Title: Assessing the influence of labor market and social security systems on household poverty in Russia

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This study aims to estimate the effects of Russian social security and pension systems, together with labor market regulations, on household poverty. The existing social security system in Russia embraces a wide range of benefits for various categories of the population. Government expenditure on social security has been steadily growing during the last 10 years. Nevertheless, some experts claim the social security system to be highly inefficient in terms of poverty reduction. The main cause of inefficiency is a low prevalence of needs assessment procedures and, consequently, small size of social payments. At the same time, Russian State Statistics Service (Rosstat) reports a high and growing share of employed individuals among the poor since 2005. One of the most common reasons for in-work poverty is low minimum wage or no guaranteed income standards. In addition to that, the Russian labor market does not always perform well in respect to wage sensitivity to changes in education and work experience. At the same time, a lack of adequate salary increases during one's life course can significantly boost poverty risks, especially for families with children.

Within this study, in order to uncover the shortcomings of the current social security system and the labor market, we model household poverty in the absence of the five main groups of incomes. They are the following: social security benefits, retirement pensions, wages (and unemployment benefits), incomes from private farming, and, finally, entrepreneurial income, intra-family transfers, and all other earnings. We base our calculations on the RLMS-HSE data, and, as we are interested in estimating poverty at the household level, we make use of the full sample. To capture the effect of 2008/2009 financial crisis on household poverty rates, and to check if there was any subsequent changes in the role of social security system, we take a 7-year-long data period from 2007 to 2013.

We treat the difference between the initial poverty level and the levels estimated in the absence of income components as the amount of poverty prevented. Retirement pensions turn out to be the only component of income for which the ratio of poverty prevented to the share of income in total household income exceeds one. Most likely, this is due to the fact that the share of pensions in total income is underestimated when examined for the entire population. If we only consider households that receive retirement pensions, the income-share of pensions increases to over 50%. Still the role of pensions in preventing income poverty increases steadily during the observed years, together with the share of this component in total household income. According to our calculations, a shutdown of the pension system would have doubled the household poverty rate in 2008-2009, and caused a growth in poverty of 2.6 times in 2013. (see Table 1). A similar trend can be observed for labor income (wages and unemployment benefits), but its role in total income was obviously interrupted by the economic crisis, causing the total share to decrease at the expense of other income components. Following the crisis, the share of social security benefits increased, and has not yet returned to pre-2008 levels. However, role of these benefits in poverty prevention has been gradually decreasing over the observed period, apart from a spike in 2009 (a result of the 2008 crisis). Following the crisis, both the share and the role in poverty reduction of private farming income decreased, while other forms of income have continued to fluctuate.

Table 1. Household incomes components and their role in preventing poverty

	Initial household poverty rate	**Household poverty rate growth (percentage points) in the absence of income type (Share of incomes in total household incomes)** ***By income types:***				
		social security benefits	retirement pensions	wages and unemployment benefits	entrepreneurial income, intra-family transfers, and other	private farming
2007	25.3	5.1 (4.5)	18.5 (11.4)	49.1 (71.3)	4.4 (10.3)	1.7 (2.5)
2008	20.9	4.4 (4.7)	19.8 (11.6)	49.2 (66.6)	4.0 (13.4)	2.2 (3.7)
2009	20.3	5.2 (6.5)	20.7 (13.5)	49.0 (67.7)	4.4 (9.5)	1.5 (2.8)
2010	20.2	4.5 (5.7)	22.1 (16.5)	47.4 (64.5)	4.1 (11.2)	1.3 (2.1)
2011	17.0	4.6 (6.4)	22.8 (16.5)	48.8 (64.7)	4.3 (10.3)	1.2 (2.2)
2012	15.5	4.3 (5.7)	22.1 (16.1)	49.6 (64.2)	3.3 (12.0)	1.1 (2.1)
2013	14.7	4.3 (5.5)	23.8 (17.0)	49.7 (64.5)	3.1 (11.1)	1.2 (1.9)

Source: Calculations based on the RLMS-HSE 2007-2013 data.

Using the same dataset, we then estimate the poverty reduction potential of each income component. We design a system of reasonable minimum guaranties, model the resulting new income on the individual level and estimate household poverty once again. We assume that social security benefits should provide a significant contribution to the total income of poor households. We also assume that labor market mechanisms should provide for much higher salary, depending on higher education or work experience of the individual.

Thus, for social security system we set the following principles:

- retirement pension and social pensions should not be less than the minimum cost of living set for elderly (minimum subsistence level);
- child care allowances for children aged under 1.5 should not be less than 0.5 of the minimum subsistence level for children;
- poverty-specific benefits, aimed at children aged 1.5-16, should not be less than 0.7 minimum subsistence level for children;

As regards to the labor market, we impose four specific minimum monthly salary guarantees, namely:

- for employed individuals without any professional education, a salary not less than minimum cost of living, set for people of working age;
- for employed individuals with vocational education, a salary not less than the sum of the minimum cost of living, set for people of working age, and 0.5 of the minimum cost of living, set for children;

- for employed individuals with higher education and 0-4 years of work experience, a salary not less than the sum of the minimum cost of living, set for people of working age, and the minimum cost of living set for children;
- for employed individuals with higher education and 5 or more years of work experience, not less than the sum of 2 minimum costs of living, set for people of working age, and the minimum cost of living set for children.

Finally, we assume that unemployed individuals actively searching for a job should be entitled to an unemployment benefit not less than minimum cost of living.

At this time, we ignore setting minimum guarantees for any other social benefits, on the presumption that we have covered the most important ones, and that the strongest poverty reduction effect will be observed when adjustments to them are made. We use the regional minimum subsistence levels when modeling all scenarios in order to account for inter-regional differences of income. We also examine a separate scenario, where working pensioners receive only a part (50%) of their retirement pension (Table 2, retirement pensions-2).

Table 2. Potential of household incomes components for poverty reduction

	Initial household poverty rate	**Household poverty rate under adjusted income from:**				**Household poverty rate with all three types of incomes adjusted (RP-1)**
		social security benefits	retirement pensions-1	*retirement pensions-2*	wages and unemployment benefits	
2007	25.3	19.9	22.8	*23.3*	18.5	10.5
2008	20.9	16.0	19.7	*20.1*	15.4	9.9
2009	20.3	15.2	19.3	*19.9*	14.0	8.3
2010	20.2	14.7	20.1	*20.5*	13.8	8.7
2011	17.0	11.7	16.9	*17.4*	11.8	7.3
2012	15.5	10.9	15.5	*15.8*	11.1	7.1
2013	14.7	10.4	14.6	*15.0*	11.0	7.0

Source: Calculations based on the RLMS-HSE 2007-2013 data.

A revision of all three modeled types of income would have reduced poverty by 2.3 times in 2007, and by more than half in 2013. At the start of the observation period, the largest poverty reduction effect was provided by labor market, but by 2013 the social security system had the largest net effect. Starting from 2010, when the crisis measures package for pensioners was implemented, there is no significant poverty reduction when setting minimum guarantees for retirement pensions. This means that for the most part, the current pension system in place already provides these guarantees. At the same time, a reduction of retirement pensions for working pensioners by 50% (retirement pensions-2 scenario in Table 2) causes a growth in the poverty rate. This implies that households with working pensioners depend on both forms of income, and the complementary effect of both income types maintains the households above the poverty threshold.