

# Preferences for Redistribution in Transition Countries

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## Abstract

In this paper we analyze the attitudes of residents of transition countries with specific focus on whether they have a strong taste for income redistribution. We implement empirical strategies to test the implications of the basic theoretical models in the literature regarding preferences for redistribution. Empirical models of survey respondent's preference for redistribution, willingness to pay for welfare programs, and preferences for inequality as a work incentive are estimated. Particular focus is placed on testing the prospect of upward mobility (POUM) hypothesis which holds that people below the median, expecting their future income to be higher than their current income, have less desire for redistribution. Evidence presented in this paper indicates that POUM generally describes the attitudes of survey respondents in transition countries. Data used in this study are from the European Bank for Reconstruction and Development (EBRD) Life in Transition Survey (LITS II) for the year 2010).

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## 1 Introduction and Background

### 1.1 Introduction

In this paper we tackle the question of whether residents of transition countries have a strong taste for income redistribution given their experience with fluctuating incomes and the difficulties of transition. We provide a theoretical basis explaining how citizens may desire income redistribution mechanisms. We estimate empirical models of survey respondent's preferences for redistribution, willingness to pay for welfare programs, and preferences for inequality as a work

incentive are estimated. In particular, we focus on testing the prospect of upward mobility (POUM) hypothesis which holds that people below the median, expecting their future income to be higher than their current income, have less desire for redistribution. In the absence of a formal insurance market to insure against the possibility of lower income in the future, citizens may desire that the government compress the income distribution by providing redistributive safety net programs. In contrast, however, Benabou and Ok (2001) examine the hypothesis that the poor actually do not support substantial degrees of income redistribution because they hope that they can climb the income ladder themselves (or their children can after them). This conjecture is known as the prospect of upward mobility (POUM) hypothesis. The research reported in their study, using United States data, indicates that at least in that context the desire for social insurance dominates the POUM effect. Data used in this study are from the European Bank for Reconstruction and Development (EBRD) Life in Transition Survey (LITS II 2010). The LITS II survey provides a wave of research covering 29 transition countries plus Kosovo and five Western European comparator countries. Using LITS II survey responses we examine the POUM hypothesis by testing whether the populations of the transition countries have preferences that conform to the hypothesis.

## 1.2 Previous Literature

Meltzer and Richard (1981) provide the conventional theory of government size and redistribution in the context of majority voting in a democracy and the preferences of the median voter. Their model indicates that the extent of redistribution depends on the voting rule used in the democratic process of determining government expenditures and on the distribution of productivity in the labor market. Crucial to the outcome is the position of the median voter in the income distribution and changes in relative labor productivity. The primary testable implication of their model is that an increase in the mean income relative to the median voter's income has the effect of increasing the size of government. While insightful, this model is not fully applicable to the transition economy context for two reasons: (1) the weak link between wage and salary income and productivity in labor markets, and (2) the weakness of democratic institutions implying that the median voter context is not fully relevant in those countries. For these reasons, an insurance context seems preferable for the analysis that follows.

Agell and Lommerud (1992) have shown how an insurance-based model explains the behavior of labor union members in supporting their union which often works to compress the wage distribution. They examine how relative wage uncertainty can be used to explain why people support wage compression in the context of labor unions. They demonstrate that in a competitive economy with a large degree of income dispersion it only takes a small amount of uncertainty regarding where one will land in the future income distribution to generate a solution where everyone supports some degree of wage compression. In comparing the labor union context of their model with a country's tax and

transfer system they state, "In principle, a suitably designed tax system could thus provide the same insurance as pay compression." The application of that principle may be imperfect, however. Pay compression in the workplace and redistributive taxes and transfers in society at large have different efficiency effects and provide insurance against different types of risk. Of course, social norms are also important, as developed in Akerloff (1982). Varian (1980) also uses an insurance framework to model preferences for redistribution.

Although most studies claim that the preference for redistribution largely depends on the income distribution, i.e. higher income people will prefer less income redistribution, Piketty (1995) claims that controlling for other factors the relationship between individual income and the preference for redistribution has rather a weak link. He shows that this preference is highly influenced by learning and beliefs about social and individual mobility. For example, he argues that individuals born in a left-wing culture (or of left wing parents) are more likely to support income redistribution, and this result exists irrespective of the income level of the individual. Even though two regions such as the United States and the European Union might have similar income mobility structures, the preference for redistribution is higher in the European Union than the United States. Hence it is possible that a country with higher inequality would not prefer more income redistribution and the results might be obtained through the rational choices of voters. He concludes that the persistent difference in the income distribution across countries is possibly due to the presence of persistence differences in beliefs about income mobility, in contrast to actual mobility, and this difference may be evident even in an environment where individuals have similar objective functions regarding the cost of distribution. Hence, for a state with high inequality it is possible to observe a lower demand for redistribution. On the other hand, the individual's experience and learning about mobility might be different than the broader social mobility and so even though the maximization problem faced by the individuals are same, heterogeneity of the preference for redistribution is quite possible. Although this study provides insightful theoretical perspectives, an empirical exercise along this line would be very useful to better understand this phenomenon. Transition country data offers an excellent opportunity to study this issue.

Two recent studies on preferences for redistribution in the United States provide additional insight. Kuziemko et al (2015) provide evidence from randomized experiments using U.S. survey data that indicates their treatment (providing information on income inequality and the relationship between top marginal tax rates and economic growth) has large effects on respondent's views on inequality, but has little effect on their preferences for redistribution. Couttenier and Sangier (2015) show that in the United States individuals in states that have large mineral resource endowments have stronger negative views on redistribution.

This review of theoretical literature provides a basis for examining household survey data from transition countries for the purpose of analyzing the expressed desires for income redistribution. In what follows, we estimate empirical models of survey respondent's preferences for redistribution, willingness to pay for wel-

fare programs, and preferences for inequality as a work incentive are estimated. Particular focus is placed on testing the prospect of upward mobility (POUM) hypothesis which holds that people below the median, expecting their future income to be higher than their current income, have less desire for redistribution. The basic model of preferences for redistribution used to motivate our empirical analysis is taken from Meltzer and Richards (1981), Romer (1975), and more recently Alesina and Giuliano (2011). We follow the Alesina and Giuliano (2011) exposition to provide a theoretical basis for our empirical work to follow.

## 2 Theoretical Context

### 2.0.1 Basic model

In the basic static model, individuals have utility functions  $u_i = u(c_i)$  indicating that they derive utility from consumption or income. They supply a single unit of labor inelastically and they have differing productivities  $\alpha_i$  that yield differing incomes. The average productivity is  $\alpha^A$ . The tax and transfer mechanism in the basic model is extremely simple, with lump sum transfers that are financed via a linear income tax. The income tax rate  $t$  generates tax revenue and also results in excess burden of  $wt^2$  per individual. The government's budget constraint requires that each individual receive a uniform lump-sum transfer. The median voter theorem is used in this model to aggregate the preferences of individuals in the society and determine a political equilibrium. With this model setup, it can be shown that the consumption of individual  $i$  is given as:

$$c_i = y_i = \alpha_i(1 - t) + \alpha^A t - wt^2. \quad (1)$$

Consumption is determined by three terms in this expression: after-tax labor income, the lump-sum government transfer, and the excess burden of the income tax.

Alesina and Giuliano (2011) show that the equilibrium tax rate derived from maximization of consumption for the median-productivity individual ( $\alpha^M$ ) is given as:

$$t = \frac{\alpha^A - \alpha^M}{2w}. \quad (2)$$

Hence, the difference between the average and median productivities is the critical factor indicating inequality and the tax rate depends importantly on this measure of inequality. The tax rate is larger (smaller) for larger (smaller) differences in productivity. In a simple version of the basic model, such as that used here, it is the difference between average and median voter's income that is the critical factor.

### 2.0.2 Expected future income

If individuals care not only about their current income, but also care about their future income as in Benabou and Ok (2001), the basic model must be extended to at least two periods. Now, suppose that the utility of individual  $i$  depends on consumption today (period one) and tomorrow (period two), as indicated in the revised utility function:

$$u_i = u(c_{i1}, c_{i2}). \quad (3)$$

Further, we assume that there are productivity shocks that impact income, so  $y_{i2} = \alpha_i + \varepsilon_{i2}$ . The individual's budget constraint, without discounting, is then

$$(y_{i1} + E(y_{i2}))(1 - t) + ty_1^A + tE(y_2^A) - 2wt^2 = c_{i1} + c_{i2} \quad (4)$$

where  $E$  is the expectations operator and the superscript  $A$  indicates the average or mean. This budget constraint requires that after-tax income in the two periods, plus tax revenue net of excess burden, be equal to the sum of consumption in the two periods.

Consider the decision-making of the individual in this context. The tax rate is determined in period one and is fixed thereafter in period two. Period two income is uncertain which means that the individual must vote on the basis of his expectation of income relative to the known average and the median income in period one, and those of period two which are unknown to him. POUM indicates that a person below the median in period one would be averse to redistribution.

The literature on POUM, as in Benabou and Ok (2001) has examined whether the prospect of downward mobility offsets the prospect of upward mobility. They show that POUM may reduce the demand for redistribution by individuals, relative to the Meltzer and Richards (1981) basic model implication under certain circumstances. Those circumstances, as summarized by Alesina and Giuliani (2011) are: (1) expected income in period two is a concave function of income in period one, (2) there is limited risk aversion, and (3) there is a skewed distribution of the stochastic productivity shocks. The first of these circumstances requires that some individuals below the median in period one will be above the median in period two, but this situation declines at an increasing rate relative to period one income. The second circumstance regarding productivity (and income) shocks keeps the income distribution from degenerating. Finally, the third circumstance assures that there are not too many individuals expecting downward mobility.

### 2.0.3 Inequality in the utility function

What if people care about inequality in a more direct way? To address this question, researchers have explored models that place measures of inequality directly into the utility function. For example, if we have a measure of income inequality at time  $t$  denoted  $Q_t$ , the utility function can be written as:

$$U_{it} = \sum_{t=p}^T u(c_{it}(\dots Q_t)) \quad (5)$$

In this expression utility is the sum from the present period  $p$  to a future date  $T$  over which utility in each period is a function of consumption and other factors, and is conditioned on the measure of income inequality. In this formulation, the individual does not care about inequality directly, but cares because inequality affects her utility. The interesting issue to consider is whether it is possible that increased inequality may reduce the individual's utility. Alesina and Giuliano (2011) suggest two reasons why this may occur. First, there may be externalities in education. Redistribution may increase the average education level in the country thereby providing a benefit to even the relatively high income individuals in society. Second, redistribution may reduce crime among low income individuals thereby providing a benefit to higher income individuals. Of course, there are also reasons to believe that increased inequality has a positive effect. Primarily, higher degrees of inequality provide work incentives in a society, a feature we can test using the LITS data.

Inequality has been modeled directly within the utility function as well. In that case the utility function can be specified as:

$$U_i = \sum_{p=t}^T (\beta^t (u(c_{it}(\dots Q_t)) - \delta_i (Q - Q_i^*)^2)) \quad (6)$$

where  $Q_i^*$  is the ideal inequality for individual  $i$ . Note that the quadratic specification involves symmetric loss as the actual level of inequality deviates from the ideal level. This specification is suggestive, only. Other specifications can and have been used in the literature. This particular specification captures the possibility that individuals care about their own income as well as the broader income distribution of the society in which they live. Increased income for one's self may mean higher income inequality in the economy, which has negative weight in the utility function. But, this specification highlights why we may observe duality in people's responses. On the one hand, they prefer higher inequality in order to maintain a work incentive in the economy, but on the other hand they may prefer to donate some of their own earned income for welfare programs to reduce income inequality. Important questions that arise in this case are what determines the values of  $Q_i^*$  and  $\delta_i$ . Alesina and Giuliano suggest several possibilities. First, from a libertarian point of view,  $Q^* = Q^L$  considers the desired income distribution as that provided by market forces, with no redistribution provided by the government. Second, from an efficiency maximizing point of view,  $Q^* = Q^E$  where  $Q^E \gtrless Q^L$  depending on which of the factors affecting individual utility discussed above is stronger. Third, a communist view would suggest that everyone should be identical, with  $Q_i^C = 0$  and the government equalizes income using taxes and transfers. Finally, a Rawlsian view would suggest an income distribution  $Q_i^R$  resulting *ex post* from

implementation of policies that equalize all citizen's utility behind the so-called veil of ignorance.

Given the appropriate survey data on respondent's preferences for redistribution, we can gain insight on which of these views is representative. In what follows, we take the insights from these models to survey data collected among transition countries. Our desire is to examine attitudes toward redistribution, willingness to pay for increased welfare program benefits, and test whether the POUM hypothesis holds.

It is worth mentioning that the models used in the equations (3), (5) and (6) represent alternative mechanisms for the preference for redistribution. Even though the POUM hypothesis uses only income and income shocks as the determinants of the preference for redistribution, many studies claim that other factors are also important determinants. Piketty (1955) argues that existing culture and experience shape beliefs about upward mobility and the preference for inequality (redistribution). Alesina and Giuliano (2011) shows that individuals may prefer lower inequality since higher equality has a negative impact on individuals though increased crime, and a lower external benefit of education. Even though our focus is to test the POUM hypothesis, the utility functions in (3), (4) and (5) are suggestive of other mechanisms which can help us better understand the POUM hypothesis and control for other relevant variables. Assuming that the budget constraint is unchanged across different levels of utility functions considered, the utility function will determine the equilibrium level of taxation, i.e. the preference for redistribution, which will be similar to the equilibrium expressed in (1) with some modifications depending on the utility function specification. Hence, the preference for redistribution can be determined by income and income shocks or by other factors or combinations of income and income shocks, the prospect of upward mobility, experience, and beliefs about mobility, country characteristics, etc. Thus different utility functions are used under different assumptions regarding preferences. The LITS II data gives us not only the opportunity to look at current income but also future and past income as well as diverse macro and cultural variables. After controlling for all those, we can test the POUM hypothesis and assess its robustness. Even though our data will not allow us to estimate the parameters of the utility functions explicitly, however, it makes possible testing the effects of various variables in shaping the utility functions.

### **3 Life in Transition Survey Data**

Data used in this study are taken from the European Bank for Reconstruction and Development (EBRD) Life in Transition Survey (LITS), 2010 wave. These data were collected via face-to-face interviews with survey respondents in thirty transition countries. The full LITS II data set includes approximately 30,000 observations.

Using the LITS II data we test several hypotheses. Questions 2.27 through 2.29 of the survey instrument specifically ask respondents to place themselves on

an income ladder with ten rungs (avoiding the statistical jargon of deciles) at the time of the survey and four years prior. In addition, the survey asks them their anticipated position four years hence. The survey instrument also asks several questions to solicit the respondent's desire for income redistribution (questions 3.01 and 3.16) and willingness to pay more taxes for increased welfare program benefits (question 3.06). We use the income ladder questions, in particular, to test the POUM hypothesis.

LITS II data also covers five comparison countries in Western Europe. Estimations of the results from these groups will help understand the difference in preferences in the transition countries compared to other developed countries. If income is the only determinant, then we would expect similar signs in the developed and transition countries regressions for most of the variables.

In our analysis, we also used developed countries comparator data. Most of the previous studies have only used developed country data. However, the LITS II dataset provides the opportunity to explore the transition economies along with comparator developed countries. Though our interest is the countries in transition, using comparator countries data we can also test the state characteristics that influence the preference for redistribution. With this dataset, we cannot only test the POUM hypothesis for transition countries but also we can make some comparison with the developed countries, and we can test whether the country characteristics have any role to play in determining attitudes towards distribution. Based on Piketty (1995) and Alesina and Giuliano (2011) studies, we expect that even with similar mobility functions, the country may have a different taste for redistribution, shaped by country experience and long tradition. If we observe similar patterns across economies, then it is likely that country characteristic matter least; however, if they are different then perhaps the country characteristics shape attitudes towards redistribution. Moreover, these data provide the opportunity to check the POUM hypothesis across economies.

Table 1 provides summary statistics for the variables used in analysis. Respondents indicate that their position on the ten-step income ladder is 4.33, just below the middle rung of the ladder. Sixty-one percent of the survey respondents are female. The income difference variable (expected future income minus current income) has a mean of 0.51 indicating that on average respondents expect to be half a step higher on the income ladder four years in the future. The longer term income difference variable (future income minus previous income) has a mean of 0.25 indicating that respondents expect their future income position four years hence to be one-quarter of a step higher on the income ladder than it was four years in the past. Given that the survey was conducted in 2010, it seems reasonable that the longer term income expectation is smaller than the purely prospective expectation, if income in the recent past was lower due to the global financial crisis and recession.



## 4 Taste for Redistribution

Transition economies provide an interesting test bed for testing several hypotheses, including the POUM hypothesis. We estimated models explaining survey respondents attitudes on reducing the rich-poor income gap, Willingness to pay increased taxes for enhanced welfare program benefits, and the preference for inequality as a work incentive. While we estimated models to examine all three of this issues, our main concern is with the POUM hypothesis which posits that even the poor may not support radical redistribution if they expect that they will climb up the income ladder in near future. Even though they have lower income now they do not prefer greater income redistributive policies to be implemented by the government, in anticipation of being at a higher point in the income distribution in the future. In their seminal work Benabou and Ok (2001) formalized this hypothesis. Later, several studies empirically tested this hypothesis and found strong evidence in favor of this theory. For example Checchi and Filippin (2004) studied the POUM effect in an experimental setting, and Alesina and La Ferrara (2005) studied the hypothesis using U.S. panel data. Buscha (2012) examined the hypothesis using U.K. data .

The life in transition surveys (LITS II) offers a useful source of survey responses that enable testing of the POUM hypothesis in the context of transition economies. There are several specific questions in the survey that are very useful for testing the POUM hypothesis, which are exploited in this study in following sections. First, however, we present graphical representations of several key survey indicators.

### 4.1 Graphical Representation

Section 3 of the LITS II survey questionnaire asks specific questions which we use to examine the POUM hypothesis. Question 301 asks the opinion of the respondent regarding whether the poor-rich income gap of the country should be reduced. Question 306 asks whether the respondent is willing to give part of his/her income or pay more taxes, if you were sure that the extra money was used to different welfare activities such as improving health, education, climate change issues, and helping the needy. Question 316a asks the opinion or preference of respondents about the how income should be distributed. Possible responses follow a ten step scale with 1 being the response that the person wants a more equal income distribution and 10 being the response that larger income differences are acceptable because they provide incentives for individual effort.

#### 4.1.1 Descriptive information on rich-poor income gap reduction perception

In this section, we report on results regarding the rich-poor income gap using responses to survey question 301h. We create a binary variable capturing whether respondents agree (agree or strongly agree) to the view that the income disparity between rich and poor should be reduced. Figure 1 reports the percent of

respondents who believe that the rich-poor income difference in their country should be reduced, by income decile. The figure provides responses for both respondents in transition countries and in the comparator countries of France, Germany, Italy, and Sweden. Initial inspection of Figure 1 indicates that higher income respondents are generally less likely to support the idea of reducing the rich-poor income gap. Interestingly, people on the highest rung of the income ladder do support income redistribution more than those in the ninth decile in transition economies. Responses are very similar in the comparator countries, with the exception of the upward jump in support for redistribution in the ninth decile, followed by a substantial reduction in support in the tenth decile. Those who have higher income in comparator countries are much less likely to agree with reducing income disparities.

Figure 2 illustrates the percentage of respondents who believe the rich-poor income gap should be reduced, but in this case the income distribution is based on their positions four years ago, before the economic crisis. The effect of the crisis is seen by comparing Figure 2 with Figure 1. The economic crisis had the effect of reducing support for redistribution in the upper half of the income distribution in transition countries.

#### **4.1.2 Descriptive information on preference for income distribution**

Question 316a of the LITS II survey asks about the views respondents hold for how income should be distributed on a scale from 1 to 10, with 1 being equal income for all and 10 being larger income disparity accepted to ensure proper incentives to work. The average rating is used to depict respondents views regarding this issue. Figure 3 illustrates the mean rating by income decile for respondents in both transition countries and comparator countries. It is evident from Figure 3 that the mean rating increases with respondent's income in both country settings. Even those who are on the lower rungs of the income ladder (less than 5) have mean ratings less than 5 indicating that the relatively poor do not prefer much redistribution.

Figure 4 plots the same data by income four years prior. Comparing Figure 4 with Figure 3 for transition countries it is evident that the effect of the economic crisis was to reduce support for redistribution across the income distribution, with support for redistribution dropping at the low end and support for inequality rising at the high end. Similarly, for comparator countries the effect of the crisis appears to have been a reduction in support for redistribution.

Figure 5 illustrates the same data by anticipated income four years in the future. In this case it is quite clear that there is a monotonically rising mean ranking. As expected future income rises, respondents are less supportive of redistributive policies.

## **4.2 Regression results**

In order to make the analysis more precise it is necessary to do more than merely eyeball bar charts. In this section we estimate empirical models explaining

respondent's expressed preference for redistribution

#### **4.2.1 Models of the preference for reducing the rich-poor income gap**

First, we model responses to the question (survey question 301h) that asks whether the rich-poor income gap should be reduced in the country. The possible responses range from strongly disagree to strongly agree. Eight models are used to analyze the survey responses. As in Buscha (2012), several individual characteristics are used as explanatory variables, including gender, income, and location of residence. In addition, country fixed effects are included. We also use two measures of the change in income over time for respondents. Our first measure is the difference between the expected future income (four years hence) and current income. This measure is a prospective view of anticipated income change. The second measure is the difference between expected future income (four years hence) and previous income (four years ago). This measure is a combination of retrospective and prospective change in income, covering an eight year period.

Another explanatory variable used in the models is an indicator of whether the respondent's income level is close to the median. This measure identifies the people who will most likely be affected by the expected changes in their position in the income distribution. Those already near the top do not have much room to move up, and those at the bottom are not as likely to move up. We also include a variable to capture anticipated income jumps. This dichotomous variable identifies respondents who have lower than mean current income (lower than income ladder rung 5) but expect to be at a higher than mean income ladder rung in future. Just one caveat should be mentioned in relation to the use of this variable. Inclusion of this variable omits many observations from the regression estimation since those who have income higher than the mean are excluded from the sample used in estimation.

Table 2 reports results of estimation for ordered probit models where the dependent variable is the survey respondent's preference for redistribution. Model 1 includes respondent characteristics. Models 2-8 include additional variables. In Model 1 we see that gender matters. Female respondents prefer a more equal distribution of income than do males. The respondent's current level of income has significant negative effect on the preference for a more equal income distribution. the income difference variable (expected future income position minus current position) has a negative and significant coefficient. That result indicates that survey respondents expecting higher income in the future are less supporting of redistribution. Consistent with the POUM hypothesis, the difference between expected future income and current income reduces the strength of the preference for redistribution. The coefficient for the income difference variable is negative and significantly different from zero in four model specifications. These results suggest that respondents who believe that their income will go up in future have a weaker preference for reducing the rich-poor income gap. Respondents with mortgages on their homes, indicating that they have access

to financial markets, express a stronger preference for reducing the rich-poor income gap, but those living in metropolitan areas express a weaker preference. Respondents living in countries with more income inequality, measured by the Gini Coefficient, express a stronger preference for reducing the rich-poor income gap, although this effect is statistically insignificant. The level of economic development in the country of the respondent, as measured by log gross national income, has no discernible effect on preferences for redistribution.

Model 2 includes a measure of income change over a longer period of time (eight years): expected future income minus previous income. This variable has a negative coefficient estimate and is statistically significant. This result also confirms the POUM hypothesis that respondents expecting future income to be higher than past income have less desire for redistribution. The addition of this variable causes the other income difference variable with a shorter time horizon (future minus current income position) to become insignificant. Otherwise, the model coefficients are consistent with Model 1. We also tested whether respondents with income around the mean prefer more redistribution, as suggested by the POUM hypothesis, in Models 3-8. The results for that variable are not robust across all model specifications, however.

Model 5 includes the income jump variable, which has a positive and statistically significant coefficient indicating that respondents below the median level of income who expect to have higher income in the future have a stronger preference for redistribution. This finding is distinct from that indicated by the income difference variable, where respondents believe that they will have higher income in the future, because it is conditioned on respondents having below median income. In general, those expecting their incomes to rise in the future have a weaker preference for redistribution, but those below the median who expect higher income in the future have a stronger preference.

In the remaining three models of Table 2, we include variables to test whether survey respondent attitudes toward redistribution are sensitive to their situation in comparison to the previous generation. Models 6 and 8 include an indicator that the respondent has a higher education level than his or her father. In both models where this variable is included it is not statistically discernible. Models 7 and 8 include a variable indicating that the respondent has the perception that his/her condition is better than his/her parents. In both models this variable is positive and statistically significant indicating greater support for redistribution.

Table 2a shows results of estimation for similar models using survey responses from the Western European comparator countries only. While for the transition countries, we observe strong coefficients for the income variable, supporting the POUM hypothesis, other variables are not that strong. However, for the developed comparator countries, along with the income variable other variables seem to be very important. For example, though the prospect of mobility (a non-income measure) appears to be weakly significant in transition countries, this variable is significant for the developed countries. It may be that survey respondents who have higher education levels compared to their parents tend not to prefer higher degrees of income redistribution. For the transition economies

location is an important predictor, however, for the comparator developed nations, it is not an important determinant. Moreover, the influence of existing inequality in the country is very weak in the transition country regressions, but it is very strong for developed countries. More interestingly, the GNI per capita variable has the opposite effect.

#### 4.2.2 Models of willingness to pay for welfare programs

Next, we investigate whether survey respondents are willing to pay for increased welfare programs. Question 306 of the LITS II survey asks respondents if they are willing to give part of their income, or pay more taxes, for increased welfare program activities. Potential responses in the survey instrument are simply yes or no. For this analysis we created a new dummy variable taking on the value one if the respondent is willing to pay an additional portion of income for any of the four welfare activities, zero otherwise.

Table 3 reports results of probit model estimations. Here, individual characteristics are less important factors in determining who is willing to pay. Higher income people are willing to pay an additional portion of income for welfare activities, as indicated by the positive estimated coefficient. Respondents in countries with higher degrees of inequality indicate no significantly greater willingness to pay more, but those in countries with higher per capita income prefer to pay less for welfare activities. Urban area residents are willing to pay more than those in rural areas, but those in metropolitan areas are not willing to pay more.

Among income measures included in the models, the expected future increase in income is not significant across specifications of Models 1-7, but is positive and weakly significant in Model 8. The eight-year difference in income is also not significant in Models 2 and 3. The indicator that the respondent's income is around the mean is also not significant in Models 3-8. And, the income jump variable is not significant in Model 5. Respondents who perceive that their condition is better than their parents are more willing to pay for welfare programs, as indicated in Models 7 and 8.

Similar regressions for education, health and other social sectors were estimated separately. The results are very similar to those when all variables are combined. The income jump variable is significant for all regressions of different dependent variables except when willing to pay for education is considered.

Table 3a shows results of estimation for similar models using survey responses from the Western European comparator countries only. The results for the willingness to pay for welfare programs in the comparator countries is somewhat similar to that for the transition economies. While country GNI per capita was a very significant predictor of attitudes toward redistribution in the transition economies, it is not very important for survey respondents in the developed countries. However, once again the income variable has similar estimated coefficients in both sets of regressions. Higher education (compared to parents) has no impact on the preference for redistribution in transition countries; however, it is weakly significant for the developed countries.

### 4.2.3 Preference for inequality as a work incentive

Finally, we analyze survey responses on preferences for income inequality as a work incentive. Question q316a asks respondents about their preference for income distribution. This question is the closest form of the variable needed to understand POUM hypothesis. Respondents were asked to state their preference regarding the income distribution using a scale ranging 1 to 10 where one indicates a desire for an equal income distribution and ten indicates a desire for an unequal income distribution in order to provide a work incentive.

Our initial estimations using this dependent variable are reported in Table 4 where ordinary least squares (OLS) model estimates are reported in order to understand the determinants of stated preferences. In these models a positive estimated coefficient indicates a stronger preference for income inequality to ensure work incentive while a negative coefficient indicates a desire for more income equality. The POUM hypothesis predicts that people with lower than median current income with a higher expected future income will prefer a more unequal distribution. The reported results indicate that respondents on higher income ladder rungs tend to prefer more inequality. The estimated coefficients for the income difference variable are positive and significant in seven of the eight estimated models. These results indicate that respondents expecting their incomes to rise over the next four years express a stronger preference for income inequality.

In Model 5, the income jump variable is included to specifically test the POUM hypothesis. The estimated coefficient for that variable is positive and significant. That is, even though respondents are currently low on the income ladder, their expectation of higher income in the future (above the mean on the income ladder) is associated with a desire for less income redistribution. This finding is exactly what the POUM hypothesis predicts. Hence, the regression results strongly support the POUM hypothesis.

Other explanatory variables are also significant across model specifications in Table 4. Place of residence and country characteristics are also important determinants of the POUM hypothesis. Urban and metropolitan residents prefer more income disparity than their rural counterparts. Respondents living in countries with higher per capita income express a preference for more equality. When comparing themselves to parents, respondents with higher educational attainment or better overall condition indicate a preference for less redistribution and more work incentive. They apparently believe that their own efforts or work to improve their condition is reason to prefer that others do the same, rather than have a more redistributive system of government transfers.

Table 4a shows results of estimation for similar models using survey responses from the Western European comparator countries only. In the preference for redistribution as a work incentive equations for the developed comparator countries, we observe that the state economy size (GNI per capita) is less important. Moreover, the location of the respondents (urban or metro) does not matter in determining the preference for redistribution for the work incentive purpose.

#### 4.2.4 Transformation function/mobility function

Benabou & Ok (2001) base the validity of the POUM hypothesis on a rational expectations approach. It may appear that under rational expectations it is not possible for everyone to expect higher income in future and hence it is not surprising to think that the POUM hypothesis is flawed intuitively. A mean-reverting steady-state equilibrium condition does not allow for increased income for all groups perpetually. Therefore, rational expectations are not compatible with everyone holding realistic views of their income prospects. However, Benabou and Ok showed that this is not necessarily the case. They demonstrated that in the case of a concave transition function and idiosyncratic income shocks the POUM hypothesis is valid even in a rational expectations framework. They show that there exists a range of incomes below the mean where the individual does not favor redistribution if and only if her expected income tomorrow is an increasing and concave function of today's income. The more concave the transition function, the lower the demand for redistribution. The concave transition function is actually nothing more than the usual diminishing phenomenon of the production function or other similar term used in economics. And it also implies more equal distribution of income in future since richer will have more income in future but they will experience diminishing returns.

For the same reason, those who have income close to mean will experience lower income in future if a progressive income tax is imposed for redistribution and so even individuals with incomes lower than mean will tend to reject higher taxes. In contrast to the concavity factor, idiosyncratic shocks also affect the income distribution. But, that reality does not affect the taste for redistribution (since idiosyncratic shocks are stochastic, not deterministic), whereas concavity can be assumed to be deterministic. Concavity implies a more equal distribution of future income, or a type of convergence, i.e. skewness reducing of the Lorenz curve. But, idiosyncratic shocks still maintain some skewness in the income distribution. So, two opposite forces are at work to shape the long-run income distribution.

Our current data do not allow us to test the idiosyncratic shocks, however, the LITS II data permit us to test for concavity. To verify the concavity of transition function we estimate a regression equation where expected future income is a function of current income and current income squared. We find that the transformation function is concave with the coefficient for current income positive and that for the square of income negative (both have  $p$ -values less than one percent). Therefore, this data corroborates the POUM hypothesis. (See Table A1 in the appendix).

## 5 Summary and Conclusions

Our major research question focuses on transition economy respondents' opinions on income redistribution. We analyzed this issue in several ways. First, we modeled respondents' preferences for reducing the rich-poor income gap us-

ing both binary and ordered probit models. The results indicate that older respondents, females, and those with mortgages favor more redistribution. Respondents currently positioned higher on the ten-step income ladder (reflecting deciles) want less redistribution. Furthermore, those expecting to be positioned higher on the income ladder in the future want less redistribution, consistent with the POUM hypothesis. Respondents living in countries with higher Gini coefficients indicate a stronger preference for redistribution, although if they live in a metropolitan area they want less redistribution.

When asked if they are willing to pay more for additional welfare program benefits, older respondents are more likely to say no while respondents with higher income are more likely to say yes. Urban respondents and those in countries with higher Gini coefficients are more likely to indicate greater willingness to pay. But, those in countries with higher per capita income are less likely to be willing to pay more.

We also estimated models of respondents' preferences for inequality as a work incentive, i.e. a desire for a less equal income distribution as an incentive for citizens to work hard to get ahead. Those models indicate that older respondents want less inequality as a work incentive. Income is an important determinant, however, with respondents on higher income ladder rungs expressing a desire for more inequality as a work incentive. In addition, respondents expecting to be on a higher income ladder rung in the future want more inequality as a work incentive. Other factors also matter, with mortgage holders, urban or metropolitan residents or those in countries with higher Gini coefficients wanting more inequality. But, respondents in countries with higher income per capita express a weaker desire for inequality as a work incentive.

We observe that for both the transition economies and the developed countries the income equality of the countries as measured by the Gini coefficient seems to be relatively unimportant. Moreover, while the GNI per capita is a major factor in determining preferences for redistribution in transition economies, it is not significant for the comparator countries.

Based on the above pieces of evidence, it is clear that though individual level characteristics and experience have some impact in determining redistribution preferences, the POUM hypothesis seems to be affirmed in a very substantial and robust manner. Interestingly though, while other explanatory factors have different magnitudes or signs, the key variables pertinent to the POUM hypothesis are very similar across all specifications providing strong indications of robustness. Specifically, the empirical evidence strongly supports the POUM hypothesis for transition economies.



**Table 1: Descriptive Statistics**

Variable	Mean	Standard Deviation	Minimum	Maximum
Income (decile)	4.33	1.67	1	10
Gender(female = 1)	0.61	0.49	0	1
Income difference (future minus current)	0.51	1.51	-9	+9
Income difference (future minus previous)	0.25	2.15	-9	+9
Income near mean (deciles 4 to 6)	0.58	0.49	0	1
Mortgage	0.05	0.21	0	1
Location (rural is base category)				
Urban	0.45	0.50	0	1
Metropolitan	0.12	0.33	0	1
Income jump (below median, expecting increase)	0.38	0.49	0	1
Gini coefficient	32.68	4.77	24.82	44.20
Natural log of GNI (\$PPP)	9.40	0.68	7.64	10.48

Table 2. Ordered Probit Models of Preferences for Reducing the Rich-Poor Income Gap

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	-0.979* (0.508)	-1.010** (0.502)	-1.714*** (0.281)	-0.973* (0.512)	-0.071 (0.531)	-0.955** (0.454)	-0.978* (0.517)	-1.886*** (0.157)
Age	0.00180* (0.000910)	0.00182** (0.000922)	0.00213*** (0.000899)	0.00181* (0.000915)	0.00160 (0.00102)	0.00256*** (0.00121)	0.00145 (0.00104)	0.00261*** (0.00126)
Gender (female=1)	0.0146** (0.0161)	0.0149** (0.0158)	0.0350** (0.0165)	0.0349** (0.0161)	0.009 (0.0193)	0.011 (0.0196)	0.0325** (0.0158)	0.0294 (0.0205)
Current income	-0.0428** (0.0177)	-0.0356** (0.0176)	-0.0427** (0.0176)	-0.0441** (0.0175)	-0.00885 (0.0368)	-0.0421** (0.0185)	-0.0507** (0.0186)	-0.0475** (0.0195)
Income difference ladder (future-now)	-0.0257* (0.0145)	-0.00238 (0.0155)	-0.0351** (0.0151)	-0.0238* (0.0145)	-0.0516** (0.0228)	-0.0196 (0.0148)	-0.0284* (0.0149)	-0.0311* (0.0163)
Mortgage	0.159*** (0.0554)	0.148*** (0.0549)	0.180*** (0.0597)	0.150*** (0.0554)	0.164** (0.0723)	0.172*** (0.0636)	0.153** (0.0585)	0.210*** (0.0687)
Urban location	-0.0083 (0.0448)	-0.00961 (0.0449)	0.00756 (0.0303)	-0.00663 (0.0446)	0.00481 (0.0448)	-0.0486 (0.0350)	-0.0450 (0.0447)	-0.0334 (0.0339)
Metropolitan location	-0.127** (0.0624)	-0.133** (0.0614)	-0.108* (0.0654)	-0.127** (0.0624)	-0.113* (0.0667)	-0.112 (0.0713)	-0.128** (0.0618)	-0.0948 (0.0703)
Gini coefficient	0.00759 (0.00646)	0.00764 (0.00638)	0.00617 (0.00686)	0.00759 (0.00645)	0.00504 (0.00699)	0.00523 (0.00652)	0.00793 (0.00664)	
Log GNI Per Capita (Constant PPP)	0.0762 (0.0474)	0.0688 (0.0472)	0.06617 (0.0472)	0.0766 (0.0476)	0.102** (0.0470)	0.0645* (0.0431)	0.0742 (0.0478)	
Income difference ladder (future-present)								
Income around mean			0.0105 (0.0278)	0.0141 (0.0274)	-0.0723 (0.0542)	0.00507 (0.0312)	0.00966 (0.0269)	-0.00325 (0.0317)
Income jump					0.111* (0.0615)			
Higher education level than father						0.0183 (0.0188)		0.00983 (0.0175)
Better condition than parents (percentage)							0.137*** (0.0140)	0.137*** (0.0181)
Observations	24598	24479	24598	24598	18870	16389	24598	16389

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	-61.05*** (15.98)	-60.77*** (16.62)	-3.354*** (0.606)	-61.07*** (15.99)	-67.96*** (17.77)	-52.79*** (15.24)	-60.23*** (15.96)	-3.103*** (0.0735)
Age	-0.000490 (0.00132)	-0.000558 (0.00131)	-0.00285** (0.00129)	-0.000486 (0.00133)	-0.00112 (0.00172)	-0.00248* (0.00139)	-0.000123 (0.00141)	-0.00352** (0.00139)
Gender (female=1)	-0.0312 (0.0634)	-0.0312 (0.0636)	-0.0189 (0.0548)	-0.0306 (0.0615)	-0.0155 (0.0693)	-0.0337 (0.0743)	-0.0322 (0.0609)	-0.0327 (0.0726)
Current Income	-0.0951*** (0.0195)	-0.0890*** (0.0215)	-0.0990*** (0.0203)	-0.0956*** (0.0193)	-0.176*** (0.0208)	-0.0979*** (0.0159)	-0.0943*** (0.0186)	-0.0960*** (0.0178)
Income difference ladder (future-now)	-0.0935* (0.0543)	-0.0665 (0.0461)	-0.119** (0.0538)	-0.0934* (0.0542)	-0.155*** (0.0584)	-0.0876 (0.0539)	-0.0933* (0.0539)	-0.110** (0.0518)
Mortgage	0.0493 (0.0666)	0.0527 (0.0669)	-0.0340 (0.0889)	0.0497 (0.0672)	0.0847 (0.0535)	0.0270 (0.0958)	0.0523 (0.0669)	-0.0176 (0.0706)
Urban location	-0.0106 (0.0228)	-0.0115 (0.0233)	-0.0783*** (0.0157)	-0.0107 (0.0225)	0.00205 (0.0297)	-0.0186 (0.0395)	-0.00907 (0.0224)	-0.0571 (0.0351)
Metropolitan location	0.0191 (0.129)	0.0149 (0.128)	-0.0266 (0.127)	0.0185 (0.127)	-0.0351 (0.118)	0.0341 (0.135)	0.0215 (0.128)	0.0312 (0.151)
Gini coefficient	-0.0940*** (0.0234)	-0.0940*** (0.0240)	-0.09951 (0.0147)	-0.0940*** (0.0234)	-0.109*** (0.0235)	-0.0813*** (0.0222)	-0.0926*** (0.0234)	
Log of GNI Per Capita (Constant Inc. \$ PPP)	-5.215*** (1.442)	-5.191*** (1.500)		-5.217*** (1.443)	-5.797*** (1.666)	-4.460*** (1.377)	-5.141*** (1.440)	
Income difference ladder (future-previous)		-0.0239 (0.0323)						
Income around mean			-0.00662 (0.0439)	-0.00974 (0.0404)	0.116* (0.0676)	-0.0224 (0.0311)	-0.00820 (0.0406)	-0.0130 (0.0346)
Income jump					0.225*** (0.0715)			
Higher education level than father						-0.0324 (0.0328)		-0.0343 (0.0385)
Better condition than parents (perception)								-0.0940*** (0.0339)
Observations	3404	3395	3404	3404	1948	2715	3404	2715

Standard errors in parentheses  
\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

Table 3: Probit Models of Willing to Pay for Additional Welfare Program

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	1.327 (1.009)	1.315 (1.006)	1.319 (1.009)	1.330 (1.009)	1.264 (1.044)	0.828 (1.023)	1.332 (1.008)	-0.142 (0.111)
Age	-0.00574*** (0.00110)	-0.00572*** (0.00110)	-0.00573*** (0.00111)	-0.00575*** (0.00111)	-0.00596*** (0.00107)	-0.00471*** (0.00134)	-0.00610*** (0.00114)	-0.00593*** (0.00146)
Gender (female=1)	0.0222 (0.0227)	0.0238 (0.0230)	0.0239 (0.0230)	0.0222 (0.0227)	0.00545 (0.0263)	0.00255 (0.0239)	0.0204 (0.0225)	0.00312 (0.0244)
Current income	0.0721*** (0.0132)	0.0727*** (0.0150)	0.0735*** (0.0155)	0.0728*** (0.0138)	0.05945** (0.0259)	0.0669*** (0.0144)	0.0670*** (0.0141)	0.0564*** (0.0144)
Income difference holder (future-now)	0.0105 (0.0122)	0.0123 (0.0190)	0.0125 (0.0190)	0.0106 (0.0122)	-0.00863 (0.0161)	0.0108 (0.0127)	0.00823 (0.0123)	0.0331* (0.0195)
Mortgage	0.0337 (0.0643)	0.0303 (0.0643)	0.0303 (0.0643)	0.0337 (0.0642)	0.0326 (0.0813)	0.0380 (0.0639)	0.0368 (0.0629)	-0.0252 (0.0748)
Urban location	0.138*** (0.0403)	0.138*** (0.0406)	0.137*** (0.0406)	0.138*** (0.0404)	0.139*** (0.0437)	0.125*** (0.0400)	0.140*** (0.0403)	0.0947* (0.0498)
Metropolitan location	0.00362 (0.0924)	0.00259 (0.0927)	0.00251 (0.0926)	0.00357 (0.0923)	-0.0191 (0.0865)	0.0441 (0.0935)	0.00342 (0.0921)	0.0160 (0.103)
Gift coefficient	0.0112 (0.00977)	0.0111 (0.00981)	0.0111 (0.00981)	0.0112 (0.00977)	0.0145 (0.00965)	0.0116 (0.00965)	0.0115 (0.0100)	
Log GNI Per Capita (Constant SPPP)	-0.205** (0.103)	-0.204* (0.105)	-0.204* (0.105)	-0.205** (0.103)	-0.206* (0.108)	-0.149 (0.108)	-0.208** (0.105)	
Income difference holder (future-previous)	-0.00106 (0.0111)	-0.00106 (0.0111)	-0.00113 (0.0111)					
Income around mean			-0.0905 (0.0351)	-0.00756 (0.0347)	0.0154 (0.0515)	-0.0264 (0.0423)	-0.0116 (0.0448)	-0.0177 (0.0410)
Income jump			0.0612 (0.0625)					
Higher education level than father						-0.00466 (0.0258)		-0.00171 (0.0256)
Better condition than parents (perception)							0.114*** (0.0391)	0.131*** (0.0410)
Observations	21545	23438	23438	21545	18046	15773	21545	15773

Standard errors in parentheses  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3a. Probit Models of Willing to Pay for Additional Welfare Programs—Comparator Countries

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	-6.221 (45.42)	-5.784 (45.41)	-5.882 (45.34)	-6.235 (45.36)	-8.635 (44.34)	-7.822 (45.69)	-4.367 (45.45)	-0.737*** (0.133)
Age	0.00210 (0.00195)	0.00228 (0.00204)	0.00228 (0.00207)	0.00209 (0.00198)	-0.000713 (0.00215)	0.00148 (0.00207)	0.00133 (0.00187)	0.00151 (0.00292)
Gender(female=1)	-0.106*** (0.0179)	-0.112*** (0.0183)	-0.113*** (0.0152)	-0.106*** (0.0155)	-0.149*** (0.0444)	-0.0941*** (0.0183)	-0.103*** (0.0136)	-0.103*** (0.0357)
Current income	0.0434* (0.0264)	0.0416 (0.0299)	0.0422 (0.0276)	0.0439* (0.0242)	0.0596 (0.0755)	0.0261 (0.0246)	0.0412* (0.0245)	0.0393** (0.0191)
Income difference ladder (future-now)	0.00101 (0.0165)	-0.0153 (0.0202)	-0.0151 (0.0209)	0.000929 (0.0161)	-0.00239 (0.0450)	-0.00280 (0.0227)	0.000975 (0.0159)	-0.000136 (0.0220)
Mortgage	0.322*** (0.0740)	0.320*** (0.0742)	0.320*** (0.0749)	0.321*** (0.0746)	0.270*** (0.0962)	0.324*** (0.0674)	0.316*** (0.0704)	0.379*** (0.104)
Urban location	0.289*** (0.0908)	0.294*** (0.0912)	0.294*** (0.0912)	0.289*** (0.0908)	0.336*** (0.114)	0.331*** (0.0816)	0.286*** (0.0877)	0.531*** (0.0411)
Metropolitan location	0.382*** (0.0563)	0.383*** (0.0548)	0.384*** (0.0533)	0.383*** (0.0545)	0.248 (0.175)	0.466*** (0.0704)	0.376*** (0.0484)	0.524*** (0.0746)
Gini coefficient	-0.0132 (0.0668)	-0.0137 (0.0664)	-0.0137 (0.0664)	-0.0132 (0.0668)	-0.0220 (0.0555)	-0.00963 (0.0693)	-0.0163 (0.0670)	
Log of GNI Per Capita (Constant Int. \$ PPP)	0.571 (4.121)	0.531 (4.119)	0.532 (4.116)	0.571 (4.118)	0.839 (4.057)	0.712 (4.147)	0.404 (4.126)	
Income difference ladder (future-previous)		0.0132 (0.0217)	0.0130 (0.0217)					
Income around mean		0.0113 (0.100)	0.0113 (0.100)	0.0113 (0.101)	-0.00571 (0.167)	0.0368 (0.113)	0.00824 (0.0993)	0.0335 (0.113)
Income jump					0.0700 (0.0832)			0.0225 (0.0226)
Higher education level than father								
Better condition than parents (perception)						0.0468** (0.00767)		
Observations	3348	3340	3340	3348	1913	2673	3348	2673

Standard errors in parentheses  
\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

Table 4. Models of Preference for Inequality as a Work Incentive

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	6.784*** (1.542)	6.842*** (1.527)	6.852*** (1.534)	6.792*** (1.550)	6.376*** (1.798)	7.203*** (1.438)	6.768*** (1.511)	3.760*** (0.330)
Age	-0.0504 (0.00304)	-0.0516* (0.00299)	-0.0518* (0.00300)	-0.0505 (0.00305)	-0.0473 (0.00333)	-0.0487 (0.00382)	-0.0637*** (0.00309)	-0.00828** (0.00372)
Gender (female=1)	0.0102 (0.0541)	0.0165 (0.0529)	0.0165 (0.0529)	0.0103 (0.0542)	0.00904 (0.0580)	0.00710 (0.0579)	0.00143 (0.0527)	0.00427 (0.0596)
Current income	0.159*** (0.0388)	0.166*** (0.0410)	0.168*** (0.0419)	0.160*** (0.0405)	0.124 (0.0791)	0.151*** (0.0442)	0.138*** (0.0416)	0.126** (0.0474)
Income difference holder (future-now)	0.0895** (0.0434)	0.113*** (0.0533)	0.113** (0.0531)	0.0897** (0.0434)	0.0723 (0.0562)	0.0867** (0.0423)	0.0806* (0.0430)	0.157*** (0.0566)
Mortgage	0.227 (0.178)	0.230 (0.177)	0.230 (0.177)	0.227 (0.178)	0.273 (0.191)	0.213 (0.198)	0.238 (0.175)	0.108 (0.208)
Urban location	0.370*** (0.109)	0.374*** (0.110)	0.374*** (0.110)	0.370*** (0.109)	0.290** (0.124)	0.441*** (0.113)	0.378*** (0.108)	0.349*** (0.121)
Metropolitan location	0.835*** (0.283)	0.836*** (0.284)	0.835*** (0.284)	0.835*** (0.283)	0.787*** (0.275)	1.017*** (0.278)	0.833*** (0.279)	0.927*** (0.288)
Gini coefficient	0.0297 (0.0232)	0.0301 (0.0232)	0.0301 (0.0232)	0.0297 (0.0232)	0.0370 (0.0239)	0.0256 (0.0232)	0.0309 (0.0228)	
Log GNI Per Capita (Constant \$PPP)	-0.427*** (0.139)	-0.438*** (0.138)	-0.438*** (0.138)	-0.427*** (0.140)	-0.394** (0.159)	-0.470*** (0.133)	-0.433*** (0.134)	
Income difference holder (future-previous)	-0.0216 (0.0311)		-0.0218 (0.0309)					
Income around mean			-0.0211 (0.0665)	-0.0160 (0.0665)	-0.0483 (0.131)	0.0378 (0.0848)	-0.0312 (0.0655)	0.0649 (0.0870)
Income jump					0.426** (0.115)			
Higher education level than father						0.137*** (0.0445)		0.151*** (0.0465)
Better condition than parents (perception)							0.439*** (0.0989)	0.313** (0.122)
Observations	24653	24528	24528	24653	18926	16436	24653	16436
Adjusted R <sup>2</sup>	0.033	0.033	0.033	0.033	0.031	0.040	0.038	0.030

Standard errors in parentheses  
\* p < .10, \*\* p < .05, \*\*\* p < .01

Table 4a. Models for Preference for Inequality as a Work Incentive—Comparator Countries

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Constant	-114.1 (74.95)	-113.7 (73.10)	-113.9 (72.69)	-114.3 (74.50)	-104.5 (75.61)	-119.6 (73.69)	-108.0 (74.00)	2.664*** (0.458)
Age	0.00892* (0.00406)	0.00943* (0.00384)	0.00941* (0.00381)	0.00891* (0.00402)	0.00808 (0.00487)	0.0105*** (0.00370)	0.00621 (0.00406)	0.0113* (0.00474)
Gender (female=1)	-0.125 (0.182)	-0.135 (0.185)	-0.139 (0.186)	-0.129 (0.183)	-0.152 (0.216)	-0.0894 (0.188)	-0.116 (0.178)	-0.0832 (0.174)
Current Income	0.187** (0.0428)	0.173** (0.0457)	0.176** (0.0461)	0.191** (0.0439)	0.198 (0.100)	0.195*** (0.0406)	0.181** (0.0469)	0.188*** (0.0315)
Income difference ladder (future-now)	0.144** (0.0435)	0.0589 (0.0296)	0.0603 (0.0288)	0.143** (0.0437)	0.164** (0.0560)	0.122** (0.0408)	0.142** (0.0418)	0.179* (0.0633)
Mortgage	0.318 (0.138)	0.307 (0.154)	0.304 (0.148)	0.314 (0.152)	0.209 (0.179)	0.410 (0.195)	0.294 (0.140)	0.509* (0.211)
Urban location	0.0129 (0.195)	0.0171 (0.195)	0.0177 (0.196)	0.0134 (0.196)	-0.0802 (0.199)	0.0160 (0.193)	0.00199 (0.188)	0.108 (0.223)
Metropolitan location	-0.190 (0.172)	-0.188 (0.174)	-0.183 (0.177)	-0.185 (0.175)	-0.223 (0.138)	-0.298* (0.125)	-0.208 (0.174)	-0.288 (0.216)
Gini coefficient	0.179 (0.107)	0.180 (0.105)	0.180 (0.104)	0.179 (0.107)	0.164 (0.104)	0.196 (0.107)	0.169 (0.106)	
Log of GNI Per Capita (Constant Int. \$ PPP)	10.54 (6.765)	10.30 (6.298)	10.51 (6.565)	10.55 (6.730)	9.686 (6.834)	10.99 (6.641)	9.989 (6.684)	
Income difference ladder (future-previous)	0.0717 (0.0527)	0.0717 (0.0527)	0.0700 (0.0517)	0.0832 (0.162)		0.0693 (0.173)	0.0729 (0.159)	0.0391 (0.160)
Income around mean					0.183 (0.222)			
Income Jump					-0.422** (0.140)			
Higher education level than father						0.0243 (0.0347)		0.0266 (0.0201)
Better condition than parents (perception)							0.379* (0.145)	0.468** (0.136)
Observations	3411	3402	3402	3411	1946	2719	3411	2719
Adjusted R <sup>2</sup>	0.057	0.059	0.059	0.057	0.041	0.062	0.063	0.046

Standard errors in parentheses  
\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$

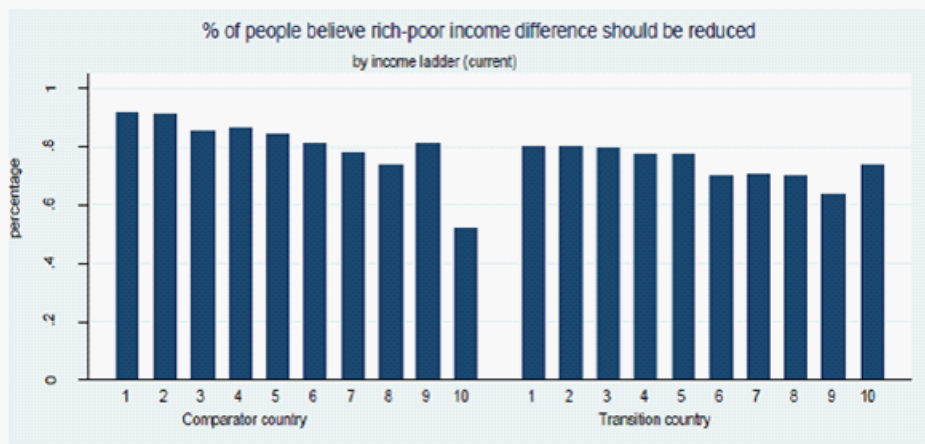


Figure 1: Preferences for Rich-Poor Income Gap Reduction by Current Income

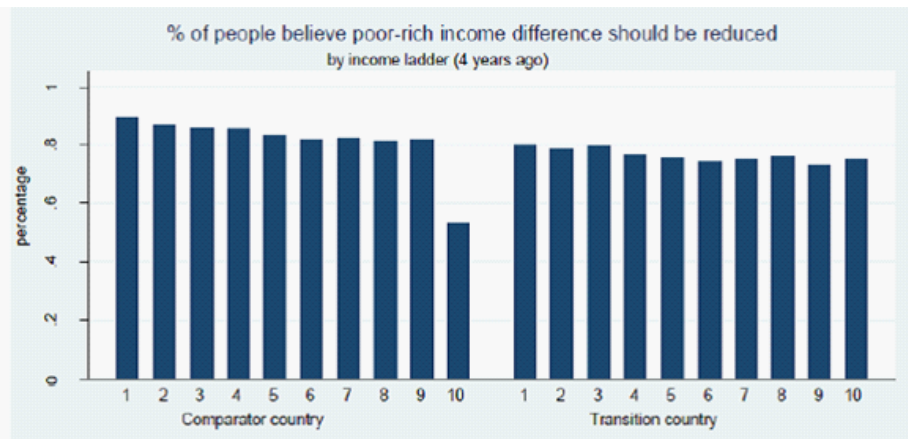


Figure 2: Preferences for Rich-Poor Income Gap Reduction by Previous Income



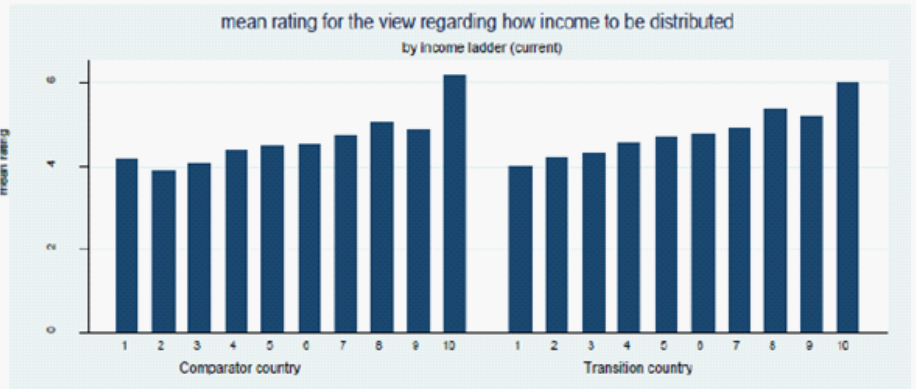
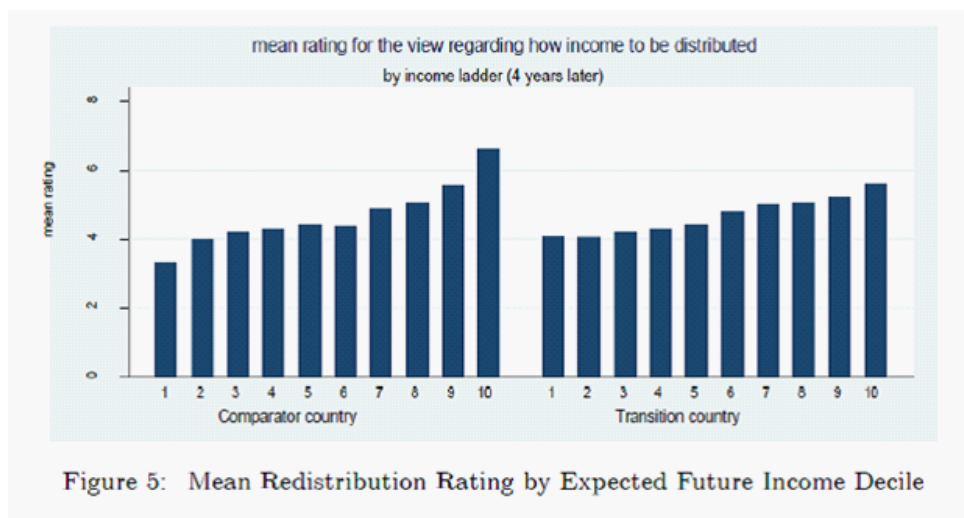


Figure 3: Mean Redistribution Rating by Current Income Decile



Figure 4: Mean Redistribution Rating by Previous Income Decile



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## 6 Appendix

Table A1: Future Income Mobility Function Estimation

Variable	Coefficient
Constant	0.536*** (0.044)
Income	1.053*** (0.194)
Income squared	-0.014*** (0.002)
Sample size $n$	32,718
$F$ statistic	18419.60
$p$ -value	0.000
Adjusted $R^2$	0.530

Standard errors in parentheses.

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$