Inclusive Growth and its Regional Dimension

P. K. Nayak, Sadhan Kumar Chattopadhyay, Arun Vishnu Kumar and V. Dhanya[*]

Indian economy is elevated to a high growth path triggered mainly by macroeconomic reforms and expansion of economic activities across the sectors. However, there are some serious concerns about a number of imbalances in the growth scenario – inter-sectoral, inter-regional and inter-state. These imbalances have definitely a serious impact on the goal of "inclusive growth" as envisaged in the Eleventh Five Year Plan. The study reveals that still poverty ratio is very high in the economy despite high growth. There is no significant increase in employment in the unorganised sector of the economy. The study shows that while the contribution of the agriculture sector in the real GDP has declined fairly fast, the share of the employment in the agriculture sector has not declined to that extent. As a result, the average productivity in this sector has remained very low as compared to other developing countries. Since a large section of the population continues to be dependent on the agriculture sector, directly or indirectly, this has serious implications for 'inclusiveness' of the growth dynamics. The study has emphasised the role of finance in growth and attempted to analyse the regional dimension of financial inclusion, although in a limited sense, in terms of state-wise and sector-wise allocation of credit over the years. It was observed that the distribution of bank credit across sectors and regions is not equitable. Given the level of potential output, Indian economy is well poised to achieve an impressive growth in near future. The strength and resilience of the Indian economy were well tested while weathering the global turbulence of recent time. The paper arrives at the conclusion that furtherance of macroeconomic reforms, harnessing synergistic links among the sectors and availing of opportunities provided by the forces of globalization and intensive use of technology can enable us to achieve higher level of inclusive growth. Sustainable inclusive growth presupposes inclusive governance through empowerment, grassroot participation and increased public accountability.

Introduction

Inclusive growth has become a buzzword across the globe. Inclusiveness – a concept that encompasses equity, equality of

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opportunity, and protection in market and employment transitions – is an essential ingredient of any successful growth strategy (Commission on Growth and Development, World Bank, 2008). The Commission of Growth and Development (2008) considers systematic inequality of opportunity as "toxic" as it will derail the growth process through political channels or conflict.

Indian economy has been registering a steady growth in the recent years. However, poverty continues to be a major concern. While some level of growth is obviously a necessary condition for sustained poverty reduction, there is an increasingly unanimous view that growth by itself is not a sufficient condition for eradicating poverty (Ali and Son, 2007). Growth can marginalise the poor sections and increase inequality. High and rising levels of inequality can hinder poverty reduction, which in turn, can slowdown the growth process. One important indication of inadequate inclusion in India is that poverty reduction has been muted in the last decade even with rising growth. The poverty rate has declined by less than 1 per cent per annum over the past decade, markedly below trends in neighboring countries such as Nepal and Bangladesh where both average income levels and growth are lower (World Bank, 2007).

The importance of inclusive growth is well acknowledged among the policy makers. The approach paper of 11th Five Year Plan adopted in December 2006 describes the need for inclusive growth in its discussion. The approach plan points out that the growth oriented policies should be combined with policies ensuring broad based per capita income growth, benefiting all sections of the population, especially those who have thus far remained deprived.

While the need for inclusive growth is stressed, it is to be seen, whether it is the inadequate growth of certain sectors like agriculture or the inability of certain groups like SC/STs to form part of the growth process or the lack of both physical and financial infrastructure that pull back the particular regions/sections from enjoying the economic growth. It is possible that a combination of all these factors is preventing certain sections/areas to be out of the growth process. In

that case it is necessary to know the major determinants that pull down inclusive growth. The inter linkages between different development indicators and growth in the context of various regions and sections needs to be analysed to understand the nuances of India's growth process. In this context, a study on regional perspectives of inclusive growth is of utmost importance.

With this backdrop, the paper is organized as follows. Section II deals with the concept of inclusive growth. Section III analyses the inter-state growth performance. Here we look into the growth of Net State Domestic Product and per capita income from 1980-81 onwards. We also examine the sectoral contributions of economic growth across different states. Section IV discusses socio-economic inclusiveness as well as the poverty and unemployment which help in understanding the inclusiveness of our growth processes vis-à-vis select developing countries. Section V deals with relationship between finance and growth. It also highlights state-wise, sector-wise allocation of credit over the years. Section VI concludes the paper.

Section II: Concept of Inclusive Growth

Inclusive growth implies participation in the process of growth and also sharing of benefit from growth. Thus inclusive growth is both an outcome and a process. On the one hand, it ensures that everyone can participate in the growth process, both in terms of decision-making for organizing the growth progression as well as in participating in the growth itself. On the other hand, it makes sure that everyone shares equitably the benefits of growth. In fact, participation without benefit sharing will make growth unjust and sharing benefits without participation will make it a welfare outcome.

In view of the above, inclusive growth can be observed from long-term perspective as the focus is on productive employment rather than on direct income redistribution, as a means of increasing income for excluded groups. Under the absolute definition, growth is considered to be pro-poor as long as poor benefit in absolute terms, as reflected in some agreed measure of poverty (Ravallion and Chen,

2003). In contrast, in the relative definition, growth is pro-poor if and only if the incomes of poor people grow faster than those of the population as a whole, i.e., inequality declines. However, while absolute pro-poor growth can be the result of direct income redistribution schemes, for growth to be inclusive, productivity must be improved and new employment opportunities created, so that the excluded section forms part of the growth process. In short, inclusive growth is about raising the pace of growth and enlarging the size of the economy, while leveling the playing field for investment and increasing productive employment opportunities.

The concept of inclusive growth has gained wide importance in several countries including India (Bolt, 2004). The Approach Paper of the Eleventh Five Year Plan provides "an opportunity to restructure policies to achieve a new vision based on faster, more broad-based and inclusive growth. It is designed to reduce poverty and focus on bringing the various divides that continue to fragment our society" (GOI, 2006: 1). In fact, Indian economy has come a long way from so called "Hindu Rate of growth" economy to high growth economy and is compared with China in many respects. In the last five years (2005-06 to 2009-10) the growth rate has averaged at 8.6 per cent making India as one of the fastest growing economies in the World. Of course, transition to high growth is an impressive achievement, but growth is not the only measure of development. Our ultimate goal is to achieve broad based improvement in the living standards of all our people. Rapid growth is essential for this outcome because it provides the basis for expanding incomes and employment and also provides the resources needed to finance programmes for social upliftment. However, it is not sufficient by itself. It is to ensure that its benefits, in terms of income and employment, are percolated down to all the sections of the society, including the poor and weaker sections. For this to happen, the growth must be inclusive in the broadest sense. It must be spread across all states and not just limited to some. It must generate sufficient volumes of high quality employment to provide the means for uplifting large numbers of our population from the low income and low quality occupations in which too many of them have

been traditionally locked. It is argued that "rapid, sustained and inclusive growth will take place when large numbers of people move from low-productivity jobs to high-productivity ones. The less effective the growth process is in creating jobs, both in terms of numbers and quality, the greater the political threat and, consequently, the less sustainable the growth process itself" (Gokarn, 2010). Various indicators have raised concerns that India's growth is not inclusive or its benefits are not widely shared. One, the agriculture sector has been growing at a rate of 2-3 per cent per annum which has led to a fall in its share in the total income. With the level of employment in the agriculture sector remaining more or less constant, the slow growth in income means that the productivity in the agriculture sector has remained low. Regardless of the magnitude of increase and the differential across the two sectors, the stark fact is that average labour productivity outside agriculture is about 5 times that in agriculture (Gokarn, 2010). Two, the poverty impact of growth has been muted: poverty declined from 36 per cent in 1993/94 to 28 per cent in 2004/05, a 0.8 percentage point reduction per annum compared to 1.6 per cent poverty reduction per annum in our neighbouring countries, viz., Bangladesh and Nepal (World Bank, 2007). It is observed that close to 300 million still live in deep poverty at less than a dollar a day. Three, growth rates were generally lower in the poorer states during the 1980s and 1990s[1]. Four, employment is dominated by informal sector jobs. Five, it is observed that public services are weak in the poorer regions. Six, female labour force participation rates have remained low despite rising education levels among women due to absence of opportunities. Seven, there exists significant wage discrimination among casual laborers, women get about half the wages of men. Less than one third of this gap can be explained by conventional factors such as skills, location, industry, etc. Eight, although SC groups have made progress, large sections of SC and ST groups are agricultural workers, the poorest earners. Finally, access to finance has been low in rural areas, 87 per cent of the poorest

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[1] However, in the current period (2000 to 2009), some of these States, viz., Uttaranchal, Orissa, Nagaland, Jharkhand, Tripura, Sikim, and Chattisgarh have performed better with more than 8 per cent growth rates.

households surveyed (marginal farmers) do not have access to credit, the rich pay a relatively low rate of interest (33 per cent), the poor pay rates of 104 per cent and get only 8 per cent of the credit (World Bank, 2007). Growth has diverged across regions, leaving behind the large populous states of North, Central and North-East India. Growth has not been creating enough good jobs that provide stable earnings for households to climb and stay out of poverty.

Section III: Economic Growth – Spatial and Temporal Analysis

III.1: Overall Growth

During the three decades period from the early 1950s to 1980s, the Indian economy was witnessing so-called "Hindu" rate of growth and the major concern was accelerated growth apart from ensuring equity. During that time, although inequality was a major problem, it was not as prominent as in the recent phase of accelerated growth. With the growth in GDP, the issue of rural-urban divide, regional divides and rich-poor divide became evident, which brought "inclusive growth" on high priority. The Indian economy has been growing at a faster rate in recent decades than it did earlier (Table 1 and Chart 1).

Table 1: Average Rate of Growth of Real GDP in India

Period	Growth (per cent)
1900-2008	3.16
1950-2008	4.79
1980-2008	6.08
1990-2008	6.39
2000-2008	7.19
11th Plan Period (2007-12)	
2007-08	9.2
2008-09	6.7
2009-10	7.2

Source: Bose and Chattopadhyay (2010) upto 2008 and CSO, Govt. of India for the rest of the information

Chart 1: Annual Growth rates of the Major Sectors
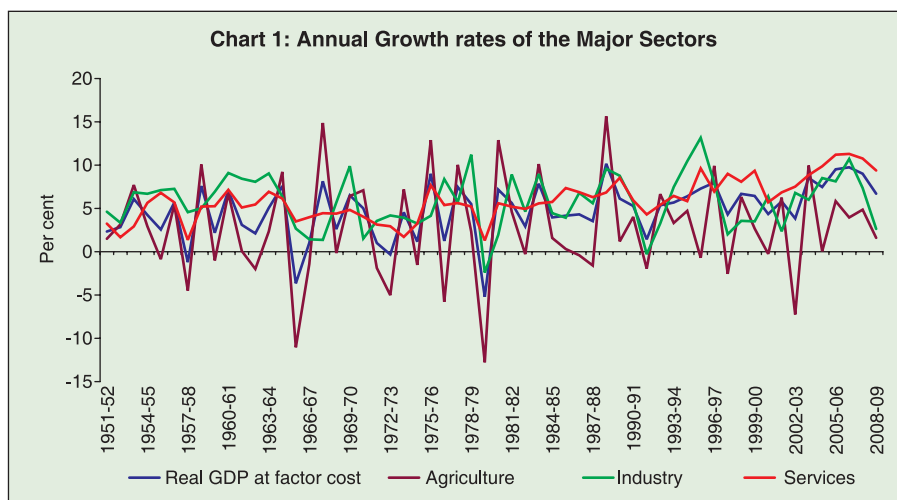
Sector wise performance

While the growth rate of the Indian economy has been increasing in recent times, one phenomenon which was observed was that the growth performance of the three major sectors of the economy, namely, agriculture, industry and services, has been diverse. The growth in the agriculture sector has been the most volatile and also the least among the three sectors most of the times. While the growth in the industrial sector has remained more or less constant, growth rate in the services sector has risen sharply (Chart 1).

The consequence of the diverse growth rate in the three sectors has resulted in a structural change in the contribution of the sectors in the total GDP. The share of the agriculture sector in the overall GDP has declined more or less consistently since independence from 55.3 per cent in 1950-51 to 17.0 per cent in 2008-09. The share of the industrial sector has increased from 10.6 per cent in 1950-51 to about 19.0 per cent in 2008-09. The share of the services sector has nearly doubled from 34.1 per cent in 1950-51 to 64.5 per cent in 2008-09 (Chart 2).

Since a large section of the population continues to be dependent on the agriculture sector, directly or indirectly, this has serious implications for 'inclusiveness'.

Chart 2: Share of Sectors in the Real GDP
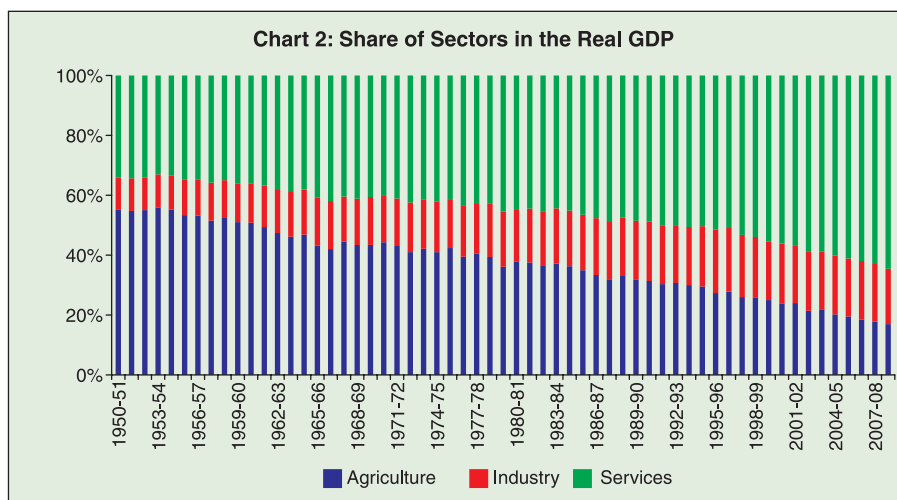
Potential Output[2]

The Indian economy grew at about 9.0 per cent during 2003-08, which decelerated to 7.0 per cent during 2008-10. Although a part of the gap is due to cyclical factor, different estimation methods suggest that the potential output growth would be around 8.0 per cent during the post-crisis period and 8.5 per cent during the pre-crisis period[3]. It is argued that the loss in potential output could be due to a slowdown of investment in various sectors, more specifically in the agriculture sector. In fact, the public investment in agriculture in real terms has witnessed steady decline from the Sixth Five Year Plan to the Tenth

Table 2: Plan-wise investment in Agriculture

See RBI Annual Report 2009-10	Investment (₹ crore)
Sixth Plan (1980-85)	64012
Seventh Plan (1985-90)	52108
Eighth Plan (1992-97)	45565
Ninth Plan (1997-2002)	42226
Tenth Plan (2002-2007)	67260
Eleventh Plan (2007-2012)	-

Source: Economic Survey, 2010, Government of India.

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[2]   Potential Output is defined as the maximum level of output that an economy can sustain without creating macroeconomic imbalances.

[3]   See RBI Annual Report, 2009-10

Plan. Trends in public investment in agriculture and allied sectors reveal that it has consistently declined in real terms (at 1999-2000 prices) from ₹ 64,012 crore in Sixth Plan to ₹ 42,226 crore during the Ninth Plan. However, during the Tenth Plan this has increased in absolute terms to ₹ 67,260 crore. It can also be observed that the public investment has gone down over the year, while private investment remained stagnant (Table 3). The gross capital formation (GCF) in agriculture and allied sectors as a proportion of total GDP stood at 2.66 per cent in 2004-05 and improved to 3.34 per cent in 2008-09. Similarly, GCF in agriculture and allied sectors relative to GDP in this sector has also shown an improvement from 14.07 per cent in 2004-05 to 21.31 per cent in 2008-09.

Table 3: Public and Private Investment in Agriculture & Allied Sector at 2004-05 Prices

	Investment in agriculture & allied sector (₹ crore)			Share in total investment (per cent)	
	Total	**Public**	**Private**	**Public**	**Private**
2004-05	78848	16183	62665	20.5	79.5
2005-06	93121	19909	73211	21.4	78.6
2006-07	94400	22978	71422	24.3	75.7
2007-08	110006	23039	86967	20.9	79.1
2008-09	138597	24452	114145	17.6	82.4

Source: Central Statistics Office, GoI.

Declining investment in the agriculture sector had a direct bearing on the productivity of foodgrains in the country. As can be observed from Chart 3, although average yield/hectare (productivity) of foodgrains in India has increased over the years, the productivity is low compared to many other developing countries. The productivity of foodgrains has increased from 522 kg/hectare in 1950-51 to 1854 in 2007-08. While in 1979-80 the yield per hectare was 876 kg/hectare, it became 1380 kg/hectare in 1990. However, productivity growth remained stagnant at a very low level throughout the period. Various studies have been done on the agriculture sector and its associated issues. More recent, among these, studies is done by Mishra (2007) which states that 'poor agriculture income and absence of non-farm

Chart 3: Yield/Hectare of foodgrain
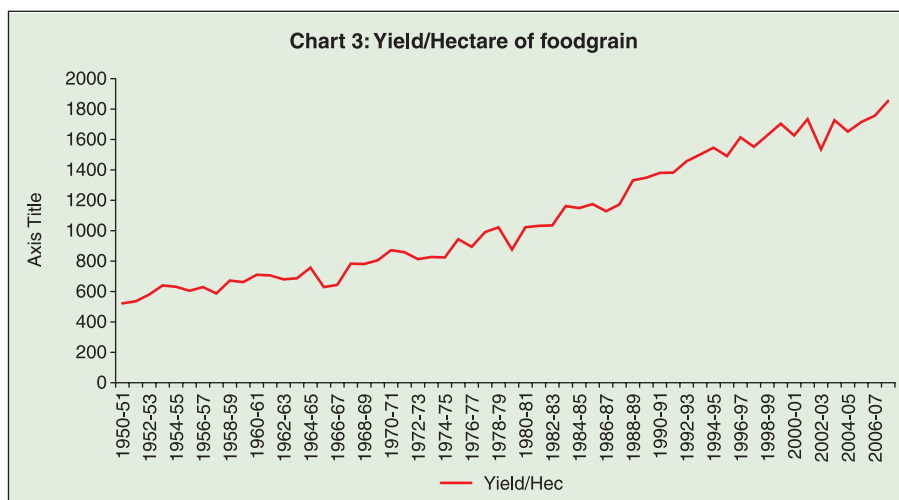
avenues of income is indicative of the larger malaise in the rural economy of India'. One of the manifestations of this has been the increasing incidence of farmers' suicide in various parts of the country, especially Maharashtra, Andhra Pradesh, etc.

As per the World Bank database, in respect of cereal productivity, India remained far below even China, Indonesia, Thailand and Sri Lanka (Table 4).

Table 4: Cereal Productivity (Kg/hectare)

Country	1980	1985	1990	1995	2000	2005	2006	2007	2008
Brazil	1575.7	1827.7	1755	2513.1	2660.6	2882.5	3210.5	3553.1	3828.8
China	2948.7	3827.7	4322.7	4663.7	4756.3	5225.5	5313.3	5315.3	5535.3
Egypt	4094.4	4539.1	5702.9	5903.7	7280	7569.2	7541	7562.2	7506.4
Indonesia	2865.6	3513.3	3800.2	3842.7	4026.3	4311.3	4365.8	4464.7	4694.2
Poland	2336.8	2893.5	3283.7	3022.3	2534.7	3233	2598.2	3249.5	3217.2
Russia	NA	NA	NA	1223.5	1563.3	1860.1	1894.4	1994.9	2388.1
Sri Lanka	2501	2960.5	2965	3052.6	3338.1	3467.1	3619.4	3821.6	3659.8
Thailand	1911	2125.4	2009	2507.4	2719.1	3001.5	2963	3043.7	3013.7
Turkey	1855.1	1931	2214.1	2037.8	2311	2624.2	2661.9	2381.4	2601.2
Vietnam	2016.1	2691.7	3072.9	3569.9	4112.3	4726.1	4749.7	4833.6	5064.2
India	**1350**	**1592.2**	**1891.2**	**2111.7**	**2293.5**	**2411.5**	**2455.6**	**2618.6**	**2647.2**

Source: World Bank website: http://data.worldbank.org/data-catalog

In short, the analysis at the all-India level shows that agricultural sector has lagged behind the growth process. Productivity in agricultural sector is low not only compared with other sectors, but also when compared to the agricultural productivity in other developing countries. In the next section we examine the inclusiveness of growth across the states in India.

III. 2 Inter-state Comparisons of Growth Performance

With regard to inter-state comparison of growth performance, it can be observed from the Table 5 that there is a wide disparity in growth performance in the three time periods (viz. 1980-81 to 1989-90, 1990-91 to 1999-2000 and 2000-01 to 2008-09), though the disparity has come down in the last period[4]. Among the three time periods taken, nineties witnessed higher disparity as revealed from the coefficient of variation (CV) at 32.4 per cent. The CV has increased from 27.2 per cent during the eighties to 32.4 per cent in the nineties. However, there was a decline in disparity during the last period where the CV came down to 21.2 per cent.

Not only has the disparity in growth came down during 2000s, the period (i.e., 2000-01 to 2008-09) also witnessed high growth rates across the states. All states, with the exception of Madhya Pradesh, recorded growth of more than 5.0 per cent and 12 states recorded growth of above 8.0 per cent. This is further evident that the average growth rate of 7.3 per cent was registered by all states during 2000-01 to 2008-09 compared to 4.9 per cent and 5.3 per cent, recorded during the first two periods respectively. Further, certain states like Kerala, Uttaranchal, Orissa and Nagaland showed significant improvements during 2000-09.

Thus, the NSDP figures show that the years since 2000 witnessed better inclusive growth than the previous periods. However, it is quite premature to presume that the latter years indicate inclusive growth as the NSDP figures hide the distributive effect of growth. To probe

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[4]   The estimates of semi-log model for the three time periods taken are significant for all states (Annex Table 1). Accordingly, the compound growth rates are calculated for the states which are given in Annex Table 2.

Table 5: State-wise, Period-wise Compound Growth Rate of NSDP

States	1980-81 to 1989-90		1990-91 to 1999-00		2000-01 to 2008-09	
	Growth rate	Rank	Growth rate	Rank	Growth rate	Rank
Gujarat	4.8	12	8.0	2	10.6	1
Haryana	6.3	3	4.7	17	9.5	2
Goa	5.2	9	8.4	1	8.9	3
Uttaranchal	--	--	2.6	24	8.9	4
Kerala	2.6	22	5.9	12	8.5	5
Orissa	4.8	14	4.0	22	8.4	6
Nagaland	7.5	2	5.6	13	8.4	7
Jharkhand	--	--	6.5	8	8.4	8
Maharashtra	5.6	5	6.9	5	8.4	9
Tripura	5.0	10	7.3	3	8.3	10
Sikkim	NA	NA	6.3	10	8.1	11
Chattisgarh	--	--	2.5	25	8.1	12
Tamil Nadu	5.0	11	6.4	9	7.4	13
Andhra	5.3	7	5.3	16	7.2	14
Bihar	4.7	16	2.0	27	7.2	15
Karnataka	5.3	8	7.1	4	7.2	16
Himachal Pradesh	4.5	18	6.2	11	6.9	17
Rajashthan	5.9	4	6.5	7	6.5	18
West Bengal	4.6	17	6.9	6	6.3	19
Arunachal Pradesh	8.1	1	4.6	20	5.9	20
Meghalya	4.4	19	5.5	15	5.8	21
Manipur	4.8	13	4.7	18	5.8	22
Uttar Pradesh	4.8	15	3.6	23	5.4	23
Jammu &Kashmir	2.0	23	4.7	19	5.3	24
Assam	3.3	21	2.2	26	5.3	25
Punjab	5.4	6	4.4	21	5.1	26
Madhya Pradesh	3.6	20	5.6	14	4.5	27

Note: NA: Not Available; -- Not Applicable
Source: Authors' own Calculation by using semi-logarithmic trend.

further into the details, we look into the per capita NSDP figures which give a better indicator of standard of living compared to the state average growth. Here again, it is noted that per capita income (PCI)

Chart 4: Per capita NSDP (₹) : Average of 5 years (2004-05 to 2008-09)

State	Value
Bihar	8155
Uttar Pradesh	11387
Madhya Pradesh	12695
Jharkhnad	14334
Assam	15011
Manipur	15223
Orissa	15702
Jammu & Kashmir	16477
Chhattisgarh	16823
Nagaland	17135
Rajasthan	17320
Mizoram	19395
Meghalaya	20263
Arunachal Pradesh	20407
Tripura	21387
West Bengal	21901
Uttaranchal	22030
Sikkim	22265
Andhra Pradesh	23836
Karnataka	23912
Tamil Nadu	27390
Gujarat	28630
Himachal Pradesh	29035
Punjab	30281
Kerala	30428
Maharashtra	31285
Haryana	36339
Goa	53462

also has limited value in examining inclusive growth as it gives little revelation on the distribution of income across the population.

Chart 4 gives the distribution of Per capita income across states. It shows that there is a wide disparity across States with Bihar at the lowest and Goa at the top position. The CV is as high as 41.0 per cent.

We further examine the inequality across the States in respect of per capita NSDP across the time periods. Annex Table 2 provides the estimates of semi-log function. For Jammu Kashmir (1980-81 to 1989-90), Bihar and Uttaranchal for 1990-91 to 1999-00 and Nagaland for 1990-91 to 1999-00 and 2000-01 to 2008-09, the figures came insignificant. The growth rates for the rest of the states are given in Table 6.

Compared to NSDP, the disparity is higher in the case of per capita income. However, similar to NSDP, the 1990s witnessed higher disparity which came down in 2000s. The CV increased from 48.0 per cent during the eighties to 53.5 per cent in the nineties before coming down to 32.9 per cent during the last period.

Though the inequality in terms of growth rates have come down in 2000s, inequality measured by Gini coefficient of the level variables, have shown an increase over the period. Gini coefficient has increased

Table 6: State-wise, Period-wise Compound Growth Rate of Per Capita NSDP

States	1980-81 to 1989-90		1990-91 to 1999-00		2000-01 to 2008-09	
	Growth rate	Rank	Growth rate	Rank	Growth rate	Rank
Gujarat	2.8	12	6.0	2	9.1	1
Orissa	2.9	11	2.4	17	8.2	2
Kerala	1.1	21	4.8	7	8.0	3
Chattisgarh	-	-	0.9	23	7.8	4
Haryana	3.7	2	2.2	19	7.3	5
Andhra Pradesh	3.0	10	3.8	12	7.0	6
Uttaranchal	-	-	0.0	-	7.0	7
Goa	3.6	3	6.8	1	6.9	8
Maharashtra	3.2	8	4.7	8	6.8	9
Sikkim	NA	-	3.4	14	6.6	10
Jharkhand	-	-	4.7	9	6.6	11
Karnataka	3.2	9	5.4	4	6.6	12
Tamil Nadu	3.5	6	5.3	5	6.5	13
Bihar	2.5	14	0.0	-	5.9	14
Tripura	2.0	18	5.4	3	5.8	15
Rajashthan	3.2	7	4.0	11	5.8	16
Meghalya	1.4	19	2.8	15	5.7	17
West Bengal	2.3	16	5.1	6	5.4	18
Himachal Pradesh	2.7	13	4.4	10	5.2	19
Arunachal Pradesh	4.8	1	2.1	20	5.1	20
Manipur	2.1	17	2.3	18	4.0	21
Jammu &Kashmir	0.0	-	2.0	21	3.7	22
Assam	1.1	22	0.3	25	3.4	23
UP	2.4	15	1.3	22	3.4	24
Punjab	3.5	4	2.5	16	3.3	25
Madhya Pradesh	1.2	20	3.4	13	2.6	26
Nagaland	3.5	5	0.0	-	0.0	-

Notes: NA denotes Note Available
Source: Authors' own Calculation by using semi-logarithmic trend.

from 0.164 in 1980-81 to 0.245 in 2007-08 (Chart 5). Gini coefficient has been calculated for 22 states omitting Chattisgarh, Jharkhand, Uttaranchal, Mizoram, Sikkim and Nagaland due to non-availability of continuous data series[5].

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[5]   The Gini coefficient is calculated using Deaton's formula:

$$G = \frac{N+1}{N-1} - \frac{2}{N(N-1)u} (\Sigma_{i=1}^{n} PiXi)$$

Chart 5: Gini Coefficeint of state per capita NSDP
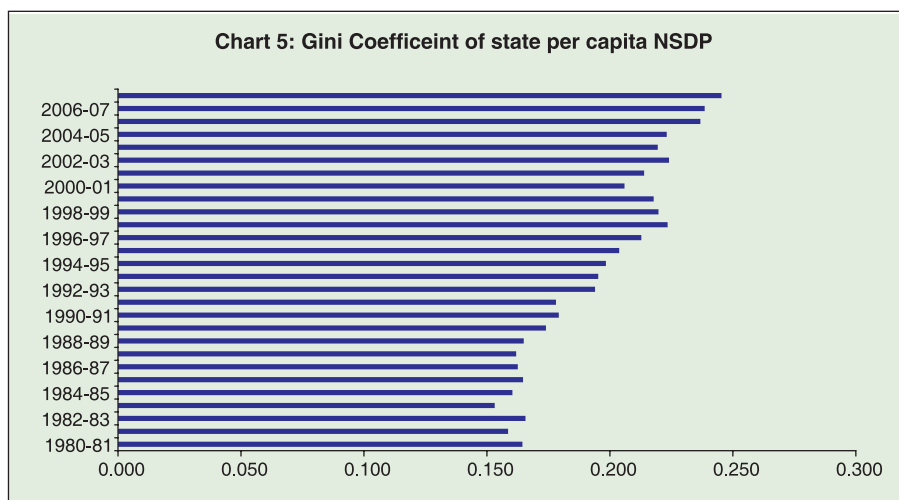
In general, growth rates of states have improved in the last time period with the exception of Madhya Pradesh and Punjab. Both the states showed dismal performance in case of NSDP and Per capita income. On the other hand, Kerala and Orissa showed significant improvement in the last decade, with Kerala registering tremendous improvement both in the growth and level of income. Orissa, which ranked 17 in terms of PCI growth during the nineties, improved its position to the second. However, in terms of the level of PCI, it is still low at ₹ 15,702.

From the perspective of inclusive growth, an analysis of growth performance of states is not enough. It calls for a more detailed analysis of various sectors of the economy and various sections of population. As a first step, we look into the sectoral shares and growth in each state.

Table 7 provides the share of each sector in NSDP across the three time periods. In all the states, the share of primary sector has declined over the time period considered and tertiary sector showing an increase in share and secondary sector registering marginal or no increase[6]. However, Maharashtra which is often hailed as industrial

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[6]   We have followed the CSO allocation of sectors and accordingly construction is included in the secondary sector.

Table 7: Shares of each sector in NSDP across states *(Contd.)*

	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
	ANDHRA Pradesh			**ARUNACHAL PRADESH**		
1980-81 to 1989-90	48.7	13.3	38.0	50.9	16.7	32.4
1990-91 to 1999-00	37.1	18.0	44.9	42.2	19.7	38.1
2000-01 to 2008-09	30.6	18.4	51.0	28.6	28.0	43.4
	ASSAM			**BIHAR**		
1980-81 to 1989-90	49.0	15.6	35.4	50.3	9.4	40.3
1990-91 to 1999-00	44.3	13.7	42.0	41.6	9.6	48.8
2000-01 to 2008-09	34.4	14.5	51.1	32.5	12.6	54.9
	CHATTISGARH			**GOA**		
1980-81 to 1989-90	–	–	–	32.9	22.5	44.6
1990-91 to 1999-00	40.5	21.5	38.0	20.7	27.9	51.4
2000-01 to 2008-09	35.6	22.5	41.9	13.3	36.0	50.6
	GUJARAT			**HARYANA**		
1980-81 to 1989-90	40.4	25.8	33.8	46.1	24.3	29.6
1990-91 to 1999-00	29.1	32.0	38.8	39.4	26.3	34.4
2000-01 to 2008-09	20.8	33.2	46.0	25.8	26.6	47.6
	HIMACHAL			**JAMMU KASHMIR**		
1980-81 to 1989-90	47.1	21.6	31.3	38.7	25.6	35.8
1990-91 to 1999-00	34.8	31.1	34.2	33.3	25.4	41.2
2000-01 to 2008-09	24.9	37.2	37.9	31.9	21.5	46.6
	JHARKAND			**KARNATAKA**		
1980-81 to 1989-90	–	–	–	45.2	20.1	34.7
1990-91 to 1999-00	29.8	31.1	39.1	36.1	22.0	41.9
2000-01 to 2008-09	27.1	29.8	43.2	22.0	24.3	53.6
	KERALA			**MADHYA PRADESH**		
1980-81 to 1989-90	31.0	20.1	48.9	45.9	12.0	42.2
1990-91 to 1999-00	26.5	21.4	52.1	38.9	14.7	46.4
2000-01 to 2008-09	17.0	22.1	60.9	30.6	18.2	51.2
	MAHARASHTRA			**MANIPUR**		
1980-81 to 1989-90	25.7	30.4	43.9	39.6	19.9	40.5
1990-91 to 1999-00	20.1	29.1	50.7	32.4	19.6	48.0
2000-01 to 2008-09	16.3	23.6	60.1	28.1	26.8	45.2

Table 7: Shares of each sector in NSDP across states *(Concld.)*

	MEGHALAYA			MIZORAM		
1980-81 to 1989-90	39.1	12.4	48.5			
1990-91 to 1999-00	31.2	12.9	55.9	24.2	14.1	61.6
2000-01 to 2008-09	30.6	17.3	52.1	18.3	17.6	64.2
	NAGALAND			ORISSA		
1980-81 to 1989-90	24.6	6.8	68.5	52.5	15.6	32.0
1990-91 to 1999-00	23.9	16.1	60.1	41.9	16.8	41.4
2000-01 to 2008-09	34.5	14.1	51.4	32.8	16.9	50.3
	PUNJAB			RAJASTHAN		
1980-81 to 1989-90	46.5	15.7	37.8	47.6	16.7	35.7
1990-91 to 1999-00	43.6	19.6	36.8	41.0	19.2	39.8
2000-01 to 2008-09	36.0	21.5	42.6	32.8	22.6	44.6
	SIKKIM			TAMIL Nadu		
1980-81 to 1989-90	–	–	–	26.1	30.3	43.6
1990-91 to 1999-00	31.3	18.5	50.2	22.2	28.6	49.2
2000-01 to 2008-09	21.0	26.1	52.9	14.3	26.5	59.2
	TRIPURA			UTTAR PRADESH		
1980-81 to 1989-90	51.2	9.7	39.1	44.2	17.8	38.0
1990-91 to 1999-00	37.3	9.6	53.1	38.3	19.8	41.9
2000-01 to 2008-09	26.4	20.6	53.0	33.4	21.4	45.2
	UTTARAKHAND			WEST BENGAL		
1980-81 to 1989-90	–	–	–	40.0	15.6	44.4
1990-91 to 1999-00	30.3	18.8	51.0	37.6	14.8	47.6
2000-01 to 2008-09	23.5	28.4	48.2	28.0	16.1	55.9

Source: Central Statistics Office, Government of India.

capital of India, witnessed a decline in the share of secondary sector and witnessed an increase in tertiary sector. In all the states, tertiary sector occupies the major share of NSDP which conforms with the earlier studies showing India's difference in development path with the general East Asian growth path (Bhattacharya and Mitra, 1990; Bhattacharya and Sakthivel, 2004).

However, in terms of growth rates, secondary sector registered highest growth rate in most of the states during the period 2000-01 to

2008-09 as is revealed from Table 8. On the other hand, tertiary sector which registered high growth during the nineties witnessed a slowdown or marginal growth in most of the states during the last period.

Table 8: Sector-wise Growth Rates of NSDP across States *(Contd.)*

	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
	ANDHRA PRADESH			**ARUNACHAL PRADESH**		
1980-81 to 1989-90	2.0	7.1	7.6	8.8	6.6	7.4
1990-91 to 1999-00	2.8	7.0	9.2	0.6	6.8	9.2
2000-01 to 2008-09	6.0	9.8	6.1	2.4	12.4	6.1
	ASSAM			**BIHAR**		
1980-81 to 1989-90	2.7	1.2	0.9	2.8	7.9	5.8
1990-91 to 1999-00	2.9	3.6	0.7	NS	NS	4.8
2000-01 to 2008-09	4.1	7.6	7.2	2.5	17.7	8.7
	GOA			**GUJARAT**		
1980-81 to 1989-90	NS	5.6	7.2	NS	8.1	7.3
1990-91 to 1999-00	2.7	8.7	10.1	4.0	9.4	9.2
2000-01 to 2008-09	6.3	7.5	10.5	10.6	13.6	9.5
	HARYANA			**HIMACHAL**		
1980-81 to 1989-90	3.9	9.7	7.2	1.6	6.7	5.9
1990-91 to 1999-00	1.8	5.2	7.7	0.8	11.2	7.6
2000-01 to 2008-09	3.6	10.2	12.1	1.4	9.7	7.8
	JAMMU KASHMIR			**KARNATAKA**		
1980-81 to 1989-90	NS	5.6	3.4	2.7	6.7	7.1
1990-91 to 1999-00	4.1	NS	6.2	4.5	6.8	9.4
2000-01 to 2008-09	3.1	8.6	5.1	1.7	10.9	9.3
	KERALA			**MADHYA PRADESH**		
1980-81 to 1989-90	1.3	2.2	3.6	1.7	4.6	5.2
1990-91 to 1999-00	2.0	6.7	8.5	3.6	8.8	5.9
2000-01 to 2008-09	0.8	12.4	9.9	5.3	4.1	4.3
	MAHARASHTRA			**MANIPUR**		
1980-81 to 1989-90	3.1	6.0	6.4	2.0	7.0	7.0
1990-91 to 1999-00	4.5	6.0	8.3	2.8	2.5	5.9
2000-01 to 2008-09	5.1	7.7	9.2	2.2	13.6	4.4

Table 8: Sector-wise Growth Rates of NSDP across States *(Concld.)*

	MEGHALAYA			NAGALAND		
1980-81 to 1989-90	1.4	0.7	6.5	5.5	18.2	8.5
1990-91 to 1999-00	4.4	8.0	5.8	6.1	10.6	4.9
2000-01 to 2008-09	5.8	13.2	5.8	7.6	9.7	4.5
	ORISSA			PUNJAB		
1980-81 to 1989-90	3.0	7.1	6.3	5.3	7.2	4.0
1990-91 to 1999-00	2.9	NS	6.3	2.4	6.7	5.8
2000-01 to 2008-09	5.6	14.7	10.1	2.5	8.3	5.8
	RAJASTHAN			TAMIL NADU		
1980-81 to 1989-90	3.4	7.1	8.9	3.5	2.8	2.3
1990-91 to 1999-00	3.9	9.4	8.0	4.1	5.3	7.7
2000-01 to 2008-09	6.1	9.1	8.4	6.2	9.0	8.6
	TRIPURA			UTTAR PRADESH		
1980-81 to 1989-90	2.5	NS	8.5	2.5	8.3	5.8
1990-91 to 1999-00	3.0	11.2	8.8	2.6	3.7	4.3
2000-01 to 2008-09	6.0	7.1	7.7	2.1	10.1	5.7
	WEST BENGAL					
1980-81 to 1989-90	5.8	3.0	4.4			
1990-91 to 1999-00	5.0	6.2	8.6			
2000-01 to 2008-09	2.3	8.8	8.1			

Note: NS denotes Not Significant
Source: Central Statistics Office, Government of India

The analysis in this section revealed that the growth process was mostly driven by the growth in the services sector. Further, the inequality in growth has come down in the time period since 2000, though the inequality remains at high level. Further, there was a change in growth performance in the last decade with many underperformers moving up and top performers coming down which is reflected in the declining inequality. In the next section, we look into the socio-economic inclusiveness of the growth process.

IV: Socio-Economic Inclusiveness

While discussing inclusive growth, a major factor to be examined is the socio-economic inclusiveness of the people. Inclusive growth being a long term process necessarily emanates from the inclusive nature of socio-economic development across regions and people. But, considering the time constraint, we are limiting our analysis of socio-economic inclusiveness to certain indicators which we feel is able to reveal the social development of the country. We start the analysis by looking into the poverty and unemployment figures over the years. As far as possible, we have tried to compare India's position with other developing countries

The ultimate objective of planned development is to ensure human well-being through sustained improvement in the quality of life of the people, particularly the poor and the vulnerable segments of population. The development of human resources contributes to sustained growth and productive employment. Development strategy therefore needs to continuously strive for broad-based improvement in standards of living. High growth is essential to generate resources for social spending. However, the benefits of growth should be shared equitably among all sections of society. This is the main logic behind emphasizing the concept of inclusive growth as has been pursued in the Eleventh Five Year Plan.

As per the UNDP Human Development Report 2009 (HRD 2009), India ranked 134 out of 182 countries of the world placing it at the same rank as in 2006 (the Human Development Index (HDI) for India in 2007 was 0.612).[7] However, the HDI value of India has increased gradually from 0.427 in 1980 to 0.556 in 2000 and went up to 0.612 in 2007, but it is still in the medium Human Development category with even countries like China, Sri Lanka and Indonesia having better ranking (Table 9). In fact, India lags behind in various

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[7]   HDI is based on three indicators, viz., GDP per capita (PPP US $), life expectancy at birth, and education as measured by adult literacy rate and gross enrolment ratio (combined for primary, secondary and tertiary education)

social indicators of development. There is a huge gap between India and developed world and even many developing countries in respect of health and education, which needs to be bridged at a faster pace. According to HDR, life expectancy at birth in India was 63.4 years in 2007 as against 80.5 years in Norway, 81.4 years in Australia, 74.0 years in Sri Lanka and 72.9 years in China. Adult literacy rate (aged 15 and above) in 1999-2007 was 66.0 per cent in India as against near 100 per cent in China and 92.0 per cent in Indonesia. In the case of combined gross enrolment ratio in education also India was much below the level achieved by some other comparable countries, like China, Norway, and Thailand etc.

Table 9: Human Development Index

Country	1980	1985	1990	1995	2000	2005	2006	2007
Poland	…	…	0.806	0.823	0.853	0.871	0.876	0.880
Brazil	0.685	0.694	0.710	0.734	0.790	0.805	0.808	0.813
Russia	…	…	0.821	0.777	…	0.804	0.811	0.817
Turkey	0.628	0.674	0.705	0.73	0.758	0.796	0.802	0.806
Thailand	0.658	0.684	0.706	0.727	0.753	0.777	0.78	0.783
China	0.533	0.556	0.608	0.657	0.719	0.756	0.763	0.772
Sri Lanka	0.649	0.670	0.683	0.696	0.729	0.752	0.755	0.759
Indonesia	0.522	0.562	0.624	0.658	0.673	0.723	0.729	0.734
Vietnam	…	0.561	0.599	0.647	0.69	0.715	0.720	0.725
Egypt	0.496	0.552	0.58	0.631	0.665	0.696	0.700	0.703
India	**0.427**	**0.453**	**0.489**	**0.511**	**0.556**	**0.596**	**0.604**	**0.612**

Source: Human Development Report, 2009

Poverty

Poverty is a major issue in the emerging economies, though its intensity varies across countries as reflected in the World Bank's data on the poverty head count ratio at $1.25 a day (PPP). South Asia continues to have a significant amount of poor people, mainly due to the high poverty ratios in India and Bangladesh (Table 10). It is observed that compared to India, China has made significant progress in reducing poverty in the last 15 years.

Table 10: Poverty headcount ratio at $1.25 a day (PPP)
(% of population)

Country	1990	2005	
Argentina	n.a.	3.4	(2006)
Bangladesh	n.a.	49.6	
Brazil	15.5	5.2	(2007)
Chile	4.4	2.0	(2006)
China	60.2	15.9	
East Asia & Pacific	54.7	16.8	
India	**n.a.**	**41.6**	
Indonesia	n.a.	29.4	(2007)
Pakistan	n.a.	22.6	
South Asia	51.7	40.3	

Source: World Bank website.

As per the official estimates, the incidence of poverty has declined over the years though it remains still at a very high level. The percentage of the population below the official poverty line has come down from 36 per cent in 1993–94 to 28 per cent in 2004–05 (Table 11). However, not only is the rate still high, but also the rate of decline in poverty has not accelerated along with the growth in GDP, and the incidence of poverty among certain marginalized groups, for example the poverty rate of the STs, has hardly declined. Moreover, the absolute number of poor people below poverty line has declined only marginally from 320 million in 1993–94 to 302 million in 2004–05. This performance is all the more disappointing since the poverty line on which the estimate of the poor is based is the same as it was in 1973–74 when per capita incomes were much lower. If we take the World Bank measurement of poverty about 41.6 per cent (as per PPP) of population is below poverty line, which is much higher than the official national poverty ratio of about 28 per cent.

Table 11: Trends in Poverty in India

Year	Poverty (head count index) percentage			Number of poor (million)
	Rural	**Urban**	**Total**	
1973-74	56	49	55	321
1983	46	41	45	323
1993-94	37	32	36	320
2004-05	28	26	28	302

Source: Mahendra S. Dev (2007).

It can further be stated that around 80.0 per cent of the poor are from rural areas. Poverty is mostly concentrated in few states, viz, Bihar, Uttar Pradesh and Madhya Pradesh, Orissa, Chattisgarh and Jharkhand (Annex Table 3). Poverty is concentrated among agricultural labourers, casual workers, Scheduled Castes and Scheduled Tribes.

There are concerns of inequality also in the country. During the last four decades there is hardly any decrease in inequality in the country. It may be observed from Table 12 that while there is a marginal decrease in inequality in the rural area, it has increased in the

Table 12: Gini Coefficient for Per Capita Consumption Expenditure

	1973-74		1977-78		1983		1993-94		1999-2000		2004-05 (URP)*		2004-05 (MRP)*	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
India	**0.28**	**0.30**	**0.34**	**0.34**	**0.30**	**0.33**	**0.28**	**0.34**	**0.26**	**0.34**	**0.30**	**0.37**	**0.25**	**0.35**
Andhra Pradesh	0.29	0.29	0.30	0.32	0.29	0.31	0.29	0.32	0.24	0.31	0.29	0.37	0.24	0.34
Assam	0.20	0.30	0.18	0.32	0.19	0.25	0.18	0.29	0.20	0.31	0.19	0.32	0.17	0.30
Bihar	0.27	0.26	0.26	0.30	0.26	0.30	0.22	0.31	0.21	0.32	0.20	0.33	0.17	0.31
Jharkhand	–	–	–	–	–	–	–	–	–	–	0.22	0.35	0.20	0.33
Gujarat	0.23	0.25	0.29	0.31	0.25	0.26	0.24	0.29	0.23	0.29	0.27	0.31	0.25	0.32
Haryana	0.29	0.31	0.29	0.31	0.27	0.30	0.30	0.28	0.24	0.29	0.32	0.36	0.31	0.36
Himachal Pradesh	0.24	0.27	0.26	0.30	0.27	0.31	0.28	0.43	0.23	0.30	0.30	0.32	0.26	0.26
Jammu & Kashmir	0.22	0.22	0.22	0.33	0.22	0.24	0.23	0.28	0.17	0.22	0.24	0.24	0.20	0.24
Karnataka	0.28	0.29	0.32	0.34	0.30	0.33	0.27	0.32	0.24	0.32	0.26	0.36	0.23	0.36
Kerala	0.31	0.37	0.35	0.36	0.33	0.37	0.29	0.34	0.27	0.32	0.34	0.40	0.29	0.35
Madhya Pradesh	0.29	0.27	0.33	0.38	0.29	0.29	0.28	0.33	0.24	0.32	0.27	0.39	0.24	0.37
Chhatisgarh	–	–	–	–	–	–	–	–	–	–	0.29	0.43	0.24	0.35
Maharashtra	0.26	0.33	0.46	0.36	0.28	0.33	0.30	0.35	0.26	0.35	0.31	0.37	0.27	0.35
Orissa	0.26	0.34	0.30	0.32	0.27	0.29	0.24	0.30	0.24	0.29	0.28	0.35	0.25	0.33
Punjab	0.27	0.29	0.30	0.38	0.28	0.32	0.26	0.28	0.24	0.29	0.28	0.39	0.26	0.32
Rajasthan	0.28	0.29	0.46	0.30	0.34	0.30	0.26	0.29	0.21	0.28	0.25	0.37	0.20	0.30
Tamil Nadu	0.27	0.31	0.32	0.33	0.32	0.35	0.31	0.34	0.28	0.38	0.32	0.36	0.26	0.34
Uttar Pradesh	0.24	0.29	0.30	0.33	0.29	0.31	0.28	0.32	0.25	0.33	0.29	0.37	0.23	0.34
Uttaranchal	–	–	–	–	–	–	–	–	–	–	0.28	0.32	0.22	0.30
West Bengal	0.30	0.32	0.29	0.32	0.28	0.33	0.25	0.33	0.22	0.34	0.27	0.38	0.24	0.36
Delhi	0.15	0.35	0.29	0.33	0.29	0.33	0.24	0.21	0.29	0.34	0.26	0.33	0.24	0.32

Note: URP - Uniform Reference Period; MRP - Mixed Reference Period.   – : Not available.
Source: Planning Commission, Government of India.

urban area. A state-wise breakup of Gini coefficients, including a division between rural and urban households, gives similar picture. Most of the States have shown some increase in urban inequality during the same period, but none of the states displayed any increase in consumption inequality over the period 1973-74 to 2004-05.

Employment and Unemployment Situation

Nature and extent of employment is crucial for poverty reduction and inclusive growth. It can be observed from Table 13 that although employment in the industrial and services sector has increased in 2004 in comparison to 1961, agriculture still remains the major sector which continues to employ the largest segment of the population.

Table 13: Sector-wise Employment
(per cent)

Sector	1961	2004
Agriculture	75.9	56.4
Industry	11.7	18.2
Tertiary	12.4	25.4
Total	**100**	**100**

Source: Mahendra S. Dev (2007)

Employment growth in the organized sector, both public and private combined, has declined during the period 1994 and 2007. This has happened due to the decline of employment in the public organized sector. Employment in the organized sector grew at 1.20 per cent per annum during 1983-94, but declined to (-) 0.03 per cent per annum during 1994-2007 (Table 14). However, the decline in employment during the later period was mainly due to a decline in employment in

Table 14: Rate of Growth of employment in organized Sector

(per cent per annum)

Sector	1983-94	1994-2007
Public Sector	1.53	-0.57
Private Sector	0.44	1.30
Total Organized	1.20	-0.03

Source: Economic Survey, 2009-10, Government of India.

the public sector establishments from 1.53 per cent in the earlier period to (-) 0.57 per cent in the later period, whereas the private sector showed moderate growth of 1.30 per cent per annum.

According to NSSO data, compared to 1999-2000, during 2004-05, the unemployment rate in terms of the usual status remained almost the same in rural and urban areas for males, though it has increased by around 2 percentage points for females. As can be observed from Table 15, overall unemployment rates are not too high. However, urban unemployment rates are higher than the rural rates. The unemployment rates according to current daily status (CDS) approach are higher than the rates obtained according to 'usual status' approach and 'weekly status' approach, thereby indicating a high degree of intermittent unemployment. The unemployment rate, measured through the usual status is very low in the rural areas.

Table 15: Unemployment rates in India according to usual status, current weekly status and current daily status during 1972-73 to 2004-05

Year (round)	Male			Female		
	Usual Status	CWS	CDS	Usual Status	CWS	CDS
Rural						
1972-73 (27th round)	1.2	3.0	6.8	0.5	5.5	11.2
1977-78 (32nd round)	2.2	3.6	7.1	5.5	4.1	9.2
1983 (38th round)	2.1	3.7	7.5	1.4	4.3	9.0
1987-88 (43rd round)	2.8	4.2	4.6	3.5	4.4	6.7
1993-94 (50th round)	2.0	3.1	5.6	1.3	2.9	5.6
1999-2000 (55th round)	2.1	3.9	7.2	1.5	3.7	7.0
2004-05 (61st round)	2.1	3.8	8.0	3.1	4.2	8.7
Urban						
1972-73 (27th round)	4.8	6.0	8.0	6.0	9.2	13.7
1977-78 (32nd round)	6.5	7.1	9.4	17.8	10.9	14.5
1983 (38th round)	5.9	6.7	9.2	6.9	7.5	11.0
1987-88 (43rd round)	6.1	6.6	8.8	8.5	9.2	12.0
1993-94 (50th round)	5.4	5.2	6.7	8.3	7.9	10.4
1999-2000 (55th round)	4.8	5.6	7.3	7.1	7.3	9.4
2004-05 (61st round)	4.4	5.2	7.5	9.1	9.0	11.6

Note: CWS: Current weekly status, CDS: Current daily status.
Source: NSSO, 61st round.

Rural Population

A significant proportion of the Indian population continues to live in the rural areas, though the share has been declining over the years (Table 16). The share of rural population in India is more or less same with that in other South Asian countries. It is interesting to observe that China's share of rural population, which was almost similar to that of India in early 90s, had declined much faster. With a significant proportion of the rural population engaged in the agricultural sector, the agricultural value added per worker continues to be low.

Table 16: Share of Rural Population: India and select Countries
(% of total population)

Country	Rural population (% of total population)		Agriculture value added per worker (constant 2000 US$)	
	1990	2008	1990	2008
Afghanistan	81.7	76.0	-	-
Argentina	13.0	8.0	6,701.7	11,793.1
Bangladesh	80.2	72.9	250.6	417.6
Brazil	25.2	14.4	1,625.4	3,857.9
Chile	16.7	11.6	3,453.3	6,486.9
China	72.6	56.9	262.8	504.2
India	**74.5**	**70.5**	**362.1**	**478.0**
Indonesia	69.4	48.5	511.9	704.9
Korea, Dem. Rep.	41.6	37.3	-	-
Korea, Rep.	26.2	18.5	5,338.1	17,703.5
Least developed countries: UN classification	79.0	71.4	242.1	297.0
Low income	77.3	71.3	242.0	324.1
Malaysia	50.2	29.6	385.0	-
Pakistan	69.4	63.8	738.5	892.0
Philippines	51.2	35.1	910.9	1,211.3
South Africa	48.0	39.3	2,290.1	3,838.6
South Asia	75.1	70.5	371.6	499.1
Sri Lanka	82.8	84.9	678.4	902.7
World	57.1	50.1	793.6	878.2

Source: World Bank website, World Development Indicators, 2010.

Rural Health

India has made significant strides in terms of availability of improved water source in the rural areas (Table 17). It is comparable with many countries across the world. However, in terms of inclusive growth on the provision of improved rural sanitation, our achievement has been low.

Gender Disparity

Another important indicator of inclusive growth is the trend in gender disparity. India has made significant strides in terms of reducing the gender disparities as reflected in various indicators. For instance, the female life expectancy at birth, the female literacy levels and the share of women employed in the non-agricultural sector have improved

Table 17: Availability of Improved Water Source and Sanitation in Rural Areas (as % of rural population with access)

Country	Improved Water Source		Improved Rural Sanitation	
	1990	2006	1995	2006
Afghanistan		17.0	29.0	25.0
Argentina	72.0	80.0	59.0	83.0
Bangladesh	76.0	78.0	21.0	32.0
Brazil	54.0	58.0	37.0	37.0
Chile	49.0	72.0	58.0	74.0
China	55.0	81.0	48.0	59.0
India	**65.0**	**86.0**	**8.0**	**18.0**
Indonesia	63.0	71.0	40.0	37.0
Korea, Dem. Rep.	n.a.	100.0	60.0	n.a.
Least developed countries: UN classification	**45.3**	**55.1**	**17.8**	**27.3**
Low income	**45.2**	**59.7**	**23.4**	**33.3**
Malaysia	96.0	96.0	n.a.	93.0
Pakistan	81.0	87.0	22.0	40.0
Philippines	75.0	88.0	55.0	72.0
South Africa	62.0	82.0	46.0	49.0
South Asia	67.7	83.8	12.2	23.0
Sri Lanka	62.0	79.0	74.0	86.0
World	62.0	77.5	37.3	44.2

Source: World Bank website, World Development Indicators, 2010.

since 1990. In comparison with select countries, it is observed that we are still lagging behind. Even within South Asia, achievements by Sri Lanka are much better than India (Table 18).

Table 18: Gender Disparity

Country	Life expectancy at birth, female (years)		Literacy rate, adult female (% of females ages 15 and above)		Share of women employed in the nonagricultural sector (% of total nonagricultural employment)		
	1990	**2008**	**2008**		**1990**	**2007**	
Afghanistan	41.2	43.9	n.a.		17.8	n.a.	
Argentina	75.2	79.2	97.7		37.1	45.0	(2006)
Bangladesh	54.8	67.2	49.8			20.1	(2006)
Brazil	70.1	76.2	90.2	(2007)	35.1	n.a.	
Chile	76.7	81.7	98.7		34.7	37.4	
China	69.5	74.9	90.5		37.8	n.a.	
India	**58.5**	**65.2**	**50.8**	**(2007)**	**12.7**	**18.1**	**(2005)**
Indonesia	63.3	72.8	88.8	(2007)	29.2	30.6	
Korea, Dem. Rep.	73.7	69.3	n.a		40.7	n.a.	
Korea, Rep.	75.5	83.3	n.a		38.1	42.1	
Least developed countries: UN classification	51.8	58.1	54.4		n.a.	n.a.	
Low income	55.6	60.3	63.0		n.a.	n.a.	
Malaysia	72.3	76.8	89.8		n.a.	39.0	
Pakistan	60.9	66.9	40.0		7.7	13.2	
Philippines	67.5	74.1	93.9		40.3	42.3	
South Africa	65.2	53.1	88.1		n.a.	43.9	
South Asia	58.2	65.4	50.1		12.6	n.a.	
Sri Lanka	72.9	78.0	89.1		n.a.	31.0	
World	67.1	71.1	76.3		34.4	n.a.	

Source: World Bank website, World Development Indicators, accessed on August 23, 2010.

Literacy

The male female literacy and literacy gap during the last two censuses across states are given in Table 19. Though the literacy gap across states has visibly come down over the decade, in many states and union territories, it is more than the national average. Literacy gap is highest among the North Indian statets with the exception of Punjab, Himachal Pradesh and Chandigarh. However, for Punjab, the low literacy gap is more to do with the low literacy rates which itself is a

worrisome phenomenon considering that Punjab ranks fifth in terms of per capita NSDP.

Table 19: Male-female Literacy Gap in India

States /UT	Literacy Rate 1991 census		Literacy Gap	Literacy Rate 2001 census		Literacy Gap
	Male	**Female**		**Male**	**Female**	
Rajasthan	55.0	20.4	34.6	75.7	43.9	31.9
D &N Haveli	53.6	27.0	26.6	71.2	40.2	31.0
Jharkhand	55.8	25.5	30.3	67.3	38.9	28.4
Uttar Pradesh	54.8	24.4	30.5	68.8	42.2	26.6
Bihar	51.4	22.0	29.4	59.7	33.1	26.6
Madhya Pradesh	58.5	29.4	29.2	76.1	50.3	25.8
Chhattisgarh	58.1	27.5	30.6	77.4	51.9	25.5
Orissa	63.1	34.7	28.4	75.4	50.5	24.8
Uttarakhand	72.8	41.6	31.2	83.3	59.6	23.7
Jammu & Kashmir	N.A	N.A	N.A	66.6	43.0	23.6
Haryana	69.1	40.5	28.6	78.5	55.7	22.8
Gujarat	73.4	48.9	24.5	79.7	57.8	21.9
Daman & Diu	82.7	59.4	23.3	86.8	65.6	21.2
Arunachal Pradesh	51.5	29.7	21.8	63.8	43.5	20.3
Andhra Pradesh	55.1	32.7	22.4	70.3	50.4	19.9
Manipur	71.6	47.6	24.0	80.3	60.5	19.8
Karnataka	67.3	44.3	22.9	76.1	56.9	19.2
Maharashtra	76.6	52.3	24.2	86.0	67.0	18.9
Tamil Nadu	73.8	51.3	22.4	82.4	64.4	18.0
Himachal Pradesh	75.4	52.3	23.2	85.4	67.4	17.9
West Bengal	67.8	46.6	21.3	77.0	59.6	17.4
Assam	61.9	43.0	18.8	71.3	54.6	16.7
Tripura	70.6	49.7	20.9	81.0	64.9	16.1
Sikkim	65.7	46.8	18.9	76.0	60.4	15.6
Puducherry	83.7	65.6	18.1	88.6	73.9	14.7
Goa	83.6	67.1	16.6	88.4	75.4	13.1
Delhi	82.0	67.0	15.0	87.3	74.7	12.6
Lakshadweep	90.2	72.9	17.3	92.5	80.5	12.1
Punjab	65.7	50.4	15.3	75.2	63.4	11.9
A&N Islands	79.0	65.5	13.5	86.3	75.2	11.1
Nagaland	67.6	54.8	12.9	71.2	61.5	9.7
Chandigargh	82.0	72.3	9.7	86.1	76.5	9.7
Kerala	93.6	86.2	7.5	94.2	87.7	6.5
Meghalaya	53.1	44.9	8.3	65.4	59.6	5.8
Mizoram	85.6	78.6	7.0	90.7	86.8	4.0
INDIA	**64.1**	**39.3**	**24.9**	**75.3**	**53.7**	**21.6**

Source: Selected Socio Economic Statistics, India, CSO

In the case of infant mortality rates, the disparity is very high (Table 20). It ranges from 10 in Goa to 70 in Madhya Pradesh.

Table 20: State-wise Infant Mortality Rates (per 1000)

States/Union Territories	1961			2007			2008		
	Male	**Female**	**Person**	**Male**	**Female**	**Person**	**Male**	**Female**	**Person**
Goa	60	56	57	11	13	13	10	11	10
Kerala	55	48	52	14	10	13	10	13	12
Manipur	31	33	32	13	9	12	13	15	14
Puducherry	77	68	73	31	22	25	22	27	25
Nagaland	76	58	68	18	29	21	23	29	26
Chandigarh	53	53	53	25	28	27	27	29	28
Andaman	78	66	77	38	23	34	29	32	31
Lakshadweep	124	88	118	25	23	24	29	34	31
Tamil	89	82	86	38	31	35	30	33	31
Daman & Diu	60	56	57	29	23	27	26	37	31
Arunachal Pradesh	141	111	126	41	15	37	30	34	32
Maharashtra	96	89	92	41	24	34	33	33	33
Sikkim	105	87	96	36	20	34	34	32	33
Tripura	106	116	111	40	32	39	34	35	34
Dadra	102	93	98	38	18	34	33	35	34
Delhi	66	70	67	41	35	36	34	37	35
West	103	57	95	39	29	37	34	37	35
Mizoram	73	65	69	27	16	23	37	38	37
Punjab	74	79	77	47	35	43	39	43	41
Himachal Pradesh	101	89	92	49	25	47	43	45	44
Uttarakhand	–	–	–	52	25	48	44	45	44
Karnataka	87	74	81	52	35	47	44	46	45
Jharkhand	–	–	–	51	31	48	45	48	46
Jammu Kashmir	78	78	78	53	38	51	48	51	49
Gujarat	81	84	84	60	36	52	49	51	50
Andhra Pradesh	100	82	91	60	37	54	51	54	52
Haryana	87	119	94	60	44	55	51	57	54
Bihar	95	94	94	59	44	58	53	58	56
Chhatisgarh	–	–	–	61	49	59	57	58	57
Meghalaya	81	76	79	57	46	56	58	58	58
Rajasthan	114	114	114	72	40	65	60	65	63
Assam	na	na	na	68	41	66	62	65	64
Uttar Pradesh	131	128	130	72	51	69	64	70	67
Orissa	119	111	115	73	52	71	68	70	69
Madhya Pradesh	158	140	150	77	50	72	68	72	70
India	**122**	**108**	**115**	**61**	**37**	**55**	**52**	**55**	**53**

Source: Economic Survey 2009-10.

Another aspect of looking into the development of the region is the provision of basic facilities. Table 21 provides the data on the percentage of population with housing amenities. While there is significant improvement in the availability of electricity, there is huge difference in rural urban. While only 8 per cent of urban population is not having electricity, the share is 44 per cent in the case of rural areas.

Table 21: Percentage of population living with Housing Amenities (Lighting)

	1999-2000		2005-06	
	R	**U**	**R**	**U**
No lighting	0.5	0.3	0.5	0.2
Kerosene	50.6	10.3	42.2	7.2
Other oil	0.2	0.1	0.2	0.1
Gas	0.1	0.1	0.1	0.1
Candle	0.1	0.0	0.2	0.3
Electricity	48.4	89.1	56.3	92
Other	0.1	0.1	0.5	0.1
Not recorded	0.0	0.0	0.0	0.0
All	100	100	100	100

R Rural; U: Urban
Source: Selected Socio Economic Statistics, India, CSO

The above indicators provided significant facts on differences in the socio-economic conditions across regions. However, it is possible that within regions, certain groups are marginalized. This was evident when we looked into the poverty ratio across different class of population. In the following Tables we looked into the entitlement to different population groups (Tables 22 and 23).

In rural India, among the social groups, the proportion of households possessing land less than 0.001 hectares, during 2004-05, was the highest for ST households (nearly 4 per cent). The corresponding proportion for SC households was about 3 per cent and for OBC and *others* category of households around 2 per cent each. The survey results also show that the proportion of households possessing land of size 4.01 hectares or more was maximum for *other* category of households (6 per cent), followed by the OBC (4 per cent), ST (about 3 per cent) and SC households (1 per cent).

Table 22 : Per 1000 distribution of households of different social groups by size of land possessed (Rural India)

size class of land posessed (hectares)	ST	SC	OBC	Other	all	ST	SC	OBC	Other	ST	SC	Other	all
	61st round (2004-05)					55th round (1999-00)				50th round (1993-94)			
0	36 (3.6)	27 (2.7)	16 (1.6)	20 (2.0)	22 (2.2)	72 (7.2)	100 (10.0)	65 (6.5)	58 (5.8)	133 (13.3)	181 (18.1)	112 (11.2)	129 (12.9)
0.001-0.40	428 (42.8)	722 (72.2)	544 (54.4)	505 (50.5)	561 (56.1)	391 (39.1)	650 (65.0)	500 (50.0)	463 (46.3)	299 (29.9)	536 (53.6)	379 (37.9)	404 (40.4)
0.41-1.00	239 (23.9)	147 (14.7)	195 (19.5)	185 (18.5)	187 (18.7)	243 (24.3)	147 (14.7)	202 (20.2)	191 (19.1)	214 (21.4)	149 (14.9)	195 (19.5)	187 (18.7)
1.01-2.00	163 (16.3)	67 (6.7)	128 (12.8)	134 (13.4)	120 (12.0)	165 (16.5)	65 (6.5)	120 (12.0)	128 (12.8)	187 (18.7)	80 (8.0)	151 (15.1)	140 (14.0)
2.01-4.00	106 (10.6)	27 (2.7)	76 (7.6)	99 (9.9)	75 (7.5)	99 (9.9)	28 (2.8)	75 (7.5)	93 (9.3)	119 (11.9)	39 (3.9)	99 (9.9)	88 (8.8)
4.01 & above	29 (2.9)	10 (1.0)	40 (4.0)	57 (5.7)	36 (3.6)	30 (3.0)	11 (1.1)	38 (3.8)	67 (6.7)	48 (4.8)	15 (1.5)	64 (6.4)	52 (5.2)
All	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)	1000 (100.0)

Note: 1. The households with size class of land possessed '0.000' hectares comprise households which possessed land less than 0.001 hectares as well as households which reported no information on land possessed.

2. Figures in parenthesis refer to percentage share to total.

3. All includes not reported also.

Source: Employment and Unemployment Situation Among Social Groups in India, 50, 55 and 61st Round.

In the case of Monthly Per capita Consumption Expenditure (MPCE) also, the SC/ST communities are marginalized (Table 23). In rural India, proportion of households in each of the five lower MPCE classes (i.e., less than ₹ 410) was higher among the STs (49 per cent), SCs (40 per cent) and OBCs (30 per cent) than among the *others* (20 per cent) social group. Between STs and SCs, proportions of households in the lowest two MPCE classes were higher among STs (15 per cent) than among the SCs (8 per cent), and these households spent only ₹ 270 or less per month. The proportion of households in the highest MPCE class (i.e. those who spent ₹ 1155 or more per month) was higher among *others* category of households (12 per cent) than among the OBCs (5 per cent), SCs (3 per cent) or STs (2 per cent).

Table 23: Per 1000 distribution of households by household monthly per capita consumer expenditure for each social group

Monthly per-capita consumer expenditure (₹)	Rural					Monthly per-capita consumer expenditure (₹)	Urban				
	ST	SC	OBC	Others	all		ST	SC	OBC	Others	all
less than 235	91 (9.1)	35 (3.5)	20 (2.0)	12 (1.2)	29 (2.9)	less than 335	81 (8.1)	70 (7.0)	34 (3.4)	16 (1.6)	33 (3.3)
235-270	62 (6.2)	43 (4.3)	24 (2.4)	16 (1.6)	30 (3.0)	335-395	54 (5.4)	58 (5.8)	42 (4.2)	15 (1.5)	32 (3.2)
270-320	113 (11.3)	94 (9.4)	70 (7.0)	37 (3.7)	71 (7.1)	395-485	84 (8.4)	120 (12.0)	88 (8.8)	46 (4.6)	73 (7.3)
320-365	117 (11.7)	115 (11.5)	89 (8.9)	60 (6.0)	90 (9.0)	485-580	122 (12.2)	131 (13.1)	116 (11.6)	63 (6.3)	93 (9.3)
365-410	108 (10.8)	113 (11.3)	95 (9.5)	71 (7.1)	94 (9.4)	580-675	84 (8.4)	131 (13.1)	120 (12.0)	69 (6.9)	97 (9.7)
410-455	92 (9.2)	108 (10.8)	95 (9.5)	73 (7.3)	92 (9.2)	675-790	75 (7.5)	110 (11.0)	107 (10.7)	78 (7.8)	93 (9.3)
455-510	94 (9.4)	112 (11.2)	113 (11.3)	92 (9.2)	106 (10.6)	790-930	85 (8.5)	109 (10.9)	109 (10.9)	90 (9.0)	99 (9.9)
510-580	93 (9.3)	114 (11.4)	121 (12.1)	122 (12.2)	117 (11.7)	930-1100	113 (11.3)	78 (7.8)	98 (9.8)	102 (10.2)	97 (9.7)
580-690	97 (9.7)	107 (10.7)	135 (13.5)	142 (14.2)	127 (12.7)	1100-1380	135 (13.5)	82 (8.2)	104 (10.4)	127 (12.7)	113 (11.3)
690-890	82 (8.2)	93 (9.3)	122 (12.2)	153 (15.3)	119 (11.9)	1380-1880	92 (9.2)	70 (7.0)	96 (9.6)	157 (15.7)	121 (12.1)
890-1155	30 (3.0)	37 (3.7)	63 (6.3)	108 (10.8)	65 (6.5)	1880-2540	43 (4.3)	28 (2.8)	49 (4.9)	112 (11.2)	75 (7.5)
1155 & above	19 (1.9)	27 (2.7)	53 (5.3)	115 (11.5)	60 (6.0)	2540 & above	33 (3.3)	14 (1.4)	34 (3.4)	126 (12.6)	74 (7.4)
all classes	1000	1000	1000	1000	1000	all classes	1000	1000	1000	1000	1000

Note: Figures in parenthesis refers to percentage share to total.
Source: Employment and Unemployment Situation among Social Groups in India, NSSO 61st Round.

In urban India too, proportion of households in each of the five lower MPCE classes (i.e. less than ₹ 675) was higher among SCs, STs and OBCs than among the other categories of households. About 51 per cent of the SCs of urban India spent less than ₹ 675 per month during 2004-05; the corresponding percentages being 43, 40 and 21 for the STs, OBCs and the others, respectively. The proportion of households in the lowest MPCE class (i.e. those spending less than

₹ 335 per month) was higher among the STs (8 per cent) than that among SCs (7 per cent). The proportion of urban households spending ₹ 2540 or more per month was higher among other (13 per cent) categories of households than among the OBCs or STs (3 per cent each) or SCs (1 per cent).

The analysis in this section has shown that India's achievement in terms of various social indicators are not that commendable compared to that of the growth in GDP. India lags behind many developing countries in terms of povery and other social indicators. There are sections of population that remains marginalized irrespective of the high growth. Urban Inequality in terms of consumption expenditure have increased in almost all states, while rural inequality has come down in most of the states.

So far, we have examined the various facets of inclusive growth by looking into the various indicators of economic and social development. A major pre-requisite of economic development is finance. Access to finance and awareness on the availability of finance can play a major role in promoting economic growth. In the next section we look into the interplay between institutional finance and economic growth.

Section V: Institutional Finance and Growth

There is a general consensus among economists that financial development spurs economic growth. Theoretically, financial development creates enabling conditions for growth through either a supply-leading (financial development spurs growth) or a demand-following (growth generates demand for financial products) channel. A large body of empirical research supports the view that development of the financial system contributes to economic growth (Rajan and Zingales, 2003). Empirical evidence consistently emphasizes the nexus between finance and growth, though direction of causality is debatable. At the cross-country level, evidence indicates that various measures of financial development (including assets of the financial intermediaries, liquid liabilities of financial institutions, domestic credit to private sector, stock and bond market capitalization) are robustly and positively

related to economic growth (King and Levine, 1993; Levine and Zervos, 1998). Other studies establish a positive relationship between financial development and industrial growth (Rajan and Zingales, 1998). Even the recent endogenous growth literature, building on 'learning by doing' processes, assigns a special role to finance (Aghion and Hewitt, 1998 and 2005).

For any productive activity, capital investment is vital and capital investment is possible only when finance is available. The endogenous growth literature stresses the importance of financial development for economic growth as many important services are provided by a country's financial system. Thus, as part of our inclusive growth study it is useful to examine if there is finance-growth nexus in our economy. Before the nationalization of banks in 1969, most of the needy sectors, viz, agriculture, small scale sector and other productive sectors were deprived of the institutional finance. Major sections of the population under these sectors were under the clutches of the money lenders. So in a way they were mostly excluded from the growth process of the economy because of their indebtedness. Now, after 60 years of Independence of our country, although banking sector has developed to a great extent, it is worth examining whether formal finance did play any role in our growth process. At this stage, it is important to examine the relationship between finance and growth at the aggregated level[8].

The Model

Empirical work on causality between financial development and economic growth is sparse, owing to a lack of sufficiently long time series data for developing countries. Jung (1986) was among the first to test for causality by applying a Granger-causality procedure. He used annual data on per capital GNP and two measures of financial development: the ratio of currency to M_1 and the ratio of M_2 to GDP, for 56 developed and developing countries. However, his results were inconclusive because

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[8]   Ideally it should have been an analysis at the disaggregated level using panel data framework, but due to time constraint and non-availability of data at the disaggregated level we have done the exercise at the aggregated level.

they varied according to the financial development indicator used and the development level of the various countries. For example, using the currency ratio as a measure for financial development, Granger causality from financial development to economic growth in LDCs was more frequently observed than the reverse and an opposite conclusion was obtained for the developed countries. However, when the $M_2/$ GDP ratio was used, causality from financial development to economic growth was as frequently observed as causality from economic growth to financial development both in LDCs and developed countries. Jung's test was conducted in a levels vector autoregression (VAR) framework without testing for stationarity of the data. As data are very likely to be nonstationary, Jung's findings are debatable (Granger and Newbold, 1974). In a frequently-cited paper, Demetriades and Hussein (1996) tested for cointegration among variables and used an error correction model for 16 countries to test for a possible long-run causal relationship between financial development and economic growth. Their findings showed little evidence to support the view that finance leads economic growth.

In the present paper, we examine the causal relationship between financial and economic development from a time-series perspective for India. For this, we apply the most current econometric techniques, in particular testing causality applying cointegration tests and error correction models after pre-testing for unit roots in all variables and choosing the optimal lag order in our VAR system. These tests are essential for attaining the proper inferences. We use three different measures of financial development and relatively long annual time series data. We also include a third variable, namely the share of fixed investment in GDP, in the system. This allows us to test channels through which financial development and investment are explaining changes in the growth rate of per capita GDP beyond the sample period.

Measurement and Data Sources

Financial Development Indicators

Financial development is usually defined as a process that marks improvements in quantity, and efficiency of financial intermediary

services. This process involves the interaction of many activities and institutions. Consequently, it cannot be captured by a single measure. In this study we employ three commonly used measures of financial development for the sake of testing the robustness of our findings.

The first, M_3Y, represents the ratio of money stock, M_3, to nominal GDP. M_3Y has been used as a standard measure of financial development in numerous studies (Gelb, 1989, world Bank, 1989; King and Levine, 1993a, b; Calderon and Liu 2003). According to Demetriades and Hussein (1996), this indicator accords well with McKinnon's outside money model where the accumulation of lumpy money balances is necessary before self-financed investment can take place. However, it conflicts somewhat with the debt-intermediation approach developed by Gurley and Shaw (1995) and the endogenous growth literature, because a large part of the broad money stock in developing countries is currency held outside banks. As such, an increase in the M_3/GDP ratio may reflect an extensive use of currency rather than an increase in bank deposits, and for this reason this measure is less indicative of the degree of financial intermediation by banking institutions. Financial intermediaries serve two main functions: to provide liquidity services and saving opportunities, the latter being relevant for promoting investment and consequently growth. For this reason, Demetriades and Hussein (1996) proposed to subtract currency outside banks from M_3 and to take the ratio of M_3 minus currency to GDP as a proxy for financial development. On this basis, we chose QMY, the ratio of M_3 minus currency to GDP, to serve as our second measure of financial development.

Our third measure of financial development is PRIVY, the ratio of bank credit to the private sector to nominal GDP. This indicator is frequently used to provide direct information about the allocation of financial assets. A ratio of M_3 (including or excluding currency) to GDP may increase as a result of an increase in private financial saving. On the other hand, with high reserve requirements, credit to the private sector which eventually is responsible for the quantity and quality of investment and therefore to economic growth, may not increase. Therefore, an increase in this ratio does not necessarily

mean an increase in productive investments. Rather, the private credit GDP ratio can be a better estimate of the proportion of domestic assets allocated to productive activity in the private sector. Figure 6 shows that M_3Y had increased tremendously starting 1979 to reach around 90 per cent in 2008. However, the high M_3Y rate does not necessarily imply a larger pool of resources for the private sector and therefore is not a good indicator of financial development, in contradiction, to PRIVY. Two explanations for this behavior were given by Roe (1998). The first is the possibility that the dominating state-owned banks did not have a profit maximizing goal. The second is that banks preferred to serve the interest of their non-private clients, and offered loans to public enterprises even at the expense of their profitability. The latter is most evidently related to the quantity and efficiency of investment and hence to economic growth (Gregorio and Guidotti, 1995). PRIVY has been used extensively in numerous works (King and Levine, 1993a, b, Gregorio and Guidotti, 1995, Levine and Zeroves, 1993, Demetriades and Hussein, 1996, Beck et al, 2000 among others), with different definitions of the stock of private credit depending on the institutions supplying the credit.

Other Variables

Following standard practice, we use real GDP per capita, GDPPC, as our measure for economic development (see Gelb, 1989, Roubini and Sala-i-Martin, 1992, King and Levine, 1993a,b Demetriades and Hussein, 1996). In addition to the per capita real GDP and the financial development indicator, we introduced a third variable in our VAR system, the share of investment in GDP, IY. This variable is considered to be one of the few economic variables with a robust correlation of economic growth regardless of the information set (Levine and Renelt, 1992). Including the investment variable in our regressions enables us to identify the channels through which financial development causes economic growth. If financial development causes economic development, given the investment variable, then this causality supports the endogenous growth theories that finance affects economic growth mainly through the enhancement of investment efficiency. Furthermore, we can then test if financial

Chart 6: Financial Development Indicators: India (1950-2008)
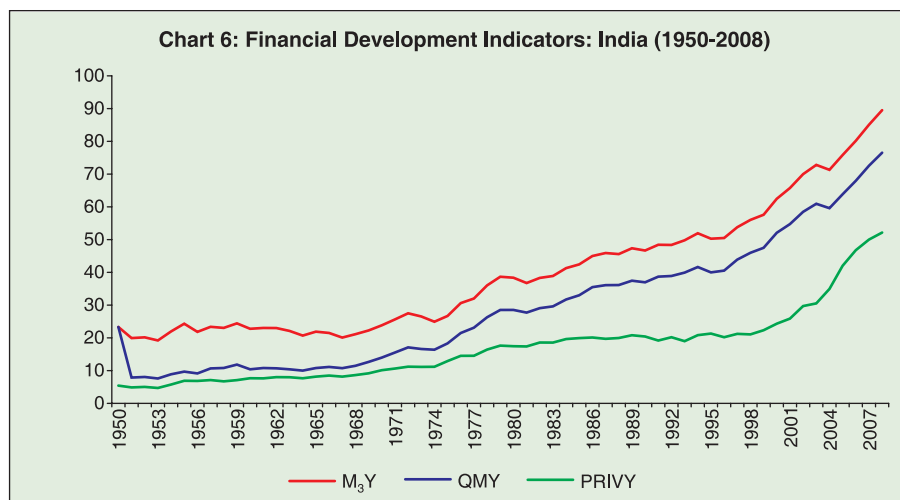
development causes economic growth through an increase of investment resources. We can examine this supposition indirectly by testing the causality between financial development indicators and investment on the one hand and between investment and economic growth on the other. All the variables in our data set are expressed in natural logarithms.

Data Sources

We used the following data resources: All data have been obtained from the Handbook of Statistics on Indian Economy published by the Reserve Bank of India. Our sample covers the period 1950-2008; the choice of this period is governed by data availability.

The Econometric methodology

Standard Granger Causality (SGC)

According to Granger's (1969) approach, a variable Y is caused by a variable X if Y can be predicted better from past values of both Y and X than from past values of Y alone. For a simple bivariate model, we can test if X is Granger-causing Y by estimating Equation (1) and then test the null hypothesis in equation (2) by using the standard Wald test.

$$Y_t = \mu + \sum_{j=1}^{p} \gamma_{11j} Y_{t-j} + \sum_{j=1}^{p} \gamma_{12j} X_{t-j} + u_t$$

$$H_0 : \gamma_{12j} = 0 \; for \; j = 1, \dots, p \qquad (1)$$

$$H_1 : \gamma_{12j} \neq 0 \; for \; at \; least \; one \; j, \qquad (2)$$

where, μ is a constant and u_t is a white noise process. Variable X is said to Granger cause variable Y if we reject the null hypothesis (2), where γ_{12} is the vector of the coefficients of the lagged values of the variable X. Similarly, we can test if Y causes X by replacing Y for X and vice versa in Equation (1).

However, before conducting causality tests, we have examined whether the series is stationary. The series $\{X_t\}$ will be integrated of order d, that is, $X_t \sim I(d)$, if it is stationary after differencing it d times. A series that is I(0) is stationary. To test for unit roots in our variable, we use Augmented Dickey Fuller (ADF) test.

The next step is to test for cointegration if the variables are nonstationary in their level. Generally, a set of variables is said to be cointegrated if a linear combination of the individual series, which are I(d), is stationary. Intuitively, if $X_t \sim I(d)$ and $Y_t \sim I(d)$, a regression is run, such as:

$$Y_t = \beta X_t + \varepsilon_t \qquad (3)$$

If the residuals, ε_t, are I(0), then X_t and Y_t are cointegrated. We use Johansen's (1988) approach, which allows us to estimate and test for the presence of multiple cointegrated relationships, r, in a single-step procedure. A class of models embodies the notion of correction has been developed and is referred as the Error Correction Model (ECM). In general, an ECM derived from the Johansen test can be expressed as:

$$\Delta Y_t = \mu_y + \alpha_y ECT_{t-1} + \sum_{k=1}^{p} \beta_{yx,k} \Delta X_{t-k} + \sum_{k=1}^{p} \beta_{yy,k} \Delta Y_{t-k} + \sum_{k=1}^{p} \beta_{yz,k} \Delta Z_{t-k} + \varepsilon_{yt} \quad (4)$$

$$\Delta X_t = \mu_x + \alpha_x ECT_{t-1} + \sum_{k=1}^{p} \beta_{xx,k} \Delta X_{t-k} + \sum_{k=1}^{p} \beta_{xy,k} \Delta Y_{t-k} + \sum_{k=1}^{p} \beta_{xz,k} \Delta Z_{t-k} + \varepsilon_{xt} \quad (5)$$

$$\Delta Z_t = \mu_z + \alpha_z ECT_{t-1} + \sum_{k=1}^{p} \beta_{zx,k} \Delta X_{t-k} + \sum_{k=1}^{p} \beta_{zy,k} \Delta Y_{t-k} + \sum_{k=1}^{p} \beta_{zz,k} \Delta Z_{t-k} + \varepsilon_{zt} \quad (6)$$

where ECT_{t-1} is the error correction term lagged one period, Z is a third endogenous variable in the system, and $\beta_{ij,\,k}$ describes the effect of the k-th lagged value of variable j on the current value of variable; i,j = Y, X, Z. The ε_{it} are mutually uncorrelated white noise residuals.

Granger causality from variable j to variable i in the presence of cointegration is evaluated by testing the null hypothesis that $\beta_{ij,k} = \alpha_i = 0$ for all k in the equation where i is the dependent variable, using the standard F test. By rejecting the null, we conclude that variable j Granger-causes variable i. These tests differ from standard causality tests in that they include error correction terms (ECT_{t-1}) that account for the existence of cointegration among the variables. At least one variable in Equations (4) to (6) should move to bring the relation back into equilibrium if there is a true economic relation, and therefore at least one of the coefficients of the error correction terms has to be significantly different from zero (Granger, 1988).

Empirical Results

Granger Causality Results

The first of our empirical work was to determine the degree of integration of each variable. The ADF test results for the levels and first differences are reported in Table 24. The results show that all the

Table 24: ADF Unit Root Test Results

Variable	ADF with trend and intercept			
	Levels		First differences	
	ADF	k*	ADF	k*
LGDPPC	-3.403	0	-6.827***	0
LPRIVATE	-1.183	0	-6.922***	0
LM_3Y	-2.643	0	-7.976***	0
LQMY	-1.969	1	-19.601***	0
LIY	-3.836	0	-7.884***	0

LGDPPC, LPRIVATE, LM_3Y, LQMY and LIY are the natural logarithms of real per capita GDP, share of credit to private sector in GDP, share of M_3 in GDP, share of M_3 minus currency outside of banking in GDP, and the share of gross fixed capital formation in GDP, respectively.

K* the optimal lag lengths chosen by Schwarz selection criterion with maximum of 9 lags.

*, **, and *** indicate significance at the 10% , 5% and 1% levels, respectively.

variables are nonstationary i.e. I(1) in their levels, but stationary in their first differences.[9]

The second step was to test for a cointegration relationship among the relevant variables. The results of Johansen's maximum eigenvalue test (λ_{max}) support the existence of a unique long run relation between per capita GDP, the investment ratio and financial development under the various measures of the latter. In all cases, we reject the null hypothesis of a no-cointegration relationship at least at the 5% level (Table 25). It is also observed from Granger causality test that the null hypothesis

Table 25: Johansen Cointegration Test Results

Variables	λ_{max}			P*	r*
	r = 0	r = 1	r = 2		
LGDPPC, LIY, LPRIVATE	29.809***	11.979	3.041	1	1
LGDPPC, LIY, LM$_3$Y	37.175***	10.289	2.333	1	1
LGDPPC, LIY, LQMY	37.860***	10.606	1.927	1	1

*; **; *** indicate significance at the 10%, 5% and 1% levels, respectively.
λ_{max} is the maximum eigen value statistic.
p* represents the optimal lag length based on AIC from the unrestricted VAR model.
r* is the number of co-integration vectors based on Johansen's method.

Table 26: Results of Granger Causality Tests (Direct)

	Null Hypothesis	
Financial Development Indicator	Financial Development does not Granger cause income growth	
	F-Statistic	Prob
LPRIVATE	6.63***	0.003
LM$_3$	9.69***	.0003
LMQ	7.89***	0.001

Panel B

	Null Hypothesis	
Financial Development Indicator	Income growth does not Granger cause financial development	
	F-Statistic	Prob
LPRIVATE	1.49	0.235
LM$_3$	3.90**	0.0264
LMQ	1.49	0.236

***: significant at 1% level of significance; **: significant at 5% level of significance

---

[9]   Using Phillips-Perron test we obtained similar results.

Table 27: Results of Granger Causality Tests (Indirect)

	Null Hypothesis	
Financial Development Indicator	**Financial Development does not Granger cause fixed capital formation share in GDP**	
	F-Statistic	**Prob**
LPRIVATE	6.63***	0.003
LM$_3$	9.69***	.0003
LMQ	7.89***	0.001

Panel B

	Null Hypothesis	
Financial Development Indicator	**Fixed capital formation share in GDP does not Granger cause income growth given the financial indicator below**	
	F-Statistic	**Prob**
LPRIVATE	1.49	0.235
LM$_3$	3.90**	0.0264
LMQ	1.49	0.236

*, **, *** indicate significance at the 10%, 5% and 1% levels, respectively.

of finance does not lead to economic growth is rejected at 1% level of significance. It also confirms that financial development leads to capital formation.

In a nutshell, we have examined the causal relationship between measures of financial development and real GDP per capita in India over the past five decades. It is found that the null hypothesis of no causality from financial development to economic growth was significantly rejected in all the cases. The causality is mostly unidirectional since the other direction of causality from economic growth to financial development was not observed. Thus our results support our hypothesis that institutional finance leads to economic growth in our economy. One of the leading proponents of this theory is Joseph Schumpeter (1912) who stated that well-functioning banks spur technological innovation by identifying and funding those entrepreneurs with the best chances of successfully implementing innovative products and production processes.

Thus, the causality tests provide some preliminary evidence that financial development leads to growth. But how strong are these

relationships? What is the pattern of the response from one year to the next? These questions can be answered within the framework of impulse response analysis and analysis of variance decomposition of the forecast errors, which we have also dealt with in this section.

We first report the results which demonstrate how the forecast error variance of our focus variables can be broken down into components that can be attributed to each of the variables in the VAR. It can be observed from Table 28 that credit (LPRIVY) explains 63.5 per cent of the forecast error variance of GDP (LGPDPC) and it becomes the most important variable affecting economic growth whereas gross fixed capital formation (LIY) as the second one explaining 18.4 per cent of forecast error variance of GDP. It is also observed that LGDPPC explains 13.2 per cent of its forecast error variance. The fact that GDP growth is explained by its past values suggests that current period economic growth influences future growth trends or that the phenomenon is due to a "lag effect" in the business cycle.

Table 28 also shows that both credit to private sector and fixed capital formation appear to have strong lagged effects and are, to a larger extent, explained by their own past values (around 67 per cent in case of credit and 60 per cent in case of fixed capital formation). It is interesting to note that economic growth explains more than 46 per cent of the forecast error variance of M_3 which appears to be quite logical.

However, the fact that credit to private sector contributes more than gross fixed capital formation to GDP growth in India implies that its primary source of growth is extensive use credit in the private sector.

Table 28: Variance Decomposition Percentage of 20-year Error Variance

Variance decomposition of	After 20 years, % of Decomposition due to				
	LGDPPC	**LIY**	**LM$_3$Y**	**LPRIVY**	**LQMY**
LGDPPC	13.2	18.4	0.9	63.5	4.1
LIY	9.1	60.0	1.3	27.4	2.2
LM$_3$Y	46.2	8.2	15.5	24.8	5.3
LPRIVY	18.6	5.5	3.9	67.1	5.0
LQMY	13.7	3.0	16.7	53.9	12.8

To investigate further the impact of credit on GDP growth as compared to other variables, we then have used impulse response function to trace the time paths of GDP in response to one-unit shock to the variables such as three different financial indicators and gross fixed capital formation. A graphical illustration of an impulse response function can provide an intuitive insight into dynamic relationships because it shows the response of a variable to a "shock" in itself or another variable over time. For example, it allows us to examine how GDP growth responds over time to a "shock" in credit and compare it with the effects on other variables.

Chart 7 depicts the time paths of the responses of GDP growth to "shocks" in financial indicators and gross fixed capital formation. It can be observed that all the financial indicators have a positive impact on economic growth. However, the response of GDP to a shock in credit has a longer and stronger effect than other variables and series is not convergent even after 20 years. On the other hand, impacts of other financial indicators (viz., LM_3 and LQMY) on growth are smaller and "die out" quickly from the 3rd year. However, in this case also it is found that gross fixed capital formation has second largest impact on economic growth and the effect is longer as well.

Therefore, we can argue that financial development does promote economic growth in India. It can also be argued that the innovations in bank credit were the most important source of the variance of forecast errors for economic growth. Similarly, economic growth was not found to have greater impacts on investments (LIY) (LGDPPC explaining 9.1 per cent of forecast error variance on LIY) than bank credit, LPRIVY (LPRIVY explains 27.4 per cent of LIY). This suggests that economic growth have a greater influence on availability funds than investment behavior.

It may also be observed that GDPPC also affects financial development indicators. Table 28 shows that LGDPPC explains about 18.6 per cent of forecast error variance of bank credit, 46.2 of forecast error variance of LM_3 and 13.7 per cent of forecast error variance of LQMY. Therefore, the above findings suggest that there is a bi-directional

causality between GDP growth and financial development. In other words, the empirical evidence provided in this study has supported the view in the literature that financial development and economic growth exhibit a two-way causality and hence is against the so-called "finance-led" growth hypothesis. However, it is also clear that the impact of credit on GDP is stronger than the reverse situation as suggested by the above impulse response function analysis.

Distribution of Credit across Sectors and Regions

In this section, we have discussed the distribution of formal credit across sectors and regions, given the importance of formal credit. It is necessary to examine now whether allocation of finance is equitable across regions and sectors. This is because nature of distribution of credit has a direct bearing on economic growth, which in turn can impact on poverty and inequality.

Chart 7: Impulse Responses
Response to Cholesky One S.D. Innovations ±2 S.E.
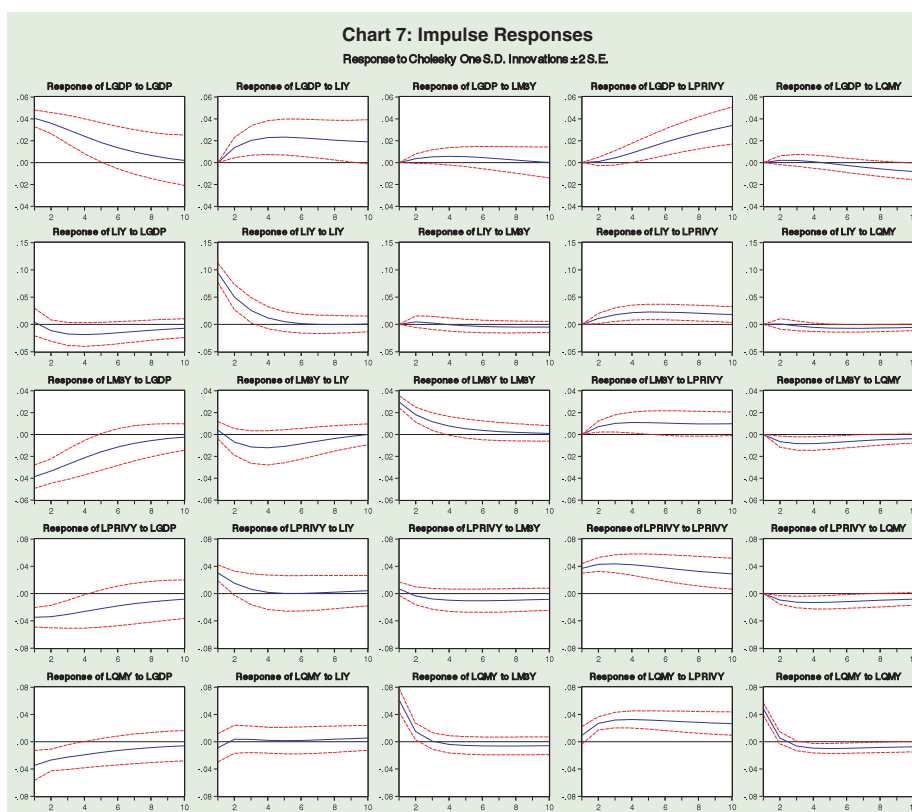
Thus, in this section we have examined the distribution of credit across various sectors and regions of the country. It can be noticed from Table 29 that there has been a gradual decrease in share of agriculture credit over the years. The share had gone down from 14.8 per cent 1980 to 9.9 per cent in 2005, though it had gone up to 11.3 per cent in 2008. The share of industrial credit had also gone down from 48.0 per cent in 1980 to 38.4 per cent in 2008. However, the share of credit to services has gone up substantially from 37.2 per cent in 1980 to 50.4 per cent in 2005, although it has gone down marginally to 50.2 per cent in 2008.

Sector-wise region-wise allocation of credit as provided in Table 30, indicates that there has been a decline in credit to agriculture and industrial sectors across all the regions over the period 1980-2008. However, the share of credit to services sector has increased substantially in all the regions during the period 1980-2008. This change in the distribution of credit is in alignment with the growth pattern of the economy showing significant contributions from the services sector. But, if we consider from the point of sector-wise dependency of population, it means agriculture getting marginalized. The shares of agriculture in the northern region decreased marginally while in the southern region it decreased substantially by around 10 percentage points. The share of agriculture credit in the Western Region has remained below 10 per cent throughout the three-decade period. Further, the share of agriculture credit to the Eastern Region went down by around 3.0 percentage points.

Table 29: Sector-wise allocation of credit
(Percentage to total)

Sector	1980	1985	1990	1995	2000	2005	2008
Agriculture	14.8	16.9	15.0	11.3	9.9	10.8	11.3
Industry	48.0	42.0	47.6	48.0	46.5	38.8	38.4
Service Sector	37.2	41.1	37.5	40.7	43.6	50.4	50.2
Total Bank Credit	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Basic Statistical Returns, Reserve Bank of India (various issues).

Table 30: Sector-wise Region-wise allocation of credit

	Northern Region	Southern Region	Western Region	Eastern Region
1980				
Agriculture	24.8	22.2	8.7	13.5
Industry	39.3	44.0	62.7	59.4
Service Sector	35.9	33.8	28.7	27.1
Total Bank Credit	100.0	100.0	100.0	100.0
1985				
Agriculture	26.6	55.1	7.8	14.4
Industry	37.0	21.2	43.1	51.7
Service Sector	36.3	23.8	49.0	33.9
Total Bank Credit	100.0	100.0	100.0	100.0
1990				
Agriculture	23.8	19.6	7.6	13.4
Industry	40.7	43.3	55.7	50.2
Service Sector	35.5	37.0	36.8	36.4
Total Bank Credit	100.0	100.0	100.0	100.0
1995				
Agriculture	19.3	15.7	5.3	12.0
Industry	42.3	42.2	55.2	47.6
Service Sector	38.4	42.1	39.4	40.3
Total Bank Credit	100.0	100.0	100.0	100.0
2000				
Agriculture	19.9	13.9	4.7	8.5
Industry	39.9	39.9	54.5	45.4
Service Sector	40.3	46.2	40.8	46.0
Total Bank Credit	100.0	100.0	100.0	100.0
2005				
Agriculture	21.6	13.6	8.6	8.6
Industry	30.4	33.9	74.0	36.0
Service Sector	48.0	52.5	17.3	55.3
Total Bank Credit	100.0	100.0	100.0	100.0
2008				
Agriculture	22.3	12.5	6.2	10.6
Industry	32.1	32.9	45.0	37.1
Service Sector	45.6	54.6	48.8	52.2
Total Bank Credit	100.0	100.0	100.0	100.0

Source: Basic Statistical Returns, Reserve Bank of India (various issues)

Access to bank finances can also be gauged from the credit-deposit ratio which has been provided in Table 31. It can be observed from the Table that there is wide disparity in CD ratio across the

Table 31: Region-wise, State-wise Credit-Deposit Ratio

Region/State/	1980-(JUNE)	1985-(JUNE)	1990	1995	2000	2005	2009
Northern Region	**76.1**	**63.7**	**54.8**	**48.6**	**51.1**	**59.5**	**68.5**
Haryana	66.1	67.6	61.2	45.5	42.4	51.4	61.5
Himachal Pradesh	28.6	44.0	38.6	26.0	23.8	36.3	38.5
Jammu & bKashmir	31.5	42.8	31.8	28.6	33.5	46.7	46.3
Punjab	38.6	44.6	45.5	41.4	39.4	50.1	65.5
Rajasthan	65.9	70.5	62.2	47.7	46.7	68.7	80.2
North-Eastern Region	**35.6**	**48.9**	**51.7**	**35.6**	**28.1**	**35.0**	**35.8**
Arunachal Pradesh	6.2	21.5	20.1	12.4	15.7	22.0	24.8
Assam	40.6	53.3	55.5	38.7	32.0	35.3	38.3
Manipur	25.1	70.5	69.9	58.2	37.4	42.4	38.7
Meghalaya	14.1	26.5	24.6	17.0	16.3	43.6	27.6
Mizoram	6.0	22.8	34.2	16.5	23.3	47.8	58.7
Nagaland	23.7	39.6	42.6	37.8	15.3	22.9	30.7
Tripura	51.3	72.9	72.2	47.5	25.7	28.6	29.8
Eastern Region	**56.1**	**52.0**	**52.6**	**47.1**	**37.0**	**45.5**	**48.9**
Bihar	41.8	41.7	40.0	32.5	22.5	27.7	27.3
Jharkhand	-	-	-	-	-	29.6	32.0
Orissa	61.1	92.8	81.3	54.5	41.5	61.8	50.8
West Bengal	60.9	51.9	54.9	53.9	45.5	52.3	60.8
Central Region	**45.7**	**52.7**	**52.8**	**39.0**	**33.9**	**40.8**	**44.8**
Chhattisgarh	-	-	-	-	-	43.6	53.3
Madhya Pradesh	52.0	62.6	68.6	49.6	49.1	43.6	57.4
Uttar Pradesh	43.5	49.2	47.0	35.1	28.2	37.9	42.1
Uttarakhand	-	-	-	-	-	24.3	25.6
Western Region	**70.5**	**79.9**	**74.0**	**63.2**	**75.4**	**83.5**	**85.2**
Gujrat	51.8	54.7	61.3	46.6	49.0	46.5	63.2
Maharashtra	79.2	90.8	79.7	69.5	86.4	94.9	90.8
Southern Region	**77.6**	**84.4**	**87.4**	**69.4**	**66.2**	**78.1**	**88.4**
Andhra Pradesh	71.5	78.3	87.1	73.0	64.2	74.8	97.6
Karnataka	77.8	86.7	91.0	65.8	63.3	73.8	76.6
Kerala	67.5	68.5	64.0	44.8	41.5	54.6	60.4
Tamil Nadu	88.0	98.6	99.4	86.7	88.6	101.2	108.9

Source: Statistical Tables Relating to Banks in India, Reserve Bank of India (various issues)

regions and states. The ratio remains above 80 per cent in the Southern and Western Regions during 2009, which has increased from above 75 per cent in 1985. On the other hand, the situation is not encouraging in the Northern Region where the CD ratio has become 68.5 per cent in 2009, gone down from 76.1 per cent in 1980. The condition is much worse in the Eastern, North-Eastern and Central Regions. While the CD ratio in the N-E Region and Central Region remained constant at 36 per cent and 45 per cent, respectively during the three decade period, it has gone down significantly from 56.1 per cent in 1980 to 48.9 per cent in 2009 in the Eastern Region.

Financial Inclusion

A developed financial system broadens access to funds; conversely, in an underdeveloped financial system, access to funds is limited and people are constrained by the availability of their funds and have to resort to high cost informal sources such as money lenders. Lower the availability of funds and higher their cost, fewer would be the economic activities that can be financed and hence lower the resulting economic growth (Rakesh Mohan, 2006)[10].

Financial inclusion can be defined as delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups. In the case of credit, the proper definition of the financially excluded would include households who are denied credit in spite of their demand. Although credit is the major component, financial inclusion covers various other services such as savings, insurance, payments and remittance facilities by the formal financial system to those who tend to be excluded.

Credit to farmer households is one of the important elements of financial inclusion. As per the results of the All-India Debt and Investment Survey (AIDIS), the share of non-institutional sources of credit in total credit for cultivator households had declined sharply

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[10]   Mohan, Rakesh (2006): ''Economic Growth, Financial Deepening and Financial Inclusion'', Presented at the Annual Bankers' Conference at Hyderabad, November 2006.

from about 93 per cent in 1951 to about 31 per cent in 1991, with the share of money lenders having declined from 69.7 per cent to 17.5 per cent. In 2002, however, the share of money lenders had again increased to 27 per cent, while that of non-institutional sources rose to 39 per cent (Table 32).

Coincidentally, it is also a fact that there has been a slowdown in the rate of agricultural growth during the last decade and it is particularly striking in respect of foodgrain production. Banks have been mainly focusing on crop loans since the period of green revolution. There is, therefore, reason to believe that financial exclusion may have actually increased in the rural areas.

It can be observed from Table 33 that the share of direct accounts with a credit limit of less than ₹ 25000 in total direct accounts declined from 93.4 per cent in 1980 to 35.8 per cent in 2008. The decline in share is observed across all the sectors.

It can also be observed from Table 34 that there is an inverse proportional relation between size class distribution of land and non-indebtedness. In other words, minimum size class had the lowest inclusion.

Table 32: Relative Share of Borrowing of Cultivator Households@

(per cent)

Sources of Credit	1951	1961	1971	1981	1991	2002$
Non-institutional	92.7	81.3	68.3	36.8	30.6	38.9
of which:						
Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8
Institutional	7.3	18.7	31.7	63.2	66.3	61.1
of which:						
Co-operative societies, etc.	3.3	2.6	22	29.8	30	30.2
Commercial banks	0.9	0.6	2.4	28.8	35.2	26.3
Unspecified	-	-	-	-	-	-
Total	100	100	100	100	100	100

@: Borrowing refers to outstanding cash dues.
$: AIDIS, NSSO, 59th Round, 2003.
Source: All India Debt and Investment Surveys.

Table 33: Percentage of Small Borrowal Account (₹ 25,000 and less) to Total No. of Accounts

Occupation	1980	1990	2000	2008
Agriculture	96.7	97.3	85.4	51.4
Industry	56.9	83.4	69.4	34.4
Transport Operators	68.6	81.4	48.2	14.6
Professional & other services	96.5	91.6	76.5	22.0
Personal loans	-	-	59.6	22.7
Trade	86.3	96.0	77.1	44.0
Finance	94.4	91.6	60.0	29.7
All others	97.7	99.5	50.3	40.0
Total	93.4	95.0	72.2	35.8

Note: For 1980, the small borrowal account is defined as ₹ 10, 000 and less.
Source: Basic Statistical Returns, Reserve Bank of India (various issues)

Table 34: Distribution of size-class wise indebtedness of Farmers Households - 2002

Size Class	Number			Per cent		
	Included	Excluded	Total	Included	Excluded	Total
Upto 0.40 ha	135820	169641	305471	44.5	55.5	100.0
0.41 to 1.00 ha	129211	154399	283610	45.6	54.4	100.0
1.01 to 2.00 ha	81920	78680	160600	51.0	49.0	100.0
Upto 2.00	346951	402720	749671	46.3	53.7	100.0
2.01 to 4.00 ha	54409	39095	93504	58.2	41.8	100.0
4.01 and above	32882	17447	50329	65.3	34.7	100.0
Above 2.00 ha	37291	56542	143833	60.7	39.3	100.0
All sizes	434242	459262	893504	48.6	51.4	100.0

Source: Situational Assessment Survey of Farmers (59th Round NSSO).

Role of Self-Help Groups

The RBI recognized the problem of financial exclusion in the Annual Policy Statement in 2005 and since then several initiatives have been initiated in order to promote financial inclusion especially in the groups of pensioners, self-employed and those employed in the unorganized sector. Some of these include "no frills" account, a simplified general purpose credit card (GCC), introduction of pilot project for 100 per cent financial inclusion, etc. On the other hand, NABARD has also taken several steps in this direction. The self-help group (SHG) – bank linkage programme of NABARD is an innovative programme. It started as a pilot programme in 1992. At present India

has around 22 lakh SHGs under this programme (Dev, 2006), comprising more than three crore poor households who are accessing credit through commercial and cooperative banks. Every year six lakh SHGs are added. The programme is now spread across the country. Following the success of SHG-linkage programme as also the Bangladesh Gramin Bank model, many of the NGOs have taken to financial intermediation by adopting innovative delivery approaches. Following the RBI guideline in 2000, commercial banks including the RRBs are providing funds through micro-finance institutions for lending to poor clients. In fact, MFIs have been playing an important role in substituting moneylenders and reducing burden on formal financial institutions.

With the objective of ensuring greater financial inclusion and increasing the outreach of the banking sector, banks have been allowed to use the services of NGOs, self-help groups, MFIs and other civil society organizations as intermediaries in providing financial and banking services through the use of business facilitator and correspondent models. Provisions for this kind of financial intermediation have opened up new and diverse avenues to address the issue of financial inclusion by banks. SHG linkage programme has already been successful in South India, viz., Kudumbasree programme in Kerala and Velugu in Andhra Pradesh. This has not only been successful in India, it is also popular and successful in countries like Bangladesh, Thailand, Mexico and Brazil.

Postal Savings and Remittance

Apart from the banking system, the post offices in India also provide the services of maintaining deposits and remittances. The Indian Postal Service with 155,516 post offices at end-March 2005 is the most widely spread post office system in the world. The numbers of post offices were more than twice the number of bank branches in the country with a large presence in remote areas. A post office in India, on an average, served 7,046 persons at end-March 2005. Indian post offices offer various types of small savings schemes and also provide other banking and financial services. Small savings schemes

include deposits of various maturities and public provident funds. Other financial services include money order, international remittance, mutual fund and postal life insurance. The number of savings bank accounts with the post offices, which provide cheque facility, was 60.3 million, *i.e.*, about 19 per cent of the savings accounts with banks (about 320 million). The amount of savings deposits per account in post offices was around ₹ 2,500 at end-March 2005 as compared with around ₹ 15,000 with banks. This was because post offices largely cater to the banking needs of the low income groups. Apart from the savings bank accounts, post offices also offer several other financial products.

Insurance Services

In most countries, a large segment of the population does not have access to formal insurance services. Micro-insurance services in a number of countries have begun to expand only in recent years. The Insurance Regulatory and Development Authority (IRDA) has been actively encouraging insurance services for low-income households. In 2002, the IRDA established rural and social sector targets for insurance companies. All insurers entering the business after the start of the IRDA Act, 1999 are required to comply with the obligations towards the rural and social sectors in a phased manner**.** In India, the total number of life insurance policies (individual single premium) was about 3.41 million in November 2007 (IRDA, 2008). This implies that there are only around 3.1 policies per thousand persons. The insurance penetration (insurance premium as percentage of GDP) in India was relatively higher as compared with several emerging market economies, but significantly lower than that in advanced economies.

Section VI: Conclusion and Policy Prescriptions

The study found that bank finance has been playing a major role in our growth process. The empirical findings of the study suggest that there is a bi-directional causality between GDP growth and financial development. In other words, the study has supported the view in the literature that financial development and economic growth exhibit a

two-way causality and hence is against the so-called "finance-led" growth hypothesis. However, the impulse response function analysis undertaken by the study suggests that the impact of credit on GDP is stronger than the reverse situation.

In the post-reform period, the Indian economy is elevated to high growth path triggered mainly by the expansion of economic activities across the sectors. However, there are some serious concerns about a number of imbalances in the growth scenario – inter-sectoral, inter-regional and inter-state. These imbalances have definitely a serious impact on the goal of "inclusive growth" as envisaged in the Eleventh Five Year Plan. The study reveals that still poverty ratio is very high in the economy. There is no significant increase in employment in the unorganised sector of the economy. The study also shows that while the contribution of the agriculture sector in the real GDP has declined fairly fast, the share of the employment in the agriculture sector has not declined to that extent. As a result, the average productivity in this sector has remained very low. Since a large section of the population continues to be dependent on the agriculture sector, directly or indirectly, this has serious implications for 'inclusiveness'.

Inclusive growth implies delivering social justice to all, particularly the disadvantaged groups. One aspect of social justice is that all programmes that provide generalised access to essential services such as health, education, clean drinking water, sanitation etc. should be implemented in a way that ensures that disadvantaged groups get full access to these services. Further, designing and implementing schemes specifically targeted to these groups will go a long way in achieving inclusive growth. This may need an innovative approach of Public Private Partnership in providing basic needs to these groups.

In this context, innovations are needed in products and services which reduce costs, economise on energy and serve the needs of the common man in an affordable manner. Innovations are also needed in processes and delivery mechanisms, especially in government delivery mechanisms which need to be redesigned so that they can

deliver outcomes commensurate with the considerable resources they now absorb.

In India, there is dominance of unorganized sectors such as, agriculture, small and micro enterprises, weavers, artisans, craftsmen, etc., which provide bulk of employment. This has been highlighted by the National Commission for Enterprises in the Unorganised Sector. In view of the predominance of informal-sector workers in the workforce, there is an urgent need for expansion in the scope and coverage of social security schemes for these unorganized workers so that they are assured of a minimum level of social protection and ensure their contribution for growth. Further, rapid growth can promote the inclusiveness agenda if the growth is associated with faster growth in agriculture, rural infrastructure and greater absorption of labour in manufacturing. The latter requires a special thrust in the MSME area. Inclusiveness will also be promoted by various ongoing social sector oriented programmes aimed specifically at the weaker section of the society. However, a much greater effort is needed to improve the implementation of social sector programmes in the field. These programmes receive assistance from the Central Government but they are implemented by State agencies. Much greater devolution of power to Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs), together with effective participation by the local community is needed to achieve better oversight and accountability. Progress in governance agenda is critical to achieve the goal of inclusiveness and should be given high priority by State Governments.

Financial institutions are to play crucial role in the overall scheme of inclusive growth. The nexus between finance and growth is well established and thus financial inclusion has taken a central stage in the recent times. Innovation of different financial products and process that increases the accessibility of common man to the financial institution can be considered as *sine qua non* of inclusive growth. Further, the financial institutions can play an important role in the inclusive growth strategy in promoting innovations by providing capital through various stages of product development. Infrastructure constraints have been considered as a binding constraint on growth.

The promotion of infrastructure especially, in rural areas can be a catalyst of inclusive growth through better delivery of social services to the common man. Financial institution should play a crucial role in infrastructure financing specially in rural areas.

In the globalised world order there has been interplay among macroeconomic reforms, globalization and technology, which can propel growth towards high trajectory. However, the synergetic links among the sectors can be reaped for achieving inclusive growth. Inclusive governance and inclusive growth go hand in hand. Empowerment and participation of people through further activation of Panchayati Raj Institutions and Urban Local Bodies can enable to achieve inclusive governance and public accountability, thus ensuring demand driven inclusive growth.

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Annexure: 1

Inter-state Comparisons of Growth Performance

Data Source and Methodology

NSDP and Per capita NSDP figures are taken from Central Statistics Office web site and RBI Handbook of Statistics on Indian Economy. For Maharashtra and Gujarat, latest figures were taken from the respective Government sites.

Data pertains to the period 1980-81 to 2008-09. Since the series follows three base year; 1980-81, 1993-94 and 1999-00, the first two series is spliced to arrive at a general data series with base year 1999-00. A simple splicing method is used to arrive at combined series.

For comparing economic performance across states, we have looked into the decadal annual compounded growth rates of NSDP and Percapita NSDP. The annual compounded rate of growth has been worked out by applying the semi-log model with respect to time (t). Accordingly, the following regression is run:

Log (NSDP) = a + bt, where b represents instantaneous rate of growth. The compounded growth rate (r) is further arrived by applying the following equation

r = ((antilog of b)-1)*100

Annex Tables

Annex Table 1:
Estimated Semi-log equation for NSDP of Indian States at different time period *(Contd.)*

States	1980-81 to 1989-90			1990-91 to 1999-00			2000-01 to 2008-09		
	intercept	Slope	R2	Intercept	Slope	R2	Intercept	Slope	R2
Andhra pradesh	10.5732 (216.00)	0.051527 (6.54)	0.842526	10.6341 (195.00)	0.051378 (14.80)	0.964858	10.2498 (104.00)	0.069682 (17.40)	0.98067
Arunachal Pradesh	5.95267 (313.0)	0.078142 (25.5)	0.987864	6.45698 (63.9)	0.044635 (7.0)	0.858208	6.2195 (34.7)	0.056907 (7.8)	0.910578
Assam	9.80228 (419.0)	0.032034 (8.5)	0.900289	9.94893 (410.0)	0.021723 (14.1)	0.961399	9.30635 (252.0)	0.051242 (34.8)	0.994261
Bihar	10.0908 (378.0)	0.046374 (10.8)	0.9355	10.2884 (76.0)	0.019716 (2.3)	0.397433	9.31499 (34.3)	0.069664 (6.5)	0.856186
Chattisgarh	–	–	–	9.59694 (173.0)	0.025136 (7.7)	0.922899	8.39508 (84.8)	0.077911 (19.8)	0.982403
Goa	7.21694 (133.0)	0.051007 (5.8)	0.808614	6.99611 (75.5)	0.080526 (13.7)	0.959159	6.72813 (52.6)	0.085471 (16.4)	0.978276
Gujarat	10.3199 (173.0)	0.047291 (4.9)	0.750582	9.97502 (78.9)	0.076888 (9.6)	0.919983	9.22783 (112.0)	0.101023 (30.7)	0.992622
Haryana	9.64176 (277.0)	0.060772 (10.8)	0.936346	9.82092 (195.0)	0.04606 (14.4)	0.962882	8.89974 (122.0)	0.091099 (31.3)	0.992915
Himachal	8.34033 (192.00)	0.044418 (6.35)	0.834337	8.18222 (158.00)	0.060239 (18.30)	0.976722	8.0766 (149.00)	0.066539 (30.30)	0.99351
Jammu &Kashmir	8.86246 298	0.019422 4.05	0.671891	8.6028 569	0.045464 47.4	0.996446	8.4406 162	0.051243 24.3	0.989902
Jharkhand	–	–	–	9.08807 (33.7)	0.062992 (4.0)	0.761319	8.474 (86.6)	0.080331 (20.6)	0.983812
Karnataka	10.2283 (492.00)	0.05135 (15.30)	0.967014	10.0295 (219.00)	0.068452 (23.60)	0.985817	9.91112 (82.20)	0.0692 (14.40)	0.96744
Kerala	10.1217 (321.00)	0.025487 (5.02)	0.758699	9.88953 (210.00)	0.056972 (19.00)	0.978393	9.29938 (95.50)	0.081749 (20.70)	0.986144
Maharashtra	11.0159 (333.0)	0.054251 (10.2)	0.928298	10.9624 (188.0)	0.066653 (18.0)	0.975856	10.5308 (123.0)	0.080261 (23.6)	0.987564
Manipur	7.01064 (644.0)	0.047103 (26.9)	0.989028	7.01452 (87.0)	0.045519 (8.9)	0.908185	6.73351 (68.9)	0.056317 (14.2)	0.971041
Meghalya	7.00259 (310.0)	0.042617 (11.7)	0.944976	6.93646 (76.3)	0.054009 (9.4)	0.91647	6.94765 (188.0)	0.056485 (37.7)	0.995793
Madhya Pradesh	10.2291 (351.0)	0.035133 (7.5)	0.875074	10.0585 (143.0)	0.054592 (12.3)	0.949548	10.1629 (88.4)	0.044431 (9.5)	0.937805
Nagaland	6.59308 (198.0)	0.07199 (13.4)	0.957531	6.82925 (79.7)	0.054845 (10.1)	0.927216	6.34915 (65.2)	0.080624 (19.5)	0.989596
Orissa	9.79262 (220.0)	0.046831 (6.5)	0.84239	9.73912 (142.0)	0.039493 (9.1)	0.911492	8.80232 (78.7)	0.080665 (18.1)	0.97913

Annex Table 1:
Estimated Semi-log equation for NSDP of Indian States at different time period *(Concld.)*

States	1980-81 to 1989-90			1990-91 to 1999-00			2000-01 to 2008-09		
	intercept	Slope	R2	Intercept	Slope	R2	Intercept	Slope	R2
Punjab	10.0537 (815.0)	0.052986 (26.7)	0.988873	10.1411 (536.0)	0.043407 (36.2)	0.993927	9.97336 (116.0)	0.049419 (14.5)	0.967785
Rajashthan	9.99689 (160.0)	0.057704 (5.7)	0.804137	9.97146 (88.7)	0.06322 (8.9)	0.907635	9.85198 (48.1)	0.062781 (7.7)	0.89451
Sikkim	–	–	–	5.42528 (82.0)	0.061551 (15.9)	0.980684	5.05634 (307.0)	0.078219 (117.0)	0.999562
Tamil Nadu	10.5695 (410.00)	0.048758 (11.70)	0.945066	10.463 260	0.062159 24.3	0.986675	10.158 (55.20)	0.071245 (9.73)	0.931188
Tripura	7.15459 (161.0)	0.049262 (6.9)	0.856056	6.96475 (92.7)	0.070253 (14.7)	0.964515	6.82108 (83.6)	0.079646 (23.5)	0.991025
Uttar Pradesh	11.1236 (578.0)	0.046774 (15.1)	0.966067	11.2542 (228.0)	0.034893 (11.1)	0.939536	10.8457 (142.0)	0.052339 (17.3)	0.977068
Uttaranchal	–	–	–	8.84264 (105.00)	0.025213 (5.10)	0.838858	7.63292 89	0.084926 23.9	0.991294
West Bengal	10.6529 (614.0)	0.044855 (16.0)	0.969848	10.4036 (462.0)	0.066381 (46.5)	0.99631	10.4801 (174.0)	0.061152 (25.0)	0.990478

Annex Table 2:
Estimated Semi-log equation for PCNSDP of Indian States at
different time period *(Contd.)*

States	1980-81 to 1989-90			1990-91 to 1999-00			2000-01 to 2008-09		
	intercept	Slope	R^2	Intercept	Slope	R^2	Intercept	Slope	R^2
TN	9.00002	0.034036	0.88376	8.85386	0.051634	0.981065	8.50118	0.063054	0.911973
	(332.00)	(7.80)		(221.00)	(20.40)		(45.70)	(8.52)	
Kerala	9.21375	0.011366	0.384004	8.93477	0.047132	0.972616	8.24323	0.076731	0.987155
	(292.00)	(2.23)		(203.00)	(16.90)		(99.10)	(23.20)	
Andhra	8.91582	0.029837	0.641826	8.88983	0.036896	0.92826	8.24781	0.06757	0.97113
	(182.00)	(3.79)		(156.00)	(10.20)		(74.50)	(15.30)	
Karnataka	8.93651	0.031308	0.907094	8.70271	0.052415	0.972982	8.35978	0.063469	0.94099
	(407.00)	(8.84)		(179.00)	(17.00)		(55.40)	(10.60)	
J&K	**9.39111**	**-0.005986**	**0.162299**	9.1328	0.020043	0.97962	8.74666	0.036251	0.973206
	(315.00)	**-1.24**		(567.00)	(19.60)		(145.00)	(14.80)	
Himachal	9.21781	0.026372	0.626634	9.04662	0.042588	0.951929	8.9132	0.050299	0.990956
	(206.00)	(3.66)		(170.00)	(12.60)		(195.00)	(27.70)	
Uttaranchal	–	–	–	**9.39742**	**0.006909**	**0.285687**	8.17035	0.067477	0.99337
				(112.00)	**(1.41)**		156	32.4	
Punjab	9.56424	0.034333	0.975848	9.64995	0.024495	0.981121	9.45257	0.032041	0.930127
	(807.0)	(18.0)		(510.0)	(20.4)		(113.0)	(9.7)	
Haryana	9.41124	0.036497	0.840523	9.59058	0.022061	0.866616	8.59649	0.070312	0.989486
	(270.0)	(6.5)		(199.0)	(7.2)		(125.0)	(25.7)	
UP	8.78877	0.023727	0.874486	8.91188	0.013273	0.716346	8.44767	0.033036	0.939464
	(446.0)	(7.5)		(191.0)	(4.5)		(106.0)	(10.4)	
Rajashthan	8.79248	0.031674	0.54617	8.7571	0.039338	0.799405	8.24669	0.056017	0.853686
	(139.0)	(3.1)		(79.7)	(5.7)		(37.4)	(6.4)	
MP	8.91503	0.011613	0.439717	8.71951	0.033045	0.871289	8.76638	0.025645	0.827397
	(310.0)	(2.5)		(123.0)	(7.4)		(74.5)	(5.4)	
Chattisgarh	–	–	–	9.20242	0.008878	0.603248	7.71054	0.074686	0.963087
				(167.0)	(2.8)		(55.5)	(13.5)	
Gujarat	9.11397	0.0273	0.498463	8.76067	0.058569	0.865608	7.89998	0.087235	0.993791
	(152.0)	(2.8)		(68.1)	(7.2)		(121.0)	(33.0)	
Goa	9.54376	0.035442	0.657214	9.32495	0.065341	0.936154	9.09767	0.067127	0.935977
	(170.0)	(3.9)		(98.1)	(10.8)		(51.6)	(9.4)	
Maharashtra	9.20526	0.031594	0.821982	9.12126	0.04639	0.951133	8.57375	0.06556	0.97871
	(285.0)	(6.1)		(156.0)	(12.5)		(93.3)	(17.9)	
Bihar	8.46617	0.025009	0.8122	**8.7004**	**-0.004**	**0.033325**	7.44796	0.057535	0.75299
	(321.0)	(5.9)		**(65.8)**	**(-0.5)**		(23.8)	(4.6)	
Jharkhand	–	–	–	8.47029	0.045862	0.632175	7.82624	0.064193	0.972903
				(31.6)	(2.9)		(76.9)	(15.9)	
Orissa	8.85749	0.028816	0.670428	8.77366	0.023596	0.785458	7.51945	0.078879	0.967961
	(200.0)	(4.0)		(128.0)	(5.4)		(55.2)	(14.5)	

Annex Table 2:
Estimated Semi-log equation for PCNSDP of Indian States at
different time period *(Concld.)*

States	1980-81 to 1989-90			1990-91 to 1999-00			2000-01 to 2008-09		
	intercept	Slope	R²	Intercept	Slope	R²	Intercept	Slope	R²
West Bengal	8.98146 (516.0)	0.023097 (8.2)	0.894323	8.67193 (348.0)	0.049493 (31.3)	0.991886	8.5843 (130.0)	0.052152 (19.9)	0.982582
Arunachal Pradesh	8.7475 (453.0)	0.046875 (15.1)	0.965959	9.16177 (94.1)	0.020874 (3.4)	0.588061	8.56625 (61.3)	0.050063 (9.0)	0.920527
Assam	9.24938 (385.0)	0.010899 (2.8)	0.49811	9.35591 (527.0)	0.003058 (2.7)	0.480132	8.7036 (257.0)	0.03382 (25.1)	0.988998
Meghalya	9.05597 (448.0)	0.014292 (4.4)	0.706725	8.96752 (96.7)	0.027257 (4.6)	0.728313	8.40909 (115.0)	0.055695 (19.1)	0.98117
Tripura	8.77992 (201.0)	0.020009 (2.8)	0.501878	8.44203 (94.5)	0.052895 (9.3)	0.915865	8.4698 (73.5)	0.056538 (12.1)	0.960433
Manipur	8.99699 (862.0)	0.021184 (12.6)	0.951964	8.96394 (109.0)	0.023028 (4.4)	0.708844	8.56957 (113.0)	0.039074 (12.9)	0.959795
Nagaland	9.18135 (263.0)	0.034124 (6.1)	0.821393	**9.45135 (84.9)**	**0.010186 (1.4)**	**0.206276**	**9.4809 (68.1)**	**0.010627 (1.8)**	**0.403184**
Sikkim	–	–	–	8.96817 (136.0)	0.032978 (8.5)	0.935847	8.2704 (317.0)	0.064281 (61.9)	0.998177

Annex Table 3:
Poverty Rates Across States (%)

State/UT	1973-74	1977-78	1983-84	1987-88	1993-94	1999-2000	2004-05
Andhra Pradesh	48.9	39.3	28.9	25.9	22.2	15.8	15.8
Arunachal Pradesh	51.9	58.3	40.9	36.2	39.4	33.5	17.6
Assam	51.2	57.2	40.8	36.2	40.9	36.1	19.7
Bihar	61.9	61.6	62.2	52.1	55.0	42.6	41.4
Goa	44.3	37.2	18.9	24.5	14.9	14.4	13.8
Gujarat	48.2	41.2	32.8	31.5	24.2	14.1	16.8
Haryana	35.4	29.6	21.4	16.6	25.1	8.7	14.0
Himachal	26.4	32.5	16.4	15.5	28.4	7.6	10.0
Jammu	40.8	39.0	24.2	23.8	25.2	3.5	5.4
Karnataka	54.5	48.8	38.2	37.5	33.2	20.0	25.0
Kerala	58.8	52.2	40.4	31.8	25.4	12.7	15.0
Madhya Pradesh	61.8	61.8	49.8	43.1	42.5	37.4	38.3
Maharashtra	53.2	55.9	43.4	40.4	36.9	25.0	30.7
Manipur	50.0	53.7	37.0	31.4	33.8	28.5	17.3
Meghalaya	50.2	55.2	38.8	33.9	37.9	33.9	18.5
Mizoram	50.3	54.4	36.0	27.5	25.7	19.5	12.6
Nagaland	50.8	56.0	39.3	34.4	37.9	32.7	19.0
Orissa	66.2	70.1	65.3	55.6	48.6	47.2	46.4
Punjab	28.2	19.3	16.2	13.2	11.8	6.2	8.4
Rajasthan	46.1	37.4	34.5	35.2	27.4	15.3	22.1
Sikkim	50.9	55.9	39.7	36.1	41.4	36.6	20.1
Tamil Nadu	54.9	54.8	51.7	43.4	35.0	21.1	22.5
Tripura	51.0	56.9	40.0	35.2	39.0	34.4	18.9
Uttar Pradesh	57.1	49.1	47.1	41.5	40.9	31.2	32.8
West Bengal	63.4	60.5	54.9	44.7	35.7	27.0	24.7
A&N Islands	55.6	55.4	52.1	43.9	34.5	21.0	22.6
Chandigarh	28.0	27.3	23.8	14.7	11.4	5.8	7.1
D&N Haveli	46.6	37.2	15.7	67.1	50.8	17.1	33.2
Delhi	49.6	33.2	26.2	12.4	14.7	8.2	–
Daman & Diu	–	–	–	–	15.8	4.4	10.5
Lakshdweep	59.7	52.8	42.4	35.0	25.0	15.6	16.0
Pondicherry	53.8	53.3	50.1	41.5	37.4	21.7	22.4
All India	54.9	51.3	44.5	38.9	36.0	26.1	27.5