

## METHODOLOGICAL NOTES

The Household Budget Survey (HBS) provides information on expenditure and consumption structure of private households, on differences in consumption patterns of households classified by various aspects, or on impacts of certain factors (e.g. price movements, situation in the market) on expenditure structure. There is no other source of information on consumption behaviour of households.

The scope of the use of HBS is rather wide and serves primarily as a basis for decision-making in the state social policy implementation, for social and economic research, internal use by the CZSO (composition of the consumer basket during periodical consumer price index revisions, an auxiliary data source for the account of the household sector within the national accounts statistics, etc.) and also for the purpose of international comparisons.

The composition of the HBS sample is changing flexibly to cover current changes of basic household attributes (composition, economic activity, income level, etc.). The HBS is, virtually, the only source of information on household expenditure in relation to their income. Net money income is one of sampling attributes and, actually, its development is prescribed. Based on the HBS results, the changes of the income level and its structure can be assessed within the sample and in relation to household expenditure. However, it is not correct to use the HBS to draw conclusions about the nationwide household income development. The income data provided by the HBS should therefore be regarded only as supplementary information and should not be used for in-depth analyses.

With the aim to improve representativity of the results the CZSO tested in the period 1997-2003 the possibility of introducing random sampling into the HBS. Upon detailed analysis of the results of pilot studies and a test survey and on the basis of discussions with experts on sample surveys and with the most important data users it was decided that the HBS should maintain quota sampling of households provided that the sampling method was improved and the response burden reduced, which in addition would save money.

Since 2006 the sample has been covering all types of households, e.g. the previously excluded households of unemployed, households of pensioners with economically active members or households with no economically active person. Sampling attributes were supplemented by municipality size group or type of house – hence, the representation of households living in small municipalities and detached houses broken down by their actual share in the population has increased in the sample. Each household keeps detailed records of expenditure on food and non-alcoholic beverages for the period of 2 months per year; in the remaining months only the total expenditure is reported.

### 1. SAMPLING AND SURVEY DESCRIPTION

The reporting households of the HBS are selected by purposive quota sampling. The sampling unit and reporting unit for the survey is a private household, i.e. persons living together on a common budget (food, housekeeping and routine maintenance costs, etc.).

The CZSO makes a central schedule identifying months when detailed records of expenditure on food and non-alcoholic beverages are kept so that they are (broken down by groups of household, number of children and income brackets) spread evenly over the whole year.

The HBS sample of 3000 households was chosen so that its composition by selected sampling attributes corresponds to the household structure in the CR. The quota frames were the results of the Living Conditions survey (carried out as the national module of EU-SILC surveys).

Since 2006 the group of household derived from the economic activity of the head of household and his/her activity status has become a basic sampling attribute. The head of household in two-parent families is always the man, in one-parent families mostly the parent (if he/she is economically active; if not, the head of household can be an economically active child). In non-family households the head is the person with the highest income.

Households with an economically active head of household are classified by his/her activity status, in households of employees also by his/her education level. Households with an economically inactive head of household are further broken down depending on whether any of the other household members is economically active or whether the head of household is a pensioner. A more detailed description of the main (published) groups of households is provided in chapter 3.2 (published breakdowns).

For three most important groups of household the following sample criteria are used:

- net money income per household member and number of dependent children for households of employees and households of the self-employed;
- pension per household member and number of members (in one-member households also the sex of the person) for households without economically active members.

The municipality size and type of house sampling attribute applies to all groups of household. Independent quotas by municipality size and type of house are set for the above most important groups of household while the remaining groups for this sampling attribute are merged into one category.

In 2011 collection of data on minimum-income families with children (supplementary sample) was discontinued and results pertaining to these households are no longer available.

## **2. CLASSIFICATION OF ITEMS**

### **2.1 Incomes**

Gross money income is net of borrowings, credits received and savings drawn. These items, which have their counterparts on the expenditure side, are mostly published as balances and marked as "balance items".

Net money income is gross income excluding health and social insurance payments and income tax.

In business income the HBS record only the part of business income transferred from business and used to cover the consumption needs of the household and its individual members. It is a net income and that is why expenditure does not include either income tax or payments of health and social insurance.

### **2.2. Expenditures**

Gross money expenditure is net of deposits, cash-free paid up loans, paid up credits and borrowings. Net money expenditure differs from gross expenditure by health and social insurance payments and income tax. They are broken down into consumption expenditure and expenditure non-classified as consumption expenditure.

Since 1999 for classification of consumption expenditure in the HBS the CZ-COICOP "Classification of individual consumption by purpose" has been used. The classification is of three levels, it has 14 divisions, 58 groups and 157 classes. It was prepared in the framework of the transformation of classification system as the Czech version of international standard COICOP (Classification of Individual Consumption by Purpose) to ensure international comparability of statistical indicators and it is binding for all statistical surveys performed in compliance with Act No. 89/1995 Sb., on State Statistical Service, as amended. The subject of the classification is to classify all kinds of individual consumption (expenditure on goods and services) by purpose. For monitoring of household consumption the first 12 divisions of the classification are designed. The HBS has partly adjusted the breakdown of expenditure to international standard designed especially for the HBS so that one or more HBS items are assigned to each class of the CZ-COICOP. Expenditure which is not included in CZ-COICOP, such as capital investment in construction or reconstruction of a house or dwelling, expenditure related to the care of a garden or domestic animals, etc., were included into a

special division "Non-consumption expenditure". Missing groups 02.3 Narcotics, 04.2 Imputed rentals and 12.2 Prostitution have not so far been introduced into the HBS.

Expenditures in compliance with CZ-COICOP are arranged in 12 divisions:

- 01 Food and non-alcoholic beverages
- 02 Alcoholic beverages, tobacco
- 03 Clothing and footwear
- 04 Housing, water, electricity, gas and other fuels
- 05 Furnishing, household equipment and routine maintenance of the house
- 06 Health
- 07 Transport
- 08 Communication
- 09 Recreation and culture
- 10 Education
- 11 Restaurants and hotels
- 12 Miscellaneous goods and services

### 3. CONTENTS OF THE PUBLICATION

Annual data were obtained by adding up detailed monthly expenditure and income items, calculated as an average per household member and rounded to whole CZK. Tables 2 and 3 providing annual averages per household or equivalency make an exception. All aggregate and also detailed items are calculated irrespective of each other directly from the primary data. Data expressed in physical quantitative units are calculated similarly and rounded up to the nearest hundredth. Relative data are calculated from un-rounded means, the structure is given in % to the nearest tenth. Due to rounding the aggregate items in CZK do not always make a precise total of sub-items and the sum of % does not always have to equal 100 (total) either.

Detailed annual expenditure on food and non-alcoholic beverages is extrapolated because each household makes detailed records only for two months per year. Analysis of the primary data showed that records of food and non-alcoholic beverages consumption during remaining months when households recorded only aggregate sums were less precise and data on total expenditure on food and non-alcoholic beverages were thus overestimated. For this reason corrections were made to expenditure on food and non-alcoholic beverages using detailed records and results of previous years.

The publication consists of seven tables structured into five parts ("a" to "e") consisting of similar items. All five parts appear only in the first table (households by activity status of head of household), in the remaining tables one or more parts are missing.

#### 3.1 Parts of published tables

**Parts "a"** contain data on the number and composition of reporting households. The weighted number of households expresses the number of households corresponding to their actual proportion in the population and shows the share of individual types of household in results for „households, total“. The number of sample households means the average number of respondents in the sample reduced with respect to the number of reported months per given year.

The number of equivalencies shows the composition of households calculated by weights of consumption of individual household members. The weights of equivalency according to the OECD scale have been defined as follows: first adult member of household = 1.0, every other adult member (person over 13) = 0.7, each child (aged 13 or less) = 0.5. Equivalency under the modified OECD scale is defined as follows: first adult member of household = 1.0, every other adult member (person above 13) = 0.5, each child (aged 13 or less) = 0.3.

These parts include basic data on incomes and expenditures, net money expenditure broken down by type (food, consumer goods, services, payments), incomes and expenditures in kind and balance items.

Savings drawn in the reference year minus savings deposited in the same year, or loans received in the reference year minus credit payments in the same year produce balances in balance items.

**Parts “b”** contain detailed net money expenditures broken down into consumption expenditure (A) and non-consumption expenditure (B). Consumption expenditure is arranged into 12 basic divisions and subdivided into groups and sub-groups in compliance with the CZ-COICOP classification (considering international standard adjusted to HBS). Now these parts include only net money expenditure, non-consumption expenditure does not include health and social insurance payments and income tax (there is a change in contrast to publications until 2005).

**Parts “c”** include aggregated groups of expenditure supplemented by the consumption expenditure structure arranged into 12 divisions in compliance with CZ-COICOP.

**Parts “d”** contain more detailed data on incomes and expenditures in kind. Food from own resources or otherwise obtained free of charge (gift, picking) are reported by households in quantities (kg, pieces, litres) which the field worker evaluates by the average price of respective kind of food surveyed in the district of the household domicile. Hence the data on in-kind consumption of food and total consumption of food (purchase + in kind consumption) are published in quantities and in selected breakdowns also in values. Further, part “d” includes the value of products and services obtained as gift from relatives and value of in-kind household expenditure in CZK.

**Parts “e”** include selected characteristics of household's housing situation (number and area of residential rooms, type of house, kind of dwelling, type of heating, etc.), which can be used for analysis of household expenditure on housing. Published data on housing expenditure are in compliance with the above method of calculation always grossed up to all persons of the given sub-sample of households. Hence the presentation of data without detailed explanation or without calculation based on the above housing characteristics may provide distorted picture of housing expenditure (e.g. rentals are calculated for all dwellings although the sample also includes dwellings in detached houses where the owner-occupier of the dwelling does not pay any rentals). The structure of households by type of house and kind of dwelling does not make the total of 100 % because the published list is not exhaustive. Part “e” further includes an overview of household equipment with major durables.

### 3.2 Published breakdowns

#### Table 1 – Households by activity status of head of household

**Households, total** – since 2006, the HBS sample has included all types of household represented in the population. The weight of individual groups of household corresponds with their percentage as measured by Living Conditions. The number of households of pensioners without economically active members was reduced for the purpose of the survey, this disproportion in processing is eliminated by weight adjustment. In the reference period the average reporting household is usually cca ten percent smaller than the average private household in the CR according to Living Conditions because record keeping in multimember or multigenerational households is time consuming and therefore these households are under-represented in the HBS sample.

**Households of employees** are households where the head of household is an employee and works on the basis of an employment contract or agreement. Working members of producer co-operatives (including agricultural), members of limited liability companies and limited partners of limited partnership companies who perform work for the company on the basis of an employment contract and collect remuneration, which is an income from dependent activity, are also considered as employees.

Households are broken down by educational attainment of the head of household: employees with lower level of education (persons with basic education, with occupational training, or persons with any kind of secondary education without *maturita* examination) and employees with higher level of education (persons who finished any kind of secondary education with *maturita* examination or persons with higher or university education).

**Households of self-employed** are households with the head of household performing an independent gainful activity on the basis of trade license or special provisions, members of joint ventures on the basis of agreement (limited liability companies, commercial companies) unless they perform for the company work on the basis of an employment contract, and, further, professionals (doctors, lawyers, tax advisors) and persons working for royalties (artists, interpreters).

**Households of unemployed** are households with the head of household who has no paid work but is willing to work i.e. he/she is actively searching for a job or intends to perform business activity or is going to search for a job. It does not matter whether or not he/she really draws the unemployment benefit.

**Households of pensioners without economically active members** are households with the head of household drawing any type of pension save for orphan's pension and does not work at all or his/her work activity is of a limited scope (i.e. income from work activity does not exceed CZK 12 000 per year); the condition of limited economic activity applies also to other household members.

#### **Table 2 – Households by activity status of head of household, annual averages per household**

It is the same type of breakdown as in Table 1 but results are presented as annual **averages per household** in CZK.

Detailed expenditures ("b") is made brief in this table, mainly the expenditures are published which it makes sense to relate to the entire household.

#### **Table 3 – Households by activity status of head of household, annual averages per equivalency**

It is the same type of breakdown of households as in tables 1 and 2 but results are presented as annual **averages per equivalency** in CZK. The equivalency as defined by the OECD (see point 3.1) was used for calculation of the average.

In part "c" no structure is presented because it is identical with the structure published in Table 1.

#### **Table 4 – Households by municipality size and by tenure of dwelling**

In the table two classifying aspects allowing assessment of relations between housing costs and municipality size or type of dwelling are applied. The part depending on municipality size is processed for the whole HBS sample and the second part is not exhaustive because it does not cover households who live in their own residential building, free of charge at their relatives' place or in tied dwelling.

**A rental dwelling** is used on the basis of a contract with the dwelling owner or can be sublet from the occupier.

**Co-operative dwelling** is used on the basis of membership in a co-operative established in accordance with the Act No. 89/1995 Sb. ("standard" housing co-operative) or on the basis of membership in a dwelling renters co-operative.

**Owner-occupier dwellings** are used on the basis of private ownership or co-ownership of a part of commonly owned rooms in a house according to the Dwelling ownership law.

#### **Table 5 – Households by level of net money income per person (deciles)**

In this table households are broken down by level of income into deciles which make the analysis of data in time series easier and are also used for international comparisons. Households were arranged by net money income per person and then split into ten groups of the same size. For these groups independent results were computed.

The line "Upper limit of net money income" in part "a" sets forth the top limit of annual net money income per person which defines individual decile groups.

#### **Table 6 – Households of employees and households of pensioners without economically active members by level of net money income per person (quintiles)**

In the table, the households of employees and pensioners without EA members are broken down by level of income into quintiles similarly as in Table 6. The size of the HBS sample allows to

publish deciles only for „households, total“ and hence for these two types of households quintiles were used.

The line “Upper limit of net money income” in part “a” expresses the top limit of annual net money income per person which defines individual quintile groups.

#### **Table 7 – Households by region (NUTS 2)**

Regional data on households by 8 regions at level NUTS 2. Due to the size of the HBS sample representative data are not available at more detailed levels.

#### **Table 8 – Time series**

The last table is a time-series comparison of basic data on HBS households as a whole.

### **4. PUBLICATIONS AND PRODUCTS**

Data on expenditure and consumption collected from reporting households of household budget statistics are released under thematic group 3 – Work and Social Statistics, subgroup 30 – Standard of Living. For 2011 there are two publications / products:

#### **1) Expenditures and Consumption of Households Included in Household Budget Survey in 2011** (both printed and electronic publication)

Annual results of the Household Budget Survey broken down by activity status of head of household, municipality size, tenure of dwelling, by net money income per person, by area (NUTS 2). Annual averages per person - expenditure items in CZK (food, clothing, footwear and consumption in kind also in quantity units in selected breakdowns), structure of expenditure in %, selected housing characteristics, major durables. Annual averages per household (selected items), annual averages per equivalency (aggregate items).

#### **2) Expenditures and Consumption of Households Included in Household Budget Survey in 2011 – supplementary outputs** (Internet document)

Annual data from the Household Budget Survey broken down by age and education level of head of household, by number of members and dependent children. Data on households with dependent children and without children in various breakdowns (by type of family, number of children, number of members at work etc.). Annual averages per person – items in CZK, structure of expenditures in %, selected housing characteristics, major durables.