

# NEW ALTERNATIVE POSSIBILITIES FOR MEASURING POVERTY IN ROMANIA

Literature  
review

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## Keywords

Aggregate Romanian Index of Deprivation  
Poverty  
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## Abstract

*Poverty assessment requires and is generally based on the existence of well-defined levels of standard of living. Therefore, in this paper we try to investigate the opportunities for measuring poverty offered by economic practice, as well as to outline the real possibilities for building an aggregate index, sufficiently complex to reveal the evolution of poverty as economic deprivation in Romania.*

*In this paper, the construction of an Aggregate Romanian Index of Deprivation involves a subjective judgment because this index represents one of the methods used for configure the level and dynamics of poverty and social exclusion. The proposed index focuses on specific issues such as combining a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each region in Romania.*

## 1. INTRODUCTION

During the last years, Romania has paid special attention to social policies, especially those related to social cohesion, equal opportunities and equitable distribution of income in order to ensure the resources and opportunities necessary for communities to actively take part in the economic, social and cultural life.

These objectives have a strategic status, being established and put into practice at governmental level through numerous strategies, programmes, policies and measures to fight back poverty and social exclusion. However, since poverty stands for an element which is both quantitative and qualitative, the economic practice imposed the outline of a set of specific indicators that measure this phenomenon.

Avoiding extensive theoretical debates on poverty and social exclusion, the approach of the present article is limited to trying to determine opportunities to shape a new methodology to quantify these phenomena, without ignoring the already existing methodologies.

## 2. RETROSPECTIVE LOOK ON THE POSSIBILITIES OF MONITORING POVERTY

In outlining the possibilities of quantification of the poverty phenomenon, stands the cooperation between specialists and experts in this topic, the Ministry of Labour, Family and Social Protection for the Elderly (current name), the National Institute of Statistics, and a number of international bodies, including the World Bank, the Heritage Foundation, The Organisation for Economic Co-Operation and Development, U.S. Department of Human Services

The first attempts to analyze and measure poverty have emerged in 1995, when the National Institute of Statistics launched a poverty analysis programme, based on households' surveys and, since

2002 based on surveys of family budgets. Moreover, in order to meet monitoring in a comparative approach of the progress of Member States in relation to the objectives of the European Union social policy, in 1997, the National Institute of Statistics has suggested an indicator to measure the relative magnitude of poverty, as amended and adapted to the requirements of the European Council in 2001. The new methodology for the calculation of relative poverty indicators considered a set of 18 indicators to measure social inclusion, out of which 10 primary indicators and 8 secondary indicators.

In Romania, by Resolution no. 488 of 26 May 2005, approving the national social inclusion indicators system, it is being outlined the list of main level indicators, also secondary and tertiary, to be calculated annually by the National Institute of Statistics and the Anti-Poverty and Endorsement of Social Inclusion Commission. Diagnosis poverty level is based primarily on the absolute method for the quantification of the phenomenon on the basis of certain indicators to capture the dynamics of the monetary dimension of poverty and identification of groups at highest risk:

- ↳ The poverty rate, the threshold of 60% of median income available per adult equivalent, also called relative poverty or risk of poverty;
- ↳ The ratio between top and bottom quintile of the distribution of population by available income (the wealthiest 80% compared to the poorest 20%);
- ↳ The rate of persistent poverty, at the threshold of 60% of median income available per adult equivalent;
- ↳ Deficit relative to median threshold of 60% of median income;
- ↳ Coefficient of variation of employment rates;
- ↳ Long-term ILO unemployment rate;

- ↳ Proportion of population in jobless households;
- ↳ The share of young people 18-24 years old who left the school early;
- ↳ Life expectancy at birth;
- ↳ The percentage of people who appreciate their health as being bad or very bad.

Such systems, developed in order to measure poverty, represent a more easily assimilated instrument for decision-making system as it has been proven the sustainability of implementing the Joint Memorandum on Social Inclusion, a programmatic document of reference for the elaboration of social policies, concluded between the Government of Romania and the European Commission in 2005.

Harmonizing the agents that disseminate the change of vision in the area of poverty and social inclusion through methodologies of calculus developed within CASPIS and data provided by Romania to the European Union's official statistics (based on EUROSTAT methodology) assumed compatibility on the 3 basic pillars: *i*) concepts, definitions, classifications, *ii*) data collection methods, *iii*) sampling methods.

Thus, in compliance with Briciu (2009: 163) we notice that the implemented methodologies have put a two way pressure, namely "awareness and addressing serious concerns, respectively broadening the makers of the current issues that are already planned resources general issues that require a coherent and corroborating responsibilities of public institutions." Directions of development of social statistics are based on information collected through a series of surveys of family, household, statistics on living conditions and the labour force.

Strategic approach to social policies required the adoption of a new instrument, flexible and decentralized called Open Method of Coordination on Social

Protection and Social Inclusion to achieve a permanent exchange (peer -reviewed) between European Union member states. Moreover, we notice that recently, the Romanian Government adopted a number of strategic documents aiming to fight back poverty and social exclusion , including the National Plan against Poverty and for Social Inclusion (2004 ) , National Strategy for Sustainable Development which takes over the stipulations of the Strategy for Sustainable Development renewed for an enlarged Europe, adopted by the European Union Council in 2006, the Millennium Declaration which sets the ONU agenda for the 21st century in terms of peace, security and development, the National Strategy for the development of social services , national reform programs and other sectoral strategies and action plans .

### **3. INDICATORS FOR MEASURING POVERTY AND SOCIAL EXCLUSION**

Means for measurement and analysis of poverty dynamics in Romania are implemented by the National Institute of Statistics, based on Household budget survey, taking into consideration poverty lines or thresholds, i.e. a basket with goods and services considered necessary to cover the basic needs of an individual or household. Poverty assessment implies the existence of well-defined levels of living standards, poverty thresholds called "absolute" and "relative", according to their updates on large periods of time, compared to the national standard of living of the society.

The indicator of measuring absolute poverty is based on a national methodology, developed in 2002 in order to monitor and evaluate policies and programs aimed at increasing the welfare, to reduce the lack of resources necessary to ensure basic needs, while the indicator measuring relative poverty is based on the methodology approved by the European Council of Laeken in December 2001, and

is adequate to monitor and evaluate policies aimed at reducing inequality.

Poverty measurement is based on the poverty threshold calculated from the results of surveys that provide information on the rules implemented in food consumption expenditure, considered as necessary or on the income (or expenditure) level of the population, i.e. a percentage of them, each of which can be highlighted as both positive and negative.

Among the indicators used to highlight the poverty profile (Anghelache et al, 2006):

- Indicators measuring the *incidence* of the phenomenon: **total poverty rate** (head count ratio), which determines the percentage of deprived people from households whose consumption expenditure per adult equivalent is less than the poverty threshold (superior level) of the total population;
- Indicators that measure the *severity* of the phenomenon: **poverty depth index** is calculated as a ratio between the minimum cost of eliminating poverty and the maximum cost assessed on the assumption of the entire population and it ensures an income equal to the poverty threshold and **severity of poverty indicators** (Foster - Greer - Thorbecke class indexes, Sen index, Gini coefficient of inequality);
- Poverty indicators based on several dimensions: in Romania, National Institute of Statistics develops multidimensional poverty analysis studies based on the method which is based on fuzzy set theory "Totally Fuzzy and Relative".

Our attention is drawn by these multidimensional indices of relative

poverty assessment, which in their construction involve both setting monetary and non-monetary risk indicators, and an equivalence scale for monetary variables and application of methods of aggregation that lead to obtaining synthetic indicators.

However, poverty measurement and analysis equally lead to the identification of levels of individual or household inequality and vulnerability in the society, quantified by specific indicators:

- Indicators that measure inequality: Gini index, Theil index, dispersal ratio and income of distribution / consumption of the poorest share of the population, human development index as the average of indicators of life (life expectancy at birth), education (literacy ratio and school enrolment ratio) and standard of living (GDP per capita);
- Indicators measuring vulnerability: dynamics and inconsistency of revenue and consumption, of specific non-monetary variables as determinants of unpredictability.

Lately we have noticed that both at the academic and government level, putting together a level of expertise to measure poverty and social inclusion, permanently suggesting new sets of indicators, applicable nationwide in order to grasp the specific problems, regionally for the territorial disaggregation of data, at the county level or locally, to capture additional and specific dimensions of the phenomenon.

#### 4. NEW ALTERNATIVE POSSIBILITIES FOR MEASURING POVERTY IN ROMANIA

In the present paper, after analysing several indicators that reflect the level of poverty, we have tried to customize certain indicators aggregated in their regional dimension can offer us a clear view on the evolution of poverty as economic deprivation in Romania.

We are fully aware that the construction of an Aggregate Romanian Index of Deprivation involves a subjective judgment as this index represents one of the methods used to configure the level and dynamics of poverty and social exclusion. The proposed index focuses on specific issues such as combining a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each of the regions in Romania

The hypothesis that shaped the suggestion of this index comes from the deprivation index suggested by Townsend (1979), who selected 12 elements that he considered to be key indicators of deprivation, both for adults and children: one week holiday per year; getting the visit of a friend or relative in our home, in order to have a meal together, during the last four weeks; spending spare time together or visiting a friend or a relative, during the last four weeks; getting the visit of a playmate during the last four weeks; a party for the most recent birthday anniversary; deprivation from an entertainment during the last two weeks; lack of fresh meat at least four times per week; lack of one cooked meal per day in a week; lack of one cooked breakfast most of the days of the week; not having a refrigerator in the household; poor socialisation of the members of the household, especially on Sundays; the impossibility of using exclusively one of the following four main utilities: toilet with running water; sink with running water; bath tub or shower; electric or gas cooker.

Starting from the definition of Townsend's deprivation indicator, a series of indicators of modern multiple deprivations have been developed; these indicators try to impose the approach of capabilities, considered to be fundamental rights, as a model of human development (Sen, 1985; Sen et Nussbaum, 1993; Nussbaum, 2000; Clark, 2002, 2005, Sen, 2008). By improving Nussbaum's list

(2000: 84), which presents the ten basic capabilities, Robeyns (2003, (a), 2009) takes into consideration 14 capabilities in order to investigate gender inequalities in western societies, however, in the context of clear connection between these and the functionality features: life and physical health; mental well-being; bodily integrity and safety; social relations; political empowerment; education and knowledge; domestic work and nonmarket care; paid work and other projects; shelter and environment, mobility; leisure activities; time-autonomy; respect; religion.

However, literature presents different contradictory points of view in this matter (Pogge, 2002; Nussbaum, 2003, (b); Vallentyne, 2005; Pierik and Robeyns, 2007); in respect to capabilities, they should be selected as relevant and state who should decide on the aggregation of the various dimensions into an overall assessment, at the level of ideal theories of justice in our moral calculus. This is why, except for being framed in the capabilities theory, for the assembly of the Aggregate Romanian Index of Deprivation, we need to add analytical structures particular to the eight development regions from Romania.

In Testi et al, 2004 we come across a series of indicators of multiple deprivations, choosing the direct measurement of poverty, in order to prove the multi-dimension of the phenomenon. (Table 1). Beside these indicators, we mention those indicators already known to be taken into account in empirical analysis, among which we can mention: Lived Poverty Index (Afrobarometer, 2004, 2005; Mattes et al. 2003), the United Nations Development Programme (UNDP)'s Human Development Index, Human Poverty Index, Gender Empowerment Measure and Service Deprivation Index (UNDP, 2003); a Capability Poverty Measure (UNDP, 1996) and a Multidimensional Poverty Index (Alkire and Santos, 2010).

*Insert Table 1 about here*

The methodology suggested in the literature assures us to think that for Romania also it can be assembled such an index of multiple deprivations by taking into consideration sub-indicators, considered to be more relevant to highlight the economic and socio-cultural parameters of each region. The data required for the assembly of this index can be collected from the Eurostat database, and the National Institute of Statistics of Romania.

## 5. CONCLUSIONS

We believe it is possible to put together a Romanian Aggregate Index of Deprivation by using the methodology applied at the assembly of the English Indices of Deprivation, after determining and obtaining a unique sizing summary for each area considered important: income, demographic structure, economic, healthcare, education, conditions of living, geographic location, criminality. Factor analysis and assigning a rank to each region of Romania helps putting into placement the communities in each region in a ranking by the level of scarcity in the respective field.

It is obvious that this is not a completed research on the empirical side, as we need carefully collected and processed micro-data on all these domains. Precisely because the index method has wide applicability in the analysis of social and economic complex phenomena in dynamics and on territorial level, the assembly of such an index would lead to the dimensioning of a relative size of dynamics, coordination, or of an extremely useful programming.

The contemporary socio-political context is an impediment to fair reception and increasing the practical efficiency of regional public policies, therefore, such an index meets the practical needs of regional analyses, and the urban-rural area of residence.

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**Table no 1**  
**Indices of Multiple Deprivation**

<b>Index of Deprivation</b>	<b>Selected variables for composition</b>	<b>Data source</b>	<b>Author index</b>
<p><b>The Townsend Index of Disadvantage &amp; Deprivation</b> <i>- is a measure of material deprivation</i></p>	<p>1= percentage of economically active people unemployed; 2 = percentage of households with more than one person per room; 3 = percentage of households with no car; 4 = percentage of households not owner-occupied</p>	<p>1981 census of Northern region (counties of Cleveland, Cumbria, Durham, Northumberland and Tyne and Wear</p>	<p>Townsend et al, 1988</p>
<p><b>Jarman Underprivileged Area Score (UPA 8)</b> <i>- take account of the social factors</i></p>	<p>1 = pensioners living alone as a percentage of all residents in households; 2 = children aged under five years as a percentage of all residents in households; 3 = people in households of one person over 16 and one or more children as a percentage of all residents in households; 4 = people in households headed by a person in socioeconomic group 5 (unskilled manual workers) 2 as a percentage of all residents in households; 5 = people aged 16 or more unemployed as a percentage of economically active adults; 6 = people in households living at more than 1 person for room as a percentage of all residents in households; 7 = people aged 1 or over with a usual address one year before the census different from the present usual address as a percentage of all residents in households; 8 = people in households headed by a person born in the New Commonwealth as a percentage of all residents in households</p>	<p>Census data of the workload of General Practitioners in England and Wales</p>	<p>Jarman, 1983</p>
<p><b>Carstairs deprivation index</b> <i>- is evaluating inequalities in health</i></p>	<p>1 = persons in private households living at a density of &gt;1 person per room as a proportion of all persons in private households; 2 = proportion of economically active males who are seeking work; 3 = proportion of all persons in private households with head of household in social class four or five; 4 = proportion of all persons in private households with no car</p>	<p>The population of Scotland</p>	<p>Carstairs &amp; Morris, 1991</p>
<p><b>MATDEP and SOCDEP</b> <i>- MATDEP is designed to measure material deprivation, SOCDEP quantifies social deprivation</i></p>	<p>MATDEP Variables: 1 = percentage of household with more than one person per room; 2 = percentage of households lacking or sharing use of a bath/shower and/or inside Wc; 3 = percentage of household with no central heating; 4 = percentage of household with no car</p> <p>SOCDEP Variables: 1 = percentage of economically active population unemployed; 2 = percentage of economically active 16-24 year olds unemployed; 3 = lone parent households as a proportion of all households; 4 = percentage of households containing a single pensioner; 5 = percentage of households containing a person</p>	<p>SUA 1991 census data</p>	<p>Forrest &amp; Gordon, 1993</p>



Index of Deprivation	Selected variables for composition	Data source	Author index
	with limiting long-term illness; 6 = percentage of households containing dependants only (e.g. single pensioners with long term illness)		
<p><b>Index of Multiple Deprivation 2000 (IMD 2000)</b> <i>- measure a major aspect of the dimension of deprivation</i></p>	<p>1 = Income; 2 = Employment; 3 = Health Deprivation and Disability; 4 = Education, Skills and Training; 5 = Housing; 6 = Geographical Access to Services.</p>	<p>Department of Social Security benefits data and University and Colleges Admission Service (UCAS) data for England</p>	<p>the Department of Social Policy and Social Work at the University of Oxford, 2000</p>
<p><b>Italian proposals for deprivation indexes</b> <i>- designed to analyse general mortality according to deprivation category and to measure the size of ecological bias</i></p>	<p>1 = low education; 2 = unemployment; 3 = renter occupier housing; 4 = no indoor bathroom 5 = lone parent with childhood</p>	<p>Italian 1991 census data base</p>	<p>Cadum et al 1999</p>
<p><b>The English Indices of Deprivation</b> <i>- identify the most deprived areas across the country.</i></p>	<p>use 38 separate indicators, organised across seven distinct domains of deprivation which can be combined, using appropriate weights, to calculate the Index of Multiple Deprivation 2010 (IMD 2010): 1 = Income Deprivation Domain; 2 = Employment Deprivation Domain; 3 = Health Deprivation and Disability Domain; 4 = Education, Skills and Training Deprivation Domain; 5 = Barriers to Housing and Services Domain; 6 = Crime Domain; 7 = Living Environment Deprivation Domain</p>	<p>Every year data collection</p>	<p>The Office for National Statistics</p>