

## CHRONIC POVERTY ESTIMATION IN RUSSIA IN CONTEXT OF GLOBALIZATION

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**Abstract.** Modern globalized world is characterized by the significant economic and social inequalities. Income inequality within the population and the predominance of certain groups in the consumption over others causes destabilization of the society, generating certain social and economic problems. One of the main global challenges characterizing the state of the population is poverty. The most dangerous form of poverty from an economic, political and social point of views is a chronic poverty - a situation in which poverty, localized in certain groups of society or in certain regions, is reproduced systematically, i.e. when several generations of people are not able to overcome the factors and causes that once gave rise to poverty. Using quantitative data from “Russian monitoring of the economic situation and public health HSE (RLMS-HSE)” for the years 2008-2012, authors estimated the chronic poverty among citizens of the Russian Federation. The results clearly show that about 12% of individuals were persistently poor and about 31% were transient poor within the research period. The following causes of chronic poverty in Russia in current international circumstances were highlighted: the long absence of a clear program of economic reform taking into account the social sphere; the presence of a budget imbalance leading to inflation; ineffective programs to protect the population, generating hidden unemployment, a decline in the standard of living and impoverishment of the population.

**Keywords:** chronic poverty, well-being, estimation, household, Russia.

**JEL Classification:** I32, P46

### 1. Introduction

The ability of people to provide themselves with goods and services is a key point in evaluation of the population welfare in modern globalized world. Income inequality within the population and the predominance of certain groups in the consumption over others causes destabilization of the society, generating certain social and economic problems. One of the main global challenges characterizing the state of the population is poverty. Poverty is a characteristic of the economic situation of an individual or a social group, in which they can not satisfy a certain range of their minimum needs, which are necessary for life, retention of work capacity, and continuation of the family. Of course, the concept of poverty is relative and depends on the living standards in a particular society.

The most dangerous form of poverty from an economic, political and social point of view is chronic poverty. Economic and social dimensions of chronic poverty can be identified. Economic dimension of chronic poverty is related to citizens who do not provide themselves with a socially acceptable standard of living, and determined by the conditions of the functioning of the labour market. As part of the economic approach, chronic poverty is understood as a state of need associated with low levels of income and consumption of the individual or household for a long period of time.

Social dimension of chronic poverty is identified primarily with the traditionally poor and poorly protected categories of the population. A person in chronic poverty is deprived of access to the values of science, culture, art, he is at the bottom of the social ladder, lost his status as a normal person, can not escape from this bottom independently, feels humiliated and insulted. All this makes chronic poverty not only an economic category, but also a social one, because it reflects the social position of the individual or groups and their social behaviour, which to some extent has an impact on the entire life of the given society. In the socio-economic approach, chronic poverty is viewed in a broad social context and is interpreted as the absence or extreme limited access to resources for a long period of time that determine the quality of life of an individual.

Improving the quality of life in the country in general and in its regions is one of the most important global challenges for social and economic development nowadays. Quality of life largely depends on welfare. For example, some papers analyze the impact of household characteristics such as income, urbanization degree, types of households, and work status of reference person on the differentiation of household consumption expenditure based on Europe and Russia (Beglova et al, 2015; Varlamova & Larionova, 2016). That is why research related with the problems of chronic poverty is becoming more valuable in terms of improving the quality of life of the population. In this connection, the need for applied research of this category arises, which in turn consists of a set of concepts and stages, allowing not only to estimate the real level and social profile of chronic poverty, but also to adopt and implement anti-poverty policy in the most effective manner.

The chronic poverty is characterized by a large number of indicators, which have objective and subjective, quantitative and qualitative dimensions. It is quite difficult to single out and study all of their totality. Thus, it is needed to analyse different research approaches to the chronic poverty estimation.

## **2. Literature review**

The problem of chronic poverty measurement is currently an actual problem. Despite the existence of a large number of papers devoted to this issue, the phenomenon under study remains controversial. The range of opinions is quite wide and ranges from setting the chronic poverty line at the level of a rigid physical minimum of livelihoods for economically backward countries to quite comfortable standards of well-being in highly developed countries where an extensive network of social support is formed. The variability of concepts for measuring chronic poverty, and therefore the differentiation of poverty indicators, does not allow us to determine the poverty level as realistically as possible, since the application of certain concepts reveals its relative results. Nevertheless, in Russia the absolute concept of

chronic poverty must be accompanied by a relative approach for more truthful and realistic results that will, in turn, lead to an effective state policy to target chronic poverty.

There is a sufficient set of papers devoted to the chronic poverty estimation. Paper about the conceptualization of chronic poverty argues that hundreds of millions of people are chronically poor. The causes of it are multifarious but can be analyzed through livelihoods frameworks and that the scale and nature of chronic poverty will require an increase in the levels of financing allocated to social protection in developing countries. Recent conceptual and methodological advances, and the increasing availability of panel datasets, mean that the analysis of deprivation can move on from poverty trends to poverty dynamics. (Hulme & Shepherd, 2003)

Carter and Barrett develop an asset-based approach to poverty analysis that makes it possible to distinguish deep-rooted, persistent structural poverty from poverty that passes naturally with time due to systemic growth processes. Drawing on the economic theory of poverty traps and bifurcated accumulation strategies, they briefly discuss some feasible estimation strategies for empirically identifying poverty traps and long-term, persistent structural poverty, as well as relevant extensions of the popular Foster-Greer-Thorbecke class of poverty measures. (Carter & Barret, 2006)

Another article reviews relevant threads of the poverty traps literature to motivate a description of the opportunities presented by innovative index-based risk transfer products. These products can be used to address some insurance and credit market failures that contribute to the persistence of poverty among households in low-income countries. (Barnett et al., 2006)

In many cases research on chronic poverty is focused on low-income countries. Haddad and Ahmed, using a panel data of 347 households in Egypt during 1997-99, identify that about two-thirds of overall poverty is chronic (average consumption over time is below the poverty line), and almost half of all poor are always poor. The predominantly chronic nature of poverty in their sample strengthens the case for targeting antipoverty interventions, such as food subsidies (Haddad & Ahmed, 2003).

Another study uses a five-year panel of 686 households from rural Pakistan to investigate the magnitude of chronic or transitory poverty making an explicit adjustment for measurement error. Since the largest part of the squared poverty gap in the sample is transitory, large reductions in poverty can be achieved by interventions designed to 'smooth' incomes, but reducing chronic poverty in the long-term requires large and sustained growth in household incomes. The level and variability of incomes is then modelled as a function of household characteristics, education and assets. The resulting model of the income generation process is used to simulate the impact that a range of transfer and investment policies would have upon chronic and transitory poverty. (McCulloch & Baulch, 2000)

Kapur Mehta and Shah view the chronic poverty in terms of extended duration, severity and multidimensional deprivation to draw attention to those people in India for whom poverty is intractable. Two sets of approaches are used: an area-based approach and an historically marginalized groups-based approach. The area-based approach maps the location of the chronically poor by identifying states and regions that have been especially vulnerable to poverty in terms of severity and multidimensionality. The historically marginalized groups approach draws attention to groups who have suffered multiple deprivations for long periods.

Chronic poverty is disproportionately high among casual agricultural laborers, scheduled castes and scheduled tribes. (Kapur Mehta & Shah, 2003)

Another paper investigates whether monetary and nonmonetary indicators tell the same story about chronic poverty using a unique panel data from Vietnam in the 1990s. Defining chronic poverty as occurring when an individual is monetarily poor, stunted, malnourished or out of school in both waves of the panel, the overlap and correlation between subgroups of the chronically poor are shown to be modest. Some, but not all, nonmonetary indicators are more persistent and complement monetary indicators of chronic poverty. (Baulch and Masset, 2003)

Bird and Shepherd (2003) found that persistent poverty was strongly associated with the structural poverty of Zimbabwe's semi-arid communal areas. Relative urban proximity assisted income diversification and improvement in a very poor, socially and politically excluded area. Less excluded but remote areas remained poor but not as poor as the excluded population. Livelihoods changed and diversified more in the nonremote area, speeding poverty reduction as measured by an index of perceived change.

Research on rural Sichuan during 1991-95 shows that poverty there was both dynamic and persistent. A new measure of chronic poverty is defined - as a high vulnerability to being poor-and compared with traditional interpretations of chronic poverty as low mean consumption. Households are highly vulnerable to falling into poverty even when their average consumption is some distance above the poverty line. The determinants of low mean consumption and high vulnerability appear however to be similar suggesting that policies to increase mean consumption will also reduce vulnerability. (McCulloch and Calandrino, 2003)

In another paper addressing the issue of chronic poverty in Rwanda authors argue that by judicious combination of existing qualitative (a high quality nationwide participatory poverty assessment) and quantitative sources (a household survey) it is possible to identify and characterize a clearly distinct group of chronically poor households, whose characteristics are different from the poor as a whole. (Howe and McKay, 2007)

High-income countries are not exemption to the chronic poverty existence. For example, Valetta (2006) compares poverty dynamics in four advanced industrial countries (Canada, unified Germany, Great Britain, and the United States) for overlapping six-year periods in the 1990s, focusing on the impact of government policies. The data indicate that relative to measured cross-sectional poverty rates, poverty persistence is higher in North America than in Europe. Most poverty transitions, and the prevalence of chronic poverty, are associated with employment instability and family dissolution in all four countries. However, government tax-and-transfer policies are more effective at reducing poverty persistence in Europe than in North America.

Another paper treats chronic cumulative disadvantage as a proxy for 'social exclusion' and provides an empirical application for twelve European countries using data from the ECHP. Social exclusion appears to be more widespread in Southern European countries with relatively underdeveloped welfare states and the countries associated with the 'Liberal' welfare state regime. The results of multivariate analysis demonstrate that in most countries, lack of full-time employment, low educational qualifications, lone parenthood, non-EU citizenship and bad health are positively and significantly associated with increased risk of social exclusion. In contrast, the effect of being an elderly citizen living alone or a member of an elderly couple is found to be negatively associated with the risk of social exclusion in

Northern but positively in Southern Europe. Finally, country and welfare regime effects turn out to be significant in explaining the probability of social exclusion. (Tsakloglou & Papadopoulos, 2002)

There is also a set of papers devoted to inequality and poverty in Russia compared to developed countries and countries in transition. Using the large Russian Longitudinal Monitoring Survey dataset, one research demonstrates that inequality has subsequently risen yet further and by end-1996 was roughly comparable to inequality in Mexico, Colombia or Malaysia. The paper also looks at the incidence and depth of poverty over the period 1992-96. At the start of transition, roughly half the population of households fell below the poverty line. While this has subsequently declined, at end-1996 nearly 40 % of households were below the poverty line and a substantial stratum of households were locked in chronic poverty. (Commander et al., 1999)

Most of researchers on poverty and inequality in Russia use the absolute concept of poverty and few of them use relative concept. For example, Braithwaite and Ivanova study the relation between long-term poverty and different demographic and regional features of households, such as unemployment or delays in wage payments (Braithwaite & Ivanova, 1998). Literature review shows that chronic poverty depends on such factors as social well-being including health, education, culture and sport, and economic well-being including income and unemployment and living conditions, including safety, ecology, housing conditions.

### 3. Methods and results

In our research for chronic poverty in Russia the relative concept of chronic poverty measurement was used. Person belongs to poor in a given round, if his income is less than half of per capita expenditure level median distribution (OECD definition).

The chronic poverty estimation in Russia is based on the data from “Russian monitoring of the economic situation and public health HSE (RLMS-HSE)” for the year 2007-2013 (number of individuals, who filled the survey questionnaires for the corresponding period, is 5897 people). It is carried out by the National Research University “Higher School of Economics” and ZAO “Demoscope” with the participation of the Population Center of the University of North Carolina at Chapel Hill and the Institute of Sociology since 1992 year. The sample of households and individuals is based on international methodology and is representative.

The easiest way to assess chronic poverty is to count the number of rounds when the person turned out to be poor (on a scale of 0 to 5). Although this method is simple, interpreting the results can cause some difficulties. Measuring how many times the person turned out to be poor, we can not divide those persons that have been poor for several consecutive years from persons that were poor the same number of rounds, but not in a row.

In this paper, a method that really allows to separate persistently poor individuals from transient poor was used. To do this, we measured the permanent level of individual welfare (for our case, this is a permanent income level  $Y_p$ ) using the following Equation 1:

$$Y_p = \frac{1}{5} \sum_{i=1}^5 Y_i^e \quad (1)$$

where  $Y_i^e$  - the level of individual income in i-th round.

Then, we estimated the permanent poverty line as half of the median of the corresponding distribution of the variable  $Y_p$ . Finally, we measured whether the individual was poor in each of the survey rounds, comparing its income with half of the median from the distribution of incomes in each of the rounds. The distribution of persons relative to the permanent poverty line by the number of times they stay below the poverty line in individual rounds is presented in Table 1.

*Table 1: Distribution of individuals relative to the permanent poverty line*

	<b>Below permanent lines</b>	<b>Above permanent line</b>
Have not been in poverty, never	0	3059
One stay in poverty	19	1254
Two stays in poverty	162	588
Three stays in poverty	259	157
Four stays in poverty	256	30
Five stays in poverty	113	0

*Source: calculated by authors*

Analyzing the results of the distribution we can consider the individual not poor if he has never fallen into poverty for all five rounds (and therefore has a permanent level of income above the permanent poverty line). Secondly, if the level of permanent individual income is higher than the level of the permanent poverty line, but at the same time, the person could be poor in one or two rounds out of five, then such an individual is considered transient poor. Thirdly, if the permanent level of individual income was below the permanent poverty line and, at the same time, the person was poor in more than two rounds, it was reasonable to consider this person persistently poor.

However, following this logic, we have two more groups: individuals that have a level of permanent income above the permanent poverty line, but at the same time, being poor in three rounds and more, and individuals having permanent income below the poverty line, but at the same time, being out of poverty in three rounds and more. In this paper, we will call them as individuals with volatile income near the poverty line. Despite the fact that this decomposition into categories is the simplest and dictated by the available data, it seems to contain underestimation of persistently poor people. It is connected with limit of only five years, in which the permanent level of the individual welfare, based on the income is measured. In this case seeing a person poor in the first or last of the five years and not poor during the remaining rounds, he can be considered as transient poor.

And we do not know whether he could be poor long enough before or after the period of the survey. Taking it into account, we measured poverty level one year before and after the period of the survey. So, now it is possible to improve the division of individuals into poverty profiles by reducing the number of individuals with volatile income near the poverty line. It leads to the following division of individuals relative to the permanent poverty line:

*Table 2: Poverty profiles of individuals in Russia, 2008-2012 year*

<b>Status</b>	<b>Number of persons</b>
Outside poverty	3059
Transient poverty	1842
Volatile near poverty	297
Chronic poverty	699

*Source: calculated by authors*

As it can be seen from Table 2, about 12% of individuals were persistently poor and about 31% transient poor for the period of 2008-2012 years. The following causes of chronic poverty in Russia were highlighted: the long absence of a clear program of economic reform taking into account the social sphere; the presence of a budget imbalance leading to inflation; ineffective programs to protect the population, generating hidden unemployment, a decline in the standard of living and impoverishment of the population. However, there is a specific for Russia cause of chronic poverty, which is the rejection of vital benefits for the sake of a brighter future, which led to mental inertness and the country's inaccessibility to other conditions of life.

The fight against chronic poverty and its prevention are the priority tasks of any socially oriented state policy. There are two main methods in the world. The first, used in developed countries, is aimed at securing high social guarantees worthy of minimal incomes (wages and pensions) that ensure high standards of consumption. The second method is a system of targeted social assistance to the people in need. In developed countries, this method is used as an additional, exclusively for a narrow circle of people who are in an extreme situation. In developing countries it is the main one.

#### **4. Conclusion**

Using quantitative data from “Russian monitoring of the economic situation and public health HSE (RLMS-HSE)” for the year 2008-2012, authors estimated the chronic poverty among citizens of the Russian Federation. The results clearly show that about 12% of individuals were persistently poor and about 31% were transient poor for the 2008-2012 years. The following causes of chronic poverty in Russia in current international circumstances were highlighted: the long absence of a clear program of economic reform taking into account the social sphere; the presence of a budget imbalance leading to inflation; ineffective programs to protect the population, generating hidden unemployment, a decline in the standard of living and impoverishment of the population.

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#### **References**

- [1] Barnett, B., Barrett, C. and Skees, J. (2006). Poverty Traps and Index Based Risk Transfer Products. *World Development*, vol. 36, no. 10, pp. 1766-1785.
- [2] Baulch, B. and Masset, E. (2003). Do Monetary and Nonmonetary Indicators Tell the Same Story About Chronic Poverty? A Study of Vietnam in the 1990s. *World Development*, vol. 31, no. 3, pp.441-453.
- [3] Beglova, E., Sadyrtidinov, R. and Guseva, L. (2015). Statistical Evaluation of the Equivalence Scale Based on Joint Accommodation for Households of the Russian Federation. *International Journal of Economics and Financial Issues*, vol. 5 (Special Issue), pp. 159-164.

- [4] Bird, K. and Shepherd, A. (2003). Livelihoods and Chronic Poverty in Semi-Arid Zimbabwe. *World Development*, vol. 31, no. 3, pp. 591-610.
- [5] Braithwaite, J. and Ivanova, A. (1998). *Economies of Scale & Poverty Lines: Russia 1994-1996*. Moscow: The World Bank.
- [6] Carter, M. and Barrett, C. (2006). The economics of poverty traps and persistent poverty: An asset-based approach. *Journal of Development Studies*, vol. 42, no. 2, pp. 178-199.
- [7] Commander, S., Tolstopiatenko, A. and Yemtsov, R. (1999). Channels of redistribution: Inequality and poverty in the Russian transition. *The Economics of Transition*, vol. 7, no. 2, pp.411-447.
- [8] Haddad, L. and Ahmed, A. (2003). Chronic and Transitory Poverty: Evidence from Egypt, 1997–99. *World Development*, vol. 31, no. 1, pp.71-85.
- [9] Howe, G. and McKay, A. (2007). Combining Quantitative and Qualitative Methods in Assessing Chronic Poverty: The Case of Rwanda. *World Development*, vol. 35, no. 2, pp. 197-211.
- [10] Hulme, D. and Shepherd, A. (2003). Conceptualizing Chronic Poverty. *World Development*, vol. 31, no. 3, pp.403-423.
- [11] Kapur Mehta, A. and Shah, A. (2003). Chronic Poverty in India: Incidence, Causes and Policies. *World Development*, vol. 31, no. 3, pp.491-511.
- [12] McCulloch, N. and Baulch, B. (2000). Simulating the impact of policy upon chronic and transitory poverty in rural Pakistan. *Journal of Development Studies*, vol. 36, no. 6, pp. 100-130.
- [13] McCulloch, N. and Calandrino, M. (2003). Vulnerability and Chronic Poverty in Rural Sichuan. *World Development*, vol. 31, no. 3, pp.611-628.
- [14] Russian Monitoring of the Economic Situation and Public Health by the NRU-HSE (RLMS-HSE), conducted by the National Research University “Higher School of Economics” and “Demoscope” with the participation of the Population Center of the University of North Carolina in Chapel Hill and the Institute of Sociology of the Federal Research Sociological center of RAS. [Online]. Available: RLMS-HSE Survey Sites: <http://www.cpc.unc.edu/projects/rlms> and <http://www.hse.ru/rlms>.
- [15] Tsakloglou, P. and Papadopoulos, F. (2002). Aggregate level and determining factors of social exclusion in twelve European countries. *Journal of European Social Policy*, vol. 12, no. 3, pp.211-225.
- [16] Valletta, R. (2004). The Ins and Outs of Poverty in Advanced Economies: Poverty Dynamics in Canada, Germany, Great Britain, and the United States. *Review of Income and Wealth*, vol. 52, no. 2, pp. 261-284.
- [17] Varlamova, J.A. and Larionova, N.I. (2016). Household characteristics as the determinants of their consumption expenditure. *Social Sciences and Interdisciplinary Behavior*, Russian Federation, pp. 207-211.