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## Economic Resources Statistics in Bulgaria: Current State and Challenges

Prepared by

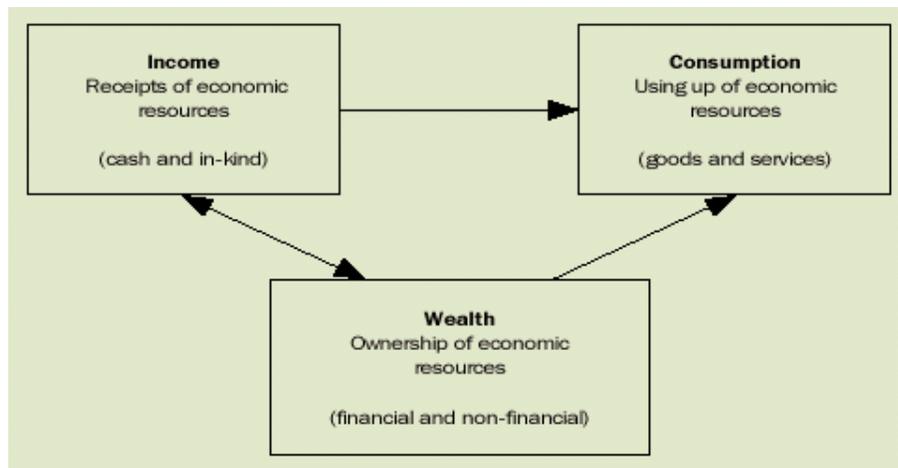
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## 1. Introduction: Framework for Economic Resources Statistics

1. Economic resources that the persons and families may command over determines to a great extent their standard of living, the range, quantity and quality of goods and services that can be consumed. People with limited resources can experience hardship in meeting the basic costs of living and may become dependent on others to have such needs met. However, there are a lot of practical difficulties in both developing concepts and finding measurement scales for economic resources. There are many tangible and intangible kinds of resources part of which are difficult to value. Additional difficulty arises from the people's reluctance to share information on their income, assets and liabilities. So, finding practical ways for obtaining reliable data on economic resources of households and individuals is an on-going issue of concern.

2. In this paper we define economic resources as resources that have a monetary (or market) value. In particular economic resources refer to a person's or family's income, consumption and wealth and include goods and services, tangible and intangible assets, financial assets and liabilities. In the rest of the paper we use statistics of economic resources and statistics of income, consumption and wealth (ICW) interchangeably. Figure 1 illustrates the core elements of the framework of Economic Resources Statistics and the relationships among them. It should be underlined that in the paper the focus is solely on the distribution of wellbeing among people, that is the focus is on wellbeing at household level.

Figure 1: Framework of Economic Resources Statistics



Source: Measuring Wellbeing: The Frameworks for Australian Social Statistics, 2001

3. While the term income is in common use, it means different things to different people and is defined in different ways depending on the use. Income based measures are those most frequently used both within and across countries, to describe the economic wellbeing of population groups. Therefore, it is essential for the international statistical community to develop a common conceptual basis for measuring household income which could be used by statistical agencies across the world. The measurement of income was the key area of attention in searching for a harmonized statistics of economic resources. In 2001 Canberra

Group<sup>1</sup> published its recommendations on measuring income, drawing largely on SNA93 concepts. Having in mind the primary goal of the study - to measure household wellbeing, it seems rational to define household income in terms of its availability for current consumption and to refine it to resources that have a direct impact on the current consumption. Thus, in Bulgarian official statistics *household income* is defined as disposable income comprising receipts (in cash or in kind) that accrue on a regular and recurring basis. In contrast, large irregular receipts that occur within an accounting period are considered to be additions to a household's stock of assets<sup>2</sup>.

4. *Household consumption* refers to the monetary value of the goods and services consumed in order to satisfy the household needs within a given reference period. Bulgarian ICW statistics uses OECD modified equivalence scale, described below in calculating household income in counting units in order to make adjustments to the differences in the needs of individuals within a given household and to take into account the economies that come from sharing resources.

5. When providing time series comparisons of income or expenditure in order to compare real changes in the levels of income or expenditure the effects of inflation are removed deflating income and expenditure by consumer prices index and its sub-indices. Unlike the flows of income, consumption and saving, net worth is a stock figure. A *household's wealth* at any given point in time is defined as the difference either positive or negative. Therefore wealth is more appropriately referred to as 'net worth'<sup>3</sup>. Data on household's net worth is necessary to give a complete picture of a household's economic wellbeing because it determines the broader economic power of the household.

6. Statistics on economic resources is of considerable interest to the policy-makers, the international and charity organizations and the society as a whole. Data on income, consumption and wealth distributions reveal the scale, severity and drivers of poverty and outline the population groups and regions affected. This information helps national governments and international organizations in determining the amount of financial and non-financial support that should be provided to people with limited means and in designing policies aimed at reducing the risk of poverty. Bulgaria employs relative poverty line set at 66% of the median household income, after incomes have been adjusted using modified OECD equivalence scale.

7. Large and conspicuous differences in the economic resources and levels of consumption of the rich and the poor can affect social cohesion and may create social tensions and political instability. Indicators of total income inequality and its subsequent decomposition by social groups and sources are extensively used in the design, monitoring and evaluation of various tax and transfer re-distribution policies. In setting macroeconomic policies aimed at stimulating employment and economic growth governments are seeking information on the levels of income growth by sources of income (especially earnings) and on the changes in the aggregate consumption and other economic activities of people.

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<sup>1</sup>Expert Group on Household Income Statistics

<sup>2</sup>Measuring Wellbeing: The Frameworks for Australian Social Statistics, 2001

<sup>3</sup>Measuring Wellbeing: The Frameworks for Australian Social Statistics, 2001

8. This paper describes the scope and content of contemporary Economic Resources Statistics in Bulgaria; key data sources; data collection process (definitions and concepts used, statistical methods, periodicity, classifications, main tabulations); different population groups and geographical level for which data are presented. It also outlines the main challenges that official statistics in Bulgaria and in other EU countries are currently facing in response to the growing needs for the extension of the scope of the income, consumption and wealth data and improvement of their quality.

## **2. Data sources**

9. ICW data come from two primary sources: the Household Budget Survey (HBS) and EU-SILC survey (Community Statistics on Income and Living Conditions). One administrative data collection, named European System of Social Protection (ESSPROS) provides insight into social protection of households and individuals in the country and allows for a coherent comparison between Bulgaria and other European countries of social benefits to households and their financing.

10. Household Budget Survey is among the oldest statistical surveys conducted ever in Bulgaria. As long as time ago as in 1925 Bulgarian state statistical office conducted the first sample survey of the total incomes of 1385 households of civil servants and workers. Since 1953 the HBS has been conducted regularly and has received recognition as the main and reliable source of data on income and consumption of Bulgarian households.

11. In 2006 Bulgaria joined the EU-SILC survey that is the main source for the compilation of comparable indicators on social cohesion used for policy monitoring at EU level in the framework of the Open Method of Coordination. It is collecting timely and comparable multidimensional micro-data on income, poverty, social exclusion and living conditions on an annual basis. Every year, both cross-sectional data (pertaining to a given time or a certain time period) and longitudinal data (pertaining to individual-level changes over time, observed periodically over, typically, a four year period) are collected. The EU-SILC was launched under a gentleman's agreement with six EU-15 countries plus Norway in 2003 and re-launched under a Regulation with twelve EU-15 countries (Belgium, Denmark, Greece, Spain, France, Ireland, Italy, Luxembourg, Austria, Portugal, Finland and Sweden) and Estonia, Norway and Iceland in 2004.

12. ESSPROS, the integrated system of social protection statistics, provides a coherent comparison between European countries of social benefits to households and their financing. Social benefits are transfers to households, in cash or in kind intended to relieve them from the financial burden of a number of risks or needs. ESSPROS consists of modules each of which has its own methodology and is based on a particular Commission regulation. The introduction of any additional modules requires extensive preliminary consultations with the Eurostat Working Party for social protection statistics and has to be regulated by a specific EP and Council Regulation. Currently the system's modules cover the number of pension beneficiaries; net social protection benefits (depending on the results of a pilot data collection in all Member States), i.e. the influence of fiscal systems on social protection by the taxes and social contributions paid on benefits by beneficiaries and the extent to which social benefits are provided in the form of tax rebates or tax reductions.

### 3. Data collection

#### 3.1. Household Budget Survey

##### *Variables of Interest and Periodicity*

13. HBS is a multi-purpose survey which caters for a large number of uses and users. In terms of the scope and detail of information supplied, the survey is an invaluable source of data on the economic and social living conditions of households and individuals in Bulgaria. Among the prime objectives of the HBS is to collect data on household consumption expenditure for updating the 'weights' of the various elements in the basket of goods used in calculating the Consumer Price Index (CPI). The 'weights' measure expenditure on specific goods and services items as a proportion of total household expenditure. The survey also provides detailed description of private household's total consumption by household size, income level, urban/rural area, and presence of dependents, characteristics of the household head (age, education, and activity status). The results from the survey are used for the calculation of official poverty line in the country. The HBS is also a source measuring consumption expenditure in the National Accounts. Historically the HBS results have been extensively used for analysis of changes in living standards over time and of disparities in wellbeing among households in the different socio-economic groups, geographical areas, rural and urban zones as well as for evaluations of various types of tax and transfer redistribution policies.

##### *Coverage and Data Collection*

14. HBS is still conducted each month over a representative sample of 3000 Bulgarian households of total of 3 000 000 private households residing in the country. Collective or institutional households (old persons' homes, hospitals, hostels, boarding houses, prisons, military barracks etc.) are not covered by the survey. Household is the basic unit of data collection and analysis in the Household Budget Survey. It is defined as a *social* unit, consisting of individuals living together in the same dwelling unit and sharing a common budget for joint provision of essentials of living. The household head is the person designated as such by the household concerned. The data collection process is carried out by means of paper questionnaires and diaries as well as by face-to-face interviews during visits of NSI interviewers every two weeks.

15. The HBS methodology uses the four-level COICOP-HBS nomenclature, which provides the twelve following main divisions of consumption expenditure:

- Food and non-alcoholic beverages
- Alcoholic beverages, tobacco and narcotics
- Clothing and footwear
- Housing, water, electricity, gas and other fuels
- Furnishings, household equipment and routine household maintenance
- Health
- Transport
- Communication
- Recreation and culture
- Education
- Restaurants and hotels
- Miscellaneous goods and services

16. Income used in HBS must be understood as equivalised disposable income. For the equivalisation, the modified OECD equivalence scale is used, which assigns a weight of 1.0 to the first household member aged 14 or over, 0.5 to each additional member aged 14 or over and 0.3 to each member younger than 14.. Bulgarian statistics uses the classification of sources of income provided by the Canberra Group in both HBS and EU-SILC survey. Namely, People can obtain an income from various sources - earnings from employment, either as an employee or from self employment, regular cash transfers from government (i.e. pensions, stipends, social assistance), rentals, property income and non-cash benefits (income-in-kind).

#### *Sample Design*

17. A representative random sample of households throughout the country is approached to provide the required information. The survey is voluntary from a respondent's perspective. HBS employs the two-stage cluster approach for selection of households in the sample. At the first stage the enumeration districts are selected using lists compiled from the last Population and Housing Census in 2001 with probability proportional to the size of the enumeration district. At the second stage 6 households in each of the selected primary sampling units are chosen.

#### *Dissemination*

18. Data from HBS are disseminated through BNSI web site, the web site of Eurostat (New Cronos - the general statistical data base of Eurostat), by means of publications (either on paper or in electronic format) and by answering specific requests of users.

### **3.2. EU-SILC survey**

19. The EU-SILC instrument has been launched on the basis of the Regulation (EC) No 1177/2003 of the European Parliament and of the Council of 16 June 2003 concerning Community statistics on income and living conditions. Commission Regulation (EC) No 1983/2003 of 7 November 2003, implementing Regulation (EC) No1177/2003 of the European Parliament and the Council concerning Community statistics on income and living conditions (EU-SILC) adopted list of target primary variables to be produced by the survey and thus, established a common framework for the systematic production of Community statistics on income and living conditions. In addition to those regulations there are various other implementing regulations, concerning definitions and their updates, fieldwork aspects and imputation procedures quality reports rules and setting down lists of secondary target variables. Bulgaria conducted two pilot waves of SILC survey in 2006 and 2007. Since 2008 the survey has been officially included in the National Program of Statistical Surveys. The field work took place in the period April-June 2008. Data validation and processing is still ongoing. The first results referring to the year 2007 will be officially published in October 2008.

#### *Variables of Interest and Periodicity*

20. EU-SILC is based on the idea of a common "framework" and no longer a common "survey". The common framework defines the harmonised lists of target primary (annual) and secondary (every four years or less frequently) variables to be transmitted to Eurostat; common guidelines and procedures; common concepts (household and income) and classifications aimed at maximising comparability of the information produced.

21. The EU-SILC variables that are of primary interest refer to the set of Laeken indicators on income, poverty and social exclusion which were agreed at the Laeken European Council in December 2001. Laeken indicators appear in response to the need for developing a common set of indicators to be used by all member-countries in the European Union for monitoring and reporting periodically the progress achieved towards Lisbon Agenda objectives of fight against poverty and social exclusion. The Laeken set comprises 18 common statistical indicators measuring four important dimensions of social inclusion (financial poverty, employment, health and education), which highlight the “multidimensionality” of the phenomenon of social exclusion. Bulgaria still uses HBS data for compiling Laeken indicators.

- At-risk-of-poverty rate by age and gender
- At-risk-of-poverty rate by most frequent activity and gender
- At-risk-of-poverty rate by household type
- At-risk-of-poverty rate by tenure status
- At-risk-of-poverty threshold (illustrative values)
- Inequality of income distribution S80/S20 quintile share ratio
- At-persistent-risk-of-poverty rate by gender (60% median)
- Relative at-risk-of-poverty gap
- Regional cohesion (dispersion of regional employment rates)
- Long term unemployment rate
- Persons living in jobless households
- Early school leavers not in education or training
- Life expectancy at birth
- Self defined health status by income level
- Dispersion around the at-risk-of-poverty threshold
- At-risk-of-poverty rate anchored at a moment in time
- At-risk-of-poverty rate before social transfers by gender
- Inequality of rate
- Income distribution Gini coefficient
- At-persistent-risk-of-poverty rate by gender (50% median)
- Long term unemployment share
- Very long term unemployment
- Persons with low educational attainment

22. As agreed by the March 2006 EPSCO Council, the 3 overarching objectives of the social protection and social inclusion processes in EU are to promote: (a) social cohesion, equality between men and women and equal opportunities for all through adequate, accessible, financially sustainable, adaptable and efficient social protection systems and social inclusion policies; (b) effective and mutual interaction between the Lisbon objectives of greater economic growth, more and better jobs and greater social cohesion, and with the EU's Sustainable Development Strategy; (c) good governance, transparency and the involvement of stakeholders in the design, implementation and monitoring of policy. To this end, in June 2006, the Social Protection Committee adopted a new set of common indicators for the purposes of social protection and social inclusion process. This framework builds on the methodological principles agreed for the Laeken portfolio. However, it departs from the original framework in two ways: the choice of indicators is not limited to outcome indicators in order to better reflect the action and impact of policies; and, as explained below, some flexibility is introduced as how strictly the criteria are applied, notably allowing for the

inclusion in the list of “commonly agreed **national** indicators” based on commonly agreed definitions and assumptions.

23. The portfolio of indicators is subdivided into three sections: "main indicators", "income distribution and monetary poverty" and "non-monetary poverty and social exclusion", each hosting different collections of indicators arranged according to the topic they deal with. The collection "main indicators" houses those indicators provided under the Open Method of Coordination in the area of combating poverty and social exclusion. This group of indicators houses the following three collections: the overarching portfolio of indicators, the social inclusion portfolio and the pensions portfolio<sup>4</sup>. The collection "income distribution and monetary poverty" houses collections of indicators relating to poverty risk, poverty risk of working individuals, income of people at risk of poverty, characteristics of the population according to different breakdowns as well as the distribution of income. The collection "non-monetary poverty and social exclusion" hosts indicators relating to characteristics and living conditions of households, housing conditions and material deprivation.

#### *Coverage and Data Collection*

24. According to the Regulation (EC) No 1177/2003, a 'private household' means "a person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living". A common classification was developed by Eurostat for use in the data collection surveys including ECHP, LFS, HBS and EU-SILC as well as the subsequent presentation of indicators relating to income, housing, education, healthcare, etc. Rather than focusing on "couples" and/or "families", the classification is constructed by reference to the numbers of adult members, their age and gender, and the numbers of dependent children living with them. Data are also presented by activity and/or professional status, by educational level attained according to the 'International Standard Classification of Education and by occupation according to the 'International Standard Classification of Occupations'.

25. The various statistics are generally presented as cross-sectional indicators for a specific year (the survey year, whatever the underlying income reference period), although certain longitudinal indicators may cover a longer period (e.g. 4 years). Income data from EU-SILC is typically collected for the income reference year preceding the date of the survey. Other data is typically collected for those individuals who are members of the household on the date of the survey.

26. The total disposable income of each household is calculated by adding together the gross income received by all members of the household from all the specified component sources, and deducting taxes and social security contributions.

#### *Sample Design*

27. The Bulgarian EU-SILC sample is designed with the aim to combine the cross-sectional and longitudinal requirements of the survey. The sample design follows a four-year sample rotation in which households remain in the sample for four years (waves) and one quarter of

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<sup>4</sup> For more details on this as well as definitions of the indicators please see [http://ec.europa.eu/employment\\_social/social\\_inclusion/docs/2006/indicators\\_en.pdf](http://ec.europa.eu/employment_social/social_inclusion/docs/2006/indicators_en.pdf).

the sample is replaced each year, giving an overlap of 75% between successive years. Each year the sample comprises 6500 private households distributed across all 28 districts in the country. The effective sample size achieved in 2007 is 4500 households. Every person aged 16 and over in the selected households is interviewed. Two-stage sampling is applied in choosing each of the four sub-samples in the Bulgarian EU-SILC survey. At the first stage 306 primary sampling units (enumeration districts defined in the 2001 Population and Housing Census) are selected with probability proportional to their size. At the second stage in each selected primary sampling unit 5 households are chosen. During the survey no replacement of statistical units is allowed.

### **3.3. Other data sources**

28. Since the issues of poverty and social exclusion have been of special concern over the last 15 years of radical social and economic transformation in Bulgaria, several poverty and living conditions studies were conducted in addition to the regular HBS. In the early 90s Ministry of Labour and Social Policy, the National Statistical Institute and the Institute of Social and Trade Union Research at the Confederation of Independent Trade Unions carried together the first poverty assessment in Bulgaria. The survey employs the absolute poverty approach which was based on a reference basket of minimum amount of goods and services necessary to meet the basic needs. In 1995, 1997 and 2001 three poverty studies were conducted with technical and financial assistance of the World Bank. The studies reveal the changes in the rate and incidence of poverty at three crucial points of time – before economic and financial crisis (1995), during the crisis (1997) and after the gradual economic recovery (2001). These poverty assessment studies, however, did not lead to the adoption of an official poverty line in the country and hence to the design and implementation of an adequate anti-poverty measures. In 2003, MLSP and NSI conducted a multi-topical household survey (MTHS) 3200 Bulgarian households, again with the assistance of the World Bank. On the basis of data collected from the survey an official poverty line was introduced and Strategy for Combating Poverty has been elaborated and approved by the Council of Ministers. In addition, the survey results were used for producing the first poverty map in Bulgaria implementing small area estimation techniques; for analysis of the efficiency of social safety net and for describing monetary and non-monetary aspects of poverty and for identifying the most vulnerable groups.

## **4. Lessons to be learned and challenges ahead**

29. Development of ICW statistics in Bulgaria has been extensive over last 15 years in response to both escalating national and EU demands. As a result, currently the country has a comprehensive system of ICW statistics that is indispensable part of European Statistical System (ESS). ICW statistics relies on a mix of data sources - sample surveys, administrative sources and Population and Housing Census. Drawing on the experience with the expansion of ICW statistics during the transition from planned to a market economy, a number of good practices and lessons learned can be shared that might be useful for the other countries and for further development of international co-operation:

- As a former communist country without strong traditions in ICW statistics Bulgaria had gained a lot of the technical support and know-how transfer during the pre-accession period. Help in carrying out a national review of labour statistical system, expert consultancies on a broad range of specific issues (sample design, matching

data, imputation techniques, etc.), technical manuals and guidelines, training on the spot has proved to be extremely beneficial for the NSI staff.

- Among different areas of social concern that are related to peoples well-being, the issues of wealth distribution, inequality and poverty are among the most sensitive topics that has received considerable interest by the policy-makers, the international and charity organizations and the society as a whole and are among the most difficult phenomena to be measured in a internationally comparable manner. Therefore, within this area more than everywhere else a specific framework that reflects social arrangements, describes the scope and functions of the area and guides statistical activities is necessary.
- The EU approach of developing of a common “framework” instead of common “survey”. The common framework defines the harmonised lists of target primary (annual) and secondary (every four years or less frequently) variables to be transmitted to Eurostat; common guidelines and procedures; common concepts (household and income) and classifications aimed at maximising comparability of the information produced.
- There is an increasing interest in providing data on various social groups and regions that are very often small in size. Usually these groups and regions are at disadvantaged position in terms of living conditions compared to the others and require a special government support. Direct collection and focus on small areas and sub-population make social statistics relatively expensive. Therefore it is essential to rely on contemporary techniques such as small area estimation and on better exploitation of administrative data sources.
- As society becomes more complex and global many new challenges appear on the horizon among all child poverty, deprivation, social exclusion, housing, etc.
- Many international organizations are involved of developing and compiling statistics on income, inequality and poverty. Very often different indicators are used for measuring the same phenomenon (i.e. poverty). For example World Bank relies on absolute poverty approach based on consumption in measuring poverty, EU prefers the relative poverty approach based on income and UN uses a mixture of both in the poverty indicators used for measuring progress achieved towards Millennium Development Goal 1 “Eradicating Extreme Hunger and Poverty”. A stronger co-ordination in developing a common harmonized set of indicators is necessary.