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**Present and future in poverty measurement in Slovakia in terms of data
resources potential**

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Abstract

In line with the UNECE Manual on poverty measurement, developed by UNECE in order to harmonize measurement of poverty in Slovakia is primarily based on income poverty concept and multidimensional approach to poverty, which includes poverty and social exclusion. At national level we can identify EU SILC survey (Statistics on Income and Living Conditions), HBS (Household Budget Survey) and HFCS (Household Finance and Consumption Survey) as potential data sources. Each source can be used for measuring specific aspect of poverty and they together create condition for more effective utilization of their existing potential. In article we deal with comparison of these three sources using set of indicators and suggest possible areas for further improvement of poverty measuring, especially at national level. As well as in relation to manual itself and issue of measurement of poverty we identify resources issue, international comparison, specific surveys and usefulness of poverty indicators to combat this phenomenon as key aspects of further development.

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Introduction

The Conference of European Statisticians approved at their meeting Manual on Measurement of Poverty in June 2017. The manual is based on existence of various approaches at national level and its objective is so predominantly to improve international comparability of poverty statistics (Guide, p. 10). The manual identified several methodology problems which may concern individual countries in greater or lesser extent.

The measurement of poverty, in the countries of the European Union by the UNECE Manual, is based on measurement of income poverty and multidimensional comprehension of poverty, which includes poverty and social exclusion. Poverty measurement in Slovakia is based on regular production of European social indicators (comparable dashboards) and is fully in accordance with mentioned document (Guide, p 110-111). The main indicator at national and European level is at-risk of poverty or social exclusion rate and its sub indicators: at risk of poverty rate (simultaneously also main indicator of income poverty), severe material deprivation rate and rate population living in very low work intensity households.

For obtaining of comprehensive picture about poverty in Slovakia and also in correspondence with requirements for Agenda 2030 and Sustainable Development Goals (SDG 1 – end of poverty in all its form everywhere) were as main priorities identified (1) the regular production of set of regional indicators at least at NUTS 3 level (SK - region), (2) focus on ethnicity and (3) effective using of existing sources.

Data sources about Poverty

In Slovakia we can identify three data sources for measurement of poverty at present: *Household Budget Survey (HBS)*, *Statistics on Income and Living Conditions (EU SILC)* and *Household Finance and Consumption Survey (HFCS)*.

Household Budget Survey (HBS) belongs to the oldest sample survey in households in Slovakia and it is source of data on amount, structure and development of monetary and non-monetary expenditures and incomes in different types of households. It is realised regularly since 50th years. Only two modifications of survey happened during existence of this survey. The most significant modification happened in 2013 on the base of system redesign. Reason was growing survey costs, which became the most expensive survey realised by the Statistical Office of the Slovak Republic (SO SR), requirements on modernisation – mainly standardisation and harmonisation with other household surveys as well as user's needs and decreasing burden at respondents. Changes related to especially questionnaires, mode of data collection (mixed mode was introduced), calibration and weighting and frequency of its fieldwork data collection, which means transfer from annual to 3-years survey.

Among years of realisation of fieldwork data collection data on income and expenditures are results of micro simulation module.

Statistics on Income and Living Conditions (EU SILC) is fully harmonised survey in production of the European Statistical System. In terms of analyses and its use for taking political measures its outputs belong to one the most frequently used data in academic sphere. Data are also used as input for simulation of social benefits, especially in relation to material need benefit. What is necessary to highlight, EU SILC is primary source of data on poverty and regularly every year set of indicators for Slovakia measuring income poverty and social exclusion is presented through press conference. This press conference is stimulus for public debate about poverty in all its forms in Slovakia at the same time.

Household Finance and Consumption Survey (HFCS) is harmonised survey in countries of Eurozone. The aim is to gain reliable data on assets, liabilities, income and expenditures of households. It is coordinated by the European Central Bank and realised by national banks. In Slovakia, it has been realised since 2010 by National Bank of Slovakia and with exception of the first year every three years realised in collaboration of SO SR, which is responsible for data collection and initial data processing and participates in its preparation as well as weighting and data calibration. Survey is also the source of detailed information on structure of wealth of Slovak households.

Results

In decision-making process of definition national measurement of poverty we consider it important to take into account historical context of the measurement. There are countries which have defined their own national measurement of poverty for a long time. This is not a case of Slovakia. In our national conditions was decisive connection to EU measurements. Therefore the main source of poverty measurement has become survey EU SILC. Defining should be based on consensus of policy makers, statisticians and researches, and backed up by deep analysis².

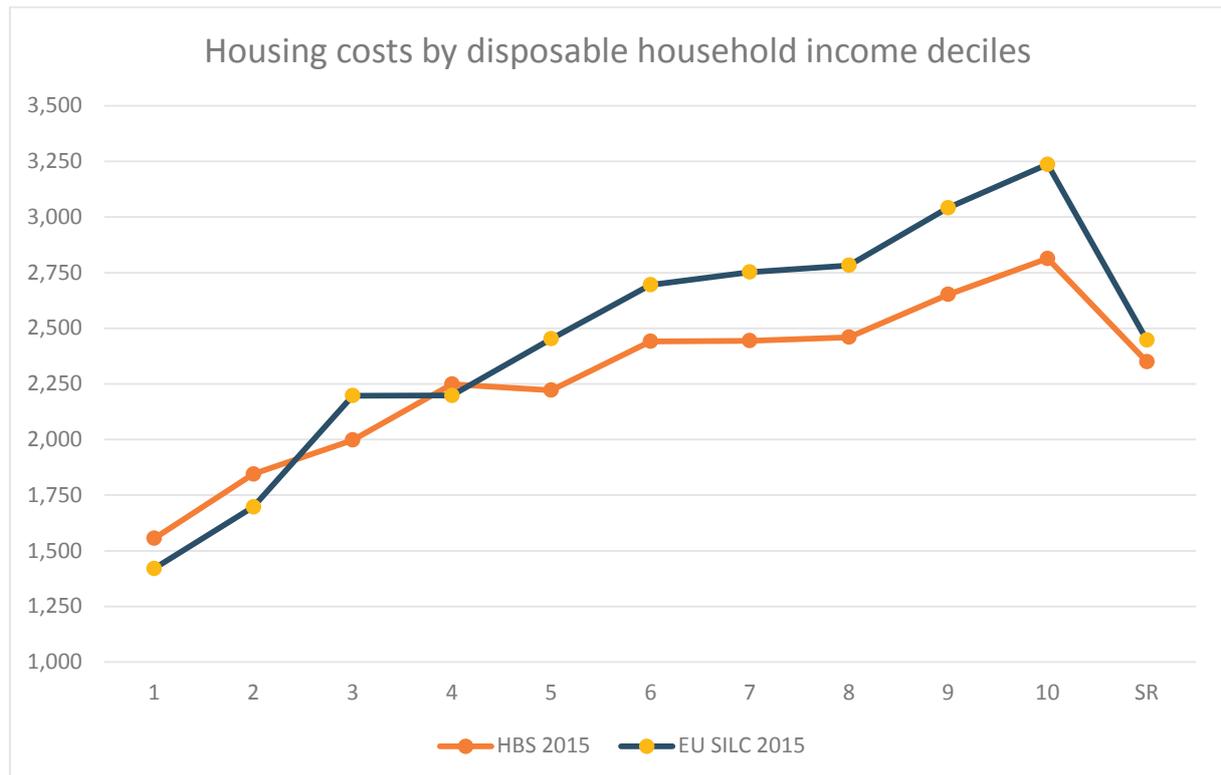
Considering that there are multiple sources (sample surveys) in the production national measurements is needed to be ensured their coherence, certain level of harmonization and last but not least, use of statistical-mathematical methods (e.g. statistical matching).

In this regard within Strategy of Development of the SO SR we have available a defined Action Plan – Modernisation of Social Statistics in Conditions of the SO SR. The objective of this Action plan is ensure modernization of social statistics, standardization and harmonization of sample survey in household. The full harmonization of use so called standardized variables in sample surveys

² In Slovak conditions it was specific project named National indicators of poverty under the auspices MLSAF SR and cooperation with SO SR.

of population also belongs to this objective. Simultaneously we analyse and compare also another variables which are not in the list of standardized variables, but in our national conditions they are collected in two various surveys. Variable „Housing costs“ can be used as example. In our condition this variable is used for purpose of simulation of housing allowance for person in material need. This variable is collected in surveys EU SILC and HBS. The following Picture 1 demonstrates the comparison of housing costs analysed by decile distribution of the disposable household income.

Picture 1: Housing costs by disposable household income deciles (HBS and EU SILC 2015)



On the base of Picture 1 we can see, that total costs on housing in SR are not very different on the basis of these two data sources. On the basis of EU SILC 2015 survey the average total household costs per year were 2 448 EUR while from HBS 2015 survey these ones were 2 350 EUR. When the households were distributed into deciles by disposable household income, differences in average costs were increasing in some deciles and this difference was bigger in higher decile. Differences in surveys can have connection with used different income reference period, where in EU SILC we collect total income for previous year, while in HBS we collect actual monthly household income recalculated to the whole year.

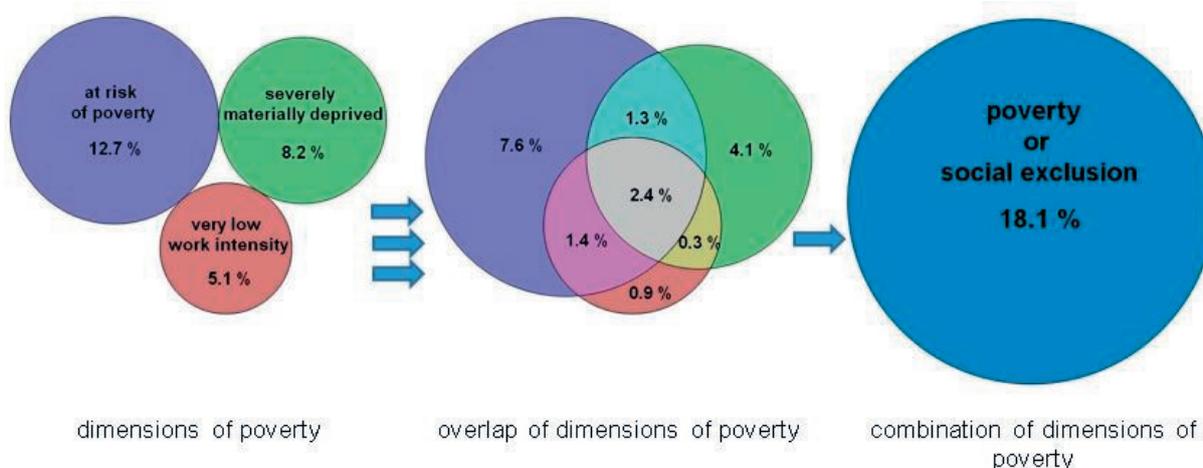
Other possible approach is to compare indicator which is calculated by identical way from different sources. Since based on harmonisation and standardization, the same concept of income measurement is recommended for Household Budget Statistics as for Statistics on Income and Living Conditions, we compare data on income poverty calculated on the base of the both sources. By HBS

2015 the poverty threshold was 4 409 EUR per capita and year (from EU SILC 2015 it was 4 158 EUR). According to HBS at-risk-of-poverty rate is lower in general than that calculated from EU SILC, even though in calculation we came from common international concept defined for EU SILC survey. However, differences in surveys can have connection with used different income reference period (mentioned above) and economic activity concept. For economic activity in EU SILC is defined main (prevailing) economic activity of persons in previous year, while in HBS economic activity of persons at time of interview is taken into account. Despite of existing differences in both surveys the same groups of people were the most affected. Children (up to 18 years old) are in EU SILC survey 1.6 times more affected than is nationwide average and for HBS this ratio represents 1.5 times. For unemployed persons, this ratio represents in EU SILC 3.7 times and in HBS it is 4.1 times.

Other way of working with the occurrence of multiple sources of poverty is to identify a particular source for calculation of specific concept of poverty (e.g. EU SILC for income poverty, HBS for poverty based on basic needs and HFCS for assets poverty).

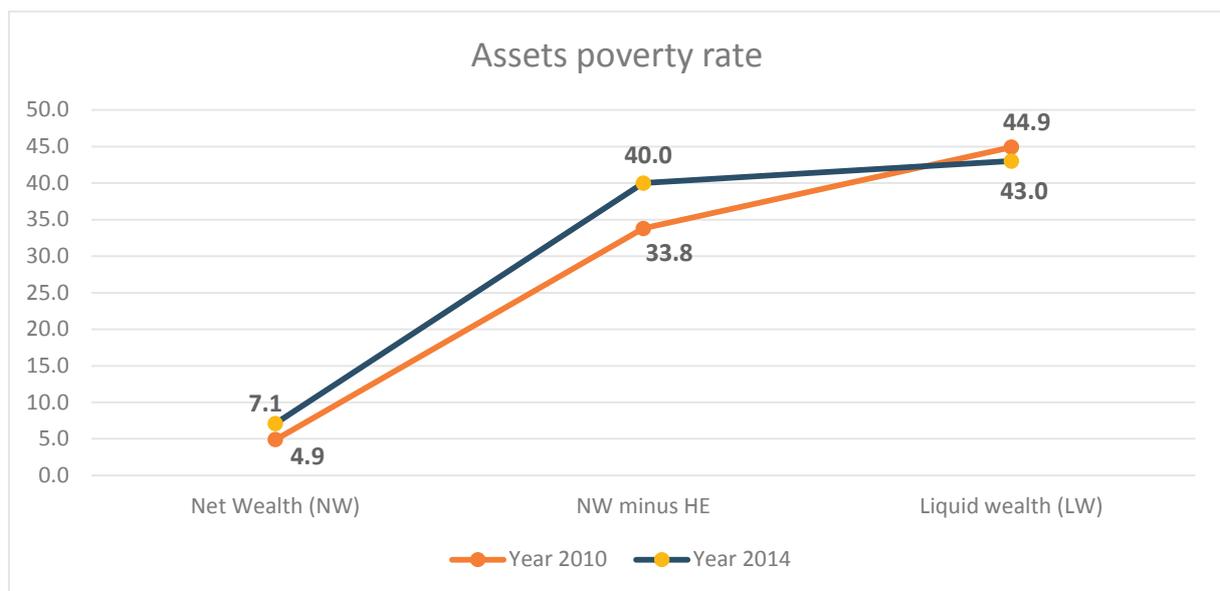
The question of communication is key and so in relation to the changes of resources, used file of indicators, so as well possible impacts on existing time series. Defining multidimensionality of poverty clearly and coherent way is particularly important. Let me take a Slovakia as an example. The first step and also way of communication is press conference with journalist and experts on the issue. In the accompanying document we present first the income poverty through at-risk-of-poverty rate indicator and the income poverty profile. Afterwards we present at-risk-of-poverty rate indicator and social exclusion. We present separately material deprivation and separately low work intensity dimension through the Venn diagram (Picture 2) and after that the overlap of all three components is basis for the presentation of the synthetic indicator itself.

Picture 2: Multidimensionality of poverty – poverty or social exclusion indicator



The evaluation of poverty by joining of information of two various sources was last concept which we dealt with in the Slovak conditions. Namely it was calculation so called „assets poverty“, where the surveys HFCS and EU SILC were used. For purpose of analyse asset poverty was defined as having wealth sufficient to cover basic needs for period three months. The assets value represented either all real and financial wealth and liabilities of households (NW) or net wealth adjust for value of main dwelling of real wealth of households (NW-HE) or liquid wealth (LW), which expresses value of cash or other easy monetized property (from EU SILC). For calculation the data from 2010 and 2014 years were used.

Picture 3: Assets poverty rate



Based on data in Picture 3 it is possible to see while in 2010 the net value of assets would not cover the basic needs for period of three months for nearly 5% of households, in 2014 it was for 7%. The net property adjusted for value of main dwelling would not cover needs of more than one third of household in 2010 and 40% households in 2014.

Conclusions

In society of 21st Century, poverty is the phenomenon experienced by developed countries as well as developing countries.

Existence of different poverty concepts is also the result of various forms of poverty. However we must be careful in international comparison, what applies also in case of relative poverty. It is important to be able to identify the most vulnerable population groups and compare, how they are in each country, i.e. not to compare only value of the indicator but also how many times the population groups are more vulnerable than it is average in relevant country.

Standard surveys do not always adequately inform on the poverty of specific groups of population (Roma population, migrants). Specific surveys in terms of sample selection and content, keeping minimum variables needed for calculation of indicator, could be possible solution.

The issue of data source and their harmonisation seems to be crucial. However realisation of sample survey with data collection of income, wealth as well as consumption is a significant burden for respondent, its quality does not always meet the requirements. Solution developed by the European Commission - the use of standardized variables in surveys, modularization and the use of statistical matching methods - appear to be an appropriate alternative approach. Another option is the use of administrative data sources (ADS), although it has to be said that time that has been spent to harmonize sample surveys is also needed to develop ADS methods and ensure their quality. The situation is different from country to country.

In the future it is necessary to pay more attention to question, how the production of a set of indicators of poverty really covers the needs of users and how they are actually used and usable in combating poverty. Production of numbers without their impact for example on social policies and concentrating only to monitoring of the existing situation is not sufficient and is not in line neither with position of national statistics nor goals within SDG agenda. New methods, sources, concepts should more strictly reflect the situation and set requirements for elimination of poverty.

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