GCOE Discussion Paper Series

Global COE Program
Human Behavior and Socioeconomic Dynamics

Noblesse Oblige? Preferences for
Redistribution among Urban Residents in India

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March 2011

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September 2010

Abstract

Using an original dataset, we investigated the determinants of individual preferences for income redistribution in India. Different from previous studies, our results show that economic-related conditions do not explain people's tastes for redistribution so much. While future prospects for economic status have a statistically significant impact on preferences for redistributive policies, the current household income level does not explain individual preferences for redistribution. On the contrary, the impact of the current income level is lessened to a large extent by controlling caste membership. This suggests that the social hierarchy which is based on caste is a crucial determinant of economic status in India. Furthermore, the results show that the relative economic position compared with people in the neighborhood is an important factor; relatively wealthy individuals are more likely to favor greater redistribution. This seemingly "noblesse oblige" effect can be explained mostly by religious belief.

Keywords: Governmental redistribution; Social preferences; Relative economic position; Noblesse oblige; India

JEL classification code: D31; D63; H23; I38

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1. Introduction

Poverty and inequality are highly emotive issues: while some may abhor the very existence of them based on their beliefs, others may think that they are linked to some extent to crime. In this paper, we examine the determinants of preferences for income redistribution using data from urban Indian.

The many studies that have examined the determinants of preferences for income redistribution to date have focused on developed not developing countries. However, poverty and inequality are usually more severe in developing countries, where adequate policies to eliminate these problems are generally lacking. The redistribution of income might also be related with economic growth: if redistribution can lead increases in investment for the economy as a whole, alleviating inequality would accelerate such growth   (see, for instance, Galor and Zeira, 1993). Several studies have found evidence of a negative correlation between inequality and economic growth (Benabou, 1996; and Barro, 2000).[1] At an early stage of economic development, where in general accumulation of physical and human capital is low and its marginal productivity is high, alleviating inequality might improve productivity of the country as

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[1] On the other hand, Banerjee and Duflo (2003) found inequality has a nonlinear effect on growth rates: changes in inequality (in any direction) are associated with lower future growth rates.

a whole.[2] Thus, individual preference for redistribution in developing countries is an issue of great concern both to policy makers and academic researchers.

The specific setting of India as the object of our study might be of particular relevance in this day and age. First, despite experiencing two decades of significant economic growth, India continues to have the worst poverty problems in the world. One of the latest estimates indicates that around 35% of the Indian population (some 360 million people), which accounts for approximately one-third of the world's poor, still live on less than one purchasing power parity dollar a day (UNDP, 2007). Second, India has a strong hierarchical social structure, the caste system, which maintains substantial economic disparity between the lowest and upper classes (Srinivasan and Kumar, 1999; Thorat, 2002) and cripples economic mobility. The caste hierarchy also extends to the political power structure (Banerjee et. al., 2005; Banerjee and Somanathan, 2007). As government redistribution polices could be an important instrument in eliminating poverty and inequality in India, it is important to develop policy implications regarding redistributive policies. This paper is the first study to investigate the determinants of preferences for income redistribution using Indian data.

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[2] Some authors have argued that the negative correlation between inequality and later economic growth is due to redistributive policies, since such policies impede investment as a whole (see, for example, Alesina and Rodrick, 1994). However, Perroti (1996) found no linkage between redistributive policies and economic growth.

The remainder of this paper is organized as follows. In Section 2, we review the literature on preferences for income redistribution. In Section 3, we explain the original dataset used in the analysis obtained from surveys conducted in six metropolitan cities in 2008 and 2009, covering people between the ages of 19 and 60. In Section 4, we present the estimation results. Different from previous studies, our results show that economic conditions do not explain individual preferences for redistribution so much. While future prospects for economic status have a statistically significant impact on preferences for redistributive policies, the level of current household income does not explain individual preferences for redistribution. On the contrary, the impact of current income level is lessened to a large extent by controlling caste membership. This suggests that the social hierarchy based on caste is a crucial determinant of economic status in India. Furthermore, the results show that the relative economic position compared with people in the neighborhood is an important factor: relatively wealthy individuals are more likely to favor greater redistribution. This seemingly "noblesse oblige" effect can be explained mostly by religious belief. Section 5 concludes the paper.

2. The Determinants of Preferences for Income Redistribution

Past, current, and future economic status

Preferences for income redistribution have been examined theoretically and empirically by several authors to date. A simple theoretical model with self-interested economic agents predicts that relatively poor individuals favor government income redistribution while rich individuals oppose it,[3] and this has been supported empirically in many countries. Unemployment is also an important determinant of preferences for redistribution; several studies have found that being jobless has a statistically significant positive impact on preference for redistribution, even after controlling for income level.

In addition to current economic status, past economic conditions as well as future prospects also matter in determining preferences for government redistribution. For instance, Benabou and Ok (2001) suggested that an individual's prospects associated with his or her prospective social and economic status could be an important determinant of preference for redistribution, and some studies have provided evidence in support of this "Prospect of Upward Mobility" (POUM) hypothesis.[4]

Contrary to an individual's future prospects, past experiences can also affect the formation of preferences for redistribution. Ohtake and Tomioka (2004), using Japanese data, found that experience of job loss within the previous 5 years has a

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[3] See, for instance, the well-known model by Meltzer and Richard (1981).
[4] See, for example, Alesina and La Ferrara (2005) for an American study, Ohtake and Tomioka (2004) for a Japanese study, and Ravallion and Lokshin (2000) for a Russian study.

significant positive effect on approval of redistribution. In addition, Alesina and Giuliano (2009) who tested whether experiences during youth have a persistent effect on the formation of preferences for redistribution found that people who experienced a volatile macroeconomic situation between age 18 and 25 are likely to favor redistribution. In this regard, however, it might be very difficult to distinguish between the effect purely from past experiences and from future prospects, since future prospects are supposed to be built upon past experiences.

Religion, world view and social class

A growing number of studies are focusing on the influence of religion on economic behavior or individual attitudes (Iannaccone, 1998; and Kubota et al., 2011). Regarding the relation between religion and preferences for redistribution, several studies have found that religion matters in determining tastes for distributive policies. Alesina and Giuliano (2009) suggested people raised religiously (measured by religious denomination at age 16) appear to hold a more favorable attitude to redistribution than atheists, suggesting that religious people are more altruistic.

Racial and ethnic groups are also relevant in the formation of attitudes to redistribution. Especially when living standards vary widely among groups, favorability

for redistribution may also vary according to groups. In fact, Alesina and La Ferrara, (2005) and Alesina and Giuliano (2009) found significant racial differences in preferences for redistributive policies in the U.S.

Other demographic characteristics

Alongside economic conditions, other demographic characteristics such as age, sex, education level, and marital status also play a part. While education was commonly found to have a negative impact on preferences for redistribution, the impacts of age and sex are somewhat mixed. Older people tend to favor redistribution less in Japan (Ohtake and Tomioka, 2004), whereas the situation is opposite in the U.S (Alesina and La Ferrara, 2005; and Alesina and Giuliano, 2009). Similarly, in many countries, women more than men tend to favor redistributive policies, but this is not the case in Japan. Regarding marital status, being married was found to increase favorability for redistribution regardless of country.

3. Data

Data and the sampling method

The data employed in this paper are from Indian surveys conducted in 2009 and 2010

by the Osaka University Global COE program "Human Behavior and Socioeconomic Dynamics". The 2009 wave covers 1,857 individuals in Delhi, Mumbai, Bangalore, Chennai, Kolkata, and Hyderabad. Each city was divided into four areas, and 15 residential sections were randomly selected in each area. In a selected section, five people were interviewed by the quota sampling based on age, sex, and socio-economic classification (See Table 1). In 2010, these 1,867 respondents were re-surveyed and 1,283 responses (response rate, 69.1%) were obtained.

[Table 1]

To check the representativeness of our sample, Table 2 shows the distribution of caste membership for our survey data (panel A) and the 61st National Sample Survey (NSS) data (panel B). Note that backward castes, scheduled castes and scheduled tribes are the lowest classes in the social hierarchy. Our original data indicate that households belonging to these castes are more likely to be poor, a tendency that can also be seen in the NSS data. The only striking difference between our original data and the nationally representative survey data is the proportion of scheduled tribes included: 9.0% in our sample and 2.6% in the NSS sample. This indicates that our sample is representative of

the study region, to some extent.

[Table 2]

Variable for preference for government redistribution

Our measure of preference for redistributive policies is based on respondents' opinions

of the following statement: "It is the government's responsibility to take care of those

who cannot take care of themselves financially." Respondents were instructed to chose a

number from 5 ("completely agree") to 1 ("completely disagree"), with the chosen

number used as their preference for redistribution.

Figure 1 shows the distribution of the answers in 2009 (white bars) and in 2010

(dark gray bars). As it can be seen, approximately 80% of respondents gave a favorable

response to government redistribution in both years (rightmost and second rightmost

bars), but the distribution is slightly different: compared with the 2009 survey, the 2010

survey appears to contain fewer respondents who answered "completely disagree" or

"disagree." This might in itself not be due to the attrition problem, since the answers of

the respondents in 2009 who were re-surveyed in 2010 (light gray bars) show almost the

same distribution as those of all respondents in 2009. An investigation of the changes in

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distribution would also be interesting, but is beyond the scope of this paper.

In the empirical analysis, the answers ($x = 1$ to 5) are replaced by values ranging from 100 to 0 (= $5 \times \{x - 1\}$) and the 2-year average of the value is employed as the dependent variable to eliminate possible measurement errors in respondents' answers.[5]

[Figure 1]

4. Results and Discussion

The base specification

We begin with the estimation of basic models including individual and household characteristics as explanatory variables. Individual and household basic characteristics are age, sex, marital status, education level, household size, and per-capita household income. In addition to these variables, we include caste membership and religion in order to examine the influence of social- and cultural-related factors. The summary statistics for these variables are given in Table 3.

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[5] See the first row of Table 3 for the summary statistics.

[Table 3]

Table 4 shows the ordinary least squares estimation results of our base

specifications.[6] In column 1, we report the result of the specification including caste

membership dummies as well as the basic individual and household characteristics. In

addition, we estimate two further specifications adding religion dummies (column 2)

and employing the log of household income instead of income quartile dummies.

[Table 4]

The coefficients on age group dummies show that older people are more likely

to support redistributive policies. This might be because the social security system is

inadequate and work opportunities become limited with age. Education level has a

significant impact on people's preferences for redistribution, with high-educated people

showing a less favorable attitude to government redistribution. The percentage of people

opposing redistributive policies among the college and more educated is approximately

4% less than that among those with no formal education.

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[6] In what follows, all estimation results are obtained through ordinary least squares.
Note, however, that the findings in this paper are mostly unchanged even when we
employ the ordered Probit model.

Turning to the per-capita household income, the results indicate no significant effect on preferences for redistributive policy. This is inconsistent with the results of previous studies: a standard theoretical model predicts that relatively wealthy individuals favor lower taxes and less redistribution, and this has been supported empirically. Even using an alternative income measure (log of per-capita household income rather than income quartile dummies) does not change the result: the coefficient estimate is negative, but statistically insignificant (column 3). The influence of income will be further examined later.

Looking at the impact of caste membership, the scheduled caste dummy has a significant positive effect. This is consistent with our expectations, since people belonging to a lower class have limited access to economic opportunities (Ito, 2009). As for religion, all religion dummies have a positive impact, but only the Hindu dummy has a statistically significant effect. The dummy for those who described themselves as a deeply religious person also has a significant positive effect. Thus, religion could alter people's world view.

Changes in household economic status

In addition to the current economic conditions examined thus far, changes from the past

or to the future are also important factors in determining people's preferences for

income redistribution. In this subsection, we examine the influence of changes in

household economic status, specifically unemployment and household income growth,

on such preferences.

[Table 5]

For unemployment-related variables, we employ a dummy variable for people

for whom someone in the family experienced job loss in the past 5 years and a dummy

for people who think that one of their family members is highly likely to lose his or her

job within the next 2 years. Panel A of Table 5 shows the estimation results using these

variables, and indicates that preferences for redistribution are positively correlated with

the past experience and future prospect of unemployment for a family member. Since

people's attitudes toward unemployment might be related to their risk preferences, we

also conduct an estimation controlling for the coefficient of relative risk aversion

(columns 2 and 4, Panel A), but the result is unchanged.[7] Likewise, we investigate the

influence of income growth from the previous year and expected income growth to the

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[7] For the calculation of the coefficient of relative risk aversion, see Appendix I.

next year (Panel B, Table 5). As is expected, people with a high rate of income growth (in terms of both the past year and future prospect) are less likely to support redistributive policies, with the impact of future prospect being statistically significant at the 5% level.

It should be noted that the results shown in columns 3 and 4 of both Panel A and B can be interpreted as evidence supporting the POUM hypothesis, that is, an individual's preference for redistribution depends not only on current economic status but also future prospects. In this regard, Ravallion and Lokshin (2000), using Russian data, found that those who are currently rich tend to support redistribution if they expect their living standards to fall. If this holds true for our case, no significant impact of household income found in Table 4 can be explainable on the basis of this hypothesis. After controlling for future prospects regarding job loss or income growth, the coefficients on income quartile dummies remain insignificant statistically and economically—on the contrary, the negative impacts are mitigated in some cases. These results are not reported here, but are available on request from the authors.

Past macroeconomic shocks

In the previous subsection, we investigated the influence of unemployment and income

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growth as an individual or as a household-specific economic shock. This subsection

focuses on the impact of macroeconomic shocks. According to research in social

psychology, past experiences, especially during youth, have a profound effect on an

individual's way of thinking and perceiving the world. The importance of this period

(often identified as around age 18) could be attributable to the fact that this period

corresponds to one of "socialization." Alternatively, economics may attach importance

to the period because it corresponds that when many start their careers after graduation.

Figure 2 depicts the growth rates of the net state domestic product (NSDP) in

six states between 1961 and 2006. Based on this NSDP growth, we build a dummy for

those who experienced a recession (bottom 10%, short dashed line) and a dummy for

those who experienced a boom (top 10%, long dashed line) at the time of adolescence.

In addition to the growth rates, we also employ a measure of whether the economy had

been stable during the time of adolescence. Similarly to the case of growth rate, we

generate a dummy for a stable economy and a dummy for an unstable economy using

variance of NSDP growth (Figure 3).

[Figure 2]

[Figure 3]

Table 6 shows the means of the above-mentioned variables and their coefficient estimates. Although all estimates are statistically insignificant, the results in Panel A show that the recession dummy has a positive coefficient and the boom dummy has a negative coefficient, indicating that people who experienced a negative (positive) macroeconomic shock at age 15 to 20 tend to be more (less) in favor of redistributive policies. Similar results are obtained in the case of dummies for a stable or unstable economy (Panel B, Table 6). Unfortunately, our sample covers only six states (cities) and has a little variation in these dummies; consequently, the influence of macroeconomic shocks might be captured by region dummies to a large extent. Further examination using data covering wider areas would be an interesting exercise, but this is left for future research.

[Table 6]

Re-examining the influence of income

In Table 4, it was seen that household income does not affect an individual's attitude to

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government redistribution, which is inconsistent with the standard theoretical prediction.

One explanation for this would be the POUM hypothesis: people are in favor of (or averse to) redistribution based not only on their current income level but also on future income prospects. However, as discussed earlier, future prospects do not explain the lack of significant impact of household income. In this subsection, therefore, we examine three more possibilities.

First, it is possible that our income measure is not appropriate. To confirm this possibility, we conduct several estimations using alternative income measures. In column 2 of Table 7, quartile dummies based on *total* household income are employed instead of dummies based on *per-capita* household income. The result shows that the coefficient estimates for the third and fourth quartile (above median) dummies are negative yet statistically insignificant. Column 3 shows the result using per-capita real estate and per-capita financial assets in place of household income. The coefficients for the third and fourth quartile dummies of per-capita real estate are negative, but these negative effects are dominated by the positive effects of per-capita financial assets. Although not reported here, employing these quartile dummies of real estate and financial assets separately does not change the results mentioned above. Thus, the lack of significant impact of household income appears not to be due to a problem of

measurement of household income.

[Table 7]

The second possibility is that social status determines economic status to a large extent in India and economic status does not therefore seem to have any impact after controlling for social status. Columns 1 and 2 of Table 8 show the estimation results excluding education and caste membership dummies. As is expected, all coefficients for the income quartile dummies become negative and their magnitude increases after excluding the education and caste dummies, although they are statistically insignificant.

[Table 8]

Finally, we investigate the influence of relative economic status. In a rigid, stratified society like India, people may be concerned about their relative income level within the class to which they belong rather than the absolute income level. If this is the case, people's economic position should be measured based on their position relative to

their peers. Our original dataset contains information on the income level of people around the respondents, and whether the respondent's standard of living is higher or not than his or her neighbor.[8] Columns 3 to 6 of Table 8 show the estimation results including these relative economic conditions. High standard of living is a dummy variable for those who reported their living standards to be subjectively "considerably higher" or "higher" than that of their neighbors, and high household income is a dummy for those whose household total income is higher than that of their neighbors' income. As shown in columns 3 to 5 of Table 8, the coefficients for household income quartile dummies are more likely to be negative by including these dummies of relative economic status; excluding education and caste dummies makes the coefficients statistically significant (column 6). Furthermore and contrary to our expectations, it is very interesting to note that the relative income position has a positive impact on preferences for redistribution, indicating that relatively rich individuals are *more* likely to favor redistribution policies.[9] Can this result be explained by a sense of "noblesse oblige" or other reasons? We will examine this in the following subsection.

Summarizing this subsection, we conclude that the absence of impact of (absolute) household income level on preferences for redistributive policies, as is found

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[8] Respondents were also asked with whom they would compare their household income.
[9] This result is robust even when using alternative income measures, e.g., *total* household income in Table 7.

in Table 4, might be attributable to the fact that social status can approximate economic status to a large extent in India, and that relatively rich individuals support the notion of income redistribution.

Investigation of the influence of relative economic status

The question that remains to be answered is why relatively wealthy individuals look upon redistribution more favorably than lower classes. This seemingly "noblesse oblige" effect may, however, have nothing to do with things such as social responsibilities or prosocial activities; for example, huge inequality may cause high crime rates, and hence, relatively rich individuals support policy efforts trying to mitigate inequality simply because they want to reduce the risk of being a victim of crime (crime deterrent hypothesis). In short, the seemingly "noblesse oblige" effect could be explained on the basis of selfish motives.

Of course, there is the possibility that people's belief or preferences other than selfish motives can explain the results in Table 8. For instance, the rich may think that their current economic status is attributed to the community to which they belong, and that it is natural to support the poor in their community (group loyalty hypothesis).[10]

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[10] For the group loyalty hypothesis, see Luttmer (2001).

Further explanations of the attitudes of relatively rich people to disadvantaged groups

could include world views based on religion or those not aligned with religion at all and

individual preferences such as being inequality averse or altruistic. Religious beliefs and

altruism reflect what we think of as "noblesse oblige" more. To investigate these

possibilities, we run further estimations (Table 9).

[Table 9]

Row 2 of Table 9 shows the result controlling for trust for other people. The

'trust for others' dummy takes unity if people answer "strongly agree" or "agree" to the

statement, "Generally speaking, people are mostly trustworthy." If relatively wealthy

people support redistributive policies mainly to deter crime (the crime deterrent

hypothesis is true), the interaction term between trust for other people and high standard

of living would have a negative coefficient, because it is expected that fear of being a

victim of crime is related to distrust of other people. However, the coefficient for the

interaction term is positive and statistically significant, suggesting that the crime

deterrent hypothesis may not be true.

In column 3, a dummy for egalitarianism and its interaction term with high

standard of living are controlled for. The egalitarianism dummy is generated from the

same question as that posed by Bartling et al. (2009). See Appendix II for the generation

of the dummy variable. The result in column 3 indicates that the relatively rich favor

redistributive policies based on their egalitarian belief to some extent.

Column 4 shows the estimation result controlling for people's attitudes to

making donations to others. In our survey, we asked what percentage of household

income would respondents be willing to donate to a destitute family whose income level

is one-fifth of the respondents' family, where respondents chose from among the

following: 1 = up to 1%, 2 = up to 2%, 3 = up to 5%, 4 = up to 10%, 5 = more than 10%,

and 6 = no help at all (0%). If attitude to charitable action represents altruism and if the

relatively rich approve of income redistribution simply because they are altruistic, the

coefficient for the interaction term between donation and high standard of living is

expected to be positive. The estimation result in column 5 supports this hypothesis.

However, there is a possibility that the percentage of income a person would donate

does not necessarily correspond to the degree of altruism of the person. For instance,

people may give a donation to gain a reputation for doing so. This being the case, we

cannot distinguish between the two effects, and accordingly, the result should be

interpreted with care.

We also conduct further estimations focusing on caste and other social preferences. However, the results show that the interaction terms between such factors and relative economic status have no significant effects statistically or economically. In regard to the influence of the interaction term between caste dummies and relative economic position, the result that it has no significant impact may suggest rejection of the group loyalty hypothesis. These results are not reported in Table 9 for the sake of simplicity, but are available on request from the authors.

Finally, we investigate the effects of religious belief, including interaction terms between religion dummies and relative economic status (column 5, Table 9). The result shows that the interaction terms of Hindu and other religion (includes traditional Eastern religions such as Buddhism, Jainism, and Sikhism) have a statistically significant positive impact on favoring income redistribution. Thus, support for redistributive policies by the relatively rich can be explained by religious belief to a large extent. This result is almost unchanged even when all the above-mentioned factors are included (column 6). Looking at the interaction terms, the result shows that donation and religion dummies remain significant, but trust for others and egalitarianism do not. Trust in other people or egalitarianism might be partly based on religious belief.

5. Conclusion

In this paper, we investigated the determinants of preferences for income redistribution using data from urban Indian. The main lesson obtained from the analysis is that the preferences of Indian people for redistribution seem to be based on social and cultural factors rather than on economic-related factors. This is partly because social factors determine economic status to some extent in Indian society. A typical example is the rigid social hierarchy in place, the caste system. Because economic status or the standard of living differs substantially between castes, the proportion of people in favor of government redistribution also varies widely from caste to caste.

In addition, the absolute income level has *no* significant impact on favoring redistribution, whereas *relative* income position has a significant *positive* impact on support for redistributive policies. This finding suggests that relatively wealthy individuals hold a more favorable attitude than poor individuals to government redistribution. This is the most distinctive findings of our study compared to previous ones, and our examination suggests that this "noblesse oblige" effect can be explained mostly by religious belief.

In the context of the Indian society, this result might be of some considerable importance. India has the largest population living below the poverty line, and rigid

social stratification based on the caste hierarchy still exists. Consequently, governmental

redistributive policies could be a significant instrument to reduce poverty and inequality.

While the political friction between castes has become an important political issue,

support for redistributive policies from wealthy people (regardless of caste) is a positive

factor for pursuing further redistributive policies.

Appendix A: Estimation of the Coefficient of Relative Risk Aversion

The coefficient of relative risk aversion (RRA) used in the analysis was calculated based on the respondents' answers to a series of questions regarding income risks, following the procedure proposed by Kimball et al. (2008).

First, respondents were asked to choose a more preferable job from the following two choices: (a) a job that has a 50% chance of the monthly income doubling, but also has a 50% chance of the income decreasing by 30%, and (b) a job where the monthly income is guaranteed to increase by 3%. If the respondent chose (a), then he or she was further asked to choose one from the following: (a-1) a job that has a 50% chance of the income doubling, but also a 50% chance of the income decreasing by 50% or (a-2) a job where your monthly income is guaranteed to increase by 3%. Those who chose (b) were then also asked to choose one from the following: (b-1) a job that has a 50% chance of the monthly income doubling, but also a 50% chance of the monthly income decreasing by 10% or (b-2) a job where the income is guaranteed to increase by 3%. Thus, each respondent must choose one situation from (a-1), (a-2), (b-1), and (b-2). In addition to this question, we asked a similar question in which the values were changed values (see below).

[**Questions regarding risk preferences**]

Q1 In which of the following two ways would your prefer to **receive your monthly income**? Assume that your job assignment is the same for each. If you are a dependent (e.g. student, housewife, etc.) and not working, please answer based on your monthly income being your actual living expenses. SELECT ONLY ONE ANSWER THAT IS APPLICABLE.

(a) Your monthly income has a **50% chance** of doubling, but also has a **50% chance** of decreasing by **30%**		**(b)** Your monthly income is guaranteed to **increase by 3%**	
Q1-1 Of the following two jobs, which would you prefer? SELECT ONLY ONE ANSWER THAT IS APPLICABLE.		**Q1-2** Of the following two jobs, which would you prefer? SELECT ONLY ONE ANSWER THAT IS APPLICABLE.	
A job that has a **50% chance** of the monthly income **doubling**, but also a **50% chance o**f the monthly income being **cut in half**	**(a-1)**	A job that has a 50% chance of the monthly income **doubling**, but also a **50% chance** of the monthly income **decreasing** by 10%	**(b-1)**
A job with which your monthly income is **guaranteed to increase by 3%**	**(a-2)**	A job with which your monthly income is **guaranteed to increase by 3%**	**(b-2)**

Q2 Which of the following two ways would you prefer to receive your monthly income? Assume that your job assignment is the same for each. If you are a dependent (e.g. student, housewife, etc.) and not working please answer based on your monthly income being your actual living expenses. SELECT ONLY ONE ANSWER THAT IS APPLICABLE.

(a) Your monthly income has a **50% chance** of **increasing by 60%**, but also has a **50% chance** of **decreasing by 10%**		**(b)** Your monthly income is **guaranteed to increase by 3%**	
Q2-1 Of the following two jobs, which would you prefer? SELECT ONLY ONE ANSWER THAT IS APPLICABLE.		**Q2-2** Of the following two jobs, which would you prefer? SELECT ONLY ONE ANSWER THAT IS APPLICABLE.	
A job that has a **50% chance** of the monthly income **increasing by 30%**, but also has a **50% chance** of **decreasing by 10%**	**(a-1)**	A job that has a **50% chance** of the monthly income **increasing by 200%**, but also has a **50% chance** of **decreasing by 10%**	**(b-1)**
A job with which your monthly income is **guaranteed to increase by 3%**	**(a-2)**	A job with which your monthly income is **guaranteed to increase by 3%**	**(b-2)**

Assuming that people's utilities are expressed by the constant coefficient of relative risk aversion (RRA) utility function, $u(y) = y^{(1-\gamma)} / (1-\gamma)$, where γ is the coefficient of RRA, and based on the expected utility hypothesis, we have the following four relationships in the case of Q1:

$$0.5\frac{2^{1-\gamma}}{1-\gamma}+0.5\frac{0.5^{1-\gamma}}{1-\gamma} > \frac{1.03^{1-\gamma}}{1-\gamma} \quad \text{for those who choose (a-1),}$$

$$0.5\frac{2^{1-\gamma}}{1-\gamma}+0.5\frac{0.5^{1-\gamma}}{1-\gamma} < \frac{1.03^{1-\gamma}}{1-\gamma} < 0.5\frac{2^{1-\gamma}}{1-\gamma}+0.5\frac{0.7^{1-\gamma}}{1-\gamma} \quad \text{for those who choose (a-2),}$$

$$0.5\frac{2^{1-\gamma}}{1-\gamma}+0.5\frac{0.7^{1-\gamma}}{1-\gamma} < \frac{1.03^{1-\gamma}}{1-\gamma} < 0.5\frac{2^{1-\gamma}}{1-\gamma}+0.5\frac{0.9^{1-\gamma}}{1-\gamma} \quad \text{for those who choose (b-1),}$$

$$0.5\frac{2^{1-\gamma}}{1-\gamma}+0.5\frac{0.9^{1-\gamma}}{1-\gamma} < \frac{1.03^{1-\gamma}}{1-\gamma} \quad \text{for those who choose (b-2).}$$

Solving these inequalities for γ (and also in the case of Q2), we obtain the range of values that γ can take for each category (Table A-1).

[Table A-1]

Finally, we calculate the point estimates of γ based on the range of values obtained above. Assuming that gamma has a log-normal distribution, $\log \gamma \sim N(\mu, \sigma)$, we obtain

$$E[\,x\,|\,a < \log x < b] = \exp\left\{\mu + \frac{\sigma^2}{2}\right\} \frac{\Phi\left(\dfrac{b-(\mu+\sigma^2)}{\sigma}\right) - \Phi\left(\dfrac{a-(\mu+\sigma^2)}{\sigma}\right)}{\Phi\left(\dfrac{b-\mu}{\sigma}\right) - \Phi\left(\dfrac{a-\mu}{\sigma}\right)}.$$

The mean (μ) and variance (σ) of log γ were estimated by the maxim likelihood method

(to maximize the likelihood of a person being into the category he or she really chose).

Table A-2 shows the point estimates of γ obtained using the equation above. Note, in

passing, that we employed the mean of γ between Q1 and Q2 in the estimation reported

in Table 5, but the choice of γ in Q1, γ in Q2, or the mean between the two does not

change the result.

[Table A-2]

Appendix B: Generating a variable for egalitarianism

Here, we explain the egalitarianism dummy used in Table 9. Similar to the question

posed by Bartling et al. (2009), our survey includes the hypothetical question listed

below to elicit the degree of inequality aversion. The question has four simple binary

choice games, and in each game respondents must choose a more preferable payoff.

While choice A offers an equal payoff (1000 rupees for each of the respondent and a stranger) in all four cases, choice B offers unequal distributions: In Cases 1 and 2, the respondent's payoff is higher than that of the stranger (the pro-sociality game and the costly pro-sociality game, respectively), and in Cases 3 and 4, the respondent's payoff is lower than that of the stranger (the envy game and the costly envy game, respectively).

[**Questions regarding egalitarianism**]

Please assume that you and a total stranger can receive a certain amount of money. There are two options for the amount of money that each of you can receive, and only you can decide which option to choose—the stranger would not know about the amount of money. In this situation, which would you choose, A or B? Please select one answer for each case.

Case 1	**A**. 1000 Rs. for each of you and the stranger.	**B**. You receive 1000 Rs. and the stranger receives 600 Rs.
Case 2	**A**. 1000 Rs. for each of you and the stranger.	**B.** You receive 1600 Rs. and the stranger receives 400 Rs.
Case 3	**A**. 1000 Rs. for each of you and the stranger.	**B.** You receive 1000 Rs. and the stranger receives 1800 Rs.
Case 4	**A**. 1000 Rs. for each of you and the stranger.	**B.** You receive 1100 Rs. and the stranger receives 1900 Rs.

Among the 1,280 respondents, 441 chose the option of equal distribution in the pro-sociality and costly pro-sociality games, and 1,078 chose equal distribution in the envy and the costly envy games. Respondents who chose equal distribution in all four games accounted for 371, and we define them as egalitarian.

References

Alesina, A., La Ferrara, E., 2005. Preferences for redistribution in the land of opportunities. J. Public. Econ. 89(5-6), 897-931.

Alesina, A., Giuliano, P., 2009. Preferences for redistribution. NBER Working Papers 14825, National Bureau of Economic Research, Cambridge.

Alesina, A., Rodrik, D., 1994. Distributive politics and economic growth. Q. J. Econ. 109(2), 465-490.

Banerjee, A., Duflo, E., 2003. Inequality and growth: what can the data say? J. Econ. Growth. 8(3), 267-299.

Banerjee, A., Iyer, L., Somanathan, R., 2005. History, social divisions, and public goods in rural India. J. Eur. Econ. Ass. 3(2-3), 639-647.

Banerjee, A., Somanathan, R., 2007. The political economy of public goods: some evidence from India. J. Dev. Econ. 292-300. 82(2), 287-314.

Barro, R.J., 2000. Inequality and growth in a panel of countries. J. Econ. Growth. 5(1), 5-32.

Bartling, B., Fehr, E., Maréchal, M.A., Schunk, D., 2009. Egalitarianism and competitiveness. Am. Econ. Rev. 99(2), 93–98.

Benabou, R., 1996. Inequality and growth. In: Bernanke, B.S., and Rotemberg, J.J. (Eds.), NBER Macroeconomic Annual 1996, MIT Press, Cambridge, 11-74.

Benabou, R., Ok, E.A., 2001. Social mobility and the demand for redistribution: the poum hypothesis. Q. J. Econ. 116(2), 447-487.

Galor, O., Zeira, J., 1993. Income distribution and macroeconomics. Rev. Econ. Stud. 60(1), 35-52.

Iannaccone, L.R., 1998. Introduction to the economics of religion. J. Econ. Lit. 36(3), 1465-1495.

Ito, T., 2009. Caste discrimination and transaction costs in the labor market: evidence from rural north India. J. Dev. Econ. 88(2), 292-300.

Kimball, M.S., Sahm, C.R., Shapiro, M.D., 2008. Imputing risk tolerance from survey

responses. J. Am. Stat. Assoc. 103(483), 1028-2038.

Kubota, K., Horioka, C.Y., Kamesaka, A., Ogaki, M., Ohtake, F., 2011. Worldview and tough love. (unpublished results).

Luttmer, E., 2001. Group loyalty and the taste for redistribution. J. Polit. Econ. 109(3), 500-528.

Meltzer, A.H., Richard, S.F., 1981. A rational theory of the size of government. J. Polit. Econ. 89(5), 914-927.

Ohtake, F., Tomioka, J., 2004. Who supports redistribution? Jpn. Econ. Rev. 55(4), 333-354.

Perotti, R., 1996. Growth, income distribution, and democracy: What the data say. J. Econ. Growth. 1(2), 149-187.

Ravallion, M., Lokshin, M., 2000. Who wants to redistribute? The tunnel effect in 1990s Russia, J. Public. Econ. 76 (1), 87-104.

Srinivasan, K., Kumar, S., 1999. Economic and caste criteria in definition of backwardness. Econ. Polit. Wkly. 34 (42 & 43), 3052-3057.

Thorat, S., 2002. Oppression and denial: dalit discrimination in the 1990s. Econ. Polit. Wkly. 37(6), 572-578.

UNDP (United Nations Development Programme), 2007. Human development report 2007/2008: fighting climate change: human solidarity in a Divided World. Palgrave Macmillan, New York.

Tables

Table 1: Distribution of observations by age category and city

A: 2009	Age category (years)					Total
(N = 1,857)	20-29	30-39	40-49	50-59	60-69	
Delhi	3.3%	3.6%	3.4%	3.2%	3.4%	16.9%
Mumbai	3.2%	3.6%	3.4%	3.3%	3.2%	16.8%
Bangalore	3.5%	3.4%	3.3%	3.2%	3.2%	16.7%
Chennai	3.3%	3.5%	3.3%	3.2%	3.3%	16.6%
Kolkata	3.2%	3.4%	3.4%	3.2%	3.2%	16.6%
Hyderabad	3.2%	3.3%	3.3%	3.3%	3.2%	16.4%
Total	19.8%	20.8%	20.2%	19.5%	19.6%	100.0%
B: 2010	Age category (years)					Total
(N = 1,280)	20-29	30-39	40-49	50-59	60-69	
Delhi	2.3%	3.0%	3.4%	3.0%	3.7%	15.4%
Mumbai	1.7%	4.2%	4.2%	2.7%	3.1%	15.9%
Bangalore	1.6%	2.7%	3.1%	1.5%	2.4%	11.3%
Chennai	2.7%	4.4%	4.1%	3.8%	4.1%	19.0%
Kolkata	3.4%	4.6%	4.1%	3.9%	3.6%	19.6%
Hyderabad	2.7%	3.9%	4.1%	3.6%	4.5%	18.8%
Total	14.4%	22.8%	23.0%	18.4%	21.4%	100.0%

Table 2: Comparison of the caste composition by consumption level between our data and National Sample Survey data

A. Our data (2010)	Monthly per-capita expenditure (MPCE)				
	Quartile				Overall
	Poorest	2nd	3rd	Richest	
MPCE (Rs.)	818	1,372	1,968	3,641	1,950
Backward castes	18.1%	30.8%	36.8%	31.4%	29.3%
Scheduled castes	22.5%	18.7%	15.2%	12.4%	17.2%
Scheduled tribes	17.5%	8.3%	6.3%	3.8%	9.0%
Others	41.9%	42.2%	41.6%	52.4%	44.5%
# of observations	315	315	315	315	1,260
B. NSS data (2004, 61st round)	Monthly per-capita expenditure (MPCE)				
	Quartile				Overall
	Poorest	2nd	3rd	Richest	
MPCE (Rs.)	412	636	976	2,353	1,112
Backward castes	29.3%	32.1%	30.7%	19.5%	27.8%
Scheduled castes	31.6%	27.1%	16.0%	6.4%	20.0%
Scheduled tribes	5.3%	1.2%	3.3%	0.5%	2.6%
Others	33.8%	39.6%	49.9%	73.5%	49.6%
# of observations	9,088	9,088	9,083	9,085	36,344

Table 3: Summary statistics of empirical variables

Variable	# of obs.	Mean	Std. Dev.	Min	Max
Preferences for redistribution *	1280	76.62	17.07	25	100
Age group dummies					
30 to 39	1280	0.23			
40 to 49	1280	0.23			
50 to 59	1280	0.18			
60 or over	1280	0.21			
Female dummy	1280	0.52			
Marital status dummies					
With spouse	1280	0.78			
Divorced/bereaved	1280	0.11			
Education dummies					
Primary school	1280	0.07			
Middle school	1280	0.26			
Secondary school	1280	0.37			
College or more	1280	0.17			
Household size *	1280	4.67	1.56	1.50	16.00
Log of per-capita household income *	1280	10.37	0.67	8.49	13.70
Per-capita household income (Rs.) *	1280	42,363.79	52,398.76	4,888.89	890,000.00
Caste dummies					
Backward castes	1280	0.29			
Scheduled castes	1280	0.17			
Scheduled tribes	1280	0.09			
Religion dummies					
Hindu	1280	0.86			
Christian	1280	0.04			
Muslim	1280	0.05			
Other	1280	0.03			
Deeply religious	1280	0.87			

Note: Single asterisk (*) doubles that the variable is calculated based on the 2-year average. Other variables are time-invariant or represent the figures in 2010.

Table 4: Determinants of preferences for redistribution: Base specifications

	(1)		(2)		(3)	
Age group dummies						
30 to 39	2.780	(1.706)	2.365	(1.707)	2.382	(1.702)
40 to 49	3.044	(1.740)*	2.711	(1.743)	2.726	(1.740)
50 to 59	3.902	(1.847)**	3.365	(1.857)*	3.413	(1.851)*
60 or over	3.653	(1.880)*	3.289	(1.877)*	3.353	(1.869)*
Female dummy	0.222	(0.995)	0.232	(0.999)	0.232	(0.997)
Marital status dummies						
With spouse	-0.810	(1.774)	-0.925	(1.769)	-0.874	(1.769)
Divorced/bereaved	-1.053	(2.461)	-1.199	(2.458)	-1.172	(2.458)
Education dummies						
Primary school	-3.250	(2.158)	-3.281	(2.132)	-3.178	(2.133)
Middle school	-2.232	(1.528)	-2.685	(1.487)*	-2.557	(1.483)*
Secondary school	-2.695	(1.524)*	-3.011	(1.487)**	-2.705	(1.484)*
College or more	-4.204	(1.924)**	-4.336	(1.896)**	-3.842	(1.912)**
Household size	0.323	(0.305)	0.328	(0.307)	0.258	(0.308)
Per-capita household income quartile dummies						
2nd quartile	-0.613	(1.408)	-0.545	(1.402)		
3rd quartile	0.148	(1.570)	0.130	(1.571)		
4th quartile	-0.472	(1.650)	-0.532	(1.660)		
Log of per-capita household income					-0.715	(0.915)
Caste dummies (reference category is Upper/Middle castes)						
Backward castes	2.113	(1.474)	1.318	(1.506)	1.249	(1.502)
Scheduled castes	4.725	(1.450)***	4.188	(1.470)***	4.145	(1.462)***
Scheduled tribes	-1.292	(2.036)	-1.870	(2.043)	-1.871	(2.032)
Religion dummies (reference category is atheist)						
Hindu			6.059	(2.925)**	6.074	(2.928)**
Christian			0.037	(3.997)	0.044	(4.000)
Muslim			5.073	(3.448)	5.078	(3.446)
Other			2.836	(3.608)	2.887	(3.600)
Deeply religious			2.681	(1.517)*	2.709	(1.513)*
Region dummies (reference category is Delhi)						
Mumbai	-0.189	(1.548)	0.552	(1.585)	0.552	(1.583)
Bangalore	-2.192	(1.964)	-1.618	(1.928)	-1.680	(1.923)
Chennai	-4.626	(2.016)**	-3.849	(2.035)*	-3.838	(2.025)*
Kolkata	-0.199	(1.610)	-0.133	(1.630)	-0.353	(1.649)
Hyderabad	-4.653	(1.662)***	-3.610	(1.687)**	-3.586	(1.669)**
Intercept	76.450	(3.133)***	69.110	(4.340)***	76.330	(10.63)***
# of observations	1280		1280		1280	
R-squared	0.034		0.044		0.044	

Note: Numbers in parentheses are standard errors. Single asterisk (*), double asterisks (**), and triple asterisks (***) denote that the coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table 5: Influence of change in household economic conditions

A. Unemployment	Type of unemployment variable			
	A family member lost a job in the past 5 years (dummy, mean = 0.15)		Likely that a family member will lose a job in 2 years (dummy, mean = 0.05)	
	(1)	(2)	(3)	(4)
	3.088	3.088	3.791	3.800
including:	(1.414)**	(1.414)**	(2.285)*	(2.288)*
Coef. of relative risk aversion	No	Yes	No	Yes
# of observations	1280	1280	1280	1280
R-squared	0.048	0.048	0.046	0.046
B. Income growth	Type of income growth variable			
	Income growth from 2008 to 2009 (%, mean = 3.25, std. dev. = 3.47)		Expected income growth from 2009 to 2010 (%, mean = 3.74, std. dev. = 3.57)	
	(1)	(2)	(3)	(4)
	−0.241	−0.244	−0.308	−0.313
including:	(0.151)	(0.152)	(0.154)**	(0.156)**
Coef. of relative risk aversion	No	Yes	No	Yes
# of observations	1280	1280	1280	1280
R-squared	0.046	0.046	0.047	0.047

Note: All estimations are implemented with other controls (as in column 2, Table 4). Numbers in parentheses are standard errors. Single asterisk (*), double asterisks (**), and triple asterisks (***) denote that the coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table 6: Influence of past macro-economic shocks

A. Growth level	At the age 15 to 18		At the age 15 to 20	
	Mean	Coef. (Std. Error)	Mean	Coef. (Std. Error)
Recession dummy	0.401	1.410	0.531	1.942
		(1.437)		(1.451)
Boom dummy	0.373	−0.225	0.501	−0.530
		(1.221)		(1.264)
	# of obs.	1146	# of obs.	1093
	R-squared	0.046	R-squared	0.051
B. Stability	5-year moving variance at age 20		7-year moving variance at age 20	
	Mean	Coef. (Std. Error)	Mean	Coef. (Std. Error)
Unstable dummy	0.102	0.128	0.096	1.420
		(2.040)		(2.249)
Stable dummy	0.109	−0.957	0.110	−0.931
		(1.980)		(2.304)
	# of obs.	1110	# of obs.	1074
	R-squared	0.048	R-squared	0.047

Note: All four estimations are implemented with other controls (as in column 2, Table 4).

Table 7: Re-examining the influence of household income:

Using alternative income measures

	(1) (Column 2,Table 4)		(2)		(3)	
Per-capita household income						
2nd quartile	-0.545	(1.402)				
3rd quartile	0.130	(1.571)				
4th quartile	-0.532	(1.660)				
Total household income						
2nd quartile			0.198	(1.385)		
3rd quartile			-0.645	(1.482)		
4th quartile			-0.177	(1.608)		
Per-capita real estate						
2nd quartile					2.468	(1.494)*
3rd quartile					-2.024	(1.538)
4th quartile					-1.923	(1.730)
Per-capita financial assets						
2nd quartile					2.184	(1.438)
3rd quartile					2.253	(1.604)
4th quartile					2.894	(1.811)
# of observations	1280		1280		1280	
R-squared	0.044		0.044		0.055	

Note: All estimations are implemented with other controls (as in column 2, Table 4).
Numbers in parentheses are standard errors. Single asterisk (*), double asterisks (**), and triple asterisks (***) denote that the coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table 8: Re-examining the influence of household income:

Excluding social status / including relative economic status variables

	(1)	(2)	(3)	(4)	(5)	(6)
Per-capita household income						
2nd quartile	-0.978	-1.471	-0.612	-2.171	-2.216	-3.072
	(1.377)	(1.376)	(1.404)	(1.459)	(1.460)	(1.430)**
3rd quartile	-0.690	-1.312	-0.084	-1.923	-1.919	-3.297
	(1.515)	(1.508)	(1.573)	(1.657)	(1.661)	(1.592)**
4th quartile	-1.585	-2.443	-0.550	-2.678	-2.630	-4.599
	(1.548)	(1.516)	(1.662)	(1.767)	(1.770)	(1.642)***
Education dummies	No	No	Yes	Yes	Yes	No
Caste dummies	Yes	No	Yes	Yes	Yes	No
Relative economic status dummies						
High standard of living			2.290		2.468	2.419
			(1.090)**		(1.127)**	(1.130)**
High household income				1.696	1.531	1.398
				(1.093)	(1.094)	(1.093)
# of observations	1280	1280	1280	1183	1183	1183
R-squared	0.040	0.031	0.047	0.052	0.055	0.042

Note: All estimations are implemented with other controls (as in column 2, Table 4). Numbers in parentheses are standard errors. Single asterisk (*), double asterisks (**), and triple asterisks (***) denote that the coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively. The means of *high standard of living* and *high household income* dummies are 0.245 (# of observations = 1280) and 0.585 (# of observations = 1183), respectively.

	Mean	(1) Col. (3) of Table 8		(2)		(3)		(4)		(5)		(6)	
Relative economic status:													
High standard of living		2.290	(1.090)**	-0.835	(1.999)	0.775	(1.371)	-1.173	(1.711)	-13.908	(5.607)**	-20.213	(6.316)***
Trust for others	0.648			2.233	(1.196)*							2.486	(1.195)**
× High standard of living				4.053	(2.368)*							3.223	(2.377)
Egalitarianism	0.290					-1.782	(1.815)					-1.748	(1.800)
× High standard of living						4.388	(2.262)*					2.978	(2.277)
Donation	1.789							-1.100	(0.284)***			-1.100	(0.288)***
× High standard of living								1.974	(0.736)***			2.016	(0.748)***
Religion dummies (reference = no religion):													
Hindu	0.856									1.002	(3.431)	0.977	(3.644)
× High standard of living										16.929	(4.894)***	15.613	(5.225)***
Christian	0.035									-0.067	(4.580)	-0.215	(4.695)
× High standard of living										-3.246	(7.164)	-2.509	(7.157)
Muslim	0.053									2.307	(4.000)	1.997	(4.179)
× High standard of living										7.093	(6.656)	6.155	(6.910)
Other religion	0.034									-2.934	(4.154)	-2.608	(4.316)
× High standard of living										22.397	(5.680)***	22.008	(6.064)***
Deeply religious	0.864									2.702	(1.797)	2.839	(1.784)
× High standard of living										0.868	(3.213)	1.328	(3.196)
# of observations		1280		1280		1280		1280		1280		1280	
R-squared		0.047		0.056		0.050		0.058		0.063		0.083	

Note: All estimations are implemented with other controls (as in column 2, Table 4). Note that religion dummies are controlled for in columns (1) to (4) too, but are not reported in order to make the table simple. The coefficient estimates are almost the same as those in Table 4. Numbers in parentheses are standard errors. Single asterisk (*), double asterisks (**), and triple asterisks (***) denote that the coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table A-1: Ranges of the coefficient of relative risk aversion (γ)

A: Case of Q1		Γ	
Choice	# of obs.	Lower limit	Upper limit
(a-1)	174	0.00	0.88
(a-2)	68	0.88	2.06
(b-1)	295	2.06	6.00
(b-2)	743	6.00	∞
B: Case of Q2		Γ	
Choice	# of obs.	Lower limit	Upper limit
(a-1)	198	0.00	4.04
(a-2)	52	4.04	5.64
(b-1)	301	5.64	6.12
(b-2)	729	6.12	∞

Table A-2: Point Estimates of the coefficient of relative risk aversion (γ)

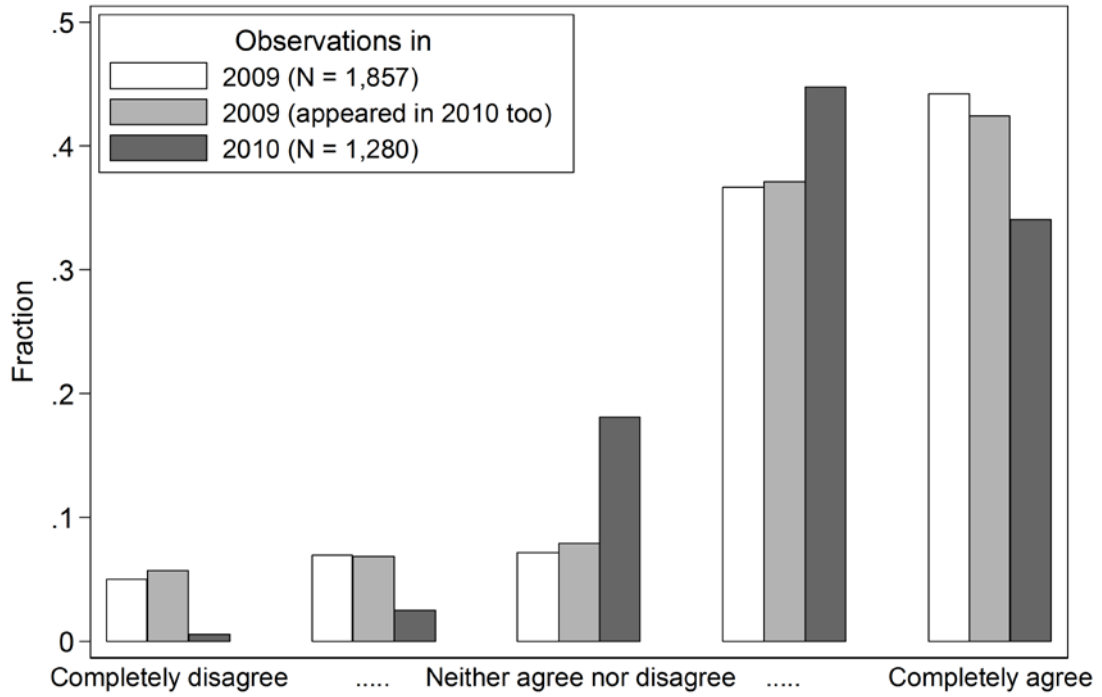|	γ	
Choice	Q1	Q2
(a-1)	0.18	3.21
(a-2)	1.34	4.83
(b-1)	3.43	5.88
(b-2)	19.96	8.69

Figure 1: Preferences for redistribution

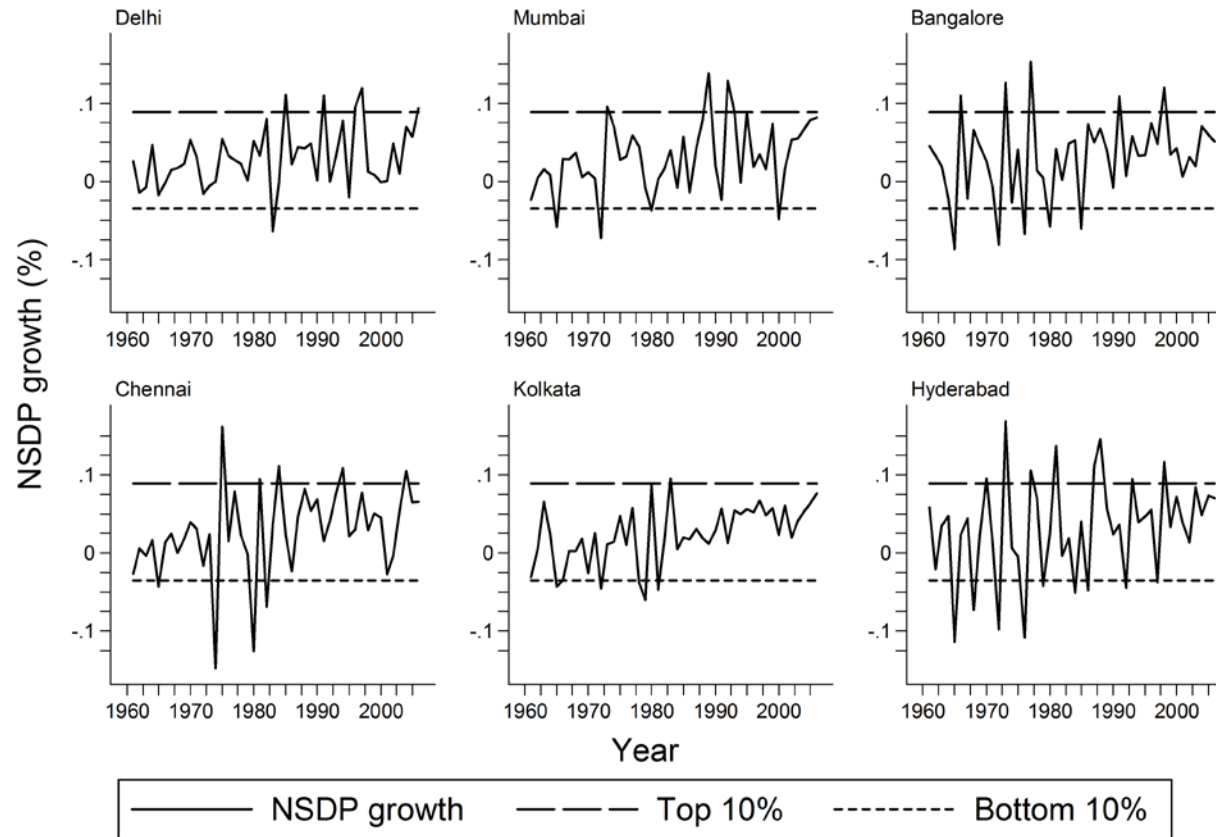Figure 2: Growth rates of the net state domestic product (NSDP), 1961-2006

Figure 3: Five-year moving variance of NSDP Growth, 1966-2006