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What a long, strange Trip it's been:
Reflections on India's Economic Growth in the
Twentieth Century

by

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What a long, strange Trip it's been: **Reflections on India's Economic Growth in the** **Twentieth Century¹**

Kunal Sen²

Keywords: India, Economic Growth, Political Economy, Liberalisation

ABSTRACT

The purpose of this paper is to situate India's recent economic growth in the long sweep of the twentieth century and to understand what is different about the contemporary growth experience from earlier episodes. The paper argues that most interpretations of India's growth acceleration tend to privilege one dimension of the growth experience over another, and that the causes of India's growth suggest a more complex causal story and that no single perspective can provide a convincing explanation of India's growth phenomenon. The paper also argues that in contrast to the previous growth success stories of the developing world, especially those originating from Asia, India's pattern of growth has followed a non-standard route that privileges knowledge-intensive services and capital-intensive manufacturing over labour-intensive manufacturing, which is not in India's long-term interests, either from viewpoints of efficiency or equity.

INTRODUCTION

The Indian economy has been growing at a faster pace in recent decades than it has done so in the first few decades after independence, and is one of the three fastest growing nations along with China and Vietnam in the past couple of decades. There has been a rapidly growing literature on the implications of India's rapid rise

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as an economic power in the world (Luce 2006, Panagariya 2008, Rothermund 2008). However, the reasons for India's recent economic growth and when the growth acceleration actually began remains fiercely contested. One view stresses the role of the market and adoption of neoliberal policies by the Indian government since 1991. Another view emphasises the role of the state in the earlier years of import substituting industrialisation as being the cause of economic growth in subsequent years. Furthermore, a revisionist view has also argued that India's growth in recent decades is not particularly distinctive as compared to average Indian economic growth since independence.

The purpose of this paper is to situate Indian economic growth in the long sweep of the twentieth century and to understand what is different about the contemporary growth experience from earlier episodes. Given current concerns on the implications of the move by the Indian state to neo-liberal policies for poverty and equity in India, we will ask how transformative the pattern of economic growth has been in and its implications for poverty in India. In the next section, we first determine the timing of India's growth acceleration. We then analyse what was distinctive about contemporary growth as compared to earlier periods. Section 3 examines the dominant perspectives on the causes of Indian economic growth. Section 4 assesses the pattern of India's recent growth, assessing the implications of recent growth for the large numbers of the poor that still remain in India today. Section 5 concludes.

INDIA'S ECONOMIC GROWTH IN THE LONG TWENTIETH CENTURY: STYLIZED FACTS

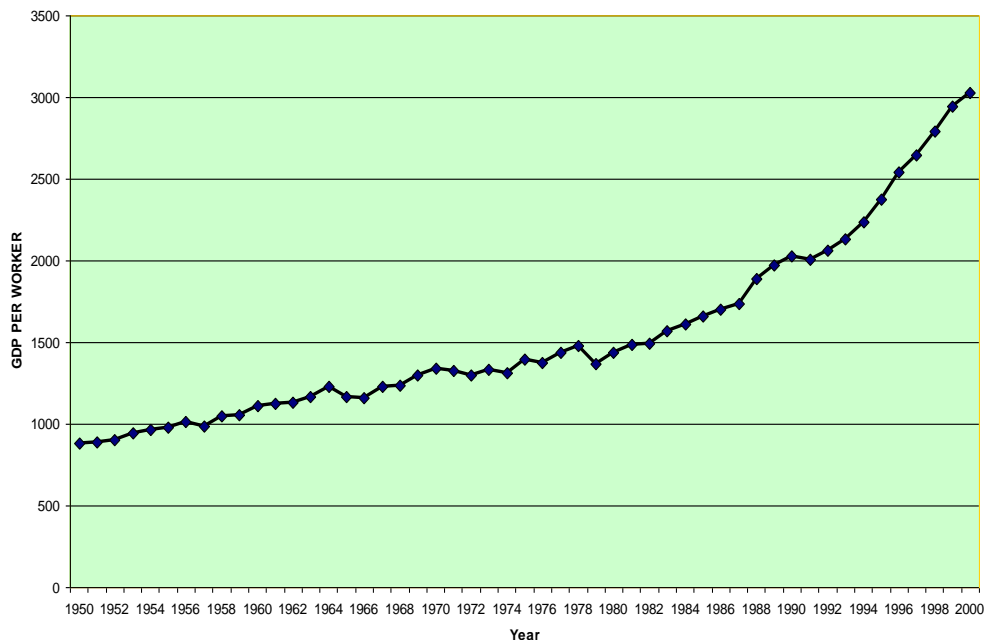
When did growth accelerate?

The standard tale of India's recent economic ascendancy in the world that figures in the international financial press is that the radical economic reforms of 1991 initiated by the Government of Prime Minister Narasimha Rao was the primary cause of India's strong economic growth. In this tale, the reforms of 1991 swept away the socialist policies that were initiated by the Nehruvian regime after independence and that persisted in various degrees in the post-independence decades, and these reforms led to economic growth. However, a closer look at the data does not support such an account of India's economic growth, which attributes most if not all of the latter to economic reforms. As is clear from Figure 1, after a long period of stagnation, especially from the mid sixties to the late seventies, GDP per capita started rising in the late seventies, and has kept on steadily increasing over the last two decades of the twentieth century.

Current research on India's growth experience dates the timing of the growth acceleration to 1980 (Rodrik and Subramanian (RS) 2005, Kohli 2006), though there are others who time the date of the turn-around slightly later, in 1985 (De Long 2004). However, the timing of the turn-around as in the conventional wisdom on India's growth seems to be sensitive to the choice of the base year - the Indian economy contracted significantly in 1979, due to the second oil price shock and due to a drought which was the worst since independence (Joshi and Little 1994). The growth rate of the economy in this year was a staggering negative 5.2 per cent - the highest drop in GDP that has happened in India since independence. The growth rate of the economy, including the shock year of 1979 is 3.7 per cent per annum. If we exclude 1979 from our calculations, we find that the growth rate of

the economy in 1975-1978 is a more respectable 6.0 per cent per annum, not very different from the average growth rate of the economy in the 1980s.³

Figure 1. Evolution of GDP per worker, 1950-2000



Source: our calculations from the *National Accounts Statistics*; estimates of total workers employed from Sivasubramanian (2000) .

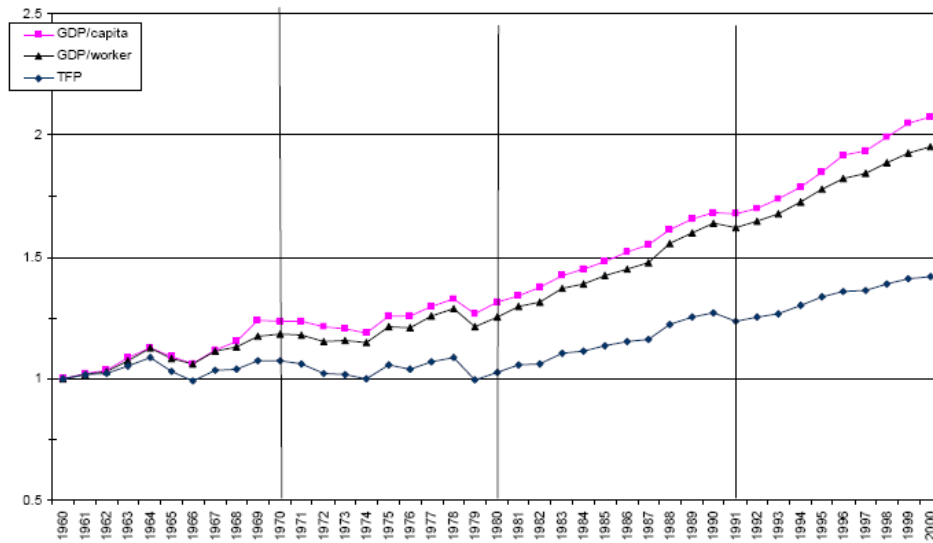
This is also apparent from a closer look at the estimates presented by the two of the main protagonists in this debate – RS and Delong – reproduced in Figures 2 and 3 below. Figure 2, from RS, shows that the turn-around in growth occurs around 1975-76. RS also include the evolution of economy-wide total factor productivity in the figure, and we can observe that the turn-around in economic growth coincided with a turn-around in productivity growth in the economy.

Figure 3 is from De Long, who establishes the timing of India's growth acceleration by estimating the trend level of GDP per capita over the period 1962-1980, and plotting actual GDP per capita over the period 1962-2000 against the trend rate. It is clear that once we exclude the outlier of 1979, actual GDP per capita started deviating from its trend level in an upward direction from the mid-1970s, which suggests that growth had already accelerated by the late 1970s.⁴

³ The average growth of GDP in 1980-1990 was 5.9 per cent per annum.

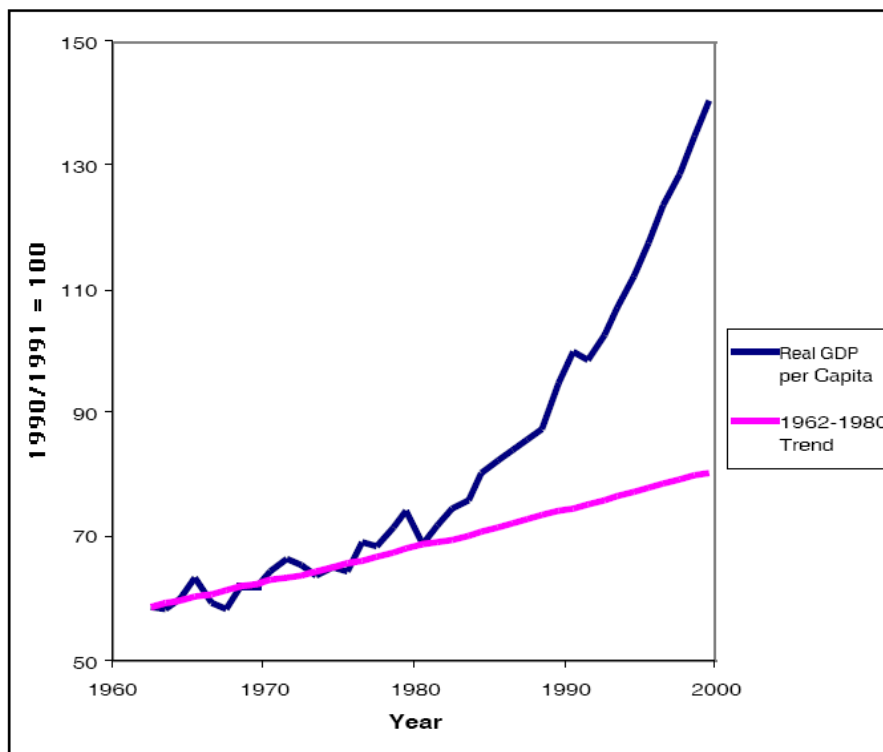
⁴ The timing of the growth acceleration is also supported by the rigorous statistical analysis of Balakrishnan and Parameswaran (2007) who find that there is a single shift in the GDP series in the post-independence period which occurred in 1978-1979.

Figure 2. Economic Performance in India, 1960-2000



Note: log scale, 1960=1; Source: RS (2004)

Figure 3. Indian GDP per capita level and 1962-1980 Trend



Source: De Long (2003)

Once we accept the basic proposition that India's growth acceleration pre-dates the 1991 reforms, and thus, cannot be directly attributed to the reforms themselves, why does it matter when exactly the acceleration did occur? What purpose does it serve to get the timing of the growth acceleration absolutely right, when the broader point is to refute the view that all was 'gloom and doom' with the Indian economy till the reformers had their way. We will argue later in the paper that the timing of the acceleration holds the key to the puzzle that has engaged India-observers in recent years: why did growth accelerate in the late 1970s to early 1980s? But first, before we address this question, we would like to make three observations on India's growth experience across the century, particularly in the two and half to three decades following independence.

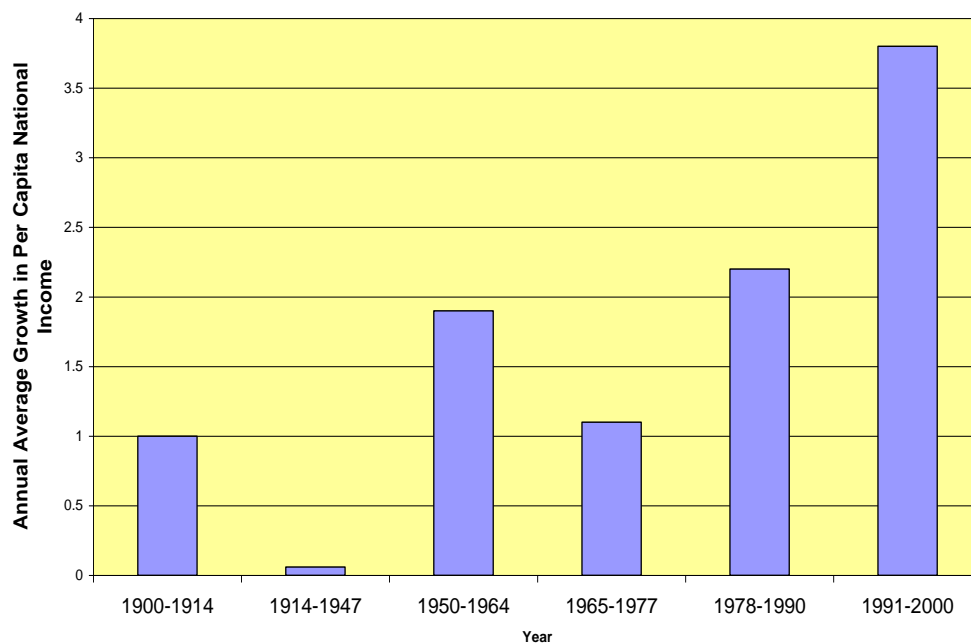
Did the break from colonial rule matter for India's economic growth?

In an important article published in *Modern Asian Studies*, Deepak Nayyar argues that if we consider India's growth over the twentieth century, 'the turning point (for economic growth) came in the early 1950s' (2006: 801), and there was an upward shift in growth rates in national income in the post-independence years from the near-stagnation in per capita income in the first half of the twentieth century. Thus, it was the break from colonial rule that marks India's economic performance in the long twentieth century, less so the growth acceleration of the late 1970s and early 1980s. This point is also made by Balakrishnan (2007), though with specific reference to the Nehru era. However, a closer look at the data does not unequivocally support such a reading of India's growth experience, especially if one were to consider that India went through two very different growth phases in the first half of the twentieth century. In the first period, up to 1914, global trade increased to unprecedented levels due to dramatically decreasing transport costs and the 'common currency' effect of the gold standard (Estevadeordal 2003 et al., Findlay and O'Rourke 2007). During this period, India had a liberal trade regime imposed on it by its colonial master, the British. In this period, India benefited from increased integration with a Europe-centred world economy (Roy 2006). In the second period, 1914-1947, following the outbreak of the First World War and leading up to the Great Depression, transport costs started rising, the gold standard was on the demise and protectionism was on the increase. This led to a phase what the economic historians Findlay and O'Rourke describe as 'deglobalisation' as world trade volumes collapsed. India, with its dependence on the world economy for its growth impulse in the colonial period, suffered a protracted stagnation in standards of living.

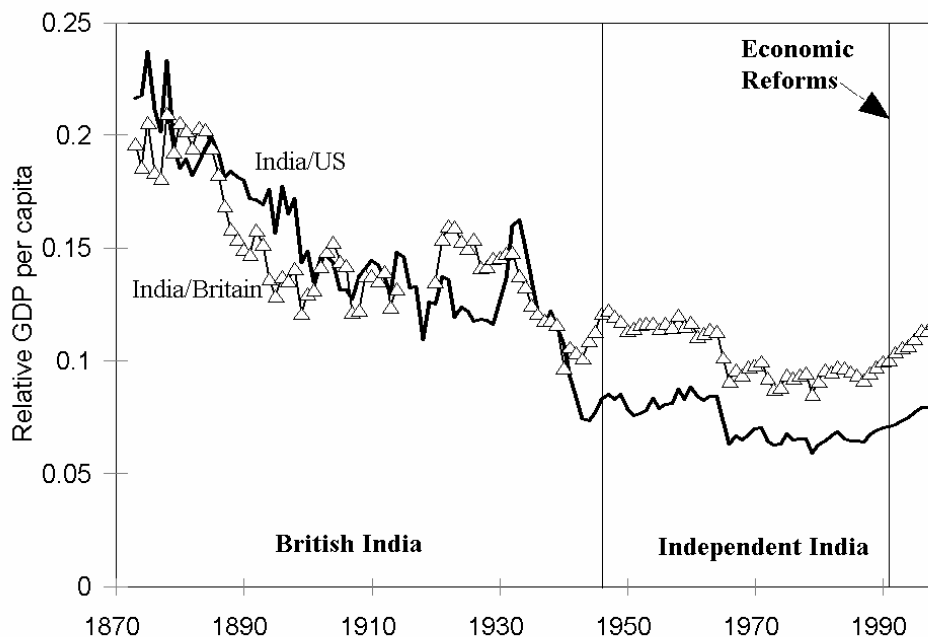
To see whether growth rates differed in pre- and post-independence India, we divide the second half of the twentieth century into five periods, 1950-1964, the immediate post-independence period; 1965-1977, the period of stagnation, according to most readings of Indian economic development, 1978-1990, the period of the initial growth acceleration and finally, 1991-2000, when economic reforms were well underway. Classifying the first half of the twentieth century into two phases – the phases of globalisation and deglobalisation, 1900-1914 and 1914-1947, we see from Figure 4 that growth in national income, especially from the mid 1960s to the late 1970s, was the same as the first decade and a half of the twentieth century, and it is only in the period 1978-1990 that one sees a clear break from the growth rates of early twentieth century colonial India. This is more evident when we look at India's performance relative to the UK and the USA over 130 years (Figure 5) beginning from 1870. It is only from the late 1980s that India's per capita incomes starting rising relative to per capita income levels of

Britain and the US, and prior to this period, Indian relative incomes had been steadily falling. In the first three decades after independence, the Indian economy witnessed significant structural change and diversified very gradually from a backward agriculture-based economy that was vulnerable to climactic and external shocks in the colonial period to one that was more self-reliant, and that had increasing proportions of economic activity in modern industry and commercialised agriculture. But a decisive break from pre-independence standards of living cannot be counted as one of the achievements of Indian economic performance during this period.

Figure 4. Growth in Per Capita Income in the Twentieth Century



Sources: 1900-1914 and 1914-1947 from Roy (2006);
post 1950 estimates are from *National Accounts Statistics*.

Figure 5. India's GDP per capita, relative to Britain and the USA

Source: Clark and Wolcott (2004)

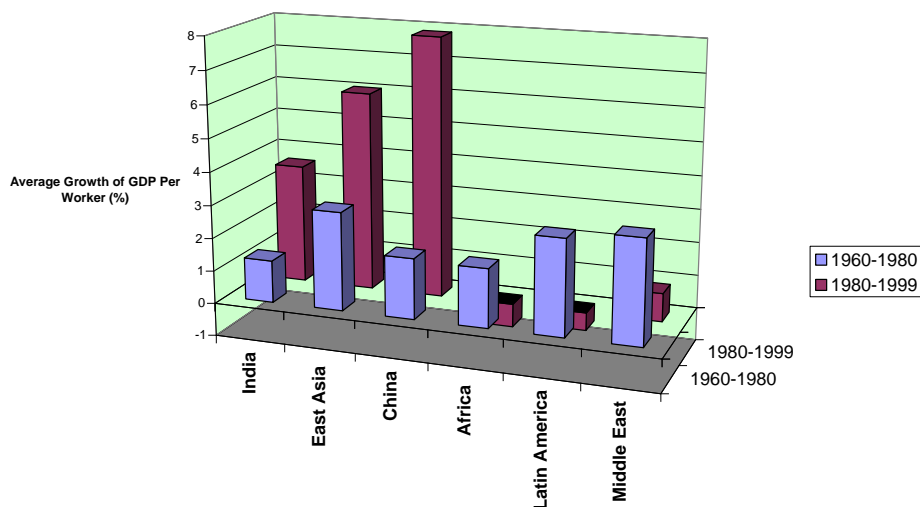
An 'Average' India?

There has been a revisionist view emerging in recent analysis of India's growth which argues that in the post-World War II period up to the 1980s, India's growth performance was average relative to other countries. It was 'not nearly as bad as the growth performance in Africa ... and not nearly as good as the growth performance in East Asia' (De Long 2004: 193). De Long bases his finding on the estimates of a simple neoclassical growth model, which shows that India's growth rate has been what may be predicted from the initial level of output per worker, the rate of investment and the rate of population growth. In a similar vein, Nayyar (2007) suggests that 'a story that depicts an average India is much more plausible than the caricature which portrays a failed India' (2006: 812) while speaking about the heydays of the License Raj. This would suggest that influential critiques of India's economic policies of the first three post-independence decades, such as Bhagwati and Desai (1970) and Bhagwati and Srinivasan (1975) may have overstated the apparently pernicious effects of these policies on India's economic performance. Referring to these policies, De Long argues, 'India's growth management policies were not that damaging or rather that they were par for the course in the post World War II period' (2004: 193).

However, this conclusion is problematic for two reasons. Firstly, it is based on a simple neoclassical model of growth which has lost legitimacy in recent years in explaining economic growth in developing countries, and which itself begs the question: why was the investment rate so low for India, compared to other

developing countries. The data itself does not support the De Long conclusion - if one looks at calculations of growth rates for India and for other developing regions for the periods 1960-1980 and 1980-2000, it is clear that India underperformed relative to all other developing regions in 1960-1980, but outperformed these regions by a wide margin in 1980-2000 (Figure 6). Secondly, De Long does not ask the more appropriate question: what should have been India's economic growth in the three decades of the post-independence period, given India's geography and its institutions at the time of independence, the two variables which we now know are the deep determinants of economic growth. India has had more a favourable geography than many other developing countries – its long coast-line and its size in terms of population are both geographical factors that economists consider to be favourable to economic growth. India inherited an English common law legal system, and had a well functioning parliamentary democracy and a stable regime of private property rights by the virtue of the mixed economy model that India's political leaders adopted at the time of independence, all of which have been found to be powerful institutional determinants of economic growth in the literature (Acemoglu, Johnson and Robinson 2001, La Porta et al. 2008, Acemoglu 2008). The argument that India underperformed in the first three decades post independence relative to its geographical and institutional endowments at the time of independence is also supported by the econometric analysis of RS, who find that India's level of income in 1980 was about a quarter of what it should have been, given the strength of its economic institutions. We find no compelling reason then to over-turn the assessment of Bhagwati-Desai-Srinivasan and many others that India's economic performance during the period of import substitution industrialisation and the License Raj was below average for developing countries for that period.⁵

⁵ Though many other developing countries adopted similar inward looking economic policies roughly in the same period, Findlay and O'Rourke (2007) show that India's trade regime was among the most restrictive, and the negative effect of the inward looking trade regime on growth was accentuated with an inefficient industrial licensing system perhaps unique in its complexity in the world, which as Bhagwati (1993) pointed out, 'had degenerated into a series of arbitrary, indeed inherently arbitrary, decisions where, for instance, one activity would be chosen over another simply because the administering bureaucrats were so empowered, and indeed obligated, to choose' (p. 50).

Figure 6. Growth Rates for India in Comparison with Other Regions

Source: RS (2004)

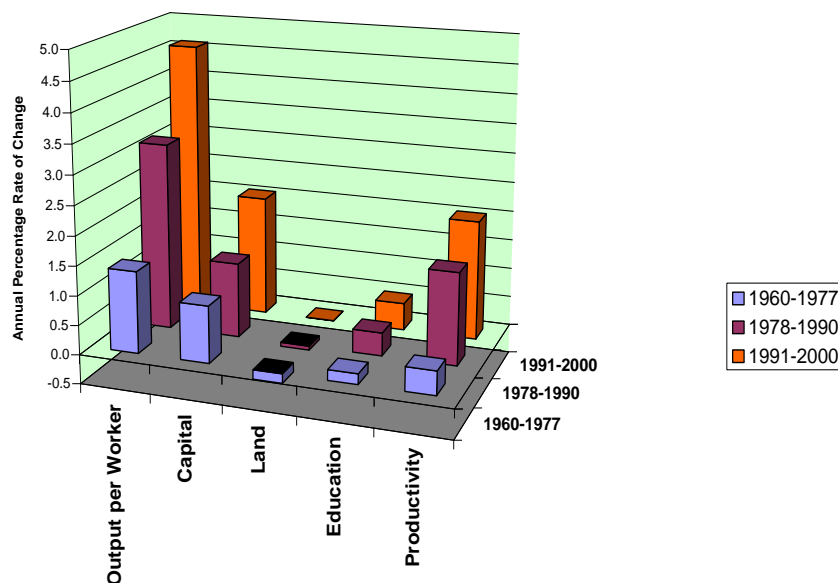
Growth in the 1990s

Even if we were to conclude that India's growth acceleration preceded the economic reforms of the 1990s, one needs to be careful in not over-stating the case that the reforms of the post-1991 period did not matter in explaining India's high economic growth. What the data seems to suggest is that the growth rate of GDP per worker which had picked up in the late 1970s increased even further in the 1990s. This is most obvious from DeLong's figure (Figure 3) which shows that economic growth in India did not follow a simple linear process (as would be predicted by neoclassical theories of economic growth), and that there were interlocking and cumulative causation forces at work that seemed to take the economy from one plateau to the next. Such a view of economic growth is not new to early observers of the growth process such as Gunnar Myrdal (?) and Walter Rostow (?), but seems to have been often missing in contemporary accounts of economic growth.

WHAT CAUSED GROWTH TO ACCELERATE?

Unpacking the Growth Story

What were the proximate causes of India's growth acceleration? Figure 7 shows that the increase in the growth rate in the 1980s and 1990s occurred primarily due to greater accumulation of physical capital and an increase in productivity of capital, labour and land. Education (or human capital in the language of economists) and land expansion were not the sources of growth. There has been some controversy in the context of East Asia on whether factor accumulation or productivity has been primarily responsible for the region's economic growth, with one influential view arguing that East Asia's economic growth has been mostly due to factor accumulation and not productivity growth. In the Indian context, it seems that both factor accumulation and productivity growth were *both* responsible for India's recent growth experience.

Figure 7. Sources of India's Growth

Source: Bosworth, Collins and Virmani (2006).

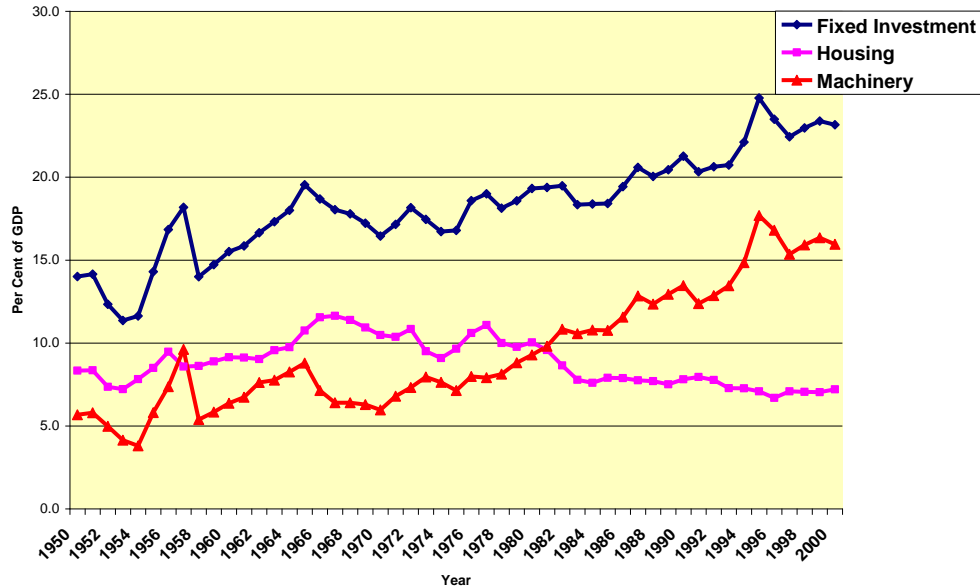
Factor accumulation and productivity growth by themselves do not explain growth, and as the economic historian Douglas North noted, these factors are “not sources of growth; they *are* growth”. So we need to dig deeper into the underlying determinants of the greater factor accumulation and productivity growth to understand the *fundamental* causes of India's growth.

Perhaps the most distinctive feature of the behaviour of capital accumulation in the 1980s and 1990s has been the significant increase in the rate of fixed investment (which comprises investment in machinery and housing) in India since the late 1970s. Figure 8 makes clear that this has been the case, driven by a remarkable increase in machinery investment. As Figure 9 shows, the accumulation of machines rather than houses has been primarily been due to a sustained increase in machinery investment by the private sector, since private investment in housing in fact declined since the late 1970s.⁶ Figure 10 shows that while the public fixed investment rate increased from the mid 1970s to the mid 1980s, both public sector investment in machines and housing started declining from the mid 1980s. The private sector in India comprises the household sector, which are unincorporated enterprises in manufacturing and services, along with farming households, and the corporate sector, comprising medium to large firms,

⁶ The increase in the accumulation of machines rather than of housing in the initial phases of of India's growth acceleration may explain why latter has been sustained over such a long period, in contrast to the experiences of other developing countries where by and large growth accelerations have been short-lived (Hausman, Pritchett and Rodrik 2005). In Latin America and in East Asia just before the 1997 financial crisis (and to some extent in the US and the UK more recently), several episodes of growth have been cut short as growth was driven by a housing (and consumer durable spending) boom fuelled by cheap credit that eventually led to financial and exchange rate crises. In contrast to these episodes, India's growth experience has perhaps been built on more solid foundations. Furthermore, the relative stagnation in housing investment in India's strong growth period suggests that accounts of India's growth which identifies Keynesian style demand driven investment led growth mechanisms as the sole cause of growth in the 1980s (e.g. Bhaduri 2008) are wholly not supported by the data – there is no reason to expect that demand side factors will favour machinery over housing.

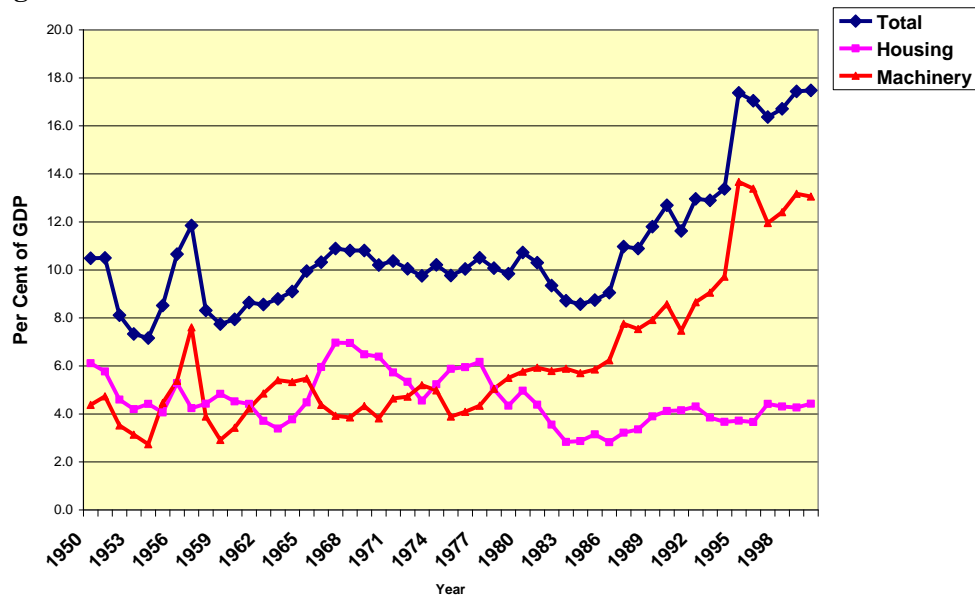
mostly operating in industry and services. Disaggregated data shows that both households and corporate firms were responsible for the unprecedented surge in investment in machines (Sen 2007).

Figure 8. Fixed Investment

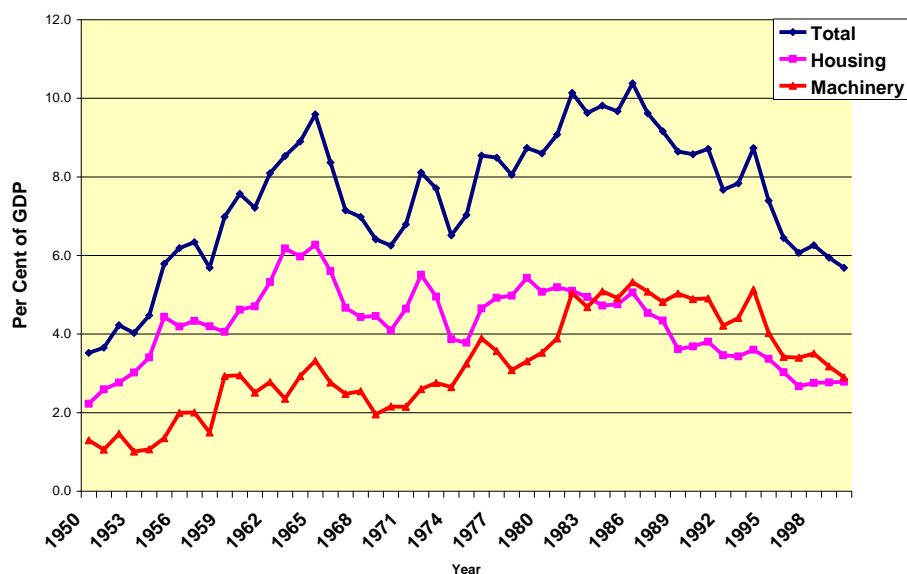


Note: Fixed Investment and its components and GDP in constant 1993-94 prices.
Source: our calculations from *National Accounts Statistics*.

Figure 9. Private Fixed Investment



Note: Private Fixed Investment and its components and GDP in constant 1993-94 prices.
Source: our calculations from *National Accounts Statistics*.

Figure 10. Public Fixed Investment

Note: Public Fixed Investment and its components, and GDP in constant 1993-94 prices.

Private Investment in Machines as the cause of growth

Can we attribute India's growth acceleration to the surge in private investment in machines? We can do so for two reasons. Firstly, among the various determinants of economic growth that has been extensively studied by economists, the one variable that is robust to most specifications and sample size changes is the investment rate (Levine and Renelt 1992). And among the different types of investment, the rate of investment that seems to really matter for economic growth is machinery (or equipment) investment (De Long and Summers 1991, 1992, 1993). As De Long and Summers (1993: 396) note, "rapid growth is found where equipment investment is high and slow growth where equipment investment is low". De Long and Summers find that the cross-economy positive association between output per worker and investment in machinery and equipment is particularly true for developing countries. In addition, "historical accounts of economic growth invariably assign a central role to mechanization" (De Long and Summers 1991: 447). The reason why machinery investment matters for economic growth than other types of investment is that the role of external economies is greater for machinery investment than for housing investment, due to the greater amount of research and development expenditures in the machinery sector. Interestingly, among the countries that De Long and Summers have studied, India has had one of lowest rates of machinery investment for the period 1960-1985 and one of the lowest levels of income per capita in 1980 in the same sample of countries.

The second reason we can be confident that the increase in private investment in machines is the predominant cause of India's growth acceleration is that econometric analysis shows that among the different possible sources of India's growth, private machinery investment has had by a wide margin the strongest effect on growth rates (Sen 2007). The increase in machinery investment can explain both the faster rate of accumulation of capital *and* the increase in productivity – the two proximate sources of India's growth take-off that we have observed earlier. Machinery investment triggered an increase in productivity by learning by doing as workers learn the skills necessary to operate the new machines

and also via the adoption of state-of-the-art technology embodied in new capital goods.⁷ The increase in machinery investment had, therefore, an enormously strong effect on growth, working its way through both capital accumulation and aggregate productivity growth.⁸

What ultimately caused growth to accelerate?

Picking out the centrality of private machinery investment in India's growth story still does not answer the question: what led to its surge since the late 1970s? There were three principal reasons why the surge occurred.⁹ The first was financial deepening brought about by bank nationalisation. In 1969, fourteen of India's largest commercial banks were nationalised by the government of the day, which was headed by Indira Gandhi in her first stint as the Prime Minister of the country. As commercial banks came under 'social control', these newly nationalised banks were asked to mobilise resources on a massive scale by opening branches in rural and semi-urban areas as the Reserve Bank of India enforced a strict branch licensing policy (Sen and Vaidya 1997). This objective was largely realised. Deposits as a percentage of national income increased from 15.2 per cent in 1969 to 37.9 per cent in 1984, while population per bank office – a measure of bank density – fell from 65 thousand in 1969 to 15 thousand in 1984.¹⁰

The increase in bank density had a significant positive effect on private saving (Athukorala and Sen 2002). This large amount of resources in the Indian banking sector made its way to firms and producer-households as loanable funds for investment in two ways. The first was a direct route. With the introduction of 'priority sector lending requirements' as commercial banks came under social control, banks had to lend a large proportion of this increased level of deposits to producer-households in the industrial and agricultural sectors for both working and fixed capital purposes. Household machinery investment increased in the 1970s, as the Green Revolution began to have its effect on rural areas of Northern states such as Haryana and Punjab. The second route was an indirect one. As commercial banks found their deposit base increase, they invested in bonds and debentures of term-lending institutions and state-owned insurance and mutual funds companies. These resources then made their way to the private corporate sector via loans from term-lending institutions and investment in shares and bonds of corporate firms by the state-owned insurance and mutual funds companies.¹¹ Thus, the net result of the

⁷ We find that the correlation between aggregate productivity and private machinery investment is 0.96 for the period 1960-2003.

⁸ The increase in productivity growth occurred initially in the agricultural sector in the second half of the 1970s, as farmers started investing in new machines during the Green Revolution. The productivity growth then occurred in the manufacturing sector, as corporate firms started investing in machines in the 1980s. The increase in productivity finally spilled over to services as new telecommunication equipment became available following the telecommunication revolution that occurred in the 1990s in India. I draw these inferences from analysing the disaggregated estimates of total factor productivity of Bosworth-Collins-Virmani (2006).

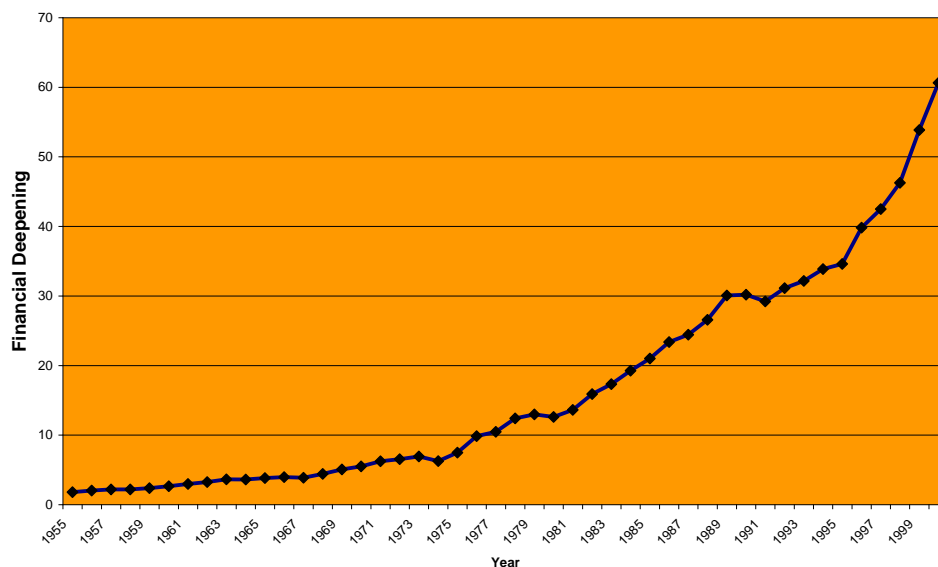
⁹ The detailed statistical analysis that supports this assertion is undertaken in Athukorala and Sen (2002), Sen (2007) and Sen (2008).

¹⁰ The increase in the growth of bank branches in rural and semi-urban areas occurred primarily in the late 1970s and early 1980s rather than just after the bank nationalisation in the early 1970s (Panagariya 2008).

¹¹ The share of commercial banks' investments in the bonds and debentures of term-lending institutions and insurance/mutual funds companies as a source of funds for the latter set of institutions increased from 5.9 per cent in 1971-75 to 12.1 per cent in 1976-80, and

bank nationalisation was a significant increase in financial deepening, particularly since the mid 1970s, as Figure 11 makes clear.¹²

Figure 11. Financial Deepening



Note: Financial Deepening is Total Credit to the Private Sector as a ratio of GDP.
Source: our calculations from IMF's *International Financial Statistics*.

The second determinant of the surge in machinery investment was the rise in public fixed investment, which as Pranab Bardhan (1984) has powerfully argued, had a strong complementary effect on private investment, at least till the mid 1980s. The increase in public investment was mostly in the infrastructural industries – petroleum, electricity and railways (Ahluwalia 1991). The private sector responded strongly to the larger amount of funds available to it for investment purposes and both the demand side and supply side stimuli of public investment, and investment in equipment increased strongly from the mid 1970s onwards. This provides an explanation of the growth spurt that occurred in the Indian economy from the late 1970s onwards.

However, by the mid to late 1980s, public fixed investment and financial deepening were no longer the prime drivers of private machinery investment, and hence, of economic growth. The main reason for this was the increase in fiscal imbalances that started occurring over the 1980s mainly due to increasing consumption claims on public resources both from established and newly emerging distributional coalitions.¹³ With increasing fiscal deficits, capital expenditures

remained at around that level in 1981-85 (Sen and Vaidya 1997). The share of funds going from these institutions to the private corporate sector increased from 12.9 per cent of the total use of funds by these institutions in 1971-75 to 21.1 per cent in 1981-85.

¹² The view that bank nationalisation exerted a strong positive effect on India's economic growth at the early stages is also shared by Basu and Maertens (2007) and Basu (2008), who comments that 'it does seem very likely that the bank nationalization contributed to the first break in growth rate, via a boost to savings and investment' (Basu 2008, p. 399).

¹³ The loss of control over public finances can be traced to the changing political economy of the country, as socio-economic groups (such as public sector workers, small-scale industrialists and medium and large farmers) that were dormant in the past began to be increasingly assertive and asked for a greater share of government subsidies. At the same

undertaken by the state was a casualty and public investment rates started to decline.¹⁴ In addition, the government increasingly used the banking sector for a captive market for its securities to meet its deficits, nullifying the positive effects of financial deepening on private investment that was evident in the earlier period (Sen and Vaidya 1997).

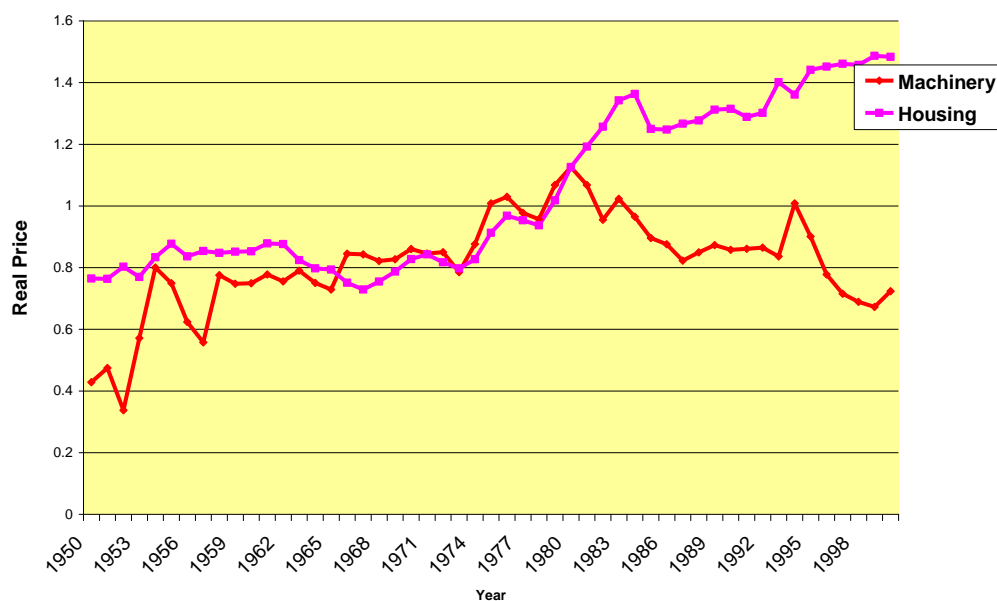
By the early 1980s, another factor became increasingly important in maintaining the rise in private equipment investment and this was the fall in the price of machines. By the late 1970s, due to the strong protectionist regime that prevailed for the capital goods sector since independence and the ubiquitous state involvement in the production of capital and intermediate goods, India had among the most expensive machines in the world. There is little doubt that the high price of machines was one of the most important reasons why machinery investment in India was so low in the 1960s and 1970s as compared to many other developing countries.¹⁵ As De Long and Summers (1993: 399) have pointed out, “India’s policies have managed to enrich industrialists instead of encouraging industry”. The relaxation of import controls that had started with the export-import policy of 1977-78 gained momentum in the 1980s, with a steady increase in the availability of capital and intermediate goods as imports. The resultant competitive pressure on the domestic capital and intermediate goods sectors explains to a large extent why the price of machines started falling steadily since the 1980s, as is evident from Figure 12. The import liberalisation of capital goods was accelerated by the Rajiv Gandhi government that came to power in 1985. The sustenance of India’s growth acceleration in the mid to late 1980s even during a period where the effects of financial deepening and public investment on economic growth was weakening can be attributed to the trade reforms that progressed steadily over the 1980s, culminating in the lifting of all import controls on all goods in the 1990s.¹⁶

time, with the weakening of political power at the Centre, the Indian state became increasingly populist as it resorted to settle the claims of various “pressure-groups” through the budgetary process. Kohli (1991) calls these developments in India’s political economy as its “growing crisis of governability”, and Vijay Joshi and Ian Little (1994) attribute these developments to ‘political decay’ and ‘political awakening’.

¹⁴ Examining the sectoral data on public investment, we find that public investment in agriculture started declining from 1979 onwards, which may explain why household machinery investment stagnated in the 1980s. The complementarity of public and private investment is particularly strong in the case of the agricultural sector.

¹⁵ Econometric analysis also backs up this point - Jones (1994) shows that there is a strong negative relationship between the real price of machines and economic growth, and that the former causes the latter.

¹⁶ Nayyar (2006) also argues that the liberalisation of the regime for the import of capital goods contributed to the turn-around in economic growth in the 1980s.

Figure 12. Price of Machines vs Housing

Note: Real prices are price deflators of machinery and housing as ratios of the overall GDP price deflator.

Source: our calculations, from *National Accounts Statistics*

The State versus the Market

Our account of India's growth story helps us to put into perspective the very heated debate that has raged among India observers on whether market-oriented reforms that were initiated in the 1980s were responsible for India's break in late 1970s with what the economist Raj Krishna had termed the Hindu rate of growth of the previous decades. The case for market oriented reforms as the sole cause of economic growth has been argued most forcefully by Virmani (2007) and Panagariya (2008) among others. The case for the role of the state (or at least, statist policies) in initiating India's economic growth has been made by Atul Kohli (2006) and Deepak Nayyar (2006) among others.

It is clear both the state and the market mattered for India's growth acceleration, but that the manner in which the state and the market played a role in economic growth differed both across the period of growth and in the precise set of statist and market-oriented policies that matter for growth. In the period mid 1970s to the early 1980s, financial deepening which was a consequence of the bank nationalisation of 1969 along with an increase in public investment were the key factors for India's growth acceleration. Growth was sustained from the early 1980s onwards by the fall in the price of machines brought about by trade reforms targeting the capital (and intermediate) goods sectors. Thus, India's growth acceleration can be attributed in its early phase to a classically statist model of development and in its later phase, to economic reforms which brought down the price of machines and made state-of-the-art capital goods accessible to Indian firms.

Informal and Formal Institutional Change

In an influential set of papers, economists such as De Long (2003) and Rodrik and Subramanian (2004) and political scientists such as Kohli (2006) have argued that the acceleration in India's growth occurred primarily due to a change in the attitudes of the national government under the Prime Ministership of Indira Gandhi towards the private sector from being anti-business to being pro-business and less to do with economic policies. As RS state, "the trigger for India's economic growth was an attitudinal shift on the part of the national government in 1980 in favour of private business" (RS: 2). They argue that this attitudinal shift "left little paper trail in actual policies but had an important impact on investors' psychology" (RS: 3). Similarly, Kohli (2006: 1255) states that "Indira Gandhi shifted India's political economy around 1980 in the direction of a state and business alliance for economic growth". While De Long dates the timing of the growth acceleration later than RS and Kohli at around 1985, he also argues that "the most important factor that changed in India over the 1980s had more to do with entrepreneurial attitudes and a belief that the rules of the game had changed than with individual policy moves" (2003, p. 203).

The argument that India's growth acceleration can be attributed more to the attitudinal shifts of the government than to substantial policy moves has interested not only India-observers but a wider audience as well, and has been influential in the literature on the political economy of economic growth. As Rodrik (2003) has argued, India's growth experience suggests that it may be possible for other economies not to undertake significant institutional reforms, particularly of the Washington Consensus variety, in order to bring about growth accelerations. The 'attitudinal shift' story of India's economic growth seems to suggest that informal institutional change related to changes in attitudes and beliefs may be sufficient to ignite economic growth without any need for significant changes in formal institutions – changes in the *actual* rules of the game such as reforms in laws and regulations that influence economic activity. How valid is such a reading of the Indian growth experience?

There has been some debate on the exact timing of the attitudinal change of the political elite towards the market. As has been pointed out by Baldev Raj Nayar (2006), many of the elements described by Kohli and RS that characterised the Indira Gandhi regime of the 1980s were also evident when she was earlier in power, especially during and after the turbulent years of 1973 and 1974 (after the first oil price shock). For example, in 1974, the national government declared the threatened strike by 2 million railway employees as illegal and arrested 20,000 workers and trade union leaders, 'with some display of brutality' (Joshi and Little 1994: 55). In the same year, the national government abandoned the nationalisation of the wholesale wheat trade, a pet project of the Left at that time. There were also clear changes in the attitudes of the economic bureaucracy towards a more liberal view of economic planning during the 1970s.¹⁷ We have already argued that the growth acceleration and the upsurge in private machinery investment started in the late 1970s, so if the attitudinal change of the state did in fact occur in the second half of 1970s, it would support the RS argument, rather than negate it.

However, there are two important problems with the 'attitudinal shift' argument. Firstly, there is a tendency in this argument to confuse the apparent

¹⁷ Ahluwalia (1991) noted that, "the second half of the seventies can be characterized as a period of 'official reflection' marked as it was by a number of official committees reviewing different aspects of industrial and trade policies" (p. 5).

absence of policy change with the absence of formal institutional change. Both they are not one and the same. There was in fact significant formal institutional change during the late 1970s and early 1980s to do with both the bank nationalisation episode – a large transfer of property rights from the private sector to the public sector – and to do with the manner to do with the trade policy changes of the late 1970s and early 1980s, which though much smaller in scope as compared to the 1991 reforms, led to a significant alteration of ‘the rules of the game’ for Indian firms with respect to their relationship with the world economy, facing both external competition and access to imported capital goods for the first time since independence.

Secondly, it is not obvious that when Indira Gandhi decided to nationalise fourteen commercial banks in July 1969, she or her economic advisors saw such a policy action as being necessarily favourable to economic growth. I.G. Patel, who was Chief Economic Advisor to Mrs Gandhi at that time, makes clear in his memoirs that she saw this as a political decision, in part for electoral concerns to be seen as ‘an angel of the poor’ and in part, to manoeuvre herself into a stronger position against certain elements in the Congress Party such as Morarji Desai, who was Deputy Prime Minister at that time (Patel 2002). The growth benefits of bank nationalisation was an *unintended* positive outcome, as the proponents of bank nationalisation were more concerned about the possible positive effects that nationalisation may have on poverty reduction, especially in rural areas. The motive for the increase in public investment from the mid-1970s is less clear, but it had to do in some measure with a redress of the underinvestment in the public sector that had occurred from the mid-1960s to the mid-1970s. The changes in trade policy can be attributed at least in part to a change in the attitude of the economic bureaucracy towards import controls. Therefore, among the key growth-enhancing policies, it was the set of policies pertaining to international trade that can be unambiguously linked to “the abandonment of left-leaning anti-capitalist rhetoric and policies, and prioritising of economic growth” (Kohli 2006: 1252).

While informal institutional change related to the attitudinal change of the state and bureaucracy to the private sector certainly aided the growth of private investment that was observed from the late 1970s by sending positive signals to entrepreneurs, the attitudinal shift of the state cannot in itself explain the surge in private investment and consequently, the acceleration in economic growth. Thus, while informal institutional change was complementary to formal institutional change in bringing about India’s growth acceleration, it was not a substitute for formal institutional change in their effects on economic growth (Helme and Levistky 2004). Formal institutional changes was the key to India’s growth acceleration, even though these changes did not seem particularly growth enhancing (as in the case of bank nationalisation) or that radical (as in the case of trade reforms) at that time, and in the context of the major economic reforms of 1991.

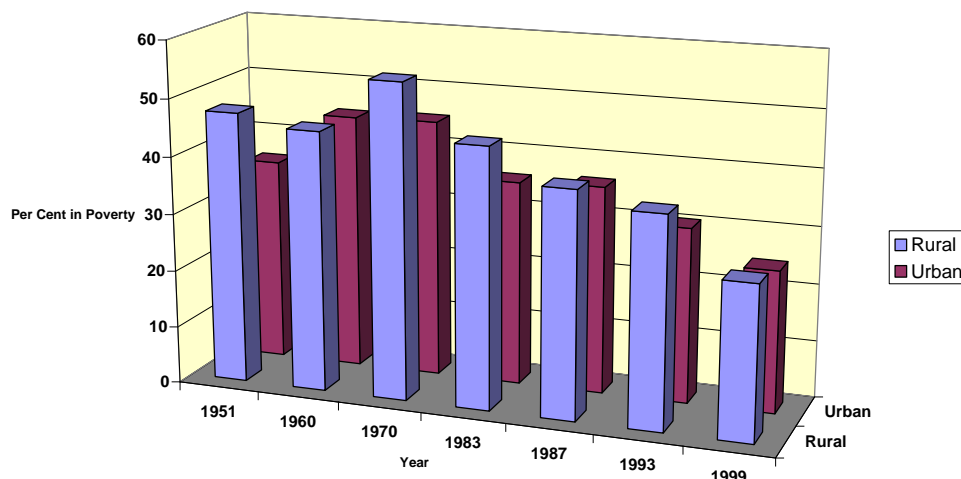
THE PATTERN OF GROWTH

We now turn to an examination of the pattern of growth and its implications for broader economic development. Among the three main sectors of economic activity, manufacturing and services have been responsible for the increase in economic growth in the 1980s, and services in particular in the 1990s, as we can see in Figure 13. Growth rates in agriculture, on the other hand, have remained at an average of 2 to 3 per cent per annum over the five decades since independence.

One of the major concerns economists have had about the post-reform growth in India is the low rate of job creation that has been observed in spite of the high growth rates. Deepak Nayyar points out that the overall employment elasticities of output – a measure of the job creating potential of economic growth – has fallen from 0.54 in the late seventies to 0.16 in 1993/94 to 1999/2000. A great part of the fall in the employment elasticity of output can be attributed to a strong growth in labour productivity since the early 1980s, but it can also be due to a pattern of growth that has not particularly been employment-intensive.

Notwithstanding the weak job creation in the economy in the 1980s and 1990s, poverty rates seem to have fallen steadily since the 1970s, after showing no clear trend in the first two decades since independence. This has occurred both in rural and urban areas, as Figure 14 makes clear. However, the rate of decline in poverty is not as much as we may expect from the high rates of economic growth in the 1980s and 1990s (Deaton and Dreze 2008).

Figure 14. Poverty Rates, Rural and Urban



Note: 1951 is August 1951 to November 1952, 1960 is July 1960 to August 1961, 1987, 1970 is July 1970 to June 1971 is July 1987 to June 1988, 1993 is July 1993 to June 1994, and 1999 is July 1999 to June 2000.

Source: Panagariya (2008) for all years, except estimates for 1999 which are from Deaton and Dreze (2002).

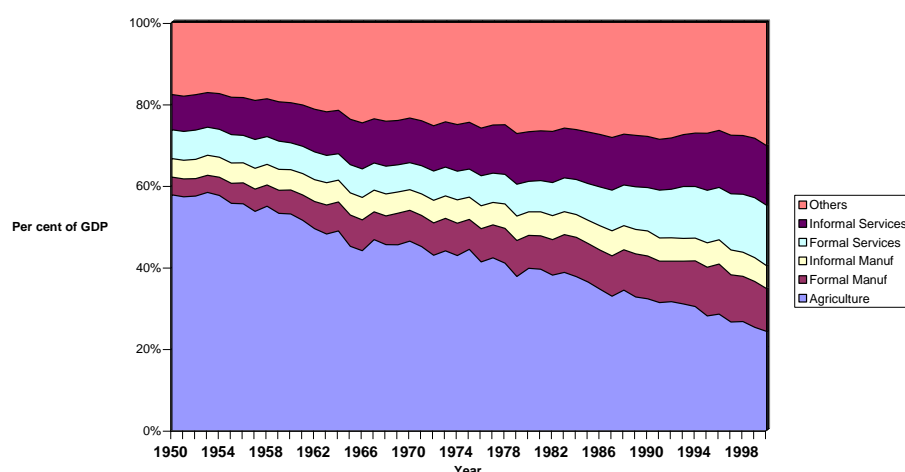
The Transformation that Never Was

Why has there been a low rate of job creation in the high growth era of the Indian economy? To answer this question, it is important to recognise that India's pattern of growth has been atypical and has not followed the standard path that we have seen other economies, especially with large supplies of mostly unskilled labour, follow. All the major Asian economies, starting with Japan, then Korea, Singapore, and Taiwan, and now more recently, China and Vietnam, have moved from the import substituting phases of their economic development to an export-oriented development strategy that witnessed in its initial years, a strong growth in the labour intensive segment of the manufacturing sector. In all these countries, as

their economies integrated more closely with world markets, economic growth and structural transformation from an agriculture based to a manufacturing based economy went hand in hand, one driving the other. Surplus labour was pulled, sometimes in massive amounts, from less productive agriculture to the more productive manufacturing sector, and economic growth was driven in its early stages by a rapid expansion of labour-intensive manufacturing, mostly producing for export markets (Riedel 1988, Haggard 1996, Krueger 1997). This was not the case in India, where the labour –intensive manufacturing sector did not become the engine of growth. In fact, it was the knowledge-intensive services sector which along with some segments of capital intensive manufacturing was the engines of growth in India. These sectors by their nature were not employment-intensive. Whatever jobs that were created outside of agriculture were mostly in the low productivity – low wage informal services sector (comprising mostly trade, hotels and restaurants). The informal services sector, as is well recognised, depends on the growth of other sectors, and therefore, cannot be the leading sector of growth. By virtue of its ‘follower’ status in sectoral growth, it is constrained in its capacity to absorb any more of the labour force in agriculture than it has in recent years.

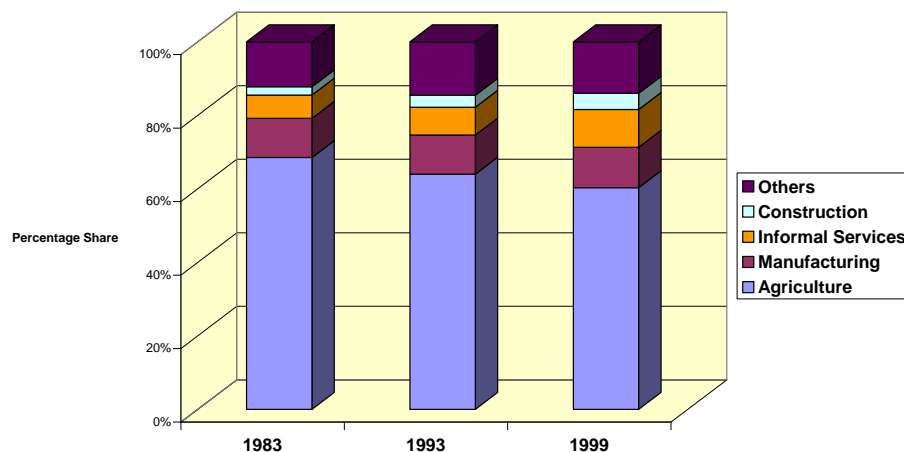
The atypical nature of structural transformation in India is clear from Figures 16 and 17, which show the stagnation in manufacturing output and employment over time, and the increase in both the formal and informal segments of the services sector in total output, and the growth of the informal services sector in total employment. Further examination of employment and output patterns in the formal manufacturing sector shows that not only has manufacturing stagnated as a share of total output and total employment, but the labour-intensive segment of the formal manufacturing sector has contracted steadily over time (Sen 2008). Such a development pattern has neither been efficient nor equitable, as it has not been built on the foundation of the innate comparative advantage India possesses in unskilled labour intensive manufacturing (as has argued by Wood and Calandrino 2000 for example), and has limited the poverty reducing impact of economic growth.

Figure 15. Composition of GDP



Notes: Formal and informal manufacturing are registered and unregistered manufacturing in the Indian national income accounts. We define formal services as the finance and communication sectors, and informal services as the trade, hotel and restaurant sector. Others include mining, construction and the public sector.

Source: our calculations, from *National Accounts Statistics*.

Figure 16 . Employment by Sector

Source: Ramaswamy (2007)

CONCLUSIONS AND FINAL REFLECTIONS

Most growth accelerations in developing countries tend to die out over time or are reversed – the defining feature of growth accelerations is their ephemeral nature and their inability to ‘last the distance’ (Hausman, Pritchett and Rodrik 2005). There are few instances of sustained growth over several decades in the developing world – India has now joined a select club of ‘growth miracles’ which include countries as disparate in size, geographical location and initial conditions as Chile in Latin America, Botswana and Mauritius in Africa, and China, Vietnam and ofcourse the Tigers and Cubs of East Asia. However, India’s ascendancy as an economic power along with China’s has more significant implications for economic well-being than these other countries, given the size of its economy and the number of the poor that inhabited these two countries at the beginning of the growth process. There is little doubt that “the emergence of China and India in the global economy has been one of the most significant economic developments of the past quarter century” (Bosworth and Collins 2008).

Most interpretations of India’s growth acceleration have tended to privilege one dimension of the growth experience over another, and the two dominant perspectives take India’s economic growth either as a product of neoliberal economics of current times or as a late reward to the statist policies of the past. However, the story of India’s growth told thus far points to a more complex causal story than has been commonly portrayed both in the popular press and in scholarly writings on India, and we have argued that no single perspective can provide a convincing explanation of India’s growth phenomenon.

We have also argued that in contrast to the previous growth success stories of the developing world, especially those originating from Asia, India’s pattern of growth has followed a non-standard and what I could call a perverse route, and that such a growth pattern that privileges knowledge-intensive services and capital-intensive manufacturing over labour-intensive manufacturing is not in India’s long-term interests, either from viewpoints of efficiency or equity. Clearly, whether India can maintain its strong economic growth in the future, and at the same time, have a more equitable development strategy in the twenty-first century than it has

in the last century is intimately related to its ability to reclaim its lost transformation from an agriculture-based to a manufacturing-based economy.

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