How Efficient are the Poverty Reduction-Oriented Policies in Eastern European Transition Economies?

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Abstract

It is a common fact that there had been a pervasive poverty in Eastern European Countries before transition. It is also known that policies implemented in transition process caused poverty in a significant scale. While the region is characterized with problematic data, the analysis will focus on the economies providing enough and healthier data. It can be descriptively concluded that the selected transition countries of Europe are successful at decreasing the population at risk of poverty rates with social transfers. The reduction effect of social transfers on the rate of population at risk of poverty is high respectively. It is aimed to find out the relative efficiency of the STCs' social transfer expenditures and GDP per capita level and growth with a non-parametric tool namely data envelopment Analysis (DEA). The findings points out some interesting issues as efficiency gap between the STCs and as polarization of the sources that inefficiency grew out.

JEL Classifications: I32, P27, H5

Keywords: Poverty, social protection expenditures, transition economies, data envelopment analysis (DEA)

I. Introduction

In our study we aim to examine the effects of poverty decreasing policies in transition countries in Eastern Europe. The sub items of social protection expenditures and growth rate are discussed as determinants. It is beyond doubt that variables differing very much from the ones used in this study can also be imposed as determinative of poverty. However, both in terms of objective of this study and technique used, it is aimed at revealing the effects of sub items of social protection expenditure and GDP growth. In our study, it is our goal to probe how effective is social protection expenditure per capita and GDP rate against poverty as both of which claim to be. It is outside of the subject to bring up the determinants of poverty or income distribution inequality.

As it is very well-known, the region is characterized by problematic data. Therefore, whether the data sets of the countries are sufficient or not, played an important role in determining the countries to be examined in this study. Under this limit, the Selected Transition Countries (STC) are as follows: Czech Republic (CZ), Estonia (EE), Latvia (LV), Lithuania (LT), Hungary (HU), Poland (PL), Romania (RO), Slovenia (SL) and Slovakia (SL). As the data of Romania which is related to social protection expenditure and income distribution is not appropriate for the technique used in this study, it is excluded in the technical analysis made.

II. A Brief Overview of Economic Developments in Selected Transition Countries

When GDP per capita annual growth rates in STC are examined between 1995-2005, the spreading effects of financial crisis experienced in Russian Federation in 1998 are observed in 1999. By the reason of both the relations of production before transition and the commercial and financial relations emerging into new dimension with Russian Federation in transition period, it's a striking fact that GDP per capita annual growth rates were the lowest in entire STC except for Slovakia, Poland and Hungary in 1999. Especially, in Estonia the growth rate decreased 11 points in 3 years attracts attention. A sharper decline is observed in Lithuania; however it is less in the level when compared to Estonia.



Figure 1. GDP per Capita Annual Growth Rates (1)

When post-crisis period is examined, it is suggested that the countries which were largely affected by the crisis have higher growth rates considering the others. The growth observed in regional states after the financial crisis occurred in Russian Federation in 1998 has poverty decreasing effects. While the decreasing effect varies among countries, the leading factor behind this may be the difference in growth rates. However, the diversity of poverty reduction policies set the groundwork for different poverty reduction rates in different countries by a direct effect and by changing the poverty reduction ability of GDP growth. As a result, poverty between countries and even in regions in each country makes different responses to the growth rates.

The end of the crisis in Russian Federation shows its influences on regional countries. The devaluation of the exchange rate aiming to end the crises resulted with a more competitive exchange rate. Russian economy experienced a higher growth rate because of the increasing prices of petrol and because of the more competitive exchange rate. Because of the production relations settled up before transition and improving commercial relations with Russian Federation resulted in GDP growth in regional countries with the help of the structural adjustments undertaken. The poverty level increased in CIS countries during the crisis became degraded with rapid growth rates.

Source: Eurostat

Figure 2. GDP per Capita Annual Growth Rates (2)



When the gross domestic product at market prices per inhabitant is examined, the fact that there is a crucial difference between other STCs and Slovenia having the income level of about \notin 14 000, is striking. After Slovenia, there comes Czech Republic with \notin 9000 and Hungary with \notin 8000. While Slovakia has an average income per capita among STCs, the lowest income level per capita is in Romania with \notin 3500.



Figure 3. GDP at Market Prices – 2005 – (Euro per inhabitant)

Source: Eurostat

Inflation rates in these countries displays a general decreasing trend. However much this tendency is struggled to eliminated as of 2003, again general trend kept running.

When poverty and income distribution equity are probed for STC in 2005, the two countries having the highest Gini (36 for Lithuania and Poland) are observed to have the highest poverty rate before and aftermath of social transfers. Although it has the same Gini as Lithunia and Poland, Latvia kept in between of these countries in terms of poverty. It is striking that Latvia has a population who lives at risk of poverty even more than in Romania. Slovenia has the lowest Gini coefficient. Czech Republic and Slovakia rank after Slovenia.

	<u>Czech</u>	<u>Estonia</u>	<u>Latvia</u>	<u>Lithuania</u>	<u>Hungary</u>	<u>Poland</u>	<u>Romania</u>	<u>Slovenia</u>	<u>Slovakia</u>
Gini	26	34	36	36	28	36	31	24	26
Poverty (1)	39	39	40	42	50	51	43	42	40
Poverty (2)	10	18	19	21	13	21	18	12	13
(1)/(2)	3.90	2.17	2.11	2.00	3.85	2.43	2.39	3.50	3.08

Table 1. Poverty and Income Distribution in STCs (2005)

Poverty (1): At risk of poverty rates before social transfers (pensions included in social transfers)(cut-off point: 60% of median equivalised income after social transfers)

Poverty (2): At risk of poverty rate after social transfers (cut-off point: 60% of median equivalised income after social transfers)

Source: Eurostat

By estimating the values of "At risk of poverty rates before social transfers" with At risk of poverty rate after social transfers helps to determine the pre-findings of the effects of social transfer expenditures on the population at risk of poverty. As this rate increases, country becomes more successful and as it decreases, country becomes less successful at poverty reduction. According to this, Czech Republic with a rate of "3.9", Hungary with a rate of "3.85" are deemed to be the most successful countries of all. After these two countries, Slovenia ranks the third, having the lowest Gini coefficient. The most unsuccessful country was Lithuania with a rate of "2".

III. Poverty in Socialism Period (Prior to 1989)

The dominant system before transition is actually one that has strong ideological implications. What's more, the outstanding characteristic of the system is that it tends to protect the mostly depressed, most exploited and poorest segment in capitalist system. Naturally, before the 1989 period, it shall be expected that the poverty in these countries should be lower than the capitalist countries. Because in the socialist system, workers get shares of production in the same quantity as they contribute to production and there is job guarantee for everyone who would like to work; hence it means there is full employment. In addition, before the 1989 period consumer subsidies were very wide-spread and people have access to health, education, etc. services free of charge. As the system is against the poverty, it shouldn't pave the way for poverty theoretically under these circumstances. Besides, neither was poverty handled as a problem nor undertook any studies pertaining to poverty. Until mid-1980s, stemming from the assumption that in socialist system everyone has the same opportunities and facilities, the reasons of people who could be deemed as poor, except for the crippled and the unable to work ones, were thought to be pathological and individual. In theory, system does not create poverty; and anti-social behavioral disorders and laziness were considered to be reasons of already existing poverty In addition to this, people who could be deemed as poor were called as "vagrants" or "social enemies." In brief, poverty was percept as an individual fact rather than a system problem. Consequently, policies regarding poverty was in the context of sociology and psychology, but not economy.

Although the subject is addressed that way in theoretical frame work, in the socialism period poverty was in drastic levels in these countries. Notwithstanding the fact that there is not data and a poverty definition available as to define poverty until 1989, conducted studies shows that there was poverty in these countries before transition period (Atkinson and Micklewrite 1992; Sipos 1992; Milanovic 1991). The undeniable existence of low-income households in the last decade of socialism directed the central governments towards the policies that might be of use in increasing the living standard of these people. Even though there is not any particular definition of poverty, policy namely Kruchev Aids was initiated for the families who are left under a specific consumption level in order to enhance their living conditions. However, policies like Kruchev Aids didn't have any effect on decreasing or eradicating poverty in these countries. There are two main reasons for the poverty experienced in these countries: First, the increase in GDP was limited in the socialism period. Second, the quality

of growth was not in any level that would decrease poverty. Distribution mechanisms were that of command economy and that hampered the income distribution; income was already created in low levels, thus it was distributed unfairly. Poverty grown out of the system leaded the increase in working poverty. However, the applications of minimum wage and unemployment insurance began in the last decade of socialism; but it was not adequate.

Industrialization endeavors in 1950's and 60's helped poverty to decrease; yet as industrialization rate started to decline in 1070's, GDP growth lost momentum and increasing poverty became wide-spread. Even though swift industrialization brought about job opportunities; and job opportunities brought about increase in incomes; and increase in incomes brought about consumption increase; poverty increased as the momentum of industrialization became lesser. For example, in Hungary while 60% of population was living under the desired consumption level in sociological terms in 1950; in 1967 this rate declined to 25% and 14% in 1972. With the effects of "catching-up" which went on until mid-1970s increase carried on; however crucial prosperity decreases were the social welfare experienced in the late 1970s and the beginning of 1980s. The shortage in consumer goods paved the way for obstacles in services such as health, education, and housing. In that period, while the poverty rate in Poland increased from 10% to 23%; in Czechoslovakia it increased from 7.5% to 12%; and also in Hungary it increased from 10% to 17%. Especially urban poverty did increase in these countries (in Poland it increased from 6% to 25%). This increase in urban poverty shows that the main reason of poverty in these countries is GNP decreases. The main reason behind the poverty in urban areas is the decline in available job opportunities and the decrease in real wages because of unemployment. In addition to this, the main reason for the poverty in rural areas is low wages. These demonstrate that the poverty in these countries is workers poverty. Another reason of the poverty in these countries in this period is that socialism lacked the mechanisms that would trigger technological innovation. The efficiency of countries which didn't improve technological innovation decreased, their GNP increase declined and even GNP decreased. What's more, the failure of command economy to use resources effectively increased the income distribution equity; thus it increased poverty. In countries which couldn't improve their GDP, adequate funds for public services weren't made up and a new reason for poverty, which is deprivation came into the scene (deprivation means to be unable to meet the needs such as education, health and housing (Ruminska-Zimny 1997).

IV. Poverty in the Transition Period (1989 - 1993)

Poverty in the transition period increased in almost every country. Furthermore, the crises occurred in the transition period deepened the existing poverty and spreaded it. With transition from socialism to capitalist system; mass poverty, production declines, swift decrease in real wages, inflationist tendencies and increase in income distribution inequality were experienced. According to purchasing power parity prices of 1990, poverty line was determined as 4\$ daily. And the number of people who lived under poverty line increased from 12 millions to 119 millions (in all transition economies.) According to UNICEF data, poverty rate in EEC was 8% in that period. Among EEC countries, the highest poverty rate was observed in the Balkans and in Poland. In terms of poverty, while Czech Republic, Hungary, Slovakia and Slovenia shows similar structure, Romania and Poland exhibits a similar one; and Latvia and Estonia shows a similar structure. In Czech Republic, Hungary, Slovakia and Slovenia poverty before transition were relatively low and poverty increase in the transition period is limited (between 2%-%6). However, in Romania and Poland poverty rates became two-digits. And in Lithuania, Latvia and Estonia poverty rate showed an increase of 40% in transition period.

There are two important reasons for poverty increase in this period:

1-Swift decline in real wages

2-Swift corruption experienced in income distribution

Becoming an open economy, privatizations and market failures experienced in a new economic system resulted in production declines in almost all sectors. Due to the fact that these countries are not competitive and swift production declines, mass unemployment occurred. On one hand mass unemployment increased the number of impoverishing people, and on the other hand it increased workers poverty by decreasing real wages. The unemployment fact pushed workers to work for very low incomes as to protect their existing jobs, however low real wages lessened the competing power of countries. This status caused an increase in GDP of countries, thus decreased poverty.

As a result of privatization, two major events took place which affected poverty. First, as a consequent of privatizations the hidden unemployment became open unemployment. In order to increase efficiency, private sector discharged a considerable number of workers and they impeded the increases in real wages. Second, uneducated and unqualified labor force was excluded from the market. Especially in rural areas, white collar workers began to earn more when compared to others. As a result, Gini coefficient rose from 0.25 to 0.35-0.40.

In the STCs, the swiftness of the transition process gave rise to throwing over of public services without creating new ones. Being the only policy in fighting poverty in socialism, an important deal of social transfers was lifted; and the financing of the remaining social transfers was narrowed. Instead, unemployment insurance spreaded and retirement insurances were updated. While share of public expenses in GNP was on the decrease, cash transfers not properly adjusted to inflation resulted in purchasing power erosion. Commercialization of some crucial services such as health and education spreaded deprivation which deepened the poverty.

When the indicators of income distribution of countries which are the subject of this study are examined, it is striking that relative deformation of income distribution kept on in the immediate aftermath of transition period. When gini coefficients are probed, it is observed that deformation is prevalent in every country except for Hungary and Poland. Especially, in Slovakia the increase of Gini coefficient from 19.5 to 28.4 is outstanding. And when the poorest 10% is examined, small enhancements of shares out of total income in this percentile is observed in every country except for Romania and Slovakia. When the (10%) percentile which obtained most from GDP and the percentile obtained least from GDP are estimated compared to each other, it can be said that this rate only exhibited decline in Estonia and Hungary (that means, in these two countries income distribution is improved.) Particularly improve observed in Estonia and deformation in Slovakia are outstanding.

In the transition period, market-based applications increased poverty; it also increased prosperity unequally. No such policy as to diminish the effects of this development which increased the inequality of income distribution was put into practice.

Black economy or shadow economy in transition period attracted mass crowds who would like to protect themselves from poverty and made people work under subsistence wage. According to Forster and Toth (1998), in Hungary with the adding of GDP and black economy in 1992, the actual GDP is estimated as 29.6 % bigger then the declared GDP.

The increase in inactive population can be said to be the most important change in labor force market in transition period. The most crucial reason of this fact which attaches importance in terms of both income distribution inequality and poverty is the people's choice of taking the advantage of unemployment insurance rather than working for low salaries. In addition to this, the prevalence of difficulties in adjusting the labor force's quality change is another important factor in the aftermath of transition period.

	Survey Year	Gini Index	Lowest 10% (L)	Highest 10% (H)	H/L
Czech Republic	1996	25,4	4,3	22,4	5.21
Estania	1995	35,4	2,2	26,2	11.91
Estonia	1998	37,6	3	29,8	9.93
Hungowy	1996	30,8	3,9	24,8	6.36
nungary	1998	24,4	4,1	20,5	5.00
Latvia	1998	32,4	2,9	25,9	8.93
Lithuania	1996	32,4	3,1	25,6	8.26
Dolond	1996	32,9	3	26,3	8.77
Folaliu	1998	31,6	3,1	28,4	9.16
Domonio	1994	28,2	3,7	22,7	6.14
Komania	1998	31,1	3,2	25	7.81
Slovak	1992	19,5	5,1	18,2	3.57
Republic	1998	28,4	3,9	23	5.90
Slovenie	1995	26,8	3,2	20,7	6.47
Siovenna	1998	28,4	3,1	23	7.42

 Table 2. Distribution of Income in Selected Transition Economies

Source: World Bank Development Report 2001, p:282-283 World Bank Development Report 2003, p:236-237

One of the reasons behind the differences in wages can be the fact that some skills and knowhow information which had been important before the transition lost importance, and some became even more important. As a result, it can be said that income difference between the ones who were excluded from labor force market and the ones who remained inside became more outstanding.

It was expected that with privatizations public workers would be private sector workers without changing their jobs and some would lose their jobs; however it was not what took place. Most of the public workers changed their jobs and started to work in private sector; and the number of unemployed people, who left private sector, increased. Most of the unemployed ones included in the inactive population soon and while some of them took the advantage of early retirement and maternity benefits, some others began to lead their lives with the help of family members who remained active.

Having major influences on poverty increase and decrease, GDP growth is also a strong determiner for STCs. When we examine how growth affects poverty with elasticity concept, according to World Bank (2005); between 1993-2003 average elasticity of poverty to growth in consumption per capita is -1.3 in Hungary and Poland; and -2.5 in Romania. This situation gives clue about the fact that in Romania, growth had more positive impacts on income distribution when compared to Hungary and Poland. As a matter of fact, looking at he Figure 4 which shows consumption growth across the percentiles of the income distribution in Poland and Romania, it can be seen that in Poland between 1999-2002, growth was concentrated in the upper 30 percent of the distribution. However, in Romania the rich has benefited more than the poor. But, because of the positive growth (around 10%) poverty has declined in this period.





Figure 5. Decomposition of Poverty Changes

While the change in poverty can be decomposed into a growth effect and distribution effect (where growth effect is the change in poverty in response to changes in average income, holding distribution constant and where distribution effect is the change in poverty in response to changes in distribution, holding average income constant), it can be said that growth effect is more stronger then the distribution effect in Hungary, Poland and Romania (except Poland 2001-2002) as can be seen in Figure 5.

Figure 4. Growth in Consumption across the Percentiles of the Income Distribution

If the analysis is to be expanded by taking urban and rural areas difference into account, it can be concluded that in rural areas risk of poverty is relatively on the increase. With the help of examining the poverty levels decomposed by World Bank (2005) using the World Bank staff estimates, the relative increase in rural areas can be observed.

		Poverty r (%),\$PPP	ate 2.15/day	Poverty r (%),\$PPP	ate 9 4.30/day
		URBAN	RURAL	URBAN	RURAL
	2000	4	6	23	32
Estonio	2001	4	6	25	33
Estonia	2002	4	5	24	32
	2003	5	5	24	28
	1998	1	2	16	25
	1999	1	1	16	26
Hungary	2000	1	2	16	22
	2001	1	2	10	18
	2002	0	0	10	16
Latvia	2002	2	4	14	26
	2003	2	5	12	27
	1998	2	5	17	40
	1999	2	7	17	42
I ithuania	2000	2	9	22	44
Litinuania	2001	3	8	22	46
	2002	2	9	22	47
	2003	1	8	15	42
	1998	1	2	17	32
	1999	1	3	19	35
Poland	2000	2	3	21	34
	2001	2	3	21	34
	2002	2	3	22	36
	1998	8	20	55	72
	1999	12	27	61	79
D	2000	14	28	65	81
Komania	2001	9	25	53	57
	2002	8	24	51	75
	2003	6	20	45	72
Source: World	Bank (200	95)			

Table 3. Urban and Rural Poverty in STCs

World Bank (2005) using EU-8, SEE and CIS data has concluded that poverty is more responsive to growth, the higher the level of income and the lower the level of in equality in this region. This finding can be used to explain the fact that poverty in rural areas responds less to growth. In rural areas, income level is low and inequality is more. Therefore, poverty in rural areas responds less to growth. Another explanation for this fact can be that people in rural area works in agriculture sector. In the periods when GDP is on the increase, while urban population, articulated into labor force, take the advantage of growth more, rural population don't make use of it much; hence poverty increases less. And when GDP is shrinking, rural population work in their farms for their own consumption and maintain poverty increase in a specific level.

V. The Structure of Social Protection Expenditures in STCs

When taking EU-25 in 2004 into consideration, social protection expenditures correspond to 27.3 % of GDP. According to Eurostat data, within EU-25, while the shares of resources allocated for social protection in GDP differs widely, in terms of STCs, it is striking that it obtains similar values.

When social protection expenditures are imposed according to social protection expenditures per capita, crucial differences in the social protection expenditures among countries become outstanding. However, in STCs social protection expenditure per capita which is computed by taking purchasing power standards (pps) into account, gains similar values as in EU-25countries. But, the social protection expenditure per capita in Slovenia is around 4 folds more when compared to Romania. In 2004, expenditure on social protection in PPS per capita was in the level of 1089 in Romania, 1220 in Latvia, 1448 in Lithuania, 1625 in Estonia, 2064 in Slovakia, 2213 in Poland, 2868 in Hungary, 3131 in Czech Republic, 4379 in Slovenia (Eurostat).

Between 2000-2004, social protection expenditures as the percentage of GDP increased in Hungary, Poland and Romania; however in Czech Republic it exhibited fluctuating progress but still kept 2000 year level; and in Estonia, Latvia, Lithuania and Slovakia it decreased as of the year 2004. Czech Republic follows with the rate of 19.6% after Slovenia, who allocated more than one out of five of its GDP to social protection expenditures, later Hungary and Poland.

<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
19,5	19,4	20,2	20,2	19,6
14	13,1	12,7	12,9	13,4
15,3	14,3	13,9	13,4	12,6
15,8	14,7	14,1	13,6	13,3
19,3	19,3	20,3	21,1	20,7
19,5	20,8	21,2	20,9	20
19,3	18,9	19	18,2	17,2
24,9	25,3	25,3	24,6	24,3
13,2	13,2	13,4	12,6	14,9
	2000 19,5 14 15,3 15,8 19,3 19,5 19,3 24,9 13,2	2000200119,519,41413,115,314,315,814,719,319,319,520,819,318,924,925,313,213,2	20002001200219,519,420,21413,112,715,314,313,915,814,714,119,319,320,319,520,821,219,318,91924,925,325,313,213,213,4	200020012002200319,519,420,220,21413,112,712,915,314,313,913,415,814,714,113,619,319,320,321,119,520,821,220,919,318,91918,224,925,325,324,613,213,213,412,6

Table 4. Expenditure on social protection (as % of GDP)

Source: Eurostat

When social protection expenditures per capita is examined with fixed prices, between 2000-2004 the highest annual average increase took place in Hungary with the rate of 8.2 % and then in Estonia with the rate of 7.4 %. As it can be checked in the Table-XXX, the annual average increase occurred as follows: In Czech Republic with the rate of %4.4, in Latvia with the rate of %3.7, in Lithuania with the rate of 3.8%, in Poland with the rate of 3.6 %, in Slovakia with the rate of 0.6 %, and in Slovenia with the rate of 2.9 %. The most striking fact in annual increase rates is that Estonia showed considerable improvement; and gradually swifting increase in the increase rates has been effective after 2001.

The sub-components of percentages of social benefits in total social benefits(TSB) and GDP can be followed in the Table 6.It is seen that the largest share is in the "old-age and survivors" sub-component in every country. Allocating 11.8 % of its GDP and 60.1 % of social benefits to old-age and survivors Poland ranks the first; and Latvia and Lithuania comes after Poland. In the sickness/health care group, Romania, which allocated 35.9 % of its TSB to sickness/health care ranks the first and then comes Slovenia, which allocated 7.8 % of its GDP. These two countries are the ones which spent at the most on the sickness/health care.

	2001- 2000	2002 -2001	2003 -2002	2004 -2003	Annual average of growth for 2000-2004
Czech Republic	3,4	7,8	5,2	1,3	4,4
Estonia	0,3	6	10,4	13,5	7,4
Latvia	1,3	5,6	5	2,8	3,7
Lithuania	-2,7	2,6	6,8	9,1	3,8
Hungary	4,4	15	10,4	3,4	8,2
Poland	8,1	2,2	2,5	1,8	3,6
Slovenia	4,9	3,2	0,1	3,3	2,9
Slovak Republic	0,7	5,8	-1,9	-2	0,6

Table 5. Expenditure on social protection per capita at constant prices (annual rate of growth)

Source: Eurostat

As for the disability expenditures, Poland is the one which allocated resources at the most by allocating 2.3 % of its GDP and 11.5 % of its TSB to this group. Estonia, Hungary and Romania are the countries which allocate most on family/children benefit. Unemployment benefits gain value in Romania at the most out of TSB; and Slovakia at the most out of GDP.

	Old-age and survivors		Sickness/ health care		Disability		Family/children		Unemployment		Housing and social exclusion	
	% of	% of	% of	% of	% of	% of	% of	% of	% of	% of	% of	% of
	<u>TSB</u> [±]	<u>GDP</u>	<u>TSB</u>	<u>GDP</u>	<u>TSB</u>	<u>GDP</u>	<u>TSB</u>	<u>GDP</u>	<u>TSB</u>	<u>GDP</u>	<u>TSB</u>	<u>GDP</u>
Czech Republic	41.1	7.8	35.3	6.7	7.9	1.5	8.4	1.6	3.9	0.7	3.4	0.6
Estonia	43.7	5.8	31.5	4.2	9.1	1.2	12.7	1.7	1.6	0.2	1.5	0.2
Latvia	50	6.1	24.5	3	9.8	1.2	10.5	1.3	3.4	0.4	1.8	0.2
Lithuania	47.3	6.1	29.5	3.8	10.2	1.3	8.8	1.1	1.6	0.2	2.6	0.3
Hungary	42.5	8.6	29.5	6	10.3	2.1	12.1	2.5	2.9	0.6	2.6	0.5
Poland	60.1	11.8	19.5	3.8	11.5	2.3	4.6	0.9	3.5	0.7	0.8	0.2
Slovenia	44.7	10.6	32.7	7.8	8.1	1.9	8.6	2.0	3.1	0.7	2.8	0.7
Slovak Republic	40.1	6.6	30.1	5	9.6	1.6	10.7	1.8	6.2	1.0	3.3	0.5
Romania	37.9	5.6	35.9	5.3	7.1	1.0	11.1	1.6	3.6	0.5	4.3	0.6

Table 6. Social benefits by function group in 2004

* Total Social Benefits Source: Eurostat

When the distribution of social protection benefits in cash and in kind is examined, in every country, cash pensions are in the range of 40-50% except Poland. However, the fact that in Poland this rate is around 70 % is striking. While Romania attaches more importance to kindhealth care expenditures, it attracts attention that Poland allocates lesser resources on social services with accommodation, assistance with carrying out daily tasks, rehabilitation, child day care etc., namely "kind-other" when compared to other countries.

According to annual average rates of social benefits at constant prices-index between 2000-2004, it can be said that Czech Republic attaches more importance to unemployment benefits, Latvia attaches more importance to sickness/health care and housing and social exclusion benefits, Hungary attaches more importance to disability benefits. It is outstanding that the rate of Housing and Social Exclusion that Slovakia allocates exhibits a drastic decline (15.4 %). Another striking decline is that the importance Estonia attaches to Housing and Social Exclusion is decreasing (8.6%).

	Old-age and <u>survivors</u>	Sickness/ health <u>care</u>	<u>Disability</u>	Family/ <u>children</u>	<u>Unemployment</u>	Housing and social <u>exclusion</u>	<u>Total benefits</u>
Czech Republic	2.8	5.4	4.7	4	7.5	4.6	4.2
Estonia	6.1	6.5	16.1	8.8	13.2	-8.6	7.1
Latvia	-0.4	13.3	0.6	3.8	0.1	10.3	3
Lithuania	3	3	8.4	3.3	0.9	-3.5	3.3
Hungary	8.6	9.5	9.8	5.7	-0.3	-1.5	7.9
Poland	5.6	3.2	-1.5	1.2	-3.7	10.6	3.6
Slovenia	2.8	4.8	0.7	1.3	-4.8	17.8	3.1
Slovak Republic	2.3	-3.1	6.5	5	7	-15.4	0.5

Table 7. Social Benefits at Constant Prices-Index,Annual Average Rate of Growth for 2000-2004

Source: Eurostat

With the help of the figures with the social protection expenditure per capita in the vertical axis and Gini coefficients in the horizontal axis, both social protection expenditures and income distributions of STCs can be examined at the same time. Needles to say that examining these diagrams should be evaluated with GDP growth rates occurred in the related years. After examining the figures, it becomes certain that countries can be divided into two main groups in terms of Gini coefficient. Slovenia, Slovakia, Czech Republic and Hungary make group (A) with Gini coefficient under 28; and Poland, Lithuania, Latvia and Estonia make group (B) with Gini coefficient above 28. When paid attention, it is can be seen that Group A countries allocate more on social protection expenditure. When Slovenia is excluded from the group, the national incomes per capita of the countries are similar to each other's. Between years 2000 and 2004, it is of importance that countries stayed in the groups defined. It can even be said that they became closer to each other in the group they took part.

With the assistance of "average lines" regarding the social protection expenditure per capita" and Gini coefficient in figures, it is planned to observe the up and down movements of countries according to the line. In that respect as of 2000, Slovenia, Czech Republic Republic, Poland and Estonia obtained an above-average Gini coefficient for social protection expenditures per capita that they made and Slovakia, Hungary, Lithuania and Latvia succeeded relatively by obtaining a under-average Gini coefficient for their social protection expenditure per capita.

When GDP growth rates per capita of countries in 2000 are taken into account, it is observed that countries, having the record of the highest growth rate, are the following: Estonia (10.8 %), Latvia (6.9 %), and Hungary (5.2%). With the momentum these growth numbers brings about, it is outstanding that there were enhancements in Estonia and Hungary regarding the income distribution. Latvia, under the average line in 2000, performed even worse as of 2001 by coming above of the line. When the fact that there was not an obvious alteration in Latvia's social protection per capita even though growth in Gini coefficients is considered, it can be said that the 6.9 % growth in 2000 and 2001 had deformation effects on income distribution.

Figure 6. Cross-Country Scatter Plot of Gini Coefficient, and Social Expenditures per capita in STC -2000



Figure 7. Cross-Country Scatter Plot of Gini Coefficient, and Social Expenditures per capita in STC -2001



Source · Eurostat

In 2002, while Slovakia and Hungary became closer to each other in terms of income distribution inequality, Latvia exhibited improvement as for the income distribution by being under the average again according to the year before. It can be said that because of the low social protection per capita of Latvia, which kept on growth tendency, the income distribution remained to be corrupted relatively.

It is striking that the value Gini coefficient of Slovenia doesn't fall under 22. Relatively high social expenditure per capita in STCs makes this fact even more intriguing. Drawing conclusion by these two facts, it can be suggested that income inequality in Slovenia may had been steady.

In 2003, Czech Republic went under the average line and social expenditure per capita started to create relatively better effects on poverty. On the contrary to Czech Republic, Hungary displayed a worse performance according to STC average.

Figure 8. Cross-Country Scatter Plot of Gini Coefficient, and Social Expenditures per capita in STC -2002



Figure 9. Cross-Country Scatter Plot of Gini Coefficient, and Social Expenditures per capita in STC -2003



Source: Eurostat

Figure 10. Cross-Country Scatter Plot of Gini Coefficient, and Social Expenditures per capita in STC -2004



Source: Eurostat

In Hungary, even though the growth in social protection per capita, income distribution became worse. It can be concluded that %4.2 growth had corrupting influences on income distribution and growing social protection expenditure per capita took place as a result of increase in the income distribution injustice.

		At risk of poverty rate ¹ before social transfers <u>(% of Total Population)</u>	At risk of poverty rate ¹ after social transfers <u>(% of Total Population)</u>	Reduction Rates of <u>At Risk of Poverty (%)²</u>
<i>cz</i> Czech	2001	36	8	77.8
Republic	2004	39	10	74.4
	2000	42	18	57.1
	2001	42	18	57.1
aa Estonio	2002	42	18	57.1
ee Estollia	2003	41	18	56.1
	2004	41	20	51.2
	2005	39	18	53.8
h. Latria	2000	45	16	64.4
<i>IV</i> Latvia	2004	40	19	52.5
	2000	40	17	57.5
<i>lt</i> Lithuania	2001	41	17	58.5
	2004	42	21	50.0
	2000	34	11	67.6
	2001	33	11	66.7
<i>hu</i> Hungary	2002	32	10	68.8
	2003	32	12	62.5
	2004	50	13	74.0
	2000	47	16	66.0
<i>pl</i> Poland	2001	48	16	66.7
	2004	51	21	58.8
	2000	38	17	55.3
	2001	41	17	58.5
ra Domonio	2002	42	18	57.1
10 Romania	2003	41	17	58.5
	2004	43	18	58.1
	2005	43	18	58.1
	2000	37	11	70.3
	2001	38	11	71.1
<i>si</i> Slovenia	2002	36	10	72.2
	2003	37	10	73.0
	2004	42	12	71.4
sk Slovakia	2004	40	13	67.5

Table 8. At Risk of Poverty before and after Social Transfers in Selected Countries

¹ pensions included in social transfers, cut-off point: 60% of median equivalised income after social transfers

 2 (%) changes in population at risk of poverty rates after social transfers

Source: Eurostat

As of 2004, Czech Republic and Hungary placed above the average line. The most determining characteristic of 2004 is that all the countries showed increase in income distribution inequality except for Slovakia and Hungary. What's even more interesting is the fact that social protection per capita increased in Estonia, Poland, Czech Republic and

Slovenia but still their income distribution inequality mounted at the time. The fact that although there is not much of the deviation occurred in GDP growth rate per capita and there is an increase in social protection expenditure per capita; the increase in income distribution inequality suggests that the increase in social protection expenditure per capita took place as a result of increase in income distribution inequality or 4.2 % growth had corrupting influences on income distribution.

It is seen that governments in the selected countries used social transfer expenditures quite successfully against poverty (Table 7). In every 9 countries that we examined, poverty risk declined between 50-80 % as a consequent of social transfer expenditures. Before the social transfer expenditures, the rate of population at risk of poverty was very high in every in every STCs (in the range of 36-51%). However, aftermath of the social transfer expenditures, the rate of population at risk of poverty became closer to that of European Union's. The initial observation made from the Table-8 is that all of the countries diminished their poverty risk by the way of social transfer expenditures. For instance, Czech Republic was able to decline the rate of population at risk of poverty to 78 % and 75 % in 2001 and 2004 respectively. In the same way in Hungary the rate of population at risk of poverty declined to average 70 % in 2000-2004 period. Countries who declined the rate of population at risk of poverty declined to average 70 % in 2000-2004 period. Countries who declined the rate of population at risk of poverty declined to average 70 % in 2000-2004 period. Latvia and Estonia with the rate of 50 %.

However, this kind of analysis offers only rough information. We can see that all the selected countries decreased the poverty risk in significantly. But there is another obvious fact that market mechanism increased the rate of population at risk of poverty in each year. And this required governments to increase their social transfer expenditures per capita. That means governments have to spend more money on social transfer expenditures in every year as to realize the poverty risk of the year before. In fact, when Figure is examined, it can be seen that all of the selected countries increased their social transfer expenditures in every year. It is concluded that social transfer expenditures declines the poverty risk; however this is far from being a lasting solution. One of the objectives of social transfer expenditures should be eliminating the deprivation which causes to poverty.



Figure 11. Total Social Expenditure per Capita in Euro (PPP)

Therefore, it seems to be important that how effective countries made social expenditures and showing this fact by comparing the selected countries with each other. DEA analysis will be used for that purpose.

VI. Methodology of "DEA"

In this phase of the study, we are going to try to introduce how effective these 8 countries¹ were in declining poverty with their social transfer expenditures and growth rates. We are going to use the DEA method (Data Envelopment Analysis) in order to show how effective these countries were in the struggle against poverty. If we design the process of struggle against poverty as production process, then we are going to be able to probe how effective countries were in this production process. In the production process, the analysis of production with certain inputs to obtain the highest output or a certain output level with lowest amount of input is conducted. We are going to take Gini coefficients and risk of poverty of countries as outputs. Countries spend money on social transfer expenditures in order to obtain this output. And income per capita and GDP growth rates have impacts on Gini coefficients and risk of poverty. We are going to take all these as inputs. Needless to say that there are a lot of elements which affect the poverty in a country. Nonetheless, social transfer expenditures are not the mere tool in government's combat against poverty. However, as DEA establish nonparametric relations between the defined inputs with output, it is not of importance in which level it determines the output. What's more, DEA makes a efficiency measurement among the countries included in the analysis. In conclusion, DEA determines the countries who obtained highest output with the least input initially, and then it reveals the inputs behind the inefficient countries.

Data envelopment analysis (DEA) is the non-parametric mathematical programming approach to frontier estimation. The discussion of DEA models presented here is brief, with relatively little technical detail. More detailed reviews of the methodology are presented by Seiford and Thrall (1990), Lovell (1993), Ali and Seiford (1993), Lovell (1994), Charnes et al (1995) and Seiford (1996). Assume there is data on K inputs and M outputs on each of N firms or DMU's² as they tend to be called in the DEA literature. For the ith DMU these are represented by the vectors x_i and y_i , respectively. The K'N input matrix, X, and the M'N output matrix, Y, represent the data of all N DMU's. The purpose of DEA is to construct a non-parametric envelopment frontier over the data points such that all observed points lie on or below the production frontier. For each DMU we would like to obtain a measure of the ratio of all outputs over all inputs, such as $u \notin yi/v \notin xi$, where u is an M'1 vector of output weights and v is a K'1 vector of input weights. To select optimal weights we specify the mathematical programming problem:

This involves finding values for u and v, such that the efficiency measure of the ith DMU is maximized, subject to the constraint that all efficiency measures must be less than or equal to one. One problem with this particular ratio formulation is that it has an infinite number of solutions. To avoid this one can impose the constraint v xi = 1.

While applying DEA model when the characteristics of the subject are taken into account, also Constant return to scale assumption is conducted. In other words, it is hypothised that as social expenditures per capita increases, poverty risk in every level decreases in the same proportion.

¹ As stated before, we exclude Romania from the DEA because of the non-matching data sets of the variables.

² decision maker units

We are going to elaborate on the model in which risk of poverty is discussed as output and total social transfers, GDP per capita and GDP growth are discussed as input; then we are going to run the model in which total social transfers are sub-headings.

VII. Some Descriptive Outcomes with "DEA" and Conclusion

It is not a very surprising fact that the former socialist countries making pretence to have the ideological substructure equipped with policies restraining poverty to form were to characterize the poverty problem that they experience as an individual problem but not a systematic one. Of course, it is totally understandable with taking the socio-economic and political climate into consideration. Nevertheless, the undeniable existence of low-income households in the last decade of socialism, directed the central governments towards the policies that might be of use in increasing the living standard of these people. However, these policies like Kruchev Aids did not have any effect on decreasing or eradicating poverty in these countries. In 1950's and 60's, swift industrialization brought about job opportunities; and job opportunities brought about increase in incomes; and increase in incomes brought about consumption increase; poverty increased as the momentum of industrialization became lesser.

In the transition period of the STCs, the fast decline in wages, deformation of income distribution inequality and the rapid rise in inactive population gave a rise to the poverty experienced. To struggle with poverty, generalizing the unemployment insurance were not an enough way while most of the social transfers were being settled aside. In the transition period, market-based applications increased poverty; it also increased prosperity unequally. No such policy as to diminish the effects of this development which increased the inequality of income distribution was put into practice.

It can be said that the annual average social protection expenditures per capita has been increased about 4% at constant prices in 2000 - 2004 period annually. According to annual average rates of social benefits at constant prices-index between 2000-2004, it can be said that Czech Republic attaches more importance to unemployment benefits, Latvia attaches more importance to sickness/health care and housing besides the social exclusion benefits and Hungary attaches more importance to disability benefits. It is outstanding that the rate of Housing and Social Exclusion that Slovakia allocates exhibits a drastic decline (15.4 %). Another striking decline is that the importance Estonia attaches to Housing and Social Exclusion for the striking (8.6%).

The figures with average lines regarding the social protection expenditures per capita and Gini coefficient helps to observe the up and down movements of countries according to the average line. In that respect as of 2000, Slovenia, Czech Republic, Poland and Estonia obtained an above-average Gini coefficient for social protection per capita and Slovakia, Hungary, Lithuania and Latvia succeeded relatively by obtaining a under-average Gini coefficient for their social protection expenditure per capita. As of 2004, the move of Hungary above the average line and Czech Republic's downward move through the average line points out the relative policy changes related with increasing Gini coefficient in these countries.

It can be descriptively concluded that the selected transition countries of Europe are successful at decreasing the at risk of poverty rates with social transfers as can be seen on Table 8. The reduction effect of social transfers on the rate of population at risk of poverty is high respectively. The relative efficiency of the STCs' social transfer expenditures and GDP per capita level and growth is as follows.

In the analysis in which the risk of poverty is discussed as output and total social transfers, GDP per capita and GDP growth are discussed as input, countries' efficiency coefficients and reasons for inefficiency are shown in Tablo-9. According to this table, Latvia and Lithuania used social transfer expenditures more efficiently in 2000 and Poland used social transfer expenditures efficiently in 2001. Slovenia is the country which spent money on social expenditures per capita at the most and is the most inefficient country which declined the poverty risk at the least. However, no doubt this conclusion should be interpreted more carefully. Slovenia has the lowest poverty rate among other countries. The Gini coefficient of Slovenia is in 0.22 level. In the same way, Slovenia is the country which spent money on social expenditures per capita at the most. When all these figures and efficiency score are taken into consideration, it can be said that Slovenia is already in combat against poverty with high amounts of social transfer expenditures. Likewise, when slack variables are examined, it is seen that the inefficiency of Slovenia stems from growth rates and GDP distribution per capita; not because of social expenditures.

As for the struggle to decline poverty by the way of social expenditures and distribution of positive influences of growth among social segments, other inefficient countries are Czech Republic (especially in 2004) and Slovakia (in 2004). There are some inefficiency experienced in the other countries; however it seems that the inefficiency of these three countries is in significant levels. Another factor that attracts attention regarding these inefficiencies is that the main reason for Slovakia of not being able to decrease poverty as much as the other countries is GDP distribution or not realizing a growth quality which would decrease poverty. On the other hand, Slovakia used social expenditures in a way that would decrease poverty. Hungary was able to reach a growth quality able to decrease poverty; but still did not use social transfer expenditures in a way that would decrease poverty. Especially in 2001, the inefficiency in social expenditures came to a climax. The situation is almost the same in Estonia. Although Estonia uses its social expenditures as efficiently as to decrease the poverty risk, there is a significant inefficiency in terms of growth rates and income per capita. In other words, both the distribution of GDP growth to society and the inadequacy of income per capita level create inefficiency.

It is also important to measure the efficiency of sub-items of social transfers. When the study is handled in the basis of social transfer sub-items, the efficiency values exhibit changes. The inclusion of social transfers as solely not as a whole gives the opportunity to asses to what extent countries were able to reduce the poverty risk while spending money on their social expenditures.

The efficiency values for the model in which Gini coefficients is taken as output; and subheadings of social transfer expenditures (namely Social protection benefits, Other expenditure, Sickness, Health care, Disability, Old age, Survivors, Family and Children, Unemployment, Housing, and Social exclusion), GDP per capita and GDP growth rate are taken as input are shown in Table-10. According to this, the most interesting observation is that there is inefficiency in all countries except for Lithuania, Estonia and Slovakia in 2004. Lithuania seems to be the one to use both social transfer expenditures and GDP growth in a way that would decrease poverty in 2004. Poland ranks the second with data of 2001 after Lithuania and then comes Latvia with data of 2000.

	10001		INPUT		OUTPUT			INPUT SLUCK	
DMU	SCORE	Total Social Transfers	Per Capita GDP	Growth	Risk Of Poverty	BENCHMARKS	Total Social Transfers	Per Capita GDP	Growth
cz01	82,52%	0	0,8	0,2	0,83	10 (0,26) 19 (0,84)	209,21	0	0
cz04	57,91%	0	0,73	0,27	0,58	10 (0,47) 19 (0,60)	34,89	0	0
ee00	89,15%	1	0	0	0,89	8 (0,98)	0	408,24	2,89
ee01	88,40%	1	0	0	0,88	8 (0,98)	0	994,3	0,07
ee02	82,94%	0,76	0	0,24	0,83	8 (0,94) 10 (0,04)	0	1215,29	0
ee03	78,97%	0,8	0	0,2	0,79	8 (0,57) 10 (0,42)	0	1484,55	0
ee04	67,06%	0,8	0	0,2	0,67	8 (0,54) 10 (0,42)	0	1222,72	0
lv00	112,46%	0,99	0	0,01	1,12	8			
lv04	85,68%	1	0	0	0,86	8 (0,96)	0	641,17	0,8
lt00	120,47%	0	0,71	0,29	1,2	20	· · · · · · · · · · · · · · · · · · ·		
lt01	90,69%	0,12	0,88	0	0,91	8 (0,64) 10 (0,35)	0	0	0,12
lt04	74,15%	0,8	0	0,2	0,74	8 (0,55) 10 (0,40)	0	566,87	0
hu00	78,14%	0	0,58	0,42	0,78	10 (0,96) 19 (0,11)	251,9	0	0
hu01	78,75%	0	0,67	0,33	0,79	10 (0,67) 19 (0,40)	196,41	0	0
hu02	68,49%	0	0,7	0,3	0,68	10 (0,59) 19 (0,49)	87,52	0	0
hu03	65,28%	0	0,72	0,28	0,65	10 (0,51) 19 (0,54)	101,57	0	0
hu04	58,90%	0	0,71	0,29	0,59	10 (0,54) 19 (0,52)	9,02	0	0
p100	81,48%	0	0,62	0,38	0,81	10 (0,79) 19 (0,22)	92,31	0	0
pl01	190,22%	0	0	1	1,9	15			
p104	67,28%	0	0,59	0,41	0,67	10 (0,84) 19 (0,11)	250,76	0	0
si00	51,82%	0,77	0	0,23	0,52	10 (0,29) 19 (0,77)	0	103,46	0
si01	53,22%	0,85	0	0,15	0,53	10 (0,06) 19 (1,00)	0	89,46	0
si02	49,78%	0,82	0	0,18	0,5	10 (0,16) 19 (0,92)	0	242,67	0
si03	51,94%	0,85	0	0,15	0,52	10 (0,04) 19 (1,03)	0	574,62	0
si04	43,78%	0,79	0	0,21	0,44	10 (0,23) 19 (0,82)	0	335,64	0
sk04	68,78%	0,59	0	0,41	0,69	10 (0,85) 19 (0,20)	0	257,38	0

Table 9. Efficiencies of Total Social Transfers, Per Capita GDP and Growth Rate of GDP on Risk of Poverty^{*}

^{*}Inputs found to be efficient according to the score calculated are highlighted. Source: Calculated with EUROSTAT data.

Slovenia is the most inefficient country in terms of the transfer expenditures and GDP growth use as to decrease poverty in 2004. The sources for the inefficiency of Slovenia are GDP per capita and social benefits. Social benefits allocated by Slovenia created inefficiency of 38 % in 2004. Poland experienced a significant efficiency in 2005. It is understood that the main reason for this inefficiency is GDP growth. In other words, Poland didn't experience growth in the extent that would decrease poverty.

When risk of poverty is taken as output instead of Gini coefficient in the study, the results are similar (Table-11). The only difference here is that Hungary reached efficiency instead of experiencing inefficiency as before in 2004. Another interesting finding is that Slovenia used social protection benefits reasonably inefficiently in terms of decreasing the population rate at risk of poverty. What's more, Slovenia experiences a substantial inefficiency in terms of income per capita.

		BENCHMARKS		INPUT SLACKS										
DMU	SCORE		Social protection benefits	Other expenditure	Sickness Health care	Disability	Old age	Survivors	Family Children	Unemployment	Housing	Social exclusion	Per Capita GDP	Growth
cz01	145,03%	6												
cz04	99,58%	1 (0,93) 12 (0,06)	512,59	0	208,62	35,91	160,07	1,06	46,37	38,71	0	20,97	1985,37	1,74
ee00	123,85%	0												
ee01	108,79%	1												
ee02	119,84%	0												
ee03	132,63%	0												
ee04	122,32%	1												
lv00	174,66%	2												
lv04	94,59%	4 (0,29) 8 (0,65) 10	59	1,61	40,06	4,85	0	0,35	6,04	6,46	0	0	600,95	1,49
lt00	175,00%	6												
lt01	105,60%	1												
lt04	649,28%	2												
hu00	111,89%	1												
hu01	106,76%	0												
hu02	101,33%	0												
hu03	111,71%	1												
hu04	99,13%	7 (0,08) 13 (0,45) 16	491,3	0	155,82	58,54	189,5	41,92	38,12	7,39	0	0	1780,67	0,21
p100	117,09%	1												
pl01	318,86%	6												
p104	89,51%	8 (0,02) 11 (0,07) 12 (0,09) 18 (0,34) 19	321,46	0	40,36	8,01	250,31	22,49	0	0,93	0	0	0	1,4
si00	79.96%	1 (0.02) 10 (0.68) 19	1166.13	6.09	455.44	69.15	412.89	0	147.89	69.45	0	12.88	3502.54	0
si01	92,57%	1 (0,02) 10 (0,54) 19	1734,61	6,03	684,64	98,08	651,78	0	200,96	68,76	0	32,22	5101,41	0
si02	79.01%	1 (0,02) 10 (0,66) 19	1443,4	2,05	562,39	79,85	574,53	0	153,75	45,92	0	28,52	4486,34	0
si03	95,22%	1 (0,03) 10 (0,56) 19	2011,87	5,31	803,81	107,39	763,18	0	212,18	56,87	0	68,4	6774,99	0
si04	77,44%	1 (0,02) 10 (0,65) 19	1677,13	1,24	678,94	87,34	626,34	0	173,69	51,88	0	60,48	5366,24	0
sk04	136,86%	0												

Table 10. Efficiencies of Selected Social Transfers, Per Capita GDP and Growth Rate of GDP on Gini Coefficient*

Inputs found to be efficient according to the score calculated are highlighted. Source: Calculated with EUROSTAT data.

		BENCHMARKS		INPUT SLACKS										
DMU	SCORE		Social protecti on benefits	Other expenditure	Sickness Health care	Disability	Old age	Survivors	Family Children	Unemployment	Housing	Social exclusion	Per Capita GDP	Growth
cz01	146,73%	6												
cz04	98,70%	1 (0,93) 12 (0,06)	508,05	0	206,77	35,59	158,66	1,05	45,96	38,37	0	20,79	1967,79	1,73
ee00	125,97%	0												
ee01	108,53%	1												
ee02	120,00%	0												
ee03	131,00%	0												
ee04	124,98%	0												
lv00	178,35%	2												
lv04	94,46%	4 (0,29) 8 (0,65) 10 (0,03)	58,92	1,61	40,01	4,84	0	0,35	6,03	6,46	0	0	600,13	1,49
lt00	175,00%	6												
lt01	105,36%	1												
lt04	666,27%	2												
hu00	112,79%	0												
hu01	106,18%	0					-						-	
hu02	100,97%	0												
hu03	111,39%	0												
hu04	100,23%	0												
p100	116,90%	1												
pi01	327,07%	0												
p104	91,67%	8 (0,02) 11 (0,03) 12 (0,12) 18 (0,46) 19 (0,32)	326,15	0	41,7	5,95	255,92	22,46	0	0	0	0,69	0	1,23
si00	75,88%	1 (0,02) 10 (0,64) 19 (0,40)	1106,66	5,78	432,21	65,62	391,84	0	140,35	65,9	0	12,22	3323,93	0
si01	87,87%	1 (0,02) 10 (0,51) 19 (0,53)	1646,67	5,73	649,93	93,1	618,74	0	190,78	65,27	0	30,58	4842,78	0
si02	75,82%	1 (0,02) 10 (0,64) 19 (0,42)	1385,27	1,96	539,74	76,63	551,39	0	147,55	44,07	0	27,37	4305,64	0
si03	91,40%	1 (0,03) 10 (0,54) 19 (0,51)	1931,09	5,1	771,53	103,08	732,54	0	203,66	54,59	0	65,66	6502,97	0
si04	74,58%	1 (0,02) 10 (0,63) 19 (0,40)	1615,18	1,2	653,86	84,11	603,2	0	167,27	49,96	0	58,25	5168,03	0
sk04	130,56%	0												

Table 11. Efficiencies of Selected Social Transfers, Per Capita GDP and Growth Rate of GDP on Risk of Poverty*

* Inputs found to be efficient according to the score calculated are highlighted. *Source: Calculated with EUROSTAT data.*

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