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**Non-Food Expenditures and
Consumption Inequality in India**

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Non-Food Expenditures and Consumption Inequality in India

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Abstract

This paper contributes to the ongoing debate about economic inequality in India during the post-reform period. We analyze consumption inequality through the hitherto neglected lens of nonfood expenditure. Using household level consumption expenditure data from the quinquennial "thick" rounds of the NSS, we show that inequality within food and non-food groups has declined, even as overall expenditure inequality has increased over time. We suggest that the rise in overall expenditure inequality is due to the increased weight in the household budget of non-food spending, which tends to be more unequal than food spending. We also show that inequality is very different across broad non-food items. Durables, education, healthcare, and consumer services show the most rapid increases in real expenditure, and also display the highest levels of inequality. Finally, we offer some possible mechanisms for this phenomenon and suggest policy measures to deal with this form of inequality.

1. Introduction

The neoliberal economic model, in place in India since the late 1980s, has been lauded for

delivering high rates of growth but criticized for failing to create employment and for increasing

economic inequality. While a few scholars still see India's recent economic growth as being

"inclusive" (Bhalla, 2011; Bhagwati and Panagariya, 2013), a much larger body of work

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suggests that consumption, income, and wealth inequality have all risen since the 1990s (Sen and Himanshu, 2004a; 2004b; Pal and Ghosh, 2007; Jayadev et al. 2011; Subramanian and Jayaraj, 2013). Some mechanisms that have been suggested in this literature to explain rising inequality are agrarian distress (leading to stagnant or weakly rising incomes for the vast majority of rural households), jobless growth in the formal manufacturing sector accompanied by a growth in casual and informal employment, and increased returns to higher education in the new service economy.

This paper contributes to the ongoing debate over the dynamics of economic inequality in India during the post-reform period by focusing on a novel angle: the distinction between food and non-food expenditure.[1] All previous studies that have analyzed consumption inequality along class, caste, and regional dimensions, have examined household expenditures as a whole. However, trends in spending on food and nonfood items (like consumer durables, education, healthcare, and other services) are significantly different. For instance, most of the increase in total expenditure in real terms in the recent decades can be accounted for by the increase on non-food items. Average food expenditures have been nearly stagnant in real terms in rural and urban areas (Figure 1 below, and Deaton and Dreze, 2009). In recent work we have discussed the possible causes and implications of this "food budget squeeze" for nutrition and poverty (Basole and Basu, 2015). In this paper, to the best of our knowledge the first one to do so, we discuss implications of different trends of food and nonfood expenditures on consumption inequality.

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[1] At the outset we note that consumption inequality is typically much lower than income inequality, which in turn is significantly below wealth inequality. Thus our results should be taken as a lower bound on economic inequality in India.

Another aspect of the present study is worth noting at the outset. Most studies on inequality use relative inequality measures such as the Gini coefficient or percentile ratios. While these measures give important insights into the distribution of consumption expenditure and/or income, they miss out on a crucial dimension of inequality: changes in absolute differences in expenditure and/or income in the population (Subramanian and Jayaraj, 2013; Ravallion, 2014). In this paper, we analyze relative (scale-invariant), absolute (translation-invariant) and intermediate inequality measures.[2]

Drawing on data from the quinquennial "thick" rounds of the Consumption Expenditure Survey (CES) of the National Sample Survey Organization (NSSO), our analysis of household expenditures over a 25-year period from 1987-88 to 2011-12 uncovers several interesting trends. First, we find that in both rural and urban areas, relative inequality *within* food and non-food groups has declined (or remained unchanged) over time, even as overall expenditure inequality has increased. This must mean that the observed rise in overall expenditure inequality is due to the increased weight in the household budget of non-food spending, which tends to be more unequal than food spending. Second, we find that absolute inequality in food spending has been stagnant (or has fallen), while it has increased very rapidly for non-food expenditure. Third, it is possible to identify three distinct periods within the overall analysis period: between 1987 and 1994 inequality either decreases or rises weakly, between 1994 and 2004 there is a strong increase in inequality, followed by a weaker but still increasing trend between 2004 and 2011.

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[2] For ease of comparability with the existing literature, the term "Gini coefficient" without any prefix will refer to the relative Gini coefficient. When we wish to refer to the absolute or intermediate Gini coefficient, we will explicit use the prefix "absolute" or "intermediate".

Finally, we find that inequality is significantly different across major categories of non-food items. Expenditure on durables, education, healthcare, and consumer services have not only seen the most rapid increases in real terms but also show the highest levels of relative inequality. This reinforces our belief that the increase in relative consumption inequality observed at the aggregate level can be largely explained by the increased importance in the household budget of non-food items.

A question that immediately arises is, are these trends a cause for concern and policy intervention? Or do they merely reflect the "normal" process of economic growth wherein household budgets diversify, in the process increasing inequality? We believe that concern is warranted for two reasons. Firstly, even if the rising inequality were the result of a "normal" process of growth, the fact remains that this makes the underlying process unjust, exclusionary and unsustainable. It is precisely because the growth process is accompanied by increasing inequality that policy interventions from the State to reduce inequality is called for. Second, it is worth noting that the inequality of non-food consumption is extremely high and has declined only gradually in relative terms. In absolute terms, it has increased enormously. On this count, the absolute gap between the rich and poor has widened. The fact that the growth process is bypassing the majority calls into serious question claims about a rising tide lifting all boats. These oft neglected dimensions of inequality are not only worthy of scholarly attention but call for long term policy intervention.

The remainder of the paper is organized as follows. Section 2 reviews the literature on trends and measures of inequality in the Indian context. Section 3 describes the data and methods used in

this paper. Section 4 presents the results. Section 5 concludes the discussion with some policy recommendations and thoughts about future research.

2. Inequality in the post-reform period: Trends and Measures

Even though the literature on economic inequality in India is smaller than that on poverty and nutrition, it has grown rapidly in recent years. Several studies have attempted to analyze trends in consumption, income and wealth inequality in India and offer explanations for them (Sen and Himanshu, 2004a; 2004b; Banerjee and Piketty, 2005; Dutta, 2005; Pal and Ghosh, 2007; Cain et al., 2010; Jayadev et al., 2011; Zacharias and Vakulabharnam, 2011; Motiram and Vakulabharanam, 2012; Basole, 2014). Since good data on income or wealth are hard to come by or cover only a small fraction of the population, most studies of inequality in India study consumption expenditure inequality using data from the CES conducted by the NSSO.

Over the past two decades, the central question addressed by the literature is whether inequality has increased significantly after the onset of neoliberal economic reforms in 1991. Pal and Ghosh (2007) review the controversy that occurred in the early years of this century over this question. Part of the disagreement over the trend movement in inequality (and poverty) came from the incompatibility of the 55th NSS round (1999-2000) with earlier (and later) rounds. Thus, while Bhalla (2003) found that the all-India consumption Gini had decreased in the 1990s, Deaton and Dreze (2002) found evidence for a "pervasive increase in economic inequality in the nineties." They noted that this is a new development in the Indian economy because until 1993-94 the Gini coefficient of consumption expenditure for the whole country was fairly stable. Sen and

Himanshu (2004a) reached a similar result and also offered revised estimates based on corrections to the 55th round data. Dev and Ravi (2007) avoided the complications of the 55th round by comparing the pre-reform period 1983/1993-94 with the post-reform 1993-94/2004-05 using data from a uniform reference period of 30 days. Their computation show that inequality moved in opposite directions in the two periods, declining (or remaining stagnant) in the pre-reform period and increasing in the post-reform period. For rural India, the Gini coefficient of consumption expenditure fell from 0.308 in 1983 to 0.286 in 1993-94, and then increased to 0.305 in 2004-05. For urban India, the corresponding values were 0.341, 0.343 and 0.375.[3]

The availability of the 2004-2005 (61st round) NSS data more or less settled the question of the overall dynamics of inequality. It is now clear that overall inequality within rural and urban India has increased in the 1990s and 2000s after being relatively unchanged in the 1980s (Himanshu 2007; Cain et al., 2010; Motiram and Vakulabharman 2011; but see Krishna and Sethupathy 2011 for an opposing view). This holds true not only for consumption but also for income and wealth inequality (Motiram and Vakulabharnam, 2011, Table 5.4). The Gini coefficient for per capita total net worth increased from 0.64 in 1991 to 0.66 in 2002 (Jayadev et al. 2011). Dutta (2005) found that the trend in wage inequality among regular salaried workers paralleled the consumption Gini trend, being stable at 0.32 between 1983 and 1993, and then rising to 0.38 by 1997.

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[3] Using data from mixed reference periods, they also compare two sub-periods of the post-reform era, 1993-94/1999-00 and 1999-00/2004-05. They find that the rate of decline of poverty was higher in the second period. They flag this result as surprising because the second period was known to perform worse in terms of other indicators like agricultural growth.

A second, and related, set of questions concerns the magnitude of the increase in inequality and whether this is something to be concerned about, both from an ethical perspective and from the point of view of poverty reduction. It could be argued that the increase in inequality is modest and not a matter of concern because it has been accompanied by poverty reduction (Cain et al., 2010). However, Dev and Ravi (2007) note that, in urban areas, where inequality has risen faster than in rural areas, the relationship between growth in monthly per capita expenditure (MPCE) and decline in poverty is weaker. They conclude that poverty would have declined much faster in the absence of the increases in inequality in urban areas. Since the rate of increase in inequality has an impact on the rate of decline of poverty *ceteris paribus*, its study has obvious policy implications from a development perspective.

Further, the conclusion that the increase in inequality has been modest relies on the particular measures of inequality that have been most commonly used in the literature. Subramanian and Jayaraj (2013) point out that measures of relative inequality (such as the relative Gini coefficient that has been most frequently used by researchers) understate inequality and recommend that such measures be used in conjunction with measures of absolute inequality.[4] They note that equal rates of growth of consumption across the distribution are compatible with increasing absolute differences in the level of consumption, differences that are not captured by the relative Gini coefficient. Using absolute and intermediate Gini coefficients (see the next section for definitions of these measures) they report large increases in consumption expenditure inequality in the post-reform period, especially in urban areas.

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[4] A *relative inequality measure* is one whose value remains unchanged when an income distribution is uniformly scaled up or down by any factor, while an *absolute inequality measure* is one whose value remains unchanged when the same income is added to (or subtracted from) every income in a distribution (Subramanian and Jayaraj, 2013).

To motivate the empirical analysis in this paper, we will now briefly review the explanations advanced in the literature for the increase in inequality since the early 1990s. One line of research has emphasized the change in the policy regime that was the result of the adoption of neoliberal reforms in the early 1990s (Patnaik, 2007). Key aspects of this policy regime have been reduction in public investment, especially in agriculture, increasing the openness of the economy to international trade and capital flows, and a conservative fiscal policy stance. The results of the systematic neglect of the agricultural sector have been stagnation in agriculture and agrarian distress. Since the majority of the workforce is still employed in agriculture, stagnation in that sector has contributed to aggregate inequality by increasing the divergence in average incomes between agriculture, industry and services (Basu and Das, 2012).

Another line of research has emphasized that the increase in equality is more pronounced in urban areas, and has argued that the increase in the returns to education is an important contributing factor, especially for households that rely on education-intensive sources of income (Cain, et al., 2010). Analysis of wage trends since 1983 has found that wage inequality increased for regular workers but declined for casual workers. Key factors driving patterns of wage inequality have been found to be human capital (age and educational attainment), geographic location and industry affiliation (Dutta, 2005).

The new policy regime has also had more direct distributional impacts. Large subsidies to the rich, in the form of tax breaks, and neglect of public provisioning of health care and education (which are implicit subsidies for the poor) have imparted a pronounced regressive distributional

bias (Pal and Ghosh, 2007). One important implication of declining public support for education and healthcare as well as increased rural-urban migration due to rural distress, is rising expenditure on services like schooling, medicines, and transport. As a consequence spending on these items has increased rapidly in real terms and as a share of the household budget in rural and urban areas (Basole and Basu, 2015). As we show here, this has important implications for rising inequality.

With this brief review of possible mechanisms that have caused the rise in inequality, we now turn to a discussion of our data sources and empirical methodology.

3. Data and Methods

3.1. Data

Household-level data from five NSS "thick" rounds (1987-88, 1993-94, 2004-05, 2009-10, and 2011-12) were used in this analysis. Round 55 (1999-2000) was omitted for well-known problems that make compatibility with other rounds difficult. After pooling data from all the 5 rounds for the 15 "major states" (see below), the total sample size was 459329 households (287611 for rural and 171718 for urban). The main variables of interest for this study are total per capita real expenditure, and per capita expenditure on broad item groups – like food, fuel, education, medical, conveyance, consumer services, clothing & footwear, durables, rent. The key objective of this study is to analyze the distribution of per capita real expenditure in India over a two-decade period from 1987-88 to 2011-12, and relate it to changes in the composition of expenditure in terms of food and nonfood items. For households located in rural areas, real expenditure was calculated by deflating nominal expenditure by the state-level consumer price

indices for agricultural labourers (CPIAL); for urban households, similar calculations were done using the state-level consumer price index for industrial workers (CPIIW).

The spatial dimension of variation in prices is important for studying inequality. That is why we use state-level price indices. But this comes at a cost in terms of reduction in sample size. State-level price indices, going back to 1987-88, are only available for the following 15 major states: Andhra Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal. Together these states accounted for about 82 percent of Indian households in 2011-12. Hence, our analysis, even if restricted to these states only, relates to the vast majority of the Indian population.

To construct a consistent series for the CPIAL and CPIIW at the state level going back all the way to 1987-88, we used data from two sources. For historical data, we used the *Economic and Political Weekly Research Foundation India Time Series* database, and for more recent years we used data available in published reports of the *Labour Bureau of the Ministry of Labour & Employment, Government of India*. Using data from both these sources, we constructed time series for state-level CPIAL and CPIIW with 1960-61 as the base year. Hence, all real expenditures in this study are expressed in terms of 1960-61 prices. Note that while interpreting real expenditure data it is more important to focus on the changes over time rather than the levels whose precise amount may change depending on the deflators used.[5]

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[5] One cautionary note is in order before we begin. Since we take expenditure as a proxy for welfare, the assumption is that higher expenditures levels indicate a better-off household than lower expenditure levels. In general this assumption is valid, but there is one important exception, viz. rent. We cannot assume that, between otherwise

3.2. Relative, Absolute and Intermediate Measures of Inequality

Consider an economy composed of N individuals, with y_i referring to expenditure (or income) of the i-th individual, with $i = 1, 2, ..., N$. Let $\mu = (1/N) \sum_i y_i$ refer to the mean expenditure in this economy. There are various ways to measure the inequality in the distribution of expenditure in this economy (see Sen, 1997). In this paper, we will focus on three measures: the relative Gini coefficient, the absolute Gini coefficient, and the intermediate Gini coefficient.

While the relative Gini coefficient is usually explained with the use of the Lorenz curve, there is an alternative way to understand it. In the N individual economy under consideration, consider arranging individuals in an increasing order of their expenditure and then comparing two randomly picked expenditures. Since there are N^2 possible *pairs* of expenditures (including pairing of an expenditure with itself), the expected value of the absolute difference between a random pair of expenditures is given by

$$\bar{D} = \frac{1}{N^2} \sum_{i=1}^{N} \sum_{j=1}^{N} |y_i - y_j|. \tag{1}$$

The absolute Gini coefficient is defined as half of $\bar{D}$:

$$G^A = \frac{\bar{D}}{2} \equiv \frac{1}{2N^2} \sum_{i=1}^{N} \sum_{j=1}^{N} |y_i - y_j|. \tag{2}$$

The relative Gini coefficient is defined as half of $\bar{D}$ normalized by the mean of the distribution, μ:

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identical households, the one paying rent is "better-off" than the one living in its own house. This problem is more severe in urban areas where nearly half the households report paying rent, than in the rural areas where only 5% do so. Since we do not have the data necessary to impute a rent value for own housing *we leave out rent expenditures* in our analysis of inequality to avoid estimates of inequality that are artificially inflated due to this reason.

$$G^R = \frac{\bar{D}}{2\mu} \equiv \frac{1}{2\mu} \times \left(\frac{1}{N^2} \sum_{i=1}^{N} \sum_{j=1}^{N} |y_i - y_j| \right). \tag{3}$$

Thus, we can see that the two Gini's are related as follows:

$$G^A = \mu \times G^R. \tag{4}$$

This way of looking at the Gini allows us to offer an intuitive interpretation of these two Gini coefficients. A relative Gini coefficient of G^R means that if we take any 2 households from the population at random, the expected absolute difference in their expenditure (or income) is $2G^R$ *per cent of the mean expenditure (or income)*. Thus, a rise in the Gini coefficient from 30 to 40 per cent, say, implies that the expected difference has gone up from 60 to 80 per cent of the mean (Atkinson and Morelli, 2014). In a similar vein, an absolute Gini coefficient of G^A means that if we take 2 households from the population at random, the expected difference in their expenditure (or income) is $2G^A$ (in whatever units we measure expenditure or income).

The absolute Gini coefficient also has an alternative interpretation in terms of relative deprivation. A plausible theory about attitudes to social inequality suggests that deprivation is felt by individuals from a comparison with those higher up in the hierarchy (of income or expenditure or wealth or power). According to this view, deprivation is associated with the relative position one occupies in the distribution, i.e., relative to those more fortunate than oneself. This would suggest that deprivation from not having some level of expenditure (or income) Y is an increasing function of the proportion of those who have Y. This notion of deprivation can be quantified to show that $\mu \times G^R$ is aggregate relative deprivation in society. Thus, the absolute Gini coefficient is a measure of relative deprivation in a society (Yitzhaki, 1979).

The fact that the two Gini coefficients differ with respect to normalization by the mean leads to drastically different properties: while G^R becomes scale-invariant, G^A becomes translation-invariant. This means that the former measure will remain unchanged as long as the proportion of expenditures of individuals remain unchanged (no matter what their absolute difference), and the latter measure will remain unchanged as long as the absolute differences in expenditures between individuals remain unchanged (no matter what their proportion). Thus, whereas the first measure is only sensitive to the proportion (or scale) of expenditures in the economy, the second measure is sensitive to the absolute difference of expenditures in the economy..

To understand the difference, imagine two scenarios. Let us think of a society with two individuals, the first having monthly expenditure of Rs. 1000 and the second Rs. 5000. Suppose, in the first scenario their expenditures rise to Rs. 10000 and Rs. 50000; and in the second scenario, they increase to Rs. 11000 and Rs. 15000. If we were measuring inequality with G^R, then we would consider the first scenario to be no more unequal than the original situation (because the proportion of expenditures of both individuals remain unchanged at 5). But, if we measured inequality using G^A then we would consider the first scenario to be more unequal than the original situation (because the absolute difference in expenditures of the two individuals has increased from Rs. 4000 to Rs. 40000). Now compare the second scenario to the original situation. If we use G^R as our measure of inequality, we would suggest that inequality has declined (because the ratio of expenditures has fallen from 5 to 1.36). But if we use G^A as the measure of inequality, we would say that inequality remains unchanged (because the absolute difference in their expenditures remain constant at Rs. 4000).

Both measures have advantages and disadvantages. The advantage of G^R is that its value is independent of the units in which we measure expenditure – and always lies between 0 and 1, with 0 referring to a situation of perfect equality and 1 referring to perfect inequality –, but its disadvantage is that it does not capture changes in the absolute gap in expenditures in society which may be important for reasons discussed above. The advantage of G^A is that it is sensitive to, and picks up, changes in absolute differences in expenditure, but its disadvantage is that its value is dependent on the unit of measurement of expenditure. For instance, if instead of measuring expenditure in rupees, we measure it in paise, the value of G^A will increase 100-fold even though we know that nothing has changed as far the distribution of expenditure in India is concerned. Again, if we deflate expenditures of all individuals by some price index to get "real" expenditure, the value of G^A will go down even when the distribution of expenditures in society has not changed. That is, G^A will always show lower levels of inequality in real expenditure than in nominal expenditure.[6]

The fact that both measures have its strengths and weaknesses leads us to refrain from suggesting that one measure is unambiguously "better" than the other. In our view, each measure captures a different and important aspect of the inequality in the distribution of expenditure. One way to combine both measures and yet get unit consistency is to use the intermediate Gini coefficient, which is a product of both

$$G^I = G^A \times G^R = \mu \times (G^R)^2. \tag{5}$$

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[6] The unit-dependence of G^A becomes even more problematic when we compare different countries. For instance, it is well known that the US is much more unequal in its distribution of wealth than Sweden (and other Northern European countries). If we use G^R as the measure of inequality, we get this familiar result. Instead, if we use G^A as the measure of inequality, Sweden can come out as more unequal by a suitable change in the unit of measurement of wealth in Sweden.

The intermediate Gini coefficient is useful because it is sensitive to changes in both proportions and additions of expenditure, which it inherits from the two Gini coefficients. Its greatest advantage is that it is a unit consistent measure (Subramanian and Jayaraj, 2013). Hence, its values are not dependent on the unit of measurement of expenditure. This makes comparisons over time and space easy and intuitive.

3.3. Inequality Decomposition

It is often interesting to decompose overall inequality, no matter how it is measured, into its component parts. In this paper, we will use a source decomposition – deriving from Lerman and Yitzhaki (1985) – that allows us to understand the contribution of different types of expenditure to inequality in total expenditure.

Using Lerman and Yitzhaki (1985), we can show that, if total expenditure for every individual is composed of j components, i.e., $y_i = \sum_j y_{ij}$ where i indexes individuals and j indexes types of expenditure, then the relative Gini coefficient can be decomposed as follows

$$G^R = \sum_j \left\{ \frac{cov(y_j, F)}{cov(y_j, F_j)} \right\} \times \left\{ \frac{cov(y_j, F_j)}{\mu_j} \right\} \times \left\{ \frac{\mu_j}{\mu} \right\} \equiv \sum_j R_j G_j^R S_j \tag{4}$$

where F and F_j refer to the cumulative distribution function of total and the j-th type of expenditure, and μ and μ_j refer to mean of total and the j-th type of expenditure.

The first component in (4), R_j, is the "Gini correlation" between the j-th type of expenditure and total expenditure (the correlation of the j-th type of expenditure with the rank of total expenditure); the second component, G_j^R, is the relative Gini coefficient of the j-th type of

expenditure; and the third component, S_j, is the share of the j-th type of expenditure in total expenditure. The decomposition in (4) is useful for us because it allows us to study the relative contribution of food and nonfood expenditures to inequality in total expenditure.

4. Results

4.1 Growing Importance of Non-Food Expenditures

As real household incomes grow, there is an expected change in the composition of the household budget: a decrease in the share of expenditures going to food items and an increase in the share going to non-food items. India follows this expected pattern. The share of food expenditure has steadily fallen from 60-70% to 40-50% (Figure 1, right column). In urban areas the shares have reversed themselves in the period of analysis and non-food expenditure now accounts for nearly 60% of total household expenditure. But a striking and unexpected fact about the Indian growth experience is that not only has the *share* of expenditure on food fallen, but the *levels* of expenditure on food items have been stagnant in real terms in both rural and urban areas (Figure 1, left column). Stagnant real expenditure on food, in conjunction with a diversification of diets (that leads to a substitution of more expensive calories for cheaper ones), have resulted in declining calorie intake. This is a surprising result for a society in which the vast majority is still undernourished (Deaton and Dreze, 2009; Basole and Basu, 2015). Meanwhile the level of non-food expenditures have exploded. According to NSS data, while real food expenditures increased by a mere 10% in rural areas between 1987-88 and 2011-12, non-food expenditures went up by a whopping 224% over the same period. The corresponding figures for urban India were 9.8% and 459%.

[Figure 1 about here]

One possible explanation for this puzzling phenomenon is that these aggregate data hide variation across the expenditure distribution and that the rapid increase in non-food expenditures at the expense of food expenditures is observed only for relatively well-off households. Figure 2 shows that this is not the case and that food expenditures have been mostly stagnant while non-food expenditures have been rising for *all deciles* (the topmost decile has been excluded from the figure to make the trends in lower deciles easier to observe). Since food expenditures are more or less flat across the whole MPCE distribution, understanding the dynamics of expenditure inequality in India requires us to focus more closely on non-food expenditures which have not been analyzed separately thus far.

[Figure 2 about here]

4.2 Level, Share and Growth of Non-Food Items in the Household Budget

Compared to the composition of the food budget, the non-food budget has been less analyzed in the literature. But the increasing penetration of telecommunications and other services into rural areas, the enclosure or disappearance of forests and other common-pool resources, the privatization of healthcare and education, and increased short-term and long-term rural-urban migration all have clear implications for spending on fuel, transportation, education, health care, consumer services, and other nonfood items. We see that these items have all significantly increased their share in the total budget in both rural and urban areas, in some cases nearly

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doubling over the 1987-88 values (Tables 1 and 2). Figure 3 shows the growth rate of real expenditure on all eight items listed in Tables 1 and 2. Real spending on education, healthcare, services, conveyance, and durables grew three to four times over this period in both rural and urban areas.

[Table 1 about here]

[Table 2 about here]

If consumption expenditure is taken as a straightforward proxy for welfare, such increases in expenditure on education, health and other services could be interpreted as a welcome development. It would indicate an increase in the real purchasing power of the population. However, two cautionary notes are in order before reaching this conclusion. First, as indicated earlier, this increase in expenditure on services has come at the expense of food in a situation where the vast majority of the population continue to remain under-nourished. This would suggest that, probably, not all is well. Second, as we discuss next, inequality in non-food expenditure is much higher than in food expenditure so that the poor benefit relatively less than the rich with an aggregate shift towards nonfood expenditures.

[Figure 3 about here]

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4.3 Trends in Relative, Absolute and Intermediate Measures of Inequality

As noted earlier, several studies have shown that there has been a modest increase in consumption inequality in India in the post-reform period. Broadly in agreement with these studies, we also find that the overall expenditure Gini at the all-India level increased from 0.312 in 1987-88 to 0.342 in 2011-12, with the largest increase coming between 1993-94 and 2004-05. But when we investigate inequality across various dimensions of disaggregation, by sub-groups – rural and urban – and source of expenditure – food and non-food – some interesting patterns emerge.

[Table 3 about here]

When we study inequality across the rural and urban sectors, we see an increase in consumption inequality within each sector, with urban areas registering a sharper increase. While the all-India Gini coefficient for total expenditure rises by 9.79% between 1987-88 and 2011-12 (from 0.312 to 0.342), in the rural areas the increase is only 4.32% (from 0.289 to 0.301) and in the urban areas it is 13.44% (from 0.333 to 0.378). This means that in rural India, the average absolute difference in the consumption expenditure of two randomly selected individuals increased from 62% of mean expenditure in 1987-88 to 68% of mean expenditure in 2011-12; for urban India, the corresponding change was from 66% of mean expenditure in 1987-88 to 76% of mean expenditure in 2011-12.

But on disaggregating further, we see an interesting pattern. In rural India, even as both food and non-food expenditure has become less unequal, total expenditure has become more unequal. The

Gini for food has declined from 0.265 to 0.243; the Gini for nonfood has declined from 0.403 to 0.395; the Gini for total (i.e., food plus nonfood) expenditure has increased from 0.289 to 0.301. This indicates that an important part of story of rising inequality in rural India derives from changes in the composition of expenditure between the broad groups of food and nonfood items. On the other hand, the pattern is more along expected lines in urban India. Nonfood expenditure has become much more unequal, but food expenditure has become less unequal. The Gini for food has declined from 0.286 to 0.272; the Gini for nonfood has increased from 0.435 to 0.462; the Gini for total expenditure has increased from 0.333 to 0.378.

The pattern of rising inequality at the aggregate level, but falling inequality within food and/or non-food expenditure is seen not only in the Gini but also in other measures of inequality such as the 90/10, 50/10 and 10/50 percentile ratios (Table 4). In rural India, the ratio of total expenditure at the 90th and 10th percentiles of the MPCE distribution increases from 3.31 to 3.46 between 1987-88 and 2011-12. For food expenditure, the corresponding ratio declines from 3.14 to 2.93, and for nonfood expenditure also it declines from 5.27 to 5.01. In urban India, we see a pattern that mirrors movements in the Gini. The ratio of total expenditure at the 90th and 10th percentiles of the MPCE distribution increases from 4.32 to 5.09. The corresponding ratio for food expenditure declines from 3.59 to 3.29, but it increases for nonfood expenditure from 6.93 to 7.81.

This naturally brings up the question, why has overall consumption inequality *increased* if there has been a *decrease* in food and/or non-food inequality over time? The answer lies in the changing composition of household budgets, which have seen shifts towards non-food spending.

The fact that nonfood spending tends to be much more unequal than expenditure on food, in conjunction with the compositional change, explains the increase in overall consumption inequality. Applying this reasoning to urban areas we may surmise that the higher increase in inequality in urban areas is due to two factors operating simultaneously: an increase in non-food spending inequality and an increase in the share of the non-food budget in the overall budget.

[Table 4 about here]

This hypothesis can be verified by decomposing the rural and urban consumption Gini by expenditure source according to the methodology developed by Lerman and Yitzhaki (1985) and explained in section 3.3 above. Recall that the Lerman and Yitzhaki (1985) methodology decomposes the overall Gini into contributions from different sources of expenditure, where the contribution of a source is a product of its share in total expenditure, its own Gini, and its Gini correlation with total income. Table 5 shows the decomposition results for each time period for rural and urban India separately with food and nonfood expenditure being the two mutually exclusive and exhaustive sources.

In rural India, the contribution of non-food spending to the overall Gini increased steadily from 42% in 1987-88 to 65% in 2011-12. In 1987-88, 58% of rural inequality (as measured by the Gini) was due to inequality in food consumption; by 2011-12, this had fallen to 35%. We see a similar pattern in urban India over the same time period, with an even greater contribution of non-food spending, as might be expected. In 1987-88, 46% of the overall Gini was explained by the inequality in food expenditure; by 2011-12, this had fallen to 23%. For both rural and urban

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India, the rise in the explanatory power of nonfood expenditure for overall expenditure inequality is driven by an increase in the share of nonfood expenditure in household budgets and an increase in the Gini correlation coefficient of nonfood with total expenditure. Thus the increase in overall consumption inequality that has been observed by many researchers is largely due to the increasing importance of non-food spending in the household budget, which tends to be more unequal than food spending.

[Table 5 about here]

At this point, it may be tempting to conclude that the trends analyzed above are a normal part of the process of economic development. As income increases and budgets diversify, the share of non-food items increases and this increases aggregate inequality modestly. But the fact that inequality seems to increase only modestly is tied to the measures that are most commonly used for the purpose. For instance, the Gini coefficient, as well the percentile ratios, are *relative* measures of inequality. It is equally important to know what has happened to *absolute* measures of inequality in this period. One measure of absolute inequality is the absolute Gini, which is just the relative Gini multiplied by the mean of the distribution being examined (see section 3.2 above). Real-world implications of inequality in terms of political influence, social tensions etc., may depend more closely on absolute than on relative aspects, and there is evidence to suggest that people are sensitive to this aspect of inequality (Ravallion, 2014). But as we noted in section 3.2 above, the absolute Gini is unit inconsistent. Hence, it is better to use the intermediate Gini coefficient, which is sensitive to changes in absolute gap in expenditures but is also unit consistent.

In addition to the relative Gini, Table 3 shows the absolute and intermediate Gini for total, food, and non-food spending over the analysis period. Interestingly, the stagnant or declining trend in food inequality is no longer seen with the absolute Gini. But a clear difference emerges in the absolute Gini measures for food and non-food spending. While the absolute Gini for food shows a weakly increasing or uneven trend (with most of the increase concentrated in the 2000s), the absolute Gini for nonfood shows a robust increase over the entire period. For instance, the absolute Gini coefficient for nonfood expenditure increased from 3.325 in 1987-88 to 8.042 in 2011-12, an increase of 142%. This means that in 1987-88, the average absolute difference in nonfood expenditure between two randomly picked individuals in rural India was 3.33 rupees (using 1960-61 prices); this had increased to 8.04 rupees in 2011-12. For urban areas, the corresponding change in the absolute Gini coefficient of nonfood expenditure is from 6.595 in 1987-88 to 17.322 in 2011-12 (or 163%). Thus, there is a 2.4-fold increase in the non-food absolute Gini in rural areas and a 2.6-fold increase in urban areas.

Turning to the evolution of the intermediate Gini coefficient, recall that this measure has the twin advantage of being sensitive to absolute differences in expenditure (like the absolute Gini) and yet being unit-free (like the relative Gini). Unlike the relative Gini for total expenditure which shows only a mild increase of 4% in rural and 13% in urban areas, the intermediate Gini for total expenditure increased a whopping 74% (from 2.048 to 3.577) in rural areas and an even stronger 117% (from 3.880 to 8.425) in urban areas. This increase came entirely from non-food spending. For food expenditure, the intermediate Gini has declined in both rural and urban India. In the former, it declined from 1.142 in 1987-88 to 0.936 in 2001-12, before inching up to 1.124 in 2011-12. In urban areas, it declined from 1.63 in 1987-88 to 1.596 in 2011-12. Nonfood

expenditure shows a starkly different trend: the intermediate Gini coefficient has secularly increased over time. It has increased about 2.4-fold in rural areas (from 1.338 to 3.178) and about 2.8-fold in urban areas (from 2.871 to 7.995).

Finally, we note that the period of analysis between 1987-88 and 2011-12 can be divided into three distinct phases based on the dynamics of the Gini. The first phase from 1987 to 1994 shows stagnant relative and mildly increasing absolute inequality. The second phase from 1994 to 2004 shows the most rapid increase in all measures of inequality. And the third phase from 2004 to 2011 shows an increasing trend in inequality, albeit at a slower rate than the previous period.

To summarize, we observe the following broad trends. Over the post-reform period, inequality of total expenditure has increased mildly if measured by the relative Gini coefficient and strongly if measured by the absolute or intermediate Gini coefficient. Most of the increase in the relative Gini is driven by an increase in the weight of non-food spending in the household budget, which is much more unequal than expenditure on food. The rapid increase in the absolute or intermediate Gini for non-food expenditure is driven primarily by the increase in mean non-food expenditure (because the relative Gini is stable). Food inequality has been stagnant or falling, measured both by the relative and absolute Gini coefficients. While this last point appears to be a welcome development, recall that food expenditures have been largely stagnant in real terms. Thus the decrease (or stability) in inequality is accompanied by inadequate or low levels of spending on nutrition. On the other hand, average non-food spending shows a robust increase, which translates into a strong increase in inequality (measured by the absolute or intermediate Gini).

4.4 Inequality within components of non-food spending

Which are the items of non-food spending that have contributed most to increasing inequality? To address this question, we disaggregate non-food spending into seven categories: fuel, education, healthcare, consumer services, conveyance, clothing and footwear, and durables.[7] Table 6 presents estimates of relative, absolute and intermediate expenditure Gini coefficients for each of the seven non-food items over time. There are some interesting patterns.

First, the Gini coefficients vary considerably over the seven items. Fuel and clothing have the lowest Gini coefficients, in the range of 0.3-0.4 for the relative Gini (higher for urban than rural areas). At the other end, expenditure on durables, education and health care have very high Gini coefficients, in the range of 0.8-0.9 for the relative Gini (higher for urban than rural areas). Second, there is no clear time-trend in the magnitude of the relative Gini coefficient, except for clothing which declined sharply between 1987-88 and 2004-05 and has been relatively flat since then (more so in rural than in urban areas). Third, the magnitude of the absolute as well as the intermediate Gini coefficients has increased for all seven categories. The largest increases in the have been registered in expenditure on education and durables in rural India, and in education, durables, and services in urban India. The smallest increases have been registered in expenditure on clothing and fuel.

[Table 6 about here]

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[7] We leave out certain small items such as entertainment, minor durable-type goods, toilet articles, other household consumables.

These differences are more or less along expected lines, given that clothing and fuel, like food, are necessities, while durables have a strong luxury good component. It is also this "white goods" component that has assumed greater importance in the neoliberal period with the rise of a new consuming middle classes. Putting together the fact that spending on durables as well as education, healthcare and consumer services has increased very steeply (see Figure 3) with the unequal nature of this spending, we can identify another mechanism for increased consumption inequality. Those items that tend to be unequally distributed are the ones that have the seen the most rapid increases in the household budget.

5. Discussion and Conclusion

There is a large and distinguished literature that has studied poverty and inequality in India. This literature took a new turn with the onset of the neoliberal reforms in the early 1990s. A key question that emerged was the effect of the reforms on the evolution of poverty and inequality. A survey of the existing literature shows that there is broad agreement on an interpretation of trends for both: poverty has declined substantially and inequality has increased modestly.

While these facts are well known, there is less agreement about their interpretation. Many researchers have pointed out that the decline in expenditure-based measures of poverty might not be telling us the complete story. A key fact that has emerged, alongside the decline in poverty, is the increase in the prevalence of undernutrition. In our previous research, we have argued that this puzzling phenomenon – declining poverty and rising undernutrition – is partly explained by a food budget squeeze (Basole and Basu, 2015). Galloping expenditure on nonfood essentials, driven by structural changes as much as by voluntary choice, has squeezed food budgets.

Diversification of diets, acting in conjunction with stagnant food budgets, have led to declining calorie intake.

In this paper, we explore the importance of nonfood expenditure from another angle: its impact on aggregate consumption inequality. By disaggregating food and non-food expenditure in India, we show that overall consumption inequality, tracked with relative inequality measures like the Gini coefficient or percentile ratios, has increased mainly because the share of non-food spending has increased in the household consumption basket. The relative Gini coefficient of food and non-food spending have not increased much. But since nonfood spending, by its very nature, is likely to be more unequal at any point in time (since it lacks a physiological upper bound), overall inequality increases when its importance in the budget increases.

The relative Gini coefficient is not sensitive to increases in the absolute gap in expenditures, or the relative deprivation, at the aggregate level. To capture this latter aspect, we investigate the evolution of absolute and intermediate Gini coefficients, the latter being preferable because it is unit consistent. We find that the absolute and intermediate Gini coefficient of non-food expenditure has increased several-fold in the analysis period. This is a matter of great concern. To the extent that such consumption is a marker for economic development, it seems clear that the fruits of development have largely accrued to the upper MPCE deciles.

This type of growth process also has important macroeconomic consequences. The robust growth in elite demand for consumer durables and services is not expected to generate employment to the same extent as a more broad-based demand for manufactured goods and

labor-intensive services used by the poor (Kannan and Raveendran, 2009). Thus, not only does the growth process create inequality, it also fails to generate jobs, further compounding the problem of low incomes for the majority.

Finally, the fact that most of the increases in aggregate consumption inequality are driven by expenditures on nonfood items have important policy implications. Recall that a large part of this broad category of "nonfood" includes items like education, health care, transportation, and housing. The large increases in the inequality of expenditure – especially if measured with the absolute or intermediate Gini coefficient – arise from the private provisioning of such services. Therefore, one way to mitigate inequality as economic growth picks up, is for the State to step in and improve public provisioning of education, health care, transportation, and housing. While this would have obvious progressive redistributive implications, it is important to note that it would have at least two additional beneficial impacts. Problems of asymmetric information plague private provisioning of such services, so that increasing the share of public provisioning would have positive efficiency and welfare effects. Moreover, public provisioning of such services would reduce the bite of the "food budget squeeze" and improve the nutritional status of the vast majority of the population in the country.

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Figure 1: Food (dark) and Non-Food (light) Expenditures in Total Household Expenditure. Real expenditures are in the left column and shares in the right column. All India (top row), Rural (middle row) and Urban (bottom).
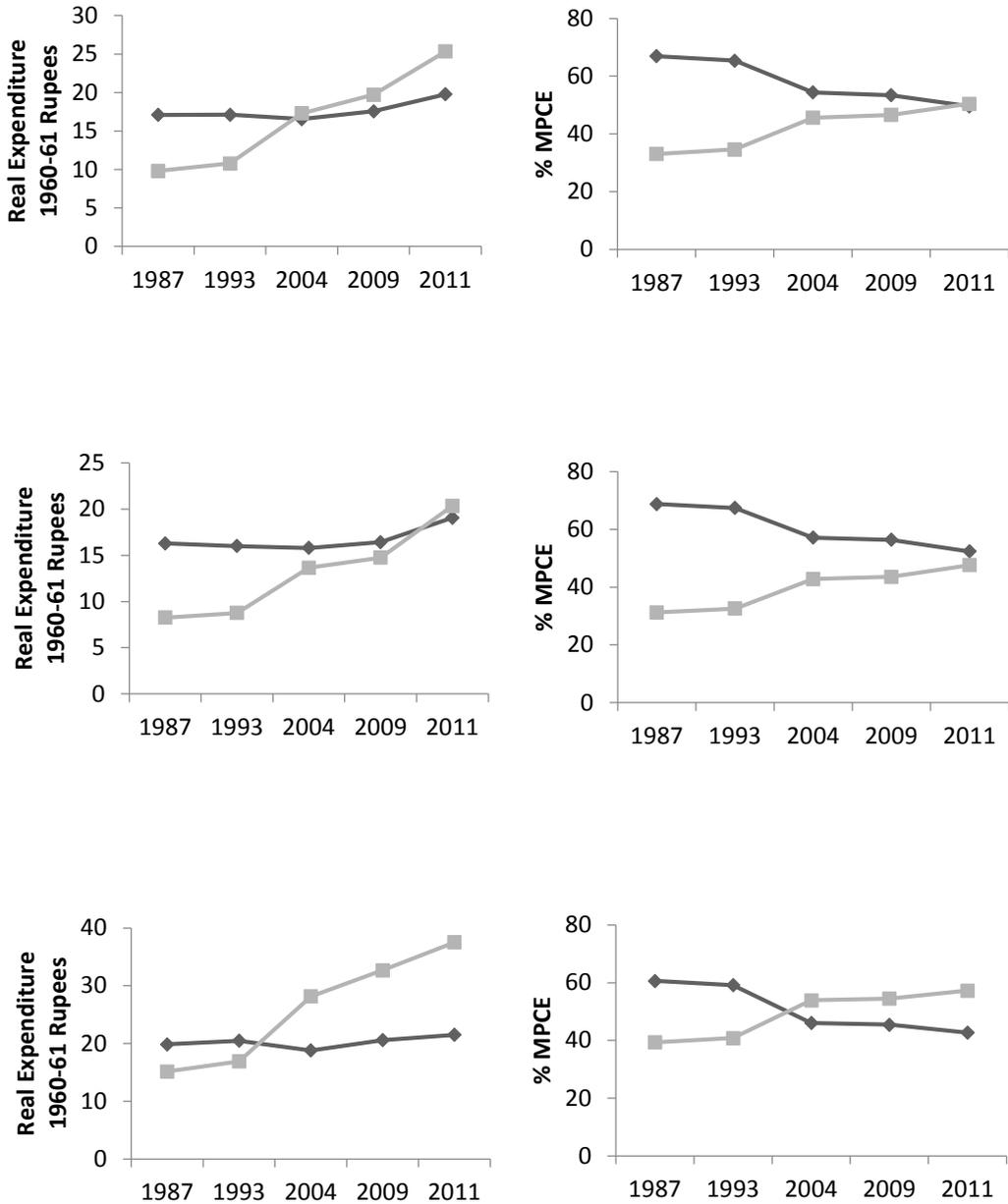
Figure 2: Real spending on food (top) and non-food (bottom) all India across expenditure deciles. Note: Top decile has been removed for clarity.
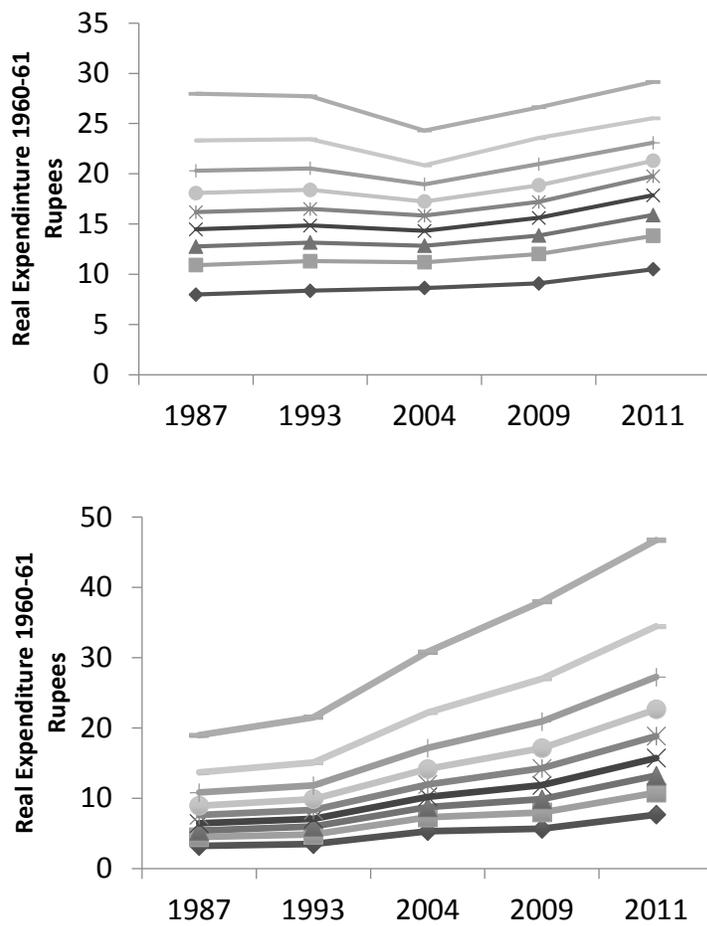
Figure 3: Growth rate of real expenditure between 1987-88 and 2011-12 in rural (dark) and urban (light) India.
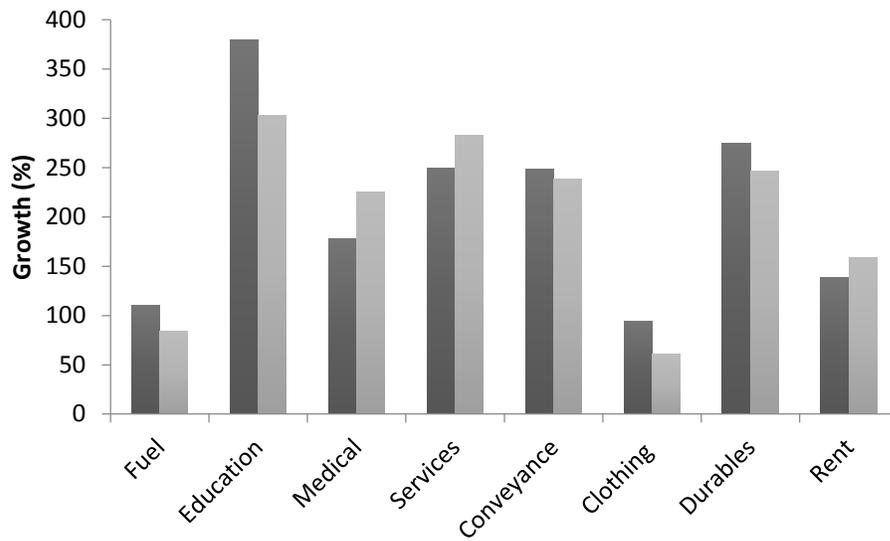
Table 1: Average Expenditure on Main Nonfood Categories in Rural India

	1987-88	1993-94	2004-05	2009-10	2011-12
Fuel					
Nominal (Rs.)	9.71	16.46	52.82	81.05	107.96
Real (1960 rupees)	1.51	1.45	2.60	2.57	3.17
Share (%)	6.68	6.00	9.44	8.95	8.93
Education					
Nominal (Rs.)	1.81	3.75	16.11	33.96	45.32
Real (1960 rupees)	0.28	0.32	0.78	1.08	1.33
Share (%)	3.27	2.31	3.66	4.27	4.26
Healthcare					
Nominal (Rs.)	7.42	16.05	40.01	64.05	109.96
Real (1960 rupees)	1.15	1.40	1.94	2.01	3.21
Share (%)	3.55	4.50	5.14	5.09	6.53
Services					
Nominal (Rs.)	3.31	7.33	22.17	46.81	61.25
Real (1960 rupees)	0.51	0.63	1.08	1.48	1.80
Share (%)	2.36	2.56	3.34	4.41	4.40
Conveyance					
Nominal (Rs.)	3.44	6.76	22.10	39.61	64.35
Real (1960 rupees)	0.54	0.59	1.08	1.25	1.88
Share (%)	3.25	3.30	3.82	3.93	4.48
Clothing and Footwear					
Nominal (Rs.)	10.14	17.81	46.33	69.41	104.35
Real (1960 rupees)	1.57	1.54	2.27	2.19	3.06
Share (%)	6.70	6.45	8.20	7.52	8.37
Durables					
Nominal (Rs.)	3.70	5.45	23.66	43.16	72.28
Real (1960 rupees)	0.56	0.47	1.14	1.36	2.12
Share (%)	2.58	2.68	3.24	3.57	3.79
Rent					
Nominal (Rs.)	0.64	1.35	3.68	5.16	8.08
Real (1960 rupees)	0.10	0.12	0.18	0.17	0.24
Share (%)	7.19	5.70	7.29	4.77	5.48

Source: Authors' calculations from unit level data.

Table 2: Average Expenditure on Main Nonfood Categories in Urban India

	1987-88	1993-94	2004-05	2009-10	2011-12
Fuel					
Nominal (Rs.)	18.36	33.26	113.64	159.18	203.83
Real (1960 rupees)	2.43	2.58	4.41	4.21	4.48
Share (%)	7.71	7.48	10.71	9.23	9.01
Education					
Nominal (Rs.)	7.59	16.94	73.09	146.35	185.33
Real (1960 rupees)	1.01	1.32	2.86	3.85	4.05
Share (%)	4.42	4.44	6.82	7.73	7.53
Healthcare					
Nominal (Rs.)	9.02	24.08	69.57	118.79	176.99
Real (1960 rupees)	1.18	1.84	2.67	3.13	3.85
Share (%)	3.00	4.00	4.91	5.00	5.77
Services					
Nominal (Rs.)	7.60	17.14	84.76	147.85	178.09
Real (1960 rupees)	1.00	1.31	3.24	3.87	3.85
Share (%)	2.69	2.88	5.17	5.95	5.42
Conveyance					
Nominal (Rs.)	9.60	22.13	74.26	126.45	197.10
Real (1960 rupees)	1.26	1.69	2.85	3.32	4.27
Share (%)	4.30	5.02	5.49	5.59	6.26
Clothing and Footwear					
Nominal (Rs.)	18.90	28.73	77.76	127.57	183.40
Real (1960 rupees)	2.50	2.22	3.03	3.37	4.02
Share (%)	7.18	6.15	7.00	6.77	7.36
Durables					
Nominal (Rs.)	8.07	10.47	56.74	110.08	166.75
Real (1960 rupees)	1.05	0.79	2.17	2.87	3.66
Share (%)	3.13	2.64	3.57	3.85	4.23
Rent					
Nominal (Rs.)	13.33	24.72	78.98	151.16	211.82
Real (1960 rupees)	1.76	1.90	3.05	3.92	4.56
Share (%)	10.12	11.11	14.49	15.76	16.52

Source: Authors' calculations from unit level data.

Table 3: Relative, Absolute and Intermediate Gini Coefficients in India

	1987-88	1993-94	2004-05	2009-10	2011-12
RURAL					
Relative Gini					
total	0.289	0.274	0.289	0.291	0.301
food	0.265	0.245	0.242	0.239	0.243
nonfood	0.403	0.394	0.387	0.391	0.395
Absolute Gini					
total	7.091	6.795	8.519	9.070	11.872
food	4.316	3.925	3.817	3.919	4.629
nonfood	3.325	3.456	5.288	5.758	8.042
Intermediate Gini					
total	2.048	1.865	2.464	2.640	3.577
food	1.142	0.962	0.922	0.936	1.124
nonfood	1.338	1.363	2.049	2.249	3.178
URBAN					
Relative Gini					
total	0.333	0.327	0.378	0.382	0.378
food	0.286	0.271	0.283	0.273	0.272
nonfood	0.435	0.434	0.465	0.475	0.462
Absolute Gini					
total	11.651	12.228	17.765	20.352	22.303
food	5.690	5.549	5.325	5.615	5.859
nonfood	6.595	7.338	13.110	15.520	17.322
Intermediate Gini					
total	3.880	3.999	6.716	7.774	8.425
food	1.630	1.503	1.507	1.531	1.596
nonfood	2.871	3.182	6.099	7.369	7.995

Source: Authors' calculation from unit level data on real expenditure.

Table 4: Percentile ratios for food, non-food, and total expenditure

	Rural			Urban		
	p90/p10	**p90/p50**	**p10/p50**	**p90/p10**	**p90/p50**	**p10/p50**
	Total Expenditure			Total Expenditure		
1987-88	3.31	1.93	0.58	4.32	2.24	0.52
1993-94	3.17	1.85	0.58	4.16	2.20	0.53
2004-05	3.27	1.95	0.60	5.06	2.48	0.49
2009-10	3.31	1.94	0.59	5.10	2.45	0.48
2011-12	3.46	2.01	0.58	5.09	2.41	0.47
	Food Expenditure			Food Expenditure		
1987-88	3.14	1.82	0.58	3.59	1.98	0.55
1993-94	2.97	1.74	0.59	3.38	1.91	0.56
2004-05	2.88	1.74	0.60	3.33	1.89	0.57
2009-10	2.86	1.71	0.60	3.37	1.89	0.56
2011-12	2.93	1.73	0.59	3.29	1.81	0.55
	Nonfood Expenditure			Nonfood Expenditure		
1987-88	5.27	2.46	0.47	6.93	2.87	0.41
1993-94	5.04	2.36	0.47	6.71	2.82	0.42
2004-05	4.73	2.46	0.52	8.12	3.12	0.38
2009-10	4.89	2.41	0.49	8.11	3.11	0.38
2011-12	5.01	2.52	0.50	7.81	3.03	0.39

Source: Authors' calculations from unit level data on real expenditure.

Table 5: Decomposition of the Gini Coefficient of Total Expenditure into Food and Nonfood Components

	Type of Expenditure	Share of Total Expenditure	Gini Coefficient	Gini Correlation	Contribution to Total Gini Coefficient	Contribution to Gini Coefficient (proportion)
RURAL						
1987-88	Food	0.66	0.26	0.95	0.17	0.58
	Non Food	0.34	0.40	0.90	0.12	0.42
1993-94	Food	0.65	0.25	0.93	0.15	0.54
	Non Food	0.35	0.39	0.91	0.13	0.46
2004-05	Food	0.54	0.24	0.92	0.12	0.41
	Non Food	0.46	0.39	0.95	0.17	0.59
2009-10	Food	0.53	0.24	0.91	0.11	0.39
	Non Food	0.47	0.39	0.95	0.18	0.61
2011-12	Food	0.48	0.24	0.90	0.11	0.35
	Non Food	0.52	0.40	0.96	0.20	0.65
URBAN						
1987-88	Food	0.57	0.29	0.94	0.15	0.46
	Non Food	0.43	0.44	0.95	0.18	0.54
1993-94	Food	0.55	0.27	0.93	0.14	0.42
	Non Food	0.45	0.43	0.96	0.19	0.58
2004-05	Food	0.40	0.28	0.91	0.10	0.27
	Non Food	0.60	0.47	0.98	0.27	0.73
2009-10	Food	0.39	0.27	0.90	0.10	0.25
	Non Food	0.61	0.47	0.98	0.29	0.75
2011-12	Food	0.36	0.27	0.89	0.09	0.23
	Non Food	0.64	0.46	0.99	0.29	0.77

Source: Authors' calculations from unit level data on real expenditure.

	RURAL					URBAN				
	1987-88	**1993-94**	**2004-05**	**2009-10**	**2011-12**	**1987-88**	**1993-94**	**2004-05**	**2009-10**	**2011-12**
Relative Gini										
Fuel	0.419	0.443	0.371	0.363	0.353	0.334	0.337	0.333	0.334	0.325
Education	0.654	0.621	0.661	0.697	0.690	0.628	0.608	0.650	0.680	0.668
Healthcare	0.656	0.638	0.664	0.667	0.678	0.622	0.664	0.665	0.678	0.675
Conveyance	0.595	0.593	0.613	0.607	0.607	0.633	0.628	0.627	0.608	0.617
Services	0.557	0.556	0.550	0.511	0.472	0.632	0.657	0.666	0.600	0.588
Durables	0.763	0.726	0.750	0.748	0.784	0.825	0.809	0.815	0.823	0.816
Clothing	0.408	0.395	0.308	0.308	0.307	0.419	0.422	0.376	0.394	0.383
Absolute Gini										
Fuel	0.637	0.645	0.964	0.934	1.122	0.825	0.875	1.474	1.409	1.456
Education	0.249	0.261	0.628	0.873	1.057	0.820	0.979	2.148	2.950	3.016
Healthcare	0.961	1.115	1.519	1.528	2.367	0.949	1.490	2.070	2.401	2.832
Conveyance	0.424	0.459	0.766	0.854	1.238	0.973	1.271	1.961	2.174	2.765
Services	0.330	0.380	0.608	0.769	0.860	0.675	0.888	2.177	2.337	2.273
Durables	0.491	0.404	0.906	1.071	1.710	0.950	0.716	1.853	2.458	3.056
Clothing	0.677	0.720	0.701	0.679	0.939	1.076	1.087	1.140	1.329	1.542
Intermediate Gini										
Fuel	0.267	0.286	0.358	0.339	0.396	0.276	0.295	0.491	0.471	0.473
Education	0.163	0.162	0.415	0.609	0.729	0.515	0.595	1.396	2.007	2.013
Healthcare	0.631	0.712	1.009	1.019	1.605	0.590	0.989	1.377	1.628	1.912
Conveyance	0.252	0.272	0.470	0.519	0.751	0.616	0.798	1.229	1.322	1.704
Services	0.184	0.211	0.334	0.393	0.406	0.427	0.583	1.449	1.401	1.337
Durables	0.374	0.294	0.679	0.801	1.341	0.784	0.579	1.511	2.024	2.494
Clothing	0.276	0.284	0.216	0.209	0.288	0.451	0.458	0.429	0.523	0.591

Source: Authors' calculation from unit-level data.