Who wants to redistribute?
The tunnel effect in 1990s Russia

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Abstract

Support for governmental redistribution tended to be greater for the poor than the rich in a representative sample of Russian adults in 1996. However, support for redistribution is higher amongst those who expect their welfare to fall, and this effect is strongest amongst the currently well-off. A rising trajectory inhibits demand for redistribution. Support is also stronger in rural areas, amongst those with less schooling, those who fear losing their job, the elderly, and amongst women. Our results are consistent with Albert Hirschman's idea of a 'tunnel effect', whereby prospects of mobility (in both directions) influence demand for governmental redistribution. © 2000 Elsevier Science S.A. All rights reserved.

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1. Introduction

One expects that policies that redistribute incomes from the rich to the poor will be favored by the poor and opposed by the rich. Such an alignment of interests seems natural, given their respective gains and losses.

But this may be too simple a model. Governmental redistributions are not normally one-off events, so expectations of future welfare will come into play. Currently poor people on a rising trajectory may well oppose redistribution, and currently well-off people on a downward trajectory may well favor it. There may

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also be heterogeneity in tastes for inequality, or in beliefs about the costs and benefits of redistribution, or about the government's ability to redistribute in a predictable way. For these and possibly other reasons, not all currently poor people appear to favor redistribution, and not all currently rich people oppose it.

   A better understanding of these issues can throw light on the political-economy of redistributive policy and the causes of inequality. The prospect of upward mobility has been used to explain why rising inequality might be tolerated in rapidly developing countries. Albert Hirshman dubbed this the 'tunnel effect':

   ''Suppose that I drive through a two-lane tunnel, both lanes going in the same direction, and run into a serious traffic jam. No car moves in either lane as far as I can see (which is not very far). I am in the left lane and feel dejected. After a while the cars in the right lane begin to move. Naturally my spirits lift considerably, for I know the jam has been broken and that my lane's turn to move will surely come at any moment now. Even though I still sit still, I feel much better off than before because of the expectation that I shall soon be on the move'' (Hirshman, 1973, p. 545).

In the spirit of Hirshman's idea, recent theoretical work has shown how past mobility experiences can have persistent effects on attitudes to redistribution at given current incomes, allowing a deeper understanding of redistributive politics (Piketty, 1995). Upward mobility can also explain why some currently poor people resist lasting redistributions, and (hence) why we do not see more pressure for redistribution in democracies where (given that income distribution is skewed) the median voter will have an income below the mean; Bénabou and Ok (1998) provide a formal model of such behavior, which they term the 'prospect for upward mobility hypothesis'.[1]

   Of course, by the same token, the prospect of falling income can promote a desire for redistribution amongst the currently non-poor. Continuing Hirshman's analogy to a congested tunnel:

   ''But suppose that the expectation is disappointed and only the right lane keeps moving: in that case I, along with my left lane cosufferers, shall suspect foul play, and many of us will at some point become quite furious and ready to correct manifest injustice by taking direct action (such as illegally crossing the double line separating the two lanes)'' (Hirschman, 1973, p. 545).

The perceived role of governmental redistribution of current incomes as a form of insurance could well be a strong motive in some settings. Suppose that income

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[1]There is a literature in political science and political sociology on the effects of actual and perceived social mobility on redistributive politics; for discussion and references, see Piketty (1995).

redistribution by government is seen as a safety net to protect against adverse shocks. One can then expect that demand for redistribution by government will be lower in a socially cohesive setting in which reciprocal relationships (though possibly unequal ones, such as based on patronage) offer security, than in an individualistic, socially fragmented one.[2] A further implication is that, in settings in which there are significant down-side risks, one might well find strong support amongst currently non-poor people for programs targeted to the poor.[3]

This paper attempts to understand why some people favor governmental redistribution and others do not, and (in particular) whether there is a 'tunnel effect'. We hope to throw light on a number of questions, including: Do the currently poor favor inequality-reducing redistribution, and the current rich oppose it? Do people expect redistribution to be persistent and so think inter-temporally in deciding how much they want governments to intervene in the distribution of income? In particular, are those who expect to be better off in the future less inclined to support redistribution, and (reversing the argument) do perceptions of vulnerability to down-side income risk stimulate demand for redistribution? And how do perceptions of social exclusion affect the demand for redistribution? For example, do people who feel politically marginalized have a higher demand for redistribution at any given level of current income?

Russia in the 1990s is an interesting setting for examining these issues. After the breakup of the communist system and movement toward a free market economy, inequality of incomes increased substantially in Russia. Between 1992 and 1996, the Gini index of income inequality is estimated to have risen from 0.41 to 0.49 (Lokshin and Popkin, 1998). Subjective assessments of psychological well-being suggest rising dissatisfaction in the 1990s (Rose and McAllister, 1996; Ravallion and Lokshin, 1999). Early post-reform expectations were disappointing for many. The survey data we will use in this paper indicate that, between 1992 and 1996, the proportion of Russian adults who thought that their family's life would get better over the next 12 months dropped from 55% (of 11,300 sampled adults) to 41% (of 7000 adults). The left lane was clearly not moving for the bulk of Russians in this period. But there was a moving right lane; a small minority of people were seeing rising living standards. Our data (discussed below) indicate that 8.4% of adults saw real consumption gains for their families in both 1995 (compared to 1994) and 1996 (1995).

We will use an unusually rich household survey for Russia in 1996. The survey included standard socio-economic data on incomes, consumptions, demographics, education attainments and so on. In addition, the survey included a range of more

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[2]For example, there is evidence that private redistribution is more active in rural than urban areas of developing countries; see Ravallion and Dearden (1988) using data for Indonesia.

[3]For example, it has been argued that the broad base of political support that one finds for some safety net programs in poor rural economies derives from insurance motives for redistribution (Ravallion, 1991).

subjective questions on perceptions of welfare and how it is expected to change over time. It also included a question on whether each sampled adult was for or against governmental efforts to redistribute income; in particular, respondents were asked: ''Do you agree or disagree that the government must restrict the income of the rich?'' We will call this the 'restrict the rich?' question (RRQ). Seventy-two percent of adults answered that they were in favor of restricting incomes of the rich in 1996.

The RRQ was not asked in previous survey rounds, so we cannot say if the proportion increased during the 1990s. However, since the RRQ was asked in a comprehensive multi-purpose socio-economic survey, we can use our data to explore the reasons why some people favored restricting incomes of the rich and others did not. In particular, we can see how expectations interacted with current living standards and other factors. We do not think it plausible that there is sufficient mobility that the bulk of the poorest decile (say) in Russia would oppose reducing incomes of the rich because they think they will become rich in the foreseeable future. As we shall see, there is little resistance to redistribution amongst the poorest in Russia. However, it is more interesting to look closely at how the currently 'rich' feel in this setting. We shall show that currently well-off individuals who expected their welfare to improve tended to oppose redistribution, while those who feared decline favored it.

The next section outlines a rudimentary model of preferences for governmental redistribution. Our data are described in Section 3. Section 4 presents our results for Russia. Section 5 concludes.

2. Preferences for redistribution in theory

A natural interpretation of the 'restrict the rich?' question is that some form of tax is contemplated, to be levied on incomes above some level.[4] That level, and what would be done with the revenue, are both left to the imagination of the respondent. We assume that individual respondents hold expectations about the likely outcome for them personally. In particular, we assume that a respondent who considered herself poor anticipates a non-negative financial gain from restricting incomes of the rich. With certainty, the person who considers himself rich expects a financial loss.

Utility also depends on uncertain future incomes, and governmental redistribution alters the probability distribution of future incomes. For this reason, the function relating utility to current income will not be the same with redistribution

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[4]One interpretation is that a 100% marginal tax is to be imposed, implying that income of the rich is bounded above. However, this is probably too literal, and we suspect that many respondents to the Russian survey would have in mind a high (but not necessarily 100%) tax on (observed) incomes above some level.

as without it. We can also expect the utility function to vary with a vector of other variables, x, including individual and household characteristics that might affect expected utility at given current income. These can be interpreted as variables affecting the demand for governmental redistribution as insurance, independently of the implications for current incomes.

The expected tax can be positive or negative and we assume that it is strictly increasing in current income y. The tax can also be a function of x which includes variables that affect the expected tax at given current income.

For the status quo (without further governmental redistribution), we assume that no tax/transfer is expected. Taxes and transfers made for other purposes (including existing redistributive interventions) are taken as subsumed in incomes as defined here.

Expected utility without income redistribution by the government is the sum of current utility (known with certainty) and expected future utility, where that expectation is formed over an uncertain distribution of future income. Utility without redistribution is then

$$u(y,x) = f(y,x) + \int f(\tilde{y},x)\mathrm{d}H(\tilde{y},x), \tag{1}$$

where f is the felicity function and H is the distribution of future income. We make the standard assumption that f is twice-differentiable, strictly increasing and concave in y.

With redistribution, there is uncertainty about what tax will be imposed, as well as the uncertainty about future income. We assume that the uncertainty about the tax is additive. The tax on someone with income y and attributes x is $\tau(y,x) + \mu$ where μ is the unknown random variable. Redistribution also changes the distribution of the uncertain variable(s) influencing future incomes. Utility with redistribution is then given by

$$v[y - \tau(y,x),x] = \int f[y - \tau(y,x) - \mu,x]\mathrm{d}G(\mu,x)$$

$$+ \int\int [f(\tilde{y} - \tau(\tilde{y},x) - \mu,x]\mathrm{d}G(\mu,x)\mathrm{d}H^*(\tilde{y},x), \tag{2}$$

where H^* is the cumulative distribution function of future income with redistribution.

The tax is assumed to be positive on all incomes above y^* which defines a person's perception of who is 'rich'. If income is below y^* then the person expects to gain financially as a result of the redistribution. The value of y^* for any given x is unique and is given implicitly by $\tau(y^*,x) + \mu = 0$. (Note that y^* is a function of x.)

The other factor determining expected utility with redistribution is the probability distribution of future income. If the redistribution is not expected to alter that

distribution ($H = H^*$) then $u(y^*,x) = v(y^*,x)$; a person who does not expect to incur any tax (positive or negative), and does not think there will be any effect on the distribution from which his future incomes will be drawn, will be indifferent to the proposed redistribution. If the distribution of future income with redistribution is preferred (not preferred) then $u(y^*,x) < (>)v(y^*,x)$.

Who will prefer restricting incomes of the rich? The utility gain is

$$g(y,x) = v[y - \tau(y,x),x] - u(y,x). \tag{3}$$

It is clear that this is non-negative for all $y \le y^*$ if restricting incomes of the rich is perceived to be desirable in its own right (i.e., as long as $v(y,x) \ge u(y,x)$). Of course, finding that people who perceive their own income to be low are in favor of redistribution does not reveal that they care about distribution per se. More revealing are the answers given at high incomes. If $g(y,x) > 0$ for any income $y > y^*$ then the expected distribution is preferred even though own income falls.

How does support for restricting the incomes of the rich vary with income? On differentiating (3) with respect to y we have

$$g_y(y,x) = v_y[y - \tau(y,x),x][1 - \tau_y(y,x)] - f_y(y,x), \tag{4}$$

where

$$v_y[y - \tau(y,x),x] = \int f_y[y - \tau(y,x) - \mu,x]dG(\mu,x). \tag{5}$$

It can be seen that $g_y(y,x) < (>)0$ as $1 < (>)t_y(y,x) + f_y(y,x)/v_y[y - \tau(y,x),x]$. The source of ambiguity in the effect of income on support for redistribution lies in the variation in the marginal utility of income. A sufficient condition for support for redistribution to fall as income increases ($g_y < 0$) is that redistribution lowers the marginal utility of income, i.e. $v_y[y - \tau(y,x),x] < u_y(y,x)$. This is not, however, an intuitively plausible condition at all income levels; amongst those who expect to be donors one might find a sufficiently high marginal utility of income after the redistribution to yield $g_y > 0$. In the special case in which the tax is certain ($\mu = 0$), it is readily verified that

$$g_y(y^*,x) = -f_y(y^*,x)\tau_y(y^*,x) < 0. \tag{6}$$

How does preference for redistribution vary with x? Differentiating (3):

$$g_x(y,x) = -v_y[y - \tau(y,x),x]\tau_x(y,x) + v_x[y - \tau(y,x),x] - u_x(y,x). \tag{7}$$

Consider any variable in x that increases the expected tax — call this a 'tax-attracting attribute'. If the utility function takes the additively separable form such that the direct marginal utility of x is unaffected by redistribution and neither the uncertainty about the tax nor that about future income are affected by x, then it

is plain that an increase in any tax-attracting attribute will reduce the desire for redistribution. However, the more general non-separable case is ambiguous. A sufficient condition for a higher tax-attracting attribute to reduce the desire for redistribution is that the direct marginal utility of that attribute is lower with redistribution than without it. The necessary condition for a tax-attracting attribute to increase the desire for redistribution is that the direct marginal utility of that attribute is higher with redistribution.

The main task of the empirical work to follow is to assess why some people support the expected redistribution and others do not. The above discussion helps motivate a simple empirical model. Let R be a dummy variable taking the value 1 if the person is opposed to redistribution and 0 if she is in favor. Then we have

$$R = 1[g(y,x) > 0], \tag{8}$$

where $1[.]$ is the indicator function. One can estimate this as a probit, assuming that $g(y,x)$ is linear in parameters and includes a normally distributed error term.

3. Data

It is clearly difficult to formulate simple yet revealing questions about subtle aspects of personal attitudes to governmental redistribution. The RRQ does not directly posit any specific redistributive tax scheme. That would have entailed a more complex question, which surveyors might reasonably have been wary of. The RRQ does, however, have the advantage for our purpose that it pins down one key aspect of the idea of 'redistribution', namely that the 'rich' are the donors; by contrast, asking a question such as ''do you agree or disagree that the government should redistribute incomes?'' would leave open who would be the donor.

Our data on responses to the RRQ come from the Russian Longitudinal Monitoring Survey (RLMS).[5] RLMS is based on the first nationally representative sample of several thousand households across the Russian Federation. The survey comprises seven rounds spanning September 1992 to October 1996. This paper is based on data from the October 1996 round of the survey which is the only one to ask the RRQ. The households in the last round were also surveyed in two previous

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rounds, and we will use some data from those rounds, as discussed later. The 1996 sample includes 3557 households and 10 035 individuals. The RRQ was only asked of adults, giving us a sample size of 6808. Seventy-two percent of sampled adults responded that they are in favor of governmental efforts to reduce the incomes of the rich.

Responses to the RRQ might reflect expectations of current financial gain or loss, or they may stem from envy of the rich, or concern for the welfare of the non-rich, or some combination of the two. However, the RLMS is a large integrated survey on living standards. By exploiting this fact, we hope to reveal whether there is support for governmental redistribution beyond motives of financial self-interest and what factors explain why some people support redistribution and others do not. Although the survey did not ask whether the respondent considered herself a likely loser financially from policies which restrict incomes of the rich, it did include an unusually wide range of both objective and subjective (self-rated) indicators of who might consider themselves rich and what expectations they hold for future welfare.

Primary sample units (PSU) for the survey were drawn from a list of more than 2000 raions (counties). The PSUs were allocated into 38 equal size strata based on geographical, ethnic and other factors. One raion was selected from each stratum, with probability proportional to size. Within each raion, an equal number of households has been interviewed. We use these raions as a geographical unit in the analysis.

In adjusting for cost-of-living differences (regionally and over time) we have used the official poverty lines of the Russian Federation (Popkin et al., 1993). These use a food basket developed for a set of age–gender categories. The cost-of-food basket calculations were based on dietary intake requirements for each age–gender grouping. Thus, each age and gender group has its specific poverty line which is used to construct a household's poverty line according to the demographic composition of the household. Regional differences in prices were captured by using region-specific price information.

The income data are measured as monthly household incomes from all sources. This includes: wage income from both main and additional jobs, social security transfers, private transfers, in-kind income, and income from home production.

However, there are reasons to doubt that this income measure is a good indicator of current economic welfare. There are transient effects on incomes, and measurement errors. An alternative, and arguably better, indicator of current income available in the data set is the real value of household consumption (normalized by the household-specific poverty lines described above). This includes cash expenditures and imputed expenditures for the goods and services that have been produced by the household itself. (The value of home produced food is calculated as a product of the quantity of each food item produced and its prevailing regional market price.) To attempt to further reduce attenuation bias due

to measurement error in consumption we take a 2-year mean (over the 1996 and 1995 survey rounds).[6]

To attempt to capture the difference between households that have been on a rising welfare trajectory and those on a falling one we constructed two dummy variables. The first takes the value 1 if real consumption was higher in 1996 than in 1995 and higher in 1995 than 1994. The other takes the value 1 if consumption was lower in 1996 than in 1995 and also lower in 1995 than in 1994.

The survey also included an unusually rich set of attitudinal questions. One of these provides an indicator of perceived current economic welfare. In particular, respondents were asked to say how they rated their own economic welfare on a nine rung ladder from 'poor' to 'rich'. We call this 'subjective economic welfare'.

We will also include subjective indicators of vulnerability, of which the best in the survey is probably the question "do you think that in the next 12 months you and your family will live better than today, or worse". This will allow us to test whether those who feel vulnerable to falling welfare will have a higher demand for redistribution, given other variables, including current and past economic welfare.

A potentially interesting indicator of perceived social exclusion in the survey is the answer to a question, "do you agree or disagree that the people who govern the country do not care what will become of people like you?". This was asked of each adult. We will test whether those who feel socially excluded in this way will be more disposed toward redistribution as a means of insurance.

We also include a control for political preference, namely whether or not the person voted for the Communist Party (CP). One expects this to entail a greater demand for redistribution.

Table 1 provides self-explanatory summary data.

4. Results

Table 2 gives the sample proportions who supported restricting incomes of the rich by deciles of respondents ranked by their 2-year mean household consumptions (normalized by the household specific poverty lines). Fig. 1 presents the same basic information in the form of smoothed scatter plots of the answers to the RRQ against the same measure of consumption.[7] There is a tendency for support for

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[6]We tested the alternative specifications in which we used instead either the 1996 consumption or income. These were still significant with the expected signs. However (consistent with attenuation bias due to measurement error), the coefficients were lower (in absolute value) and less significant than if we used the 2-year mean of consumption.

[7]We used the program for locally-weighted smoothed scatter plots in STATA 6.0 (the KSM command).

Table 1
Summary statistics, Russia 1996

Variable	Mean	Standard error
Current welfare		
Log of household expenditure normalized by the poverty line (1995–96)	1.497	1.263
Household belongs to lower five ranks (dummy)	0.936	0.244
Household belongs to the 6th highest rank (dummy)	0.044	0.204
Household belongs to the 7th highest rank (dummy)	0.016	0.126
Household belongs to the 8th highest rank (dummy)	0.005	0.065
Attitudinal variables		
Not afraid of losing job (dummy)	0.070	0.256
Concerned about providing basic needs in the future (dummy)	0.550	0.497
Government does not care about me (dummy)	0.432	0.495
Government cares about me (dummy)	0.141	0.348
Participation in the last presidential elections (dummy)	0.718	0.450
Voted for the communist party candidate (dummy)	0.243	0.429
Household demographic characteristics		
Share of pensioners	0.258	0.363
Share of children younger than 18 years old	0.210	0.210
Log of household size	1.100	0.487
Geographic characteristics		
Household resides in rural area (dummy)	0.266	0.442
Household resides in urban area (dummy)	0.654	0.476
Household resides in metropolitan area (dummy)	0.080	0.271
Poverty rate in the area	0.251	0.150
Individual characteristics		
High school diploma or less (dummy)	0.153	0.360
Technical vocational education (dummy)	0.531	0.499
University degree or higher (dummy)	0.302	0.459
Male (dummy)	0.439	0.496
Age–gender interaction	18.161	23.401
Pensioner (dummy)	0.271	0.445
Married (dummy)	0.634	0.481
Single (dummy)	0.172	0.378
Divorced (dummy)	0.078	0.268
Widowed (dummy)	0.116	0.320
Age in years	43.416	18.148

redistribution to fall as consumption rises, though support remains strong even amongst families with the highest consumptions in the sample.

The table and figure also give the results stratified according to whether the respondent thought welfare was going to increase or decrease (the category of 'no

Table 2
Redistribution preference by level of subjective welfare

Self-rated ranking in terms of economic welfare	Number of persons in sample	In favor of restricting incomes of the rich (%)	% in favor of restricting incomes of the rich, stratified by expectations about welfare over the next 12 months		
			Better off	No change	Worse off
1 (poorest)	900	82.2	66.6	77.1	87.7
2	1069	83.5	59.6	80.9	89.4
3	1506	74.2	50.6	78.0	81.3
4	1350	70.5	52.2	71.1	82.7
5	1414	63.9	46.1	76.4	79.8
6	287	53.3	39.6	60.0	77.5
7	110	46.4	20.8	39.2	73.3
8+9 (richest)	29	34.4	12.5	–	50.0
Total	6665	72.3	49.6	75.1	84.5

change' is left out of the figure to make it readable). We see that amongst people who expect welfare to fall, there is very high support for restricting incomes of the rich, and the support is affected little by current level of living. By contrast, support for redistribution is lower than average amongst those who expect welfare to rise, and is sharply attenuated by higher current levels of living within this group.
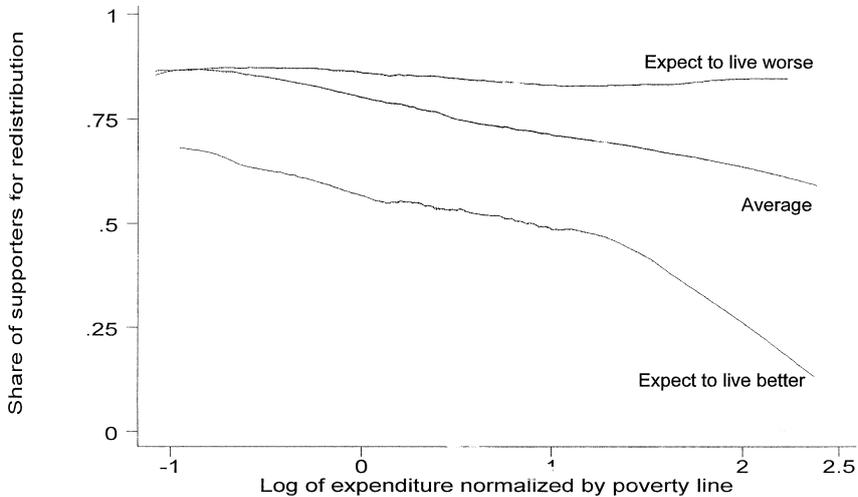

Fig. 1. Preference for redistribution against log consumption normalized by the poverty line (2-year mean).

Table 3
Redistribution preference by consumption decile

Average expenditure deciles	Number of persons in sample	In favor of restricting incomes of the rich (%)	% in favor of restricting incomes of the rich, stratified by expectations about welfare over the next 12 months		
			Better off	No change	Worse off
1	734	84.6	63.5	88.7	86.9
2	735	83.4	52.5	88.4	87.1
3	734	79.0	63.6	78.3	88.6
4	735	75.7	49.5	78.2	84.8
5	734	71.3	46.2	73.8	80.4
6	734	74.5	57.9	74.9	85.3
7	735	69.1	50.4	66.1	80.7
8	734	68.2	38.1	68.9	83.8
9	735	67.3	46.9	67.2	82.7
10	734	63.1	44.4	61.8	82.3
Total	7344	73.6	46.9	75.1	84.5

Table 3 shows how the preference for redistribution varies with the afore-mentioned indicator of subjective economic welfare.[8] We find an almost monotonic decrease in preference for restricting incomes of the rich as the subjective perception of welfare improves. Yet it remains that, amongst the richest 2% of persons in terms of their self perception of welfare (namely those putting themselves on rungs 7–9 of the ladder), 44% said they were in favor of restricting incomes of the rich.

When we stratify according to whether or not the person thinks welfare will increase over the next 12 months we find a much stronger 'income effect' for those who expect their welfare to increase (Table 3). While 72% of the whole sample favor restricting incomes of the rich, this falls to only 12.5% for adults who have the highest self-assessed economic welfare and expect this to improve over the next year. Amongst those who expect to be better off in the future, the subjective welfare indicator reveals a much sharper rate of decline in support for redistribution as welfare rises than does the objective indicator based on actual consumption. In contrast to the weak support for redistribution amongst those who are relatively well-off and expect to be even better off in the future, we find that 88% of those who put themselves on the lowest rung of the welfare ladder, and who expect their welfare to fall, favor restricting incomes of the rich.

To allow for other 'non-income' factors influencing the demand for redistribution, we estimated a multivariate model of answers to the RRQ. The expected utility gain from governmental redistribution for respondent j $(= 1, \ldots ,n)$ is

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[8]We have aggregated categories 8 and 9 into one, since only six people in the sample said they were in category 9; two of then favored restricting incomes of the rich.

$$g(y_j, x_j) = \alpha + \beta y_j + \pi x_j + \varepsilon_j, \tag{9}$$

where ε_j is a normally distributed innovation error with distribution function F. To allow maximum flexibility in how differences in expectations affect the $g(y_j, x_j)$ we stratify the model according to whether or not the respondent expects welfare to increase or not.

The RRQ was asked of individuals and there is likely to be an unobserved household-specific effect (if only because of selective sorting according to preferences, though there may also be household-level omitted variables.) To allow this possibility we make the testable assumption that ε_j includes a normally-distributed household-specific random effect υ_j (correlated between respondents within a given household but independent between households). A likelihood ratio test of the null that $\rho \equiv v\mathrm{ar}(\upsilon)/(1 + v\mathrm{ar}(\upsilon)) = 0$ can then be used to test our specification against an ordinary probit.

Table 4 gives the random-effects probit estimates for the binary response based on (8) and (9), i.e. the probability of $g > 0$, which is given by $F(-\varepsilon)$. In addition to consumption expenditure (2-year mean, deflated by date and region-specific poverty lines), we include a number of demographic variables and variables reflecting political preferences and attitudes to the government, as indicated in the table.[9] We give results for the three sub-samples defined according to expectations of whether welfare will increase, stay the same, or fall. In all cases we can reject the null that $\rho = 0$, favoring our choice of the random-effects probit.

We find a strong effect of current consumption on demand for redistribution amongst those who think their welfare will increase or stay the same, but no such effect amongst those who think things will get worse. The fear of falling welfare promotes a desire for redistribution even amongst the currently well-off. There is a very strong negative effect of a rising trajectory of consumption but only amongst those who expect things to (continue to) improve.

There are also a number of significant factors which enhance the preference for governmental redistribution. These include the number of pensioners in the family, living in a rural area, less education, being female, being married, whether the respondent also thought that the government cares about 'people like you', whether the respondent voted communist in the last election, whether the respondent expects to be better off in the future, and whether the respondent fears losing his or her job. The coefficients on these variables tend to be quite stable between the three regressions.

The impact of some of the attitudinal variables is particularly strong. A person who does not fear losing her job is less likely to favor redistribution (though this is

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[9]To allow for the possibility that different income sources might attract different taxes, we also tested a model with income shares by components. To allow for the possibility that incomes are not pooled, we tested a model with individual incomes by source. Neither sets of variables were individually or jointly significant.

Table 4
Multivariate models of preference for redistribution[a]

Variable	Expect to live better		No change		Expect to live worse	
	Coefficient	SE[b]	Coefficient	SE	Coefficient	SE
Current welfare						
Log of total average household expenditure	−0.407**	0.169	−0.424***	0.119	−0.189	0.123
Household belongs to the 6th highest rank	−0.223	0.272	−0.298	0.228	0.004	0.407
Household belongs to the 7th highest rank	0.281	0.360	−0.912**	0.393	0.291	0.955
Household belongs to the 8th highest rank	−1.412	1.083	−1.177	1.203	−0.302	1.024
Consumption trajectories						
Increase in consumption in all years	−0.951***	0.282	−0.158	0.179	−0.068	0.231
Decline in consumption in all years	−0.083	0.218	0.167	0.143	−0.020	0.155
Attitudinal variables						
Not at all afraid of losing job	−0.461*	0.261	−0.390**	0.185	−0.249	0.234
Concerned about providing basic needs	0.620***	0.187	0.142	0.111	0.448***	0.136
Government does not care about me	0.243	0.194	0.102	0.117	0.251*	0.132
Government cares about me	−0.501**	0.208	−0.443**	0.142	−0.406*	0.211
Participated in the last presidential election	−0.238	0.193	−0.029	0.130	−0.062	0.154
Voted for the communist party candidate	0.711**	0.305	0.363**	0.147	0.200	0.145
Household demographic characteristics						
Share of pensioners	0.793	0.555	0.390	0.297	0.530*	0.327
Share of children younger than 18 years old	0.578	0.505	0.377	0.362	−0.287	0.435
Log of household size	−0.045	0.067	−0.042	0.049	0.057	0.061

Geographic characteristics						
Household resides in the rural area	0.659**	0.263	0.562***	0.162	0.127	0.176
Household resides in the metropolitan area	−0.143	0.281	−0.513**	0.232	−0.124	0.301
Proportion of poor households in the area	−0.191	0.808	−0.121	0.496	0.355	0.564
Individual characteristics						
High school diploma or less	0.413*	0.280	0.386**	0.184	0.476**	0.206
Technical vocational education	0.202	0.269	0.349*	0.182	0.249	0.199
Gender (male=1)	−0.799**	0.396	−0.512**	0.253	−0.567	0.367
Age in years	0.036**	0.013	0.031***	0.008	0.020**	0.008
Age–gender interaction	0.014	0.011	0.003	0.006	0.013*	0.008
Pensioner	−0.501	0.517	0.007	0.284	−0.001	0.294
Married	−0.821**	0.278	−0.347**	0.188	−0.278	0.238
Divorced	−1.060**	0.410	−0.337	0.239	0.010	0.311
Widowed	−0.344	0.574	−0.370	0.311	−0.071	0.324
On unpaid leave	0.030	0.392	−0.014	0.276	0.063	0.268
Unemployed	−0.201	0.292	−0.072	0.224	0.094	0.272
Constant	−0.375	0.576	0.027	0.402	−0.216	0.512
Proportion of total variance contributed	0.531	0.108	0.584	0.055	0.628	0.063
by the panel-level variance (ρ)			Likelihood ratio test of $\rho = 0$			
χ^2/Probability$>\chi^2$		18.94/0.0000		106.12/0.0000		62.74/0.000

[a] Note: the following categories are used as a reference: subjective household income rank, households in the lowest five ranks; consumption trajectories, mixed trajectories; whether government cares about people, category that government does not care (weak statement); type of residence, households in urban areas of Russia; education, university degree or higher; marital status, single.

[b] Standard error.

not significant amongst those who think their welfare will fall in the near future).
A person who thinks that ''the government cares about people like him'' is less in
favor of redistribution.

It is striking how virtually all of the non-income indicators can be interpreted as
suggesting that expected future income gains (losses) diminish (increase) the
demand for redistribution at given current income. And many of these effects are
both statistically and quantitatively significant. Taken overall, these results are
highly suggestive that support for redistribution is stronger amongst those who fear
that their welfare will fall, and weaker amongst those who do not.

The subjective welfare indicators do not emerge as significant predictors,
controlling for the other variables. We saw in Table 2 that there is a marked
subjective welfare gradient in support for redistribution amongst those who expect
welfare to rise. This is clearly because of the control variables that are correlated
with subjective welfare.

The results are also suggestive that perceived social exclusion matters to the
demand for income redistribution. It does not seem plausible that a person who
thinks ''the government does not care about people like me'' would expect to gain
financially if the government restricted incomes of the rich. Then, the fact that
such people so strongly favor redistribution must be because the marginal disutility
of being socially excluded in this way is lower with redistribution. (In terms of Eq.
(7), consider an attribute that increases desire for redistribution but is not
tax-attracting. Then marginal direct utility of that attribute must be higher with
redistribution than without it.)

5. Conclusions

It is plain from our investigation that attitudes to governmental redistribution in
Russia are driven by more than whether or not a person thinks he or she would
currently gain or lose. Seventy-two percent of the nearly 7000 adults surveyed in
October 1996 indicated that they favor governmental action to reduce incomes of
the rich. But the remaining 28% were clearly not just the currently 'rich' in any
obvious sense.

The currently poor do tend to be very supportive of the redistribution proposed
in the survey question, with about 85% of those in the poorest consumption decile
favoring it. This is not too surprising; few of the poorest could reasonably expect
to become 'rich'. More revealing are the answers given by high consumption
groups, and people who believe they have a high economic welfare. For them,
expectations of future welfare clearly play an important role. Amongst those who
think that their welfare is going to fall in the near future, support for redistribution
is high, even amongst the currently 'rich'. And there is relatively little support
amongst families that are currently well-off and who expect to see their welfare
rise over time. Amongst those who expect things to get better, there is a

pronounced current income effect attenuating the desire for redistribution. For example, there is negligible support amongst those who perceive themselves to be well-off and who expect to be better off in the future. Resistance to redistribution is strongest amongst those who have been on a rising consumption path over recent years, and expect this to continue.

Women tend to favor redistribution more than men (except amongst respondents who expect their welfare will fall). The old favor it more than the young. Strong correlations with a number of attitudinal variables are indicated. Those who voted communist are significantly more disposed toward governmental action to restrict the incomes of the rich. Those who think the government does not care about them are more likely to favor restricting incomes of the rich.

Virtually all of our results on these 'non-income' attributes can be interpreted as effects of some form of inter-temporal reasoning about future gains and losses from sustained governmental redistribution. Those living in rural areas, the old, women, poorly educated adults, those who expect their welfare to fall, or to lose their job and those who do not think the government cares about them, can all be expected to feel vulnerable in one way or another.

Our empirical results are consistent with our formalization of Hirschman's idea of a 'tunnel effect', whereby attitudes to redistribution depend on expectations of future mobility — in both directions. The Russian tunnel effect in the 1990s entailed that only a small minority of people experienced or expected rising living standards, while the bulk suffered or feared contraction. This situation appears to have fueled a strong demand for redistribution. This exists even amongst many of those who are currently well-off, but who fear for the future. By contrast there is negligible demand for redistribution amongst the well-off who are on a rising trajectory. A corollary of the importance of risk in the demand for redistribution is that adverse welfare effects of vulnerability, such as due to social exclusion, are exacerbated by income inequality.

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