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China and India:
Growth and Poverty, 1980-2000

by

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China and India are the world's two most populous economies accounting for nearly 2-5 billion or 40% of the estimated 6.25 billion human beings of the world in 2002. Both countries enjoyed historically unprecedented average rate of growth of GDP at around 10% and 6% per year respectively during 1980-2000. (World Bank, 2002, Table I) Fewer than 10 of over 200 countries covered by the Bank exceeded India's growth rate and none exceeded China's. Without getting into the serious conceptual and data issues relating to levels of poverty and their time trends in both countries, let me cite Angus Deaton's (2001) estimates: the ratio of India's population living below the national poverty line fell from 39% in 1987-88 to 25.3% in 1999-2000 in rural areas and from 22.8% to 12.5% in urban areas. Though not quite comparable to Deaton, according to Datt (1997, 1999), in 1977-78 the poverty ratio was 50.5% and 40.5% in rural and urban areas respectively. (Table 1A) Unlike India, where household survey based estimates are available from the 1950's, such estimates for China are relatively recent - official poverty lines and poverty headcounts going back to 1978 were first announced in 1994 superceding some earlier ad hoc estimates. If these official data are to be believed, rural poverty has been virtually eliminated, falling from 30.7% in 1979 to 9.5 in 1990 and to 4.6% in 1998 (Park and Wang, 2001). A World Bank estimate quoted by the same authors, on the other hand, put rural poverty at nearly four times, at 42.8% in 1990 and it fell to 24.2% in 1997. Although the levels of poverty differ substantially between official and World Bank estimates, the trend is similar - a halving of poverty between 1990 and 2000. (Table 1B)

It is clear that both in China and India, poverty has been reduced substantially in the last two decades of the twentieth century when both experienced acceleration in their growth rates. One cannot of course jump from the strong association between acceleration in growth and poverty reduction and assert a causal link between the two. One has to go behind the association and explore the exogenous determinants of growth

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and poverty, the possible mechanisms through which the growth enhancing factors could affect incomes of individuals and households in either direction and conclude whether the net effect was to reduce poverty in the aggregate. For example, the poor, certainly in India and perhaps less so in China, are largely rural and heavily dependant on agriculture, either as landless agricultural laborers or small and marginal farmers. In such a situation, growth that is largely driven by the expansion of urban non-agricultural activities could bypass the rural poor altogether, unless such growth either expands the demand for agricultural labor (through an expansion of the demand for domestic agricultural output) or alternatively, pulls such labor out of agriculture into more productive non-agricultural activities. More generally the effects of growth on poverty reduction could differ between sectors which experience growth, so that the same aggregate rate of growth, if it arises from growth of sectors with relatively low effects of growth on poverty reduction, would reduce aggregate poverty to a lesser extent than if it arose from the growth of sectors with high effects.

Going beyond these two examples, as I point out in Srinivasan (2001), the three endogenous outcomes, growth, poverty and inequality are together determined by exogenous factors including the existence and functioning of institutions including most importantly the markets for goods, services, and particularly for labor and capital, domestic and external sectors policies pursued, endogenous behavioral responses to policies and opportunities of individuals, households and enterprises as well as any constraints on the responses such as on mobility of goods and factors. The relationships between the exogenous determinants and endogenous outcomes could, and often does, vary our time and space. Above all there could be significant leads and lags in time between changes in determinants and the changes in outcomes. Needless to say, shifting forces of political economy have to be brought into the analysis. This being the case, acceleration in growth could, in theory, be associated with a decrease or an increase in poverty at particular periods of time or in some countries. But the relevant issue is whether; empirically, growth and poverty reduction went together in most places and most of the time. In fact, this is the case in the last two decades in many countries including China and India.

Reduction in China, Beijing, China 28-29 June 2002, sponsored by the World Bank.

It is worth recalling a bit of history. Maddison's (2002) analysis suggests that China and India had the same real per capita income in 1870 (Table 2). But by 1950, when the Communist regime took over, China's per capita income had declined by 17% while India's had increased by 16%. It took nearly two and a half decades, that is, from 1950 to 1973, for China to recover the lost ground with double India's rate of growth of per capita income. It is reasonable to presume that China and India again were roughly at the same level of per capita income in 1980, two years after Deng Xiao Ping abandoned the Maoist economic strategy that led to the death of 30 millions or more and initiated systemic reforms. India's liberalization began in the 1980s but systemic reforms came only after the macroeconomic crisis of 1991. However, although both economics experienced acceleration in growth during 1980-2000 compared to the previous three decades (Table 3), given China's slower rate of growth of population, China's average growth rate of per capita income, at nearly 9% per year, far exceeded India's 4% per year, so that China's per capita income was nearly 70% higher than India's by 2000. Official data for China suggest that rural poverty declined by 85% between 1978 and 1998, while in India it declined by somewhat less than 50% between 1997-98 and 1998-2000(Tables 1A and 1B). These differences in the rate of decline seem consistent with faster growth in China's per capita income. However, given the serious problem with income and poverty data for both countries, particularly for China, one should not over interpret these trends.

China and India pursued similar state-directed and state-controlled industrialization strategies with emphasis on heavy industry until their recent reforms. However in China, state control was direct and total: agriculture was collectivized, almost all industry was state-owned and most services were supplied by the state. India had a mixed economy with agriculture, all of small scale and a significant part of large scale industries being in the private sector. Although China grew faster than India before reforms, most of the difference is attributed to China's greater savings and investment rates. In fact Maddison (1998) estimates that total factor productivity declined at a rate of 0.78% per year in the pre reform period of 1952-78.

It is most likely that the differences in the reform and growth processes of the two countries also contributed to the differences in growth rates and their impact on poverty outcomes. Thus the answer to the first question of the organizers is that the Chinese growth was faster and more pro-poor. Not only China

continued to save and invest a far higher proportion of its GDP than India, its integration with the world economy became far deeper. Its share of foreign trade goods in GDP, albeit an imperfect proxy for global integration, rose from approximately 13% in 1980 to nearly 44% in 2000. In India, the share fluctuated around an average of 12% until the opening of the 1990's and has since risen to 20%. Another aspect of global integration, namely, influx of foreign direct investment (FDI) also showed similar differences: the ratio of FDI to GDP in China grew from virtually nothing, when the reforms began in 1978, to 4.3% in 2000. In India, even after a decade of reforms the ratio is only 0.6%. (Table 4)

The sequencing of reforms was also somewhat different in the two countries. China reformed its agriculture first by abolishing collectives, introducing the household responsibility system, and reducing mandatory deliveries of output to the state by farmers and thereby enabling farmers to produce for the market. India's agriculture, while always in the private sector, was insulated from world markets, riddled with government interventions the domestic market for agricultural inputs and outputs, whose net effect was to disprotect agriculture. Indian reform process is still to be extended to agriculture. Clearly, the fact that China reformed agriculture first and achieved spectacular results for several years not only provided credibility to its reform process, but also increased incomes of the poorer segments of the Chinese economy. In India, agriculture in particular, and the rural economy in general, are yet to be reformed systemically. Until it happens not much of acceleration in the rate reduction of rural poverty can be expected.

Although India and China reformed their external sector by reducing tariff and non-tariff barriers, as noted earlier, China's opening went much deeper. In part this was because, while opening the special and coastal economic zones for foreign investment, China in effect allowed foreign investors 100% ownership, freedom to hire and fire workers and provided them with an excellent infrastructure. In all these respects India lagged behind. Further, India's reservation (until very recently) of labor-intensive products such as garments, leather products and others to the small-scale industry prevented the full exploitation of opportunities from its opening. China increased its share of world exports of labor incentive products, while India struggled to maintain its share and in fact lost its share in some products. India's shallower

integration and failure due to lack of domestic policy reform to avail of the opportunities in the world market limited not only the growth enhancing impact of trade reform, but also more importantly, its poverty reducing effect.

In at least two other respects, Chinese and Indian reforms differed significantly, the differences favoring China both with respect to growth and with respect to poverty alleviation. The first is in their approach to the reform of state owned enterprises (SOEs). The share of investment in SOEs continues to be high (about 30% in India and two-thirds in China in 2000) in both economies and employment in SOEs has not fallen significantly in spite of the fall in their share of total output. These similarities notwithstanding, there is no Indian counterpart to China's dynamic township and village enterprises, which by all accounts were labor-intensive and provided employment opportunities to the poor. The second area in which India lagged and continues to lag behind China is in the availability of reliable and affordable infrastructure, particularly power. While China has succeeded in attracting foreign investment into this vital sector, India has failed to do so. Clearly infrastructural restraints inhibit growth directly and the growth effects of poverty indirectly.

There is some evidence that in the post-reform era, regional disparities have widened in both countries. To a certain extent this is natural: those regions (and individuals) which are better placed initially to take advantage of the opportunities opened up by reforms or for that matter by any other factor such as, for example, the information-technology revolution, are likely to grow faster (and richer). For example, India's phenomenal success in software is still confined to a few cities in the south and west. The real issue is not one of increasing regional disparities, but of whether the socio-economic system would enable the initially disadvantaged regions and individuals to catch up. If it does not, the social and political consequences could be serious and could lead to secessionist threats.

Trends in growth of GDP and poverty are depicted in Figures 1-4. It is seen from Figure 1 that there was a perceptible acceleration in growth of GDP after 1980 or so. There is evidence of possibly rising regional disparities in the trends in poverty in India between rural and urban areas and differences between two groups of states (Figures 2-4). From Figure 2 it is seen that, first of all, from 1951-52 until 1977-78 rural

and urban poverty rates in India fluctuated with no discernible trend and this period largely overlaps the three decades 1950-80 of the infamous "Hindu" rate of growth of 3.5% per year on the average. There is acceleration in the rate of growth and the start of a downward trend in poverty ratio, in the period after 1977-78. From Figure 3, it is evident that the trends in rural and urban poverty were very similar until 1990 and then they diverge, with urban poverty continuing to fall while rural poverty almost stagnates. Finally, Figure 4 shows that until 1990-91 the trends in rural poverty were similar between group 1 (Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Tamil Nadu and West Bengal) and group 2 (Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh) states, but after the crisis and reform year of 1991-92, poverty declines in group 1 states and stagnates in group 2 states. These figures support the following conclusions: (*i*) until growth rate accelerated after 1980 there was no discernible decline in poverty (*ii*) in the post-reform period after 1991, the slower decline, if not stagnation altogether, of rural poverty is consistent with the fact that the reform process is yet to be extended to rural areas (*iii*) the faster decline in rural poverty in group 1 states after the crisis and reform year of1991-92 is consistent with the fact that these states were better endowed with better infrastructure and above all in human capital as measured by higher literacy (particularly of females) rates, lower total fertility rates, and lower infant mortality rates.

Whether widening disparities are temporary and would be reversed or permanent and entrenched is an interesting issue. At the aggregate level, one approach to this issue is to ask: do regions with initially different levels of income nonetheless converge over time to the same level and rate of growth per capita income in the long run? This is the so-called "absolute" convergence hypothesis. It is to be contrasted with the "conditional" convergence hypothesis, which suggests each region converges to its own long run level and growth of per capita income. There is a growing literature on testing the hypotheses of absolute and conditional convergence in both countries. Demurger et al. (2001) and Dayal-Gulati and Husain (2000) find support only for conditional convergence in China. In India, Cashin and Sahay (1996, 1997) found evidence of absolute convergence. Rao and Sen (1997) suggest that in fact findings of Cashin and Sahay should be interpreted as supporting conditional convergence. Clearly, finding of conditional convergence, since it is consistent with regions growing at different rates in the long run, could mean growing disparities

across regions. In India there is evidence of growing disparities between southern and Western coastal states on the one hand, and the interior and northern states on the other growth rates, with the former growing faster than the latter in the post reform era. Coupled with the fact that the incidence of poverty is higher, and the share of country's population larger, in the latter states, there has been legitimate concern that if sustained in the future, these growth disparities will threaten the stability of India's federal democracy.

Let me conclude with a brief comment about areas for further research. First of all, as I argued earlier, the interaction between growth and poverty is complex involving exogenous determinants relating to institutions, public policies and private responses. Far too little is known at a disaggregated level of the mechanisms that are involved. Part of the problem is the lack of reliable data at appropriate levels of disaggregation. For example, India has recently enacted amendments to its constitution devolving power, if not resources, to local levels of government. Other than some tantalizing bits of data and analysis, not enough is known about, first whether or not such devolution will enhance the voice of the poor in making decisions that affect their welfare and thus enhance the potential for poverty reduction and second, whether, because of possible differences in the resources and capability of local level institutions, regional disparities would widen. To take another example, in India in the post reform era the service sector has grown faster than other sectors did and its share in GDP has grown. This sector is diverse, consisting of the poor and unskilled involved in household services at one end of the spectrum, to the high skilled doctors, lawyers and software technicians at the other end. It would be very illuminating to know whether the growth of the service sector has largely come from its poorer end and hence contributed to poverty reduction. Alas, the data are poor and there is virtually no analysis of the available poor data from this perspective. At least in India there have always been, and still are, an enormous number of schemes ostensibly aimed at poverty alleviation. While they absorbed significant amount of resources, their aggregate effect in reducing poverty was negligible until the 1980s when growth began to accelerate. Interestingly, although India received only a modest external assistance relative to its population and GDP, it received more from multilateral and bilateral resources, much of it on concessional terms, during 1950-80 when there was slow growth and virtually no reduction in poverty. This raises an interesting and important question: are myriad national

policy interventions aimed at the poor and clever mechanisms for allocation of lending by international financial institutions based on the so called Poverty Reduction Strategy Papers process likely to make much of a difference to trends in poverty compared to the alternative of creating an economic and political framework that provides an enabling and stable environment in which individuals, households and enterprises decide what is in their best interests, while facing increasing opportunities from rapid and sustained growth to better themselves. I suspect not - but to make a convincing case whether this is so would require lots more research than is available.

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TABLE 1A

A: INDIA

	RURAL		URBAN	
	OFFICIAL*	DEATON	OFFICIAL*	DEATON
AUG 51 - NOV 52	47.37		35.46	
SEP 61 - JUL 62	47.20		43.55	
JUL 70 - JUN 71	54.84		44.98	
JUL 77 - JUN 78	50.50		40.50	
JUL 87 - JUN 88	39.0	39.0	39.1	22.8
JUL 93 - JUN 94	37.1	32.9	30.2	18.1
JUL 99 - JUN 2000	27.0	25.3	23.5	9.5

* DATA FOR YEAR PRIOR TO 1987-88 ARE FROM DATT (1997,1999) AND FOR OTHER YEARS ARE FROM DEATON (2001).

SOURCES:

DATT, G. (1997, 1999).

DEATON, A. (2001).

TABLE 1B

B: CHINA

RURAL CHINA

	1978	1990	1997	1998
(1) OFFICIAL	30.7	9.5	5.4	4.6
(2) WORLD BANK	--	42.8	24.2	--

SOURCE:
PARK, A. AND S. WANG (2001).

TABLE 2

GDP PER CAPITA (1990 INTERNATIONAL DOLLARS): 1700-1998

	1700	1820	1870	1913	1950	1973	1998
CHINA	600	600	530	552	439	839	3117
INDIA	550	533	533	673	619	853	1746

SOURCE; MADDISON (2002)

TABLE 3

GDP GROWTH

	1950-1980	1980-1990	1990-2000
CHINA	4.40*	10.1	10.3
INDIA	3.75**	5.8	6.0

SOURCE: WORLD BANK (2002), FOR 1980-1990 AND 1990-2000

* MADDISON (1998), TABLE 3.10

** AUTHOR'S ESTIMATE

TABLE 4

A. TRADE IN GOODS (AS % OF GDP) FDI (AS % OF GDP)

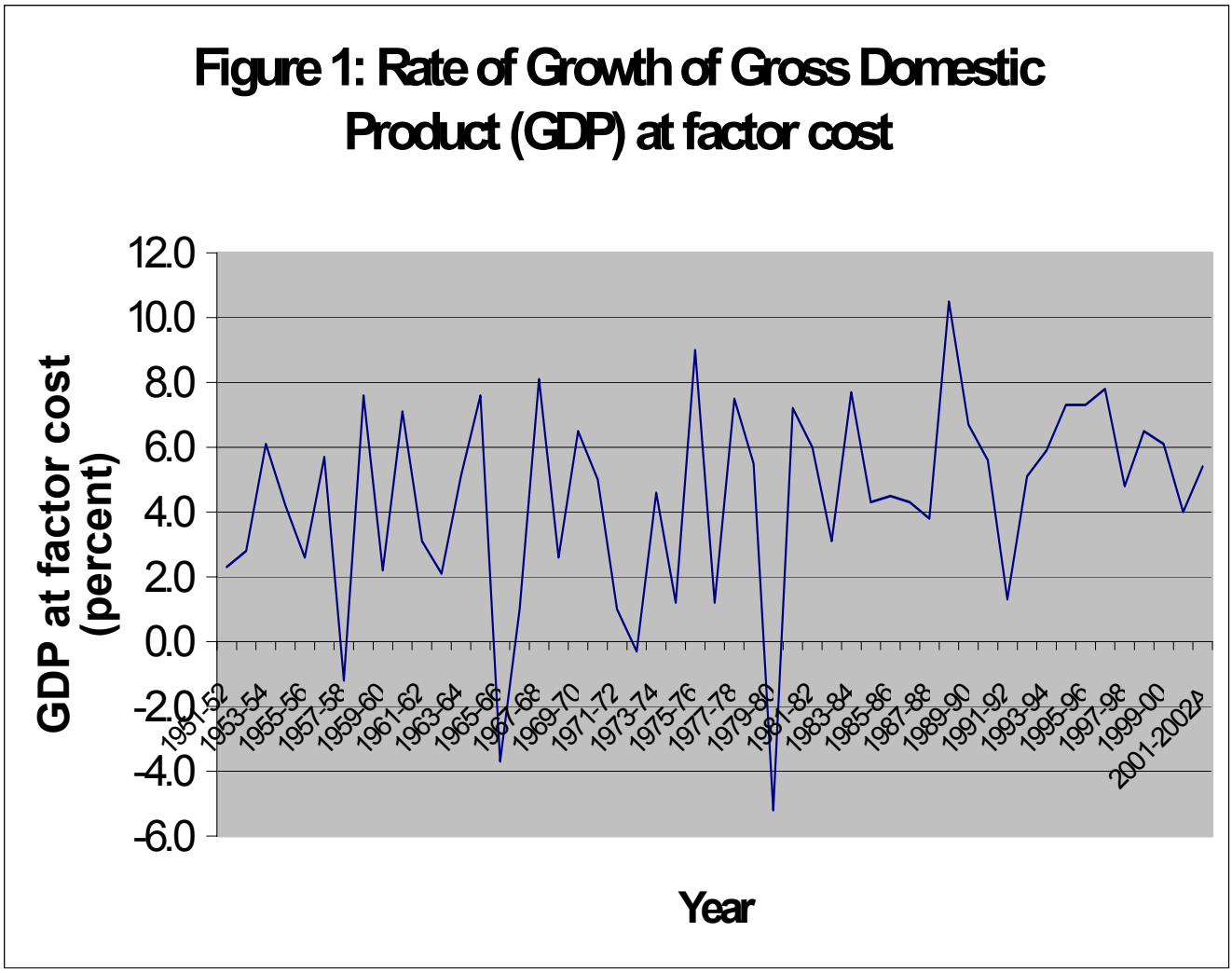
	1990	2000	1990	2000
CHINA	32.9	43.9	1.2	4.3
INDIA	13.1	20.3	0.0	0.6

SOURCE: WORLD BANK (2002), TABLE 6.1

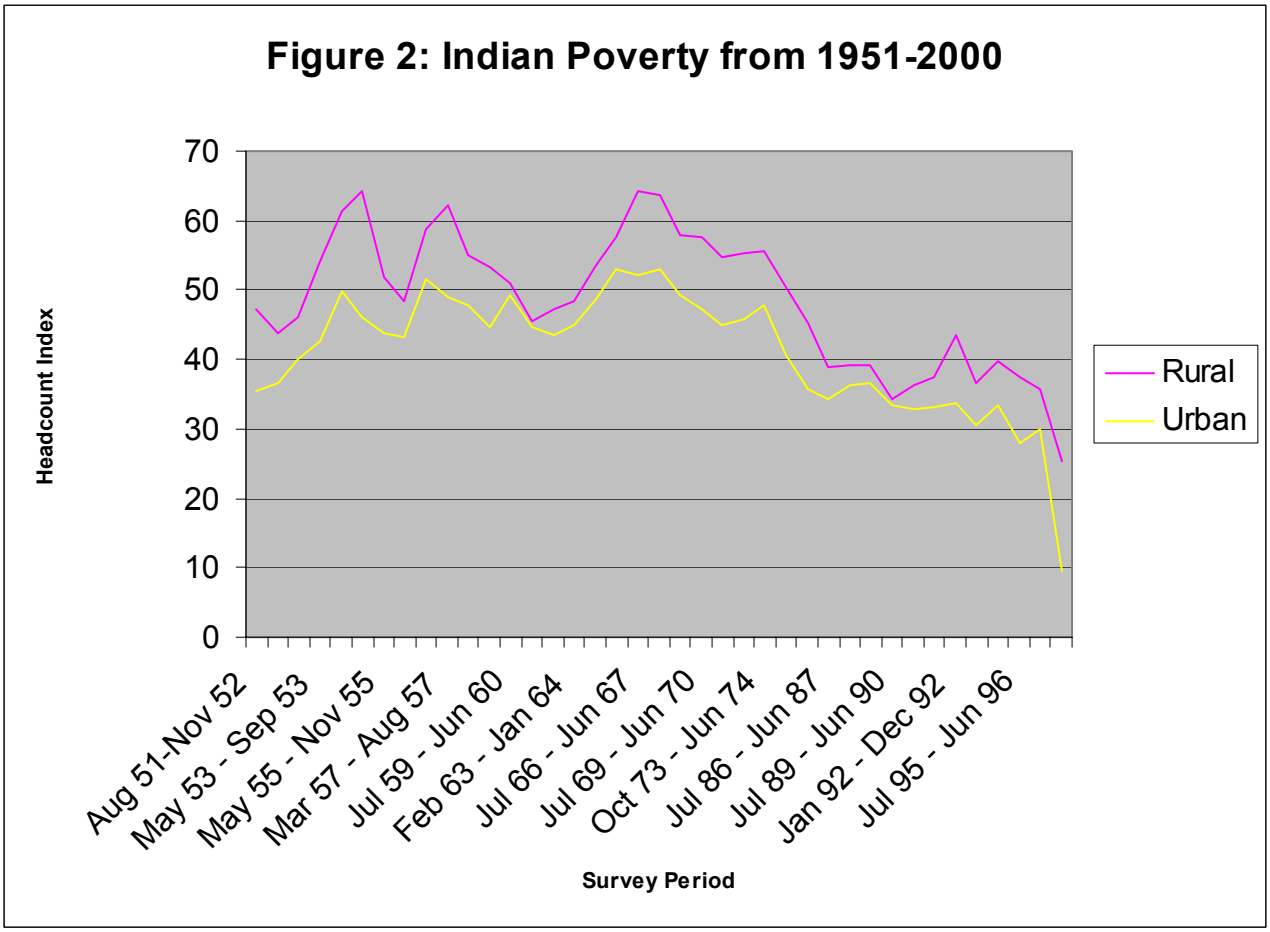
B. SHARE IN WORLD EXPORTS

	1948	1953	1983	2000
CHINA	0.9	1.2	1.2	4.0
INDIA	2.2	1.3	1.3	0.7

SOURCE: WTO(2001),TABLE II.2

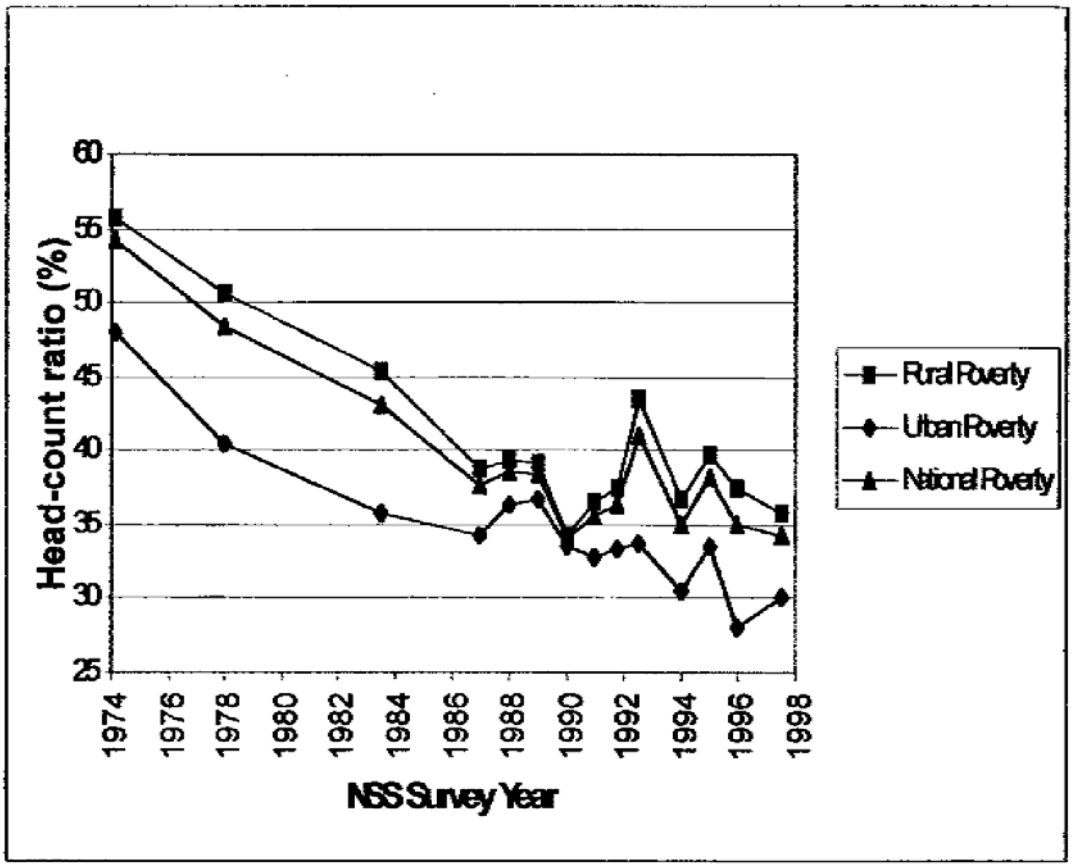


Source: Ministry of Finance (2002), Appendix Table 1.3



Source: World Bank (2000)

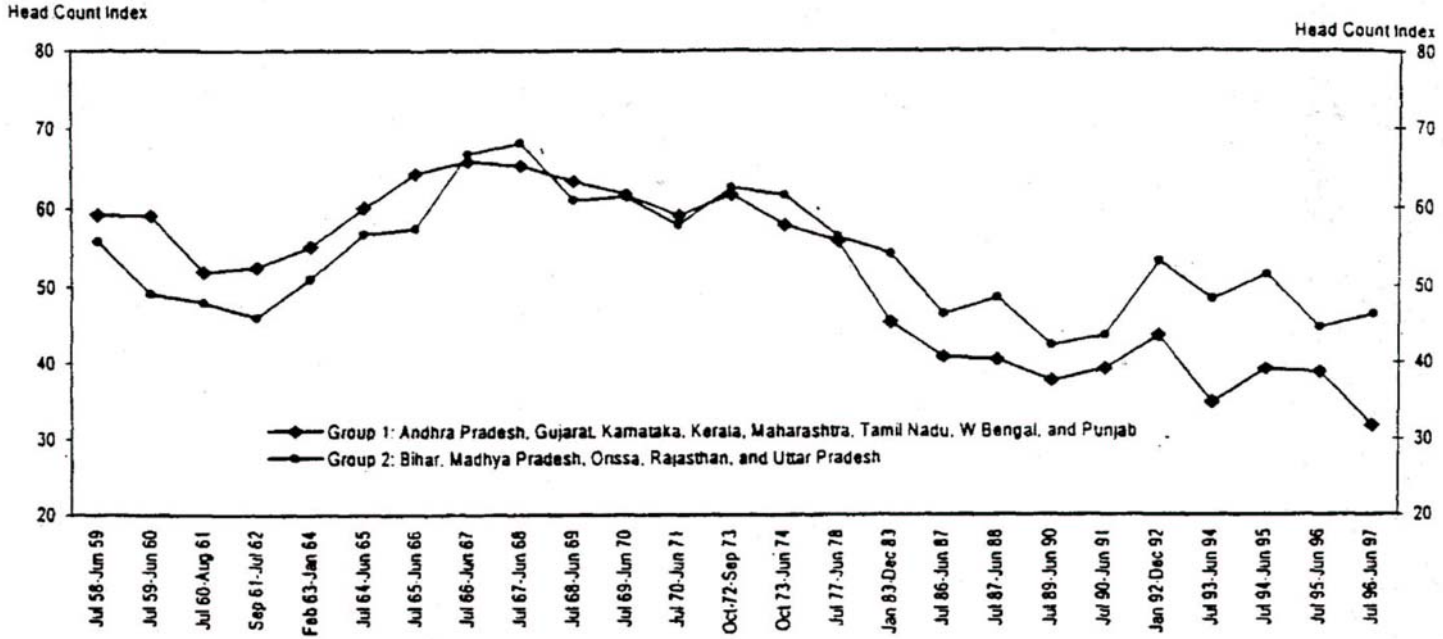
Figure 3: Poverty in India, 1973/74-1997: National, Rural and Urban



Note: The markers in the figure correspond to the mid-point of the NSS survey period, and the years on the horizontal axis are calendar years, so 1974.0 is January 1974, for example.

Source: Based on Datt (1999).

Figure 4: Head Count Rates (Rural India)



Source: World Bank (2000) Figure 1.3.