

Kseniya Abanokova (NRU HSE); Hai-Anh Dang (World Bank); Michael Lokshin (World Bank); Maurizio Bussolo (World Bank)

## **Inequality and Welfare Dynamics in the Russian Federation during 1994-2015**

### I. Introduction

As living standards are rising for most countries around the world, increasingly more attention shifts toward understanding the distribution of economic gains over time. If the sole objective of economic policies is to maximize societal welfare for various population groups, a firm grasp of the trends underlying the dynamics of welfare and inequality is indispensable for cost-effective policies.

The Russian Federation offers a particularly interesting case to study income inequality for a variety of reasons. The country used to be the epitome of a centrally planned economy for almost 80 years, which then underwent a radical transformation to a market-oriented economy starting in the early 1990s. This upheaval witnessed its GDP per capita plummeting by as much as 40 percent. The economy remarkably turned around and could regain its pre-crisis income level just within a couple years later and was able to achieve a steady annual GDP per capita growth rate of 2.4 percent since then, which has solidified its place among the group of upper-middle income countries (World Bank, 2017).

This economic growth process is by itself quite intriguing, and raises a number of policy-relevant questions. The egalitarian economic model as exemplified by Russia deems equality of income distribution for everyone as its highest priority, and indeed operated based on this ideal principle. But did inequality increase after Russia changed into the market economy model, which is driven by the opposite motto of free-for-all competition? RLMS data showed that inequality, in fact, even went down from a Gini coefficient of 0.47 in 1994 to that of 0.31 in 2015. Clearly, this trend appears counter-intuitive and leads to other questions. Was the trend in the short term similar to those in the medium term and in the longer term? Would poorer households suffer from less income mobility and lag even further behind richer households? If yes (or no), what are the magnitudes of the gaps between the rich and the poor? What were the factors that are associated with upward (or downward) mobility, or no mobility? These questions are pertinent not just for Russia but for other developing countries in a similar transition process as well.

We aim in this paper to shed light on these policy-relevant questions. More broadly, we also aim to provide a comprehensive picture of welfare mobility and inequality for Russia over the past two decades, and we attempt to do so from new angles. First, we focus our analysis on lower-income population groups rather than those in higher income categories. Second, we examine Russia's welfare mobility over different time windows of varying lengths. In particular, we study a 20-year time period, from 1994 to 2015, and we further divide this period into

short-run and medium-run periods. This detailed dissection of the time periods offers more granular analysis than previous studies and can uncover new insights on the dynamics resulting from the country's economic growth. To our knowledge, no other study on Russia has offered such a detailed temporal breakdown as we attempt here. Furthermore, we focused on analysis of long-term mobility using multiple rounds of panel data from the Russia Longitudinal Monitoring Surveys that span over two decades from 1994 to 2015. Very few, if any, transitional countries can offer the type of long-running, nationally representative panel household survey data that Russia does.

We bring several different tools to enrich our analysis. Specifically, we explicitly discuss three major aspects of mobility. The first aspect is the welfare dynamics of the different income groups—both as relative positional changes along the income distribution and growth in income levels. For the second aspect of mobility, we decompose it into a growth component and a distribution component. The third aspect of mobility that we study is its linkage with inequality in the short term and in the long term. Notably, these different aspects of mobility have oftentimes been separately employed in the literature, but we combine them in an integrated manner to offer a more comprehensive picture of welfare mobility, especially for the lower-income groups. Finally, we examine the different correlates of mobility, with a particular focus on individual employment characteristics.

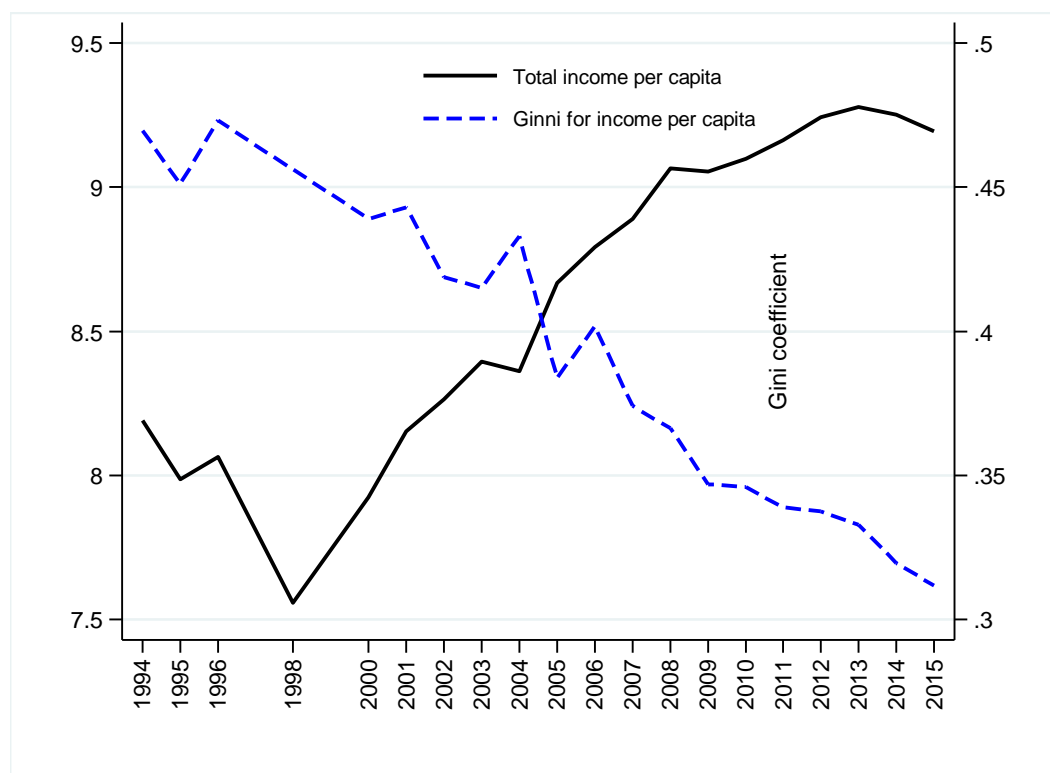
Our paper is related to a few recent studies on income mobility and inequality in Russia, most notably those by Gorodnichenko, Peter, and Stolyarov (2010) and Lukyanova and Oshchepkov (2012). Yet, one major difference is that these studies examined the same data set that we investigate but over shorter periods ending in 2005. Another difference between the cited studies and ours is that these studies do not offer a detailed analysis for the different periods as we offer in this paper. We also employ a different analytical framework.

## II. Preliminary Results

We find rising income levels and decreasing inequality for the country over the past two decades. We also find that decreasing inequality was mostly caused by stronger income growth for the poor (i.e., pro-poor growth), rather than their relative upward movement along the income distribution (i.e., upward mobility). In particular, for the period 1994-2015 as a whole, the poorest tercile experienced a growth rate that is more than ten times that of the richest tercile. There was also faster income growth in the second medium-term period 2004-15 than in the first medium-term period 1994-2004. Furthermore, long-term inequality is less than short-term inequality for all the different time periods under consideration. Estimation results also suggest that switching from a part-time job to a full-time job, or from a lower-skills job to a higher-skills job is statistically significantly associated with reduced downward mobility. A similar transition from the private sector to the public sector is negatively associated with

income growth, but transitions to the formal sector, a full-time job, or a higher-skills job are statistically associated with higher income levels.

**Figure 1. Trends of Income per capita and Gini Coefficients, RLMS 1994-2015**



**Note:** Estimation results are obtained based on total household income per capita. All numbers are deflated with December to December regional CPIs and weighted with population weights. The repeated cross sections are used for each year.

We also find that decreasing inequality was mostly caused by stronger income growth for the poor (i.e., pro-poor growth), rather than their relative upward movement along the income distribution (i.e., upward mobility). In particular, for the period 1994-2015 as a whole, the poorest tercile experienced a growth rate that is more than ten times that of the richest tercile. There was also faster income growth in the second medium-term period 2004-15 than in the first medium-term period 1994-2004 (Tables 1-4).

**Table 1. Medium-Term Income Mobility, RLMS 1994-2015 (percentage)**

	Unconditional	Conditional
<b>Panel A: 1994-2004</b>		
Upward mobility	29.2	39.6
Immobility	49.5	49.5
Downward mobility	21.3	36.3
<b>Panel B: 2004-2015</b>		

Upward mobility	27.8	39.6
Immobility	47.0	47.0
Downward mobility	25.2	38.8

**Note:** Estimation results are obtained based on total household income per capita. The terciles are defined using the cross-sectional sample for each year. All numbers are deflated with December to December regional CPIs and weighted with population weights, where the first survey round in each period is used as the base year. Estimation sample size is 4941 panel individuals from the 5th and 13th rounds of the RLMS and 3719 panel individuals from the 13th and 24th rounds of the RLMS.

**Table 2. Medium-Term Income Growth Rate, Russia 1994-2015 (percentage)**

<b>Panel A: 1994-2004</b>		<b>2004</b>			
		Poorest tercile	Middle tercile	Richest tercile	Overall
<b>1994</b>	Poorest tercile	38.6	161.6	511.5	129.3
	Middle tercile	-30.5	29.8	143.7	32.0
	Richest tercile	-81.4	-30.7	26.3	-13.1
<b>Panel B: 2004-2015</b>		<b>2015</b>			
		Poorest tercile	Middle tercile	Richest tercile	Overall
<b>2004</b>	Poorest tercile	176.2	330.2	625.4	300.2
	Middle tercile	30.1	110.5	212.5	108.8
	Richest tercile	-37.7	10.7	76.0	29.6

**Note:** Similar note as with Table 1. Estimation sample size is 4941 panel individuals from the 5th and 13th rounds of the RLMS and 3719 panel individuals from the 13th and 24th rounds of the RLMS.

**Table 3. Long-Term Income Mobility Patterns, RLMS 1994-2015 (percentage)**

	<b>Unconditional</b>	<b>Conditional</b>
Upward mobility	34.5	45.7
Immobility	44.6	44.6
Downward mobility	20.9	36.7

**Note:** Similar note as with Table 1. Estimation sample size is 2478 panel individuals from the 5th and 24th round of the RLMS.

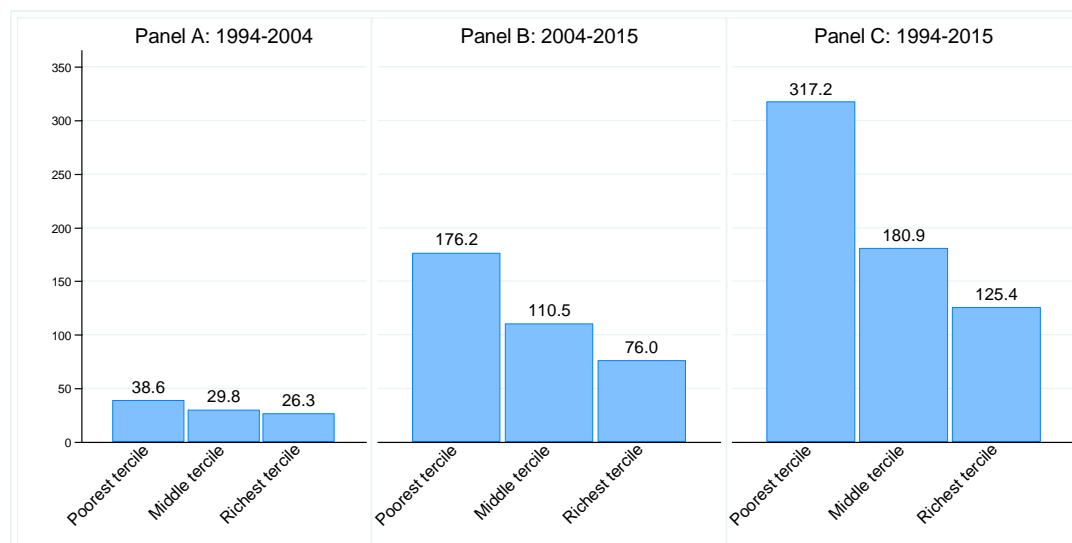
**Table 4. Long-Term Income Growth Rate, Russia 1994-2015 (percentage)**

		2015			
		Poorest tercile	Middle tercile	Richest tercile	Overall
1994	Poorest tercile	317.2	543.8	965.8	503.1
	Middle tercile	78.6	180.9	353.4	194.0
	Richest tercile	-13.1	34.0	125.4	44.9

**Note:** Similar note as with Table 1. Estimation sample size is 2478 panel individuals from the 5th and 24th round of the RLMS.

Furthermore, long-term inequality is less than short-term inequality for all the different time periods under consideration (Figure 2).

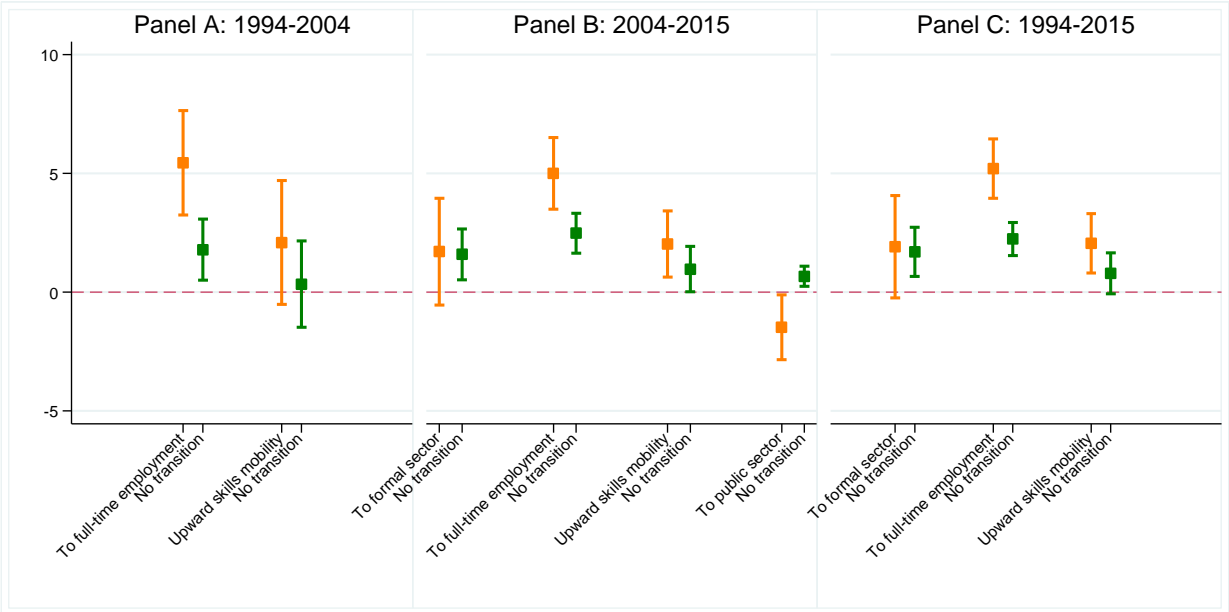
**Figure 2. Medium-Term and Long-Term Income Growth Rate for Immobile Individuals, Russia 1994-2015 (percentage)**



**Note:** Similar note as with Table 1. The exact growth rates for each income group are shown on top of the bars.

Estimation results also suggest that switching from a part-time job to a full-time job, or from a lower-skills job to a higher-skills job is statistically significantly associated with reduced downward mobility. A similar transition from the private sector to the public sector is negatively associated with income growth, but transitions to the formal sector, a full-time job, or a higher-skills job are statistically associated with higher income levels (Figure 3).

**Figure 3. Medium-Term and Long-Term Correlates of Mobility, Ordered Logit Model with Random Effects, Marginal Effects, RLMS 1994-2015**



**Note:** Orange/green lines are related to 95% confidence intervals. Data on formal sector are available since 1998 and data on public sector are available since 2004. The estimation sample is restricted to individuals who are 18 years old and older. The dependent variable is income mobility between year  $t-1$  and year  $t$ . All control variables are measured in the reference year  $t-1$  except for the occupation transition variables, which are the changes between year  $t-1$  and year  $t$ .