

India's Post-Liberalisation Growth Experience

An Analysis by the Demand Components

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This paper tries to examine the sustainability aspect of the rate of growth (rog) in recent years, designated as 'the second phase of liberalisation'. This paper is based on the Keynesian framework which envisages that output in the economy is demand determined and therefore the rog of output can be explained by analyzing the trends of the major aggregate demand components separately.

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"Our country is witnessing unprecedented economic growth at this point of time. Last year, our economic growth rate was 7 per cent and it is likely to be similar this year as well. Our country has never witnessed such consistently high growth rates in the past. I am confident that if we maintain this momentum of growth for the next 5-10 years, it would be possible for us to eradicate poverty, ignorance, hunger, and disease from our country. This is not a dream but something that is possible in our times."¹ --- Prime Minister's Address on Independence Day, 15th August, 2005

The above perspective shows that even after more than half a century, since the inception of 'Development Economics', it is certainly the poverty of conventional wisdom, which still fails to recognize that growth cannot be an end in itself but only a means to development. However under the neo-liberal dispensation, the rate of growth (henceforth, rog) of the economy has assumed immense importance. It is widely claimed in the official statements, that India has the potential to achieve and *sustain* growth rates in the vicinity of 7 to 8 per cent.² Such outstanding growth rates are finally associated with the reform process initiated in the 1990s, *in lieu* of the structural changes that the Indian economy underwent.³ A closer look at the literature of the Indian growth experience shows that the growth rate actually accelerated much before the initiation of the reform process, back in the 1980s⁴. Encountered with this fact the pro-reform economists argue that the growth experience of the 1980s was *unsustainable* and could not have been carried forward to the decade of the 1990s, unless large scale reforms were initiated in 1991⁵. This paper tries to examine the *sustainability* aspect of the rog in more recent years, designated as 'the second phase of liberalisation'.

This paper is organized as follows; in the first section, we would examine the average growth rates of output in the pre-liberalisation period starting from 1980-81, dividing the period into two sub-periods each of length seven years (demarcated as first phase of pre-liberalisation and second phase of pre-liberalisation). This will be followed by an analysis of the rog of output in the post-liberalisation period, once again dividing it into two sub-periods of seven years (termed as first phase of liberalisation and second phase of liberalisation). In the second section, we would try to explain the phenomenon of sustainability by analyzing the behaviour of the aggregate demand components (namely the Private Final Consumption Expenditure, Gross Domestic Capital Formation,

Government Final Consumption Expenditure and Net Exports). This paper is based on the Keynesian framework which envisages that output in the economy is demand determined and therefore the log of output can be explained by analyzing the trends of the major aggregate demand components separately. The paper ends with a few concluding observations.

I

In this section, we would present our empirical findings on the average growth rate calculated from the output figures. We took the output figures, at factor cost, from National Accounts Statistics (NAS) at constant prices. The expenditure figures are also taken from NAS at constant prices. To estimate the growth rate for different periods, we use the semi-log model on output figures (Y).

$$\log Y = \alpha + \beta t + \epsilon_i,$$

where α is the constant term, β is the growth coefficient and ϵ_i is the error term.

First, the growth rates are estimated by using the output figures. The growth rates are calculated taking data for seven years in each case from 1980-81 to 2003-04. However, 1991-92 is not considered in our analysis since it was a crisis year. We represent the regression results of different periods in the following table:

Variables: dependent variable is log of output figures (lnY) and independent variable is time(t).

Table: 1 Regression Results for Output Data

For GDP figs	α	β	R ²	Adj R ²
1980-81 to 1986-87 (Period :1)	12.86* (0.0078)	0.0488* (0.0018)	0.994	0.992
1984-85 to 1990-91 (Period :2)	13.02* (0.0168)	0.0590* (0.0037)	0.980	0.976
1992-93 to 1998-99 (Period :3)	13.45* (0.0069)	0.0651* (0.0015)	0.998	0.997
1997-98 to 2003-04 (Period : 4)	13.78* (0.0085)	0.0542* (0.0019)	0.994	0.993

* denotes that the figures are significant at 1% level of significance. Figures in the parenthesis represent the standard error of the coefficients. As it is seen from the periods, there are 7 data points for each regression.

Table-1 shows that in Period-1 (first phase of pre-liberalisation), the growth rate of output was 4.88 percent. In Period-2 (second phase of pre-liberalisation), it accelerated to 5.9 percent. In Period-3 (first phase of post-liberalisation), it further accelerated to 6.51 percent. But quite interestingly in period- 4 (second phase of post-liberalisation), the rate of growth fell to as low as 5.42 percent. It is not only lower than the growth rate in the first period of the 90s but also substantially lower than the growth rate achieved in the second period of the 80s. In the literature, the second half of the 80s is recognized to be more of a regulated and interventionist regime (at least, if compared to the post 1991 era). However, higher growth rate in the first period of the 90s compared to second period of the 90s is a pointer to the fact that the reform process could not *sustain* the higher growth rate (when compared to both the phases of pre-liberalisation era) of the first phase of liberalisation. Therefore the alleged criticism on the pre-liberalisation phase also pertains to the post-liberalisation phase.

As Dr.C. Rangarajan confronted with the objective reality accepted that,

‘There has, however, been a deceleration in the GDP growth in the 1997-98, triggered by the deceleration in the industrial growth, giving rise to certain policy concerns.’⁶

It is this phenomenon which the paper tries to explain and seeks to find a proximate answer to it.

II

In this section, we would analyze the trends in various expenditure components according to their relative contribution to aggregate demand (AD) over the post reform period.⁷ This paper tries to explore the contributions of the various demand components namely, Private Final Consumption Expenditure (PFCE), Gross Domestic Capital Formation (GDCF), Government Final Consumption Expenditure (GFCE) and finally Net Exports (NX) to growth rate of output seriatim.

Private Final Consumption Expenditure (PFCE)

From Figure-1, it is quite evident that the share of PFCE to total output is more than 60 percent. It implies that PFCE is a major contributor to AD and the growth behaviour of this expenditure component can significantly affect the growth rate of output (which is determined by AD).

CHART-I

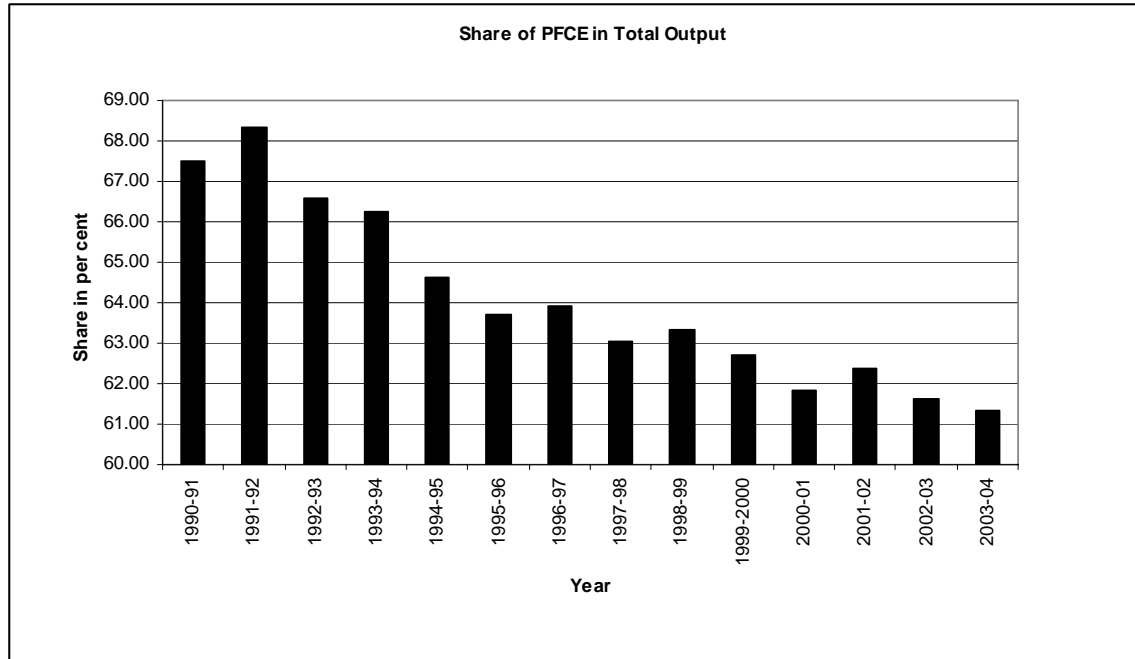


Figure-I clearly indicates that the share of PFCE to total output is consistently falling throughout the decade of the 1990s and the trend is carried over to the new decade. From this figure, it can be conclusively inferred that the rog of PFCE is unambiguously lower than the rog of GDP throughout the period. However, this observation may not be a sufficient condition to say about the behaviour of PFCE between the two periods of post liberalisation. In order to find the nature of PFCE in the first phase of liberalisation and the second period of liberalisation, we estimate the real Per Capita PFCE (PCC) growth in the first and the second period. The semi-log model is used,

$$\log PCC = \alpha + \beta t + \epsilon_i,$$

where α is the constant term, β is the growth coefficient and ϵ_i is the error term.

Table: 4 Growth trends of PCC between two periods of liberalisation.

Periods	Variable	α	β	R^2	Adj R^2
1992-93 to 1998-99	PCC	8.698* (0.0091)	0.034* (0.002)	0.982	0.979
1997-98 to 2003-04	PCC	8.871* (0.0111)	0.0307* (0.0025)	0.968	0.962

* denotes that the figures are significant at 1% level of significance. Figures in the parenthesis represent the standard error of the coefficients. As it is seen from the periods, there are 7 data points for each regression.

Table-4 shows that rog of PCC in the second period of liberalisation was lower than that of the first period. Therefore, a fall in the rog of PCC in the second period of liberalisation provides a probable reason for the fall in the *rate* of net addition to AD, and

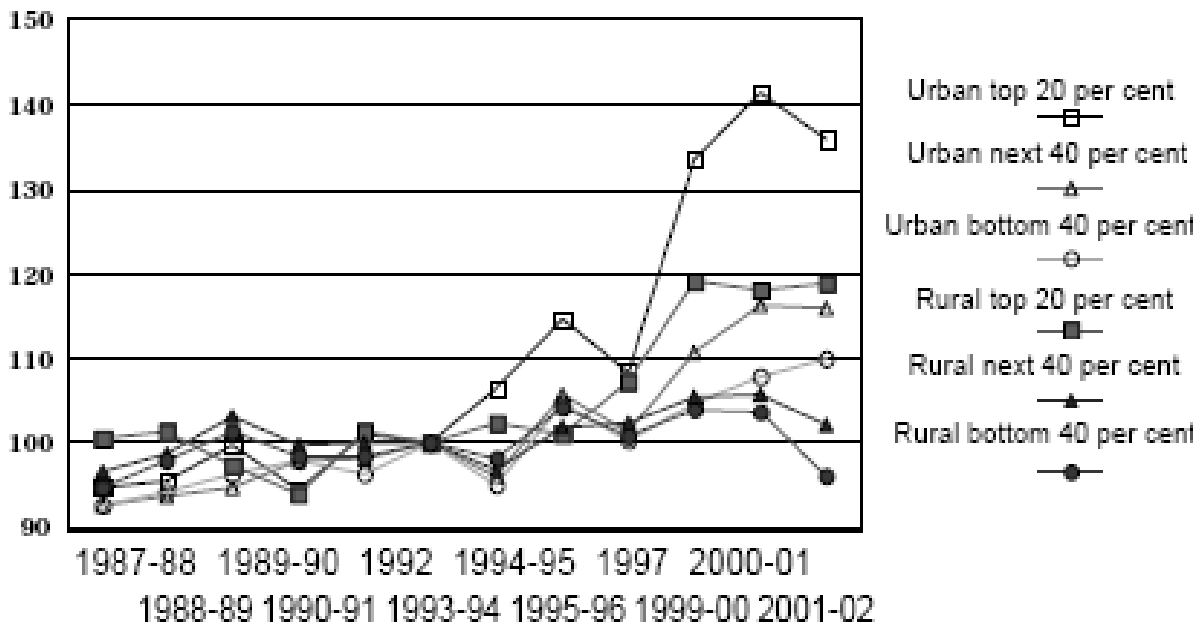
hence output. This observation stimulates one to analyse the possible reasons behind the decline in the rate of PCC during the second period of reforms.

The answer is traceable to the reform process itself and its effect on the distribution of output produced. If the distribution of output becomes skewed in favour of the upper income class then it is possible to have higher savings leakages; which necessarily implies that, of every unit of money spent, the amount of money coming back into the economy in the form of consumption expenditure of the agents gets reduced. In other words, the addition to AD in form of consumption expenditure through various rounds of multiplier falls.⁸

Unfortunately, in India, we do not have data on income and therefore trends of income distribution cannot be traced directly. So, we have to depend on the consumer expenditure surveys of the National Sample Survey (NSS). Trends in consumer expenditure are widely used in the literature as an understudy to determine income inequality.⁹ It is believed that greater inequality in consumption expenditure is reflective of a higher inequality in income distribution. Various studies, Sen [2004] have shown that inequality of nominal consumption has increased in the 1990s, especially in the urban areas.

.. inequality of nominal consumption increased during the 1990s, and was particularly sharp in urban areas¹⁰.

Chart: II Indices of Real Per Capita Consumption by Fractile Groups



Source: Abhijit Sen (et.al.), 'Poverty and Inequality in India-II, Widening Disparities during the 1990s', Economic and Political Weekly September 25, 2004.

Chart-II shows the index of Real Per Capita Consumption by fractile groups both for the rural and urban areas substantiating the fact that there has been a remarkable rise in

inequity in nominal consumption from 1994-95. Both intra-consumption inequity i.e. between different fractile groups within the urban (rural) areas and inter-consumption inequity i.e. between urban-rural categories in the respective fractile groups.

Table-5. Comparable Rates of Growth of Fractile Specific Real MPCE

Period	Rural			Urban		
	Bottom 40 percent	Next 40 percent	Top 40percent	Bottom 40 percent	Next 40 percent	Top 40 percent
1977-78 to 1987-88	1.43	1.16	0.01	1.53	1.31	1.57
1983 to 1993-94	1.01	0.54	0.39	1.04	1.28	1.38
1986-87 to 1995-96	1.54	0.67	0.65	1.29	1.21	1.37
1987-88 to 1999-00	0.78	0.73	1.41	1.02	1.48	2.88
1989-90 to 2000-01	0.21	0.24	1.76	1.03	1.87	3.22

Source: Abhijit Sen (et.al.), 'Poverty and Inequality in India-II, Widening Disparities during the 1990s', Economic and Political Weekly September 25, 2004.

If we compare the growth rate of real Monthly Per Capita Consumption Expenditure (MPCE) in various fractiles separately for the rural and urban areas; the growth rate for the bottom 40 per cent and next 40 per cent of rural population has dwindled in the 90s as compared to the earlier periods. For the bottom 40 per cent of the urban population, the growth rate has also fallen in the 90s as compared to the mid 80s, though not by a significant amount. However, for the top 20 per cent both for rural population and urban population there has been an unprecedented increase in growth of MPCE. This is also true for the middle 40 per cent of the urban population. All this figures point to the fact, that consumption inequality in the era of liberalisation has accentuated sharply. As Sen (et al.) [2004] noted,

...the procedure leads to the conclusion that the 1990s, particularly second half, saw very large increases in consumption by the relatively rich. The 40 per cent increase in real consumption of the top urban quintile during 1993-2001 is not only unprecedented since Indian surveys began, but are also involving more than 50 million people – rare internationally. The nearly 20 per cent increases for the top rural quintile and the next urban 40 per cent (involving over 250 million people) are also higher than rates recorded previously for these fractiles. Further, although much lower than the others, the consumption increase of the bottom 40 per cent urban (about 100 million) was not significantly less than that recorded for this group during the 1970s and 1980s... (W)hen it comes to the bottom 80 per cent of the rural population, numbering almost 600 million. Real NSS per capita consumption of this vast majority of Indians had increased at 1-1.5 per cent per annum (and more if differential cereal price movements are taken into account) during the 1970s and 1980s. But, from Chart 7, their 1990s consumption was less in most years than was reached in 1989-90, and the maximum attained since then (in 1999-2001) only about 3 per cent higher. It would of course be

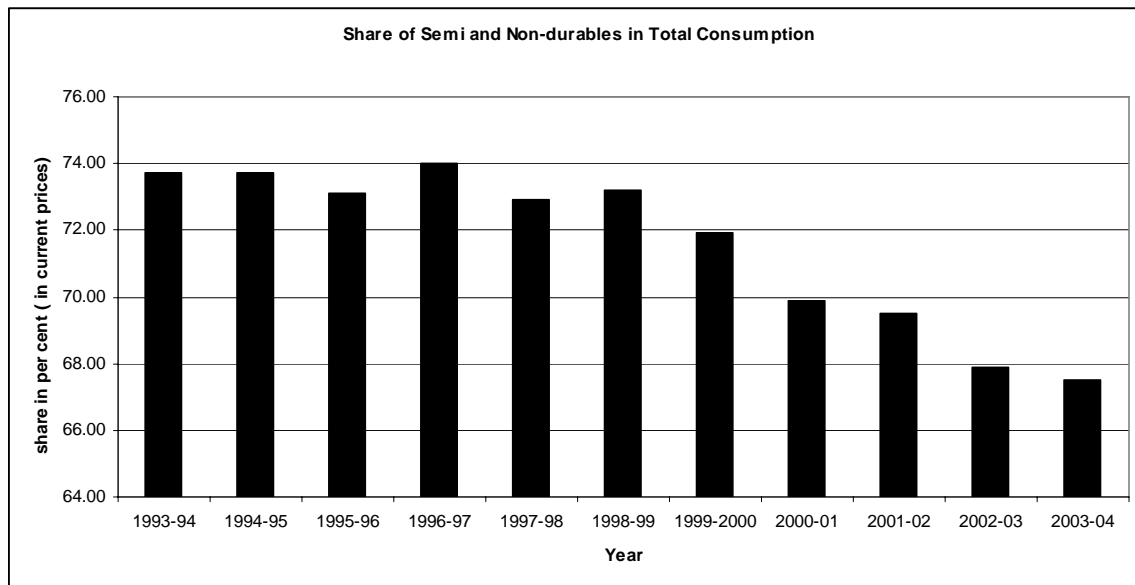
exaggeration for anyone to claim from this that the poor got poorer as the rich got richer during the 1990s.¹¹

Clearly, there has been rising consumption inequality in the era of economic reforms. It may be interesting to note that such trends do not capture the true picture. As NSS data normally underestimates the consumption of the top income class, there arises the possibility of underestimating consumption inequality as well. As Sen et al (2004) put it,

Moreover, even nominal (consumption) inequality increase may be underestimated since there are strong reasons to believe that survey capture is poorer at the upper tail.¹²

This is also reflected in the fact that the share of consumer durables and services are continuously increasing in total consumption expenditure in the post-reform period. Automatically the share of consumer non-durables and consumer semi-durables are continuously falling in total consumption. Now consumer non-durables and semi-durables are typically found in higher proportion in the consumption basket of the lower income class. Therefore its falling share in total consumption points to the fact that there has been a rising inequality in *income* distribution in favour of the relatively rich. This finding is consistent with a rising consumption inequality. As consumption inequality increases and becomes skewed in favour of the relatively rich, the share of non-durables and semi-durables in total consumption would fall. This is clear from the following graph.

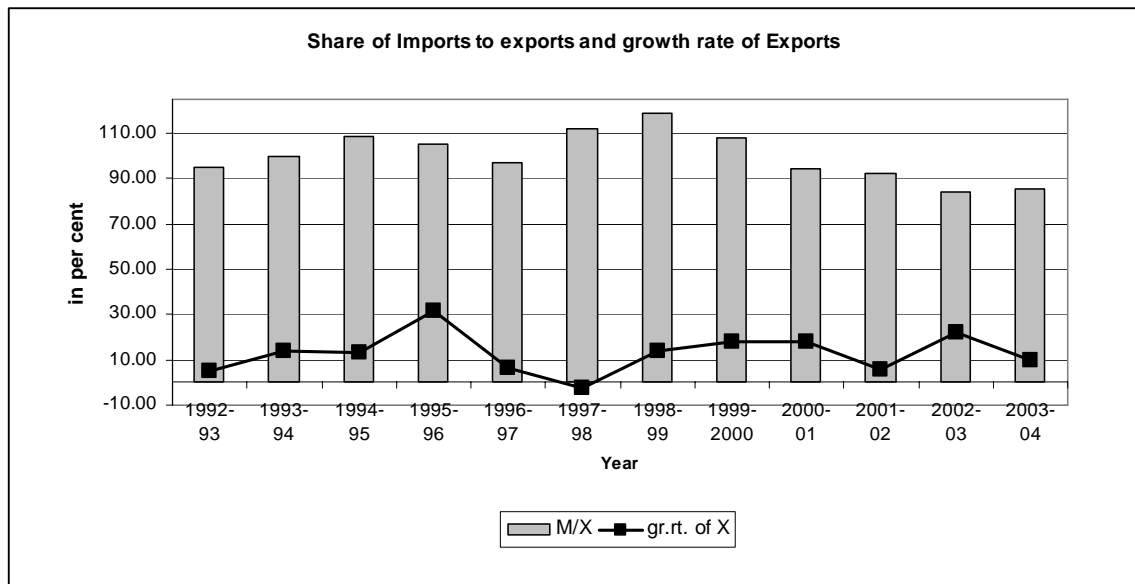
Chart-III



However, these shares are in current prices. But this reinforces the case of a rising consumption inequity between classes (in favour of the goods consumed by the rich) when we take into consideration the fact that the inflationary pressure on the consumables of the poor was higher in the 1990s compared to that of the consumables of the rich.¹³ This rising consumption inequity is a good indicator of the skewed distribution of income in favour of the rich, who typically have higher propensity to save and import and can also afford to buy luxury commodities.

The question which naturally arises is, how could the growth rate of output in the first half of the 1990s be higher than that of the first and second part of the 1980s, when the reform process itself leads to an inequitable distribution of income in favour of the rich inducing higher savings leakages. In the first half of the 1990s we could experience higher output growth in spite of skewed income distribution, because of the substantial pent-up demand which could now be satisfied after wide scale liberalization.¹⁴ A large number of assembly firms came into being and they usually in association with the MNCs catered the local market with the kind of products that were in high demand (mainly luxury consumption items). Demand for this form of goods in fact got a boost from the inequitable distribution of income with a new section of the population now acquiring the purchasing power of these products and could actually realize it. In the earlier regime as well, there existed a segment of population who could buy these kinds of goods but it is due to the conscious policy of the government that such consumption patterns (which are basically due to the demonstration effect of consumption from the West), were restricted. In the liberalizing mind-set there was no such restriction and a huge pent-up demand was met within a relatively short span of time. This was often financed with an element of dis-saving, consumer credit and a combination of the two. It is basically this phenomenon which could sustain the aggregate demand and growth rate in the first half of the 90s. If pent-up demand was responsible for sustaining AD then it is not surprising to find that the share of consumer durables and services in total consumption has actually increased. It should also correspond with higher imports, as relatively large import propensity is common in the elite consumption basket. Hence, it would be interesting here, to note the import behaviour during the first period of the 1990s and compare it with the later half of the reform when actually the output growth rate fell.

Chart-IV



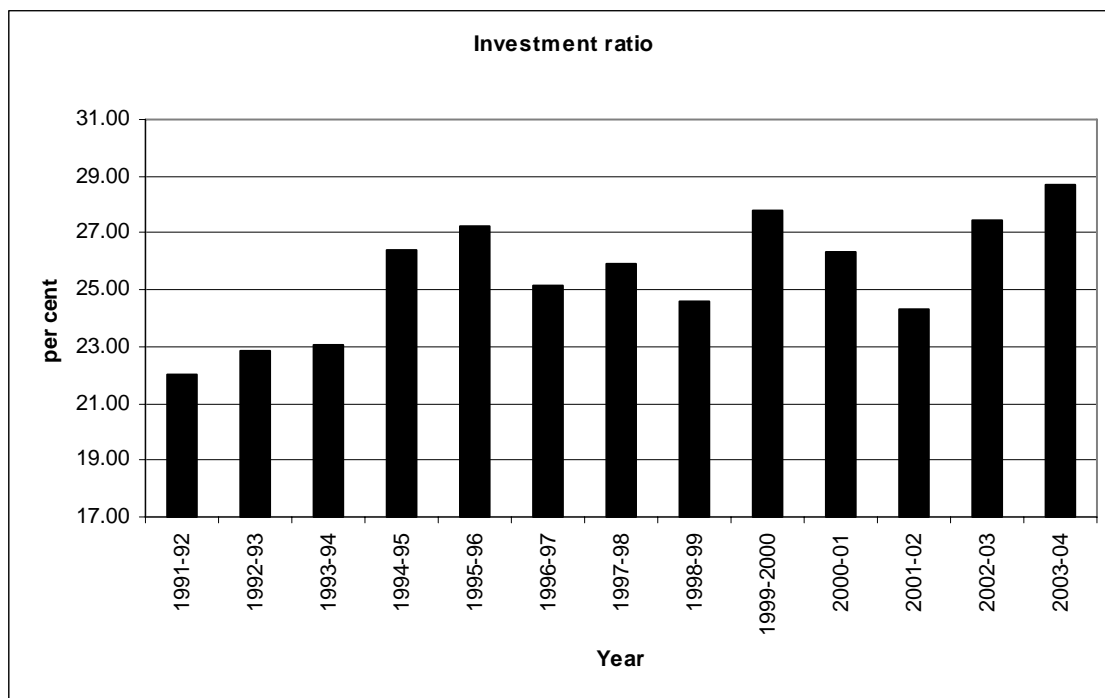
From Chart-IV, it can be seen that the import to export ratio (M/X) is continuously rising in the first phase of liberalisation except for 1995-96 and 1996-97, which shows that the rog of imports being higher than the rog of the exports in the first phase. However, if we

enter the second phase the ratio falls, showing that the rog of exports becoming higher than the rog of imports. Note that in the initial four years of first phase of liberalisation the growth rate of exports is continuously rising, but the share of imports to exports is also rising, which strongly suggests that the growth rate of import is rising even faster. We should keep in mind that India underwent devaluation in the crisis year of 1991.¹⁵ Therefore, this surge in imports points to the fact that there was in fact a pent-up demand. However, export growth showed a downturn from 1996-97 and became negative in 1997-98 only to recover from 1998-99. Note that rog of imports was consistently higher than the rog of exports in most years upto 1998-99 and then the latter growth rate exceeded the former in the second phase of liberalisation, changing the pattern of share of the import-export ratio. This change in share of imports to export, without any significant rise in growth rate of exports in the second period compared to the first phase, points to the fact that it was entirely due to the slowing down of import growth in the second period of liberalisation, that caused this ratio to fall. So the pent-up demand was met in a relatively short period of time, as demand for such goods were narrow based and once for all. It is precisely for the same reason why the overall growth rate of the economy could not be maintained in the second phase of liberalisation, depending upon the demand for such goods from a very small section of people. Therefore, it is the twin effect of skewed income distribution in favour of a few who has lower propensity to consume and the narrow base of pent-up demand which resulted in a decline in the growth rate of output in the second phase of liberalisation.

Gross Domestic Capital Formation (GDCF)

The investment component is also a major contributor to AD and its share in effective expenditure is more than 20 per cent throughout the period in question. (Refer- Chart-V).

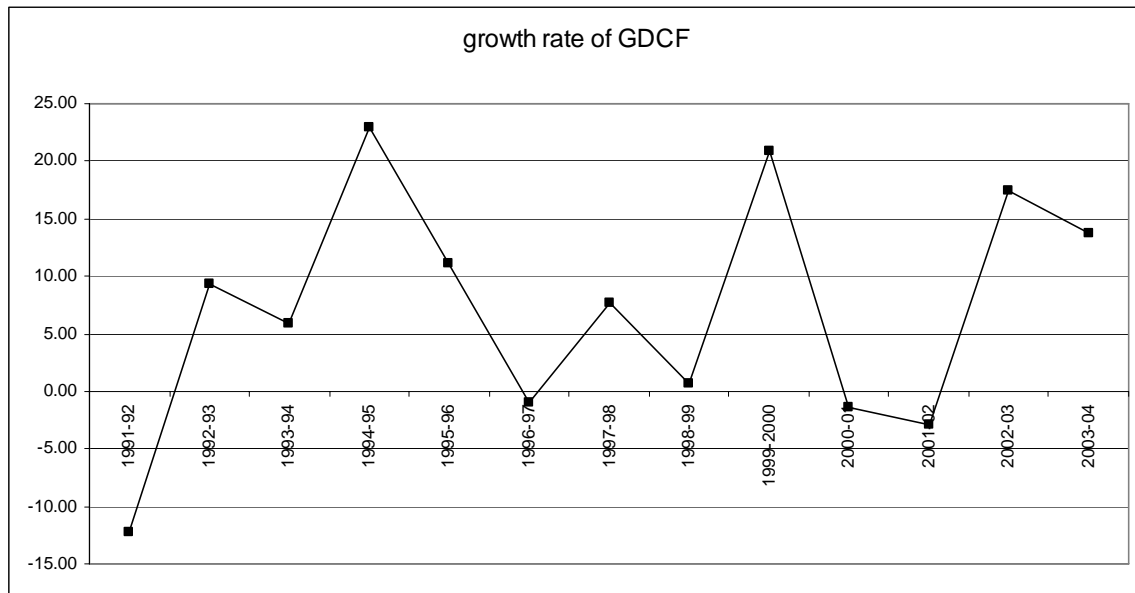
Chart-



V

In order to assess the contribution of investment component to AD at the margin, and hence affecting the growth rate of output let us look at the gross addition to per unit capital stock. From the chart-VI below, it is clear that after the crisis year of 1991-92 investment growth resumed to become positive and continued to do so up to 1995-96 reaching the peak in the previous year.

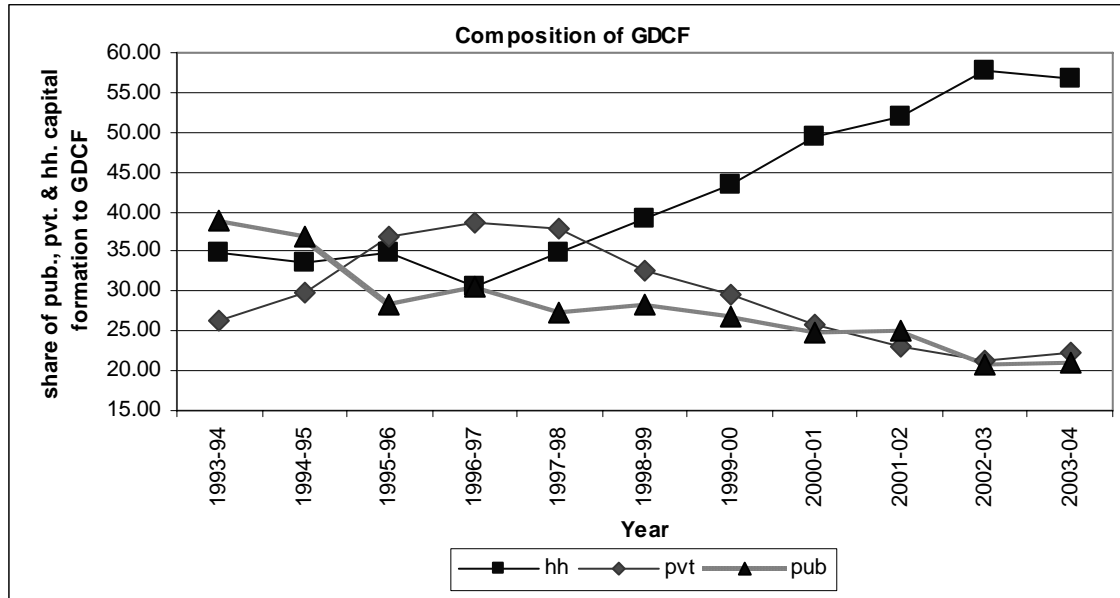
Chart-VI



In the first phase of liberalization, the rate of capital accumulation was positive except for the year 1996-97, when it became marginally negative, however resuming in the very next year. Being positive in most of the years (though very low in 1998-99), on an average over the period 1992-93 to 1998-99 the contribution of GDCF to AD at the margin, has been higher compared to the second phase of liberalisation. This is evident from the chart above, where peaks are invariably preceded by trough except for 2003-04. In fact it is consecutively negative for two years 2000-01 and 2001-02. Therefore contribution of GDCF over the period to AD, hence output, has been lower than that of the first phase of liberalisation. It follows that from the behaviour of GDCF, it is not surprising to find the growth rate of output decelerating in the second phase of liberalisation.

Hence, it becomes absolutely necessary to find the possible reasons behind the dwindling of capital formation in the second phase of reforms. The answer is to be traced in the composition of GDCF over the period. It shows that in the first phase of liberalisation all the three shares were moving closely, though the relative contribution of public investment was declining, as is expected in an economy embracing the neo-liberal logic. The contribution of household sector in the first phase more or less remained static; however the contribution of the corporate sector was steadily increasing up to 1997-98.

Chart-VII



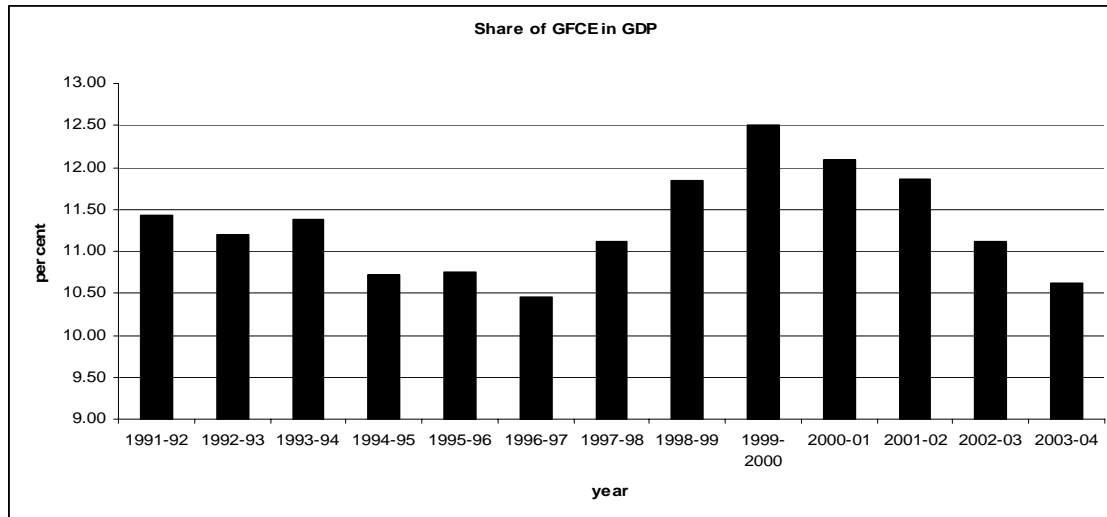
However the scenario changed drastically on entering the second phase of liberalisation in 1997-98. Share of public investment was declining in the earlier phase also, but from 1997-98 it virtually dwindled to abysmally low levels. Corporate investment which was doing well in the earlier phase also failed to perform and as evident from chart-VI, followed public investment neck to neck, showing that public investment reinforces corporate investment, through supply side factors (like providing better infrastructure) rather than crowding it out. Therefore corporate investment can do independent of public investment only in the short run but in the long run it becomes unsustainable without public investment. Chart-VI clearly shows that the share of household capital formation (hh.) steadily increased, widening the gap between the shares of hh capital formation and that of capital formation from the corporate and the public sector. Moreover it should be kept in mind that hh. capital formation also includes constructions like luxury housing. However, the growth in hh. capital formation was not enough to compensate for the collapse in public and corporate investment and therefore could not sustain the growth rate of GDCF to a level, which could have contributed meaningfully to the overall growth rate of output.

Government Final Consumption Expenditure (GFCE)

In the aftermath of the Keynesian revolution, we expect government spending to be counter-cyclical. It is the only agency perceivable under capitalism which can solve the problem of aggregate demand in an economy, thus providing stability to the system. However under the neo-liberal dispensation Keynes has been pushed to the side ring and seemed to be completely forgotten. In case of India as well we find the repetition of the same orthodox ideology of containing Fiscal Deficit in midst of large unemployment and unutilized capacity. Thus, the ideological hegemony of liberalization and privatization led to a great extent to the withdrawal of the state from economic activities, and especially in the fields of welfare expenditures like health and education. The dogma of containing

Fiscal Deficit, we would argue, contributed to the non-sustainability of growth rate of output in the second phase of liberalisation. In fact in the later phase we find GFCE to be pro-cyclical!

Chart-VIII



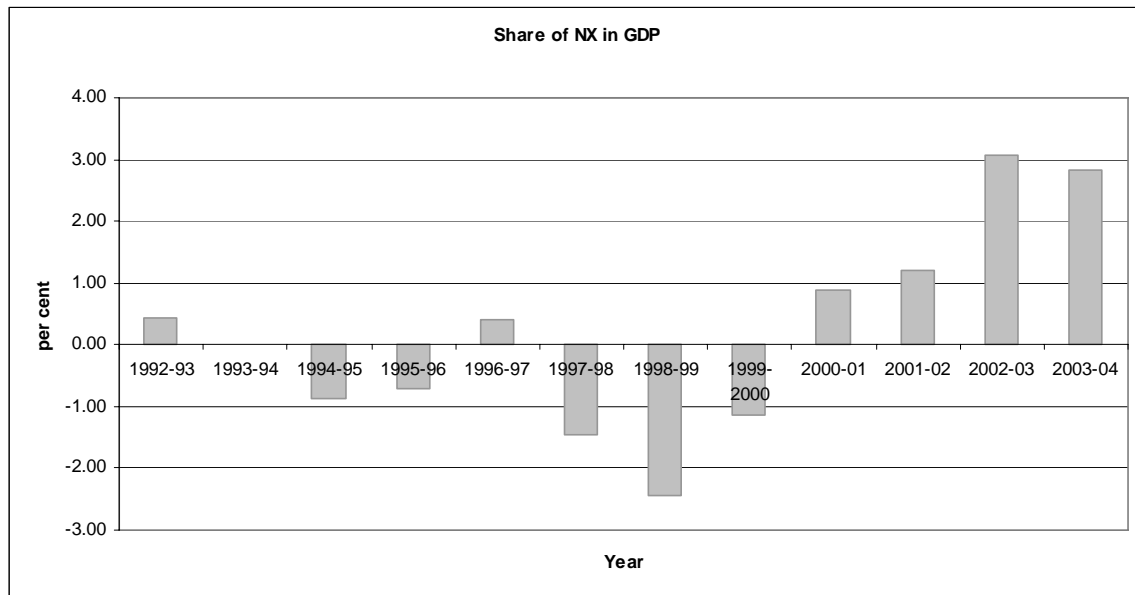
In the first phase of liberalization, when the economy was doing well in terms of growth rate of output, share of GFCE was falling, as expected during the boom. However, the last two years of the first phase of liberalisation shows a marked difference from this trend owing to the fifth pay commission award of 1997-98. But it is interesting to note that from 1999-2000 there has been a secular decline in the share of GFCE, incidentally when the growth rate of output was doing badly owing to the behaviour of the other aggregate demand components discussed earlier. Therefore the Keynesian prescription to combat this deceleration in growth rate of output would have been to step up public spending. Instead, what we had under the neo-liberal discourse is a sharp contractionary fiscal policy in order to contain Fiscal Deficit (expenditures had to be contained in order to balance the budget as there was huge tax cuts granted both in the direct and indirect sphere). Thus fiscal policy became pro-cyclical, and as the sole objective of Fiscal Policy was to make an attempt to maintain a balanced budget it is not surprising that government spending got reduced in a situation of low growth rate of the economy (since given tax-rates the tax revenue a government can garner falls with a fall in growth rate of output). Therefore, the possibilities of sustaining the growth rate of output in the second phase of liberalisation (in midst of falling PCC and GDCF) through state intervention in demand management remained a chimera.

Net Exports (NX)

The chart-VIII below shows that in the first phase of liberalization, net export (NX) did not contribute to AD positively, the reasons for which has been stated in the consumption sub-section. However in the second phase NX did contributed to AD in the last four years though it was negative in the beginning. However such an active contribution from NX could not pull the overall growth rate of output as its percentage share in total output is

merely 3percent (and that also the peak). Therefore it was simply the sheer smallness in size of the sector, even when being positive, could not make an impact on the overall growth rate of the economy. Moreover one should be clear in mind that the recent optimism over India's export performance is not necessarily a sign of its export competitiveness in the world market, but is essentially due to greater dynamism in the East Asian economies¹⁶. Therefore an unambiguous reliance on this aggregate demand component playing a crucial role in future would be imprudent.

Chart- IX



Conclusion

After independence, under the *dirigiste* regime, of course there were demand side constraints (due to the inability of carrying large scale land reforms), but the planners underscored the supply side constraints time and again as the main constraint to growth. Take for example the celebrated Mahalanobis model which emphasized the need for rapid industrialization in order to attain high growth rate of the economy. Thus this was a capital goods constraint which was highlighted. The wage goods constraint in the mid-1960s is another example of a supply side constraint. Interestingly one of the main criticisms of the *dirigiste* regime was its inward looking strategy and lack of export orientation. This led to important policy changes in the early 1970s. This criticism got support from the foreign exchange constraint faced by the economy from time to time, again a supply side factor.

A look at the present state of the Indian economy reveals that none of the above mentioned constraints (supply side) are binding today, but still the economy cannot maintain its growth rate over the post-reform period. Surely the demand side constraints would have operated more significantly in the present conjuncture as brought out in the paper. The only entity perceivable to overcome such demand constraints is the State. Therefore active participation of the State in the economy becomes impeccable for sustained growth. But such an active State is anathema to the logic of liberalisation especially when

international finance capital dominates productive capital. Thus, let alone the prospect of achieving reasonable developmental goals as projected by the government officials, even the mere sustenance of the growth rate remains uncertain.

References:

- Bhaduri, A. 1990. *The Dynamics of Commodity Production*. Macmillan India Limited, New Delhi.
- Chandrasekhar, C.P. & Ghosh, J. 2006. *The Export Growth Story*. July, www.macrosan.com.
- _____. 2002. *The Market that Failed*. Left Word Books, New Delhi.
- DeLong, J Bradford. (2001): *India since Independence: An Analytic Growth Narrative*. July, <http://www.j-bradford-delong.net/>
- Patnaik, P. 2003. *The Retreat to Unfreedom: Essays on the Emerging World Order*. . Left Word Books, New Delhi.
- Rangarajan, C. 2000. *Perspectives on Indian Economy: A Collection of Essays*. UBSPD, New Delhi.
- Sen, A. and Himanshu. 2004. *Poverty and Inequality in India-II, Widening Disparities during the 1990s*. *Economic and Political Weekly*, September 25.
- Sinha, A. and Tejani, S. 2004. *Trend Break in India's GDP Growth Rate: Some Comments*. *Economic and Political Weekly*, December 25.

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¹ Business Line, 16/08/2005.

² Finance Minister's Speech on budget 2004-05 ".....maintaining a growth rate of 7-8 percent per year for a sustained period".

³Advocates of reform have often argued that, whatever else may be said about the effects of the reform process, it cannot be denied that *it (reforms) has helped the Indian economy move to a higher annual average rate of growth*' (emphasis added) [CPC and JG, 2002]

⁴ Looking at the India's growth performance since independence, one is stuck by the fact that *the long-term growth trend appears to break upward around 1980-81* from 3.5 per cent real GDP rate of growth , for around 1950-51 to 1979-80, to around 5.5 per cent for the period 1980-81 to 1999-2000'. (emphasis added) [Ajit Sinha (et.al.), 2004]

⁵In the absence of the second wave of reforms in the 1990s it is unlikely that the rapid growth of the second half of the 1980s could be sustained. But hard evidence to support such a strong counterfactual judgement is lacking'. [DeLong, et.al., 2001]

⁶ C. Rangarajan, 2000

⁷ Here, we assume following Keynes's observation that the output generated in any economy is the summation of the individual aggregate demand components.

⁸The underlying assumption is that the poor has higher marginal propensity to consume (mpc) than the rich. But this is a standard assumption often made in the literature; the extreme case being the Classical Savings Function where, capitalist save whatever they earn i.e. their mpc=0 and mps=1; whereas workers save nothing i.e. their mpc=1 and mps=0.

⁹ Abhijit Sen (et.al.), 2004.

¹⁰ ibid.

¹¹ Abhijit Sen (et.al.), 2004.

¹² Abhijit Sen (et.al.), 2004.

¹³ '.....under estimate the true 1990s inequality increase because the same deflator (for overall aggregate consumption expenditure) is used for all fractile groups, *ignoring that inflation was higher for items consumed by the poor during most of the 1990s*'.(emphasis added), Abhijit Sen (et.al.), 2004..

¹⁴ For a detailed discussion see, C.P. Chandrasekhar and Jayati Ghosh, 2002.

¹⁵ A devaluation of the currency in any economy makes its importable dearer, whereas makes the exports cheaper.

¹⁶ For a detailed discussion see, C.P.Chandrashekhar and Jayati Ghosh, 2006.