SHAPING OF THE INDIAN MIRACLE:
Acceleration towards high growth

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A lot has been written on India's economic growth and, in general, on its development experience since independence. It has been a story of great contradictions across all spheres, evoking, as one would expect, contrasting emotions from observers, foreign as well as home grown. There have been periods when the western world was earnestly engaged with the progress of the Indian economy and, at other times, the waning interest bordered on the economy being written-off as a basket case. In the fifties and sixties, the development of the Indian economy was a favourite battle ground for economists and policy advisers of all hues and ideological affiliations. In fact, during this period, the dominant thoughts of development economics influenced the logic of India's development strategy; at the same time, development theory, for a while, was greatly influenced by the Indian experience. Yet, by 1970 the western world had lost interest in India, and India had started looking inwards. There followed a phase in the 1980s and the 1990s, when the popular depiction of the Indian economy as a sleeping mammoth that was taking its time to wake up, even as the agile high growth 'tiger' economies of East Asia were setting new benchmarks on growth and eradication of poverty, had a certain inevitability about it. It reinforced the image of the economy that was destined to run a sub-par course, failing yet again to realise its potential. This has however, changed in last few years. Over a five year period from around 2003-04 to 2007-08, the Indian economy has registered a near 9 per cent growth in Gross Domestic Product (GDP), which has rekindled interest and raised the global stakes in its future. It seems the mammoth is finally on the move and that too with certain vigour to catch-up for lost time!

Through out this period, there have been many studies, such as Bhagwati (1993), Ahluwalia (1995), Acharya (2002), Williamson and Zagha (2002), Ahluwalia (2002), DeLong (2003), Virmani (2006b), Panagariya (2008) and Virmani (2009) that have analysed the underlying growth trends and the structural changes inspired by policy breaks, or otherwise. Often, the policy developments have been gradual, subtle and so far apart that they have gone unrecognised at first. With the benefit of hindsight and new information, some of these developments that go back to the mid-1980s have turned out to be game changers. They have imparted a gradual, but a significant dynamism to the economy and propelled it to an improved growth performance in each of the last three decades. In the more recent years, the cumulative impact of these developments, particularly those emanating from the reforms of 1990s, coupled with a supportive external environment have created a momentum that has taken the economy to new heights. As it turns out, an addition of even one more year to the data set underpinning these studies enables the analysis to support new

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insights and perhaps more credible conclusions about the medium to long-term prospects of the Indian economy. This paper is one such attempt to use the vantage point of the latest available data to study the dynamics of India's recent growth spurt. It uses the data up to 2008-09 from the National Accounts Statistics (NAS) of the Indian economy. Unfortunately, the analysis presented here continues to be on the old 1999-2000 base of NAS, which, has been revised to 2004-05 by the Central Statistical Organisation (CSO) in February, 2010. The NAS data for the back series (pre 2004-05) on the revised base is not yet available.[1]

The analysis in this paper has been divided into three broad sections. Section I takes a brief look at the long term growth trends and the characteristic features of the Indian economy in its first and the second growth phase. This is followed in Section II, by a more detailed discussion of the most recent growth phase, beginning 2003-04. The Section analyses the underlying dynamics of this phase and identifies the principal growth drivers – the components of aggregate demand, sectoral composition of growth and its spatial distribution across different regions of the county. Section III describes the role of policy reforms in sustaining growth. In that context, as a post-script, it presents a brief review of the economic policy management of the economy in the wake of the global economic slowdown, which also impacted India. The concluding section presents an analysis of the medium term prospects of the economy.

I. Historical Patterns of Growth –Trend and Features

Most studies that examine the history of India's growth identify a structural break around 1980 (see e.g. Virmani(2004a)). A few such as Virmani (2005) suggest one in the 1990s, broadly coinciding with the launch of the economic reforms in 1990-91. The distinct phases of India's growth could be identified in terms of a change in policy regime or as a statistically significant break in the growth trend, or ideally in terms of both, with the former leading to the latter (Virmani (2006c)).[2] In the case of the 1980, the change in policy regime and the statistical break in the growth trend coincide reasonably well to indicate a clear structural break. However, the same is not true about the second structural break. There was a distinct change in

[1] With the release of the Quick Estimates of National Income for 2008-09, the CSO has effected a revision in the base year of its NAS from 1999-2000 to 2004-05. It includes changes on account of certain refinements in definitions of some aggregates, widening of coverage, inclusion of long-term survey results and the normal revision in certain data in respect of 2008-09. While there are no major changes in the overall growth rate of GDP at constant 2004-05 prices, except for 2007-08 where it has been revised upward from 9.0 to 9.2 per cent, there are some changes in growth rates at sectoral level and in the level estimates of GDP. Thus, for instance, the contribution of agriculture sector to the GDP at factor cost in 2004-05 has declined from 17.4 per cent in the old series to 15.9 per cent in the new series. Similarly, while the contribution of registered manufacturing has declined from 10.9 per cent in the old series to 9.9 per cent in the new series, that of unregistered manufacturing has increased from 4.9 to 5.4 per cent. There is also an increase in the contribution of real estate, ownership of dwellings and business services from 8.2 per cent to 8.9 per cent. In the case of level estimates of GDP at current prices, the difference ranges from 3.1 per cent in 2004-05 to 6 per cent in 2008-09. As a result, there are also changes in the expenditure estimates of the GDP, which have been analysed in the context of the discussion on policy issues in Section III of the paper.

[2] The structural breaks could also be identified with external shocks or interplay of exogenous factors on the domestic economy. However, since such breaks are invariably accompanied by policy changes/response, there may not be a case to identify such breaks as a separate category.

the policy regime, with the ushering in of reforms in the wake of the balance of payments crisis of 1990-91. These were largely concentrated in the first few years following the crisis and then with a little gap towards the end of the decade. However, a significant statistical break is not really apparent until much later (Virmani (2006a)). The rising trend in the growth rate that had already set in during the 1980s and the reform measures of the 1990s did ensure that the average growth rate of GDP in 1990s was marginally higher than the 1980s. In other words, the impact of the 1990 policy changes on growth was gradual with some improvement in the average growth rate, but the statistical break in the trend growth come more than a decade after the launch of the reforms.

The first structural break in the post-independence growth experience occurred in 1979-80. With the advantage of more recent data set, it is likely that the economy entered its third phase of accelerated growth, only after the statistically significant second break in 2003-04. This observation follows from a detailed econometric analysis of the available data, which allows for a statistically more accurate determination of the different phases of India's economic growth (Virmani(2009)). The analysis explicitly accounts for the role of rainfall variation in the economy and finds that the rate of agricultural growth, as well as the effect of rainfall on it, remained largely unchanged during the entire period of over 50 years. Though the effect of rainfall variation on GDP supply (agriculture GDP) declined with the share of GDP in agriculture, demand side effects (i.e. demand for non-agricultural goods from agricultural income) appear to have grown. On balance there was little change in the marginal impact of rainfall variation on economic growth.

Growth Phase I: 1951-52 to 1979-80

As a result of the first break the economy moved from what has been commonly described as "the Hindu growth rate" of around 3.5 per cent to 5.5 per cent.[3] This followed a policy shift away from excessive controls and restrictions on private enterprise towards gradual decontrol. While the first phase of growth could be characterised as the period of the 'Indian version of socialism', the post 1980 phase was the period of gradual experimentation with market reforms.

Regression analysis (Table 1) confirms that during the growth phase I, from 1951-52 to 1979-80, the trend growth rate of GDP was about 3.6 per cent per annum and that of per capita income was 1.4 per cent per annum. Further, two sub-phases can be identified during this period. The first sub-phase from 1951-52 to 1964-65 saw the economy averaging about 4.1 per cent growth in GDP. This declined markedly during the second sub-phase from 1965-66 to 1979-80 to around 2.9 per cent. In terms of policy regimes, the first sub-phase was relatively more liberal than the second sub-phase, where restrictive controls on investments, both domestic and foreign, and on imports, due to the foreign exchange constraint, reinforced regulations in the economy.

Table 1: Regression Results for Trend Changes in GDP
(1951-52 to 2008-09)

[3] Raj Krishna, the eminent economist popularized the phrase 'Hindu rate of growth' in the 1970s, though B.P.R. Vithal was perhaps the first to suggest a connection between Hindu culture and the nature of economic development.

Dependent variable: Growth rate of GDPmp

Independent variable	Coefficients	Standard error	t- statistics	P-value		
					R square	0.60
Intercept/constant	0.0360	0.0037	9.7	0.0000	Adj. R square	0.57
Dummy 1980-81+	0.0175	0.0061	2.9	0.0059	Std. error	0.02
Dummy 1994-95+	0.0022	0.0007	2.9	0.0049	Log Likelihood	147.7
Rainfall index	0.1730	0.0283	6.1	0.0000	F-statistic	19.9
Rainfall index(-1)	-0.0717	0.0285	-2.5	0.0147	Prob.(F-stat)	0.0000

Akaike information criterion	-4.92	Mean dependent variance	0.04877
Schwarz criterion	-4.72	S.D. dependent variance	0.03026
Hannan-Quinn criteria	-4.85	D. W. statistics	2.26

Note: All variables are statistically significant at the 1 per cent level of confidence, except lagged rainfall, which is significant at 5 per cent level.

Even though independent India favoured a mixed economy framework, where individual initiative of economic agents would have as much place in guiding economic activity, as social judgement and policy prescription of the polity and the planners, this phase of India's development was characterised by a conscious effort to increase the role of the state in the economy. Chakravarty (1987) has analysed the rationale of the development strategy adopted during this phase. The underlying preoccupation of the strategy was to maximise the rate of output growth, over a period of time by increasing the rate of capital formation, principally in the public sector. This was the essence of the well known Feldman-Mahalanobis model of development. In addition, there was a general pessimism regarding the economy's capacity to raise exports due to the nature of its composition, which consisted of primary articles with low income elasticity of demand. As a result, and in view of the uncertainty associated with the magnitude and timing of foreign aid, India opted for a strategy of import-substitution led development, with an increasing dependence on domestic resources to finance rising investment requirements.[4]

Decomposition of growth (Table-2) for the sub-phase 1950-51 to 1964-65 reveals a growth of 1.6 per cent per annum in total factor productivity (TFP). Of the 2.4 per cent per annum growth in net domestic product (NDP) per worker, TFP growth contributed 68 per cent while capital deepening (fixed capital per worker) contributed 13 per cent, the remaining was accounted for by good rainfall. During this sub-phase there was a strong investment growth of 7.9 per cent per annum, led by growth in government investment at 11.6 per cent per annum. As a result, the share of the public sector in the total capital stock grew from an estimated 10.7 per cent at the beginning to 35.7 per cent at the end of the sub-period. Improvement in productivity was driven by 9.7 per cent per annum growth in investment in machinery. Government consumption at 6.6 per cent per annum exceeded GDP growth, as well as the growth in private consumption at 3.7 per cent per annum. Thus, the ratio of government to private consumption also rose sharply during this sub-phase.

[4] As a corollary, growth in private consumption was discouraged under this development model.

The sub-phase 1965-66 to 1979-80 saw a further expansion of state at multiple levels. With large scale nationalisation of banks, oil companies, coal mines and various other industries, state control of industrial activity, reservation of sectors for government, a tax system with high marginal rates, and effective deterrent on labour layoffs and exit policy in the organised sector created a rampant renting seeking high cost economy in the socialist India. It undermined private enterprise and thus shackled economic growth. The economic system degenerated into what has been variously described as the 'licence-permit-quota *raj*'. The decline in growth during this sub-phase was associated with a decline in TFP growth to 0.6 per cent per annum.

Table 2: Comparative Economic Performance
(Per cent average growth in variables during the period)

	Phase-I Indian Socialism			**Phase-II Market Reforms**
Variable	**1951-52 to 1964-65**	**1965-66 to 1979-80**	**1951-52 to 1979-80**	**1980-81 to 2003-04**
GDP at factor cost	4.1	2.9	3.5	5.8
Per capita GDP	2.0	0.6	1.3	3.7
Poverty rate (HCR)	50.5*	55.4*	0.2	-0.8
Rainfall:				
Diff. from mean	4.0	-2.7	0.5	-1.8
Cont. to growth	0.44	-0.48	-0.03	-0.08
TFP growth	1.6	0.2	0.9	2.7
Consumption:				
Private	3.7	2.8	3.2	4.6
Government	6.6	5.1	5.8	6.0
Investment Total:	7.9	4.5	6.1	6.3
Public	11.6	3.7	7.5	2.4
Private	3.5	3.8	3.6	8.7
Investment Fixed:	6.5	3.2	4.8	6.2
Machinery	9.7	3.7	6.6	8.8
Structure	5.8	3.2	4.4	4.5
Private (fixed)	3.5	3.8	3.6	8.7
Electricity, gas, water	25.3	6.5	15.2	4.4
Railways	11.1	-5.1	2.4	3.7
Communications	13.1	6.8	9.7	11.5

Source: Estimates from National Accounts Statistics, Central Statistical Organisation and Planning Commission, Government of India.
Note: * are average level estimates.

The second sub-phase also saw the introduction of a redistributive dimension to the development strategy, with a direct attack on poverty. The intervention took the shape of a plethora of public programmes that were either directed at strengthening the endowments of the targeted individuals/households, by way of reallocation of land and distribution of income generating assets, or aimed at influencing the flow of income/consumption to the targeted population through wage employment programmes and all kinds of subsidies. Apart form the fact that these measures were inherently prone to leakages and vested patronage, public investment in elementary education and public health was not given the required attention. Much of these measures taken by the Government in the 1970s have been politically difficult to undo in the subsequent periods. They continue to be a drag on the economy, with large areas where policy reforms are still pending even now.

On the whole, the analysis reveals that growth in India remained remarkably stable in the three decades during phase-I. If one adjusts for the weather conditions, favourable in the first sub-phase and adverse in the second sub-phase, the GDP growth drops from 4.1 per cent to 3.6 per cent for the sub-period 1950-51 to 1964-65 and rises from 2.9 per cent to 3.4 per cent per annum for the period 1965-66 to 1979-80. This is not surprising, considering that the policy regime in the socialist mode was reasonably consistent during phase-I. Despite some isolated measures, the role of competition as a disciplining force on producers and the concept of modern regulation, as against bureaucratic control, were missing through out this phase of economic development.

Growth Phase II: 1980-81 to 2003-04

The second phase saw the growth rate increasing from 3.5 per cent, per annum to an average of about 5.8 per cent per annum, with acceleration from around the mid 1990s. This phase of rising growth corresponds to policy reforms ushered, first gradually and in a piecemeal manner in the 1980s, to the more wide-ranging measures that were implemented from 1990-91, in the wake of the payments crisis. However, the statistical break in the trend growth rate that one expects to see in the post-1990-91 period, after the significant change in the policy regime, is not conclusively visible until 2003-04. The regression estimates of GDP growth for the market reform phase (Table 1 and also Table 3) corroborate this.

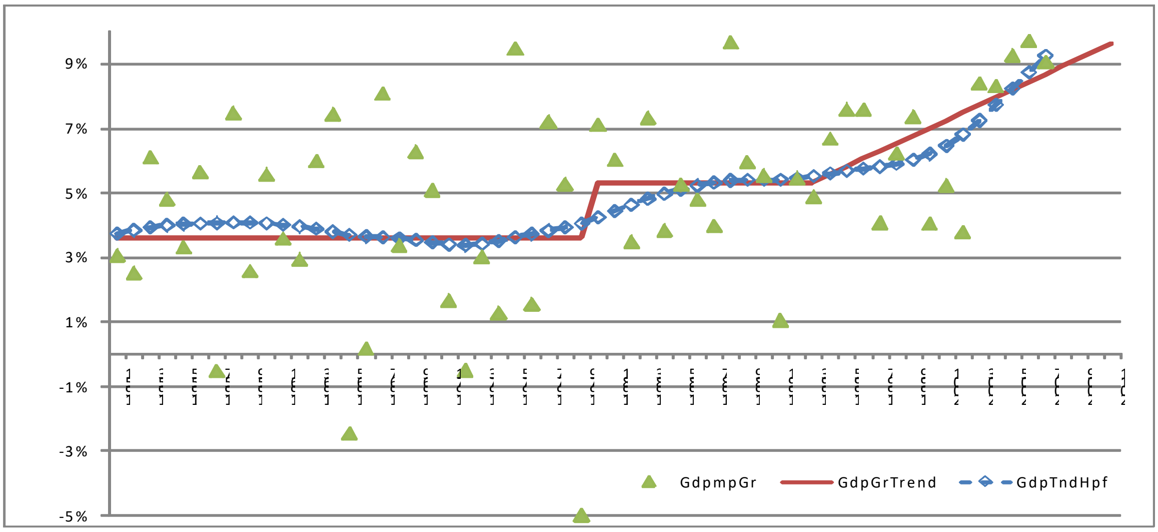
In phase-II the trend growth rate is estimated at 5.4 per cent. Though the trend variable is significant from 1991-92, it becomes most significant for 1994-95, when the underlying trend growth rate started increasing by 0.22 per cent per annum. Thus, it can be argued that 1994-95 was the year during which the effects of the 1990-91 balance of payments crises were washed out of the system and the beneficial effects of the reforms started imparting momentum to economic growth. The trend rate of growth in per capita income, which mirrors the trend in GDP, more than doubled to about 3.2 per cent during 1980-81 to 1993-94 from 1.4 per cent per annum in phase-I. It than increased by about 0.26 percentage point per annum from 1994-95 onwards.[5]

In terms of the policy regime, the second phase of economic development was characterised by (a) the move from import-substitution to export promotion and on to broader import liberalisation, and (b) the freedom to compete, and increased competition in different markets and sectors of the economy. The early 1980s saw a gradual easing up of controls on the industry, liberalisation of imports along with major depreciation of rupee (in the mid-1980s), which imparted a certain momentum to exports and to the GDP growth rate. There were steps taken to enable capacity expansion, increase in the threshold levels of investments that required licences, delicensing of investments in certain sectors and broad-banding in some others, wherein within the extant authorised capacities the industries were allowed to change their product mix. As a result, there was acceleration in the growth rate of private investment and the structure of investment moved towards machinery and equipment of improved quality because of greater access to imported capital goods.

[5] See for further details Virmani (2009), page 34-37.

In addition, the output gap, which had opened up during phase-I due to policy induced suppression of economic growth to below its potential, was closed during the 1980s. It was partly on account of the supply-side stimulus provided by the moderation in the rise of oil prices and partly on account of the demand-side stimulus due to the expanding fiscal deficit. Thus, the 1980s saw a substantial element of what could be described as a temporary acceleration above its potential, a catch-up process that bridged the outcome gap by around 1990-91.

Figure 1: Rising Growth –The 'J' curve of Liberalisation and Productivity



Gdpmp: Gross Domestic Product(a market prices); Gdp Gr Trend : Growth trend based on regression results (see Table 1); and GdpTndHpf: Hodrick-Prescott filtered growth rate.

Economic reforms initiated in 1991-92 were more systematic and wide-ranging than in the past. It covered fiscal, financial, industrial and external sectors of the economy. These reforms were aimed at enhancing the competitiveness of the Indian industry and bringing about greater transparency and discipline in the conduct of macroeconomic policy in the country. Not only was the industrial licensing regime phased out, but the tariffs were considerable lowered. Moreover, the economy was opened to external competition through dismantling of the licensing on imports and opening up of a large number of sectors to foreign investment. There was reform of the tax policy, a gradual move towards fiscal consolidation and a guarded liberalisation of the financial sector, particularly to domestic private players.

A change of the Central (federal) Government did not come in the way of the opening up of the economy to greater competition –domestic as well as foreign. Consumer goods imports were liberalised and tariffs were further brought down with the peak duty rates falling significantly. A policy for privatisation was formulated and divestment and outright sale of public enterprises was initiated. The administered price regime for petroleum products was dismantled for a while. The insurance sector was opened to private sector and to limited foreign investment. Similarly the banking sector was opened to competition from domestic and foreign private players. Most interest rates were liberalised and certain capital account transaction were deregulated. More importantly, infrastructure sectors like telecommunications saw considerable policy reforms and there was move to speed-up highway constructions and reform power sector with the enactment of the Electricity Act of 2003. The Urban Land Ceilings and Regulation Act of 1976 was also repealed.

The average GDP growth rate in phase-II at 5.8 per cent per annum was significantly higher than phase-I. The per capita GDP almost tripled to 3.7 per cent per annum. It was accompanied by acceleration in private consumption from 3.2 in phase I to 4.6 per cent per annum in phase II. As a result of the higher growth in income and private consumption, the proportion of population below the poverty line declined by 0.8 percentage points per annum during phase-II. Thus, the shift in policy led to a dramatic improvement in economic growth and poverty reduction.

The improvement in per capita GDP was driven by a tripling of the rate of growth of TFP, from an average of 0.9 per cent per annum in phase-I to 2.7 per cent during phase-II. TFP experienced a temporary setback due to the balance of payments crisis but recovered rapidly to maintain its growth at around 2.7 per cent per annum from around 1993-94. Though the rate of growth of investment at 6.3 per cent per annum remained more or less same as in phase-I, the growth of capital stock accelerated from 3.6 per cent to 5.4 per cent per annum. Consequently, rate of capital deepening that is rate of growth of capital per worker doubled to 2.7 per cent. There was also a change in the structure of investment from government to the private sector, with the growth rate of the former falling to one-third and that of the latter doubling, from their respective phase-I levels. The growth rate of investment in machinery increased from 6.6 per cent in phase-I to 8.8 per cent in phase-II. This was in line with economic theory, which suggests that a liberalisation of imports will result in a fall in the price of tradable goods (in this instance machinery) relative to those of non-tradable goods (such as structures). Consequently the share of machinery in fixed investment rose through the 1980s and much of 1990s. The technology embodied in the new machinery and equipment is an important determinant of the productivity and it played a significant role in the recovery of TFP growth in phase-II. Moreover, the change in the pattern of investment was supported by a change in the pattern of demand with acceleration in private consumption growth surpassing the growth in government consumption.

Apparently, the difference in the respective impact of the piecemeal policy reforms in the 1980s and the more wide ranging reforms of the 1990s, on the growth rate of GDP was not very marked. The average growth in GDP was 5.5 per cent per annum in the sub-period 1980-81 to 1991-92 and it rose to 6.1 per cent in the sub-period 1992-93 to 2003-04. Virmani (2005) and Virmani (2006a) suggested that in a heavily protected economy, major import liberalisation will initially result in a slowing of measured productivity growth. Productivity growth will accelerate only after a lag, leading to what has been label as the 'J curve' of liberalisation and productivity. There are several elements that give effect to this observation. *First*, with the opening up of a hitherto closed economy and reduction of tariffs and phasing of quantitative restrictions, there is re-balancing of historically distorted prices, which raise the relative price of previously slow growing sectors. While there is little, if any, evidence of this adjustment is relative prices resulting in any large-scale changes in the composition of domestic industries, there is evidence of changes in product lines within industries that try to anticipate new demand and comparative advantage in the altered context. It results in immediate reduction in capacity utilisation in unprofitable product lines, which persists due to capital immobility until depreciation eliminates the excess capacity. Thus, there is obsolescence of some product lines and the capital deployed to produce those products (which would still be a part of measured capital). *Second*, there are gestation lags in new investments and development of new products requires adaptation of technology and production processes- the 'S' curve of technology diffusion- during which productivity growth slows down. *Third*, it also takes time to develop complementary inputs and training of the human resources on the new capital. Moreover, technology specific-skills are lost when a new technology replaces an old one, resulting in a temporary decline in labour productivity. India's GDP growth experience in the face of import liberalisation in the 1990s corroborates such an understanding of the J curve effect. [6]

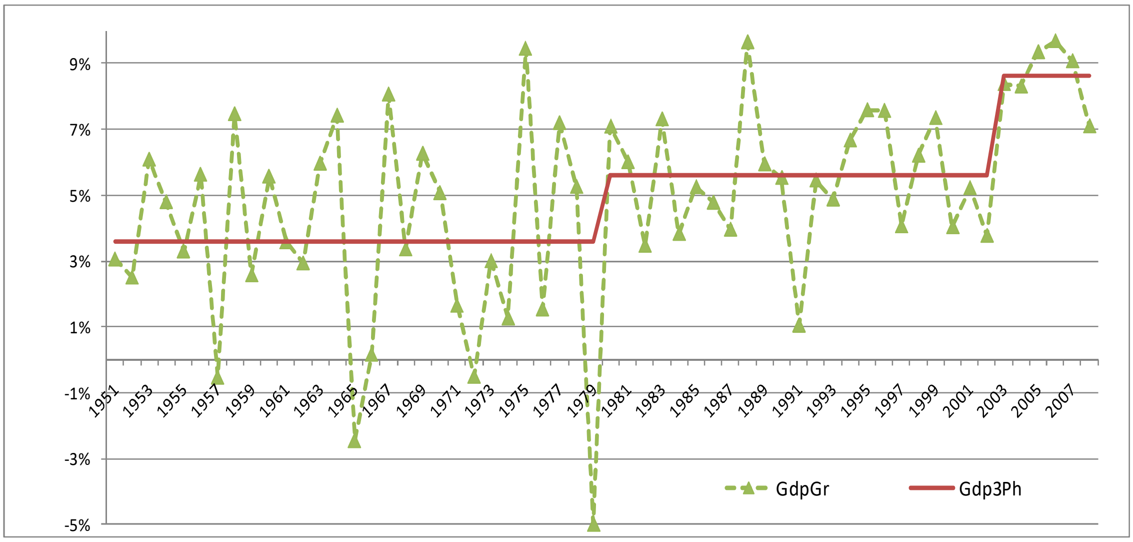
Virmani and Hashim (2009) and Hashim et al (2009) find that the pattern of TFP growth in the manufacturing sector (overall and 2-digit respectively), is broadly consistent with the J curve effect. One would expect the weakest J curve effect in the sub-sectors that were globally competitive at the time of the trade liberalisation and the strongest in those where the technological gap between the domestic and the global industries was the most. Such is the case, for example in textiles and machinery sub sector were the observed effect of trade liberalisation on TFP growth was minimal. The said effect was seen to be quite pronounced in the motor-vehicles sub-sector and in the case of food products.

II: The Third Phase- Growth Dynamics and Acceleration

The analysis based on the available data confirms a statistically significant break in the growth rate around 2003-04, which ushered the Indian economy into its third growth phase. The regression results (Table 3) suggests that the trend growth rate of GDP, which was around 5.6 per cent since 1980-81 (in phase-II), increased to over 8.6 per cent around 2003-04, ushering the economy into a high growth phase. At three percentage points it marks a higher jump in the growth rate vis-à-vis phase II when it increased by about 2 percentage points over the preceding period.

Figure 2: The Third Phase of Growth

[6] In the face of policy reforms, such as in the early 1980s, some additional factors could explain acceleration in TFP growth lagging investment. For instance, there could be overshooting due to new and existing investors rushing into newly opened sub-sectors, resulting in excess investment and a decline in capacity utilisation, which may show-up as a decline in measured TFP growth in the larger sector. There could also be the case of planned excess capacity, particularly in sectors with economies of scale, where reforms and perceived/anticipated improvement in investment climate and deregulation may lead investors to creating capacities that for a while are not fully utilised creating a situation akin to overshooting.



Gdp Gr Trend: Growth trend based on regression (see Table 3); Gdp 3Ph:

Table 3: Regression Results for Trend Changes in GDP- Phase III (1951-52 to 2008-09)

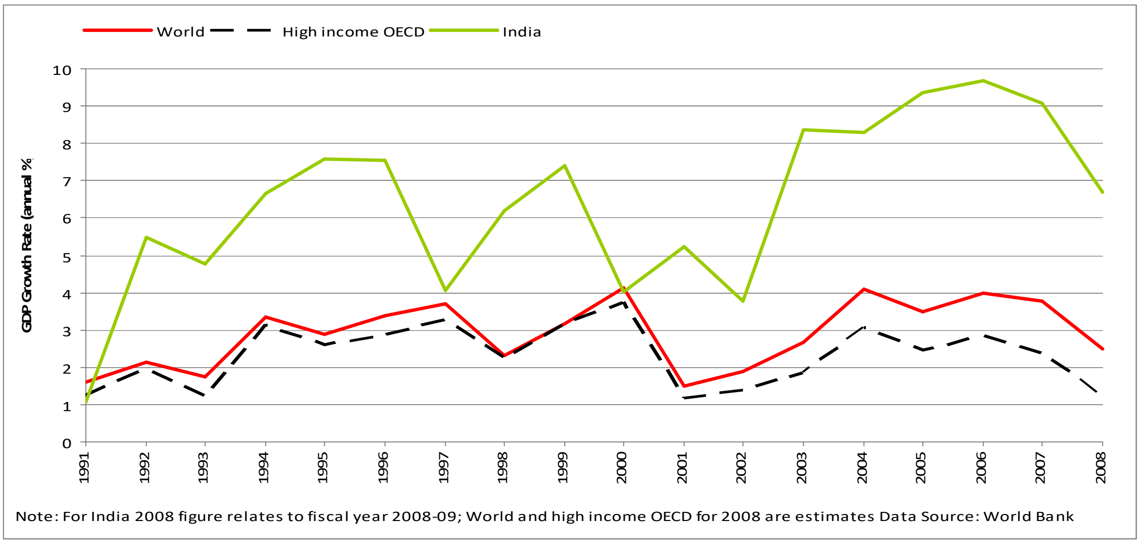
Dependent variable: Growth rate of GDPmp					
Independent variable	Coefficients	Standard error	t- statistics	P-value	R square 0.62
Intercept/constant	0.0360	0.0036	9.9	0.0000	Adj. R square 0.59
Dummy 1980-81+	0.0201	0.0055	3.6	0.0006	Std. error 0.02
Dummy 2003-04+	0.0302	0.0089	3.4	0.0013	Log Likelihood 148.9
Rainfall index	0.1686	0.0277	6.1	0.0000	F-statistic 21.3
Rainfall index(-1)	-0.0704	0.0279	-2.5	0.0147	Prob.(F-stat) 0.0000
Akaike information criterion	-4.96		Mean dependent variance	0.0488	
Schwarz criterion	-4.78		S.D. dependent variance	0.0303	
Hannan-Quinn criteria	-4.89		D. W. statistics	2.32	

Note: All variables are statistically significant at the 1 per cent level of confidence, except lagged rainfall, which is significant at 5 per cent level.

The average growth in real GDP (at both market prices and at factor costs) in the period 2003-04 to 2007-08, has averaged close to 9 per cent. The analysis suggests that the economy has entered a high growth phase with an underlying GDP trend of about 8.75 per cent. The per capita GDP growth has more than doubled from a little less than 3.5 per cent to a trend growth of around 7.2 per cent per annum. If this trend continues, per capita GDP will double in ten years, placing India among the select group of about a dozen medium to large economies (such as China, Singapore, Japan, Taiwan China, Thailand, South Korea, Portugal, Greece and Hong Kong China) that have averaged a per capita GDP growth of 7.2 per cent or more for at least a decade during their high growth trajectory. [7] There are good reasons to believe (discussed in the following section) that the growth slowdown in 2008-09 and 2010-11, when GDP grew at 6.7 per cent and an estimated 7.2 per cent per annum (as per CSO Advance Estimates), respectively due to the impact of the global recession, marks only a temporary break in this trend.

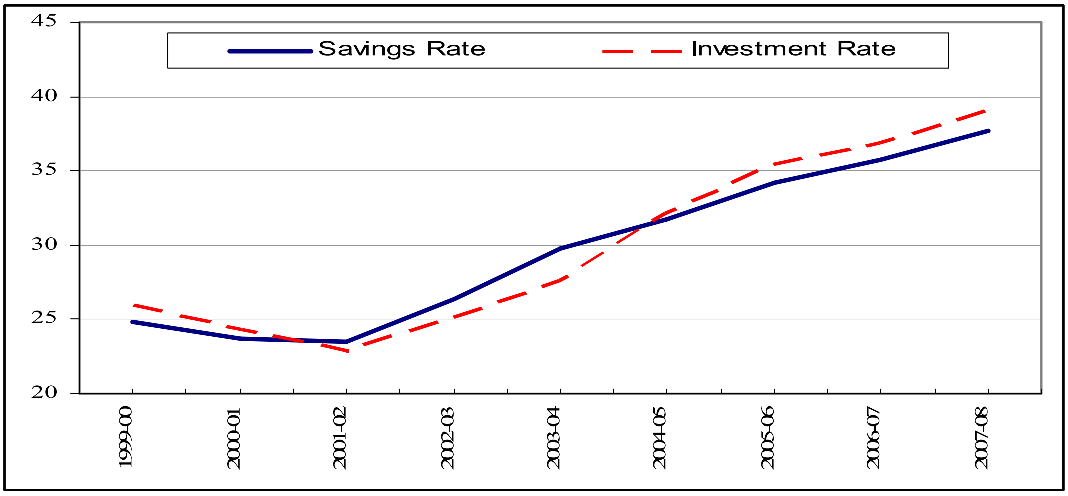
[7] With 7.2 per cent per capita income growth, income doubles in a decade (10 years).

Figure 3: GDP Growth - India, World & OECD Countries



In the last two decades fluctuations in India's economic growth were not closely linked to cycles in high-income OECD countries or the developed countries (Figure 3). The upward hump in Indian growth between 2003-04 and 2008-09, however, seems to coincide with a similar hump in global and OECD growth. Similarly, the sharp decline in India's GDP growth to around 6 per cent in the second half of 2008-09 from 7.8 per cent in the first half of 2008-09, following the US and global financial meltdown in August 2008, seems to be following the global pattern. Perhaps, this has led many among the international market analysts to believe that growth in emerging markets and developing countries was driven by global excess liquidity/monetization, the associated capital flows from developed countries and the demand for commodities. Consequently, with the bursting of the bubble and because of the painful process of de-leveraging and collapse of capital flows, the initial impact would be a growth collapse followed by a return in the medium term to growth rates that prevailed before 2004-05. It was therefore concluded by some of these analysts that India's growth would collapse to around 4 to 4.5 per cent during 2009 and perhaps even 2010 before reverting to around 5 to 5.5 per cent over the medium term. An analysis of the recent growth dynamics suggests that this superficial generalization of a plausible global analysis to India is erroneous. Indeed, it is instructive to analyse the demand and supply dynamics of the economy in the recent years to understand the basis of the observed acceleration in growth.

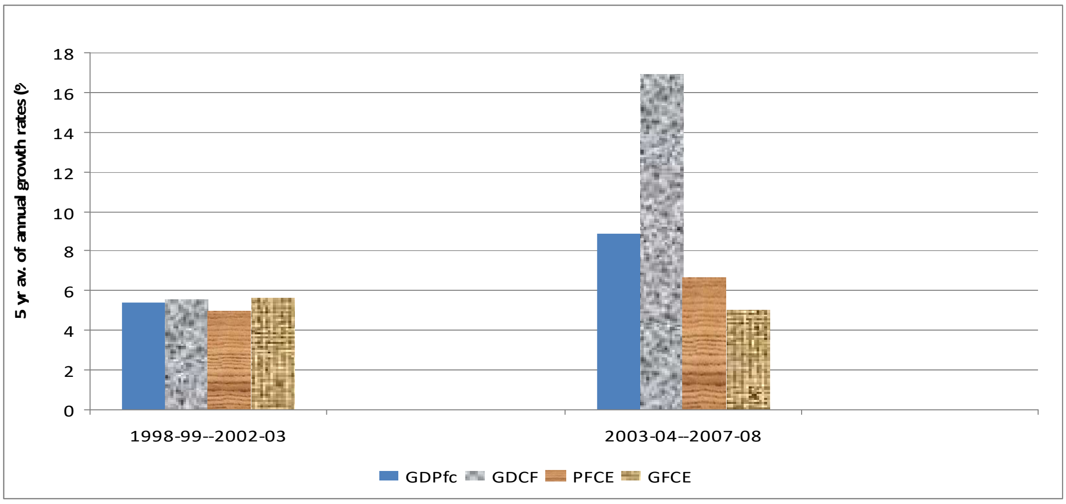
Figure 4: Investment and Savings Rate- GDCF & GDS/ GDP (market prices)



Aggregate Demand and Supply[8]

The step-up in the trend growth rate of the Indian economy since around 2003-04, has come about due to significant improvement in our domestic investment and saving rates.[9] The investment rate has increased from 25.2 per cent in 2002-03 to 39.1 per cent in 2007-08 (Figures 4). The private corporate sector contributed almost four-fifths of this increase with the rest coming from public sector. In terms of growth "drivers", at an incremental level, there was a significant increase in investment growth rate. It nearly tripled from an average of around 6 per cent in the five-year period leading up to 2002-03 to nearly 17 per cent in the next five years (Figure 5).

Figure 5: Growth Rate of GDP (factor cost), Investment and Consumption

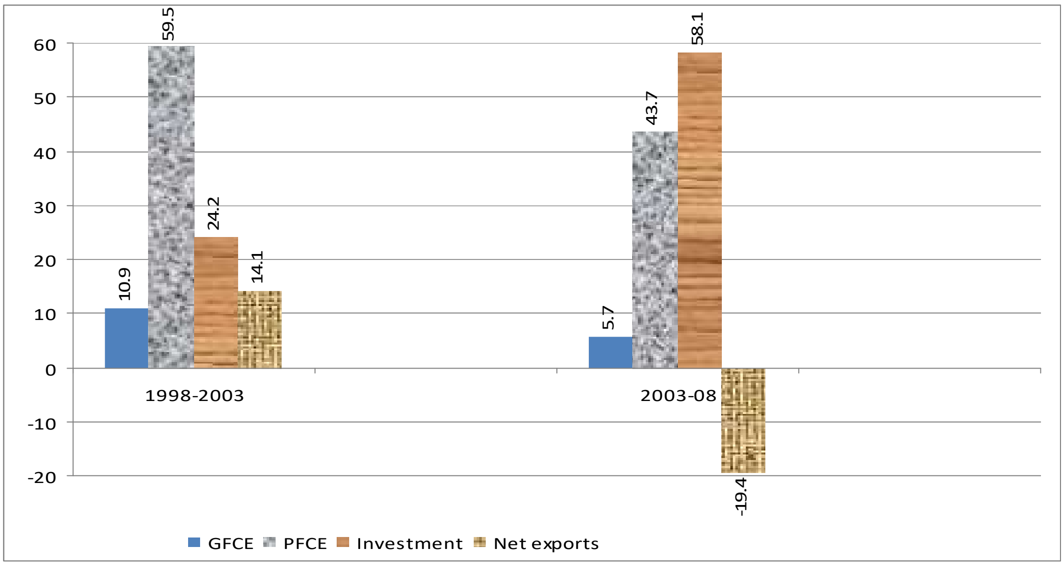


[8] The analysis is based on the data from the NAS series with base 1999-2000 as the back series on the new NAS base of 2004-05 was not available at the time of finalizing this paper. The implications of the new NAS series is however touched in Section III of the paper, in the context of the analysis of growth slowdown in 2008-09 and 2009-10 on the growth prospects of the economy in its phase III.

[9] Highlighted in Economic Survey (Govt. of India 2007-08).

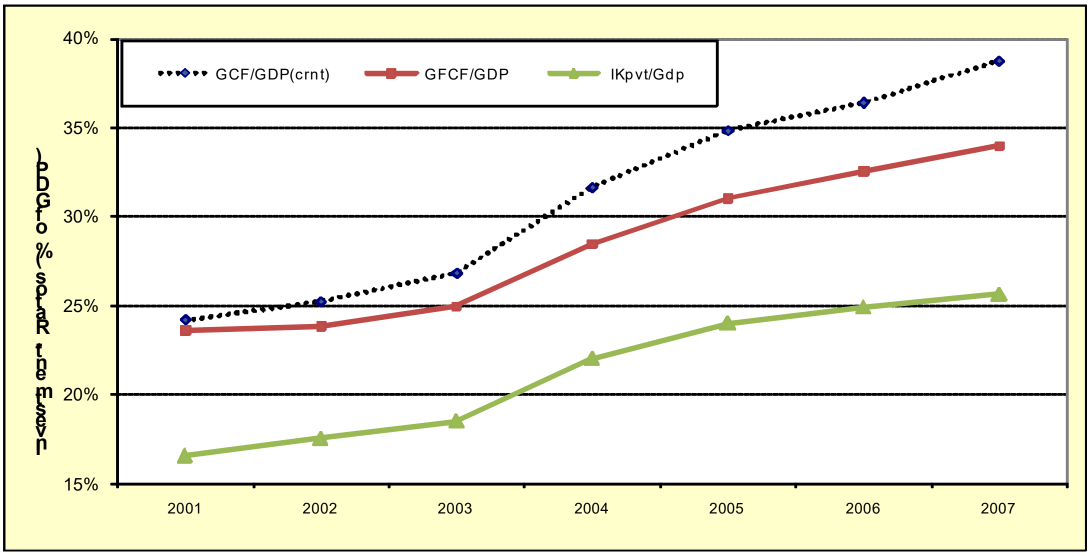
The role of private consumption was also supportive with its growth rate increasing from less than 5 per cent in the first period to nearly 7 per cent in the second period, though its relative contribution to incremental demand came down below that of investment for the first time (Figure 6). While private consumption accounted for nearly 60 per cent of growth in the period 1998-99 to 2003-04, as against less than 40 per cent in the period 2003-04 to 2007-08, the contribution of investment more than doubled from about 24 per cent in the first period to over 58 per cent in the second. Moreover, this spurt in investment growth was primarily that of private fixed investment and not a build-up of inventories (Figure 7). There was, therefore, an increase in the productive capacity of the economy. The growth rate of government consumption slowed significantly in the period 2003-04 to 2007-08, reflecting the government's adherence to the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 which had laid down annual targets for the reduction of fiscal deficit. As a result, the contribution of government consumption to growth reduced by half in the second period.

Figure 6: Contribution to GDP Growth



It is also worth noting, particularly in the context of the global slowdown, that the net contribution of the external sector (that is net exports of goods and services) to aggregate demand of the economy has been negative since 1990, except for a brief period, from 1997-98 to 2002-03, when it was positive and about 14 per cent (Figure 6). In the high growth period since then it has been negative, about 19 per cent. Though, India's integration into the world economy over the last decade has been surprisingly rapid, with its external trade (merchandise exports plus imports) as a proportion of GDP doubling from 18.6 per cent in 1997-98 to close to 40 per cent in 2008-09, the economy remains much less dependent on exports as a demand side driver of growth than some other emerging and developing countries. The expansion in demand that supported the significant increase in GDP growth was predominantly domestic and primarily involved a rapid rise in private investment demand.

Figure 7: Investment-Total, Fixed and Private (Ratio to GDP)



The gross domestic savings as a proportion of GDP increased from 26.3 per cent in 2002-03 to 37.7 per cent in 2007-08. Both private savings and public sector contributed to the increase in domestic savings rate, the former supporting more than half of the increase, with much of it coming from corporate savings. Household savings contributed 10 per cent to the increase. During this period, the percentage share of public sector in gross domestic savings increased from (-) 2.5 per cent to 11.9 per cent.

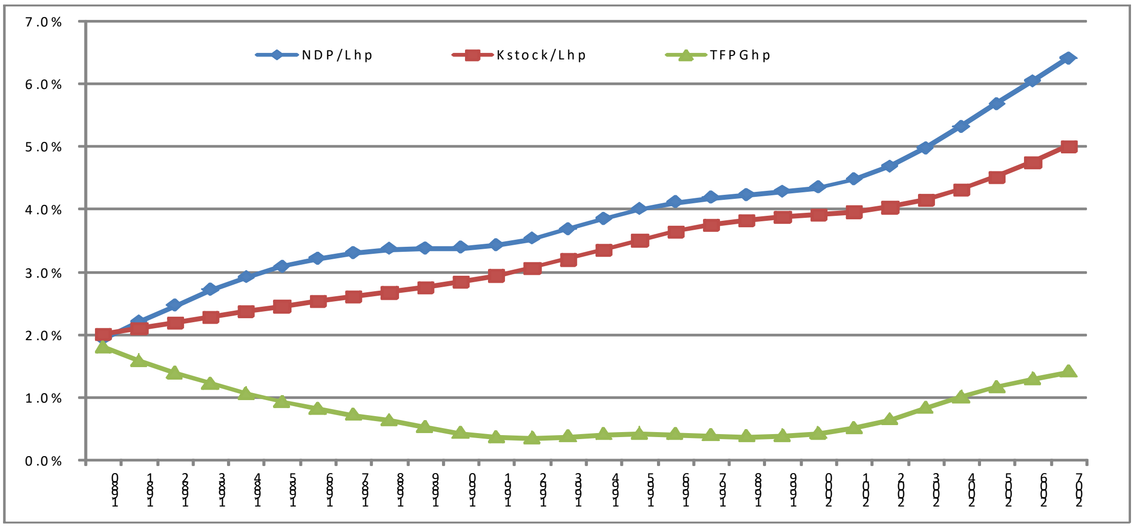
Table 4: Savings and Investment Rates

Composition of Savings and Investment	Ratio to GDP (per cent)	
	2002-03	2007-08
Savings (GDS)	26.4	37.7
Private:	27.0	33.2
Households	23.2	24.3
Corporate	3.9	8.8
Public	-0.6	4.5
Investment (GDCF)	25.2	39.1
Investment (GCF)	25.2	38.7
Private:	18.6	28.5
Household	12.6	12.6
Corporate	5.9	15.9
Public	6.1	9.1
Current Account Balance	1.2	-1.4

The savings rate exceeded the investment rate from 2001-02 to 2003-04, resulting in an increasing surplus on current account, which, however, reverted to deficit soon thereafter (Figure 4). The current account balance turned from an average of +0.9 per of GDP during 1998-99 to 2002-03 to an average of -0.4 per cent of GDP during 2003-04 to 2007-08, indicating a modest contribution of foreign savings to the spurt in aggregate investment and growth. Thus, the significant increase in the inflow of foreign capital that this period witnessed was important not so much for bridging the domestic savings-investment gap, but for facilitating the intermediation of financial resources to meet the growing needs of the domestic industry and service sector for long term and risk capital. Moreover, though domestic funds were available, they were expensive relative to foreign funding.

Even in 2007-08, which showed the highest deficit for this period, the current account deficit was only about 1.5 per cent of GDP, the rest of the capital inflow, almost 7 per cent of GDP was rechanneled abroad in the form of foreign exchange reserves. However, these capital flows in excess of the current account deficit reflect the importance of external financing and the depth of India's financial integration with the rest of the world. Further, there was a sharp increase in net inward and outward FDI after 2005-06, which is indicative of the increased confidence of foreign companies in the growth potential of the Indian economy and in the increased capability and confidence of domestic entrepreneurs in meeting global competition. Indeed, India's financial integration with the world was as rapid as its trade globalization, if not more. As a broad measure of globalization, the ratio of total external transactions (gross current account flows plus gross capital flows) to GDP more than doubled over a 10-year period from 46.8 per cent in 1997-98 to 117.4 per cent in 2007-08.

Figure 8: Sources of Growth



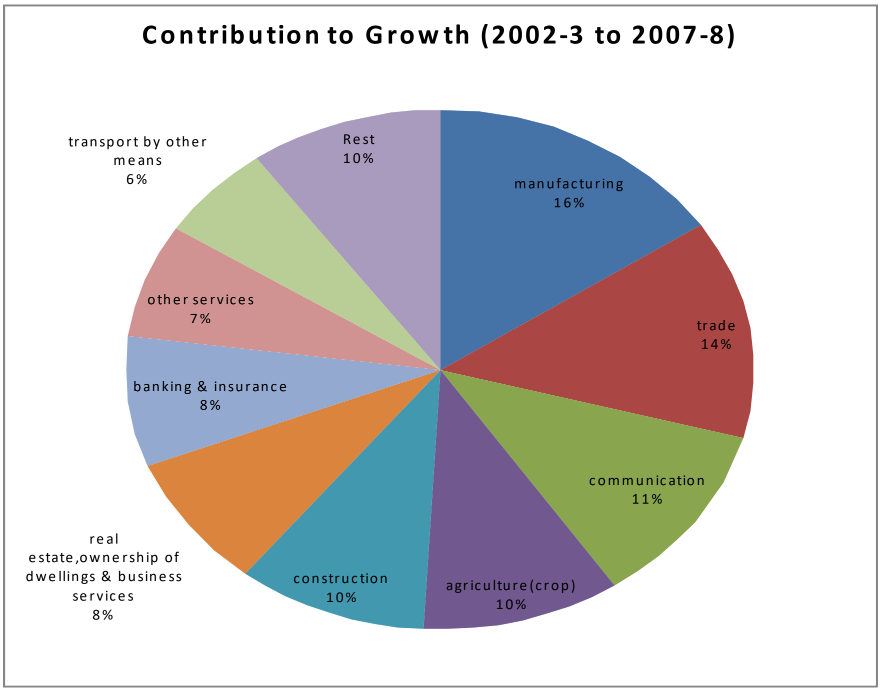
Note: NDP/Lhp is Net Domestic Product per worker; Kstock / Lhp is capital stock per worker and TFP Ghp is total facter productivity growth, all variables plotted with hp filtered series.

The increasing competitiveness of the Indian economy was reflected in rising TFP growth from 2001-02 (Figure 8). The near stagnation of the TFP growth in the 1990s has been explained earlier as the 'J curve' effect of liberalization on productivity. Once the transition of the industry to a more competitive structure is competed, there is spurt in productivity. Thus, from around 2001-02 there is a rise in TFP growth which touched about 1.4 per cent per annum in 2007-08. This was accompanied by a rise in the rate of growth of capital- labour ratio from less than 4 per cent to about 5 per cent during this period.

Sectoral Growth Drivers

In terms of sectoral composition, manufacturing, communications, trade, agriculture and construction have been the major contributors to the spurt in the growth rate. This is contrary to popular perception, which associates the growth spurt with the performance of the services sector, in particular with the sustained growth in information technology. During the period 2003-04 to 2007-08, the annual growth rate of agriculture was more than 4 per cent. The production of foodgrains increased by about 10 million tonnes each year to reach an all-time high of over 230 million tonnes in 2007-08. Manufacturing, registered as well as unregistered, recorded a growth of 9.5 per cent per annum and communication and construction sector grew at the rate of 27 per cent and 13.5 per cent per annum, respectively in the period 2004-05 to 2007-08. The growth of investment in manufacturing was around 30 per cent per annum. Similarly, the capital stock in end-2007-08 over end-2002-03 was nearly one-and-a-half times more in construction, manufacturing and in trade, hotels and restaurants. Some of these sectors recorded significant improvement in efficiency as captured, somewhat crudely, by improvement in the incremental capital-output ratios, benefiting from a competitive environment and technological up-gradation.

Figure 7: Sectoral Growth Drivers

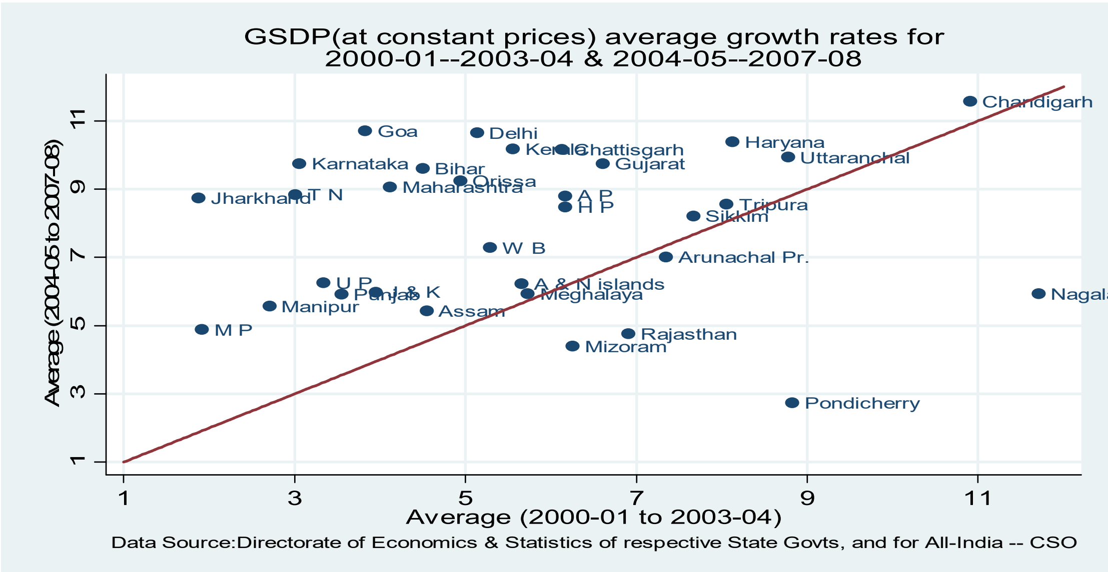


In terms of contribution to the GDP growth, manufacturing, agriculture, and four other sectors, namely traditional service sector (trade), telecommunications, construction and banking and insurance, accounted for nearly 70 per cent of total growth. Since half of these sectors are skilled/semi-skilled modern sectors and the other half (agriculture, construction and trade) being traditional labour intensive sectors, it appears the demand for labour both skilled and semi-skilled would have increased during the growth spurt witnessed during this period.

Spatial Dimension of the Growth Spurt

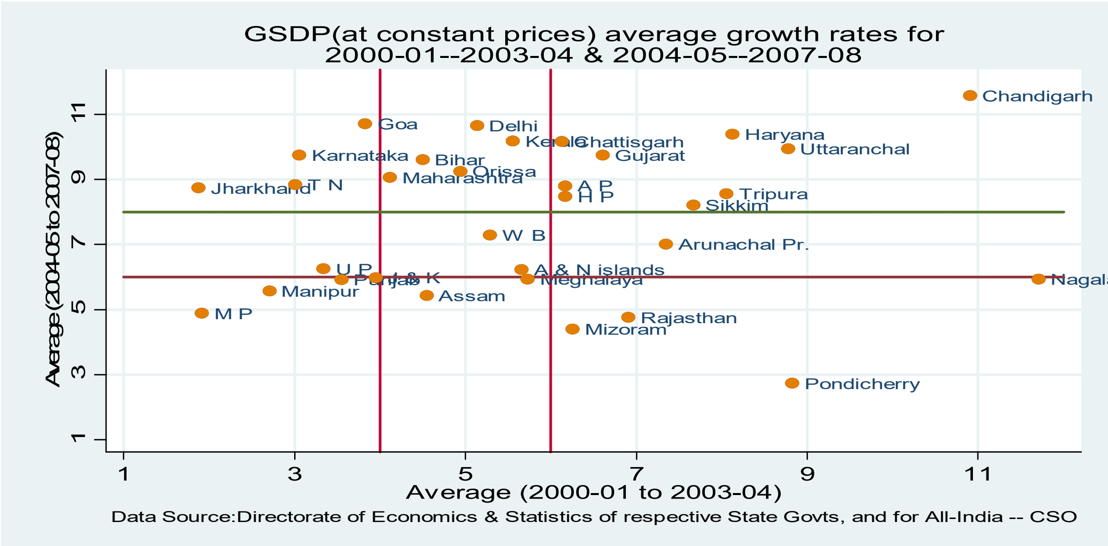
If one considers the period since 2000-01, the average per annum GDP growth rate at the all-India level increased substantively from 5.6 per cent in sub-period I (2000-01 to 2003-04) to 8.9 per cent in sub-period II (2004-05 to 2007-08). A total of 27 states and Union Territories out of 32 improved their performance in the sub-period II vis-à-vis sub-period I (see the states reflected above the 45 degree line in Figure 8) as per the data available with CSO as of May 2009. Of these 27, nine states and Union Territories namely, Delhi, Karnataka, Tamil Nadu, Jharkhand, Bihar, Maharashtra, Goa, Madhya Pradesh and Manipur more than doubled their growth rates in the sub-period II. Chandigarh was the only state/Union Territory that maintained a two digit growth rate in both the periods.

Figure 8: Trend in State Level Growth - Gross State Domestic Product



It is instructive to look at the movement of these states and Union Territories (Figure 9) between low, medium and high growth categories in the two sub-periods. Although, Madhya Pradesh and Manipur managed to more than double their growth rates in sub-period II, it was not enough to pull them out of the low performing category, relative to the all-India average (i.e. below 4 per cent per annum in sub-period I and below 6 per cent per annum in sub-period II). In case of Rajasthan, Puducherry, Nagaland and Mizoram the high growth rates of sub-period I (i.e. above 6 per cent per annum) could not be sustained in sub-period II (i.e. above 8 per cent per annum). Indeed, these four states /Union Territories have slipped from high performing category in sub-period I to low performing category in sub-period II. Similarly, Assam and Meghalaya have moved from medium category (i.e. with growth rate between 4 and 6 per cent) in sub-period I to low category in sub-period II. It is somewhat of a surprise to see Punjab among the low performing states in both sub-periods, even though it improved its growth rate from about 4 per cent to nearly 6 per cent. Haryana, Uttarakhand, Tripura, Sikkim, Gujarat, Himachal Pradesh, Andhra Pradesh, Chhattisgarh and Chandigarh have retained their position in the high performing states/Union Territories in both sub-periods.

Figure 9: Growth Transition at State Level Growth



All most all the states where growth in sub-period II was less than sub-period I, that is where the states either slipped from high performing category to the medium performing category, or from the medium to the low performing category, are the traditional low performers. Secondly, none of these states have sustained high growth over extended period of time in the past. Thirdly, more than half of the nine high performing states/Union Territories that have retained their position in the high performing category in both the sub-periods are the more developed ones. Fourthly, the average growth rates among the traditional high performers, as well as the traditional low performers have shown a rise over the last two decades. The analysis, therefore, suggests that there is considerable scope to improve growth rates (for instance to levels recorded in the first sub-phase) in many (traditionally low performing) states and Union Territories and thereby also for the country as a whole. More importantly, improved growth climate appears to be benefiting all states, although growth rates continue to differ with variations across states appearing to be declining.

III. Policy for Sustaining High Growth: Recent Slowdown and Recovery

The challenge of sustaining high growth has become more complex because of increased globalization of the world economy and the growing influence of global developments, economic as well as non-economic. The developments in the US economy and other industrialized economies since 2007 and their impact on the emerging and developing economies, including India, in 2008 and 2009 is the most recent example of this reality. In general, the history of economic growth in a wide range of countries, across the world and over different periods, bears testimony to the fact that such setbacks are common. However, the experience of high growth economies suggests that these can be overcome by appropriate, pragmatic and expeditious action to address the problems that the shocks expose and by seizing the opportunities that they open up. This is what distinguishes the few economies that sustain growth over decades, as they successfully return to high growth after any temporary setbacks, from the many that get derailed because they fail to adjust in time to prolong their short spurts of high growth.

Over the last three-four years, the Indian economy has been buffeted by three major challenges originating in its external sector. First, there was a sudden surge in capital inflows ('positive shock'), which peaked in the last quarter of 2007-08, posing a serious challenge to monetary policy and threatening price stability. Second, an inflationary explosion in global commodity prices, which began even before the first challenge had ebbed, that hit the economy with great force in the middle of 2008. It shifted the inflationary impulse from the demand to the supply side, narrowing the policy options for controlling rising prices. There was barely any time to deal with this problem before the third challenge, the global financial meltdown and collapse of international trade, hit the world with severity.

It affected India in the initial phase, primarily through deleveraging and risk aversion, which saw a significant reversal of capital flows at about US$ 16 billion during the five months (February-June, 2008) following the end of "positive shock" period in January 2008. Subsequently, with the collapse of Lehman Brothers in mid-September 2008 there was crisis of confidence, which led to the seizure of inter-bank market and trickle-down effect on trade financing in the emerging economies. Together with slackening global demand and declining commodity prices, it resulted in a fall in exports, in the process transmitting financial sector crisis to the real economy. The impact on Indian economy was less severe because of lower dependence of the economy on export markets and the fact that a sizeable contribution to GDP is from domestic sources and from the service sector. However, it led to a slowing of growth momentum and a significant decline in the business sentiments. GDP growth that had averaged 7.8 per cent in the first half of 2008-09 declined to under 6 per cent in the second half of the year. The investment growth rate (as now revealed on the new NAS series with base 2004-05) plunged and turned negative 2.4 per cent.[10]

It did not help matters that all this coincided with the political cycle of general elections (April-May 2009) in the country, which as one would expect, imposes high political costs and increases uncertainty in the free conduct of policy. There was apprehension that the trend in the slowing down of the economy would persist for some time in fiscal 2009-10, as the full impact of the recession in the developed world worked through the system. Moreover, a delayed and severely sub-normal southwest monsoon (June-September 2009), with its implications for food production and prices, as well as for the demand of non-agriculture products originating in the agricultural and rural sector, added to the overall uncertainty.

These developments created the short-term macro-economic challenges of the trade-off between inflation and growth, the use of monetary policy versus use of fiscal policy, their relative effectiveness and coordination between the two, and the medium-term challenge of returning to the high growth path. The latter included the tension between short- and long-term fiscal policy, the immediate longer term imperatives of monetary policy and the policy and institutional reforms necessary for restoring high growth.

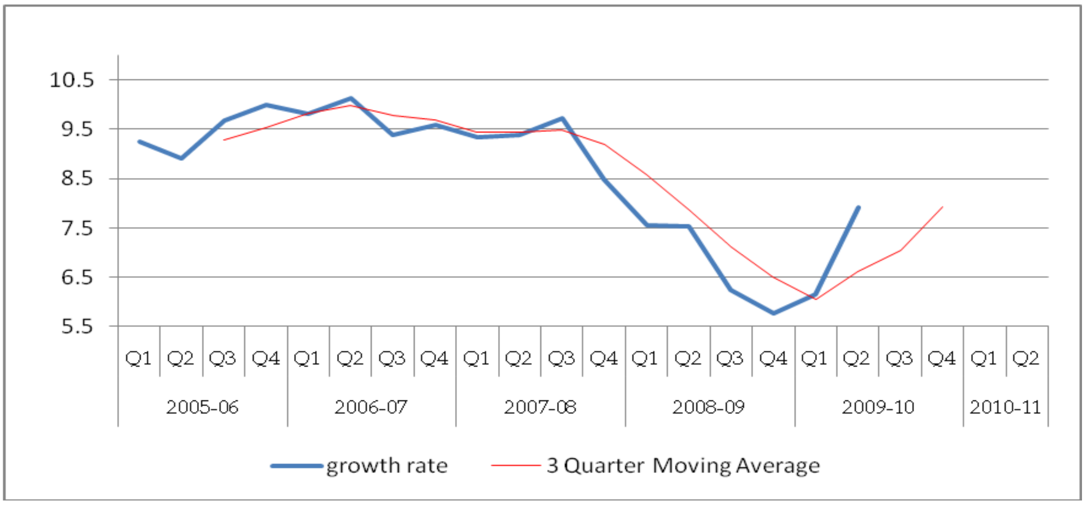
Within the span of a year, to a large extent, the short-term challenges arising from these global shocks were met. The economy posted a remarkable recovery, not

[10] Economic Survey 2009-10, Chapter 1.

only in terms of overall growth figures but, more importantly, in terms of certain fundamentals, which justify optimism on growth in the medium term. Though, some concerns on inflation, especially food inflation since the second half of 2009-10 when it touched double digit, remain. A significant part of this inflation can be explained by supply-side bottlenecks in some of the essential commodities, precipitated by the delayed and sub-normal south-west monsoons. Part of it may however, be due to long term problems, related to the lack of competition in the entire agriculture supply chain from inputs, through farm to the retail level. Since December 2009, there have been signs of these high food prices, together with the gradual hardening of non-administered fuel product prices, getting transmitted to other non-food items, thus creating some concerns about higher-than-anticipated generalized inflation over the next few months. In addition, if the policy and regulatory measures that have the effect of restricting competition in agriculture are not addressed, the inflationary consequences may be more long lasting.

The turnaround in growth came in the second quarter of 2009-10 when the GDP grew by 7.9 per cent (Figure 10). As per the advance estimates of GDP for 2009-10, released by the Central Statistical Organisation (CSO), the economy is expected to grow at 7.2 per cent in 2009-10 with the industrial and the service sectors growing at 8.2 and 8.7 per cent, respectively. This recovery is impressive for at least three reasons. First, it has come about despite a decline of 0.2 per cent in agricultural output, which was the consequence of sub-normal monsoons. Second, it foreshadows renewed momentum in the manufacturing sector, which had seen continuous decline in the growth rate for almost eight quarters since 2007-08. Indeed, manufacturing growth has more than doubled from 3.2 per cent in 2008-09 to 8.9 per cent in 2009-10. Third, there has been a recovery in the growth rate of gross fixed capital formation, which had declined significantly in 2008-09 as per the revised NAS series. While the growth rate of private and government final consumption expenditure has dipped in private consumption demand, there has been a pick-up in the growth of private investment demand. There has also been a turnaround in merchandise export growth since November 2009 after a decline over twelve consecutive months.

Figure 10: Quarterly growth rates (at constant 2004-05 prices)



As anticipated by one of the authors,[11] the moderation in the decline in GDP growth rate, in the second half of 2008-09 and its subsequent recovery in 2009-10, was primarily a result of the boost provided by the fiscal stimulus to consumption demand, both private as well as government. The fiscal expansion undertaken by the Central Government as a part of the policy response to counter the impact of the global economic slowdown in 2008-09 was continued in fiscal 2009-10. The expansion took the form of tax relief to boost demand and increased expenditure on public projects to create employment and public assets. The net result was an increase in fiscal deficit from 2.6 per cent in 2007-08 to 5.9 per cent of the revised GDP (new series) in 2008-09 (provisional) and 6.5 per cent in the budget estimates for 2009-10 (as against 6.8 per cent of the GDP on the old NAS series, as reported in the budget documents). Thus, the fiscal stimulus amounted to 3.3 per cent of the GDP in 2008-09 and 3.9 per cent in 2009-10 from the level of the fiscal deficit in 2007-08.[12]

The relative success of the fiscal stimulus in supporting effective demand, particularly the consumption demand in 2008-09 and 2009-10 could be traced to its composition. The approach of the Government was to increase the disposable income in the hands of the people, for instance by effecting reductions in indirect taxes (excise and service tax) and by expanding public expenditure on programmes like the National Rural Employment Guarantee Act (NREGA) and on rural infrastructure. The implementation of the revision in the salaries and pensions of the civil servants and the debt relief to farmers implemented in 2008-09 and 2009-10 also contributed to this end. The fact that the approach worked is attested by the GDP growth rate and more specifically by the growth in private consumption demand in 2008-09 and also in 2009-10 as reflected in the relevant data on the NAS new series.

Consumption expenditure, by its very nature, has short lags, and affects demand quickly, with little or no effect on productivity, while productive infrastructure expenditure takes much longer to translate into effective demand. The recovery having taken root, there is a case for the Government to review its fiscal expansion and move towards fiscal consolidation. It has to be geared towards building medium-term productivity of the economy and making up for the decline in investment growth in certain sectors of the economy. It is now time that the fiscal policy focuses on its medium to long terms growth objectives. There has to be certain urgency in pursuing fiscal reforms that will bring government balances rapidly back to sustainable levels. These reforms have to cover the tax policy as well as public spending on ballooning subsidies on food, fuel (petroleum) and fertilizers.[13]

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[11] Since October 2008, the author who was the Chief Economic Advisor in the Ministry of Finance (till October 2009), and communicated to the media, market participants and visiting members of the International Financial institutions, from October 2008 to October 2009, that the fiscal stimulous was absolutely necessary (despite talk of lack of fiscal space in India) for offsetting the decline in private demand (exports and investment) and that it would keep the GDP from declining as much as markets and IFIs were projecting.

[12] The Chief Economic Advisor also argued and communicated to media and markets, that this was essential in the light of the global situation, but that we must revert to the normal FRBM fiscal trajectory from 2010-11.

[13] The approach to fiscal consolidation, unveiled in the Union Budget for 2010-11 which was recently passed by the Parliament, takes some steps in this direction. The anticipated return of the economy to high growth (improved tax buoyancy) and the measures announced to control the increase in revenue expenditure including on subsidies (fertilizer) is expected to help the Government in meeting its fiscal targets as a part of the fiscal road-map announced for the next three years. The Government has taken steps to make all expenditure on various subsidies explicit in the Budget. In other words it is now going to be a part of the overall fiscal accounting of the Government. This in itself creates the case for greater fiscal responsibility in revenue spending. The Government has also laid down clear targets for disinvestment (privatisation of public sector enterprises) and on mobilisation of other non-tax revenues.

In the medium term context, an analysis of the impact of these shocks brings to the fore the importance of pursuing reforms, including in the financial sector, to make the economy more competitive and the economic regulatory and oversight system more efficient and sensitive to new developments. [14]

Given the nature of global financial crisis and the deleveraging process that is likely to follow, global private capital flows are likely to decline and remain low and uncertain for a few years. This may affect capital flows into India and consequently the availability of risk capital. It is therefore imperative to rapidly improve the domestic financial intermediation to channel the potentially large domestic savings to entrepreneurs who can make the best use of these savings. There are other issues in financial sector such as those related to the development of long-term debt markets and deepening of corporate debt markets for improving resource flows to infrastructure investments; improving future markets for better price discovery and regulation; encouraging financial inclusion through use of technology; and overcoming institutional hurdles to better intermediation.

For sustaining high growth over a long period of time, India needs an adequate and affordable supply of energy. The present interregnum of lower global demand and eased fuel prices provides an opportunity to de-control petrol and diesel prices. It would enable a more responsive demand and better management of its fiscal consequences (under the extant policy regime for the sector) when the global prices rise again. Moreover, there is a need for a determined push for incentivesing and developing non-polluting energy sources like solar power to replace the environmentally harmful alternatives like fuel wood and kerosene.

Productivity growth is vital for sustaining growth in Indian industry. It is more so when the present global context may see excess capacity in manufacturing and tradable consumer services in the medium term, putting downward pressure on Indian investments in these sectors. It is therefore important to remove any policy obstructions and institutional constraints on domestic productivity in these sectors. This includes reviewing the sector limits on FDI, fragmentation of labour laws and issues such as land use, supply and development of urban land and utilities, as a part of a comprehensive urban development policy and reform of policies relating to agriculture sector. There is also a need for augmenting skills that will be in increasing demand as the economy returns to high growth path. This calls for decontrol of education an effective modern regulatory system and proactive promotion of skill development.

Conclusions

The Indian economy in February 2010 is in a far better position than it was in February 2009. It is fast returning to its trend growth rate of the most recent growth phase. The economy has responded well to measures taken as a part of the response to the global slowdown since the third quarter of 2008 and is on its way to regain its pre-crisis growth momentum. Looking ahead, there are some positives emerging out of

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It has also laid out the road map for the implementation of the new tax policy both for the direct and indirect taxes.

14 A menu of reforms was presented by the then CEA in a set of Boxes in chapter 2 of the economic survey, 2008-9.

the recovery so far and there are factors that reflect the underlying strengths of the economy. At the same time, there are concerns arising out of uncertainties-domestic as well as international- and some policy risks that will have to be prudently managed, if the economy has to sustain its high growth rate in the coming years.

There are several features that have emerged from the performance of the economy in the last 12 months that lend optimism to a rapid return to the high growth path. To begin with, there has been a revival in investment and private consumption demand, though the recovery is yet to attain the momentum of the pre- 2008 period. Secondly, despite the continued sluggishness in the developed economies, the Indian exports have recorded impressive growth since November 2009. In addition to the favourable base effect, there is a revival of industrial growth, which is reminiscent of the momentum imparted by the growth of the industrial sector in stepping-up GDP growth in the period 2003-04 to 2007-08. More importantly, the infrastructure services including railway transport, power, telecommunications and, more recently but to a lesser extent, civil aviation have shown a remarkable turn-around since the second quarter of 2009-10. The favourable capital market conditions with improvement in capital flows and business sentiments, as per Reserve Bank of India's business expectations survey is also encouraging. Finally, with the letdown of the Kharif (summer) crop behind us and the likelihood of an above average Rabi (winter) crop before us, the recovery appears deep and broad enough to pull the economy to a higher growth in fiscal 2010-11.

At a more fundamental level, the size of India's domestic market, the stability of its financial system, the capacity to sustain a high savings and investment rates over an extended period of time (like the East Asian high growth economies)[15] and a policy of gradual liberalization of capital account have all created an inherent strength in the economy. The downward adjustment in the savings and investment rates in the revised NAS series for the recent years, with the GDP growth remaining the same, imply an increase in the overall productivity of the economy, which is indeed a very encouraging sign for sustaining growth over an extended period of time. The drop in the rate of GDS (on the new series) from 36.4 per cent in 2007-08 to 32.5 per cent in 2008-09 is on the expected lines.[16] Though there was significant public sector dis-savings on account of the fiscal measures taken in response to the growth slowdown in the year, the contribution of the household sector and the private corporate sector remains largely unchanged. Moreover, there is a significant likelihood of a recovery in all the three sectoral contributions to the overall savings rates of the economy. Fiscal consolidation with enhanced revenues through the rationalisation of both direct

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[15] According to Prof. Eswar Prasad's estimates, the household saving rate (out of disposable income) of Indian's is now greater than that of Chinese.

[16] The rate of GDS on the new NAS series increased from 32.2 per cent in 2004-05 to 36.4 per cent in 2007-08 before declining to 32.5 per cent in 2009-10, as against the old series where it rose from 31.7 per cent in 2004-05 to 37.7 per cent in 2007-08. Thus, from 2005-06 to 2007-08, the GDS rate was overestimated in the NAS old series by an average of 1.3 per cent. Definitional refinements, better estimates of savings and a higher denominator due to an increase in the level estimates of GDP have contributed to the lowering of the rate of GDS in the new NAS series. Similarly, the rate of gross capital formation (investment rate) at current prices rose from 32.7 per cent in 2004-05 to 37.7 per cent in 2007-08 before declining to 34.9 per cent in 2008-09 on the new NAS series.

and indirect taxes, tax buoyancy and disinvestment proceeds should help in increasing public savings. The pick-up in corporate earnings and higher profit margins should encourage an improvement in corporate savings. In the medium term, with better financial inclusion and intermediation and given the demographic dividend of the Indian population, there should be a further increase in the savings rate of the household sector.

The uncertainties external to the economy relate primarily to the strength and pace of recovery in the developed economies, especially in the economies of India's export destination. Some concerns linked to high unemployment, growing fiscal deficits and credit availability remain, and cast a showed on the recovery losing momentum, once a rollback of the fiscal stimulus and monetary accommodation, is effected in these economies. With global recovery taking root there could be some uncertainty on account of the hardening of commodity prices, particularly that of fuel oils. The principal uncertainty on the domestic front relates to the southwest monsoon and its impact on the Kharif crop in the agricultural season 2010-11.

There are at least two inter-related policy risks that may have a bearing on the consolidation of the strong growth recovery since the second quarter of 2009-10. The first relates to the timing and the sequencing of the exit from the fiscal stimulus imparted to the economy. While it is an imperative that the economy comes back, at the earliest, to the path of fiscal consolidation that served it well in the pre-crisis period, there may be some concerns on the strength of the recovery currently underway. Both private consumption and private investment demand need to regain the momentum that was exhibited in the pre-crisis phase. Even when a strong case can be made for a continuation of the stimulus for a few more months (as seems to the case from the Budget proposals for 2010-11), it is critical that its composition should now be geared towards revitalising investment demand, with a view to augment capacities that would have been deferred during the course 2008-09 and 2009-10. Secondly, the current inflationary pressure, though largely confined to food articles, if not addressed adequately, will tend to spill over to the rest of the economy, which appears to be the case from the post December inflation data. This would have implications for interest rates and revival in private credit demand.

On balance, as one looks forward, the upside prospects for the economy seem to outweigh the downside risks and uncertainties. In the fiscal 2010-11, the economy should improve its GDP growth of the preceding year thus pushing the GDP growth rate in 2010-11 to around its trend growth rate of the pre-crisis years. In the medium term, in view of the recent growth dynamics of the economy and given a full recovery of the global economy from the current slowdown, should see the Indian economy back on the high growth path, estimated by Virmani (2009) to be between 8.5% and 9 per cent. Whether or not it breaks the 'double digit barrier' in the next few years wil depend on whether or not the risk factors mentioned above materialise or not.

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