The dynamics of poverty and its consequences on regional inequalities in Romania

Marinela ISTRATE*, Raluca Ioana HOREA-SERBAN**

Abstract

Poverty has raised growing interest due to its various spatial aspects and implications. The purpose of this paper is to highlight the relationship between poverty and inequality, analysing the way in which a high degree of social and economic inequality influences the different forms of poverty manifestation. We made use of a three-dimension analysis: actual poverty (as expressed by absolute and relative thresholds), inequality of income distribution and regional distribution of these phenomena. Although poverty has diminished, the feeling of poverty remains strong both in relation to the income of other co-nationals and to that of other European countries, Romania continuing to be, unfortunately, one of the poorest countries in EU-28. The investigation carried out revealed the fact that the economic development of the country has been accompanied by a fast decrease in absolute poverty but also by a slight increase in relative poverty.

Keywords: poverty indicators, inequality, dynamics, regional disparities

Introduction

Inequality and poverty represent the main elements development strategies are aimed at, the complex but controversial relationships between them having drawn much attention during the past years, once decision factors understood the importance of the interconnections between them for the success of this process. Preoccupations in this field date back to the middle of the 20th century, when Kuznets (1955) advanced the pattern of the inverted U-curved between these variables, stating that development brings about economic inequality until a certain level of wages, beyond which inequality starts to diminish.

Other studies analyzing the relationship between economic growth and poverty reached the conclusion that even little mutations in the evolution of

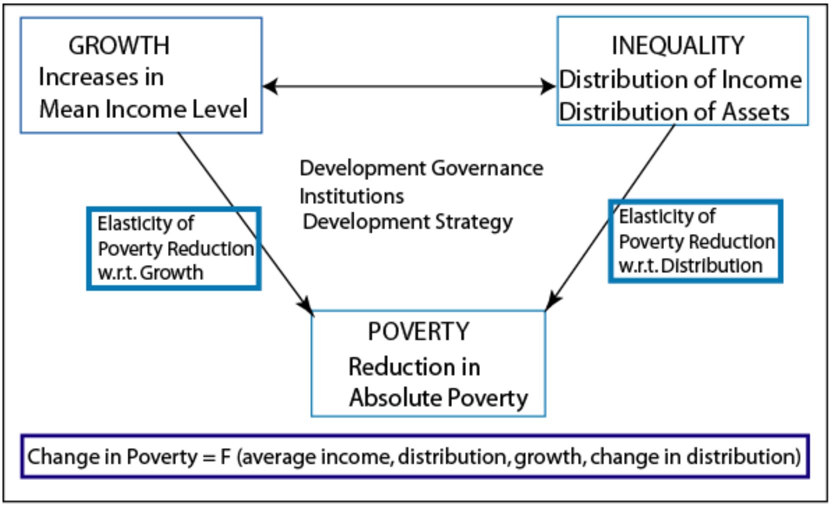
*Marinela ISTRATE is lecturer at Alexandru Ioan Cuza University of Iasi, Romania, e-mail: marinelaistrate75@yahoo.com

** Raluca Ioana HOREA-ȘERBAN is lecturer at Alexandru Ioan Cuza University of Iasi, Romania; e-mail: ralusel@yahoo.com

inequality may trigger palpable changes in the incidence of poverty within a community (Bruno, Ravallion and Squire, 1998, White and Anderson, 2001). Nevertheless, a high incidence of inequality may slow down the pace of growth, bringing about unwelcome social and economic repercussions (Birdsall, 2000, Cornia and Cort, 2001). On the contrary, a lower degree of inequality can speed up growth, the poor gaining higher incomes and being allowed to share more in the total growth (Ravallion, 1997).

Referring to developing countries, Adams (2004) suggests that poverty can get lower as a consequence of stable economic growth, which can lead to the improvement of income distribution including for the poor. Bourguignon (2004) investigates the interdependencies in the poverty-growth-inequality triangle, concluding that growth positively influences absolute poverty. Gries and Redline (2010) reiterate the strong short-term and long-term inter-relation between these three variables, pointing out the positive bidirectional causality between growth and inequality, on the one hand, and the negative one between inequality and poverty on the other, especially in the case of poor regions.

Figure 1. The Poverty, Inequality and Growth Triangle.



Source: after Otsubo (2008) and Bourguignon (2004)

Economic growth and distribution of income are connected through a bi-directional relationship, the incidence of poverty decreasing when economic growth overlaps a stable distribution of incomes. The effects are even more spectacular when the study area records a change for the better in the income distribution with respect to the poor population. Consequently, the negative dynamics of the Gini index causes the inequality level to drop, while the negative evolution of the incidence of poverty leads to poverty reduction (Figure 1) (Bourguignon, 2004).

Some other authors also introduce other variables in the equation. Hashmati, 2004 tries to establish the role played by globalization in the dynamics of inequality and poverty, the former being negatively correlated to globalization, which reduces the latter. Educational attainment also leads to income inequality, higher qualifications being generally better paid than lower ones (Nuruddeen, Ibrahim, 2014). On the other hand, there is an obvious connection between poverty and rurality, especially when it comes to Latin America, Sub-Saharan Africa and South Asia (Rodriguez-Pose, Hardy, 2015), which underlines the importance of rural development in all international development strategies (Dercon, 2009).

1. Theoretical background

Poverty is measured by the absolute poverty headcount index, i.e., the proportion of the population below a particular poverty line (e.g. 1$ a day) as derived from household survey data. “Inequality” (or “distribution”) refers to disparities in relative income across the whole population, i.e., disparities in income after normalizing all observations by the population mean so as to make them independent of the scale of incomes. “Growth” is the percentage change in mean welfare level (e.g. income or consumption) in the household survey (Bourguignon, 2004).

Approaching the growth-poverty-inequality triangle, Felix Naschold (2002), showed that (even small) changes in income distribution can have an important impact on poverty, inequality contributing to reducing growth for at least three reasons:

- political (inequality may be conceived as the gap between the mean and the median voter, the latter being in favour of larger taxes on the rich, binding them to savings and investments, thus leading to growth)
- economic (the poor do not only benefit from but also contribute to economic growth
- social (social inequality may balance fulfilling expectations with lower growth).

Martin Ravallion carries out an ample analysis on the poverty – inequality – growth relationship (Ravallion, 2014), showing that, if the poor have an initial low share of the total income, they implicitly benefit to a smaller extent from the advantages of growth, which therefore causes a weaker impact on poverty, this concept being revealed by the equation below:

$$\text{Expected rate of poverty reduction} = \text{constant} \times (1 - \text{inequality}) \times \text{growth rate}$$

The constant is negative and the inequality is measured by an index that takes value 0 when there is no inequality and value 1 when all revenues are concentrated to one person.

The literature in the field (Koczan, 2016, Schvab *et al*., 2015) regards poverty as being induced by economic development processes, being practically a consequence of the absence of economic growth. One of the most important effects of economic growth is increased living standards, but at the same time, a deeper gap between the rich and the poor, which means that economic growth fails to unlock poverty off its path-dependency.

Suppa (2017) explored poverty dynamics by drawing up a multidimensional analysis, starting from decomposing its changes in order to emphasize the causes for its increases or decreases, also investigating the methods that explain the process of overlapping deprivations.

Other approaches to the analysis of poverty are founded on more data sources as, for example the combinations of monetary and non-monetary indicators, which have given rise to a number of composite measures of human welfare.

A well-known example of a multidimensional indicator can be encountered in the Human Development Report, (an annual report which designs HDI – the Human Development Index**),** which focuses on how human development can be provided for a wider mass of people. Although the progress of human development over the past 25 years is impressive, there are significant imbalances between countries, between socio-economic groups, urban and rural areas, between women and men.

Among the key indicators of the report we also find the Multidimensional Poverty Index (MPI), which takes into account health, education and living standards[1]. A deprivation score[2] of 33.3 percent (one-third of the weighted indicators) is used to distinguish between the poor and non-poor. If the household deprivation score is of 33.3 percent or greater, the household is classified as multi-dimensionally poor. Households with a deprivation score greater than or equal to 20 percent but less than 33.3 percent live near multidimensional poverty. Finally, households with a deprivation score greater than or equal to 50 percent live in severe multidimensional poverty.

IHDI, representing the Inequality-adjusted Human Development Index, is another way of approaching poverty from the perspective of the progress recorded in the fields of health, education and income and the way in which these accomplishments are distributed among the population of a country. The distinction between IHDI and HDI resides in the human development cost of inequality, which is the prejudice caused to human development by inequality. IHDI facilitates the

[1] Available at http://hdr.undp.org/en/content/multidimensional-poverty-index-mpi)

[2] The deprivation score measures monetary poverty, being calculated as a weighed sum of the overlapping deprivations a person faces at the same time. It ranges between 0 (the individual is deprived in respect of no indicator) and 1 (the individual is deprived in relation to all the indicators taken into consideration).

better understanding of inequalities, which can furthermore be alleviated through specific development policies.

Romania's HDI value for 2015 is of 0.802— which lays the country in the very high human development category – positioning it at 50 out of 188 countries and territories (Table 1). Between 1990 and 2015, Romania's HDI value increased from 0.700 to 0.802, an increase of 14.6 percent. Table 1 reviews Romania's progress in each of the HDI indicators. Between 1990 and 2015, Romania's life expectancy at birth increased by 5.3 years, mean years of schooling increased by 1.8 years and expected years of schooling increased by 2.8 years. Romania's GNI (Gross National Income) per capita increased by about 74.0 percent between 1990 and 2015[3].

Table 1. Inequality adjusted HDI for Romania

HDI value 2015	IHD value 2015	Coeff. of human ineq. 2015	Ineq. in life expectancy value 2015	Ineq. in education (%) 2015	Inequality in income (%) 2015	Income inequality	
						quantile ratio (2010–2015)	Gini coeff. (2010–2015)
0,802	0,714	10,821	0,773	4,56	19,50	4,09	27,45

Source: UNPD

In 2005, the World Bank drew up a comprehensive report devoted to former communist countries, entitled Growth, Poverty and Inequality. Eastern Europe and the former Soviet Union report, which makes an important contribution to the efforts meant to reduce poverty and vulnerability in a world undergoing transformation. The material produced by the World Bank analyses the influence of growth on poverty and inequality between 1998 and 2003, highlighting regional gaps both between and within countries (Alam *et al.*, 2005). Starting from these discrepancies, the document states the need for different approaches in order to speed up growth, create well-paid jobs, and enhance the quality of the education, health care and infrastructure systems as part of the institutional and policy reform agenda, solutions suggested also by scientific studies (Onofrei and Cigu, 2015).

Finally, it should be remembered that the monitoring of the performance of Romania and other European countries is done with a new instrument called The European Pillar of Social Rights dating back to 2017 and establishes 20 principles and rights for the benefit of EU citizens. According to this document, Romania faces problems on a number of social indicators (such as the early leavers from education

[3] Available at http://hdr.undp.org/en/composite/IHDI.

and training on poverty reduction) (Table 2), but it stands at the forefront when it comes to GDHI[4] per capita growth.

Table 2. Monitoring performance for Romania in light of the European Pillar of Social Rights[5]

Romania	
Early leavers from education and training (% of population aged 18-24)	**Critical situation**
Income quintile ratio (S80/S20)	Weak but improving
At risk of poverty or social exclusion (in %)	**Critical situation**
Unemployment rate (% population aged 15-74)	Better than average
GDHI per capita growth	Best performers
Impact of social transfers (other than pensions) **on poverty reduction**	**Critical situation**

Source: Country Report Romania, 2018

Poverty falls into several categories, depending on the classification criteria used. For Romania, Stănculescu and Berevoescu (2004) identified four classes of poverty:

- the critical normality refers to the context in which incomes and consumption are getting lower, although basic needs (housing and food) are ensured.
- the acute situation of needs partly overlaps standard poverty.
- the generalized crisis situation represents the last phase of extreme poverty, characterized by the manifestation of multiple shortcomings, both income and consumption dropping below the poverty line.
- extreme poverty refers to non-dwelling households with durable goods for the poorest 20% households in their residence area and total consumption expenditure below the poverty line of the residence environment to which the household belongs.

Another differentiation of the concept of poverty refers to the classical division between absolute and relative poverty (Pop, 2009):

- absolute poverty represents the status of an individual or family who receives the minimum income necessary for living, taking into account only the nourishment needs, estimated at the lowest prices found on the market. It takes

[4] GDHI represents the Gross Disposable Household Income, which is defined as the amount of money an individual has available for saving or spending, after income-associated expenditure (such as taxes and social contributions).

[5]Available https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-romania-en.pdf.

into account the deprivation of basic human necessities for survival, while the poverty line is calculated as a given basket of goods and services.

- the relative poverty indicator measures welfare according to income level, the threshold being a relative one, established at 60% of the medium annual disposable income at the national level of each Member State. It occurs when someone's standard of living and income are much worse than the general standard of the country or region they live in, the relative poverty measures being often closely linked to inequality.

Last but not least, there is a clear-cut distinction between urban and rural poverty, with a higher condensation of poverty in rural areas, as the poor distribution balance tilts (Pop, 2009). People living in cities in the eastern EU Member States are generally less likely to face poverty and social exclusion than those in rural areas. In Romania, rural residents face twice the risk of poverty or social exclusion as compared to people living in cities (World Bank, 2007*)*. More than 70% of the poor live in rural areas, the poverty risk being three times higher in the case of the rural population. Although the gap between the urban and rural sectors appeared to start to decline over the period 2002-2004 (mainly due to the increase in social protection benefits for farmers and to the years which were favourable to agriculture), since 2005 the trend has been heading in the opposite direction (World Bank, 2007).

According to Eurostat, 2014, the countries with the highest poverty rates in rural areas compared to urban areas are Romania and Bulgaria (Table 3).

Table 3. Proportion of the population at risk of poverty and proportion of the total population with less than 60 % of the median income, by degree of urbanisation, 2014

	At risk of poverty rate			**Share of population with under 60% of median equivalised**		
region/country	cities	towns and suburbs	rural areas	cities	towns and suburbs	rural areas
EU 28	16.4	15.8	20.2	6.8	4.9	5.6
Bulgaria	12.3	20.5	33.7	4.8	5.4	11.5
Romania	**10.6**	**17.5**	**38.6**	**3.1**	**4.3**	**18**
Hungary	6.6	12.5	21	2	4.5	8,1
Poland	9.6	14,7	24.1	3.2	3.6	10.2

Source: Eurostat

In 2014, Romania faced an extremely high poverty risk rate in rural areas (38.6% of the rural population was under the risk of poverty), a situation which was caused by more factors, such as: demography (negative migration balance, aging population), accessibility (lack of infrastructure and difficult access to basic services), education and employment (low employment rates, high share of those working in agriculture and those working on a seasonal basis). Instead, cities had values below the European average (10.6 vs. 16.4), which once again proves the important role that regional and sub-regional metropolises play (that of economic engines).

The same source reveals that in other European countries, the situation may be exactly the opposite, that is a much larger share of the urban residents are affected by the risk of poverty or social exclusion. For example, in Austria, the at risk of poverty rate in cities, towns and suburbs sums up a value of 33%, in comparison to only 10.5% in rural areas. There are also countries, such as the Czech Republic and Slovenia, where the poverty rate in urban, rural or suburban areas differs very little, this being an expression of a lower inequality and a more balanced economic development (for instance, in the Czech Republic, the values of the at risk of poverty rate are of 8.4 for cities, 9.9 for towns and suburbs and 10.7 for rural areas).

2. Data and methods

The main objective of this paper is to make a presentation and an analysis of the poverty – growth – inequalities relationship for Romania (but also in comparison to the U28 average and to other post-communist countries in Central and East Europe), at a primary level. After the collapse of communism, Romania, just like other Central and East European countries (such as Bulgaria, Hungary and Poland), has experienced profound social and economic mutations, reflected in all activity sectors (from the transition to a market economy and democratic freedom-based society to the decreasing number of active and working population, increasing unemployment, workforce's growing risk of poverty, rising vulnerability of certain socio-professional groups). They have faced the additional challenge of increased competition while radically transforming their economies, including their economic institutional foundations.

We chose to compare Romania with other post-communist countries in Central and Eastern Europe because all three states, although at different stages now, present similarities regarding their starting points and their path towards European integration (Ciobanu, 2015, Jencova *et al*., 2015).

Starting from a set of hypotheses and applying an appropriate methodology meant to point out the regional disparities, the authors intend to identify, reconstitute and quantify the main socio-economic elements that have triggered the more or less recent and persistent socio-economic and poverty gaps between Romanian regions (NUTS 2 level), as well as to draw a diagnosis of their repercussions at the regional and national level in spite of the relatively new process of modernization of social and economic structures.

In order to highlight poverty and regional disparities, the authors made use of the following indicators, agreed at the European Union level:

- primary indicators of direct estimation of poverty: the relative poverty line, people at risk of poverty or social exclusion, material deprivation;
- secondary indicators of indirect estimation of poverty and its depth: distribution of income, income quintile share ratio, GDP per capita, Gini Index.

In order to accomplish the above mentioned objectives, we correlated and mapped the indicators which best illustrate the relations between poverty – inequalities – growth, indicators that derive both from the economic and social field (poverty – inequality correlation, growth, poverty and territorial inequalities in Romania 2007 – 2016).

Table 4 summarizes the considered indicators, period, source and spatial level used in this paper.

Table 4. List of considered indicators

Indicator	Definition	Period	Spatial level	Source
Poverty line	It is set at 60 % of national median equivalised disposable income, which is defined as the share of the total disposable household income and the sum of consumption (equivalent) units that is equivalised household size. It is often expressed in purchasing power standards (PPS) in order to take account of the differences in the cost of living across countries.	2007 - 2015	National	INS
At Risk of poverty rate	It is calculated as the percentage of people below the at-risk-of-poverty threshold, which is fixed at 60 % of the national median equivalised disposable income after social transfers. This indicator does not measure wealth or poverty, but low income in comparison to other residents in that country, which does not necessarily imply a low standard of living.	2007 - 2016	National Regional (NUTS2)	INS
Material deprivation	The indicator is defined as the percentage of population with an enforced lack of at least three out of nine material deprivation items in the 'economic strain and durables' dimension.	2005 - 2016	European National	Eurostat
Income inequality index	The ratio of total income received by the 20 % of the population with the highest income (top quintile) to that	2005 - 2016	European National	Eurostat INS

	received by the 20 % of the population with the lowest income (lowest quintile). Income must be understood as equivalised disposable income.			
GDP	GDP represents an economic indicator which characterizes a country's economic growth on the basis of its net production, seen as a correlation between fixed capital, employment and the consumptions of the material circulating means. GDP per capita is calculated as the ratio of GDP to the average population in a specific year. As a measure of average income, it is often used as indicator of how well off people is in a given country.	2007 - 2016	European National	Eurostat INS
Gini index	The scale of Gini coefficients is from 0 to 100. Value 0 corresponds to perfect equality (same income to everybody) while value 100 corresponds to maximum inequality (all income distributed to only one person and all the others have nothing).	2005 - 2016	European National	Eurostat

Source: own representation

The information used was taken from the data provided by the National Institute of Statistics (Tempo-Online) and derived from the most recent Eurostat database. The database thus created was correlated to the cartographic support mentioned above. The methodology used to process the information corresponds to a time and space analysis specific to the geographic study of poverty and territory. In the end, the statistical data were graphically processed with the help of the PhilCarto software.

3. Results and discussions

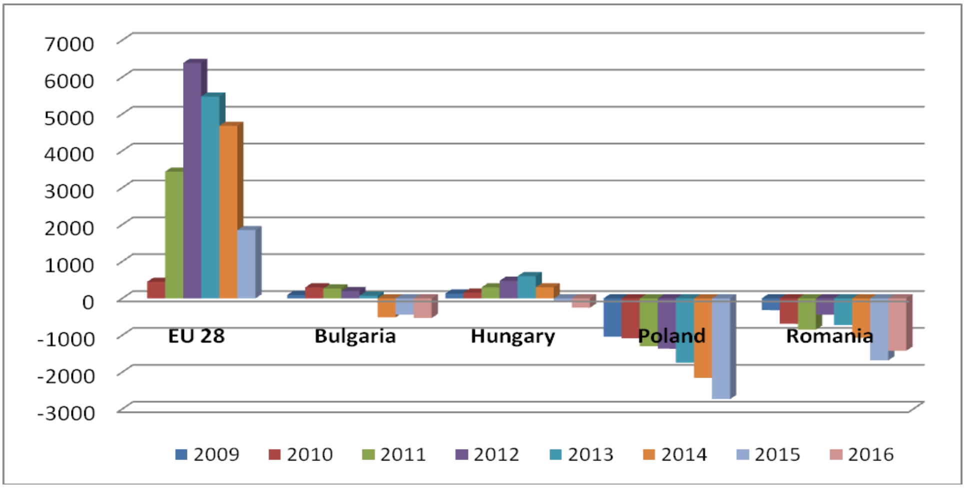
In order to assess the intensity of the poverty phenomenon, the present study begins with an analysis of the direct indicators, both at the national level and in comparison to other countries in the former communist bloc, in order to frame the phenomenon of poverty into context so as to realize that it can be alleviated if applying adequate policies. Many of the indicators analysed below place Romania in the category of the poorest countries in EU 28.

3.1. Direct indicators of poverty assessment

In 2011, the relative poverty line was above the minimum net salary (530, 4 lei versus 510 lei[6]), which means that a minimum wage earner was automatically categorized as poor. As both the income structure and the relative poverty line have progressively increased only beginning with 2016, a minimum wage earner can no longer be classified as poor. Since February, 1st 2017, the minimum wage is of 1,450 lei, exceeding the relative poverty threshold. At the same time, while in 2007 the relative poverty threshold was of 282,8 lei / person / month, in 2011 it increased to 440 lei / person / month, reaching 204 lei / person / month in 2016, which means that the value doubled in about a decade after Romania's integration into the EU, according to the National Institute of Statistics.

If the poverty line is defined as half the median household income of the total population, the poverty gap is the ratio by which the mean income of the poor falls below the poverty line. The poverty gap helps refine the poverty rate by providing an indication of the poverty level in a country. This indicator is measured for the total population, as well as for people aged 18-65 years and people over 65[7]. In 2007, the poverty gap in Romania was of 2.07, the minimum rate being recorded in 2009 (0.99%), followed by a significant rise during the next period (2.78% at present).

Figure 2. People at risk of poverty or social exclusion (cumulative difference from 2008, in thousands)



Source: own representation based on Eurostat data

[6] 1 Euro ≈ 4.25 lei (2011 official exchange rate).

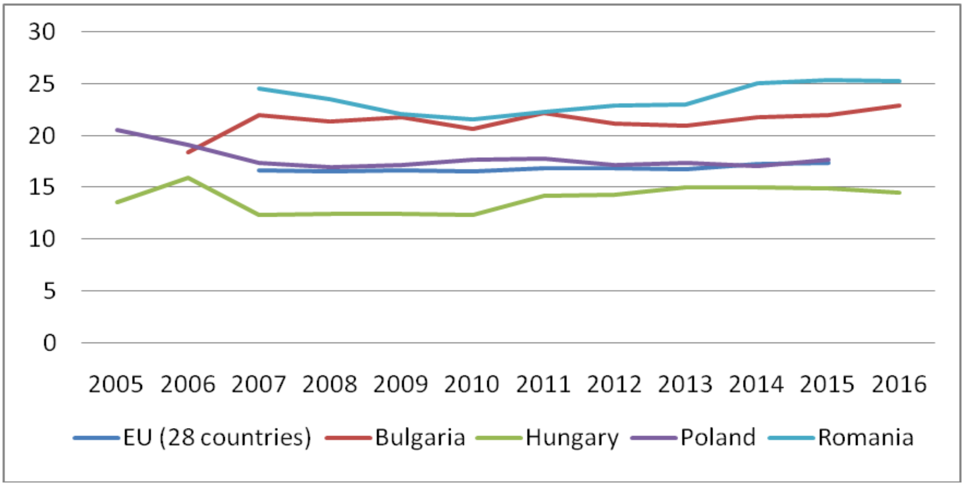
[7] OECD (2018), *Poverty gap data* (retrieved from https://data.oecd.org/inequality/poverty-gap.htm).

The headline indicator called people at risk of poverty or social exclusion shows the number of persons affected by at least one of the three forms of poverty: monetary poverty, material deprivation and low work intensity. People can suffer from more than one dimension of poverty at a time. As shown in Figure 2, the number of people at risk of poverty or social exclusion in the EU was low before the start of the economic crisis. However, it rose again in the years to come, reaching its climax in 2012 (as a cumulative difference compared to 2008), followed by a new drop afterwards.

The East – European member states which have made the most impressive progress in this area are Poland and Romania, with a considerable decrease in the number of people at risk of poverty (Figure 3). If we refer to the risk of poverty rate (% of the total population), in 2016, it affected about 25% of the Romanian population, much above the EU 28 average (17%), although the tendency is stationary for East-European countries, except for Bulgaria.

The national target of 580,000 people is already considered reached. In absolute terms, the number of people lifted out of the risk of poverty or social exclusion since 2008 is of 1,420,000 (in 2016). The population taken out of poverty or social exclusion was however higher in 2015 (1,680,000) as compared to 2016 (Country Report Romania, 2018).

Figure 3. Risk of poverty rate (% of the total population). Eurostat



Source: own representation based on Eurostat data

Material deprivation is the second most common form of poverty. Material deprivation covers issues relating to economic strain, durables and housing, as well as environment of the dwellings. The indicator is defined as the percentage of population with an enforced lack of at least three out of nine material deprivation items in the 'economic strain and durables' dimension.

From a comparative perspective, the level of material deprivation in Romania is approaching the one of other new EU Member States, although the gap remains significant (Table 5). At the same time, the depth of material deprivation (the indicator being defined the unweighted mean of the number of items lacked by the materially-deprived population) is relatively moderate and with decreasing trends (from 4. 6 in 2007 to 3. 9 at present), which is a sign that the gap is getting smaller.

Table 5. Material deprivation 2017

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU-28						17.8	18.5	19.7	19.5	18.5	17	
Bulgaria		71.4	72.4	55	55.5	59.4	60.1	61.6	58	46.8	49.1	46.9
Hungary	39.7	37.4	38.6	37.1	40.3	39.9	42.7	44.8	45.4	40	34.8	29.6
Poland	50.8	44	38.2	32.3	29.5	28.4	26.4	27.8	25.5	22.2	16.8	
Romania			54.5	50	49.2	48.7	47.9	49.1	46.9	43.8	39.5	40.4

Source: Eurostat

The analysis of these indicators shows that important shares of the population are in the immediate vicinity of the poverty line, that is they can enter or leave poverty at relatively small variations in their income. One factor contributing to the phenomenon of income inequality in Romania is that low-income people either work in agriculture where their income is small and fluctuating, or they do not have a stable monthly income because they do not work full-time or they do not have a stable long-term job. On the whole, a slight decline after EU accession can be noticed, but this still represents a national issue not only in Romania, but also in other EU countries.

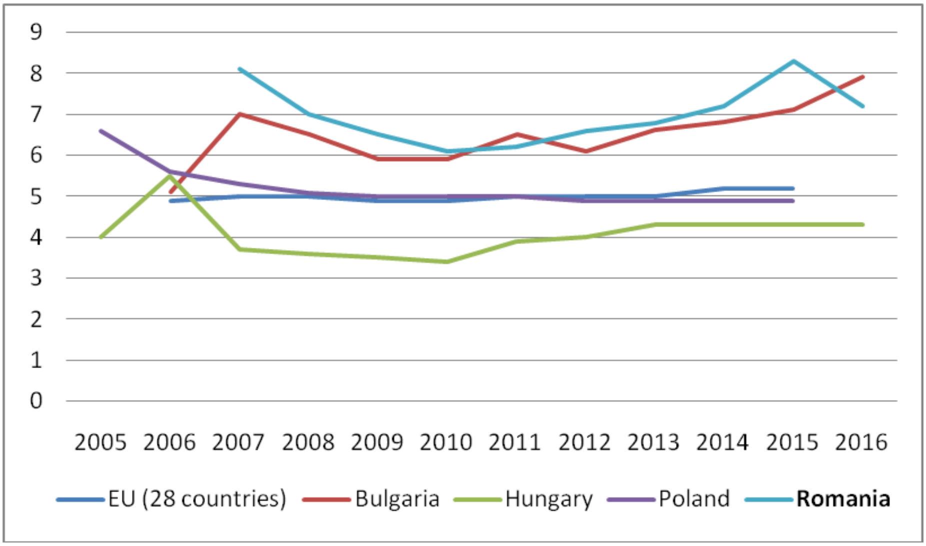
3.2. Indirect indicators of poverty assessment (specific indicators of the depth of poverty)

The estimation of poverty indicators represents an interdisciplinary exercise, which must rely on the multidimensional nature of poverty and inequality (Deichmann, 1999). It was for this reason that, besides the direct indicators above, we also included in our analysis a series of indicators which highlight the spatial and temporal depth of the phenomenon.

As regards the distribution of income, despite a small improvement in 2016 and 2017 and the recent policy changes, Romania still has one of the highest levels of income inequality in the EU, with the richest 20 % of the population earning eight times more than the poorest 20 %. The incomes of the poor grew more slowly than those of the rich and upward pressure on inequality from falling employment rates has been reinforced by rising inequality among wage earners.

Although income inequality has diminished in the years of the economic crisis, lately, there has been a return to a higher value than in 2007, the year of Romania's accession to the EU (Figure 4). Hence, economic growth and the return of GDP to rates higher that in 2008 got reflected in the prosperity of a small share of the population.

Figure 4. Inequality of income distribution (income quintile share ratio)

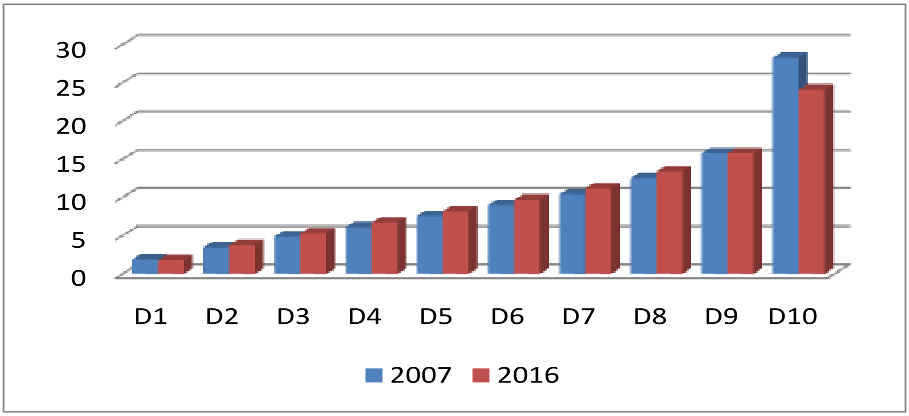


Source: own representation based on Eurostat data

Income distribution in Romania, by deciles, is one of the most insightful measures of income inequality. In 2007, the year of European Union integration, the poorest 10% of Romanians earned about 2% of the national income (Figure 5). Nearly 10 years later, the income of the poorest Romanians is about the same percentage of the national income.

A significant change in the period under review can be noticed for the richest 10%, their share in total revenues dropping from 28% (in 2007) to 24% (in 2016), expressing a certain decrease in income distribution inequality. However, the difference between the poorest 10% of Romanians and the richest 10% still records high levels. The top 10% earned, in 2016, on average, 13 times more than the poorest Romanians, representing the largest difference in the European Union.

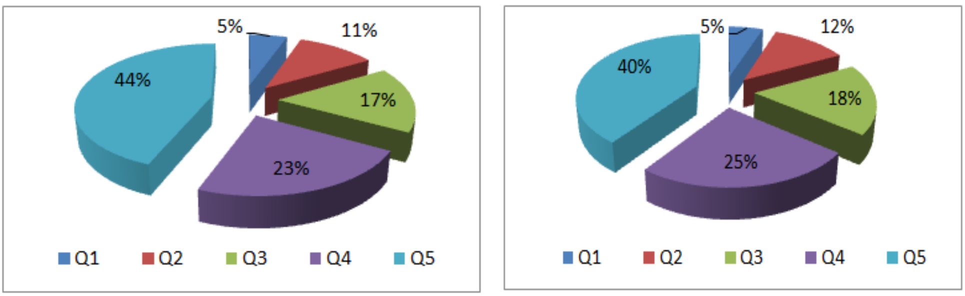
Figure 5. Income distribution per deciles, 2007 and 2016 (% of national income)



Source: own representation based on Eurostat data

The inequality of income distribution is very well illustrated by the income quintile share ratio, which opposes the total income received by the 20 % of the population with the highest income (top quintile) to that received by the 20 % of the population with the lowest income (lowest quintile). Income must be understood as equivalised disposable income. The values of this indicator declined from 8.1 in 2007 to 6.1 in 2010 (as an effect of the economic crisis that led to the contraction of the enormous profits generated by some sectors, such as the real estate one), after which it recorded increasing values, in 2016 being the highest of all EU countries 28 (of 8.3%) (Figure 6).

Figure 6. Romania: distribution of income by quintiles (2007, left and 2016, right)



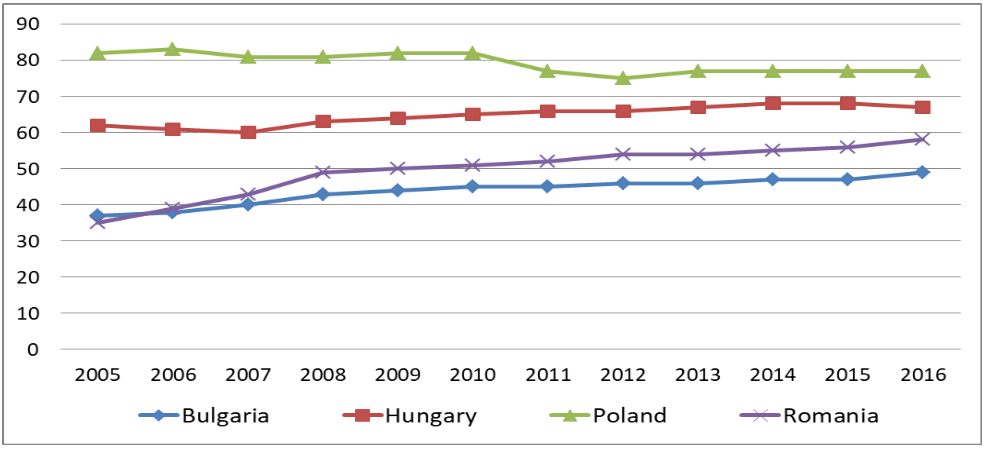
Source: own representation based on INS data

As regards the GDP per capita in Romania, it increased from slightly more than 40 % of the EU average at the time of the 2007 accession to almost 60 % in 2016. Real GDP is estimated to have increased by 6.7 % in 2017, following the 4.8%

advance in 2016, marking a new post-crisis peak. Nevertheless, Romania remains one of the EU countries with the lowest GDP per capita (Country Report Romania, 2018).

The analysis of the GDP per capita in PPS Index (EU28 = 100) during 2005 - 2016 (Figure 7) reveals a stronger convergence tendency for the four European countries taken into account. The graph highlights the early penetration of the foreign capital in Poland and Hungary, which has brought about numerous investments and the speeding up of the GDP average annual growth rate, while the countries with the lowest GDP average annual growth rate in 2005 – 2006 (Romania and Bulgaria) overlap with industrial decline and fragile economies, where the shock of competitiveness loss was not undertaken by a satisfactory influx of domestic or foreign capital.

Figure 7. GDP per capita in PPS Index (EU28 = 100)

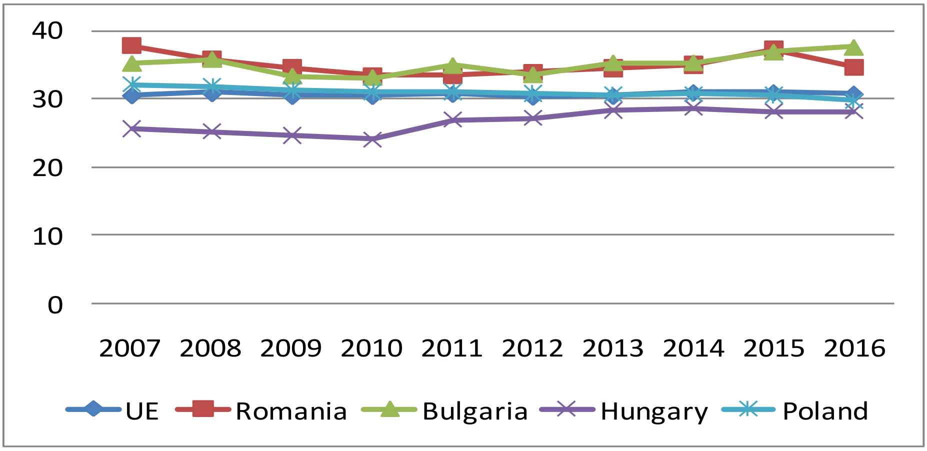


Source: own representation based on Eurostat data

With respect to the Gini Index, Figures 8 and 9 clearly point out that, starting from a value of 37.8% at the moment of Romania's integration in the EU, the values of this indicator gradually decreased to 33.2% in 2010, after which they entered a new period of slight growth (35.6% in 2015).

Inequality dynamics reveals that, during the last ten years, the level of inequality measured by the Gini coefficient declined during the economic crisis, approaching the European average, and then started to rise again, suggesting that the gains from growth were rather evenly distributed among income groups.

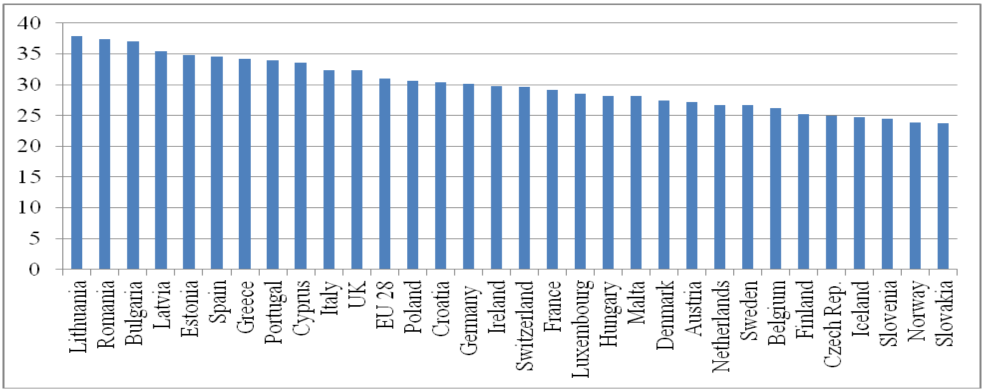
Figure 8. The dynamics of inequality (Gini Index)



Source: own representation based on Eurostat data

As far as the level of inequality is concerned, in 2015, Romania ranked second in Europe after Lithuania, which highlights, on the one hand, its character of emergent economy facing rapid structural changes and, on the other, the big gaps which separate it from EU developed countries in terms of income. Afterwards, despite the political evolutions and announced social measures, inequality began to return to higher values, Romania being a perfect example of a fast but unequally growing economy. Therefore, inequality mitigation measures are all the more important in order to ultimately support the reduction of poverty among the population.

Figure 9. Gini Index in UE 28, 2015



Source: own representation based on Eurostat data

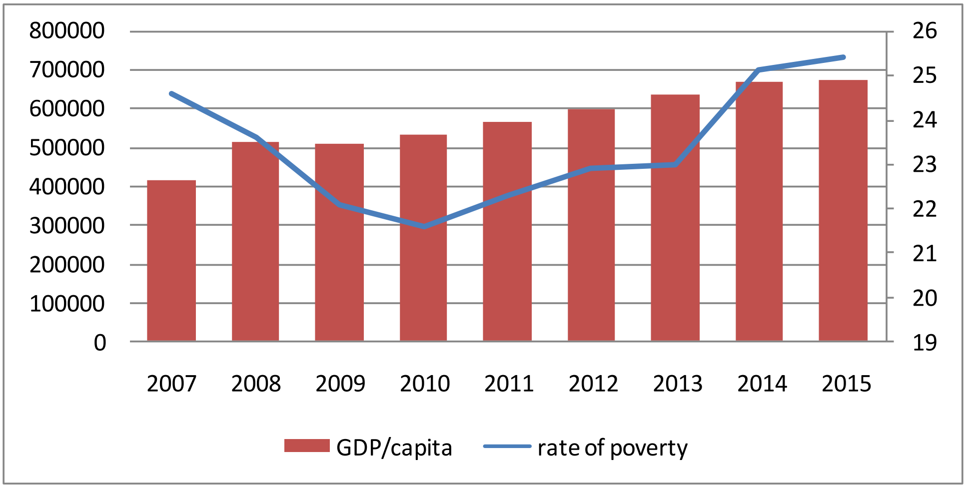
3.3. Growth - poverty correlation and territorial inequalities in Romania

Figure 10 focuses on the correlation between poverty and inequality, pointing out that after the integration in the EU structures, Romania experienced a high economic growth accompanied, at the same time, by a rise in the poverty rate.

Inequality of opportunity remains a challenge, especially for rural areas (more isolated, with ageing population and practising mainly a subsistence agriculture) while at the whole-country level the redistributive effect of the tax and benefit system is still below the EU average.

Finally, in order to have an overview of the correlation between poverty and inequality, we made a cartodiagram which simultaneously shows the evolution of GDP and the poverty risk at regional level (NUTS 2 level). Figure 11 reveals that neither economic growth nor poverty are distributed uniformly in Romania, territorial disparities being very strong.

Figure 10. Poverty – inequality correlation

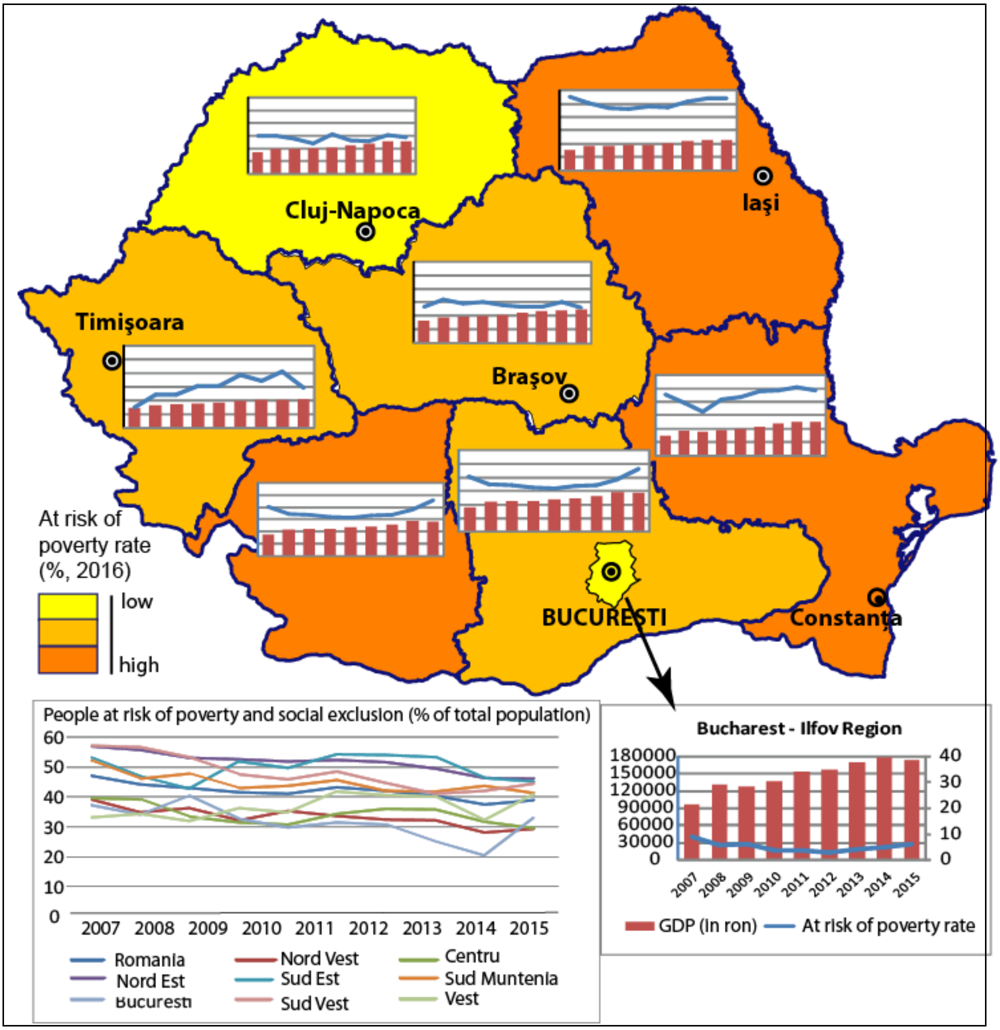


Source: own representation based on INS data

The changes in the political regime in Romania since the end of 1989 led to the amplification of the east - west and north - south imbalances, brought about by a series of political, economic and social decisions. Despite increasing pensions, granting aid to poor families, raising child allowances and taking measures meant to improve the business environment, social inequality has again started to increase since 2010 (Social Monitor, 2017).

We can say that the benefits of economic growth have been mainly adjudicated by a small part of the population, while the measures for stimulating the middle class are still to be expected.

Figure 11. Growth, poverty and territorial inequalities in Romania (2007 – 2016)



Source: own representation based on INS data

Although all regions have made progress in terms of GDP convergence, Bucharest and Ilfov County have advanced at a considerable pace, with Bucharest capitalizing ahead of major European capitals such as Madrid or Warsaw, thus widening the (already considerable) gap in comparison to the rest of the country. Development and economic growth are strongly influenced by the presence of large, regional capital cities, which once again confirm their role of regional economic engines. The most problematic is the North East Region, which lies at 50% of the Centre Region and at 25% of Bucharest in terms of GDP/capita.

The incidence of poverty is higher in the east and south regions of the country and lower in the West. The most serious situation is in the NE and SE regions, where the poverty rate exceeds 30%, which means over 2.5 million poor people. If by 2012, almost all regions had experienced declines in the poverty rate, the situation changed afterwards, with six regions out of the eight having higher values than in the previous period.

With low accessibility and an aging population, the South West Region failed to leave the bottom of the ranking; not only did it stagnate, but it even recorded a small decline in the past two years. Regarding the Western region, the data show a difficult to explain increase in the risk of poverty in this region, given the massive investment in the region's economy, favored by its proximity to Central Europe. Despite some convergence, regional disparities in the dynamics of poverty remain very high and justify the need to implement differentiated poverty reduction projects.

An important role in maintaining a high risk of poverty is played by transport infrastructure (its precariousness), the low accessibility of certain regions, as well as the presence of abundant but less skilled workforce who has not experienced a process of professional reconversion, which is a brake on economic growth. The poorest regions are located in the east and south of the country, where the population is mainly employed in agriculture, conditioned by the plain areas and the high incidence of cereal crops, associated with a low level of income.

The results show that there is a bidirectional relationship between poverty and income inequality, both in the short and long term. Not all Romanians have managed to benefit from the economic growth. On the contrary, in Romania, the poorest people grasp the least of the results of the economic activity (about 2% of the total income) and the middle class, who would have to provide social and economic cohesion, is not consistent enough. It is possible that, overall, economic growth will continue to be the main driver of poverty reduction in the near future, but increased attention needs to be paid to poverty outbreaks (rural areas in the east and south of the country, certain disadvantaged ethnic groups, the elderly etc.).

Conclusions

Although, in the last 20 years, Romania has adopted numerous strategies meant to fight poverty and social exclusion and to promote stable and balanced economic growth, it still faces a largely unfinished social agenda (Teşliuc *et al.*, 2015). Here are some of the most important stages it has gone through so far:

- in 1998, they established the Committee for the Prevention and Fight against Poverty, which drew up and adopted the document which represented the basis of the social policy of post-communist Romania, namely the Strategy for Preventing and Fighting against Poverty;
- in 2001, they set up the Anti-Poverty and Social Inclusion Commission (CASPIS), which established, among others, the methodology for measuring

absolute poverty and which shaped a set of national and county indicators for monitoring it;

- in 2005, the Romanian Government and the European Commission signed a Social Inclusion Memorandum (as part of the first phase of the country's accession to the European social policy);
- in 2007, the collaboration between the World Bank, the Ministry of Labor and the National Institute of Statistics led to the publication of the document entitled Romania: Poverty Assessment Report which analyzed the evolution of poverty by 2007;
- in 2010 they adopted a Memorandum which stipulated Romania's national targets for meeting the requirements of the Europe 2020 Strategy;
- in 2011, they adopted the Social Assistance Reform Strategy with a number of key objectives in terms of targeting social benefits, reducing the number of people able to work but dependent on social assistance and increasing the capacity to forecast, monitor and evaluate poverty;
- in 2015, the National Strategy for Social Inclusion and Poverty Reduction 2015-2020 was published, providing a structured set of measures meant to coordinate and update strategic actions aimed at poverty reduction. Future programs developed by the government in collaboration with research institutions should address vulnerable groups, in / out flows from poverty and should multi-dimensionally and profoundly approach the growth-inequality-poverty relationships, especially at the territorial level.

Poverty in Romania is not the exclusive product of underdevelopment, but rather of the successive crises our society faced. Romania can be expected to face not a state of poverty caused by an evolution in the parameters of a normal dynamics of a society, but an explosion of poverty and social exclusion, generated by a cumulative crisis of socialism and transition, spanned over more than a quarter of a century. The fundamental risk is not the extent of poverty, which is not very profound, but its tendency to become chronic through the degradation of the social-cultural life skills and patterns. The problem this strategy has to face is not only the one of how to deal with more or less marginal processes of poverty and exclusion, but with the absorption of the disastrous social effects of the socialist regime, followed by a confusing transition, in which important strategic decisions have sometimes proved wrong.

National strategies have been supported by some progress regarding poverty reduction, based on the national background of sustained economic growth. For certain vulnerable population categories, the objectives of the social agenda have not been completely met although they have been taken into consideration. In Romania, in the near future, the main engine for absolute poverty reduction may remain the overall economic growth. The strong relationship between the level of economic activity and poverty reduction suggests that, assuming constant inequality, the continuation of medium-term robust growth could further reduce the number of the poor in Romania significantly.

References

Adams, R. Jr. (2004), *Economic growth, inequality and poverty: estimating the growth elasticity of poverty*. World Development, 32, pp. 1989-2014.

Alam, A., Murthi, M., Yemtsov, R., Murrugarra, E., Dudwick, N., Hamilton, E., and Tiongson, E. (2005), *Growth, poverty, and inequality: Eastern Europe and the former Soviet Union*, The World Bank.

Birdsall, N. (2000), *Why inequality matters: the developing and transitional economies, mimeo*, Washington DC: Carnegie Endowment for International Peace.

Bourguignon, F. (2004), *The Poverty-Growth-Inequality Triangle*, The World Bank.

Bruno, M., Ravallion, M. and Squire, L. (1998), Equity and Growth in Developing Countries: Old and New Perspectives on the Policy Issues, In Vito Tani and Ke-Young Chu (eds), *Income Distribution and High Growth*, Cambridge, MA: MIT Press.

Ciobanu, R. (2015), *The role of European Regions in the area of sustainable development. A comparative analysis between Romania, Poland and Bulgaria*, in Pascariu, GC., Tiganasu, R., Incaltarau, C., Simionov, LM., *Regional Development and Integration: New Challenges for the EU* (EURINT Proceedings 2015), ISBN 978-606-714-160-3, pp. 80-91 (retrieved from http://cse.uaic.ro/eurint/proceedings/index_htm_files/EURINT2015_CIO.pdf).

Cornia, G.A. and Court, J. (2001), *Inequality, growth and poverty in the era of liberalization and globalization*, Policy Brief No. 4, Helsinki: UNU/WIDER.

Deichmann, U. (1999), *Geographic Aspects of Inequality and Poverty*, Washington, D.C.: World Bank.

Dercon, S. (2009), *Rural poverty: old challenges in new contexts*. The World Bank Research Observer, 24(10), pp. 1-28.

European Commission (2018), *Country Report Romania*, Brussels, SWD (retrieved from https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-romania-en.pdf).

Gries, T. and Redline, M. (2010), Short-run and Long-run Dynamics of Growth, Inequality and Poverty in the Developing World, *Working Papers CIE from Paderborn University*, No. 29.

Hashmati, A. (2004), *The Relationship between Income Inequality, Poverty and Globalisation*, MTT Economic Research and Iza Bonn.

Jencova, S., Litavcova, E., Kotulic, R., Vavrek, R., Vozarova, I. K., and Litavec, T. (2015), Phenomenon of Poverty and economic Inequality in the Slovak Republic, *Procedia Economics and Finance*, 26, pp. 737-741.

Kuznets, S. (1955), Economic Growth and Income Inequality, *The American Economic Review*, 45(1), pp. 1-28.

Naschold, F. (2003), *Why Inequality Matters for Poverty*, Inequality Briefing, Briefing Paper No 2 (2 of 3), UK Department for International Development.

Nuruddeen, T. and Ibrahim, S.S. (2014), An Empirical study on the relationship between Poverty, Inequality and Economic Growth in Nigeria, *Journal of Economics and Sustainable Development*, pp. 20-25.

Onofrei, M. and Cigu, E. (2015), Regional economic sustainable development in EU: trends and selected issues, in Pascariu, GC., Tiganasu, R., Incaltarau, C., Simionov, LM., *Regional Development and Integration: New Challenges for the EU* (EURINT Proceedings 2015), ISBN 978-606-714-160-3, pp. 268-280 (retrieved from http://cse.uaic.ro/eurint/proceedings/index_htm_files/EURINT2015_ONO.pdf).

Otsubo, S. (2008), The Eternal Triangle of Growth, Inequality, and Poverty Reduction: A Survey of Findings, *Forum of International Development Studies*, 36, pp. 21-44.

Pop, M.A. (2009), Determinarea evoluției sărăciei cu ajutorul pragurilor relative ancorate în timp, *Revista Calitatea Vieții*, XX(3-4), pp. 377-398.

Ravallion, M. (1997), *Can High Inequality Developing Countries Escape Absolute Poverty?* Washington, D.C.: World Bank.

Ravallion, M. (2014), Toward better global poverty measures, *Journal of Economic Inequality*, 14, 227-248.

Rodriguez-Pose, A. and Hardy, D. (2015), Addressing poverty and inequality in the rural economy from a global perspective, *Applied Geography*, 61, pp. 11-23.

Schvab, A., Pintilii, R., Peptenatu, D. and Stoian, D. (2015), Spatial Profile of poverty. Case study: the North-Eastern development region in Romania, *Transylvanian Review of Administrative Sciences*, 11(45), pp. 201-216.

Stănculescu, M. S. and Berevoescu, I. (2001), *Sărac lipit, caut altă viaţă! Fenomenul sărăciei extreme şi al zonelor sărace în România*, Bucureşti: Nemira.

Suppa, N. (2017), Transitions in poverty and deprivations: An analysis of multidimensional poverty dynamics, *OPHI Working Paper*, 109.

Teșliuc, E., Grigoraș, V. and Stănculescu, M. (2015), *Studiu de fundamentare pentru Strategia nationala privind incluziunea socială și reducerea săraciei 2015 – 2020*, Bucuresti.

United Nations Development Programme (2016), *Human Development Index*, Human Development Reports, (retrieved from http://hdr.undp.org/en/content/human-development-index-hdi).

United Nations Development Programme (2016), *Inequality-adjusted Human Development Index (IHDI)*, Human Development Reports (retrieved from http://hdr.undp.org/en/content/inequality-adjusted-human-development-index-ihdi).

United Nations Development Programme (2016), *Multidimensional Poverty Index (MPI)*, *Human Development Reports* (retrieved from http://hdr.undp.org/en/content /multidimensional-poverty-index-mpi).

White, H. and Anderson, E. (2001), Growth versus Distribution: Does the Pattern of Growth Matter?, *Development Policy Review*, 19, pp. 267-289.

World Bank (2007), *România: Raport de evaluare a sărăciei, Raport faza întâi*, Raport Nr. 40120-RO (retrieved from http://siteresources.worldbank.org/INTROMANIAIN ROMANIAN/Resources/PovertyAssessmentReportRom.pdf).

Zsoka, K. (2016), Being Poor, Feeling Poorer: Inequality, Poverty and Poverty Perceptions in the Western Balkans, *IMF (international Monetary Fund) Working Paper*, WP/16/31.