dividend but anarchy.

The question of employability

This naturally brings to the forefront not only issues relating to increasing demand for labour, but also the nature of the labour force and its employability. In this context, the quantity, quality and relevance of education are all crucial. Several indicators suggest that, during the liberalisation years, there has been a setback on the literacy and education fronts, improvements in which are seen as not just conducive but even necessary to exploiting the demographic dividend. The spread of literacy has been slow during the years of globalisation and even in 2004-05 the country was far short of achieving total literacy even in the more developed urban areas. Indeed, the pace of improvement in literacy rates appeared to have decelerated further in the first part of this decade.

In 2004-05, only 21.1 per cent of rural males and 10.2 per cent of rural females of 15 years and above had a minimum education of secondary school and above. In urban areas, the education level was slightly better with 48.3 per cent of urban males and 35.6 per cent of urban females with at least that much education. However, only around 1.5 per cent of persons aged 15 years or more in urban areas and less than 5 per cent in urban areas had technical qualifications of even the most rudimentary kind. Therefore, by no stretch of imagination can India currently be characterised as a knowledge economy in any meaningful sense.

There is the further problem that even those who have been educated find it hard to get jobs, whether these jobs are appropriate to their skills or otherwise. Educated employment declined slightly for men between 2000 and 2005, but was still around 6 per cent for those with secondary school degrees and 7 per cent for graduates. Unemployment among educated women was much higher and also got worse, reaching rates of 34 per cent for rural female graduates, and 20 per cent for urban women with high school and above.

Vocational training appears to be doing little to resolve this problem. To begin with, even in 2004-05 only a very small proportion of youth, less than 4 per cent, had received any sort of vocational training. But also most such training apparently does not increase employability. As Table 10 shows, the proportion that has received some sort of vocational training is significantly higher among the unemployed than the employed youth, by all categories.

Table 10: Per cent of youth aged 15-29 years who have received vocational training

	Among all youth	Among employed	Among unemployed	Among those not in the labour force
Rural males	2.7	2.8	9.6	1.4
Rural females	2.3	4.8	17.4	1.3
Urban males	6.5	7.2	16.6	4.2
Urban females	4.7	15.8	24	3.1

Source: NSSO, Employment and Unemployment Situation in India, Sept 2006

IT as the solution

It is often held that the rapid growth of modern IT-driven services in India offers an opportunity to exploit the demographic dividend. In fact there is an increasingly popular perception that India would be able to encash the demographic dividend through the growth of its IT and IT-enabled services sector. Of course, there is not doubt that both in absolute and relative terms the size of the IT sector in India is now impressive. The National Association of Software and Services Companies (NASSCOM) estimated the size of the software and IT-enabled services industry in 2004-05 at \$22.6 billion, comprising of \$4.8 billion of domestic revenues, \$13.1 billion of software and services export revenues and \$4.6 billion of revenues from exports of IT-enabled services and business process outsourcing (BPO).¹¹ Placed in the context of the economy as a whole, the sector's revenues now amount to around 4.5 per cent of GDP. This makes it an important segment of the non-agricultural sector.

By way of comparison, the gross revenues from IT services was in 2004-05 about 20 per cent higher than the GDP generated in India's construction sector and almost three times as much as the GDP in mining and in electricity, gas and water supply. What is more, gross revenues from IT services exceeded 12 per cent of GDP generated in India's services sector as a whole, which accounts for more than 50 per cent of the nation's GDP. Thus, even though the software and IT-enabled services sector started from a small or negligible base a decade back, its rapid expansion at an annual compound rate of more than 30 per cent per annum between

¹¹ Figures from Indian <http://www.nasscom.in/Nasscom/templates/NormalPage.aspx?id=28485>, accessed 18 November 2006.

1998-99 and 2004-05 has ensured that it is today an important presence in the economy.¹²

The fact that the rise to maturity of this sector has been driven predominantly by external demand is also well recognised now. Exports of software and IT-enabled services have risen at a compound annual rate of 38 per cent a year since 1997-98, and overwhelmingly explain the rapid rise of the sector. In 2004-05 exports of software and services as estimated by the Reserve Bank of India was, at \$17.7 billion, equal to about a fifth of India's merchandise exports and higher than one of India's principal commodity exports, viz. textile and textile products (including carpets). This has made IT services exports an important component of India's total (merchandise and non-merchandise) exports. The ratio of IT services to merchandise exports has risen from 14 per cent in 2000-01 to an estimated 22.5 per cent in 2005-06. Further, the ratio of net IT services export earnings to total net invisible earnings rose from 53 to 59 per cent between those two years.¹³

However, the sector's contribution to employment does not compare with its role in the generation of income and foreign exchange. The only available estimates here are those from NASSCOM, which indicate that employment rose from around 285,000 in 1999-2000 to just 1,287,000 in 2004-05¹⁴, or at a compound rate of about 35 per cent per annum. This is indeed remarkable given the fact that rate of growth of employment during 1999-2000 to 2004-05 as per NSS statistics amounted to just 1.97 per cent in rural areas and 3.22 per cent in urban areas. However, these growth rate figures conceal the low base from which employment has grown, making the absolute contribution of the sector to employment minimal.

The total IT industry, including both hardware and software elements, as well as IT-enabled services, still employs only slightly more than 1 million workers, out an estimated total work force in India of more than 415 million, and urban work force of around 110 million. Total employment in this sector is far short of even the annual increment in the youth workforce. This mismatch between the sector's contribution to GDP and its contribution to employment does suggest that, despite its high growth, this sector can make only a marginal difference to employment even of the more educated groups in urban areas.

¹² Computed from figures from NASSCOM and CSO.

¹³ Computed from figures of national accounts and balance of payments statistics available in Reserve Bank of India, *Handbook of Statistics on the Indian Economy*.

¹⁴ Figures from <http://www.nasscom.in/Nasscom/templates/NormalPage.aspx?id=28487>, accessed 18 November 2006.

Section IV: Policies and processes for employment generation

The most important conclusion that emerges from this discussion of the Indian experience is that high economic growth does not necessarily lead to high employment growth, especially of more desirable employment forms. Recent Indian experience has involved significant increases in output per worker in the non-agricultural sector, where output growth has been particularly high. This in turn has principally been associated with an increase in income inequality because of an increase in managerial salaries and profits, even as average real wages have stagnated or even declined across most activities. For the majority of those available for and seeking work, the result has been a tendency to fall back on forms of work (including self-employment) that do not offer a decent wage and involve poor work conditions. All this suggests that the pattern of growth is extremely significant to ensure desirable employment generation. And in this regard, macroeconomic policies and overall growth strategies play a crucial role.

Developments over the past decade have changed perceptions across the world about the nature of desirable macroeconomic policies, especially in the context for achieving growth and sustainable employment generation. The Asian financial crisis of the late 1990s and the meltdown in Argentina at the turn of the decade showed the possibility of apparently "prudent" fiscal strategies still being associated with unsustainable macroeconomic processes that created the possibilities of crises. The emphasis placed explicitly by the UN and the international community on achieving the Millennium Development Goals and the need to ensure finance for development have indicated the need for changing the emphasis of economic strategies. All these and related factors have produced a broad understanding that macroeconomic management in open developing economies should be guided by the following framework:

- Macroeconomic policy needs to be developed within a co-ordinated framework, so that fiscal, monetary, exchange rate and capital management policies are consistent.
- The time horizon should be medium term, set within a systematic framework that provides the contours within which macroeconomic and public expenditure strategies are organised.
- Economic growth, livelihood stability and employment generation must be given significance, and should not be "crowded out" by an *overly narrow* focus on macroeconomic stability and inflation control.

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- It is not just the aggregate rate of economic growth, but the pattern of that growth, which is crucial. Indeed, a moderate but sustainable rate of growth which involves employment generation and poverty reduction is preferable to a higher rate of growth that is based on greater income inequalities and has more potential for volatility and crisis.
- For most countries, the primary goal should be productive employment generation providing "decent work". This requires more than macroeconomic policy alone; in particular, industrial policies providing carefully considered incentives to promote desired investment and financial policies including directed credit will play a role.
- The significance of public expenditure in sustaining and expanding the productive human resource base of the country through social spending must be recognised. Macroeconomic policies must ensure that public expenditure in the social sectors is increased and maintained at adequate levels. This also has a critical role in employment generation.
- Developing country governments need to be more confident of the positive effects of *appropriate* expansionary fiscal policy and, in particular, of the critical role of public investment, in particular in both physical and social infrastructure.
- There needs to be more emphasis on raising public resources in ways that do not adversely affect the poor, for example through effective implementation of progressive direct taxation, (flexible) trade taxes and taxes on capital movements.
- Monetary policy should accommodate fiscal policy, not the other way around, and both should be targeted to real economic goals such as employment generation, livelihood protection and expansion and poverty reduction. This has implications for the kind of independence to be given to central banks. It also means that inflation targeting, *in itself*, cannot be the central goal of monetary policy.
- Exchange rates should be flexibly managed, even to the point of creating a band within which market forces are allowed to work. This requires some control over capital account movements, preferably through a range of flexible instruments.

Given these principles, the messages of the past pattern of growth and employment in India seem to be fairly obvious. Clearly, for more inclusive growth, the generation of good quality productive employment is the most critical variable. Therefore economic policies have to be more explicitly directed towards this goal,

and target "decent work" generation as well as pure growth and macroeconomic stability.

The implications of the relationship between technological progress and employment generation also must be borne in mind, as discussed above. The promotion of more employment clearly should not involve a glorification of drudgery, especially when newer technological developments open up possibilities for less arduous and tedious ways of working. It is no one's case that low productivity employment must be perpetuated, or that labour-saving technological change must necessarily be resisted. Rather, the point is to ensure that jobs are continuously created in the economy in other activities. A critical requirement for this is public expenditure, especially (but obviously not exclusively) in the social sectors. This is typically much more employment generating than several other economic activities, and therefore also has substantial multiplier effects. There is therefore a strong case for evolving a growth strategy that allows and encourages labour productivity increases overall while significantly expanding expenditure - and therefore income and employment opportunities - in social sectors that positively affect the conditions of life of most citizens. This in turn requires a major role for state intervention, through direct public investment and through fiscal, monetary and market-based measures that alter the structure of incentives for private agents.