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Luxembourg Income Study Working Paper Series

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Income Inequality and Poverty of
Economies in Transition

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INCOME INEQUALITY AND POVERTY OF ECONOMIES IN TRANSITION

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The main aim of this paper is to compare income inequality and poverty in former socialist countries with those in a market society, focusing on the ways in which social welfare systems operate in different states. Evidence of inequality and poverty is considered for three countries: Russia, Poland, and Finland. These issues in Russia are considered at the level of country as well as that of one of its regions - the Republic of Karelia. Another approach arisen here is devoted to sensitivity of the results to the techniques used to measure income inequality and poverty.

INTRODUCTION

The transition of Eastern European countries into market economies is accompanied by the transformation of all their social welfare systems. In efforts to create a new concept of social welfare, each country tries to learn through experience, to compare results, and to prevent further stresses. In relation to these efforts, the problem of poverty is nowadays a matter of constant concern and discussion. Poverty is not a new phenomenon in the life of former socialist countries, but its nature has changed. The stratification of society has made the problem of poverty much more apparent. In addressing the problem of poverty, it is important to answer the following questions: what are the differences between the poverty rate and the composition of poor in a market economy and in

Note: This paper summarizes two independent projects. One of them was sponsored by a grant from the American Council of Teachers of Russian/ American Council for Collaboration in Education and Language Study (ACTR/ACCELS). Due to this grant, the author had taken advantage of the hospitality and facilities of Social Welfare School at the University of California at Berkeley. Access to Luxembourg Income Study databank was sponsored by Ford Foundation. The second project was conducted by the Russian Academy of Sciences with the financial support of Soros Foundation. The author thanks Neil Gilbert for helpful comments and suggestions in previous versions of the paper. The author also would like to thank

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economies that currently have been experiencing transition period? To what extent can these differences be attributed to the transition period? How do the states treat various population groups to prevent poverty?

To analyze these problems, the data was derived from the Luxembourg Income Study (LIS) and the Living Standard Surveys (carried out by the Russian Academy of Sciences). The differences among poverty rates and social welfare systems in Russia, a part of Russia - the Republic of Karelia (from this point in the paper it will be referred to as Karelia), Poland, and Finland will be the focus of this analysis.

The approach is in the tradition of cross-national studies previously conducted mostly in western democratic nations (these works include comparative studies presented by B.Gustafsson, T.Smeeding, L.Rainwater, S.Jenkins, M.Jantti, S.Danziger, S.Phipps and others). This paper is an attempt to do comparative analysis in post-socialist countries, which are late-comers into the LIS databank. Data from former socialist countries, added to the LIS since 1992, provide additional options for international poverty studies among them as well as between them and other countries.

The choice of countries is determined by three factors. First, the primary purpose of this paper is to analyze Russian data. The internationalization of economies has been growing in Europe. The content of international cooperation is determined by the degree of socio-economic development and by the living standards of partner countries. Economic crisis, a remarkable drop in real incomes, and consumption of the Russian population lead to relative deterioration of Russia's status. To reinforce an authority of the country, Russia must search for the appropriate social welfare system; comparative studies are very helpful in meeting that end.

Second, Russia consists of many regions where the activity and success of reforms vary immensely. Hence, it is more precise to analyze and discuss the experience of specific regions rather than attempting to

generalize about the whole nation. One example is the Republic of Karelia - a region on the North-West of Russia. Along with the rest of the Russian Federation, Karelia has been gripped by economic paralysis, but the republic is not a miniature version of Russia.

Third, the economies of former socialist societies are in radical transition now, and consequently, they are a good source to examine trends and interrelationships of macro-economic growth, income inequality, and the poverty of the population. For this purpose, it would be interesting to compare the Russian data with data from a western developed country and a former socialist country, which are at a different stages of transition to a market economy.

Among the former socialist societies, Poland was perhaps most similar to Russia, according its living conditions, but it started the reforms earlier and has had more experience. Also, it is worth mentioning that the comparison of the ways in which both social welfare systems operate now is useful because at the beginning of the reforms it was very popular in Russia to study the transitions within Poland economic system. Furthermore, it was commonly perceived that Russia adopted a Polish type of “shock therapy”. A comparison between the Polish and Russian stabilization measures shows that there was bold liberalization of the price system and of foreign trade in both cases. However, the political settings as well as some important elements of the program were very different. Besides, Russia started with worse conditions than most of former Comecon members, which included Poland.

Finland is chosen for two reasons. First of all, it represents Scandinavian countries which are well-known for their successful social welfare systems (but usually in comparative welfare state studies Finland is shadowed by Swedish shine). In addition, with regard to history and natural conditions, the country has much in common with the Republic of Karelia, and they share 700 kilometers of border. Apart from their geographical proximity and historical similarities, the economy and society of Finland and Karelia are very different. The border between Finland and Karelia (and so with Russia) marks one of the sharpest differences in living standards in the world (H.Eskelinen et al, 1994).

DATA

The research material for Russia, Poland and Finland has been derived from the database of the Luxembourg Income Study - LIS. Access to the LIS databank was sponsored by the Ford Foundation.

LIS is an international project with the central objective of promoting the comparative investigations of income distribution and poverty (see T.Smeeding, 1991). The basis of the LIS is a databank, containing microdata from household income surveys. At present, the LIS databank contains information for more than 20 countries. For half of them, three waves of data are currently available and for some countries, information covers the period from 1968 to 1992. This means that the LIS data permits the assessment of trends occurring during the 1980's and partly during the 1970's. During the last two years, microdata from Russia, the Czech Republic, Hungary, the Slovak Republic have been available through the LIS. As these countries are new-comers to the LIS, normally their data is limited to one wave. Each data set contains about sixty income and background variables, which have been coded according to the uniform criteria.

The data for the Republic of Karelia comes from a survey conducted in 1992 by the Russian Academy of Sciences. The survey in Karelia occurred as part of the project "Urban Family During Transition Period", which was held due to the financial support of the Soros Foundation. A methodology of the survey was worked out by a research team headed by M.Mozhina (Institute for Studies of Social and Economic Problems of Population, Russian Academy of Sciences, Moscow).

For information about the sets of data used in this paper, see Appendix 1.

CONCEPTUAL, METHODOLOGICAL AND EMPIRICAL ISSUES

In analyzing the problems of poverty, it is important to distinguish two groups of factors that determine poverty rate: so-called micro and macro factors. The first group of factors are related to demographic characteristics of population as a whole and to each concrete family in particular: age, education, employment status, marital status, parental status. All of them are important in determining a family's well-being (the position of a family in income distribution, access to social transfer and to some privileges). In some respect, the poverty that depends on demographic composition of the population is manageable on a personal level problem. Meanwhile, the second group of factors are external to personal concern: distribution of incomes and the state of income inequality in a society, system of social transfers.

The interest of this paper is in the differences of operating social welfare system to prevent poverty in a market economy and in post-socialist economies transitioning to a market economy. Hence, the focus here is on the macro factors. At the same time, it should be kept in mind that the socio-demographic composition of datasets can considerably affect the poverty rates in the countries.

Researchers interested in social welfare policy are well informed as to how sensitive findings are. Besides such objective factors as composition of households, they depend heavily on the choice of concept, procedures of measurement, and applying indicators. Thus, in this comparative study, the selection of poverty line, income concept, method of adjusting income to a family size measurement of inequality appeared very important.

In setting of a poverty line, the preference was given to a relative poverty measure as being much more defensible. The income concept around which the LIS database has been constructed - factor income, gross income, disposable income, and equivalent income - is based on a conception of income expressed in terms of cash only. Correspondingly, according to the relative income method, the poverty line is defined as 50 percent of the median income per capita or per equivalent person (i.e. all those whose income is

below half of the median gross per unit income are classified as in poverty). The poverty line has been calculated separately for each country.

The comparative study here is based on understanding poverty as a function of two factors: income inequality and the social transfer system. By analyzing both of them, we can predict the extent of poverty in a country. Countries with narrow income distribution will have low poverty rates and countries with a high level of economic inequality will have high poverty rates (Casper, Garfinkel, McLanahan, 1994). It should be mentioned here that Casper, Garfinkel, McLanahan consider this hypothesis true regardless of what the standard of living is. However, their position can hardly be accepted. This hypothesis is a direct outlet of the relative concept of poverty, while in the absolute approach, the poverty rate strongly depends on the living standards of the population. The social transfer system plays a redistributive function. There is a correlation between the level of income inequality and the progressivity of social transfers* (B. Milanovic, 1992): the progressivity of transfers tends to increase in a country with high level of income inequality and vice versa. Hence, social transfers are some sort of buffer that helps to decrease inequality and to alleviate poverty.

For the comparative study here, it is very important to figure out what part of findings related to inequality and poverty can be attributed to peculiarities of the transition period and what part of them can be explained by general tendencies of development. As a source of prediction and understanding differences between analyzed countries, there is a hypothesis that income inequality first increases and then decreases during the process of economic development; distribution of personal incomes is more unequal in the less developed than in the developed countries (S. Kuznets, 1955). This relation between inequality and income per head is known as the Kuznets curve.

The majority of writers confirmed the existence of the Kuznets' curve, but some different opinions have nevertheless been expressed. Thus, J. LeCaillon, F. Paukert, C. Morrisson, D. Germidis (1984) conclude that the inequality is not necessarily more pronounced in the comparatively less developed countries. Recent

empirical investigations (A. Atkinson, J. Micklewright, 1992) showed that there is no widely accepted empirical relationship between the degree of income inequality and the level of income per capita which can be used as an indicator of the differences in the level of development between Eastern Europe and the West.

The comparative study of income inequality and poverty in Russia, Karelia, Poland, Finland cannot prove or disapprove the hypothesis. The number of analyzed countries is too small for that, but it is

* B. Milanovic calls transfers progressive when their share in gross income increase with the level of income.

a subject of interest because it shows how the hypothesis works in this case.

This case has contradictory settings. On one hand, we can suggest that Finland's income inequality is less than the other two countries due to the fact that its economy is classified both as a high income and relatively stable economy. The prediction of the income inequality state in Poland and Russia is more complicated: Poland is more advanced in its market reforms, and there is a tendency of increasing income per capita there. On the other hand, there is the wide-spread opinion that a capitalist economy provides higher inequality than a socialist economy. As we cannot consider Polish and Russian economies as settled with a market economy, there is a possibility that income inequality in both countries is less than in Finland. The transitional period has an essential impact on income inequality in post-socialist countries, and there is a distinct alteration in attitudes towards inequality in different societies. Most of the western market economies no longer accept inequality as the unchangeable condition of mankind and wide differences in standard of living. The central dilemma for economic policy-making in western countries is a trade-off between equality and efficiency.

While the capitalist system has been moving in the direction of greater equality, post-socialist societies tend

to increase efficiency at the expense of less equality. Generally speaking, they just do not focus on the distribution-inequality issues. The focus is on other concerns, such as stimulating the growth of the economy, the privatization of state enterprises and so on. The transitional period is considered as a time for starting the accumulation of capital. Thus, the rise of income inequality is justifiably providing the initial point of “departure”. A typical view expressed by L.Beskid (1992) is that social justice should be regarded only at the beginning of the introduction of a market economy, but this is a moral category that should be excluded from any further consideration. E.Vezhbitska (1992) adds that reforms depend on the most active groups who support the reform program, and a government task in the transition period is to consolidate this part of the population as well as to provide equal opportunities, but not necessarily equal outcomes.

In outlining the problem here, however, the focus will be on the practical aspect of inequality, not concerning its ethical implications. That is, the focus will be on the economic inequality, not on the inequality of opportunities. The most commonly used indicator of economic inequality is cash income, but this may be defined in many ways. To analyze income inequality, social transfer systems, and poverty in Russia (including Karelia), Poland, and Finland, the gross income and market income were chosen.

Market income consists of all types of earnings (salary, wage, self-employment salary, cash property income) and occupational pensions (private and public sector pensions). Gross income includes market income, all kinds of social transfers and other regular private income (or $\text{market income} = \text{pre-transfer and pre-tax income}$, $\text{gross income} = \text{post-transfer and pre-tax income}$).

The LIS database allows us to analyze the income distribution by individuals as well as by families. Since poverty is a family characteristic rather than an individual characteristic, for the purposes of the comparative study, using the family (household) datasets is more precise. All members of a family usually benefit from sharing their whole income within the household where they live. A family (household) is defined as a set of people living together and sharing income and expenses (correspondingly, a one-person household is

defined as one person with an independent income who does not share that income with other people (whether living alone or not). If blood-related members of a family, even within the same dwelling, do not share income, they are considered as members of separate households.

There are several works on the sensitivity of cross-national analyses of poverty and inequality to the choice of equivalent scale (Buchmann et al., 1987, T.Garner, S.Phipps, 1994). Country-specific equivalent scales can vary substantially, and it is difficult for a researcher to decide whether to use the same scale for all countries or to use each country's own scale. In the case of this, the problem was somewhat different: two out of the three countries (Russia and Poland) do not have their own scales.

According to a methodology accepted in Russia, an adjustment of income to a family size is provided by calculating the income per capita, which assumes the equal sharing of income among all members. In the meantime, the household survey statistics confirm a stable tendency of per capita consumer expenditures decreasing as family size increases. Hence, some specialists in Russia (E.Frolova, 1992) believe that it is possible to use an equivalent scale as the means of adjusting income resources across families. The experiments with household data shows that the ratio of decreasing per capita consumer expenditures is close to the OECD equivalent scale. It should be mentioned that this is true only for families with working-age members without children under 16 years old. So far, Russian statistical institutions have not accumulated reliable information for families with children.

In Poland, although the method of equalization is not applied by official statistics, some researchers experiment with it. Thus, A.Szulc (1995) estimates his model of scales for households based on the number of persons and their ages on the basis of econometrics analyses of consumption patterns. Contrary to Russia and Poland, Finish statistics calculate per unit incomes and consumption for many years, applying OECD scale. Trying to combine the experience of all these countries and to juxtapose data published for both types of adjustment (income per capita and income per equivalent person) will be applied here to account for the differences in resources across families.

There is considerable and continuing debate about the equivalent scales and their derivation. Taking all opinions related to this issue into consideration, this paper does not intend to discuss pros and cons of equalizing method and scales. In this paper, the OECD equivalent scale will be applied. The scale allocates a weight of 1.0 for the first adult in each family, 0.7 for each additional adult, and 0.5 for each child. Then, to obtain the equivalent income for a household, equal gross income is divided by the equivalent scale value for the household of this type. For example, for the household of two adults and one child, denominator would be 2.2.

INCOME INEQUALITY AND IMPACT OF SOCIAL TRANSFERS

The growth of income inequality in post-socialist countries was stimulated by the increase of unemployment rates, the reduction of the role of the state, and the creation of a private enterprise sector. However, it would be incorrect to attribute all changes in income distribution to peculiarities of the transitional period. Many developed, economically stable countries also experienced a growth of inequality during the last five to ten years.

As table 1 shows in 1989, there were no essential differences in income inequality between the

Table 1

Trends in income inequality in Russia, Poland and Finland

	Russia*			Poland*			Finland**		
	1989	1992	1992 in % to 1989	1989	1992	1992 in % to 1989	1989	1991	1991 in % to 1989
Ratio of incomes at ninth decile to first	3.2	7.4	2.3	3.3	5.1	1.5	2.6	4.3	1.6

Gini coefficient	27.8	45.3	1.6	26.8	31.7	1.2	na	30.3	na
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* income per capita

** income per equivalent person

Source: Economic transformation in Eastern Europe and the distribution of income. A. Atkinson, J.Micklewright. Tables PJ 1, UI 3.; Statistical yearbook of Finland, 1992. Official Statistics of Finland. 1992, p.320.; LIS database.

analyzed countries. The ratio of incomes of the top and the bottom of the distribution was less in Finland, and more in Poland. Poland had more unequal distribution of incomes than Russia.

Variation between the ratios of incomes at the ninth decile to the first decile did not exceed 0.6-0.7. The gap between inequality in Poland and Russia expressed in Gini coefficient was 1 percent. Growth of inequality was observed in all countries at the period of 1989-1992 although velocity was different, with the highest speed in Russia, where the difference between incomes at the top and the bottom increased 2.3 times. Interestingly, the increase in inequality in Finland was even bigger than in Poland, which experienced economic transformation.

Several explanations are possible for these phenomena. First of all, the data for 1989 and 1992 (1991 for Finland) were derived from different sources. Second, the private sector existed in Poland before the reforms (maybe through this, Poland had more unequal distribution than Russia) so the country did not suffer such great upheaval as Russia did. Third, the Finnish economy experienced its longest and deepest recession in post-war history during 1990-1993. One of the factors that provoked this slump was the collapse of trade with the former Soviet Union. It was accompanied by a rise in the unemployment and inflation rate.

Since different countries use various measures of income inequality, the choice was narrowed down to two

of them: the favorite in many western countries is the Gini coefficient and the preferred in Russia is the decile ratio. The estimates of the distribution of gross incomes in table 2 relate to both the income per capita and income per equivalent person.

It should be mentioned, that the Russian set has a small group of families (0.3 percent of whole set) with very high incomes. That is why the share of the tenth decile is so big (36 percent). One third of this group are couples of working age with children. Most of these families have self-employment income (generally in addition to other types of incomes including wages, salaries, in-kind earnings and etc.). Since their gross incomes are extremely high in comparison with the rest of the set, it is difficult to say for sure whether it is a limitation of data that overstates the top-income group or whether we deal with "new-Russians". That is why in all cases, when it was possible, an adjustment was made to eliminate an influence of this extreme group on the entire income distribution character. Two ways were applied for that: when the decile coefficient is examined, the ratio of the ninth to the first of them is used; in other cases, all per capita (per equivalent person) incomes that are 10-times higher than the median were recorded into the median multiplied by ten.

Although moving from one decile ratio to another does not transform the ranking of inequality, it changes primarily the level of inequality in Russia. So, the high value of inequality between the top and the bottom decile in Russia is mostly due to the very high share of incomes at the tenth decile.

Therefore, Russia has the most unequal income distribution among the countries studied. The Republic of Karelia is apparently behind, due to two main factors. First, the reforms in the periphery of the country as well as the formation of "new Russians" were slower. Second, in 1991, President Yeltsin granted Karelia a special status which gave it more autonomy. This was intended to contribute to the development of the republic as a region bordering the West. Due to this, in 1991-1994, Karelia had a special fund for its own economic development. After the liberalization of prices, significant subsidies from this fund were set aside for social assistance to the Karelian population.

Interestingly, Poland and Finland have a nearly identical distribution. The most prominent difference is observed only in shares of the first and tenth decile: the quota of the first decile in Finland is higher than that in Poland and, correspondingly, the quota of the tenth decile is lower. Thus, Finland has the most equal distribution out of all the countries studied.

Table 2

Income inequality indicators

indicator	Distribution of household gross income per capita				Distribution of gross income per equivalent person			
	Russia	Karelia	Poland	Finland	Russia	Karelia	Poland	Finland
ratio 10-th decile to 1-st	18.1	8.1	8.3	6.8	17.8	8.7	6.9	6.6
ratio 9-th decile to 1-st	7.4	4.7	5.1	4.3	7.8	5.8	4.4	4.3
Gini coefficient, %	45.3/ 40.4*	30.7	31.7	30.3	45.4/ 40.8*	30.2	29.4	32.5

* with recorded top incomes

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

The procedure of adjusting incomes to family size does not significantly change the Russian and Finnish distribution of incomes. Some growth appears in the fifth to ninth deciles and a decrease in the tenth decile of the Russian set. In the Finnish set, growth is observed in the second to seventh deciles and a decrease in the tenth. A distinct decrease of income dispersion is found in Poland. Generally, the application of equivalent scales leads to a diminishing of the inequality coefficient in the three countries when comparing the tenth and first decile, but in comparing the ninth to first decile, the ratio remains unchanged in Finland, decreases in Poland, and rises in Russia. Karelia shows an increase of inequality in both cases.

The Gini coefficient reflects the same order of income inequality: a very high level of inequality in Russia, while Finland and Poland (again very close to each other) have 11-12 percent less inequality than Russia (and without an adjustment of the extreme group 16-17 percent). Again, the Russian province - the Republic of Karelia does not follow the country' trend.

There is one distinctive characteristic in the income distribution of all analyzed countries: the most prominent gap in incomes can be observed twice - between the first and second decile and between the ninth and tenth decile. To show this feature, the average incomes at the specified decile in each country were expressed as a percentage of the average income of the preceding decile: the increment indicator denotes incomes in the decile relative to the preceding decile expressed as a percentage (see table 3). Hence, the average income in the second decile exceeds the first decile by 77 percent in Russia, by 45 percent in Karelia, by 60 percent in Poland, and by 42 percent in Finland (i.e. inequality increases not accumulating gradually, but formatting two extremes). As a result, two types of living standards are created universally. But the intensity of this process correlates with the general state of income inequality of each concrete country. And again, the situation in Karelia significantly differs from that in Russia, as it is more similar to Poland and Finland. Also the data in table 3 address our attention to one of methodological issues of comparative studies: the measurement of income inequality. As the biggest differences in incomes are accumulated at the ends of distribution, it is mostly the top and the bottom that form the level of inequality. Hence, the question arises as to which indicator (decile ratio or Gini coefficient) is more descriptive and more precise.

Table 3

Increment of average household gross income per capita in decile groups,
% to preceding decile

Country	Decile									
	1	2	3	4	5	6	7	8	9	10
Russia	-	77	25	20	20	21	22	23	32	141
Karelia	-	50	29	16	17	16	17	18	17	54
Poland	-	60	26	19	15	13	15	17	22	64
Finland	-	42	19	16	16	16	16	17	20	58

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

The dynamics and allocation of different types of incomes are very diverse within each economy. In general, the largest part of average household per capita income everywhere is presented by earnings or similar kinds of incomes (see table 4) which form the basic element of market income. The most considerable share of market income in gross income is found in in Finland and the least in Poland,

Table 4

Structure of household gross income per capita (in domestic currency for each country),%

Income	Russia	Karelia	Poland	Finland
Market income	72.4	84.4	55.3	86.5
Social transfers	19.2	9.5	29.0	12.6
Other	8.4	6.1	15.7	0.9
Gross income	100	100	100	100

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

but Polish households have the most prominent share of social transfers - almost one third. The last finding raises some questions. A share of GDP cash transfers in Poland increased rapidly from the end of the 1980's to 1992, while it held steady in Russia (K.Krumm, B.Milanovic, M.Waltom, 1994) Correspondingly, if in 1990, social transfers contributed 15.4 percent to nominal incomes of population (Maly rocznik statystyczny, 1992, p. 86), in the 1992, they accounted for more than 22 percent, according to B.Malinovic'(1992) estimations.

If we consider social transfers as a sort of buffer that helps to decrease inequality and to fight poverty, their high share in Polish household gross incomes can be the main reason for the relatively low inequality of gross per capita incomes and poverty in this country transitioning to a market economy. In Karelia, the share of earnings in household gross income is traditionally higher than that in all of Russia. That is

determined by a high involvement of the population in labor market and by a less-developed private agricultural production.

It should be mentioned here that this study concentrates only on cash transfers which include sick (accident, disability) payments, social retirement benefits, child allowances, maternity benefits, unemployment benefits, other social insurance, and means-tested cash benefits.

Actually, the move from the gross income distribution to the market income distribution (market income = gross income - social transfers) has much more representation of inequality (see table 5). The differences between the average income of the ninth decile exceeds the bottom 10 percent 13 times in Poland and 14 times in Finland (and again, the level of inequality in these two countries is very close to each other). As in the case of gross income, Russia represents the greatest inequality with the least share in the bottom ten percent (0.7 percent) and the largest share in the top ten percent (39.1 percent). Karelia holds the last position in the ranking of income inequality.

If we compare this with post-transfer inequality rates, the role of the social transfer system becomes more apparent. It decreases the ratio between the ninth and first decile of income distribution in Russia by 7.4 times, in Poland by 5.1 times, and in Finland by 4.3 times. So, in the case of these three countries, there is a correlation between the rate of inequality and the weight of social transfers in equalizing income distribution: the more unequal the distribution, the more attempts made to equalize it. But, in Russia, inequality is too high to attain the level of the other two. Besides, the comparison of Gini coefficients for gross and market income distribution brings some correction in the above findings: according to this indicator, moving from gross to market income distribution changes (decreases) the coefficient in Finland by 9.1 percent, in Poland by 28.9 percent, and in Russia by

Table 5

Pre- and post-transfer income inequality (household per/capita income)

indicator of inequality	Russia	Karelia	Poland	Finland
Ratio of 10-th decile to 1-st				
-pre-transfer	53.7	10.8	22.6	22.8
-post-transfer	18.1	8.1	8.3	6.8
Ratio of 9-th decile to 1-st				
-pre-transfer	20.8	6.6	13.4	14.2
-post-transfer	7.4	4.7	5.1	4.3
Gini coefficient				
-pre-transfer	62.3/57.3*	36.1	54.6	39.4

* with recorded top incomes

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

17.0-17.1 percent. Taking into account the peculiarities of the decile ratio and Gini coefficient, the more accurate conclusion is that in Poland, the social transfer system has more capability to reduce inequality than in Russia and is consequently more successful.

Another impact of social transfers is in reducing poverty.

POVERTY

Poverty is not a new phenomenon in former socialist countries but during the transition period, the nature of poverty has changed. It was the rapid stratification of society that made the problem of poverty so

apparent, when a group of the population appeared with incomes considerably higher than the average and with a way of life much different from that of the majority of people.

For this comparative study, preference was given to the relative poverty measure because it is independent of the measurement of national poverty rates, and at the same time, it reflects and depends on income distribution within each nation. The findings are presented in table 6. The differences between the two parts of the table are based on methods of adjusting income to family size. It is evident that they work out in correspondence with country peculiarities. Thus, in both cases (income per capita and income per equivalent person), Russia has the highest poverty rate among the three countries. Applying an equivalent scale leads to a considerable increase in poverty rate. In the cases of Poland and Finland, it makes even more visible differences. Implementation of the equivalent scale shifts Poland from second to third position in ranks of poverty rate, and vice versa with Finland.

Table 6
Relative poverty rates (50 percent of median gross income)

Country	Income per capita		Income per equivalent person	
	rate of poverty,%	rank of country	rate of poverty,%	rank of country
Russia	13.5	1	17.5	1
Karelia	13.2	2	14.8	2
Poland	12.1	3	8.9	4
Finland	8.7	4	11.0	3

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

The results of a comparative study of income distribution are considerably determined by the composition of households that form the dataset for each country. In countries where there is higher dependency, or

the ratio single parenthood is widespread, or the elderly population is bigger, we would expect to find relatively high poverty rate. In this concrete case, the differences between analyzed countries are not very big, but the Russian and Polish sets have more similarities between them (see appendix 2). The most prevalent groups in all four sets are families with children under 18 years old and non-aged couples without children. The Finnish data include large groups of single working-age people, whose incomes are usually higher than that of the other types of families. Meanwhile, the Russian data includes a relatively larger number of single persons with children, who are traditionally classified as high-risk poverty group.

The distribution of households below poverty line by family type for the analyzed countries are presented in table 7. In all three countries and in Karelia, the risk of poverty is much higher for non-aged families with children. But in Poland, this type of family is even more vulnerable. They comprise 3/4 of the poor. High poverty rates were also found among single parents families, who were the second risk group in Russia (in table 9 they were included in other families). There were no elderly couples with or without children that had high poverty rates in all analyzed countries. The poverty rate for elderly single persons exceeds 10 percent in Russia and Finland, but remains low in Poland.

In a comparative study by T.Smeeding et al. (1993), it was found that the poverty rate for non-aged single people is high in many developed countries (such as Australia, Canada, Netherlands, Sweden, U.K., U.S., West Germany). The case of Finland proves this assertion. This can be explained by two factors. First, the share of this group in the Finnish dataset is obviously higher than that in another country's datasets (it is the second group according to the number of people in it) and high poverty rates of this group reflect that. Second, the unemployment rate was remarkably high in Finland in 1991 (about 7.6 percent), and among youth it ran to 15 percent (Finnish statistical yearbook, 1994).

In Russia, the group of non-aged single persons is also quite big but the problem of unemployment did not become an issue until 1992. In Karelia, for example, in 1992, according to official estimations, the rate of unemployment among singles was about 0.7 percent. This group, as they do not have dependents to share

their income are considered as the most successful.

Typically, in Poland, among poor single persons (non-aged as well as elderly), there are no men - only single women. In Russia, the ratio between nonaged single male and female below poverty line is approximately 1:3 and between elderly single male and female it is 1:10. In Finland, the proportion is decreasing for non-aged (1:1.3) and increasing for elderly (1:14).

Table 7

Distribution of households below poverty line by family type (gross income per capita)

Type of family	Russia	Karelia	Poland	Finland
1. Single person				
- non-aged	10.0	1.9	0.6	29.1
- elderly	12.4	24.5	0.6	14.5
2. Couples *				
- nonaged with children	34.7	34.9	76.0	27.9
- elderly with children	0.8		0.8	0.1
- non-aged without children	11.5	15.1	6.7	8.2
- elderly without children	4.1		3.1	6.0
3. Other**	26.4	23.6	12.1	14.2
Total	100	100	100	100

* including families with other adults

** including single parent families with children

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

Transitioning economies face a sharp conflict between the need to reduce transfers and the need to keep or even raise them to manage welfare decline. Actually, the role of transfers as a means of eliminating poverty is very important. For the poverty -alleviating effect of social transfers in the countries, see table

8.

Pre-transfer poverty rates do not differ greatly between these three countries. Even successful Finland moves closer to Russia than Poland. But after-transfer poverty rates change immensely. In Finland, the effect of transfers is to raise 12.8 percent of the population above poverty line, whereas the transfer system operating in Russia shifts 9.0 percent of the population out of poverty and in Poland - 8.2 percent. In all these countries, the main beneficiaries of the social transfer system are couples and single parents with children, non-aged single persons, and couples without children (the last group mainly received unemployment benefits). The elderly is another group that has a priority to income transfers.

Table 8

Poverty- alleviating effect of social transfers in the countries studied, %

Country	Pre-transfer poverty rate	After-transfer poverty rate	Differences in after- and pre-transfer poverty rate
Russia	22.5	13.5	9.0
Karelia	18.2	13.2	5.0
Poland	20.3	12.1	8.2
Finland	21.5	8.7	12.8

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

A comparison of the allocation of social transfers by family types (table 9) reveals relatively little variation between that and the composition of poor (i.e. the main bulk of social transfers are allocated to families facing major poverty risk and vice versa). Hence, despite social transfers, these people remain poor. Generally speaking, that testifies, on one hand, the weakness and incompleteness of the safety net, and, on the other hand, the immutability of poverty to the social transfer system.

When relatively large numbers of families have incomes close to the poverty line, small changes of this line

can have a large impact on estimates of the proportion who are poor, and even the ranking of the countries undergoes several noticeable changes (T. Smeeding et al, 1993). In this connection, it is important to analyze not only how the rank of country is changed, but also how the rank of one or another type of family differs. Table 9 shows what happens if the poverty line changes only by 1, 2 ...5...10 percent. Those families, who are closest to the poverty line cannot rely on the benefits that the needy do, but their incomes differ not very much from the poor.

Table 9

Allocation of social transfers by family types in analyzed countries

Family type	Russia		Poland		Finland	
	%	rank	%	rank	%	rank
1. Single person						
- non-aged	11.0	4	9.4	5	24.2	2
- elderly	9.9	5	7.6	4	12.2	4
2. Couples						
- non-aged with children	35.4	1	44.7	1	25.6	1
- elderly with children	0.5	7	0.2	7	0.1	7
- non-aged without						
3. Other	17.3	3	12.6	3	9.2	9
Total	100	X	100	X	100	X

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

The changes really occur in Russia and Finland even at a lower poverty line. In Poland, on the contrary, there are no changes in all five cases of poverty line recalculation. In all three countries, poverty is higher among families with children, elderly couples, non-aged couples, and single parents families (in declining order). In Russia, the position of elderly couples - as the one of the most vulnerable among the poor group - is insensitive to changes of poverty line. But, in Finland this group gives way to single-parent families and

the gap between the two groups grows. On the contrary, the position of single parent families improves in Russia: they switch from second place at the lower poverty line to third place at the higher poverty line. The position of single elderly persons deteriorates in Russia.

These changes in poverty ranking mean that comparisons across family type are very sensitive to

Table 10

Sensitivity of family's poverty rate based on household income per capita by family type

	Single		Couples		Other	Total
	Non-aged	Elderly	with children	without children		
1. Russia						
Poverty line in % of median income:						
50%	12.7	17.1	13.7	7.8	19.0	13.3
55%	18.2	26.1	16.2	10.5	22.3	17.1
60%	23.1	35.3	19.5	15.1	26.0	21.4
Index of sensitivity	0.45	0.51	0.07	0.48	0.26	0.38
2. Karelia						
Poverty line in % of median income:						
50%	4.2	51.2	7.3	10.2	18.5	13.1
55%	4.2	53.6	10.0	14.1	23.0	16.5
60%	8.3	53.6	13.0	16.6	34.8	19.6
Index of sensitivity	0.98	0.04	0.44	0.38	0.47	0.33
2. Poland						
Poverty line in % of median income:						
50%	0.8	1.0	20.7	4.7	11.7	12.1
55%	1.1	2.2	25.3	6.1	13.4	15.0
60%	2.3	3.2	30.7	8.4	17.1	18.6
Index of sensitivity	0.65	0.69	0.32	0.44	0.31	0.35
3. Finland						

Poverty line in % of median income:						
50%	10.4	10.3	9.5	4.3	13.4	8.7
55%	13.1	16.8	13.5	4.6	19.0	12.4
60%	16.0	24.5	18.7	9.5	22.4	16.5
Index of sensitivity	0.35	0.58	0.49	0.55	0.4	0.47

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.

where the poverty line is set and the sensitivity differs from country to country. To estimate how datasets of studied countries react to changes of poverty line, an index of sensitivity will be constructed as follows:

$$\text{Index of sensitivity} = \frac{\text{Poverty rate at poverty line of 60\% of median income} - \text{Poverty rate at benchmark poverty line}}{\text{Poverty rate at poverty line of 60\% of median income}}$$

It appears that Finland is the most sensitive to changes of poverty line and Karelia is the least sensitive. So, the ranking of sensitivity is substantially altered from ranking countries according their poverty rate. Moreover, if we compare the ratio of poverty rates for two sets of poverty line - 50 and 60 percent of median income, we will find that the countries draw closer together: at 50 percent of median income the proportion between poverty rates (13.3 : 13.1 : 12.1 : 8.7) is equal to 1.5 : 1.5 : 1.4 : 1, at 60 percent of median income the proportion between poverty rates (21.4 : 19.6 : 18.6 : 16.5) decrease to 1.3 : 1.2 : 1.1 : 1. With the poverty line at 60 percent of the median income poverty line, their poverty rates do not differ crucially any more.

SUMMARY

In summarizing the findings, it is permissible to say that the expectations of an increased inequality during the transition period were proven, but it is difficult to attribute them completely to the transition period. The decile ratio (ninth to first) in Poland for the period of the time from 1989 to 1992 rose 1.5 times and in Russia 2.3 times, while the Gini coefficient correspondingly increased by 4.9 percent in Poland and by 12.6 - 17.5 percent in Russia. At the same time, the increase of income inequality in Finland was greater than in Poland. Russia has the most unequal income distribution among the analyzed countries. In 1989, before all transformations, the differences between Russia and Poland were insignificant: the decile ratio (ninth to first) in Poland was 0.15 items higher while the Gini coefficient 1 percent lower. In 1992, it became evident that the gap between the former Comecon members was enlarged: the decile ratio differed by 2.3 items and the Gini coefficient is higher in Russia by 8.7 percent. Poland has more similarity now with Finland than with Russia. It looks like the price for a relatively low income inequality of the Polish population is a very high share of social transfers in average household per capita income. Income inequality in Karelia is higher than that in Poland and Finland; at the same time, Karelia's differences from Russia is quite marked. Very often, income distribution and inequality in the republic of Karelia appears to have more similarities with other countries than with Russia.

The case of these three countries shows that there is no direct correlation between the level of economic development and income inequality. The Polish example particularly testifies that even if there is no doubt about the significance of economic growth (because it provides social welfare system), the main factor here is how social welfare system works. The level of economic development of Poland is considerable lower than in Finland, but all findings presented more similarities between them than between Poland and Russia. The explanation for that is a generous safety net.

Another example - with the Republic of Karelia is that its inequality indicators differ from data for the entire country principally. Data for the country includes sets of fifteen regions. All of them are big industrial

regions, the biggest and most developed cities and "oblast" of the European part of the country. That is why contrasts here are so pronounced. Karelia represents another type of Russia - more provincial, without huge industrial complexes - and as a result, income inequality in the republic not so high.

A correlation between the level of inequality and the poverty rate of each country is strong. Russia has the highest level of inequality as well as the highest poverty rate. Rankings of Poland and Finland appear to be sensitive to the method of adjusting gross income to family size. In all analyzed countries and in Karelia, the risk of poverty is much higher for non-aged families with children, but were no elderly couples who had high poverty rates in all analyzed countries. In this contest, the uniqueness of Poland is that among the poor, there is a very big group of single persons in able-to-work age. Cross-national comparison reveal a highly-favorable picture of the effectiveness of the Finnish welfare state. In alleviating poverty, Finland overtook both former socialist countries: the effect of its social transfers raises 12.8 percent of population above poverty line while social transfers shifts 9.0 percent out of poverty in Russia and 8.2 percent in Poland. At the same time, an analysis of the allocation of social transfers by family types reflects the weakness of social welfare systems in all these countries: the structure of poor families is almost the same as the assignment of social transfers. This means that despite social transfers, the families receiving them remain poor.

The results also indicate that measurement, the adjusting of incomes and set of poverty line might yield different findings. As poverty line increases, the countries' poverty rates draw closer together, but the ranks of countries remain constant. So, it is not only the transition period that has sufficient influence on findings related to poverty rates in post-socialist countries, but also the methodology of comparison. Meanwhile, the results of this study are informative and they can enrich the practice of comparative studies.

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Appendix 1.

Sets of data used in the comparative study

	Russia	Karelia	Poland	Finland
Year of survey	1992	1992	1992	1991
Name of dataset	Russian longitudinal monitoring survey, round 1	Urban family during transition period	Household budget survey	Income distribution survey
Number of households	6361	490	6602	11863

Appendix 2

Composition of households in Russian, Karelian, Polish, and Finish datasets, %

Type of family	Russia	Karelia	Poland	Finland
1. Single person				
-non-aged	10.6	4.1	9.4	24.2
-elderly	9.6	7.1	7.5	12.2
2. Couples				
-nonaged with children*	33.9	59.3	44.7	25.6
-elderly with children*	0.4		0.2	0.1
-nonaged without children	19.9	13.2	19.0	22.0
-elderly without children*	7.0		6.5	6.7
3. Other	18.6	16.3	12.7	9.2
Total	100	100	100	100

* including families with other adults

** including single parents families with children

Source: LIS database; Urban Family During Transition Period. Survey of Russian Academy of Sciences.