## УДК 311.3 CURRENT ISSUES OF STATISTICAL ANALYSIS OF POVERTY IN THE REPUBLIC OF BULGARIA АКТУАЛЬНЫЕ ВОПРОСЫ СТАТИСТИЧЕСКОГО АНАЛИЗА БЕДНОСТИ В Р БОЛГАРИИ

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**Abstract.** At the beginning of the 21st century, combating poverty and social exclusion is among the strategic priorities of the society. The report examines current issues of poverty as the subject of statistical analysis and the possibilities for its assessment through quantitative indicators. A statistical analysis of the dynamics of the indicator "population at risk of poverty" was carried out. Three indicators are used for its assessment: "population at risk of poverty", "population living in material deprivation" and "population living in households with low work intensity". The trends in implementation of national targets and reforms in Bulgaria for poverty reduction for the period 2010-2016 are outlined.

Key words: poverty, indicators, statistical analysis, trends.

# Introduction

An adequate assessment of social phenomena based on social statistical information allows its rational use for the development of the economic system and enhancing its efficiency and competitiveness. The processes of open coordination in the social field and the strengthening of social protection in Bulgaria place a new emphasis on the need for a statistical analysis of poverty based on comparable, up-to-date and reliable information. Thus, the aim of this report is to clarify the methodological concepts of poverty as a subject of the statistical analysis and to examine the trends in the dynamics of indicators for its measurement in Bulgaria for the period 2010-2016.

# 1. Poverty as a subject of statistical analysis.

Poverty is a multidimensional phenomenon and can therefore be defined in different ways. The concept of poverty includes both the lack of resources to meet basic needs and the lack of conditions and prerequisites for a decent and fulfilling life as a result of inability to choose. Living conditions must be such as to ensure a long and healthy lifestyle, opportunities of education and free participation in different human activities. In a broad sense, poverty is defined as a lack of opportunities to meet needs. As it is known, there are several basic concepts of poverty in theory – absolute poverty, relative poverty and subjective poverty [1].

The statistical survey on poverty implies the availability of a variety of information on the various aspects of economic and social life of society. In the Bulgarian statistical practice, there are several statistical observations, the information of which corresponds to the above-mentioned concepts to define poverty. This applies both to the scope of information sources and to the methods and models used. The objective and adequate statistical information makes it possible to analyse the complex relationships between the factors that determine poverty and related



#### processes.

A statistical study of household budgets occupies an important place among the information sources for studying poverty. This survey provides detailed information on household income, expenditure and consumption. Nevertheless, it is not possible to assess living conditions, labour, etc. although some non-material aspects of poverty can be estimated through household expenditure on education and healthcare. Due to these information constraints, the household budget survey unilaterally assesses the phenomenon and is not a sufficient source for a detailed analysis of poverty. The situation with information from other statistical surveys is similar. For instance, the Labour Force Survey provides information on the number of unemployed but does not provide information on sources of income, living conditions, etc. The linking of data from different studies on the analytical level is reflected in the multipurpose survey "Statistics on Income and Living conditions – EU-SILC" conducted in the European Statistics Code of Practice, incl. in Bulgaria [5].

### 2. National targets and indicators for poverty assessment

Poverty is a topical issue not only for Bulgaria but also for the European Union as a whole. In the Europe 2020 Strategy, combating poverty and social exclusion is one of the European Commission's strategic priorities. One of the main objectives of the Strategy is to reduce the number of people at risk of poverty by 20 million thus the proportion of the European population living below the national poverty line will be reduced by 25% [2].

At national level, EU Member States define and implement measures to provide support to groups of population at particular risk by expanding their social protection systems. The National Reform Programme of Bulgaria to achieve the objectives of the Europe 2020 Strategy sets the national target to reduce the number of the population living below the poverty line by 2020 with 260 thousand, which is 16% of the poor in 2008 [3]. The decrease is relative to the base year 2008, when the population in poverty in Bulgaria was 1.63 million people.

The National Statistical Institute of Bulgaria includes in the National Statistical Programme for 2012 regular survey of the indicators, which measure the progress towards the implementation of the aims and reforms, thereby providing official statistical information on these processes [4]. Indicators, which measure the progress in implementing the aims of the Europe 2020 Strategy, are as follows:

• People living at risk of poverty. These are people with income below the poverty line, which is defined as 60% of the national median equivalised disposable income.

• People living in material deprivation. This is a subjective indicator that assesses nine specific indicators of material deprivation – difficulties in paying certain housing costs, possession of a telephone, etc.

• People living in households with low work intensity. This includes individuals aged up to 59 living in households where adults have worked less than 20% of their work potential during the past year.

• Population at risk of poverty or social exclusion (combined indicator). It includes the people from the previous three indicators, despite the number of

indicators in which a person is part of, when it comes down to the calculation of the combined indicator that person is taken into account only once.

## 3. Statistical analysis of indicators for poverty assessment in Bulgaria

The National Statistical Institute has maintained a database of those indicators since 2010. They are presented in three sections – on national level, on statistical regions and on districts. It provides broad opportunities to develop analyses and forecasts of poverty rate, regional disparities, its factor conditionality, etc. The following exposure analyses trends in the change of indicators at national level for the period 2010-2016. The necessary data are presented in Table 1.

Table 1

INDICATORS	2010	2011	2012	2013	2014	2015	2016
Poverty line in							
Bulgaria (BGN	3540	3420	3356	3431	3885	3910	3698
thousand)							
1. People living at risk of poverty (%)							
Bulgaria	20.7	22.2	21.2	21	21.8	22	22.9
EU (28)	16.5	16.8	16.8	16.7	17.2	17.3	17.3
2. People living in material deprivation (%)							
Bulgaria	45.7	43.6	44.1	43	33.1	34.2	31.9
EU (28)	8.4	8.8	9.9	9.6	8.9	8.1	7.5
<b>3.</b> People living in households with unemployed or with low work intensity (%)							
Bulgaria	8	11	12.5	13	12.1	11.6	11.9
EU (28)	10.3	10.5	10.5	10.9	11.2	10.7	10.5
4. Population at risk of poverty or social exclusion (combined indicator)							
Bulgaria	49.2	49.1	49.3	48.0	40.1	41.3	40.4
EU (28)	23.7	24.3	24.7	24.6	24.4	23.8	23.5

Indicators for assessment of poverty in Bulgaria and the European Union during the 2010-2016 period.

Source: [5] and by author

The relative share of people living at risk of poverty shows a volatile dynamics and the value of this share varies within a narrow range – from 20.7% at the beginning of the period to 22.9% at the end of the period when it has its highest value. Regardless of annual fluctuations, there is a steady upward trend of the indicator. Compared to the European Union (28), the share of the poor in Bulgaria is much higher throughout the whole survey period. The gap is steadily widening to reach 5.6% in 2016, which indicates the deepening of social disparities between our country and European countries.

The second indicator "people living in material deprivation" tends to decrease – both in absolute and relative size. The decrease in the number of people is by 34% and their relative share – by 31%. However, the difference from the European level of the indicator is too high to be compensated by this positive trend. For the European Union countries (28), the relative share of people living in material deprivation is much lower than in Bulgaria. Its value is between 9.9% and 7.5% and shows a steady downward trend.

The third indicator – people living in households with unemployed or with low work intensity is characterised by values closest to those in the European Union. In Bulgaria, the share of these people varies between 8% and 12% with no clear trend. In the European Union (28), the indicator ranges between 10% and 11% and is relatively constant over the period.

For the calculation of the "population at risk of poverty or social exclusion" indicator (combined indicator), the above-mentioned three indicators are used without cumulative accumulation of the respondents' answers. The comparative dynamics of the combined indicator for Bulgaria and the EU (28) shows that throughout the whole period Bulgaria remains very far from the European level of the indicator. While the share of the EU population at risk of poverty and social exclusion varies between 23-24% and shows a slight decrease, the indicator in our country is about twice as high. Its decrease after 2013 – from 48% to 40% is a positive trend. Nevertheless, these figures show that nearly half of the Bulgaria's population is at risk of poverty and social exclusion and placed Bulgaria last in Europe.

### Conclusion

The statistical study of poverty is an integral part of the development of a strategy for its reduction, which is precisely the purpose of social policy. Reducing poverty, raising living standards and quality of life, combating social exclusion and developing human capital are key priorities of Bulgaria's social policy as an equal member of the European Union. These tasks have to be solved in the context of international statistical practice, i.e. the methodologies used to measure and assess poverty must be consistent not only with the situation in the country but also be used for international comparisons.

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Аннотация. В начале XXI века борьба с нищетой и социальной изоляцией является одним из стратегических приоритетов общества. В докладе рассматриваются актуальные проблемы бедности как предмет статистического анализа и возможности ее оценки с помощью количественных показателей. Сделан статистический анализ динамики показателя "население, подверженное риску бедности или социального отчуждения", для которого используются три показателя: "люди, живущие под угрозой бедности", "люди, живущие в материальном лишении" и "люди, живущих в домохозяйствах с низкой интенсивностью экономической деятельности". Анализированы тенденции в реализации национальных целей и реформ в Болгарии для сокращения бедности на период 2010-2016 годов.

Ключевые слова: бедность, показатели, статистический анализ, тренды.

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