

Household Finance and Consumption Survey (HFCS) in Czechia

Jiří Vopravil¹ | Czech Statistical Office, Prague, Czechia

Táňa Dvornáková² | Czech Statistical Office, Prague, Czechia

Barbora Linhartová Jiříčková³ | Czech Statistical Office, Prague, Czechia

Received 18.7.2024, Accepted (reviewed) 6.9.2024, Published 14.3.2025

Abstract

Household Finance and Consumption Survey (HFCS) is a survey focused mainly on mapping financial and assets situation of households. In Czechia, the survey has been conducted annually since 2020 under the name Finanční situace domácností (FSD). The article focuses on the implementation of the survey in the Czech setting, mainly describing the cooperation between the Czech Statistical Office and the Czech National Bank. A particular attention is paid to the methodological aspect of FSD as well as to the survey's main outcomes, primarily the net wealth indicator. The integration of FSD into the EU-SILC (European Union – Statistics on Income and Living Conditions) survey enables annual data collection and publication of main results, as well as the reduction of respondent burden.

Keywords

Household Finance and Consumption Survey (HFCS),
net wealth, household survey, EU-SILC

DOI

<https://doi.org/10.54694/stat.2024.38>

JEL code

D14, G51, E21

INTRODUCTION

The *Household Finance and Consumption Survey* (abbreviated as 'HFCS') is a survey of which the national Czech version is conducted annually by the Czech Statistical Office (CZSO) in cooperation with the Czech National Bank (CNB) under the name *Finanční situace domácností* (abbreviated as 'FSD' in Czech). The results of the survey map the situation of Czech households in terms of their financial and assets situation.

The survey is mainly focused on data on the households' ownership and estimated value of assets, household members' use of financial products, and their potential debts by their amount and type.

¹ Household Surveys Department, Czech Statistical Office, Na padesátém 3268/81, 100 82, Prague 10, Czechia. E-mail: jiri.vopravil@csu.gov.cz.

² Household Surveys Department, Czech Statistical Office, Na padesátém 3268/81, 100 82, Prague 10, Czechia. E-mail: tana.dvornakova@csu.gov.cz.

³ Household Surveys Department, Czech Statistical Office, Na padesátém 3268/81, 100 82, Prague 10, Czechia. E-mail: barborajirickova@seznam.cz.

FSD results in unique data which cannot be obtained by any other means than direct household interviewing, as the CZSO does not yet have access to administrative data for use in household surveys. One of the key outcomes of the survey is the so-called *net wealth* indicator, which is calculated from data collected in the survey, specifically from the value of household's assets and debt.

The aim of this paper is primarily to describe the methodological aspects of the Czech module of the survey, focusing on the specifics of this implementation of the international HFC survey. Similarly to the Household Budget Survey (HBS; in the Czech setting *Statistika rodinných účtů*, abbreviated as 'SRÚ'), the FSD is conducted by being integrated into the Living Conditions Survey, which is the national version of the European Union – Statistics on Income and Living Conditions (hereafter 'SILC') survey, i.e. on a subset of households randomly selected for SILC. This model of survey offers a number of benefits which are further described in the article.

Households' net wealth can then be classified according to the number of persons living in the household, the size of the municipality, the legal form of housing use (in private ownership or rented) and income quintiles. Furthermore, due to the internationally comparable methodology of HFCS, FSD results provide a comparison with the situation in other euro-area countries surveyed.

1 IMPLEMENTATION OF HFCS IN CZECHIA

In 2005, the European Central Bank began discussing the introduction of a project to create a research network on household wealth and consumption in the Euro area by collecting data via household surveys. However, initial attempts to introduce a project resulting in micro data on household net worth had already begun a few years earlier. In 2006, a working group on the subject met for the first time as the Household Finance and Consumption Survey Task Force (Brandolini, 2023).

The first wave of the Household Finance and Consumption survey organized by the European Central Bank took place in 2013, the next wave was conducted in 2017. The reference period is three years, however, due to the COVID-19 pandemic, the intended 2020 wave was postponed and took place in 2021 (ECB, 2024). The next wave of the survey was carried out in 2023 and the following is scheduled to take place in 2026.

1.1 Cooperation between CZSO and CNB

In Czechia, the national module of HFCS, *Finanční situace domácností* (FSD), is conducted by the Czech Statistical Office in cooperation with the Czech National Bank. The cooperation between the two institutions on the preparation of the survey began in 2018. In the March of 2018, the working group focusing on the implementation of the survey was established, as well as the main tasks of the parties involved. The Czech Statistical Office primarily ensures the collection of data in the field by a network of internal interviewers, and related issues.

In particular, the CZSO has created a uniform introductory part of the questionnaire containing data on household composition, including an appropriate methodology. The questionnaire was prepared by the CZSO in cooperation with the Czech National Bank. The CZSO has also provided training for the interviewers, concerning the content of the questionnaire as well as the methodology of the survey. Furthermore, the CZSO provided electronic questionnaire for data collection, conducted the data collection itself, applied case management system and processed the output data files in the structure required by the ECB with additional controls and data files validation according to the ECB validation files (CZSO, CNB, 2018).

The CNB has collaborated significantly with CZSO on the preparation of the questionnaire and the methodological guidelines, mainly concerning the correct financial terminology and derived variables compilation. It was also planned that the CNB will ensure statistical imputation of missing item nonresponse data according to the ESCB (European System of Central Banks) and the final validation

of the datasets according to the HFCS rules and their transmission to the ECB and to the CZSO for joint sharing (CZSO, CNB, 2018). In practice, over the years it has become apparent that the CZSO has more experience with data processing, including validation procedures, and therefore currently carries out this part of the survey, too. Additionally, the CNB provides incentives for the respondents, as well as the material support for the project.

In the preparation phases, the CZSO had analysed the questions required for the survey. As a result, it was decided that the integration of FSD to the EU-SILC survey will take place, due to a high percentage of content overlap between the two surveys, mainly in the areas of income and consumption. This decision, as well as data collection methods and overall methodology, was implemented after it had been approved by the ECB.

Before the first wave took place, a pilot survey was conducted in 2019, mainly in order to test the data collection tool (i.e. questionnaire) and the organisation of the survey. During the pilot survey, approximately 150 households have participated from all Czech regions with a 100% response rate. In February of 2019, the questionnaires were distributed to the supervisors at the regional level and the collection of the data took place until June of the same year. After the data collection, its quality was measured by the type of dwelling and form of ownership, by the household type, by the social group and education level of the head of household, by the number of household members, municipality size and income level (Dvornáková, 2020). The first wave of FSD was conducted in 2020.

2 METHODOLOGY

The following part of the article briefly discusses the methodology of FSD. From 2020 onwards, the Czech version of HFCS has been conducted annually. As of spring/summer of 2024, the FSD has been conducted consecutively for the fourth year. The data, obtained by direct interviewing in the households, are then used at the national level by CNB, CZSO and other institutions and data users, as well as at the international level (CNB, CZSO, 2023).

2.1 Selection of households

The selection of interviewed households for the FSD is based on the four-year panel of the SILC survey. The unit of observation is a dwelling. During the first visit (i.e. on wave 1), households and their members with a habitual residence in the selected dwelling are interviewed. At follow-up visits, only the households with so-called panel persons, i.e. household members who had participated in wave 1, are interviewed. Households from all regions of the Czech Republic are contacted for the FSD. The survey unit is the household which was successfully interviewed in the SILC wave 4 (CNB, CZSO, 2023).

2.2 Fieldwork

Data collection is conducted as a face-to-face interview between the interviewer and the respondent. As a data collection instrument, interviewers use either an electronic questionnaire in a tablet, i.e. CAPI (Computer Assisted Personal Interviewing), or a paper questionnaire, i.e. PAPI (Pen and Paper Interviewing), which is then transcribed into an electronic version. The successfully interviewed households receive a set of commemorative coins as a gift provided by CNB. At the regional level, interviewers from CZSO ensure data collection, including primal data verification. At the CZSO headquarters, data from the questionnaires are then linked and subjected to a final 'super-check', editing including imputation of missing values, and centralised processing (CNB, CZSO, 2023).

Due to the aforementioned integration of the surveys, the FSD interview is usually conducted at the same time as a visit related to the SILC or HBS surveys, less often as a separate visit.

2.2.1 Survey content

The FSD questionnaire is divided into eight parts according to the surveyed topics. The first part of the interview focuses on whether the household has a mortgage or other property loan on their main dwelling, while the next part focuses on mortgage on other potential property. The third section includes questions on other loans and credit that the household may be repaying (e.g. consumer credit, hire purchase, financial leasing, credit card debt, etc.). The aim of this section is to map the different types and amount of debt (CZSO, 2023).

The fourth and fifth parts of the survey cover the ownership and estimated value of other assets such as cars and other vehicles, valuables (e.g. jewellery, paintings or antiques) and, where applicable, the value of a business or a share in a business. The sixth section of the questionnaire focuses on the use of financial products (bank accounts, building society accounts, pensions, investment funds, securities, etc.). This part maps not only whether members of the household use these financial products, but also their estimated value. In the next section, the questions concern the household's expectations vis-à-vis their financial situation in the next 12 months. Finally, the eighth part of the interview focuses on the consumption expenditure of the household, mainly regarding groceries and leisure activities (CZSO, 2023).

Other information needed for the HFCS is obtained from the SILC survey, such as socio-economic data, data on income and economic activity of household members, housing etc. For more details on the integration of the HFCS and SILC surveys, see chapter 3.5.

2.3 Number of households in FSD

The results which were published for 2021 are based on a total of 3 122 households surveyed in 2020 and 2021, and the results for 2022 are based on a total of 3 155 households surveyed in 2021 and 2022 (CNB, CZSO, 2023). The results for 2023, which will be published in the autumn of 2024, are based on a total of 3 246 households surveyed in 2022 and 2023. The reason for this is to acquire a representative sample of households for the ensuing breakdown of the results. The numbers of surveyed households, as well as the overall response rate, are presented in Table 1.

Table 1 Number of households surveyed in FSD (2020–2023)

	2020	2021	2022	2023
Number of households sampled	2 062	2 031	2 064	2 062
Response rate (%)	76.2	76.4	77.7	79.6
Number of households surveyed	1 571	1 551	1 604	1 642

Source: CZSO

2.4 Converting data to population totals, corrections and calculations

The next part refers to the methodological aspects of the FSD results for 2021 and 2022. Due to the integration of the survey, i.e. the sample for the FSD being a subset of the SILC survey sample, the results of the SILC were used as the basis for the calculations. The resulting non-response rate, which was also influenced by SILC response rates from previous years, distorted the composition of the final dataset from which the FSD results were compiled. However, the limiting factor for the calculation method or the construction of conversion factors was the limited size of the household sample (CNB, CZSO, 2023).

The calculations consisted of the elimination of total non-response. It was necessary to add correction coefficients for individual households with respect to their representation in the FSD sample, relative to the SILC population estimates. An iterative weight calibration procedure was used to calculate the weights, using as a reference the SILC baseline estimates of aggregates (e.g. the number of households,

persons, working household members, dependent children, inactive pensioners and unemployed persons), including selected characteristics used to classify households in published results:

- 4 groups of households according to the status of the head of the household (employees with lower/higher education, self-employed, pensioners);
- 4 groups of households according to the legal form of the dwelling use (owner-occupied house, owner-occupied apartment, cooperative dwelling, rented dwelling);
- 2 groups of households according to the number of dependent children (with or without children);
- 4 groups of households according to the municipality size (less than 2 thousand inhabitants, 2 000–9 999 inhabitants, 10 000–49 999 inhabitants, 50 thousand and more inhabitants);
- 5 groups of households by net monetary income per person (quintiles) (CNB, CZSO, 2023).

The above described procedure primarily corrects the social structure of households and at the same time eliminates the associated distortion in the distribution of income. In order to classify households by their income level (quintile), each household was assigned the net cash income according to the SILC survey (i.e. for the previous year) for the year in question. Thus, the FSD data for 2021 (2022) also included household data for 2020 (2021 respectively). House prices and car prices were recalculated accordingly using average (moving) annual indices of house prices and car prices respectively (CNB, CZSO, 2023).

2.5 Integration

As mentioned above, from 2020 onwards, the Czech version of HFCS is integrated into the EU-SILC household survey (for more information about the survey see for instance Linhartová Jiříčková, Dvornáková and Vopravil 2024). Thus, only the households that have been randomly selected and surveyed for SILC can be contacted and interviewed for FSD (CNB, CZSO, 2023).

As the CZSO's analysis has shown, some information required for HFCS is already obtained from the EU-SILC survey. EU-SILC, conducted in Czechia under the name *Životní podmínky domácností* (i.e. Living Conditions of Households) focuses mainly on the income of the household and its members, as well as on their living conditions. However, the survey maps a number of topics, some of which overlap with the HFCS/FSD focus, such as basic demographic information, but also information on income, employment and to some extent the financial situation of the household (Babecký and Dvornáková, 2024).

Selected households thus participate in several household surveys, which can be a greater burden for them. However, due to the integration of the surveys, some information does not have to be collected repeatedly and they are offered appropriate incentives. This leads to the reduction of both interviewers' and respondents' burden and to a higher response rate (Babecký and Dvornáková, 2024). Ideally, the combining of the three household surveys (including the Household Budget Survey) into one brings information on income (SILC), on consumption expenditure (HBS/SRÚ) and on financial and assets situation (HFCS/FSD) all from one household (Dvornáková, 2020).

The willingness to participate in the subsequent household survey is also much higher among households that have already participated in a previous survey and have prior experience with the Statistical office. Therefore, the CZSO prefers this integration with a relatively higher burden for an individual household, compared to separate surveys in households. The separate surveys, due to the relatively high non-response, would require relatively large samples which would have to be contacted and interviewed from the beginning with all questions.

Furthermore, the integration of the surveys facilitates the annual data collection for the FSD survey. The regularity of surveys leads to a distribution of interviewers' burden. It also enables the publishing of time series without brakes, with the regular results being more data user-friendly. What is more, the integration and subsequent more frequent data publication make it possible to determine the net wealth indicator more accurately (Dvornáková, 2020).

3 OUTCOMES

The primary outcome of the FSD survey is the Publication with the main results. The Publication is published annually. The latest available results are for years 2021 and 2022, and they were released at the end of 2023. The annual publication of the FSD survey results is possible due to the integration of the survey with the EU-SILC, which ensures annual data collection. On the other hand, European Central Bank carries out the survey in a three-year reference period (ECB, 2024).

In the Publication, the households are classified according to the number of household members, the municipality size, the type of dwelling and the form of ownership (CNB, CZSO, 2023). The resulting data are actively used by many institutions and other data users. Therefore, one of the important outcomes of the survey are also micro-data. For instance, at CNB, they are used in economic research to calibrate a model of household energy consumption and savings, and in financial stability research to evaluate the effectiveness of measures targeting debtors. According to Babecký (2024), results from FSD can be used in macroeconomics and macro-financial analyses, for example to assess the impact of changes in house prices or to better understand the consumption behaviour of indebted households and its impact on aggregate consumption (Babecký, 2024).

One of the key results of FSD is the *net wealth* indicator.

3.1 Net wealth

Household net wealth is the main outcome of the survey (i.e. of the integration of the surveys). In short, the indicator is calculated as *total assets minus total debts*.

3.1.1 Household assets and their components

According to an internationally comparable definition, household assets are composed of financial and non-financial assets. Non-financial (i.e. real) assets include real estate, vehicles, valuables and assets related to a business or other self-employment activity. Outcomes of the FSD survey offer the percentage shares of households by ownership of their main residence, ownership of at least one other property and ownership of at least one type of vehicle (CNB, CZSO, 2023).

The second component of household assets are financial assets. Financial assets include all forms of deposits and savings, the value of securities, funds invested in investment or capital life insurance and mutual and similar funds, long-term cash savings, alternative currencies, cryptocurrencies, etc. The category of deposits applies to households that have funds in current or savings bank accounts, building societies and time deposits or certificates of deposit (CNB, CZSO, 2023).

3.1.2 Debt and its components

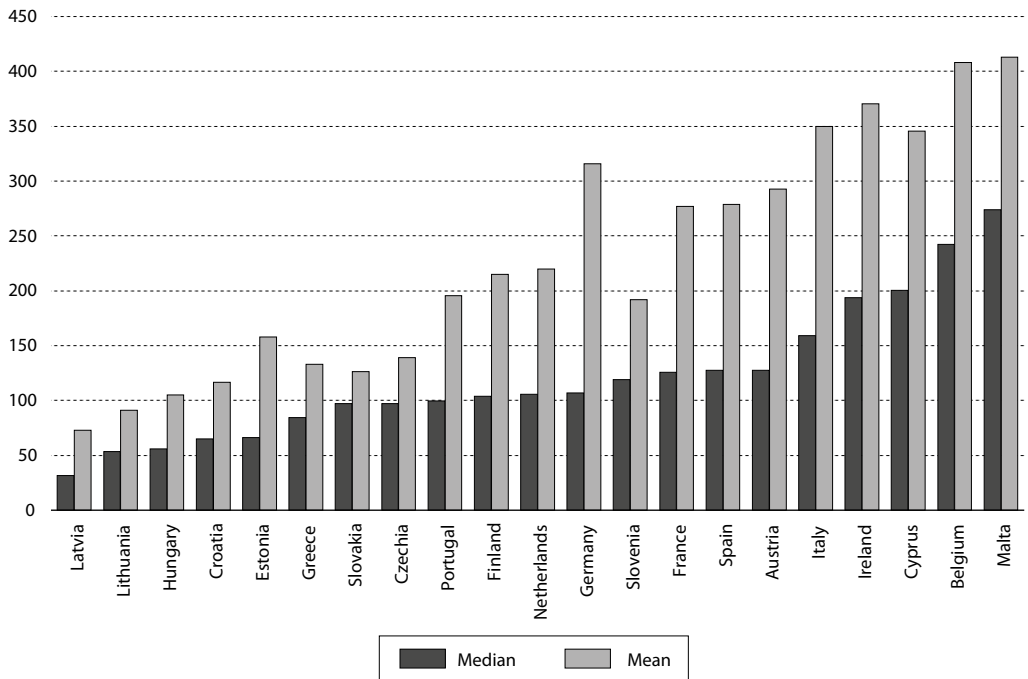
In order to correctly estimate households' net wealth, it is important to determine the types and value of debt the households may have. Total household debt consists of mortgage debt on property and other types of debt. Mortgages also include other loans on property (e.g. building society loans). These are only mortgages or loans secured on the relevant property. Other debt consists of various types of bank loans (e.g. consumer loans), non-bank loans, outstanding balances on overdrafts, outstanding balances on credit cards, loans from relatives or friends and other loans (CNB, CZSO, 2023).

3.1.3 Net wealth in Czechia

The previous waves of the FSD survey have shown that the net wealth of Czech households is primarily determined by the ownership of the apartment or house in which the household lives. This is particularly interesting in comparison to the situation in some other countries where net wealth is calculated according to the same methodology. However, the amount of household net wealth also differs significantly according to the municipality size and according to the level of households' income (CNB, CZSO, 2023). Figure 1

shows a comparison of the median and mean net wealth of households in different EU countries in 2021. Luxembourg has been deliberately left out from the chart due to the country's very high values.

Figure 1 Median and mean net wealth of EU households in 2021 (EUR thousands)



Source: ECB (2023)

CONCLUSION

The Finanční situace domácností (FSD) survey is realized in Czechia as the national module of the Household Finance and Consumption Survey (HFCS), which is coordinated by the European Central Bank. The Czech Statistical Office carries out the survey in cooperation with the Czech National Bank. The cooperation is beneficial for a number of reasons, the Statistical Office can offer experience with data collection and processing, which can lead to financial savings, while the National Bank offers other expertise.

The FSD survey enables the two institutions in charge, as well as other data users, to acquire otherwise not accessible information on financial situation of Czech households. In relation to other related household surveys, primarily the EU-SILC, i.e. European Union – Statistics on Income and Living Conditions, and HBS, i.e. Household Budget Survey, this survey supplements information on households' *income* (available from EU-SILC, i.e. the Czech module of the survey) and *expenditure* (available from HBS) with data on their *financial situation*, mainly in terms of assets and debts. From these data, the net wealth indicator is calculated, which contributes to the assessment of households' financial situation. The survey results are primarily used by the Czech National Bank as a supporting component for the assessment of financial stability and monetary policy (Babecký, 2024). In general, this data will be used for the Income, Consumption and Wealth (ICW) concept. The Czech Statistical Office and the Czech National Bank have decided to integrate the FSD survey into the already well-established SILC survey. This results in an overall lower burden for respondents and brings further financial savings.

What is more, this integration allows the FSD survey to be carried out annually, contrary to the three-year reference period set by the European Central Bank. The CZSO and the CNB have agreed to conduct the survey on a smaller sample, but annually, which is beneficial for the users of the data.

References

- BABECKÝ, J. (2024). V Česku je velmi nízká majetková nerovnost (Czechia has very low wealth inequality) [online]. *Statistika & My*, 2024/3. [cit. 10.7.2024]. <<https://statistikaamy.csu.gov.cz/soubory/statistika-a-my/2024/03/18042403.pdf>>.
- BABECKÝ, J., DVORNÁKOVÁ, T. (2024). Jaké je čisté jmění českých domácností? (What is the net wealth of Czech households?) [online]. *Statistika & My*, 2024/3. [cit. 11.7.2024]. <<https://statistikaamy.csu.gov.cz/jake-je-ciste-jmeni-ceskych-domacnosti>>.
- BRANDOLINI, A. (2023). Household wealth surveys and the HFCS. *Presentation presented at the Household Finance and Consumption Network Meeting in the Bank of Italy*, Rome on 7 June 2023.
- CNB, CZSO. (2023). *Financial Situation of Households in 2021 and 2022* [online]. Prague: Czech Statistical Office. [cit. 4.7.2024]. <https://csu.gov.cz/docs/107508/c4942441-673a-faab-f49b-7c5671036282/160077-23_en.pdf>.
- CZSO, CNB. (2018). *Dohoda o spolupráci při provádění statistického šetření o finanční situaci domácností*, evid. č. ČSÚ: 279-2018-S (Agreement on cooperation in conducting a statistical survey on the financial situation of households, CZSO No.: 279-2018-S) [online]. Registr smluv. [cit. 10.7.2024]. <<https://smlouvy.gov.cz/smlouva/8526775?backlink=twrsx>>.
- CZSO. (2023). *Finanční situace domácností 2023* (Financial Situation of Households in 2023) [online]. Prague: Czech Statistical Office. [cit. 8.7.2024]. <https://csu.gov.cz/docs/107516/0f76d91a-8400-d638-a400-435f3fd22227/FSD_2023_dotaznik.pdf>.
- DVORNÁKOVÁ, T. (2020). *Integrace šetření u domácností* (Household surveys integration). Presentation presented for the CZSO management on 27 January 2020.
- ECB. (2023). *The Household Finance and Consumption Survey. Wave 2021. Statistical Tables* [online]. European Central Bank. [cit. 10.7.2024]. <https://www.ecb.europa.eu/home/pdf/research/hfcn/HFCS_Statistical_Tables_Wave_2021_July2023.pdf?0515e108613e1e4d0e839e816e9f07b8>.
- ECB. (2024). *Household Finance and Consumption Survey (HFCS)* [online]. European Central Bank. [cit. 4.7.2024]. <https://www.ecb.europa.eu/stats/ecb_surveys/hfcs/html/index.en.html>.
- LINHARTOVÁ JÍŘIČKOVÁ, B., DVORNÁKOVÁ, T., VOPRAVIL, J. (2024). Statistics on Income and Living Conditions (SILC) Survey in the Czech Republic: Methodology and History [online]. *Statistika: Statistics and Economy Journal*, 104(2): 229–242. <<http://doi.org/10.54694/stat.2023.43>>