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LUXEMBOURG INCOME STUDY WP 161

THE REGIONAL DIFFERENTIATION ON POVERTY IN
EAST-EUROPEAN COUNTRIES

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Russia, Moscow

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In the formation process of the society's social structure its socio-territorial substructure plays one of the important roles. Maybe it's not quite true for all the countries today. But it's definitely so in case of Russia with its enormous (as compared to the others) territories, historical unevenness of colonization of different parts of the state and the traditional priority of different "vedomstvas" (administrative monopolists of all kind branches of national economy) interests over the territorial ones.

In this country the space natural resources accommodation, the transport accessibility of the cultural and industrial centers and the area infrastructure institutions availability depend to a great extent on the regional peculiarities. As a result the regions differ each other by the character and the level of the socio-economic development. The historical and economic differences between the territories cause as the variability of the people's living conditions so as the diversity of the regions inhabitants' qualitative compositions. The structure of the labor force, the educational characteristics of the population, the demographic situation vary from region to region, and that leads finally to uneven distribution of the national wealth, to unequal well-being of the territorial groups.

It's clear to everyone that there is nothing to do with the regional differences as far as the natural resources is concerned. But it's evident enough that the social causes of this phenomenon can be regulated by the means of the government social policy. The state administration in the civilized society should provide equal opportunities for any territorial group to have socially normal living conditions on the base of the balanced geographical distribution of industry and workplaces, even siting of infrastructure units, fair placing of public dwelling and flexible price-tax regional policy.

The problems of well-being traditionally enter the sphere of every government's social policy. This is because even in very rich countries there are certain groups of people, who are constantly or from time to time in need of support. In addition to this in today's Russia there is one more reason that sets government thinking seriously about this problem. Last years the

reform and social transformations in this country are going on against a stable negative psychological background because of absolute and relative (as compared to the past) pauperization of the majority of the population. So far the government succeeded to prevent the social outburst. But the situation is developing in such a way, that in order to survive in the nearest future the society will have to reduce social tension and have to protect the most of the people against the psychological and physiological degradation. It'll hardly be done without well-grounded regional programme. That's why in this paper we'll try to analyze the well-being in different regions of the state.

Data and methods

This paper is based on the Luxembourg Income Study (LIS) database. The main angle of view of the LIS projects is international comparison. The focus of this paper is cross-country comparison too. Among the choices which the LIS microdata allows a researcher is to study the situation on the problem simultaneously in East-European and West-European countries. We failed to put into practice the idea of taking into consideration the American data in spite of the fact that we wanted to. The main reason was that we didn't have enough knowledge about the usual way of distinguishing the regions in the United States of America. We didn't dare to use the available variable D7 "GEOGRAPHIC LOCATION INDICATOR A", because at that moment it was in the dataset in a non-aggregated form. Its alternatives were defined by states, there were fifty of them, so it seemed difficult to us to operate with such dispersed variable.

To our regret not in all the East-European countries' datasets the contain of key regional variable corresponded the title. Thus the necessary territorial indicator in the Hungarian dataset (HU 91) - D7 - in fact reflected the size of the settlement (like variable D20 should do) but not the regional division of the state. So the data of this country was out of use in our job

submissions too. In addition to this the Luxembourg Income Study country database didn't include yet the dataset of Bulgaria at all.

As a result, the datasets of four East-European countries were examined in the final analysis: of Czech Republic (CZ92), Poland (PL92), Slovakia (SV92), as having the variable D7, conformable to the state's regional division, and of Russia (RL92), as giving a possibility to create a new variable - "region" - by aggregating the available alternatives of the indicator A.

It's widely known among the scientists and statisticians that, when studying the problems of economic well-being, the judgements about the person's life standard are more reliable on taking into account all the accessible for the measurement living conditions characteristics. The Russian datasets at our disposal as a rule give such opportunities. They often contain the detailed information not only about money budget. They also describe how well the person and his family are provided for by dwelling and durable goods (the things which are very important from the standpoint of life quality in Russia). That gives a good chance to a researcher to construct a complex index of well-being by combining all the parameters of person's living conditions using the statistical methods. Because of the lack of such type of data in the LIS base the disposable income (DPI) is used in the project as an aggregate indicator. The choice is explained also by the fact, that this indicator is one of the most conventional measures of economic well-being.¹

The research topic of this paper is country comparison of regional differences in poverty and inequality profile. Such restrictions of the theme were predetermined by new realities in Russia. That is no news to everyone, that people in our country always lived in a small way. But the recession and the conservative government policy have led to an increase in poverty. Besides that the strange phenomenon it turned out to be the polarization of the

¹ More details are in: Atkinson, A.B., Gardiner, K., Lechene, V. and Sutherland, H., "Comparing Poverty in France and The United Kingdom", Discussion Paper, WSP/84, London School of Economics, 1993. Toth, I.G., Andorka, R., Forster, M.F., Speder, Z. Poverty, inequalities and the incidence of social transfers in Hungary, 1992-1993. Budapest, 1994.

society on “rich” and “poor”, while the political component of the social status has been giving his

place to economic one in the process of transformation of the system of social stratification.

The analysis of the literatura on the problem has shown, that different definitions can be applied by the author to give the notion and estimate such categories as “poverty” and “inequality”². The aim of this paper wasn’t the realization of all the variety of the approaches. So the standard, widely used in the world practice, has been taken as a criteria of ascribing the person to one or another economic group. The concept of the project considered poor those, who has less than 50 percent of the median disposable income per equivalent adult in the country in question. The evaluation of income differentiation followed the examination of distribution’s deciles.

There is a complete awareness of the fact that while comparing the countries’ distributions we are going to operate with the indicators of relative poverty in each country. The actual life standard of those below 50% of the median may substantially differ even in neighbour states, which are very similar from the economic and political points of view. As far as the countries under discussion is concerned, there is a lot in common in their past and present, but it’s evident enough, that they are not on the same stage of social transformations now. Nobody will call them reach and stable, at the same time some of them were more lucky to make the transition from planned to market economy in a fast rate, while the others are still near the beginning of the process. Among the latter, for example, Russia, where the crisis occured in the result of ineffective modernization policy and where the government can’t guarantee even subsistens minimum to it’s citizens. The social prerequisites of poverty haven’t been eliminated in this country up to this day: the salary minimum is not fixed yet at the subsistens minimum level. So in Russia, like in a poor developing country, the most of the population is needy now and will be needy in the nearest future. Under these circumstances the

² For example: Atkinson, A.B., “On the Measurement of Inequality”, *Journal of Economic Theory*, Vol.2., 1970; Ringen S.”Poverty in the Welfare State?”, *The Scandinavian Model*, N.J., 1987, etc.

social groups with the position, worse than that of the groups with modal or median living conditions, are very close to a state of absolute misery and neediness. Definitely, it isn't so in other East-European countries. Most probably, the number of those, whose level of living is lower than modal, are much more than the number of those, who lives in absolute misery. That's why comparing the percents below or above any statistical value we deflect our attention from absolute poverty in different countries and concentrate on the distributional aspects of well-being.

In statistics it has been recognized long time ago that there is a room for differences of view as to the taking into account the household's size and demographic structure. Those sceptical as to the some countries picture of inequality drawn by per capita income, for example, may therefore argue that the choice of adjustment could lead to overestimation or underestimation of one or the others social factors. There is a lot of alternative means of adjustment but commonly acknowledged that while choosing the best for the reseach one should keep in mind the following: "estimates of extent of inequality are sensitive to choice of equivalence scale"³.

Among the main factors of household's economic position there is the presence of children and the number of them in the family⁴. Just that very fact is taken into account in first turn in the time of construction of equivalence scales and it often explains the variability of their coefficients. The papers show that on the statistical weight added to this demographic factor by a reseacher greatly depends the hierarchy of determinants of material well-being.

The official statistics in West-European countries paid great attention to the fact of redistribution of incomes within a family. In connection with this the per capita family income was considered and is considered to be the main indicator of society members' well-being. As far as the inequality is concerned, it's measures are still based on per capita indicators too. The equivalent scales are used rare and in Russia, in particular, they are better known as "coefficients of dependents" calculated when the consumption problems are studied.

³ In detail: Coulter, F.A., Frank, A.C. and Stephen, P.J. "Equivalence Scale Relativities and the Extent of Inequality and Poverty." *Economic Journal*, 1992, 102.

⁴ The convincing arguments are in: Rainwater, L., "Poverty and Equivalence as Social Constructions", *The Luxembourg Income Study Working Paper* 55.

It's widely discussed that the high weight added to the children when per capita indicators are counted determines an inadequate reflection of economic situation of the households with children and the households of those living alone. Remembering this, but giving the tribute to the tradition and forming the base for the data comparison in time, in this project the incomes have been adjusted for family size with help as of per capita division so as of an equivalence scale known as OECD scale. The last one was recommended by this organization in 1982 and allows 1 for the first adult, 0.7 for other adults and 0.5 for children aged less than 14. It is often criticized too, especially "for not being sufficiently finely graduated". But it seems that the combination of two approaches will permit to cover the defects of one of them by the advantages of the other.

Differences in Poverty Rate in East-European Countries

The findings with regard to the proportion of the population below 50 percent of the country median household disposable income are summarised in Table 1, which demonstrates that the choice of statistical adjustment can make a noticeable difference to the results. The percentage of low income households falls under applying the OECD Equivalence scale instead of Per capita DPI in Czech Republic, Poland and Slovakia. The Russian data behaves the opposite way: the extent of poverty increases when more sensitive measure of family socio-demographic situation is taken.

Table 1

Poverty Rate in East-European Countries in 1992 on Different Adjustments

Adjustments for Family Type Country	Per capita DPI	OECD Equivalence scale
Czech Republic	< 150.000 = 2.0%	< 183.670 = 1.0%
Poland	< 8257.650 = 12.3%	< 10442.950 = 9.0%
Russia	< 10442.950 = 14.0%	< 13343.431 = 17.3%

Slovakia	< 130.375 = 2.9%	< 162.000 = 1.6%
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It's evident from the table that different East-European Countries experience poverty of various degree. According to the LIS beginning 1990s figures, the lowest poverty rates (2-3% of households - applying percapita adjustment or 1-2% - applying the OECD scale) - within these countries were in Czech Republic and Slovakia. The highest ones were in Russia: 14% of households (applying percapita adjustment) or 17,3% (applying the OECD scale) entered the income bottom of the society. At the same time Poland occupied the middle position among the countries under discussion as far as poor people is concerned. The DPI of polish 12,3% of households - applying percapita adjustment or 9% - applying the OECD scale are located under the poverty line - half of the median.

As for Russia, it's evident that the number of people living in poverty is much more greater (maybe several times) than it is indicated by the statistical measure under consideration. The latter shows the border of only the deepest, most acute form of poverty when people don't have the physiological minimum of existence means. According to our data, this is the boundary of not only relative, but also absolute poverty - misery, because the social group marked out is able to maintain only the scanty nutrition and to pay for the dwelling and cheap medicine, while any transportation is out of financial possibilities of this people. Some years ago in Russia the consumer's basket (approximately corresponding to the 50% median income) included the clothing expenditures and met cultural needs, last two years it's limited mainly by the foodstuffs. The numerous reseachs dedicated to the problem under dicussion in our country are unanimous in the opinion that the russian poverty has multydimensional structure⁵. Except misery the medium and moderate degrees of poverty exist. The second degree is characterized by an income lower than the official living minimum but higher than it's two-thirds. The third one means that the adjusted income is less than doubled subsistance minimum. As for the differencies in the group selection, they are tightly connected with the determination of the minimum consumer budget, and in accordance with it the number of poor people is estimated

⁵ The Quality of the Population of Saint-Peterbourg. Saint-Peterbourg's Department of the Institute of Sociology of Russian Academy of Sciencies. Saint-Peterbourg, 1993; Gordon, L., Golovachev B., "Criteria of Poverty in Contemporary Russia". Economic and Social Change: The Monitoring of Public Opinion. Bulletin of Information, Moscow, 1994, N6.

as 30-40% by official statistics or 60-70% by the Russian Centre for Public Opinion Research, for example.

Poverty in the regional aspect

In the current project the picture describing the influence of the geographic factor on the extent of poverty in the society was drawn by two modes. By one of them the interregional dispersions were described and by the other - the differences between the regions were analyzed. First of all we tried to compare the regions in each country separately taking as a criteria of state's poverty the percentage of households that are situated below 50% of the total population income median. The statistical results of this work are presented on the next page in the Table 2.

According to LIS data, accumulated in the table above, more or less deviation from the country average of the poor people is observed everywhere. Even in the cases when two distributions have almost the same mean, like Czech Republic and Slovakia, for example, they are yet dissimilar in the respect of regional measures. Thus, the minimum observed regional poverty rate (calculated on the base of percapia DPI) in Czech Republic is 1.6% while the maximum is 3.1%, in Slovakia the corresponding figures are 1.7% and 4.8%. As far as Poland and Russia is concerned the regional dispersion is much more greater. The minimum of the regional poverty rate (calculated on the base of percapia DPI) in the first country is 5.9% while the maximum is 20.5%. In the latter country the extreme borders are 5.6% and 23.1%.

It was natural to expect such figures' behavior in the regions from the very beginning of the investigation because the comparison with the country median income never promises to the reseacher to exclude the salary and price diclining in the given territory. The ground for this dispersion was well-seen enough. As for the majority of the world states, the regional differentiation of wages and prices is a noticeable phenomenon of the self-regulated market economy. As for the East Europe is concerned, the area monetary regulation was always

Table 2

Households below 50% of the country median of the Average DPI

Adjustments for Family Type Country and regions	Per capita DPI	OECD Equivalence scale
Czech Republic	< 150.000 = 2.0%	< 183.670 = 1.0%
Prague	1.7%	1.1%
Central Bohemia	2.3%	1.2%
South Bohemia	1.6%	.7%
West Bohemia	3.1%	1.8%
North Bohemia	1.9%	.9%
East Bohemia	1.7%	1.0%
South Moravia	1.6%	.7%
North Moravia	2.1%	1.1%
Poland	< 8257.650 = 12.3%	< 10442.95 = 9.0%
Central, Capitol	7.4%	5.5%
North-East	15.1%	10.9%
North	12.8%	7.8%
South	5.9%	3.6%
South-East	19.5%	16.1%
Middle-East	20.5%	16.4%
Middle	9.1%	7.6%
Middle-West	15.2%	10.3%
South-West	10.5%	8.2%
Russia	<10442.950 = 14.0%	< 13343.431 = 17.3%
North-West	10.7%	13.0%
Moscow	5.6%	7.3%
Center	8.8%	14.8%
Volga	22.1%	25.6%
Caucases	23.1%	24.8%
Ural	11.9%	16.2%
Siberia	21.9%	25.9%
Far-East	7.5%	10.7%
Slovakia	< 130.375 = 2.9%	< 162.000 = 1.6%
Bratislava	1.7%	1.5%
West Slovakia	2.4%	1.4%
Central Slovakia	2.1%	1.1%
East Slovakia	4.8%	2.4%

an important part of the government's social policy under totalitarianism. In the post-totalitarian society it continues to be of no less importance on the base of the gradual replacement of the political means of regulation by the economic ones. Last years any former so-called socialist government has more and more to take into account the expansion of the field of action of the market mechanisms when it elaborates its social strategy.

The poverty estimates in Table 2 show the economic distance among the people in East Europe adjusted by different statistical measures. Again like in Table 1 everybody can conclude that the results are dependent on the chosen measure. Some additional calculations make it evident that the tendencies of the overall household poverty in the country are sensitive to the type of adjustment. To make the figures of Table 2 more representative we calculated the range, i.e. the difference between the minimum and maximum observed values of poverty rate.

If this index is computed on the base of percapita disposable income, for Czech Republic the range is 1.5, for Poland - is 14.6, for Russia - 17.5 and for Slovakia - 3.1. If the dissimilarity is calculated on the base of OECD EQ scale, it means 1.1 for Czech Republic, 12.8 - for Poland, 18.6 - for Russia and 1.3 - for Slovakia. Thus, the dispersion between the regions is greater, if it is computed in the traditional for East European countries mode, in such countries as Czech Republic, Poland and Slovakia. On the contrary, the difference is greater in Russia in case the calculation grounds on equivalence scale.

In the regions the proportion of people, whose adjusted disposable income is less than half of the country's median, varies around the total population mean, but in different countries the extent of declining differs. To test this extent the other useful index was created by dividing the proportion of poor households in each region on the proportion of such type of households in the reference population. The necessary coefficients are the extremes, representing the most favourable and the most unfavourable (from the standpoint of poverty) regions of the examining country. The picture obtained for two types of income adjustments is controversial. For example, in Russia, whose poverty rate is 14.0%, the most unfavourable (from the standpoint of poverty) region is Caucasus, where 23.1% of the families have got the percapita

income less than 50% of the country median. This means that according to the chosen statistical measure the proportion of poor people in the South of Russian Federation is 1.65 times more than the considering proportion in the total population. On the contrary, the most favourable from the standpoint of poverty region is Moscow, where only 5.6% of the families have got the percapita income less than 50% of the country median. This means that the proportion of poor people in the capital of Russian Federation is only 0.40 of the considering proportion in the total population. If the OECD scale is taken, the percent of bad living people in Moscow lifts to 7.3% constituting 0.42 of the sample mean. But the most economically unfavourable region now becomes not Caucase, it does Siberia, because in accordance with data of Table 2, 24.8% of the southern population but 25.9% of the siberian population live on income which doesn't reach poverty line.

Watching the range of variance between the most favourable and most unfavourable regions in various countries we obtained two groups of data. Using the percapita incomes lead to the following coefficients: 0.80 - 1.55 for Czech Republic, 0.48 - 1.67 - for Poland, 0.40 - 1.65 - for Russia and 0.59 - 1.66 - for Slovakia. Using the OECD scale we recieved the next: 0.70 - 1.80 for Czech Republic, 0.40 - 1.82 - for Poland, 0.42 - 1.50 - for Russia and 0.69 - 1.50 - for Slovakia. The comparison of the figures for each country individually is the foundation of the conclusion that the regional differentiation on poverty rate is higher in Czech Republic and Poland and is lower in Russia and Slovakia when it is computed on equivalent income instead of percapita one. The other theme is that the order of the territories in the raw of the regions from "the most favourable" to "the most unfavourable" changes in some countries under the transition from one type of adjustment to another.

As for the last thesis is concerned, the Table 2 data shows that in Czech Republic and Poland the extreme positions of the scale "favourable - unfavourable" region are fasten on the same regions under two types of adjustments, but in Russia and Slovakia their replacement is observed. About Russia it was spoken above. As for Slovakia, the Bratislavian and Central Slovakian regions may be a good example. The percent of poor population, computed on the

base of the percapita income, is less in Bratislava than in any other territorial unit of Slovakia, it equals 1.7%. At the same time the proportion under discussion is the lowest one in Central Slovakia - 1.1%, if it is calculated on the base of equivalent income. To our opinion, this is the result of the differences in the demographic structure of the population of these territories, which have long-going consequences on their economic well-being.

In addition to the spoken above, it is important not to forget that the data gives the opportunity to study the interstate differences in the expansion of poverty. But this chance shouldn't be overestimated, first of all, because the countries under observation are on the different poles. There are two clusters: one includes the regions of Czech Republic and Slovakia with rather even wealth distribution, and the other consists of the Polish and Russian regions where sometimes a quarter of the population lives in misery. Only several geographic territories of the last two countries are a little bit comparable with the regions of the first cluster: the capitals, South of Poland and Far East of Russia. But here the limits of the examining statistical measure are thrown into eyes. As far as it based on the disposable income and doesn't take into account the other aspects of well-being like, for example, expenditures and prices pattern in the region, the found tendencies may be untrue.

The Russian Economic Ministry published in 1992 that the distance in the cost of the minimum foodset that year reached 4 times being the minimum in Volga - in Ulyanovsk, approaching the maximum in Siberia - in Magadan. The meat and milk prices in the markets of Moscow and Sankt-Petersbourg were constantly fixed as the highest in Russia. Besides this, according to the Goscomstat data, that time in half of the Russian towns the administration continued to regulate the prices on dairy products and some sorts of bread, as a result, the citizens of the majority of the towns (on the day of control) were not able to buy at the shops sour cream, wheat bread, for example⁶.

Analyzing the poverty rate in different regions of Russia in the context of official statistical information it's possible to conclude that the quality of life of the 22.1% of families with percapita income less than half of the median in the Volga region is not the same as of the

⁶ "Izvestiya", 1992, November 4.

21.9% of the families in the Siberia region, so far the purchasing power of the equal income differs according to the territories. On the contrary, 5.6% meaning Moscow's poor households may not reflect the spread of real poverty in this geographical area since the inclusion the price factor into the computer model of poverty changes the number of those living badly. In order to overcome the inadequate reflection of the social phenomenon the decision was taken to calculate one more indicator which registers the real size of problem groups in the given territory. Now the region's DPI median was counted and the proportion of families whose adjusted income is less than half of this value was calculated for each territory. The last figures were compared with the aim to get the picture of the real poverty in every region. To our mind this indicator has right to exist also because the real perception of poverty is tightly connected with involuntary comparison of one's own life situation with well-being and living standard of the reference groups. The last are more often represented by neighbours and relatives who mainly live nearby, i.e. enter the same territorial group. Finally, the selection of those categories of people whose income and consumption are noticeably lower than the territorial standard is more reliable way to determine the groups living in poverty.

The computer outcome of this work is presented in Table 3 on the next page. The distributional pattern of disposable income looks the other way when the regional median is used instead of country median. The simultaneous examination of Tables 2 and 3 is convincing that the post-totalitarian countries with large territories and high poverty rate needs another approach to the analysis of their problems as against ones occupying small territories and differing by low well-being inequality. One more conclusion following such examination is that since in any state the cost of living in the capital area is much more higher than everywhere else and the quality life problem has its peculiarity here, the poverty there should not be studied on the base of the country means values.

The LIS data shows that independently from the state and the type of adjustment the mean income of the population inhabiting in the capital considerably exceeds the sample mean. Thus, the capital region mean is exceeding the population mean approximately on 1/5 in Czech

Table 3

Households below 50% of the region's median of the Average DPI

Ajustments for Family Type Country and regions	Percapita DPI	OECD Equivalence scale
Czech Republic		
Prague	< 174.25 = 2.9%	< 183.68 = 1.1%
Central Bohemia	< 149.56 = 2.3%	< 209.257 = 2.0%
South Bohemia	< 149.83 = 1.6%	< 181.88 = .7%
West Bohemia	< 152.81 = 3.3%	< 184.706 = 1.8%
North Bohemia	< 153.25 = 2.0%	< 191.25 = 1.1%
East Bohemia	< 143.50 = 1.2%	< 174.118 = .9%
South Moravia	< 143.50 = 1.3%	< 177.037 = .6%
North Moravia	< 147.50 = 1.9%	< 180.588 = 1.1%
Poland		
Central, Capitol	< 9583.45 = 10.8%	< 11823.67 = 8.1%
North-East	< 7636.9 = 12.3%	< 9751.625 = 7.7%
North	< 8123.33 = 12.0%	< 10356.0 = 7.6%
South	< 9532.66 = 8.2%	< 12096.68 = 6.8%
South-East	< 7311.97 = 15.0%	< 9233.625 = 10.1%
Middle-East	< 6948.1 = 14.1%	< 9170.31 = 13.4%
Middle	< 8326.27 = 9.1%	< 10324.76 = 7.1%
Middle-West	< 7441.87 = 11.6%	< 9740.535 = 8.7%
South-West	< 8393.41 = 11.0%	< 10645.56 = 8.9%
Russia		
North-West	< 11857 = 14.3%	< 15987.6 = 20.3%
Moscow	< 14093 = 11.3%	< 18025.7 = 13.5%
Center	< 8786 = 5.6%	< 10501.7 = 7.0%
Volga	< 8433 = 14.3%	< 11117.2 = 17.3%
Caucases	< 8190 = 14.5%	< 10538.6 = 14.2%
Ural	< 12204 = 17.5%	< 15983.3 = 22.5%
Siberia	< 8332 = 13.9%	< 10014.4 = 13.8%
Far-East	< 14099 = 16.6%	< 18625.4 = 19.2%
Slovakia		
Bratislava	< 161.5 = 4.2%	< 199.38 = 2.9%
West Slovakia	< 128.33 = 2.3%	< 158.0 = 1.3%
Central Slovakia	< 129.75 = 2.1%	< 162.94 = 1.2%
East Slovakia	< 126.88 = 4.3%	< 158.86 = 2.3%

Republic, approximately on 1/6 - in Poland, more than on one quarter - in Slovakia and almost on half of the value - in Russia. Hence the indicators constructed on the region's measures of central tendency are more appropriate to clear up the rate of poverty here. In no one other region than in the capital area it wasn't noticed such increase in percentage of poor households when the country median was changed on region's median. For example, on the base of percapita DPI the proportion of poor lifted from 1.7% to 2.9% in Prague, from 1.7% to 4.2% in Bratislava, from 7.4% to 10.8% in the capital of Poland, from 5.6% to 11.3% in Moscow.

According to the tables above the new indicator changed the notion of the "favourable and unfavourable" regions, because in the vast majority of the states the now obtained order of the territories differs from the previous one. In Russia, it is well-seen in the both columns with the results of two types of DPI adjustment, Center has become the most favourable region with 5.6% of poor households - applying percapita adjustment or 7.0% - applying the OECD scale. Ural has become the most unfavourable region with 17.5% of poor households - applying percapita adjustment or 22.5% - applying the OECD scale. Against the background of the highest poverty rate in this country the distance between these two regions (being compared with the regional dispersion of this indicator in Czech Republic, Poland and Slovakia) testifies that in Russia the influence of the geographical factor on the well-being inequality in the society is stronger than in the other countries under discussion. On the contrary in Czech Republic and Slovakia the fact of the belonging to a certain geographic area has got much more less influence on the level of the differentiation on the poverty rate. The distance between the most favourable and most unfavourable regions in Czech Republic, in Slovakia slightly exceeds 2 percents, when it is calculated on the base of percapita income, and the analogous indicator, calculated on the base of the OECD scale, is less than 2 percents in these countries.

It is interesting to construct the continuum of four country regions disposing them according to the proportion of poor people in the community from minimum to maximum. Indifferently to the type of income adjustment the first three places are occupied by such regions of Czech Republic as East and South Bohemia and South Moravia, where the size of the problem group equals 1.2-1.6% of households - applying percapita DPI adjustment or 0.6-

0.9% - applying the OECD scale. On the last three places the regions of Russia are disposed, they are the following ones: Ural, Far East and North-West with the fifth part of the population (- applying the OECD scale or more than one sixth part - applying percapita DPI adjustment) living in poverty.

Some words about the factors of poverty

Studying the causes of territorial differentiation on poverty in Eastern Europe we followed the results of multiple reseachs on this theme in economic sciences. They say, that the main factors of well-being inequality are the dispersion of household type and size, number of children in the family, unequal education and employment status of head, the variety of the type of settlement. Using LIS data it was possible to investigate the activity of these variables and to compare the socio-demographic structure of countries and regions. The main conclusion of such investigation is that the level of dispersion of risk factors along the territories inside the country determines the level of it's regional differentiation.

The outcomes of computer run looking for the low and high risk population groups in the country distributions show that the segregation power of the variables under examination is not the same in different countries. As the first the number of persons in the family was examined. It turned out to be that the dispersion of regional means around total population mean is the highest in Russia and the lowest in Czech Republic. So, russian file having the sample mean 2.74 includes such region as Caucase with 3.22 mean number of persons in the family and such region as Center with 2.24 mean value. At the same time in the czech file, having the sample mean 2.65, Prague regional mean is 2.40 and South Moravia's one is 2.79. Poland's total mean is 3.14 while Central region has 2.88 mean number and Middle-east - 3.44. Slovakia's total is 2.98, when Bratislava's regional mean is 2.69 and East Slovakia's one is 3.19.

According to computer data the mean number of children under age 18 in the household varies from 0.54 to 0.74 in Czech Republic, from 0.82 to 1.19 in Poland, from 0.74 to 1.02 in Slovakia and in Russia from 0.48 to 0.91, again in the last country the territorial variation is most of all (for the detailes address to Appendix A Table A1). The same tendencies

are founded when the index of employment is counted (the number of earners in proportion to the number of persons in the family in percents). It is well-seen in Appendix A Table A2: from region to region the value of the index deviate weakly in Czech Republic (43-48%), in Poland (21.4-32.3%), in Slovakia (39.2-47.5%) but heavily in Russia (31.5-52.5%).

Trying to draw the social portraite of the poor population we looked through the socio-demographic composition of this group in comparison with the other part of the society. The results made us to agree with those authors who name such groups in risk as large households, families with many children, single mothers, but as far as “the young age of the family head” is concerned the data on Poland and Russia demonstrates the ground for the other conclusion⁷. Among the poor as compared to the rest the middle aged heads of the households prevail. To our mind it may be connected with the following things. First of all, in such societies as russian, for example, the young family never had economic prerequisites to separate from the parent’s household immediately after the marriage and traditionally for the first several years some families formed one household. Even after the detachment the old family helps the young one, it is a tradition too. Secondly, can’t it be said that the government’s help to the families with children in Russia is big. The heads of the families with 3 or more children as a rule are 30-40 years old, that’s why this category of people forms one of the risk groups.

Poverty and inequality

The relative poverty emerges in consequence of inequality and it doesn’t exist outside this social phenomenon. In order to study the context of poverty subsistence it’s necessary to address to the statistical indicators of dispersion of the wealth in the society. There is a lot of them⁸. In our case the coefficients calculated on the base of Adjusted DPI decile distributions of the countries were used. Some part of the computer outcome of the LIS data is presented in Appendix B in Tables B1-B6.

⁷ Toth, I.G., Andorka, R., Forster, M.F., Speder, Z. Poverty, inequalities and the incidence of social transfers in Hungary, 1992-1993. Budapest, 1994.

⁸ In: Jenkins, S. “The Measurement of Income Inequality”. *Economic Inequality and Poverty: International Perspectives*. N.Y., London, 1991.

According to the obtained information aggregated in Table B1 (where the adjusted DPI distributed among ten equal parts of the East-European societies is printed) the top of the society in Russia has at its disposal more than third part of the total households income fund while in Czech Republic and Slovakia the top's share is twice less. The share of the most rich people is higher than that of the most poor in 4 times in Czech Republic and Slovakia, in 8 times - in Poland and in 23 times - in Russia. Hence in this country the society is the most unequal. The same tendencies can be described by analyzing Table B2.

As for the regional differentiation is concerned, the Tables B3-B6 show that the decile's coefficient (the ratio of the incomes above and below which the equal 10% of respondents are disposed) in all the countries is the biggest one in the capital area. In Czech Republic the most acute difference is 2.6 can be watched in Prague region and in Slovakia the highest value is 2.56 can be seen in Bratislava region. In Poland the coefficient reaches the value 4.0 in Capitol area if it is calculated on the base of percapita income and 4.07 in South-East if it is calculated on the base of OECD scale DPI. Applying the percapita income adjustment in Russia we received that the most differentiated regions are North-West, Caucasus and Far-East (6.1 - 6.2). Applying the OECD scale DPI adjustment we found out that Ural and Far-East have the biggest distance between rich and poor (the decile's coefficient is around 7.0). Thus, Russia again demonstrates its peculiarities with the modest income differentiation in the capital area.

As a conclusion it's necessary to underline the existence of the territorial differentiation in every East-European country under examination. The analyses showed that the countries differ each other by the degree of this inequality. Under the most acute social problems the capital regions live in all the states. The society in Russia may be selected as having the most uneven distribution of wealth among the people. The distance between the regions is the highest in this country too. Now it's difficult to answer the question about the part of the variance determined by the regional factor. Additional complex analysis should be done in order to clear up this problem.

Appendix A.

Socio-demographic characteristics of the regions

Table A1.

D27 NUMBER OF CHILDREN UNDER AGE 18
(means)

Czech Republic			
	For Entire Population		.6759
D7	31.00	Prague	.5423
D7	32.00	Central Bohemia	.6205
D7	33.00	South Bohemia	.6586
D7	34.00	West Bohemia	.6390
D7	35.00	North Bohemia	.7194
D7	36.00	East Bohemia	.6932
D7	37.00	South Moravia	.7417
D7	38.00	North Moravia	.7216
Poland			
	For Entire Population		1.0282
D7	1	Central, Capitol	.8257
D7	2	North-East	1.1275
D7	3	North	1.0642
D7	4	South	.9874
D7	5	South-East	1.0641
D7	6	Middle-East	1.1889
D7	7	Middle	.9058
D7	8	Middle-West	1.1736
D7	9	South-West	.9970
Russia			
	For Entire Population		.7530
REGION	1	North-West	.6865
REGION	2	Moscow	.7093
REGION	3	Center	.4784
REGION	4	Volga	.8030
REGION	5	Caucases	.9091
REGION	6	Ural	.7786
REGION	7	Siberia	.7832
REGION	8	Far-East	.8686
Slovakia			
	For Entire Population		.8857
D7	51.00	Bratislava	.7438
D7	52.00	West Slovakia	.8069
D7	53.00	Central Slovakia	.8935
D7	54.00	East Slovakia	1.0163

Table A2.

Number of earners in proportion to the number of persons in the family in percents

Czech Republic			
For Entire	Population		44.1933
D7	31.00	Prague	46.4254
D7	32.00	Central Bohemia	41.8300
D7	33.00	South Bohemia	45.8468
D7	34.00	West Bohemia	45.4428
D7	35.00	North Bohemia	47.9830
D7	36.00	East Bohemia	42.9809
D7	37.00	South Moravia	42.7899
D7	38.00	North Moravia	42.7573
Poland			
For Entire	Population		27.3823
D7	1	CENTRAL, Capitol	27.6027
D7	2	North-East	28.9130
D7	3	North	30.2854
D7	4	South	32.3077
D7	5	South-East	24.1696
D7	6	Middle-East	21.3738
D7	7	Middle	24.0208
D7	8	Middle-West	24.0111
D7	9	South-West	29.6467
Russia			
For Entire	Population		40.2978
REGION	1	North-West	43.1334
REGION	2	Moscow	52.5186
REGION	3	Center	31.4776
REGION	4	Volga	40.8630
REGION	5	Caucases	39.9700
REGION	6	Ural	40.9477
REGION	7	Siberia	31.5555
REGION	8	Far-East	41.5119
Slovakia			
For Entire	Population		40.1202
D7	51.00	Bratislava	47.5470
D7	52.00	West Slovakia	39.2387
D7	53.00	Central Slovakia	39.7442
D7	54.00	East Slovakia	39.4433

Appendix B.

Table B1.
Decile Shares of Household Per Capita DPI and OECD in 1992

CH92

	Per Capita	OECD
1	5.12	5.56
2	6.70	6.90
3	7.56	7.59
4	8.20	8.17
5	8.80	8.73
6	9.40	9.37
7	10.19	10.17
8	11.22	11.24
9	12.94	12.86
10	19.87	19.40

PL92

	Per Capita	OECD
1	2.89	3.33
2	4.69	5.13
3	5.89	6.19
4	7.00	7.19
5	8.10	8.18
6	9.16	9.25
7	10.54	10.50
8	12.27	12.17
9	14.93	14.76
10	24.52	23.32

RL92

	Per Capita	OECD
1	1.57	1.58
2	3.49	3.29
3	4.39	4.18
4	5.27	5.16
5	6.26	6.33
6	7.52	7.74
7	9.14	9.42
8	11.19	11.58
9	14.77	15.13
10	36.40	35.59

SV92

	Per Capita	OECD
1	4.98	5.55
2	6.60	7.04
3	7.56	7.80
4	8.37	8.45
5	9.09	9.05
6	9.79	9.70
7	10.52	10.41
8	11.47	11.29

9	12.94	12.68
10	18.68	18.04

Table B2.
Decile Means of Household Per Capita DPI and OECD in 1992

CH92

Mean	DPI/D4	DPI/OECDEQV
1 dec.	169.3863	226.6209
last dec.	656.5598	788.4760
others	309.8588	381.5384
total	330.3807	406.6227
Mean 1 dec./		
mean last dec.	3.88	3.48

P10	203.000	263.000
P90	473.500	574.828
P90/P10	2.33	2.19

PL92HH

Mean	DPI/D4	DPI/OECDEQV
1-st dec.	5553.243	8019.895
last dec.	47059.95	56125.74
others	17416.68	22093.51
total	19192.75	24086.51
Mean 1 dec./		
mean last dec.	8.47	7.0

P10	7692.223	10771.804
P90	32839.19	40247.896
P90/P10	4.27	3.74

RL92HH

Mean	DPI/D4	DPI/OECDEQV
1-st dec.	4753.561	6009.411
last dec.	110607.9	135192.7
others	23565.22	29853.27
total	30394.48	37996.77
Mean 1 dec./		
mean last dec.	23.27	22.5

P10	8955.224	10635.140
P90	53433.180	68130.298
P90/P10	5.97	6.41

SV92HH

Mean	DPI/D4	DPI/OECDEQV
1-st dec.	137.6114	192.7166
last dec.	515.7794	623.9634
others	263.4580	330.7932
total	275.9794	346.1298
Mean 1 dec./		
mean last dec.	3.75	3.24

P10	166.750	228.000
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P90	389.500	476.460
P90/P10	2.34	2.09

Table B3.

CZECH REPUBLIC

Percentiles of Average Percapita DPI by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total	203.0000	237.0000	260.7500	280.6667	300.0000	322.5000	351.5000	393.0000	473.5000
Prague Central	229.3333	270.3333	296.0000	318.0000	348.5000	378.0000	418.0000	481.2500	602.0000
Bohemia South	209.2500	242.0000	262.0000	280.0000	299.1250	321.0000	349.5000	391.5000	466.0000
Bohemia West	207.5000	240.2500	262.0000	281.6667	299.6667	321.0000	350.7500	393.0000	460.0000
Bohemia North	203.6667	237.0000	264.0000	284.5000	305.6250	330.0000	357.5000	409.0000	488.5000
Bohemia East	212.5000	245.5000	267.6667	290.0000	306.5000	330.0000	360.3333	404.0000	494.5000
Bohemia South	196.0000	228.0000	251.0000	270.0000	287.0000	305.3333	331.5000	364.7500	423.5000
Moravia North	194.0000	226.5000	249.2500	269.0000	287.0000	303.3333	327.5000	362.0000	424.0000
Moravia	199.0000	231.7600	254.0000	274.6667	295.0000	314.5000	341.6667	377.0000	442.5000

Percentiles of Average DPI on OECD EQ scale by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total	263.0000	296.0000	320.5882	343.5294	367.3529	395.9259	433.0000	484.1379	574.8276
Prague Central	282.0000	318.2353	352.0000	385.0000	418.5143	459.5455	511.3889	588.8235	723.1818
Bohemia South	261.5625	295.0000	318.2353	341.0000	363.7647	390.0000	428.6207	482.0000	567.7273
Bohemia West	270.7407	300.5882	322.9412	344.1176	365.2941	394.5833	429.4118	480.0000	555.8333
Bohemia North	263.0000	299.5455	321.4815	344.7059	369.4118	400.8333	441.0000	498.1481	595.9259
Bohemia East	273.5294	306.0000	330.4167	355.8824	382.5000	415.0000	450.9677	503.3333	601.9444
Bohemia South	257.0000	284.0741	308.0000	328.5185	348.2353	373.3333	404.0741	452.6667	521.1765
Moravia North	259.0000	288.0000	311.4815	333.5294	354.0741	377.0000	404.4444	445.0000	517.5862
Moravia	256.9444	290.9273	316.4706	340.0000	361.1765	389.1000	421.0000	467.7677	544.7059

Table B4.

POLAND

Percentiles of Average Percapita DPI by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total	7692.223 32839.19	10221.15	12410.84	14541.69	16515.30	18835.79	21726.23	25523.64	
Central, Capitol	9372.400 37267.16	12369.39	14693.57	16525.63	19166.90	21570.67	24570.12	29260.74	
North									
-East	6981.864 30115.67	8989.639	11158.75	13363.45	15273.79	17216.96	20338.49	23723.33	
North	7677.228 32063.18	9901.870	12535.49	14399.68	16246.65	18700.38	21545.32	25123.00	
South	10160.98 36938.34	12702.37	15000.30	16993.33	19065.32	21865.09	24914.59	29187.00	
South									
-East	6440.000 29872.72	8318.473	10524.86	12417.27	14623.94	16683.33	19294.04	22972.82	
Middle									
-East	5497.202 27045.40	8184.500	9988.46	11718.66	13896.19	15672.30	18261.30	21270.38	
Middle	8650.041 30370.44	10584.17	12579.99	14523.30	16652.54	18865.69	21160.67	24506.33	
Middle									
-West	7100.856 29197.68	9296.723	11151.86	12788.40	14883.75	17195.00	19788.04	22948.31	
South									
-West	8007.682 32747.20	10579.04	12827.89	14933.25	16786.82	18843.33	21928.75	25914.04	

Percentiles of Average DPI on OECD EQ scale by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
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Total	10771.80	13745.82	16050.94	18466.87	20885.90	23730.59	27085.11	31793.91	40247.90
Central,									
Capitol	12734.59	15214.72	18289.05	20800.31	23647.34	26585.48	30837.22	36656.75	46319.50
North									
-East	10145.45	12789.49	14929.12	17407.96	19503.25	21863.68	24855.43	29643.05	38157.43
North	10998.89	13379.55	16224.57	18539.13	20712.03	23730.59	26742.51	30497.25	38649.23
South	13753.72	16893.00	19043.11	21630.66	24193.36	27444.70	31213.23	35901.27	44461.13
South									
-East	9216.149	11445.41	14162.35	16193.68	18467.25	20662.00	23897.24	28438.17	37521.78
Middle									
-East	7939.240	11290.76	13214.81	15432.91	18340.62	20443.95	23424.09	27099.22	35350.71
Middle									
	11503.87	14000.00	15961.79	18096.04	20649.52	23721.77	26542.63	31164.68	37082.23
Middle									
-West	10307.51	12863.46	14718.18	16835.91	19481.07	21583.19	24586.65	28737.75	36244.86
South									
-West	11330.86	14378.82	16400.64	19100.25	21291.12	23997.42	27822.28	32153.74	41089.97

Table B5.

RUSSIA

Percentiles of Average Percapita DPI by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total	8955.224	12112.15	14658.76	17444.46	20689.66	25225.33	30467.72	38286.46	53433.18
REGION									
North									
-West	9820.720	13645.29	16414.69	19848.93	23714.45	28228.91	33873.70	42414.04	59985.28
Moscow	13379.81	16651.22	20501.59	24313.21	28187.05	33058.31	39129.41	46569.11	64348.21
Center	10472.69	12912.51	14482.76	15686.67	17572.11	19580.72	22381.55	27832.64	34233.33

Volga 40593.50	7048.071	9885.20	12311.38	14007.04	16865.04	20199.54	25181.17	30042.02
Caucases 39810.76	6418.438	9832.94	11547.59	13457.94	16379.99	19677.72	23466.63	28947.15
Ural 62686.57	9850.746	12707.75	16041.97	19655.13	24408.69	30292.01	36559.89	44970.23
Siberia 40026.98	7170.140	10227.27	12325.52	14328.36	16664.85	19064.15	23759.21	30769.61
Far-East 69064.09	11292.58	16165.99	20293.13	23744.33	28198.36	33373.64	41940.68	51560.44

Percentiles of Average DPI on OECD EQ scale by regions

North-West

Moscow
Center
Volga
Caucases
Ural
Siberia
Far-East

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total 68130.30	10635.14	14249.59	17620.48	21641.94	26687.09	32503.61	39305.62	49468.09	
REGION									
North-West 74760.00	11826.06	15857.48	19810.15	24413.36	30775.11	36625.08	44170.35	54042.95	
Moscow 78047.13	15517.24	21196.26	26301.70	31241.52	36051.46	41764.40	49398.94	59106.12	
Center 43731.68	11515.79	14223.54	16162.93	18102.87	21003.49	23983.91	28079.92	34176.61	
Volga 53082.67	8971.96	11934.94	14646.36	18244.87	22234.39	26268.49	32244.36	38829.81	
Caucases 52350.79	8390.262	12262.34	14666.16	17832.41	21077.10	25935.39	29749.10	37215.87	
Ural 79176.30	11256.64	14897.38	19639.82	25211.95	31966.58	39042.22	46819.61	57928.52	
Siberia 54170.55	8913.216	11637.93	14590.04	16856.24	20028.73	24980.87	30373.35	38976.41	
Far-East 89923.19	13162.65	19130.71	25671.50	32262.54	37250.82	45327.21	55801.11	69964.76	

Table B6.

SLOVAKIA

Percentiles of Average Percapita DPI by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total	166.7500	196.2500	220.2750	241.0 000	260.7500	279.2500	302.0000	333.2000	389.5000
Bratislava	202.1800	240.0000	270.1750	295.3000	323.0000	353.0000	391.1000	440.1333	517.5250
West									
Slovakia	168.0000	195.0000	218.5000	238.0000	256.6667	274.6667	294.5000	324.0000	374.3167
Central									
Slovakia	168.3400	197.6133	221.5000	240.0000	259.5000	278.5000	298.8083	328.0000	375.7250
East									
Slovakia	157.0000	187.8000	211.7167	233.6333	253.7500	273.3333	295.0000	322.9000	372.2667

Percentiles of Average DPI on OECD EQ scale by regions

Percentiles	10.0000	20.0000	30.0000	40.0000	50.0000	60.0000	70.0000	80.0000	90.0000
Total	228.0000	257.8314	281.7647	302.9412	324.0000	347.9167	374.1176	410.0000	476.4599
Bratislava	264.0000	302.1778	333.1273	364.1667	398.7647	439.0667	477.1217	534.0828	647.2583
West									
Slovakia	226.2593	253.0727	275.7153	295.8563	316.0000	340.0000	365.2941	398.2941	457.4815
Central									
Slovakia	230.7861	261.1912	285.0000	305.0000	325.8824	346.9586	369.4118	400.2759	458.2483
East									
Slovakia	223.0000	252.7614	275.4545	296.4706	317.7273	339.1061	366.3988	402.0833	461.7994