OXFORD



Edited by A. B. ATKINSON & T. PIKETTY

1

# Top Indian Incomes, 1922–2000

## Abhijit Banerjee and Thomas Piketty

#### **1.1 INTRODUCTION**

This chapter presents series on top incomes and top wages in India between the years 1922 and 2000 based on individual tax returns data. We use tabulations of tax returns published each year by the Indian tax administration to compute the share of the top percentile of the distribution of total income, the top 0.5 per cent, the top 0.1 per cent, and the top 0.01 per cent. We do the same for the wage distribution. We do not go below the top percentile because incomes below this level are largely exempt from taxation in India.

Our series begin in 1922, when the income tax was created in India, and allow us to look at the impact of the Great Depression and the Second World War on inequality. We are particularly interested in the period starting in the 1950s, right at the beginning of India's experiment with socialism. This experiment was officially suspended in 1991 with the beginning of the liberalization process, which continued through the 1990s. One explicit goal of the socialist programme was to limit the economic power of the elite, in the context of a mixed economy. Our data offer us the opportunity to say something about the extent to which this programme, with all its well-known deficiencies, succeeded in its distributional objectives. This is important first, because it is a vital part of our assessment of this period. And second, because it offers a window into the broader question of the role of policy in affecting the distribution of income and wealth in a developing country. Given that much of the economic activity in these countries is outside the formal sector, it is not at all obvious that there is a lot that policy can affect.<sup>1</sup>

Our results are consistent with an important role for policy in shaping the distribution of income. In particular, we do find evidence of a substantial decline in the share of the elite during the years of socialist planning and a comparable

We are grateful to Tony Atkinson, Amaresh Bagchi, Gaurav Datt, Govinda Rao, Martin Ravallion, T. N. Srinivasan, Suresh Tendulkar, and two anonymous referees for useful discussions, to Sarah Voitchovsky for excellent research assistance, and to the MacArthur Foundation for financial support. A shorter version of this chapter was published as A. Banerjee and T. Piketty, 'Top Indian Incomes, 1922 2000', *World Bank Economic Review*, 19 (2005): 1 20.

<sup>&</sup>lt;sup>1</sup> Especially tax policy.

recovery in the post-liberalization era. However the rebound seems to start significantly before the official move towards liberalization.

Given that these results are likely to be controversial, it is worth emphasizing that there are a number of obvious problems with using tax data, not the least because of tax evasion. We discuss these at some length in section 1.4. While we conclude that our results are probably robust, we do not intend them to be definitive. Our view is rather that they provide a point of departure on an important question about which very little is known, primarily because of data limitations. There are good reasons to suspect that the usual sources of information on income distribution in India—such as consumer expenditure surveys—are not particularly effective at picking up the very rich. This is in part because the rich are rare, and in part because they are much more likely to refuse to cooperate with the time-consuming and irksome process of being subjected to a consumer expenditure survey.<sup>2</sup>

While there is no hard evidence that the rich are indeed being undercounted in India (the Indian consumer expenditure surveys do not, for example, report refusal rates by potential income category), one reason to suspect that this is the case comes from what has been called the *Indian growth paradox of the 1990s.* According to the standard household expenditure survey conducted by the National Sample Survey (NSS), real per capita growth in India during the 1990s was fairly limited. Such a conclusion stands in sharp contrast with the substantial growth measured by national accounts statistics (NAS) over this same period. This puzzle has attracted quite a lot of attention during recent years<sup>3</sup> and it has been widely suggested that it might simply be that a very large part of the growth went to the very rich. However there has been no attempt to directly quantify this possibility.<sup>4</sup> Our data allow us to take a useful step in this direction. We are able to put bounds on the extent to which the growth gap can be explained simply in terms of undercounting the very rich. We conclude that it can explain between 20 per cent and 40 per cent of the puzzle. Although this is not negligible,

<sup>2</sup> See, e.g., Szekely and Hilgert (1999), who look at a large number of Latin American household surveys and find that the ten largest incomes reported in surveys are often not very much larger than the salary of an average manager in the given country at the time of survey. For a systematic comparison of survey and national accounts aggregates in developing countries, see Ravallion (2001).

<sup>3</sup> See, e.g., Datt (1999), Ravallion (2000), World Bank (2000), Sundaram and Tendulkar (2001). Recently released data from the 1999 2000 NSS round have revealed that NSS growth was larger than expected during the 1990s and that poverty rates did decline over this period, contrarily to what most observers believed on the basis of pre 1999 2000 NSS rounds (see Deaton and Drèze 2002 and Deaton 2003a, 2003b). However the overall NSS NAS growth gap still appears to be substantial, even after this correction (see Table 1.2 below), and this substantial gap remains to be explained. The existence of a discrepancy between NSS and NAS statistics was already a subject of enquiry in India during the 1980s (see, e.g., Minhas 1988 and Minhas and Kansal 1990), but the gap observed during the 1990s appears to be substantially larger than during previous decades. For a broader, international perspective on the survey vs. national accounts debate, see Deaton (2003c).

<sup>4</sup> Sundaram and Tendulkar (2001) find that the NSS NAS gap is particularly important for commodities that are more heavily consumed by higher income groups, thereby providing indirect evidence for the explanation based on rising inequality.

this leaves the bulk of the puzzle unaccounted for, largely because the share of the rich in total income is still relatively small. This suggests that there probably is some deeper problem with the way either the NSS or the NSO (which generates the NAS) collects its data.<sup>5</sup>

The rest of this chapter is organized as follows. Section 1.2 briefly outlines our data and methodology. Section 1.3 presents our long-run results. Section 1.4 discusses potential problems with this evidence. Section 1.5 uses this evidence to shed some light on the Indian growth paradox of the 1990s. Section 1.6 concludes.

#### 1.2 DATA AND METHODOLOGY

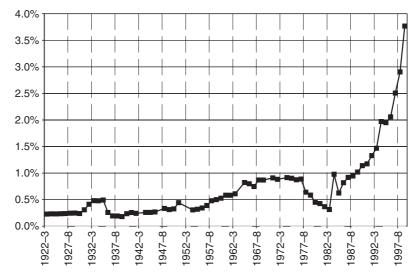
The tabulations of tax returns published each year by the Indian tax administration in the 'All-India Income-Tax Statistics' (AIITS) series constitute the primary data source used in this chapter. The first year for which we have income data is 1922–3 while the last is 1999–2000.<sup>6</sup>

Due to the relatively high exemption levels, the number of taxpayers in India has always been rather small. The proportion of taxable tax units was around 0.5 per cent–1 per cent from the 1920s to the 1980s, and it rose sharply during the 1990s up to 3.5 per cent–4 per cent at the end of the decade, following the large increase in top nominal incomes (see Figure 1.1).<sup>7</sup> Therefore our long-run series cannot go below the top percentile.

<sup>5</sup> See Bhalla (2002) for a negative view of the NSS approach. For more balanced discussions of the relative merits of survey and national accounts aggregates in developing countries, see Ravallion (2001) and Deaton (2003c).

<sup>6</sup> All references to the relevant AIITS publications are given in Table 1A.1. Financial years run from 1 April to 31 March in India (1922 3 refers to the period running from 1 April 1922 to 31 March 1923, etc., and 1999 2000 to the period running from 1 April 1999 to 31 March 2000). Note also that AIITS publications always refer to assessment years (AY), i.e. years during which incomes are assessed, while we always refer to income years (IY) (IY AY 1). For instance, AIITS 1923 4 contains the data on IY 1922 3, etc., and AIITS 1999 2000 contains the data on IY 1998 9. AIITS 2000 1 (IY 1999 2000) was not yet available when we revised this paper, and our IY 1999 2000/1998 9 per tax unit national income growth rate. This approximation probably leads us to underestimate top income growth. We did this because there was no large NSS round for 1998 9 so it was easier to make comparison with 1999 2000 as the end point.

<sup>7</sup> Throughout the chapter, 'tax units' should be thought of as individuals (all of our estimates have been obtained by summing up tax returns filed by individuals and those filed by 'Hindu undivided families' (HUF); the latter make less than 5% of the total in the 1990s, down from about 20% in the inter war period). The total, theoretical number of tax units was set to be equal to 40% of the total population of India throughout the period (see Table 1A.1, col. (2)). This represents a rough estimate of the potential 'positive income population' of India: this is lower than India's adult population (the 15 year and over population makes up about 60 5% of total population since the 1950s), but is very close to India's labour force (the labour force consists of about 40 5% of total population since the 1950s).



**Figure 1.1** The proportion of taxable tax units in India, 1922 2000 *Source*: Authors' computations using tax returns data (see Table 1A.1, col. (4)).

The tabulations published in AIITS report the number of taxpayers and the total income reported by these taxpayers for a large number of income brackets. By using standard Pareto extrapolation techniques we computed for each year the average incomes of the top percentile (P99–100), the top 0.5 per cent (P99.5–100), the top 0.1 per cent (P99.9–100), and the top 0.01 per cent (P99.9–100) of the tax unit distribution of total income, as well as the income thresholds P99, P99.5, P99.9, and P99.99 and the average incomes of the intermediate fractiles P99–99.5, P99.5–99.9, and P99.9–99.98

To get a sense of the orders of magnitude, we report in Table 1.1 the results obtained for 1999–2000. There were almost 400 million tax units in India (396.4 million). Based on the national accounts statistics, the average income of those 400 million tax units was around Rs 25,000 per year (\$3,000 in PPP terms).<sup>9</sup> To

<sup>8</sup> The Pareto law is given by 1  $F(y) (k/y)^a$  (where 1 F(y) is the fraction of the population with income above y, and k>0 and a>1 are the structural Pareto parameters). For a recent use of Pareto extrapolation techniques with similar tax return data, see Piketty (2003) and Piketty and Saez (2003). See also Atkinson (2007; chapter 4 in Volume I) and Dell (2007; chapter 9 in Volume I).

<sup>9</sup> Our average income series (see Table 1A.2, col. (7)) was set to be equal to 70% of national income per tax unit (the 30% deduction is assumed to represent the fraction of national income that goes to undistributed profits, non taxable income, etc.; the national income series was taken from Sivasu bramonian 2000, from whom we also took our population series). We also report in Table 1A.1 other income aggregates based on GDP and NAS household consumption (both taken from the World Bank's WDI database, from which we also extracted our CPI series, as well as the PPP exchange rate used in Table 1.1) and on NSS household consumption (computed from Datt 1997, 1999, for the 1956 98 series and Deaton and Drèze (2002: n. 24) for the corrected 1999 2000/1993 4 growth rate).

In me level (Rs) ext (2)	(US\$) (US (Market col (market col (3)) (3)	(US\$) (PPP conversion factor) (4)	Fractiles (5)	Number of tax units (6)	Average income (Rs) (7)	Average income (US\$) (market exchange rate) (8)	Average income (US\$) (PPP conversion factor) (9)
			Full Population	396,400,000	25,670	596	2
.035	10,	10,131	P99 99.5	1,982,000	98,842	2,295	11,427
3,427	17,	057	P99.5 99.9	1,585,600	216,929	5,038	25,079
853	34,	34,116	P99.9 99.99	356,760	590,488	13,713	68,264
32,140	159,	992	P99.99 100	39,640	4,034,289	93,690	466,392

Source: Table 1A.2 and Table 1A.3, row 1999-00. Amounts in \$ have been computed by applying the average 1999-2000 market exchange rate (that is, 1\$=43.06Rs) and the average 1999-2000 PPP conversion factor (that is, 1\$=8.65Rs) to amounts in current 1999-2000 Rs.

 Table 1.1 Top Indian incomes in 1999 2000

belong to the top percentile (P99), which includes about 4 million tax units, one needed to make more than Rs 88,000 (around \$10,000 at PPP). The average income of the bottom half of the top percentile (fractile P99–99.5, about 2 million tax units) was about Rs 99,000 (less than \$12,000 at PPP). To belong to the top 0.01 per cent (about 40,000 tax units), one needs to make more than Rs 1.4 million (\$160,000 at PPP), and the average income above that threshold was more than Rs 4 million (\$470,000 at PPP).<sup>10</sup>

As in other countries, the top of India's income distribution appears to be very precisely approximated by the Pareto structural form.<sup>11</sup> On the other hand the estimates for the recent period are subject to sampling error: the AIITS tabulations were based on the entire population until the early 1990s (as in most OECD countries),<sup>12</sup> but they now seem to be based upon uniform samples of all tax returns. Although there is uncertainty about the new sampling procedure, the sampling rate seems to be sufficiently large to guarantee that the estimated trends for top income shares are statistically significant.<sup>13</sup>

AIITS publications also include tabulations reporting the amounts of the various income categories (wages, business income, dividends, interest, etc.) for each income bracket. In particular, AIITS offers separate tables for wage earners who are by far the largest subgroup. This allowed us to separate estimates for top wage fractiles, which we can compare to our top fractiles estimates for total income (see below).<sup>14</sup>

<sup>10</sup> In order to put these numbers in global perspective, one can note that India's 1999 2000 P99.99 threshold (about \$160,000 in PPP terms) is located midway in between US 1998 P95 and P99 thresholds for 1998 (resp. \$107,000 and \$230,000; see Piketty and Saez (2003: table 1)), and that India's 1999 2000 P99.9 threshold (about \$34,000 in PPP terms) is well below US 1998 P90 threshold (\$82,000).

<sup>11</sup> In the same way as for other countries (see above for references), we checked that our extrapo lation results are virtually unaffected by the choice of extrapolation thresholds used to estimate the structural parameters. Pareto coefficients are locally very stable in India, just as in other countries. Prior to the 1990s, the fraction of individuals subject to tax was less than 1%, and we used the lowest threshold available in order to estimate the top percentile threshold P99 (given that Pareto coefficients are in practice very stable, the resulting estimates appear to be as precise as estimates for thresholds P99.5 and above).

<sup>12</sup> Or on stratified samples with sampling rates close to 100% for top incomes.

<sup>13</sup> According to the tax administration statistics division, the sampling rate is about 1% and approximately uniform (no precise information about sampling design and rate is included in AIITS publications). Given India's large population, this implies that our estimate for the top 1% income share (8.95% of total income in 1999 2000) has a standard error of about 0.04%, and that our estimate for the top 0.01% income share (1.57% of total income in 1999 2000) has a standard error of about 0.08%. There is some evidence however that the sampling design is changing and that published tabulations are becoming more volatile by the end of the period. In particular, the tabulations for IY 1997 8 (AIITS 1998 9) contain far too many individual taxpayers above 1 million Rs, thereby suggesting that something went wrong in the sampling design during that year. The 1997 8 estimates were corrected downwards on the basis of 1996 7 and 1998 9 tabulations.

<sup>14</sup> Published wage tabulations for IY 1996 7 and 1997 8 appear to suffer from sampling design failures (top wages are clearly truncated in 1996 7, and they are too numerous in 1997 8), and our estimates for those two years were corrected on the basis of 1995 6 and 1998 9 data.

### 1.3 THE LONG-RUN DYNAMICS OF TOP INCOME SHARES, 1922–2000

Figure 1.2 illustrates the basic pattern of our findings. Our results show that income inequality (as measured by the share of top incomes) has followed a U-shaped pattern over the 1922–2000 period. The top 0.01 per cent income share was fluctuating around 2–2.5 per cent of total income from the 1920s to the 1950s. It then gradually fell from about 1.5–2 per cent of total income in the 1950s to less than 0.5 per cent in the early 1980s, and finally rose during the 1980s–1990s, back to 1.5–2 per cent during the late 1990s. What this means is that the average top 0.01 per cent income was about 150–200 times larger than the average income of the entire population during the 1950s. It went down to less than 50 times as large in the early 1980s, but went back to being 150–200 times larger during the late 1990s.

The exact turning point is also of some interest. We see that the decline in the share of the top 0.01 per cent is relatively rapid till 1974–5. Then it slows considerably but there is still a clear downward trend till 1980–1. Then it reverses: the trend is upwards throughout the 1980s, reaching a peak in 1988–9. Over the 1980s, the share of the top 0.01 per cent more than doubles—from less than 0.4 per cent to more than 0.8 per cent. But it then reverses once again, and by 1991–2 it is back below 0.6 per cent. Then it takes off and after 1995–6 remains in the 1.5–2 per cent range.

One also observes a similar (though less pronounced) U-shaped pattern for the top 1 per cent income share, which went from about 12–13 per cent during the 1950s to 4–5 per cent in the early 1980s to 9–10 per cent in the late 1990s (see Figure 1.4).

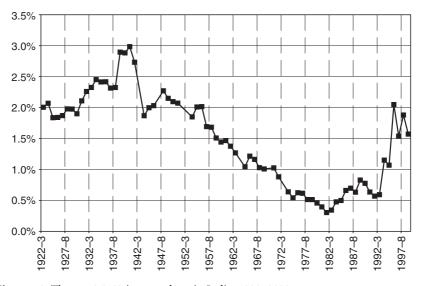


Figure 1.2 The top 0.01% income share in India, 1922 2000 *Source*: Table 1A.5, col. (4).

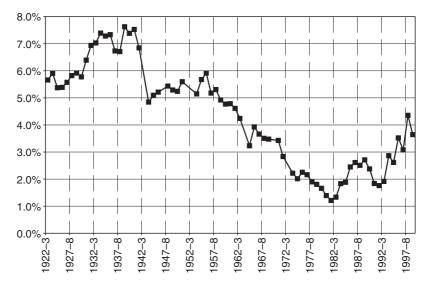


Figure 1.3 The top 0.1% income share in India, 1922 2000 *Source*: Table 1A.5, col. (3).

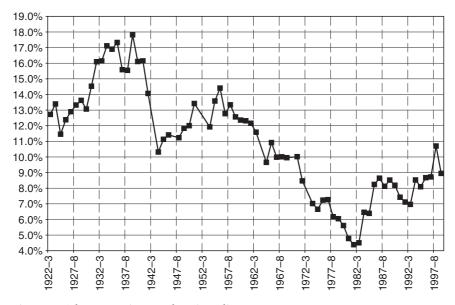


Figure 1.4 The top 1% income share in India, 1922 2000 *Source*: Table 1A.5, col. (1).

Once again the turning point seems to be around 1980–1, and over the 1980s, the share of the top 1 per cent also doubles. Then, as with the share of the top 0.01 per cent, there is a period of retrenchment that lasts till 1991–2, followed by a renewed upward movement.

The comparison of Figures 1.2 and 1.3 reveals another intriguing fact: While in the 1980s the share of the top 1 per cent increases almost as quickly as the share of the top 0.01 per cent, in the 1990s there is a clear divergence between what is happening to the top 0.01 per cent and the rest of the top percentile. To confirm that this is the case, we break up the top percentile into four groups: those between the 99th percentile and the 99.5th percentile, those between the 99.5th percentile and the 99.9th percentile, and the 99.9th percentile. Table 1.2 reports what happened to each of these groups in the 1987–2000 period. We see that only those in the top 0.1 per cent enjoyed income growth rates faster than the growth rate of GDP per capita. This contrasts with what we see when we look at the period that includes the 1980s (see Table 1.3). For this period we see evidence of above-average growth for the entire top percentile.

While 1980–1 was clearly the year when the data series turn around, it is not possible to date the 'true' turnaround with quite so much precision, because the share of the rich is also affected by short-run, cyclical factors. It is possible that our data put the turning point in 1980–1 only because we have not made any allowances for the deep recession of 1979–80 and 1980–1, which hurt the rich. As a result, we see a sharp upward trend starting in 1981, even though perhaps what is really happening

	1999 2000 vs. 1987 8 (nominal growth)	1999 2000 vs. 1987 8 (real growth)
Household consumption/capita (NSS)	+242%	+19%
GDP/capita (NAS)	+337%	+52%
Household consumption/capita (NAS)	+304%	+40%
National income/tax unit (NAS)	+346%	+55%
Top income fractile P99 100 (tax returns)	+392%	+71%
Top income fractile P99.5 100 (tax returns)	+412%	+78%
Top income fractile P99.9 100 (tax returns)	+548%	+125%
Top income fractile P99.99 100 (tax returns)	+1009%	+285%
Top income fractile P99 99.5 (tax returns)	+331%	+50%
Top income fractile P99.5 99.9 (tax returns)	+317%	+45%
Top income fractile P99.9 99.99 (tax returns)	+393%	+71%
Top income fractile P99.99 100 (tax returns)	+1009%	+285%
Consumer price index	+188%	
Share of growth gap accounted for by P99 100		20.1%
Share of growth gap accounted for by P99.5 100		17.2%
Share of growth gap accounted for by P99.9 100		12.7%
Share of growth gap accounted for by P99.99 100		8.0%

Table 1.2 Top income growth in India during the 1990s: 1999 2000 vs. 1987 1988

Source: Authors' computations using tax return, NAS and NSS data (see Table 1A.2, Table 1A.3, and Table 1A.4, row 1999–2000/1987–8).

	1999 2000 vs 1981 2 (nominal growth)	1999 2000 vs 1981 2 (real growth)
Household consumption/capita (NSS)	+487%	+25%
GDP/capita (NAS)	+700%	+70%
Household consumption/capita (NAS)	+599%	+49%
National income/tax unit (NAS)	+688%	+68%
Top income fractile P99 100 (tax returns)	+1508%	+242%
Top income fractile P99.5 100 (tax returns)	+1747%	+293%
Top income fractile P99.9 100 (tax returns)	+2270%	+404%
Top income fractile P99.99 100 (tax returns)	+3980%	+767%
Top income fractile P99 99.5 (tax returns)	+992%	+132%
Top income fractile P99.5 99.9 (tax returns)	+1392%	+217%
Top income fractile P99.9 99.99 (tax returns)	+1698%	+282%
Top income fractile P99.99 100 (tax returns)	+3980%	+767%
Consumer price index	+370%	
Share of growth gap accounted for by P99 100		39.7%
Share of growth gap accounted for by P99.5 100		33.5%
Share of growth gap accounted for by P99.9 100		19.1%
Share of growth gap accounted for by P99.99 100		9.3%

Table 1.3 Top income growth in India during the 1980s 1990s: 1999 2000 vs. 1981 1982

Source: Authors' computations using tax return, NAS and NSS data (see Table 1A.2, Table 1A.3, and Table 1A.4, row 1999–00/1981–2).

in 1981–2 and 1982–3 is just a reversion to the pre-existing trend. Therefore rather than naming a single year, we date the turnaround to the early to mid 1980s.

The fact that the turning point is so early makes it hard to attribute it to the formal process of liberalization. Indeed, given the nature of our data, we cannot entirely rule out the possibility either that the driving factor was a shift in the global economic environment, or even that it was a part of the natural evolution of a mixed economy. However, the timing of the turnaround is also consistent with the view that there was a structural shift in the Indian economy in the early to mid 1980s. Delong (2001) and Rodrik and Subramanian (2004), based on macro time series data, date the acceleration in the growth rate of the Indian economy to the early to mid 1980s, rather than the early 1990s. They suggest that this may have to do with a shift of power within the ruling Congress Party towards a more technocratic/pro-business group associated with Rajiv Gandhi, who enters politics in 1981 following his brother's death, and becomes Prime Minister in 1984. Available macro series also show that the wage share in the private corporate sector has been declining in India since the early to mid 1980s (in contrast to the 1970s, when the profit share was declining),<sup>15</sup> which is again consistent with our turning point.

Also, while the turnaround was earlier, the data suggest a definite acceleration in the growth of the share of the top 0.01 per cent after 1991. Moreover this

<sup>&</sup>lt;sup>15</sup> See Nagaraj (2000: figure 7) and Tendulkar (2003: table 14).

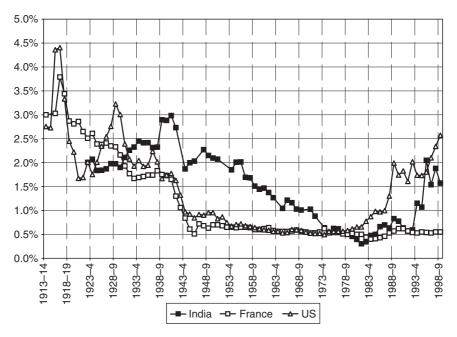


Figure 1.5 The top 0.01% income share in India, France, and the USA, 1913 2000 *Source*: Authors' computations using tax returns data (India: Table 1A.5, col. (4); France: Piketty (2003); US: Piketty and Saez (2003)).

contrasts with what we see in the case of the top 1 per cent, suggesting that what happened after 1991 was qualitatively different from what happened before, and even more biased in favour of the ultra-rich.

Finally, a tentative piece of evidence suggesting that what happened in India over this entire period was not simply a reflection of forces that were affecting countries all over the world. Figures 1.5, 1.6, and 1.7 compare what happened in India to the patterns obtained using similar data from France and the United States. During the 1950s-1960s, India was less egalitarian than either of these countries (they were actually quite similar at that time), in the sense that the top 0.01 per cent earned a substantially higher share of total income in India. Subsequently however, top income shares declined continuously in India during 1960s-1970s and fell below the Western levels during the early 1980s. The fact that the fall of top income shares occurred mostly during the 1950s-1970s in India (rather than during the inter-war period and the Second World War) seems consistent with the interpretation posited by Piketty (2003) and Piketty and Saez (2003) to explain the French and US trajectories. The shocks induced by the Great Depression of the 1930s and the Second World War were less severe in India,16 while tax progressivity was extremely high in India during the 1950s-1970s, which might have induced a very large impact on capital concentration and

<sup>&</sup>lt;sup>16</sup> Note that unlike in France, the USA, or the UK, top income shares were actually rising in India during the Great Depression of the 1930s. Top Indian nominal incomes do decline during the 1930s,

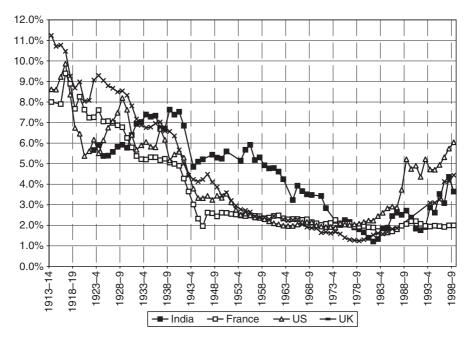


Figure 1.6 The top 0.1% income share in India, France, the USA, and the UK, 1913 2000 *Source*: Authors' computations using tax returns data (India: Table 1A.5, col. (3); France: Piketty (2003); US: Piketty–Saez (2003); UK: Chapter 13, Table 13A.2).

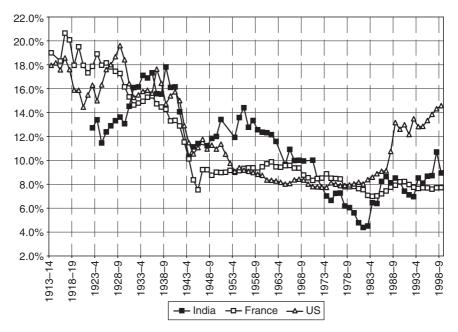


Figure 1.7 The top 1% income share in India, France, and the USA, 1913 2000 *Source*: Authors' computations using tax returns data (India: Table 1A.5, col. (1); France: Piketty (2003); US: Piketty–Saez (2003)).

pre-tax income inequality (even larger than in France or the USA). Available data do indeed seem to indicate that the fall in top shares observed during this period was primarily due to the fall of top capital incomes.<sup>17</sup>

Top income shares then went back up in India, following a pattern similar to the United States but not France, where the top shares remained fairly flat during the 1980s–1990s (the pattern in most other European countries is quite similar).<sup>18</sup> The share of the very rich in Indian incomes is currently much higher than in Europe. As we show below, the rise of top Indian incomes during the recent period was not due to the revival of top capital incomes (the rise of top wages did play a key role, like in the USA). Although our data do not allow us to identify precisely the causal channels at work, and in particular to isolate the impact of globalization, we note that the fact that the rise in income inequality was so much concentrated within top incomes seems more consistent with a theory based on rents and market frictions (see e.g. Banerjee and Newman 2003) than with a theory based solely on skills and technological complementarity (i.e. inequality rises in the south because low-skill southern workers are too low-skill to benefit from globalization; see e.g. Kremer and Maskin 2003).

#### **1.4 MEASUREMENT ISSUES**

Our presumption so far has been that what we have measured is the actual income share of the rich. There are a number of reasons why this may not be true. First, despite our best efforts, we were unable to discover the exact changes that occurred during the 1990s in the procedure for generating the samples used to create the tax tables. Our sense, from informal conversations with Indian tax officials, is that, at least in recent years, the procedure is more an informal attempt to sample randomly than a precise random sample. To the extent that this increases the risk of the data being clustered, the implication is that the within sample variance might overstate the precision of our data. While this remains a possibility, we take some consolation from the fact that the trends, for the most part, seem quite stable. While our results for single years or sets of years may reflect sampling variation, the fact that in every year between 1973–4 and 1992–3, the share of the top 0.01 per cent was less than 0.85 per cent (and in every year but two it was less than 0.7 per cent) and that in every year including and after 1995–6

but less rapidly than the national income and wage series computed by Sivasubramonian (2000). This probably reflects the fact that India had a very different position from France, the USA, or the UK in the world division of labour during the 1930s (Indian entrepreneurs might have benefited from the drop in world manufacturing output and raw prices).

<sup>17</sup> Unfortunately AIITS publications do not provide a complete set of tabulations broken down by income sources, so we were not able to study the point in greater detail.

<sup>18</sup> Top shares series recently constructed for Germany by Dell (2007; chapter 9 in Volume I) confirm that France is fairly representative of continental Europe. The UK appears to be intermediate between continental Europe and the USA: there was a rise in top shares since the early 1980s, but it was much less pronounced than in the USA (see Atkinson 2007; chapter 4 in Volume I).

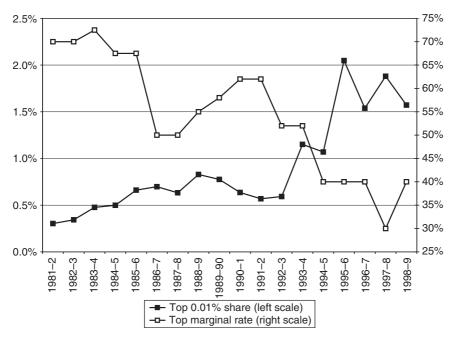


Figure 1.8 The top 0.01% income share and the top marginal income tax rate in India, 1981 2000

Source: Authors' computations using tax returns data (Table 1A.5) and tax return law.

it was greater than 1.5 per cent, seems much more robust. Moreover the intervening two years, 1993–4 and 1994–5, do show, as we might have hoped for, shares for the top 0.01 per cent that were between 0.7 per cent and 1.5 per cent.

A more serious problem is that the surge in top incomes may reflect improvements in the income tax department's ability to measure (and hence tax) the incomes of the wealthy. One reason for this may be that tax cuts in the early 1990s simply reduced the incentives for evading taxes among the wealthy. Note however that the overall decline in the top marginal rate, though non-monotonic, was quite moderate: the top marginal tax rate dropped from 50 per cent in 1987–8 to 40 per cent in 1999–2000 (see Figure 1.8). By comparison the change in the share of the top 0.01 per cent was enormous: It went up from 0.7 per cent in 1987–8 to over 1.5 per cent in 1999–2000. If this entire change is to be explained by a shift in tax rates, the implied elasticity would have to be enormous.

In particular, the implied elasticity would need to be much larger than what has been estimated in the USA following the Tax Reform Act of 1986. The current consensus in the USA seems to be that while short-run elasticities can be substantial,<sup>19</sup> the medium- and long-run elasticity of top taxable income with

<sup>&</sup>lt;sup>19</sup> This reflected mostly income relabelling or changes in timing of exercise for bonuses or stock options.

respect to top tax rates is probably fairly modest. In particular, the rise in top income shares observed in the USA during the 1970–2000 period seems to reflect for the most part real economic change (rather than pure fiscal manipulation): top shares started rising much before TRA 1986, and the rise went on during the 1990s at an even higher pace, in spite of the 1993 rise in top tax rates.<sup>20</sup> It is also interesting to note that top income shares rose enormously in China during the 1986–2001 period (twice as fast as in India), in spite of the fact that top Chinese income tax rates have remained unchanged since the early 1980s (see Chapter 2). This again suggests that the rise of top incomes can be explained by non-tax structural factors (changing social norms, booming economy, international trade and globalization, etc.) rather than by tax changes and increased incentives to report top incomes.

Of course, the effect of tax changes in India could have been reinforced by spectacular improvements in the collection technology (and not only by increased incentives on the taxpayer side). There were, after all, a number of innovations in tax collection in the 1990s, such as the introduction of the 'one in six rule' (in 1998) that required everyone who satisfied at least one out of six criteria (owning a car, travel abroad, etc.) to file a tax return.

To further investigate this issue, we redid the exercise above exclusively for wages. Wages are clearly much less subject to tax evasion than non-wage incomes, since taxes are typically deducted at source and the employer has a strong incentive to report what he pays, since he gets to deduct the wages from his own taxes. Therefore if all that was happening was better collection, we would expect wage incomes to grow much more slowly than other incomes. To see if this is the case, we compare the evolution of top wages (see Table 1.4 below) with the evolution of top incomes (see Table 1.2). We find that top wages have increased essentially in step with top incomes during the 1990s. In fact, wage growth among the top percentile of the wage distribution rose by 81 per cent between 1987–8 and 1999-2000, while the corresponding figure was 71 per cent for the top percentile of the income distribution. This is consistent with the fact that the share of wages within the total income of the top percentile has increased somewhat during this period (from 28 per cent to 31 per cent). Although very top incomes are still mostly made of non-wage income, the wage part has increased during the 1990s.

Note that the view that there was 'real' increase in top incomes (and especially top wages) in India during the 1990s is also consistent with the evolution of the public sector salary scale. Following a succession of Pay Commissions, including the well-known Fifth Pay Commission, whose recommendations were implemented in 1997, the salaries of central government employees were raised sharply in India during the 1990s.<sup>21</sup> According to our computations (based upon published public sector salary scales), the Fifth Pay Commission alone can account for a substantial part of the rise in the number of top income tax payers in India

<sup>21</sup> See, e.g., Kochar (2003).

<sup>&</sup>lt;sup>20</sup> See, e.g., Goolsbee (2000) and Piketty and Saez (2003).

	1999 2000 vs. 1987 8 (nominal growth)	1999 2000 vs. 1987 8 (real growth)
Household consumption/capita (NSS)	+242%	+19%
GDP/capita (NAS)	+337%	+52%
Household consumption/capita (NAS)	+304%	+40%
National income/tax unit (NAS)	+346%	+55%
Top wage fractile P99 100 (tax returns)	+420%	+81%
Top wage fractile P99.5 100 (tax returns)	+492%	+105%
Top wage fractile P99.9 100 (tax returns)	+551%	+126%
Top wage fractile P99.99 100 (tax returns)	+955%	+266%
Top wage fractile P99 99.5 (tax returns)	+246%	+20%
Top wage fractile P99.5 99.9 (tax returns)	+470%	+98%
Top wage fractile P99.9 99.99 (tax returns)	+448%	+94%
Top wage fractile P99.99 100 (tax returns)	+955%	+266%
Consumer price index	+188%	

Table 1.4 Top wage growth in India during the 1990s: 1999 2000 vs. 1987 1988

Source: Authors' computations using tax return, NAS and NSS data (see Table 1A.2, Table 1A.6, and Table 1A.7, row 1999–2000/1987–8).

between 1994 and 1997. Central government employees made up about 7 per cent of all income tax payers in India in 1994 (less than 500,000 central government taxpayers, out of a total of about 7 million taxpayers), and they made up almost 30 per cent of all taxpayers by 1997 (about 3.2 million central government taxpayers, out of a total of 11 million). According to these computations, out of the 4 million extra taxpayers recorded between 1994 and 1997, around 2.7 million (almost 70 per cent) were central government employees. The very top wage of the central government salary scale was 98,000 Rs (9,000 Rs per month) in 1994 (which was just a little bit above the P99.5 threshold), and it was raised to 360,000 Rs (30,000 Rs per month) in 1997 (which was well above the P99.9 threshold).<sup>22</sup> However it does not seem to be that public sector wage

<sup>22</sup> All our computations on public sector wages were made using the 1994 and 1997 (post Fifth Commission) central government salary scales published in the 'Report of the 5th Central Pay Commission' ('Distribution of Filled Posts in Central Government and Union Territories in Different Scales of Pay, as on 31.3.1994', New Delhi: Government of India Press, 1997) and in the 'Gazette of India' (Special Issue, The First Schedule Part A, 'Revised scales for posts carrying present scales in Group A, B, C and D', New Delhi: Government of India Press, 1997). In 1994, the central government scale ranked from scale 1 (9,000 Rs/month) to scale 62 (750 Rs/month), and all employees in scales 1 to 46 (approximately 500,000 employees) were subject to tax (i.e. had annual incomes over 28,000 Rs, which was the base exemption level in 1994, excluding all special deductions). In 1997, the (revised) scale ranked from scale S 34 (30,000 Rs/month, previously scale 1) to scale S 1 (2,550 Rs/month, previously scale 62), and all employees in (revised) scales S 34 to S 3 (i.e. approximately 3.2 million employees) were subject to tax (i.e. had annual incomes over 40,000 Rs, which was the base exemption level in 1997, excluding all special deductions). Note that these numbers only include central government employees strictly speaking, and that they would need to be scaled up substantially in order to take other government employees into account. In 1994, there were about 4 million central government employees, and the total number of workers employed by state governments,

increases were the primary driver behind the increase in inequality in the 1990s. Most of the rise in top Indian income shares actually took place before 1997, and it is likely that the revised scale put forward by the Fifth Commission was itself a response to the large rise in top private sector wages that had taken place in previous years.<sup>23</sup>

#### 1.5 THE GROWTH PARADOX OF THE 1990S

Can the fact that the rich were getting richer help solve what has been called the Indian growth paradox of the 1990s? Table 1.2 illustrates this paradox: for the period 1987–2000, it compares the growth rate of average consumption as reported in the NSS, with the growth rate of average income and consumption from the national accounts (NAS), as well as the top incomes from the tax returns. The years 1987–8 and 1999–2000 were chosen because there were large rounds of the NSS surveys in those years, which makes our estimates of the NSS–NAS gap more precise.<sup>24</sup> To eliminate the effect of using different deflators, we first compare nominal growth performance, and then compute real growth performance by using the same deflator for all the series (namely, the CPI).

According to the NSS, real growth was fairly limited in India during the 1990s: per capita consumption increased by only 19 per cent in real terms between 1987–8 and 1999–2000. According to National Accounts (NAS), however, real growth was more than twice as large: both per capita GDP and national income increased by more than 50 per cent in real terms, and per capita household consumption increased by 40 per cent. This NSS–NAS gap is what has been called the Indian growth paradox and has been the subject of much discussion in recent years.<sup>25</sup>

Table 1.2 raises the possibility that the very large growth of top incomes during the 1990s might help solve this puzzle. The average income growth among the top percentile of the tax units was 71 per cent in real terms between 1987–8 and 1999–2000, which is substantially more than average growth according to the national

quasi government bodies, and local bodies was about 3.5 times as large. In principle the Fifth Pay Commission revised scales also applied to these non central government employees. Unfortunately we were unable to find the salary distribution for these employees (such a document apparently only exists for the central government).

<sup>23</sup> Such a view would be consistent with the fact the ceiling on private sector executive compen sation was repealed as early as 1991.

<sup>24</sup> Intermediate NSS surveys were conducted between the two large surveys of 1987 8 and 1993 4 and between the two large surveys of 1993 4 and 1999 2000 but these were based on smaller samples, and are generally considered as less reliable. Note that we used the 1999 2000 per capita consumption estimates reported by Deaton and Drèze (2002), who implement a procedure for correcting the data for changes in the recall period (all surveys until 1993 4 were conducted with a thirty day recall period, but the NSS has experimented with seven day recall periods since then).

<sup>25</sup> See the references above. Real growth during the 1990s would be somewhat higher if one was to use the GDP deflator instead of the CPI, but the NSS NAS gap would obviously not change.

accounts. Moreover, the higher one goes within the top percentile, the higher the growth (up to + 285 per cent for the top 0.01 per cent income fractile).

What fraction of the NSS-NAS gap can be explained by the huge growth performance of very top incomes? Let us assume that the NSS is unable to record any of the extra growth enjoyed by the top percentile (say the people in the top percentile do not report their extra growth to the NSS, or do not report anything at all). According to our calculations, the top percentile share in total consumption was around 8 per cent in 1987-8.26 Since the average income of the top percentile increased by 71 per cent in real terms between 1987-8 and 1999-2000 according to the tax returns (as opposed to +19 per cent for average NSS consumption), this implies that NSS growth was 3.55 per cent less than what it would have been without the misreporting.<sup>27</sup> This implies that the growing incomes among the top percentile can explain at most 20.1 per cent of the total NSS-NAS gap (see Table 1.2).28 This is significant, but leaves 80 per cent of the puzzle unexplained. The problem lies in the fact that almost all the extraordinary growth was among the top 0.1 per cent, and the weight of this group is simply not large enough to have an impact on aggregate statistics of the necessary magnitude. For the rise of inequality to explain fully the NSS-NAS gap, there would have to have been very high income growth at the bottom of the top percentile, and not simply among those in the top 0.1 per cent.

Top income growth can explain a larger proportion of the NSS–NAS gap if we start in the 1980s. For instance, under the same assumptions, the top percentile can explain almost 40 per cent of the cumulative NSS–NAS gap over the 1981–2000 period (see Table 1.3). This is because the bottom of the top percentile enjoyed rapid income growth in the 1980s (see Figures 1.2 to 1.4). The booming Indian elite of the 1980s–1990s seems too thin to explain all of the growth puzzle, but large enough to account for a non-negligible part of it.

#### **1.6 CONCLUSION**

Our results suggest that the gradual liberalization of the Indian economy did make it possible for the rich (the top 1 per cent) to substantially increase their share of total income. However, while in the 1980s the gains were shared by everyone in the top percentile, in the 1990s it was only those in the top 0.1 per cent who had big gains. The 1990s was also the period when the economy was opened. This suggests the possibility that the ultra-rich were able to corner most

 $^{27}$  0.0812  $\times$  (1.71/1.19 1) 3.55.

<sup>28</sup> 3.55/(1.40/1.19 1) 20.1. This is in a sense a lower bound, since we are using the 1987 8 top percentile share as our baseline for this computation, and the share was higher for later years.

 $<sup>^{26}</sup>$  According to our estimates (computed with 70% of national income as the income denomin ator), the top percentile income share was 8.12% in 1987 8 (see Table 1A.5).

of the income gains in the 1990s because they alone were in a position to sell what the world markets wanted.<sup>29</sup> It would be interesting to see whether in the coming years, as more and more people position themselves to benefit from the world markets, the share of the rich and the ultra-rich stops growing and even shrinks. For this and other reasons, we hope that this study will launch a trend towards more research (and better data) that focuses on the rich.

<sup>29</sup> The point is that one does not have to be rich on a global scale to be counted among the rich in India and even among the ultra rich (see Table 1.1). Even those who got paid like an average American make it into the group of the ultra rich.

# APPENDIX 1A: TABLES OF SOURCES AND RESULTS

This appendix contains Table 1A.1 with details of the income tax sources, Table 1A.2 with the reference totals used, Tables 1A.3 to 1A.5 with results on income levels and shares, and Tables 1A.6 and 1A.7 on wage levels and shares.

Assessment Year	Exact name of publication	Publisher, place and year of publication	Table number
1922 3	'All India Income tax Returns for the year'	Central Board of Revenue, Superintendent Government Printing, Calcutta, 1924	Return IV
1923 4	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1925	Return IV
1924 5	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1926	Return IV
1925 6	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1927	Return IV
1926 7	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1928	Return IV
1927 8	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1929	Return IV
1928 9	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1930	Return IV
1929 30	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1931	Return IV
1930 1	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1932	Return IV

Table 1A.1 References of official publications with India's income tax tabulations byincome bracket, 1922 2000

1931	2	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Central Publication Branch, Calcutta, 1933	Return IV
1932	3	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, New Delhi, 1934	Return IV
1933	4	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, New Delhi, 1935	Return IV
1934	5	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Delhi, 1936	Return IV
1935	6	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Delhi, 1937	Return IV
1936	7	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Delhi, 1938	Return IV
1937	8	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1939	Return IV
1938	9	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1940	Return IV
1939	40	'All India Income tax Report and Returns for the year '	Central Board of Revenue, Government of India Press, Calcutta, 1941	Return IV
1940	1	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1942	Statement 5
1941	2	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1943	Statement 5
1942	3	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1944	Statement 5
1943	4	Not available	Not available	N.a.
1944	5	'All India Income tax Report and Returns for the year '	Central Board of Revenue, Government of India Press, Calcutta, 1947	Statement 5
1945	6	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1948	Statement 5
1946	7	'All India Income tax Report and Returns for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1950	Statement 5
1947	8	Not available	Not available	N.a.
1948	9	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1950	Statement 5
1949	50	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1951	Statement 5

(continued)

Assessment Year	Exact name of publication	Publisher, place and year of publication	Table number
1950 1	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1952	Statement 5
1951 2	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1953	Statement 5
1952 3	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Calcutta, 1954	N.a.
1953 4	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1955	N.a.
1954 5	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1956	Statement 5
1955 6	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1957	Statement 5
1956 7	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1958	Statement 5
1957 8	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1959	Statement 5
1958 9	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1960	Statement 5
1959 60	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1961	Statement 5
1960 1	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1962	Statement 5
1961 2	'All India Income tax Revenue Statistics for the year'	Central Board of Revenue, Government of India Press, Delhi, 1963	Statement 5
1962 3	'All India Income tax Revenue Statistics for the year'	Central Board of Direct Taxes, Government of India Press, Delhi, 1964	Statement 5
1963 4	'All India Income tax Statistics for the year'	Central Board of Direct Taxes, Government of India Press, Delhi, 1965	Statement 5
1964 5	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1966	Statement 5
1965 6	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1967	Statement 5
1966 7	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1968	Statement 5
1967 8	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1969	Statement 5
1968 9	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1971	Statement 5

Table 1A.1 (	Continued
--------------	-----------

1969	70	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1972	Statement 5
1970	1	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1972	Statement 5
1971	2	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1973	Statement 5
1972	3	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1974	Statement 5
1973	4	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1975	Statement 5
1974	5	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1976	Statement 5
1975	6	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1977	Statement 5
1976	7	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1978	Statement 5
1977	8	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1979	Table 5
1978	9	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1980	Table 5
1979	80	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1981	Table 5
1980	1	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1982	Table 5
1981	2	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1983	Table 5
1982	3	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1984	Table 5
1983	4	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1985	Table 5
1984	5	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1986	Table 4
1985	6	'All India Income tax Statistics for the year'	Directorate of Inspection, Delhi, 1987	Table 3
1986	7	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1988	Table 3
1987	8	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1989	Table 3
1988	9	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1990	Table 3
1989	90	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1991	Table 3
1990	1	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1992	Table 3
1991	2	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1994	Table 3
1992	3	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1994	Table 3
1993	4	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1995	Table 3
1994	5	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1996	Table 3
1995	6	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1997	Table 3

(continued)

Assessment Year	Exact name of publication	Publisher, place and year of publication	Table number
1996 7	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 1999	Table 3
1997 8	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 2000	Table 3
1998 9	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 2001	Table 3
1999 2000	'All India Income tax Statistics for the year'	Directorate of Income Tax, Delhi, 2003	Table 3

Table 1A.1 Continued

	(1) Population	(2) N.tax units	(3) N.tax returns	(4) (3)/(2)	(4) (5) (3)/(2) GDP/capita	(6) Hous. consump./ capita (NAS)	(7) National income/ tax unit	(8) Hous. consump./ capita (NSS)	(9) CPI	(10) GDP/ capita	(11) Hous. consump./ capita (NAS)	(12) National income/ tax unit	(13) (14) Hous. Nat.Inc./ consump./ capita capita (NSS) real growth		(15) Inflation rate
	(millions) (millions)	(millions)	(millions)	(%)	(current Rs)	(%) (current Rs) (current Rs) (current Rs)	(current Rs)		(p(1999–00) (1999– /p(n)) 2000 Rs	(1999– 2000 Rs)	(1999– 2000 Rs)	(1999– 2000 Rs)	(1999– 2000 Rs)	1416 (%)	(%)
1922-3	310.4	124.2	0.3	0.2			187		51.630			9,660			
1923-4	313.6	125.4	0.3	0.2			173		56.870			9,813		1.6	9.2
1924 - 5	316.7	126.7	0.3	0.2			192		57.583			11,039		12.5	1.2
19256	319.9	128.0	0.3	0.2			188		54.965			10,333		6.4	4.8
1926-7	323.2	129.3	0.3	0.2			185		53.933			9,990		3.3	1.9
1927-8	326.4	130.6	0.3	0.2			181		55.766			10,088		1.0	3.3
1928-9	329.7	131.9	0.3	0.2			179		56.730			10,172		0.8	1.7
1929–30	333.1	133.2	0.3	0.2			172		58.912			10,136		0.4	3.7
1930–1	336.4	134.6	0.4	0.3			135		71.575			9,663		4.7	17.7
1931–2	341.0	136.4	0.6	0.4			117		82.350			9,628		0.4	13.1
1932–3	345.8	138.3	0.7	0.5			111		87.693			9,770		1.5	6.1
1933-4	350.7	140.3	0.7	0.5			104		93.778			9,755		0.1	6.5
1934 - 5	355.6	142.2	0.7	0.5			108		91.536			9,889		1.4	2.4
1935–6	360.6	144.2	0.4	0.3			106		89.748			9,505		3.9	2.0
1936-7	365.7	146.3	0.3	0.2			110		88.709			9,730		2.4	1.2
1937-8	370.9	148.4	0.3	0.2			110		87.028			9,579		1.5	1.9
1938–9	376.1	150.4	0.3	0.2			109		89.052			9,722		1.5	2.3
1939 - 40	381.4	152.6	0.4	0.2			121		84.159			10,214		5.1	5.8
1940 - 1	386.8	154.7	0.4	0.3			130		82.646			10,740		5.1	1.8
1941–2	391.7	156.7	0.4	0.2			156		72.938			11,361		5.8	13.3
1942–3	396.3	158.5		0.0			221		53.807			11,902		4.8	35.6
1943-4	400.9	160.4	0.4	0.3			305		30.553			9,306		21.8	76.1
1944–5	405.6	162.2	0.4	0.3			301		31.259			9,403		1.0	2.3
19456	410.4	164.2	0.4	0.3			294		31.174			9,150		2.7	0.3
1946-7	415.2	166.1		0.0			287		28.936			8,316		9.1	7.7
1947 - 8	344.4	137.8	0.5	0.3			378		26.561			10,037		20.7	8.9
1948-9	350.0	140.0	0.4	0.3			385		22.976			8,836		12.0	15.6
1949–50	355.0	142.0	0.5	0.3			397		22.569			8,950		1.3	1.8
1950 - 1	359.0	143.6	0.6	0.4			418		21.274			8,891		0.6	6.1
														(соп	(continued)

Table 1A.2 Reference totals for tax units and income, India, 1922 2000

	(1) Population	(2) N.tax units	(3) N.tax returns	(4) (3)/(2)	(4) (5) (3)/(2) GDP/capita	(6) Hous. consump./ capita (NAS)	(7) National income/ tax unit	(8) Hous. consump./ capita (NSS)	(9) CPI	(10) GDP/ capita	(11) Hous. consump./ capita (NAS)	(12) National income/ tax unit	(13) Hous. consump./ capita (NSS)	(14) Nat.Inc./ capita real growth rate	(15) Inflation rate
	(millions)	(millions) (millions)	(millions)		(current Rs)	(%) (current Rs) (current Rs) (current Rs)	(current Rs)		(p(1999–00) /p(n))	(1999– 2000 Rs)	(1999– 2000 Rs)	(1999– 2000 Rs)	(1999– 2000 Rs)	(%)	(%)
1951–2	365.0	146.0		0.0			433		20.624			8,933		0.5	3.1
1952-3	372.0	148.8		0.0			418		23.081			9,644		8.0	10.6
1953-4	379.0	151.6	0.5	0.3			448		21.221			9,501		1.5	8.8
1954 - 5	386.0	154.4	0.5	0.3			409		26.756			10,945		15.2	20.7
1955-6	393.0	157.2	0.5	0.3			408		25.299			10,320		5.7	5.8
1956-7	401.0	160.4	0.6	0.4	334		479	221	22.371	7,464		10,712	4,941	3.8	13.1
1957–8	409.0	163.6	0.8	0.5	334		478	238	21.388	7,153		10,228	5,094	4.5	4.6
1958–9	418.0	167.2	0.8	0.5	366		522	259	20.537	7,518		10,712	5,310	4.7	4.1
1959–60	426.0	170.4	0.9	0.5	377		535	258	20.638	7,786		11,051	5,327	3.2	0.5
1960–1	434.0	173.6	1.0	0.6	405		574	275	20.686	8,386		11,879	5,687	7.5	0.2
1961–2	444.0	177.6	1.0	0.6	420		589	281	20.330	8,541		11,976	5,707	0.8	1.8
1962–3	454.0	181.6	1.1	0.6	442		615		19.628	8,674		12,065		0.7	3.6
1963-4	464.0	185.6			496		689	292	19.067	9,457		13, 130	5,565	8.8	2.9
1964–5	474.0	189.6	1.6	0.8	567		789	339	16.821	9,530		13,273	5,698	1.1	13.4
1965–6	486.0	194.4	1.6	0.8	582		809	359	15.364	8,940		12,431	5,523	6.3	9.5
1966–7	495.0	198.0	1.5	0.7	646		891	395	13.865	8,959		12,360	5,479	0.6	10.8
1967-8	506.0	202.4	1.8	0.9	740		1,029	427	12.264	9,074		12,617	5,240	2.1	13.1
1968–9	518.0	207.2	1.8	0.9	766		1,058	429	11.908	9,119		12,596	5,111	0.2	3.0
1969–70	529.0	211.6			826		1,139	454	11.840	9,777		13,482	5,370	7.0	0.6
1970–1	541.0	216.4	2.0	0.9	845	969	1,181	465	11.266	9,525	7,843	13,302	5,244	1.3	5.1
1971–2	554.0	221.6	2.0	0.9	885	733	1,223		10.929	9,670	8,014	13,366		0.5	3.1
1972–3	567.0	226.8			953	790	1,312	577	10.266	9,786	8,106	13,469	5,926	0.8	6.5
19734	580.0	232.0	2.1	0.9	1,133	931	1,580	680	8.779	9,947	8,170	13,870	5,974	3.0	16.9
1974–5	593.0	237.2	2.1	0.9	1,309	1,103	1,809		6.827	8,935	7,528	12,348		11.0	28.6
19756	607.0	242.8	2.1	0.9	1,375	1,102	1,863		6.456	8,878	7,117	12,029		2.6	5.7
1976–7	620.0	248.0	2.2	0.9	1,451	1,121	1,962		6.990	10,143	7,839	13,717		14.0	7.6
1977–8	634.0	253.6	1.6	0.6	1,606	1,263	2,201	877	6.453	10,362	8,149	14,205	5,657	3.6	8.3
1978–9	648.0	259.2	1.5	0.6	1,704	1,344	2,304		6.294	10,726	8,458	14,500		2.1	2.5
1979–80	664.0	265.6	1.2	0.5	1,825	1,424	2,433		5.924	10,813	8,436	14,415		0.6	6.3

Table 1A.2 Continued

1980-1	679.0	271.6	1.2	0.4	2,123	1,692	2,853		5.319	11,293	9,002	15,175		5.3	11.4
1981-2	692.0	276.8	1.0	0.4	2,447	1,903	3,257	1,253	4.703	11,506	8,947	15,319	5,894	0.9	13.1
1982–3	708.0	283.2	0.9	0.3	2,666	2,046	3,507		4.359	11,623	8,919	15,286		0.2	7.9
1983 - 4	723.0	289.2	2.8	1.0	3,043	2,352	4,031	1,518	3.896	11,856	9,165	15,708	5,915	2.8	11.9
1984 - 5	739.0	295.6	1.8	0.6	3,318	2,538	4,381		3.597	11,934	9,131	15,760		0.3	8.3
1985 - 6	755.0	302.0	2.5	0.8	3,681	2,725	4,778		3.408	12,544	9,285	16,282		3.3	5.6
1986-7	771.0	308.4	2.8	0.9	4,027	3,002	5,184	1,978	3.134	12,620	9,409	16,248	6,200	0.2	8.7
1987-8	788.0	315.2	3.0	0.9	4,481	3,291	5,749	2,156	2.881	12,909	9,479	16,562	6,210	1.9	8.8
1988 - 9	805.0	322.0	3.3	1.0	5,210	3,723	6,724	2,379	2.634	13,722	9,806	17,707	6,265	6.9	9.4
1989 - 90	822.0	328.8	3.7	1.1	5,890	4,084	7,606	2,605	2.481	14,611	10,131	18,870	6,463	6.6	6.2
1990-1	839.0	335.6	3.9	1.2	6,765	4,585	8,720	2,810	2.277	15,400	10,437	19,852	6,396	5.2	9.0
1991-2	856.0	342.4	4.5	1.3	7,636	5,207	9,805	3,348	1.999	15,267	10,410	19,603	6,692	1.3	13.9
1992 - 3	872.0	348.8	5.1	1.5	8,579	5,777	10,958	3,441	1.788	15,343	10,332	19,597	6,154	0.0	11.8
1993 - 4	891.0	356.4	7.0	2.0	9,643	6,480	12,550	3,936	1.681	16,215	10,896	21,102	6,618	7.7	6.4
1994–5	908.0	363.2	7.1	1.9	11,122	7,280	14,640	4,312	1.526	16,969	11,107	22,335	6,579	5.8	10.2
1995-6	927.0	370.8	7.6	2.1	12,750	8,184	16,636	4,915	1.384	17,648	11,328	23,026	6,802	3.1	10.2
1996–7	943.0	377.2	9.5	2.5	14,443	9,540	18,710		1.270	18,344	12,116	23,763		3.2	9.0
1997-8	959.0	383.6	11.1	2.9	15,804	10, 195	20,669	5,518	1.185	18,731	12,083	24,496	6,540	3.1	7.2
1998–9	975.0	390.0	14.7	3.8	18,078	11,501	23,872		1.047	18,922	12,038	24,986		2.0	13.2
1999–2000	991.0	396.4			19,562	13,304	25,670	7,362	1.000	19,562	13,304	25,670	7,362	2.7	4.7
1999-2000/					4.37	4.04	4.46	3.42	2.88	1.52	1.40	1.55	1.19		
1987-1988															
1999–2000/ 1981–1982					8.00	66.9	7.88	5.87	4.70	1.70	1.49	1.68	1.25		
<i>Sources</i> : Population and national ir consumption (NSS): Datt (1997, 19	ulation and a (NSS): Dati	national inc t (1997, 199	ome: Sivas 9) and Dea	ubramo aton and	ncome: Sivasubramonian (2000); C 999) and Deaton and Drèze (2002)	3DP, househ. ).	old consum]	Sources: Population and national income: Sivasubramonian (2000); GDP, household consumption (NAS) and CPI: World Development Indicators 2001 data base (World Bank); Household consumption (NSS): Datt (1997, 1999) and Deaton and Drèze (2002).	d CPI: World	l Developme	ent Indicato	rs 2001 data	base (World I	3ank); Hou	sehold

Table 1A.3 Top fractiles incomes levels in India, 1956 2000 (incomes are expressed in current Rs)

P99.99 (12)	19,231 18,453 18,690	18,444	18,706 18,859	18,936	17,261	14,304	13,969	13,709	14, 147	13,812	13,495	13,294	15,088	16,042	18,044	19,917		26,221	27,082	26,150		33,820	34,442	34,846	39,737
P99.9 (11)	3,808 3,735 3,802	3,785	3,885 $3,919$	3,973	3,358 3,358	3,232	3,104	3,069	3,116	3,120	2,772	2,904	3,068	3,036	3,242	3,334		4,844	5,200	5,206		7,145	7,117	7,479	9,490
P99.5 (10)	1,311 1,283 1,125	1,307	1,349 1,347	1,373	1,234	1,054	993	166	1,023	1,048	963	964	1,110	1,047	1,106	1,103		1,643	1,795	1,800		2,136	2,499	2,670	3,224
(9) (9)	836 820 702	839	868 863	882	/8/ (85	676	634	635	656	677	619	620	717	662	969	685		1,032	1,135	1,140		1,326	1,593	1,713	2,086
P99.99 100 (8)	37,508 35,714 35,196	34,603	34,637 35,787	35,425	28,463 28,463	26,421	25,900	25,505	26,078	25,597	25,391	25,582	31,607	34,991	38,778	42,564		56,908	60,073	59,606		85,816	82,673	83,082	86,597
P99.9 99.99 (7)	7,601 7,354 7,535	7,411	7,621 7,728	7,855	6.427	6,077	5,821	5,710	5,845	5,788	5,385	5,362	5,739	6,070	6,559	7,119		10,071	10,361	10,376		13,286	13,420	13,856	16,365
P99.5 99.9 (6)	2,017 1,969 1.825	2,000	2,061 2,066	2,103	1,920	1,639	1,564	1,553	1,590	1,611	1,479	1,482	1,685	1,624	1,724	1,744		2,568	2,783	2,789		3,411	3,845	4,077	4,990
P99 99.5 (5)	1,029 1,008 873	1,029	1,063 1,060	1,081	908 843	830	780	780	805	828	759	760	877	818	862	854		1,279	1,403	1,407		1,653	1,961	2,102	2,549
P99.99 100 (4)	37,508 35,714 35,196	34,603	34,637 35,787	35,425	22,085 28,463	26,421	25,900	25,505	26,078	25,597	25,391	25,582	31,607	34,991	38,778	42,564		56,908	60,073	59,606		85,816	82,673	83,082	86,597
P99.9 100 (3)	10,592 10,190 10,301	10,130	10,323 $10,534$	10,612	8.631	8,111	7,829	7,689	7,868	7,769	7,385	7,384	8,326	8,962	9,781	10,663		14,754	15,332	15,299		20,539	20,346	20,778	23,388
P99.5 100 (2)	3,732 3,613 3,520	3,626	3,713 $3,760$	3,804 2,526	3.079 3.079	2,934	2,817	2,781	2,846	2,842	2,660	2,662	3,013	3,092	3,335	3,527		5,005	5,293	5,291		6,837	7,145	7,417	8,670
P99 100 (1)	2,381 2,311 2,197	2,328	2,388 2,410	2,443	2,248 1.961	1,882	1,798	1,780	1,825	1,835	1,709	1,711	1,945	1,955	2,098	2,191		3,142	3,348	3,349		4,245	4,553	4,760	5,609
	1922 3 1923 4 1924 5	1925 6	1926 7 $1927 8$	1928 9	1930 1	1931 2	1932 3	1933 4	1934 5	1935 6	1936 7	1937 8	1938 9	1939 40	1940 1	1941 2	1942 3	1943 4	1944 5	1945 6	1946 7	1947 8	1948 9	1949 50	1950 1

37,790 38,395	39,596	40,821 41 850	42,272	41,715	44,920	44,063	42,148		43,080	51,309	51,888	56,515	56,254		62,738	50,914		51,851	55,455	64,828	62,706	61,514	61,389	64,027	62,971	58,397	75,296	104,054	116,071	(continued)
9,600 9,845	10,412	10,855	11,202 11,635	11,677	12,879	13,104	12,856		13,826	15,859	16,036	18,479	19,285		21,368	17,926		18,942	20,500	22,790	23,559	23,726	23,100	21,803	21,521	22,137	25,026	37,920	46,370	иоэ)
2,992 3,140	3,365	3,533 2 713	3,840	3,932	4,150	4,244	4,355		5,146	5,441	5,387	6,227	6,817		6,803	6,544		6,983	8,283	8,886	10,344	10,365	10, 121	9,971	10,048	10,731	11,568	20,036	20,150	
1,856 2,020	2,174	2,290	2,501	2,574	2,705	2,776	2,883		3,556	3,612	3,552	4,104	4,135		4,403	4,389		4,678	5,777	6,070	6,630	5,702	6,475	7,177	7,272	7,854	8,338	14,892	14,384	
82,778 82,197	82,180	81,028 80.446	78,667	77,281	84,244	81,036	77,912		82,357	98,289	103,613	105,843	106,656		121,128	107,641		100,832	97,844	116,200	120,749	113,129	118,213	111,311	112,687	98,891	120,377	192,063	218,454	
16,400 16,665	17,681	18,536 10 754	19,783	19,794	21,174	21, 191	20,314		19,173	24,379	24,767	28,318	29,000		31,516	26,543		27,723	29,556	33,712	33,708	33,808	33,074	32,487	31,580	32,848	38,521	60,664	67,336	
4,778 4,990	5,336	5,596 5 011	6,157	6,251	6,691	6,889	6,927		7,407	8,699	8,713	10,513	10,685		12,726	10,642		11,930	12,459	14, 190	14,877	14,586	14,534	13,617	13,619	14,537	15,730	25,339	28,420	
2,247 2,476	2,658	2,796 7 043	3,047	3,128	3,294	3,375	3,485		4,211	4,360	4,302	4,971	5,151		5,380	5,273		5,623	6,812	7,228	8,136	7,174	7,908	8,338	8,427	9,054	9,681	17,043	16,777	
82,778 82,197	82,180	81,028 80.446	78,667	77,281	84,244	81,036	77,912		82,357	98,289	103,613	105,843	106,656		121,128	107,641		100,832	97,844	116,200	120,749	113,129	118,213	111,311	112,687	98,891	120,377	192,063	218,454	
23,037 23,218	24,131	24,786 75 373	25,671	25,543	27,481	27,176	26,074		25,492	31,770	32,652	36,070	36,765		40,477	34,652		35,034	36,385	41,961	42,413	41,740	41,588	40,369	39,690	39,453	46,707	73,804	82,447	
8,430 8,636	9,095	9,434 0 81 3	10,060	10,109	10,849	10,946	10,756		11,024	13,313	13,501	15,625	15,901		18,276	15,444		16,551	17,244	19,745	20,384	20,017	19,945	18,967	18,834	19,520	21,925	35,032	39,226	
5,339 5,556	5,877	6,115 6 378	6,553	6,619	7,072	7,160	7,121		7,618	8,836	8,901	10,298	10,526		11,828	10,358		11,087	12,028	13,486	14,260	13,595	13,927	13,653	13,630	14,287	15,803	26,038	28,001	
1951 2 1952 3 1953 4 1954 5	1955 6	1956 7 1957 e	1958 9	1959 60	1960 1	1961 2	1962 3	1963 4	1964 5	1965 6	1966 7	1967 8	1968 9	1969 70	1970 1	1971 2	1972 3	1973 4	1974 5	1975 6	1976 7	1977 8	1978 9	1979 80	1980 1	1981 2	1982 3	1983 4	1984 5	

	P99 100 (1)	P99.5 100 (2)	P99.9 100 (3)	P99.99 100 (4)	P99 99.5 (5)	P99.5 99.9 (6)	P99.9 99.99 (7)	P99.99 100 (8)	(6)	P99.5 (10)	P99.9 (11)	P99.99 (12)
1985 6	39,382	57,183	116,987	315,792	21,581	42,232	94,898	315,792	18,193	26,416	68,265	144,159
1986 7 1087 8	44,800	66,715 70,441	135,420	361,637 362 850	22,885	49,538 51,005	110,285	361,637 262 850	19,061	28,386	78,641	1.07.974
198/ 8 1988 9	40,091 57,293	/0, <del>44</del> 1 85,827	144,222 182,253	557,193	22,941 28,760	666,10 61,720	119,818	557,193	18,991 23,888	28,051 35,784	82,009 95,133	197,872 269,775
1989 90	62,272	93,790	180,718	589,964	30,754	72,058	135,246	589,964	25,478	38,374	93,553	287,260
1990 1	64,731	90,059	160, 196	554,137	39,402	72,525	116,425	554, 137	33,255	49,744	62,419	273,884
1991 2	69,768	95,115	172,442	557,553	44,421	75,783	129,652	557,553	38,574	52,588	67,281	265,655
1992 3	76,319	105,333	209,611	649,042	47,304	79,264	160,785	649,042	40,842	56,369	96,319	372,766
1993 4	107,003	151,099	359,483	1,444,041	62,906	99,004	238,976	1,444,041	53, 731	75,874	168,457	458,739
1994 5	118,486	170,320	382,798	1,565,554	66,653	117,200	251,380	1,565,554	56,456	81,153	183,753	550,353
1995 6	144,270	219,979	585,834	3,407,454	68,560	128,516	272,320	3,407,454	56,467	86,100	229,296	584,003
1996 7	163, 179	241,932	576,276	2,877,818	84,426	158,346	320,549	2,877,818	70,470	104,479	258,770	646,416
1997 8	221,152	347,131	900,157	3,884,501	95,172	208,875	568,564	3,884,501	84,379	142,068	284,146	1,332,547
1998 9	213,587	335,257	869,367	3,751,628	91,916	201,730	549, 115	3,751,628	81,493	137,208	274,427	1,286,966
1999 00	229,679	360,517	934,868	4,034,289	98,842	216,929	590,488	4,034,289	87,633	147,546	295,103	1,383,930
1999 2000/ 1987 1988	4.92	5.12	6.48	11.09	4.31	4.17	4.93	11.09	4.61	5.15	3.57	6.99
1999 2000/ 1981 1982	16.08	18.47	23.70	40.80	10.92	14.92	17.98	40.80	11.16	13.75	13.33	23.70
		.   .	.			· E	0000 0001					

Table 1A.3 Continued

_
ß
00 R
200
1999
119
<u> </u>
sed
res
хbі
s are express
aro
es
E
пč
÷
000
200
56
19
a,
ipu
I.
S II
/el
le,
les
on
nc
SS i
tile
гас
fl
Top
-
1A.4
Г
Table
Ĥ

	P99 100 (1)	P99.5 100 (2)	P99.9 100 (3)	P99.99 100 (4)	P99 99.5 (5)	P99.5 99.9 (6)	P99.9 99.99 (7)	P99.99 100 (8)	(6)	P99.5 (10)	P99.9 (11)	P99.99 (12)
1922 3	122,910	192,683	546,875	1,936,560	53,137	104, 135	392,466	1,936,560	43,187	67,703	196,616	992,889
1923 4	131,411	205,482	579,514	2,031,062	57,339	111,974	418,231	2,031,062	46,660	72,960	212,388	1,049,438
1924 5	126,489	202,718	593,187	2,026,708	50,260	105,100	433,907	2,026,708	40,418	64,776	218,933	1,076,202
1925 6	127,935	199,292	556,802	1,901,954	56,577	109,915	407, 340	1,901,954	46,123	71,849	208,070	1,013,797
1926 7	128,807	200,266	556,751	1,868,081	57,347	111,145	411,048	1,868,081	46,794	72,755	209,518	1,008,879
1927 8	134, 385	209,670	587,414	1,995,698	59,100	115,234	430,938	1,995,698	48,144	75,115	218,556	1,051,673
1928 9	138,580	215,825	601,998	2,009,664	61,335	119,281	445,590	2,009,664	50,007	77,882	225,368	1,074,248
1929 30	132,428	207,813	585, 191	1,925,509	57,043	113,469	436,267	1,925,509	46,340	72,719	225,597	1,016,873
1930 1	140,361	220,369	617,759	2,037,199	60,353	121,021	460,044	2,037,199	49,017	76,957	240,383	1,093,858
1931 2	154,955	241,581	667,932	2,175,730	68,328	134,993	500, 399	2,175,730	55,681	86,809	266,162	1,177,900
1932 3	157,712	247,031	686,559	2,271,200	68,394	137, 149	510,487	2,271,200	55,610	87,104	272,212	1,225,000
1933 4	166,932	260,756	721,065	2,391,820	73,107	145,679	535,426	2,391,820	59,520	92,974	287,832	1,285,637
1934 5	167,082	260,466	720,213	2,387,050	73,699	145,529	535,009	2,387,050	60,060	93,628	285,219	1,294,945
1935 6	164,687	255,078	697,219	2,297,251	74,297	144,542	519,438	2,297,251	60,735	94,070	280,043	1,239,607
1936 7	151,631	235,970	655,127	2,252,387	67,292	131,181	477,654	2,252,387	54,884	85,412	245,883	1,197,089
1937 8	148,892	231,678	642,592	2,226,384	66,106	128,949	466,615	2,226,384	53,920	83,901	252,716	1,156,923
1938 9	173,215	268,336	741,412	2,814,694	78,095	150,067	511,047	2,814,694	63,834	98,889	273,230	1,343,655
1939 40	164,521	260, 192	754,270	2,944,786	68,849	136,672	510,880	2,944,786	55,722	88,125	255,466	1,350,059
1940 1	173,427	275,647	808,376	3,204,867	71,206	142,465	542,099	3,204,867	57,491	91,378	267,978	1,491,271
1941 2	159,775	257,287	777,757	3,104,547	62,264	127,170	519,224	3,104,547	49,956	80,445	243,178	1,452,725
1942 3												
1943 4	96,004	152,928	450,786	1,738,684	39,081	78,463	307,687	1,738,684	31,520	50,209	148,002	801,118
1944 5	104,648	165,450	479,268	1,877,826	43,846	86,995	323,872	1,877,826	35,492	56,113	162,545	846,577
1945 6	104,408	164,944	476,948	1,858,192	43,873	86,942	323,477	1,858,192	35,526	56,124	162,288	815,215
1946 7												
1947 8	112,744	181,587	545,546	2,279,373	43,900	90,597	352,899	2,279,373	35,220	56,725	189,770	898,298
1948 9	104,605	164, 164	467,452	1,899,455	45,046	88,342	308,341	1,899,455	36,593	57,427	163,522	791,334
1949 50	107,422	167,402	468,952	1,875,089	47,441	92,015	312,715	1,875,089	38,668	60,259	168,805	786,447
1950 1	119,331	184,435	497,543	1,842,237	54,226	106,158	348,133	1,842,237	44,373	68,582	201,893	845,350
											2	Continued

(continued)

		ŗ										
	P99 100 (1)	P99.5 100 (2)	P99.9 100 (3)	P99.99 100 (4)	P99 99.5 (5)	P99.5 99.9 (6)	99.99 99.99 (7)	P99.99 100 (8)	(6)	P99.5 (10)	P99.9 (11)	P99.99 (12)
1951 2												
1952 3 1052 4	000 011	170.003	100 001	1 757 642		101 205	248.020	C17 732 1		() E00	107 000	0701000
4 6661	110,292	1/8,895	400,002	1,/00,042	41,092	C6C,101	048,020	1,/00,042	240,60	000,00	107,002	801,960
1954 5	148,643	231,051	621,223	2,199,240	66,236	133,508	445,888	2,199,240	54,053	84,020	263,408	1,027,295
1955 6	148,677	230,099	610,483	2,079,083	67,254	135,003	447,306	2,079,083	54,999	85,119	263,421	1,001,744
1956 7	136,799	211,042	554,473	1,812,655	62,556	125,184	414,676	1,812,655	51,235	79,041	242,835	913,189
1957 8	136,402	209,868	542,669	1,720,548	62,935	126,668	411,793	1,720,548	51,611	79,409	241, 293	895,080
1958 9	134,584	206,602	527,202	1,615,547	62,566	126,452	406,275	1,615,547	51,365	78,851	238,936	868,131
1959 60	136,597	208,638	527,159	1,594,948	64,555	129,008	408,515	1,594,948	53,125	81,143	241,001	860,933
1960 1	146,287	224,429	568, 479	1,742,680	68,145	138,416	438,012	1,742,680	55,961	85,854	266,405	929,205
1961 2	145,569	222,533	552,475	1,647,440	68,604	140,048	430,812	1,647,440	56,434	86,271	266,397	895,797
1962 3	139,765	211,123	511,775	1,529,248	68,407	135,959	398,723	1,529,248	56,594	85,488	252,344	827,278
1963 4												
1964 5	128,135	185,431	428, 790	1,385,308	70,838	124,591	322,510	1,385,308	59,810	86,555	232,562	724,644
1965 6	135,767	204,546	488, 125	1,510,151	66,988	133,651	374,567	1,510,151	55,489	83,600	243,656	788,331
1966 7	123,420	187, 197	452,729	1,436,632	59,643	120,815	343,407	1,436,632	49,247	74,695	222,345	719,448
1967 8	126,301	191,630	442,383	1,298,115	60,972	128,942	347,301	1,298,115	50,336	76,373	226,640	693,130
1968 9	125,339	189,342	437,790	1,270,021	61,335	127,230	345,319	1,270,021	49,238	81,173	229,643	669,861
1969 70												
1970 1	133,250	205,891	456,000	1,364,580	60,609	143,364	355,047	1,364,580	49,603	76,644	240,724	706,786
1971 2	113,206	168,787	378,713	1,176,400	57,625	116,306	290,082	1,176,400	47,970	71,523	195,913	556,435
1972 3												
1973 4	97,336	145,308	307,579	885,240	49,363	104,740	243,394	885,240	41,068	61,309	166,301	455,223
1974 5	82,114	117,722	248,394	667,966	46,506	85,054	201,775	667,966	39,440	56,543	139,950	378,584
1975 6	87,073	127,477	270,914	750,224	46,669	91,618	217,657	750,224	39,188	57,372	147,141	418,549
1976 7	99,674	142,482	296,462	844,032	56,867	103,987	235,621	844,032	46,344	72,303	164,673	438,315
1977 8	87,730	129,169	269,348	730,014	46,292	94,125	218,163	730,014	36,796	66,887	153,102	396,949
1978 9	87,661	125,544	261,775	744,088	49,777	91,487	208,184	744,088	40,759	63,708	145,406	386,413
1979 80	80,881	112,364	239,150	659,410	49,398	80,667	192,454	659,410	42,518	59,068	129,163	379,299
1980 1	72,505	100,185	211,133	599,435	44,826	72,448	167,988	599,435	38,681	53,448	114,482	334,973

Table 1A.4 Continued

	(1)	(2)	(3)	(4)	P99 99.5 (5)	P99.5 99.9 (6)	P99.9 99.99 (7)	P99.99 100 (8)
1922 3	12.72	9.97	5.66	2.00	2.75	4.31	3.66	2.00
1923 4	13.39	10.47	5.91	2.07	2.92	4.56	3.84	2.07
1924 5	11.46	9.18	5.37	1.84	2.28	3.81	3.54	1.84
1925 6	12.38	9.64	5.39	1.84	2.74	4.25	3.55	1.84
1926 7	12.89	10.02	5.57	1.87	2.87	4.45	3.70	1.87
1927 8	13.32	10.39	5.82	1.98	2.93	4.57	3.84	1.98
1928 9	13.62	10.61	5.92	1.98	3.01	4.69	3.94	1.98
1929 30	13.07	10.25	5.77	1.90	2.81	4.48	3.87	1.90
1930 1	14.53	11.40	6.39	2.11	3.12	5.01	4.28	2.11
1931 2	16.09	12.55	6.94	2.26	3.55	5.61	4.68	2.26
1932 3	16.14	12.64	7.03	2.32	3.50	5.62	4.70	2.32
1933 4	17.11	13.37	7.39	2.45	3.75	5.97	4.94	2.45
1934 5	16.90	13.17	7.28	2.41	3.73	5.89	4.87	2.41
1935 6	17.33	13.42	7.34	2.42	3.91	6.08	4.92	2.42
1936 7	15.58	12.13	6.73	2.31	3.46	5.39	4.42	2.31
1937 8	15.54	12.09	6.71	2.32	3.45	5.38	4.38	2.32
1938 9	17.82	13.80	7.63	2.90	4.02	6.17	4.73	2.90
1939 40	16.11	12.74	7.38	2.88	3.37	5.35	4.50	2.88
1940 1	16.15	12.83	7.53	2.98	3.32	5.31	4.54	2.98
1941 2	14.06	11.32	6.85	2.73	2.74	4.48	4.11	2.73
1942 3								
1943 4	10.32	8.22	4.84	1.87	2.10	3.37	2.98	1.87
1944 5	11.13	8.80	5.10	2.00	2.33	3.70	3.10	2.00
1945 6	11.41	9.01	5.21	2.03	2.40	3.80	3.18	2.03
1946 7								
1947 8	11.23	9.05	5.44	2.27	2.19	3.61	3.16	2.27
1948 9	11.84	9.29	5.29	2.15	2.55	4.00	3.14	2.15
1949 50	12.00	9.35	5.24	2.10	2.65	4.11	3.14	2.10
1950 1	13.42	10.37	5.60	2.07	3.05	4.78	3.52	2.07
1951 2								
1952 3								
1953 4	11.92	9.41	5.15	1.85	2.51	4.27	3.30	1.85
1954 5	13.58	10.55	5.68	2.01	3.03	4.88	3.67	2.01
1955 6	14.41	11.15	5.92	2.01	3.26	5.23	3.90	2.01
1956 7	12.77	9.85	5.18	1.69	2.92	4.67	3.48	1.69
1957 8	13.34	10.26	5.31	1.68	3.08	4.95	3.62	1.68
1958 9	12.56	9.64	4.92	1.51	2.92	4.72	3.41	1.51
1959 60	12.36	9.44	4.77	1.44	2.92	4.67	3.33	1.44
1960 1	12.31	9.45	4.79	1.47	2.87	4.66	3.32	1.47
1961 2	12.15	9.29	4.61	1.38	2.86	4.68	3.24	1.38
1962 3	11.58	8.75	4.24	1.27	2.83	4.51	2.97	1.27
1963 4								
1964 5	9.65	6.99	3.23	1.04	2.67	3.75	2.19	1.04
1965 6	10.92	8.23	3.93	1.21	2.69	4.30	2.71	1.21
1966 7	9.99	7.57	3.66	1.16	2.41	3.91	2.50	1.16
1967 8	10.01	7.59	3.51	1.03	2.42	4.09	2.48	1.03
1968 9	9.95	7.52	3.48	1.01	2.43	4.04	2.47	1.01
1969 70								

Table 1A.5Top fractiles income shares in India, 19562000 (income shares are expressedas % of total income)

1070 1	10.02	4	2.42	1.02	2.20	4.21	2.40	1.02
1970 1	10.02	7.74	3.43	1.03	2.28	4.31	2.40	1.03
1971 2	8.47	6.31	2.83	0.88	2.16	3.48	1.95	0.88
1972 3								
1973 4	7.02	5.24	2.22	0.64	1.78	3.02	1.58	0.64
1974 5	6.65	4.77	2.01	0.54	1.88	2.76	1.47	0.54
1975 6	7.24	5.30	2.25	0.62	1.94	3.05	1.63	0.62
1976 7	7.27	5.19	2.16	0.62	2.07	3.03	1.55	0.62
1977 8	6.18	4.55	1.90	0.51	1.63	2.65	1.38	0.51
1978 9	6.05	4.33	1.81	0.51	1.72	2.52	1.29	0.51
1979 80	5.61	3.90	1.66	0.46	1.71	2.24	1.20	0.46
1980 1	4.78	3.30	1.39	0.40	1.48	1.91	1.00	0.40
1981 2	4.39	3.00	1.21	0.30	1.39	1.79	0.91	0.30
1982 3	4.51	3.13	1.33	0.34	1.38	1.79	0.99	0.34
1983 4	6.46	4.35	1.83	0.48	2.11	2.51	1.35	0.48
1984 5	6.39	4.48	1.88	0.50	1.91	2.59	1.38	0.50
1985 6	8.24	5.98	2.45	0.66	2.26	3.54	1.79	0.66
1986 7	8.64	6.43	2.61	0.70	2.21	3.82	1.91	0.70
1987 8	8.12	6.13	2.51	0.63	2.00	3.62	1.88	0.63
1988 9	8.52	6.38	2.71	0.83	2.14	3.67	1.88	0.83
1989 90	8.19	6.17	2.38	0.78	2.02	3.79	1.60	0.78
1990 1	7.42	5.16	1.84	0.64	2.26	3.33	1.20	0.64
1991 2	7.12	4.85	1.76	0.57	2.27	3.09	1.19	0.57
1992 3	6.96	4.81	1.91	0.59	2.16	2.89	1.32	0.59
1993 4	8.53	6.02	2.86	1.15	2.51	3.16	1.71	1.15
1994 5	8.09	5.82	2.61	1.07	2.28	3.20	1.55	1.07
1995 6	8.67	6.61	3.52	2.05	2.06	3.09	1.47	2.05
1996 7	8.72	6.47	3.08	1.54	2.26	3.39	1.54	1.54
1997 8	10.70	8.40	4.36	1.88	2.30	4.04	2.48	1.88
1998 9	8.95	7.02	3.64	1.57	1.93	3.38	2.07	1.57
1999 00	8.95	7.02	3.64	1.57	1.93	3.38	2.07	1.57

	non a dor	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	. (			• ••• ••••••	(m					
	P99 100	P99.5 100	P99.9 100	P99.99 100	P99 99.5	P99.5 99.9	66.66 6.66d	P99.99 100	66d	P99.5	6.99J	66.999
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
1987 8	22,860	32,470	43,262	80,942	13,250	29,772	39,075	80,942	11,238	15,962	25,901	47,310
1988 9	28,051	39,563	54,670	123,950	16,539	35,786	46,972	123,950	14,135	19,936	29,827	64,502
1989 90	29,933	42,456	58,197	133,071	17,411	38,521	49,877	133,071	14,841	21,049	31,240	68,131
1990 1	32,718	44,935	58, 380	131,744	20,500	41,574	50,229	131,744	17,740	24,365	26,363	57,958
1991 2	36,956	48,712	63,142	158,045	25,199	45,104	52,597	158,045	22,230	29,301	26,922	71,978
1992 3	43,215	51,650	70,759	178,481	34,780	46,872	58,790	178,481	32,099	38,364	30,171	84,610
1993 4	42,126	63,482	144,468	487,871	20,770	43,236	106,312	487,871	17,203	25,924	72,935	151,514
1994 5	56,211	80,710	155,368	452,012	31,712	62,045	122,408	452,012	26,875	38,588	85,933	146,952
1995 6	64,379	93,558	180,337	532, 192	35,199	71,864	141,242	532, 192	29,660	43,104	97,135	164,540
1996 7	74,035	107,592	207,387	612,021	40,479	82,643	162,428	612,021	34,109	49,569	111,705	189,221
1997 8	81,439	118,351	228,126	673,223	44,526	90,908	178,671	673,223	37,520	54,526	122,876	208, 143
1998 9	110,663	178,710	262, 134	794,328	42,616	157,853	203,001	794,328	34,145	55,141	72,901	166,757
$1999\ 00$	118,962	192,113	281,794	853,903	45,812	169,693	218,226	853,903	36,706	59,277	78,369	179,263
1999 2000/ 1987 1988	5.20	5.92	6.51	10.55	3.46	5.70	5.58	10.55	3.27	3.71	3.03	3.79
170/ 1700												
C 17 V				- 1 -:F -1 IIV ) F			$T_{} E_{t-1} = 1033 2000$					

 Table 1A.6
 Top fractile wage levels in India, 1987
 2000 (wages are expressed in current Rs)

	-	2		,	2	-						
	P99 100 (1)	P99.5 100 (2)	P99.9 100 (3)	P99.99 100 (4)	P99 99.5 (5)	P99.5 99.9 (6)	P99.9 99.99 (7)	P99.99 100 (8)	66d (9)	P99.5 (10)	P99.9 (11)	P99.99 (12)
1987 8	65,853	93,537	124,624	233,169	38,169	85,765	112,563	233,169	32,373	45,982	74,612	136,286
1988 9	73,874	104, 190	143,974	326,427	43,557	94,244	123,702	326,427	37,226	52,503	78,552	169,868
1989 90	74,257	105, 322	144,371	330,114	43,192	95,560	123,733	330,114	36,816	52,218	77,498	169,014
1990 1	74,482	102, 295	132,904	299,915	46,669	94,643	114,347	299,915	40,386	55,467	60,017	131,943
1991 2	73,882	97,385	126,234	315,965	50,379	90,173	105, 152	315,965	44,442	58,579	53,822	143,899
1992 3	77,286	92,370	126,546	319,196	62,201	83,826	105,140	319,196	57,406	68,610	53,959	151,316
1993 4	70,832	106,741	242,912	820,320	34,923	72,698	178,755	820,320	28,925	43,589	122,635	254,760
1994 5	85,757	123, 134	237,035	689,606	48,381	94,659	186,750	689,606	41,001	58,871	131,102	224,195
1995 6	89,107	129,495	249,606	736,614	48,719	99,467	195,494	736,614	41,053	59,660	134,446	227,741
1996 7	94,032	136,652	263,401	777,325	51,412	104,965	206,299	777,325	43,322	62,958	141,877	240,328
1997 8	96,520	140,268	270,371	797,895	52,772	107,742	211,758	797,895	44,468	64,623	145,631	246,688
1998 9	115,830	187,055	274,375	831,422	44,606	165,225	212,481	831,422	35,740	57,716	76,306	174,544
1999 00	118,962	192,113	281,794	853,903	45,812	169,693	218,226	853,903	36,706	59,277	78,369	179,263
1999 2000/ 1987 1988	1.81	2.05	2.26	3.66	1.20	1.98	1.94	3.66	1.13	1.29	1.05	1.32

Table 1A.7 Top fractile wage levels in India, 1987 2000 (wages are expressed in 1999 2000 Rs)

#### REFERENCES

- Atkinson, A. B. (2007). 'Top Incomes in the United Kingdom over the Twentieth Century', in A. B. Atkinson and T. Piketty (eds.) *Top Incomes over the Twentieth Century: A Contrast between Continental European and English Speaking Countries*. Oxford: Oxford University Press.
- Banerjee, Abhijit and Andrew Newman (2003). 'Inequality, Growth and Trade Policy', mimeo.

and Thomas Piketty (2004). 'Top Indian Incomes, 1922 2000', CEPR Discussion Paper.

Bhalla, Surjit (2002). *Imagine There is no Country: Poverty, Inequality and Growth in the Era of Globalization*. Institute for International Economics.

Datt, Gaurav (1997). 'Poverty in India 1951 1994: Trends and Decompositions', mimeo, The World Bank.

(1999). 'Has Poverty Declined since Economic Reforms', *Economic and Political Weekly*, 11 17 December.

Deaton, Angus (2003a). 'Adjusted Indian Poverty Estimates for 1999 2000', *Economic and Political Weekly*, 25 January.

(2003b). 'Prices and Poverty in India, 1987 2000', *Economic and Political Weekly*, 25 January.

(2003c). 'Measuring Poverty in a Growing World (or Measuring Growth in a Poor World)', NBER Working Paper 9822.

(2003d). 'How to Monitor Poverty for the Millennium Development Goals', forth coming in *Journal of Human Development*.

and Jean Drèze (2002). 'Poverty and Inequality in India: A Re examination', *Eco nomic and Political Weekly*, 7 September.

- Dell, F. (2007). 'Top Incomes in Germany throughout the Twentieth Century: 1891 1998', in A. B. Atkinson and T. Piketty (eds.) *Top Incomes over the Twentieth Century: A Contrast between Continental European and English Speaking Countries*. Oxford: Oxford University Press.
- Delong, J. Bradford (2001). 'India since Independence: An Analytical Growth Narrative', mimeo, University of California, Berkeley.

Goolsbee, A. (2000). 'What Happens When You Tax the Rich? Evidence from Executive Compensation', *Journal of Political Economy*, April.

Kochar, Anjini (2003). 'Government, Schooling and Poverty: The Trickle Down Benefits of Higher Schooling in India', mimeo, Stanford.

Kremer, Michael and Eric Maskin (2003). 'Globalization and Inequality', mimeo, Harvard.

Minhas, B. S. (1988), 'Validation of Large Scale Sample Survey Data: Case of NSS Estimates of Household Consumption Expenditure', *Sankhya*, Series B, 50(3), Supplement. and S. M. Kansal (1990). 'Firmness, Fluidity and Margins of Uncertainty in the

National Accounts Estimates of PCE in the 1980s', Journal of Income and Wealth, 12(1).

Nagaraj, R. (2000). 'Indian Economy since 1980? Virtuous Growth or Polarization?', *Economic and Political Weekly*, 5 August: 2831 9.

Piketty, Thomas (2003). 'Income Inequality in France, 1901 1998', Journal of Political Economy, 111: 1004 42.

and Emmanuel Saez (2003). 'Income Inequality in the United States, 1913 1998', *Quarterly Journal of Economics*, 118: 1 39.

- Ravallion, Martin (2000). 'Should Poverty Measures Be Anchored to the National Accounts?', *Economic and Political Weekly*, 26 August 2 September.
  - (2001). 'Measuring Aggregate Welfare in Developing Countries: How Well do National Accounts and Surveys Agree?', mimeo, The World Bank.
- Rodrik, Dani and Arvind Subramanian (2004). 'The Mystery of the Indian Growth Transition', mimeo, NBER.
- Sivasubramonian, S. (2000). The National Income of India in the Twentieth Century, Oxford: Oxford University Press.
- Sundaram, K. and Suresh D. Tendulkar (2001). 'NAS NSS Estimates of Private Consump tion for Poverty Estimation', *Economic and Political Weekly*, 13 20 January.
- Szekely, Miguel and Marianne Hilgert (1999). 'What's Behind the Inequality We Measure: An Investigation Using Latin American Data', mimeo, Inter American Development Bank.
- Tendulkar, Suresh D. (2003). 'Organized Labour Market in India: Pre and Post Reform', mimeo, Delhi School of Economics.
- World Bank (2000). India: Policies to Reduce Poverty and Accelerate Sustainable Develop ment, Report No. 19471 IN.