



# Zeszyt metodologiczny Badanie kondycji gospodarstw domowych (postaw konsumenckich)

Methodological report Households condition survey (consumer attitudes)

Łódź Lodz 2021





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Urząd Statystyczny w Łodzi Statistical Office in Łódź Łódź Lodz 2021

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## Metadata

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Scope of the survey/area by subject	The unit of observation in the survey of the condition of households is the household.	
Objective scope of the survey/area	The subject of the study are the attitudes (behavior) of consumer based on opinions of surveyed respondents.	
	The households condition survey is voluntary and is conducted using a representative method.	
The method of survey/survey area	Selection of the sample – stratified sampling scheme. The monthly sample size is 2,700 apartments.	
	Selection of respondents – a person over the age of 16 and the last household member to have had a birthday.	
	Tools of data collection – electronic form (Households condition survey).	
Data collection tools/data sources	Data collection procedure – a method of collecting information from respondents in a face-to-face interview conducted by the interviewer using an electronic form using mobile terminals or tablets (CAPI) and a method of collecting information from respondents in a computer-assisted telephone interview conducted by a tele interviewer using an electronic form (CATI).	
Presentation of survey/area results	Publications: https://stat.gov.pl/obszary-tematyczne/koniunktura/	
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<sup>&</sup>lt;sup>1</sup> The Annexes are available only in Polish and are attached to the Polish version of *Methodological Report* at the link: <u>https://stat.gov.pl/obszary-tematyczne/warunki-zycia/dochody-wydatki-i-warunki-zycia-ludnosci/zeszyt-metodologiczny-badanie-kondycji-gospodarstw-domowych-postaw-konsumenckich, 33, 1.html</u>

# Symbols and major abbreviations

CAPI	<ul> <li>Computer Assisted Personal Interviewing</li> </ul>
CATI	<ul> <li>Computer Assisted Telephone Interviewing</li> </ul>
CORstat	<ul> <li>Management application for survey research</li> </ul>
KGD	- Households condition survey
LFS	- Labour Force Survey
PSU	- Primary Sampling Unit
ΡΑΡΙ	<ul> <li>Paper and Pencil Interviewing</li> </ul>
SPDS	- System for Acquisition, Processing and Integration of Statistical Data

## Introduction

The purpose of the households condition survey is to know the attitudes (behavior) of consumers and obtain their indicators showing changes over time. Diagnostic and prognostic indicators create the possibility of conducting structural analyzes and analyzes of consumption trends. The results of the study are used in the process of macroeconomic decisions regarding economic and social phenomena, to develop economic forecasts, including inflation.

The households condition survey provides information on consumer attitudes (behaviors) based on the opinions of respondents on the following issues: changes in the general economic situation in the country and the financial situation of households, the ability to save as well as intentions to purchase durable goods and expenses related to apartment.

The information obtained from the survey is used to assess the current market situation and consumer expectations (optimism, pessimism), analyze trends and formulate short-term economic forecasts for individual consumption.

The publication consists of seven chapters. The first chapter presents the objective and subjective scope of the study. The second part presents the type and method of the survey. Data collection tools are discussed in chapter three. The fourth part of the notebook presents the characteristics of the main variables, indicators and definitions of key terms used in the study. The fifth part of the notebook presents the organization and course of the survey, while the methods of data presentation and forms of sharing the survey results are presented in the sixth part. The last chapter is devoted to assessing the quality of the study and the reliability of the results obtained.

The appendix contains a model form with answer cards, a list of variables with symbols, and the currently used classification of occupations and specialties.

The implementation of the household condition survey as part of the Polish official statistics surveys was initiated in April 1997. The legal basis was the Communication of the President of Statistics Poland of March 12, 1997, published in the Official Journal of the Statistics Poland No. 3 on March 21, 1997.

Until October 2003, the survey was conducted on a quarterly basis (in the first month of a quarter). Starting from January 2004, the survey is carried out on a monthly basis. Until the end of 2017, the author's unit at the Statistics Poland was the Social Surveys Department. From 2018, the tasks of the author's unit were taken over by the Centre for Living Conditions and Survey Research at the Statistical Office in Łódź.

The legal basis for conducting a households condition survey are: the Act of 29 June 1995 on public statistics (Journal of Laws of 2020, item 443, as amended) and the regulation of the Council of Ministers on the program of statistical surveys of public statistics, establishing the research program for a given year.

## **1.** Subjective and objective scope of the survey

### 1.1. The subjective scope of the survey

The unit of observation in the households condition survey is a single or multi-person household. Household - it is a group of related or unrelated people who live together and support themselves together (multi-person household) or a person who supports themselves, regardless of whether they live alone or with other people (single-person households).

Family members living together, but maintaining themselves separately, constitute separate households. The size of a household is determined by the number of people in it.

A respondent for the study is selected from the composition of the household. The respondent is a person who is 16 years of age at the latest (on the reference date indicated for each month of the survey at the latest) and who celebrated his birthday as the last person in the household.

## **1.2. The objective scope of the survey**

The subject of the research is the attitudes and behavior of consumers based on the opinions of the respondents.

The questions in the form concern, among others:

- the financial situation of the household,
- general economic situation of the country,
- households' ability to save,
- intentions regarding the purchase of durable goods.

## 2. Survey method

### 2.1. Description of the survey method

The households condition survey is voluntary and is carried out with the representative method, which gives the possibility of generalizing the results obtained on the basis of the survey of a randomly selected sample to the general population. The survey is conducted on a monthly basis with a quarterly rotation of half the number of randomly selected dwellings. This means that each randomly drawn dwelling takes part in the survey twice, three months apart, e.g. in January and April.

The description of dwellings, the composition of the household and the demographic characteristics of its members always refers to the state on the last day of the week (Sunday) preceding the interview week, while the description of the respondent's economic activity always refers to the full week (from Monday to Sunday) preceding the adopted period for conducting interviews.

### 2.2. Selection a sample for the survey

#### Sampling frame

In order to draw a sample, a stratified, two-stage drawing scheme with different selection probabilities at the first stage is used. The primary sampling units are statistical regions or set of regions, depending on the size of the town, from about 200 dwellings in rural areas to about 550 dwellings in Warsaw. Flats are drawn at the second stage. Each month, in a given primary sampling unit (PSU), four dwellings take part in the survey - two for the first time and two for the second time.

The first stage sampling frame was based on the records of statistical regions designed for the National Census purposes and updated annually by the changes resulting from the administrative division of the country as well as construction of new and dismantle of old houses. The sampling frame keeps in record information about every statistical region concerning address characteristics as well as the numbers of dwellings.

In order to use the above set as a sampling frame for the households condition survey, statistical regions with less than the assumed minimum number of dwellings for a given town size were combined with the neighboring ones, i.e. with the closest regions within the same commune. The distances between the regions were estimated on the basis of the distances between the centers of the regions calculated from the geographic coordinates. The sampling frame created in this way has over 29 thousand PSU.

The primary sampling units are stratified according to sub-regions and locality size classes. In the case of cities, the layers are sets of cities of a certain class, single cities, and even single districts. By 2019, 191 layers were created, including 58 rural. As of 2019 (2020-2021 draw), the number of strata has been increased to 206, including 66 rural.

#### **Selection PSU**

When selecting the sample drawing scheme for the survey, it was assumed that the drawn sample should be approximately the automatically balanced sample. This means that each household should have the same (approximately) equal probability of being selected. A slight deviation from this rule was the increase by approx. 1.2 times in the allocation in the layers covering the areas whose inhabitants are assessed as more affluent on the basis of information from administrative sources (concerning income tax), introduced in 2019. This modification is used consistently in the Households condition survey and Household Budget survey (for which the integration of the first-degree sample takes place - the interview is conducted on separate samples of dwellings in the same PSU). It serves to improve the representation in the sample of households at the upper end of the income distribution, which is difficult to obtain due to lower response rates among households with a higher financial status. The overrepresentation used in the drawing stage is of course compensated for in the generalization by taking into account the probability of being selected for a sample when calculating the generalizing weights.

Therefore, with regard to the first degree draw, it was assumed that:

- the 675 PSU sample location between the layers will be proportional to the number of dwellings in the layer,
- first degree units are drawn with selection probabilities proportional to the number of dwellings in PSU.

First degree units are drawn separately in each layer. The Hartley Rao procedure is used (systematic selection with selection probabilities proportional to the size of the unit, after prior random ordering of units). 675 PSU is drawn for the sample.

#### The selection of dwellings

In each of the selected PSU, a drawing of dwellings is carried out.

- The selection of dwellings was done in accordance with the following rules:
- the survey uses a rotation model of 1/2 randomly selected dwellings in subsequent quarters,
- 24 dwellings are randomly selected for each year (two dwellings each participating in the survey for the first time),
- in a randomly selected dwelling, the examination is carried out twice with an interval of 3 months,
- in the households condition survey , a reserve sample of dwellings is not drawn.

When selecting dwellings, the simple sampling scheme is used without returning.

In the randomly selected dwellings, all of household are included in the sample to survey the households condition.

For all households in the dwelling, the personal squad should be determined, basic information on the persons who make it up must be collected and respondent number 1 and number 2 should be appointed. Answers to questions about the composition of the household may be provided by any member of the household.

If the dwelling is inhabited by more than one household, then the first household that agrees to participate in the survey should be considered as the first household. If all households living in the randomly selected dwelling agree to participate in the survey, the number "1" is assigned to the household which includes the owner of the dwelling (house) or the main tenant of the dwelling.

During the first interview, after making a list of all household members, the electronic application will automatically select respondents from among household members, taking into account the selection criteria.

#### Respondent 1 (R1) stays a person:

- aged 16 and more,
- she was the last to celebrated her birthday in the household.

#### Respondent 2 (R2) stays a person:

- aged 16 and more,
- as the penultimate in the household, she celebrated her birthday.

#### If two people celebrated their birthday on the same day, then:

- respondent 1 stay the person who was first entered in the household composition,
- respondent 2 stay the person who was entered as the second person in the household composition.

First, an attempt should be made to interview the respondent No. 1, and when it is impossible - with the respondent No. 2.

The principle of selecting a respondent to conduct an individual interview is presented in an example.

#### Example 1:

In the first survey conducted in April 2020, the household comprises four people:

No.	Name	Date of birth	
1.	Jan	13.03. 1970	– respondent 2
2.	Maria	13.03. 1971	
3.	Peter	23.03. 1995	– respondent 1
4.	Sophia	04.04. 2005	– is under 16 years of age

For day April 5, 2020 (reference date), persons number 1, 2 and 3 are 16 years of age.

The person number 3 had their last birthday and she becomes the respondent number 1. People 1 and 2 born on the same day celebrated their birthday penultimate . First in household composition is Jan and he stay respondent number 2.

During the second interview, the respondent is the same person who answered the questionnaire questions during the interviewer's first visit.

If respondent number 2 participated in the first survey, then respondent number 2 also participated in the second survey, regardless of the fact that respondent number 1 is willing to participate in the second survey.

If the respondent who participated in the first survey is not participating in the second survey (for whatever reason) but is still a member of the same household, the interview with the respondent in that household will not be conducted (regardless of the fact that the second appointed respondent may and is willing to participate in the survey).

If in the first survey the respondents number 1 and number 2 were appointed, but the interviews with them were not conducted, then during the second survey, first an attempt should be made to interview the respondent number 1, and if it is impossible, with the respondent number 2.

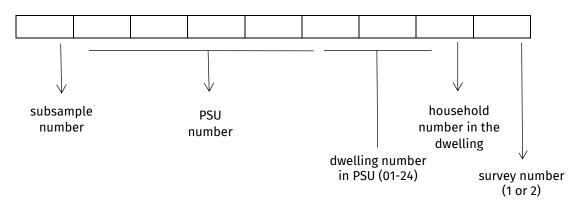
#### A new respondent is chosen in the case of, if:

- the respondent from the first survey is no longer a member of the household,
- another household already lives at the same address,
- in the first survey, no household interview was conducted.

If during the second interview it was not possible to establish contact with the household, the data on the composition of the household remain the same as those entered during the first interview.

#### Household ID

Each surveyed household receives a unique household number. This number consists of 9 fields and has the following structure:



**Subsample number**: in households condition survey, the subsample number is variable. It is the last digit of the year in which the sample is drawn, e.g. the 2019 sample for the years 2020-2021 has the subsample number "9".

**<u>PSU number</u>**: a four-character symbol representing the first-degree unit from which the dwellings are drawn.

**List of selected dwellings** is a file which includes, among others all address details (PSU, voivodship, district, commune, town, street, house number, dwelling number) of dwelling participating in the Households condition survey in individual years. This list is available in the CORstat application and the SPDS application for this study.

**<u>Dwelling number in PSU</u>**: within one PSU 24 dwellings are randomly selected for each year. They take part in the study twice, 3 months apart, according to the scheme:

Month		s number for the 1st ne	surveye	s number d for the d time	
01	01	02	19	20	from the list of
02	03	04	21	22	dwellings from the
03	05	06	23	24	previous year
04	07	08	01	02	
05	09	10	03	04	
06	11	12	05	06	
07	13	14	07	08	
08	15	16	09	10	
09	17	18	11	12	
10	19	20	13	14	
11	21	22	15	16	
12	23	24	17	18	

# Scheme assignments dwelling numbers to the consecutive months of the year

will take part in the survey for the second time in the following year

Dwellings number 19-24 are surveyed for the first time in the fourth quarter of this year and will be surveyed for the second time in the first quarter of the following year..

Subsample number, PSU number and dwelling number in PSU, create a unique identifier for the dwelling participating in the household condition survey.

*Household number in the dwelling*: more than one household may live in one dwelling. Each household has his number assigned (1, 2, 3 etc.).

Subsample number, PSU number, dwelling number in PSU and household number in the dwelling, create a unique household identifier - unchanged in the first and second surveys.

**Survey number**: information added to the household ID; reads whether the survey in the household is conducted for the first time (ninth digit = 1) or for the second time (ninth digit = 2).

### 2.3. Generalization of results (estimation)

In sample surveys, only a small fraction of the population is examined and information obtained from households and persons is generalized to the entire population. The tool for generalizing the results are estimation weights, the use of which allows us to make estimates referring to the entire population and not only the examined sample (i.e. to make an estimation).

The starting point for the creation of final estimation weights are the primary weights from the sampling, which are equal to inversed probability of drawing a specific dwelling to the sample, assigned to the drawn dwelling and having identical values for all dwellings in a given sampling stratum. Primary weights are adjusted for the probability of a response (realization of the interview) in specific parts of the population. Moreover, on the basis of weights concerning dwellings (second degree drawing units), also referred to households (all households residing in the dwelling are surveyed), individual weights are determined for persons (being the relevant statistical units of the survey), taking into account the fact that the interview is conducted with only one person in each household. In the last stage, individual weights are calibrated with regard to the demographic structure of the population.

The process for calculating the final estimation weights is outlined below in a more formal way, with the specific stages involved. The names of the variables representing intermediate weights and the final weight (numbering of them) used in this description are consistent with the names used in the survey IT system.

**Waga1** refers to the dwelling and is the primary weight from the draw, corresponding to the inversed probability of drawing the dwelling to the sample. Primary weights are determined by the Programming and Coordination Department at the draw stage. The applied two-stage scheme for drawing dwellings ensures the same probability of selecting individual dwellings inside the sampling stratum (regardless of the PSU to which the dwelling belongs), therefore the *waga1* has the same value for all dwellings belonging to the same sampling stratum.

The correction coefficient in the *h* stratum (*w\_kor*<sub>*h*</sub>) due to missing responses is calculated according to the formula:

$$w_kor_h = \frac{\sum_{i \in R_h} waga1_i}{\sum_{i \in R_h} waga1_i + \sum_{i \in NR_h} waga1_i}$$

where:

- R<sub>h</sub> set of households for which the interview<sup>2</sup> was successfully conducted in the stratum (subset of the population) *h*,
- NR<sub>h</sub> set of households in the selected inhabited dwellings for which it was not possible to conduct an effective interview<sup>3</sup> in the stratum (subset of the population) *h*.

The subsets of the population, in which the correction coefficients are calculated separately, constitute the classes of locality - there are 6 subsets (stratums) defined in this way. An appropriate correction coefficient is used for all interviews belonging to a given subset.

Initial (uncalibrated) estimation weight **waga2**, assigned to individual interviews, is calculated on the basis of primary weights, using the calculated correction coefficient and information on the number of people aged 16 and more in the household, according to the formula:

$$waga2_i = waga1_i \cdot w_kor_i \cdot d1p6_i$$

where:

waga1<sub>i</sub> - primary weight for the dwelling where the individual interview *i* was conducted,

w\_kor<sub>i</sub> - correction coefficient for the class of locality to which the interview *i* relates,

d1p6; - number of people aged 16 and more in the household to which the interview *i* relates.

The adjustment by the number of persons in the household is due to the fact that in each household the interview is conducted with only one respondent among all household members aged 16 and more.

<sup>&</sup>lt;sup>2</sup> interview execution code (variable D2P5) "GD1"

<sup>&</sup>lt;sup>3</sup> interview execution code (variable D2P5): "03M", "04M", "05M", "06M", "07M", "08M", "09M", "11M", "01G", "10G"

Initial weights for individual interviews are calibrated so as to reproduce the demographic structure of the population consistent with the results of the Labour Force Survey (LFS) (which is also calibrated due to the demographic structure). Calibration takes the form of post-stratification. As a result, the final estimation weights (weight3) are obtained (*waga3*).

**Post-stratification**(calibration) **stratums** have been defined taking into account splitting the population by sex (d3p6: 1 - male, 2 - female), age group (symbols from 1 to 12, according to the provided list of categories) and place of residence (two categories based on the class of locality – urban areas (symbols 1-5) and rural areas (symbol 6)).

Age groups	Age categories
16 - 17 years old	1
18 - 19	2
20 - 24	3
25 - 29	4
30 - 34	5
35 - 39	6
40 - 44	7
45 - 49	8
50 - 54	9
55 - 59	10
60 - 64	11
65 and over	12

The calibration coefficient in stratum k ( $w_kal_k$ ) is calculated as the quotient of the size of the stratum based on the Labor Force Survey to the generalization of the size of the stratum obtained using initial weights (weight2), i.e. using the formula:

$$w_kal_k = \frac{N_k}{\sum_{i \in R_k} waga2_i}$$

where:

 $N_k$  – the number of population in the k calibration stratum according to LFS for a given quarter,

*R*<sup>*k*</sup> - collection of individual interviews conducted in the survey concerning people responding definition of the calibration stratum k.

In the case of the first age group (16-17 years of age), the definition of which does not coincide with the LFS (15-17 years), the number of  $N_k$  is subject to appropriate adjustment.

The final estimation weight in the survey (**waga3**), used to compile publication tables, is obtained by calibrating the initial weight (*waga2*) in accordance with the formula:

$$waga3_i = waga2_i \cdot w_kal_i$$

where:

 $w_kal_i$  – calibration coefficient for the calibration stratum to which the respondent gave the interview *i* belongs.

## 3. Data collection tools/data sources

#### Questionnaire in the survey

There is one questionnaire in the households condition survey, prepared in the form of an electronic application for a mobile device or CATI application. In exceptional circumstances, it is allowed to conduct an interview using a paper questionnaire (e.g. at the respondent's request, when a technical problem occurs).

The first section of the questionnaire contains the household identification features, the year of the survey, and a unique household number. The second section contains information on the implementation of the survey in the household, including the dates and times of the interviewer's visits. The third section describes the composition of the household, including information on age, sex, marital status, education and labor market status. The fourth section concerns the interview with the selected respondent (dates and times of visits and the symbol of the implementation of the interview). The fifth section contains questions about the economic activity of the respondent. The questions in the sixth section concern the respondent's opinion on the financial situation of the household, the economic situation of the country, changes in consumer prices, the level of unemployment, the possibility of making important purchases, the possibility of saving money, buying a car, buying or building a house (dwelling) and expenses for raising the standard or renovation of the house (dwelling). In the seventh chapter, we ask the respondent about the household income. The eighth section concerns the respondent's preferred method of conducting the second interview (in person or over the phone).

When answering the questions, the respondent should provide only his personal evaluation of the changes in the situation of the household in which he / she lives - regardless of the evaluation made by other members of the same household.

#### Types of tools and techniques used in the survey

The households condition survey is carried out by interviewers in the form of direct interviews (CAPI) and telephone interviews, by tele interviewers (CATI), using the form application.

In exceptional cases, resulting from reasons beyond the control of the interviewer (e.g. the tablet cannot be turned on for technical or weather reasons), the interviewer fills in a paper questionnaire (PAPI) and then enters the data into the CAPI application.

Implementation of the survey take places using the following systems:

- Application CAPI
- Application CATI
- System CORstat
- System SPDS

CAPI and CATI applications are created and managed by the Statistical Computing Center, Department in Radom. The CORstat survey management system has also been developed and administered by the Department in Radom. This tool is used to allocate individual surveys to interviewers (including households condition survey), monitor the progress of work and manage data flows between channels and systems CATI, CAPI and SPDS.

The server application for collecting and processing the collected SPDS data is created and managed by the IT Department of the Statistical Office in Łódź.

## 4. Variables present in the survey

Variables in the data set from the households condition survey are grouped by type.

#### Identification, address and technical variables:

- regarding the household (household number, number of people in the household, number of people aged 16 and more in the household),
- month of survey,
- number of households in the dwelling,
- regarding the implementation of the survey in the household (visit number, date of the visit, time of the visit, symbol of the survey implementation),
- regarding the implementation of the interview with the respondent (respondent, number of the visit, date of the visit, time of the visit, symbol of the implementation of the interview),
- regarding the composition of the household (person number, date of birth, sex, legal marital status, being in a relationship with a person from this household, education, status on the labor market, name of the respondent),,
- regarding the method of conducting the second interview (the manner of conducting the second interview in 3 months, the most appropriate time of the day for a telephone interview),
- interviewer number,
- voivodship,
- contact details (telephone number),
- duration of the interview,
- the interviewer's remarks.

#### Variables on a nominal or ordinal scale concerning the economic activity of the respondent:

• performing any work that brings income or earnings in the last 7 days or unpaid help in family business, having in the last 7 days of work and its temporary non-performance, employment status in the main place of work, working time, profession, self-assessment of status on the market work.

#### Variables on an ordinal scale concerning consumer attitudes:

- evaluation of financial situation of a household over last 12 months,
- evaluation of financial situation of a household over next 12 months,
- evaluation of general economic situation in a country over last 12 months,
- evaluation of general economic situation in a country over next 12 months,
- evaluation changes of consumer prices (consumer goods and services) over the last 12 months,
- evaluation changes of consumer prices (consumer goods and services) over the next 12 months,
- evaluation of the unemployment level in the country in the next 12 months,
- evaluation of the current possibility of making important purchases (e.g. furniture, electrical, electro technical equipment, etc.),
- evaluation of the possibility of spending money on important purchases (e.g. furniture, electrical, electro technical equipment, etc.) compared to the last 12 months,
- evaluation of the possibility of saving money, taking into account the general economic situation of the country,
- evaluation of the likelihood of saving any amount of money in the next 12 months,
- evaluation of the current financial situation of the household choosing the best matching statement,
- the probability of buying a car in the next 12 months,
- planning to buy or build a house (dwelling) in the next 12 months (for yourself, for a family member, a holiday home, for rent, etc.),
- the probability of spending to upgrade or renovation of a house (dwelling) in the next 12 months.

#### Quantitative variables expressed on a quotient scale:

- estimated (perceived) by the respondent percentage increase/decrease in consumer prices (consumer goods and services) in the last 12 months,
- the percentage increase/decrease in consumer prices (consumer goods and services) expected by the respondent over the last 12 months,
- approximate level of monthly household income earned in the month preceding the survey month,

• household net income earned in the month preceding the survey month.

The list of answer variants with their coding for the variables expressed on the ordinal and nominal scales can be found in the survey form (Annex 1).

#### **Calculation rules of consumer tendency indicators**

Based on the households condition survey, the two most important consumer confidence indicators are calculated (separately for each category):

- **Current consumer confidence indicator** is calculated as an arithmetic average of balances of answers concerning: evaluation of financial situation of a household over last 12 months, evaluation of financial situation of a household over next 12 months, evaluation of general economic situation in a country over last 12 months, evaluation of general economic situation in a country over next 12 months and currently made major purchases.
- Leading consumer confidence indicator is calculated as an arithmetic average of balances of answers concerning: evaluation of financial situation of a household over next 12 months, evaluation of general economic situation in a country over next 12 months, unemployment expectations over next 12 months (with the opposite sign) and savings over next 12 months.

Both consumer confidence indicators can receive values between -100 and +100. A positive value means dominance of consumers with optimistic attitude over consumers with pessimistic attitude, while negative value means dominance of consumers with pessimistic attitude over consumers with optimistic attitude.

The balances of evaluation (indicators) were calculated with the following weights of individual fractions of responses expressed as percentages - according to the households condition survey questionnaire (Appendix 1):

- 1. The balance of evaluations of changes in the financial situation of the household in the last 12 months was calculated assuming a weight of 1.0 for the fraction of responses with the symbol 1 (it is much better), a weight of 0.5 for the fraction of responses with the symbol 2 (it is slightly better), equal to -0.5 for the response fraction with symbol 4 (it is a bit worse), a weight equal to -1.0 for the response fraction with symbol 5 (it is much worse) and a weight equal to 0 for the remaining response fractions (it remains the same, I don't know);
- 2. The balance of evaluations of changes in the financial situation of the household over the next 12 months was calculated assuming a weight of 1.0 for the fraction of responses with the symbol 1 (it will be much better), a weight of 0.5 for the fraction of responses with the symbol 2 (it will be a little better), weighting equal to -0.5 for the fraction of responses with symbol 4 (it will be a little worse), a weight equal to -1.0 for the fraction of responses with symbol 5 (it will be much worse) and a weight equal to 0 for the remaining fractions of the responses (remains the same and I don't know);
- 3. The balance of evaluations of changes in the general economic situation of the country in the last 12 months was calculated assuming a weight of 1.0 for the fraction of responses with the symbol 1 (it is much better), a weight of 0.5 for the fraction of responses with the symbol 2 (it is slightly better), equal to -0.5 for the response fraction with symbol 4 (it is a bit worse), a weight equal to -1.0 for the response fraction with symbol 5 (it is much worse) and a weight equal to 0 for the remaining response fractions (it remains the same, I don't know);
- 4. The balance of evaluations of changes in the general economic situation of the country over the next 12 months was calculated assuming a weight of 1.0 for the fraction of responses with the symbol 1 (it will be much better), a weight of 0.5 for the fraction of responses with the symbol 2 (it will be a little better), equal to -0.5 for the fraction of responses with symbol 4 (it will be a little worse), a weight equal to -1.0 for the fraction of responses with symbol 5 (it will be much worse) and a weight equal to 0 for the remaining fractions of the responses (remains the same and I don't know);
- 5. The balance of evaluations of changes in consumer prices over the last 12 months was calculated assuming a weight of 1.0 for the response fraction with the symbol 1 (increased significantly), a weight of 0.5 for the response fraction with the symbol 2 (increased moderately), a weight of -0.5 for the fraction of responses with the symbol 4 (remained more or less the same), a weight equal to -1.0 for the fraction of responses with the symbol 5 (decreased) and a weight equal to 0 for the remaining fractions of the responses (increased slightly, I don't know);
- 6. **The balance of evaluations of changes in consumer prices over the next 12 months** was calculated using weights of 1.0 for the response fraction with the symbol 1 (there will be a faster increase), 0.5 for the response fraction with the symbol 2 (growth at a similar pace), -0.5 for the fraction of

responses with the symbol 4 (they will remain more or less at the same level), -1.0 for the fraction of the responses with the symbol 5 (there will be a decrease) and 0 for the remaining fractions of the responses (they will increase slower, I don't know);

- 7. The balance of evaluations of changes in the unemployment level over the next 12 months was calculated assuming weights of 1.0 for the response fraction with the symbol 1 (it will increase significantly), 0.5 for the response fraction with the symbol 2 (it will increase slightly), -0.5 for the response fraction with the symbol 4 (it will decrease slightly), -1.0 for the fraction of answers with the symbol 5 (it will decrease significantly) and 0 for the fraction of the remaining answers (it will remain the same);
- 8. **The balance of evaluations of current making important purchases** was calculated assuming weights of 1.0 for the response fraction with the symbol 1 (yes, now is the right time), -1.0 for the response fraction with the symbol 3 (no, this is not the right time) and weights 0 for the fraction of the remaining responses (this is neither appropriate nor inappropriate time, I don't know);
- 9. The balance of evaluations of making important purchases in the next 12 months was calculated using weights of 1.0 for the response fraction with the symbol 1 (much more), 0.5 for the response fraction with the symbol 2 (a little more), -0.5 for the response fraction with symbol 4 (a little less), -1.0 for the response fraction with symbol 5 (much less) and 0 for the fraction of the remaining responses (almost the same, I don't know);
- 10. **The balance of evaluations of current saving** was calculated assuming weights of 1.0 for the response fraction with the symbol 1 (very good time for saving), 0.5 for the response fraction with the symbol 2 (quite good time for saving), -0.5 for the response fraction with the symbol 3 (not good time for saving), -1.0 for the response fraction with the symbol 4 (very bad time for saving) and 0 for the fraction of the responses with the symbol 5 (I don't know);
- 11. **The balance of evaluations of future savings** was calculated assuming weights of 1.0 for the response fraction with the symbol 1 (very probable), 0.5 for the response fraction with the symbol 2 (quite probable), -0.5 for the response fraction with the symbol 3 (improbable), -1.0 for the response fraction with the symbol 4 (completely unlikely) and 0 for the fraction of the responses with the symbol 5 (I don't know);
- 12. The balance of evaluations of the current financial situation of the household, calculated assuming weights of 1.0 for the response fraction with the symbol 1 (we saving a lot), 0.5 for the response fraction with the symbol 2 (we saving a little), -, 5 for the response fraction with the symbol 4 (we must to draw from our savings), -1.0 for the response fraction with the symbol 5 (we running into debt) and weights 0 for the fraction of the remaining responses ( managing to make ends meet on our income, I don't know);
- 13. The balance of evaluations of car buying in the next 12 months, calculated assuming weights of 1.0 for the response fraction with the symbol 1 (very likely), 0.5 for the response fraction with the symbol 2 (fairly likely), -0.5 for the response fraction with the symbol 3 (unlikely), -1.0 for the response fraction with the symbol 4 (completely unlikely) and 0 for the fraction of the responses with the symbol 5 (I don't know);
- 14. The balance of evaluations of buying or building a house (dwelling) in the next 12 months was calculated assuming weights of 1.0 for the response fraction with the symbol 1 (definitely yes), 0.5 for the response fraction with the symbol 2 (possible), -0.5 for the response fraction with the symbol 3 (probably not), -1.0 for the response fraction with the symbol 4 (no) and 0 for the fraction of the responses with the symbol 5 (I don't know);
- 15. The balance of evaluations of incurred expenses for upgrading or renovating a house (dwelling) in the next 12 months, calculated assuming weights of 1.0 for the response fraction with the symbol 1 (very likely), 0.5 for the response fraction with the symbol 2 (fairly likely), -0.5 for the response fraction with the symbol 3 (unlikely), -1.0 for the response fraction with the symbol 4 (completely unlikely) and 0 for the fraction of the responses with the symbol 5 (I don't know).

#### Terms and definitions used in the survey

**Reference day** - the date set for the households condition survey, for which the following are determined: household composition and age of household members of the flat selected for the survey.

**Reference period** - a week surveyed in terms of the respondent's economic activity - seven days (Monday to Sunday).

**Survey period** - in the households condition survey, the basic survey period is one week; a survey in the reserve period is also allowed.

**Household** - it is a group of related or unrelated people living together in a housing unit and jointly maintaining themselves (multi-person household) or a person who maintains themselves, regardless of whether that person lives alone or with other people (one-person households).

Family members living together but maintaining themselves separately, form separate households. The size of a household is <del>being</del> defined by the number of people in the household.

The personal composition of the surveyed household **includes**:

- people living together in the household and jointly maintaining themselves, staying or intending to stay in the household for a period of at least one year,
- people who are absent from the household due to their professional work, if the income from their work is transferred to the family for support (e.g. people working abroad),
- people who are absent from the household, up to the age of 15 (inclusive), studying outside their place of residence, living in a boarding school or in private homes,
- persons absent from the household during the study, staying in care and educational institutions, nursing homes or hospitals, if their actual and / or intended period of stay outside the household is shorter than one year.

The personal composition of the surveyed household **does not include**:

- people living together with a household and employed by that household (e.g. housekeepers, farm workers),
- people who are absent from the household, aged over 15, studying outside their place of residence, living in boarding schools, student dormitories or in private homes,
- people in prison,
- people who were absent from the household during the study, staying in care and educational institutions, nursing homes or hospitals, if their actual and / or intended period of stay outside the household is longer than one year,
- residents (including pupils and students on boarding houses), roommates, tenants,
- people staying in the household during the survey period present in the household and / or intending to stay there for a period shorter than a year (e.g. guests).

**Household net income** - the sum of all income earned by the household and its members (from paid employment, from an individual farm in agriculture, from self-employment, property, rental of real estate, retirements, pensions, other social benefits and other income - including gifts and alimony), less personal income tax prepayments and social and health insurance premiums.

**Respondent** - a household member answering questions on consumer attitudes contained in the questionnaire. The respondent is the person who celebrated his birthday as the last or the penultimate among household members aged 16 years and older, in relation to the appointed survey date (reference date).

**Paid employee** is a natural person hired by an employer, regardless of the type of contract concluded between them. Paid employees include:

- persons hired on the basis of employment contract (labor contract for a fixed and indefinite period, posting, appointment, election or service relations), including:
  - seasonal and temporary workers,
  - persons employed in intervention and public works financed from the Labour Fund,
  - juvenile persons employed on the basis of employment contracts,
  - persons employed abroad, working for the benefit of domestic organizational units,
  - persons staying abroad on business trip.
- employees employed by agents,
- employees employed in agricultural production co-operatives (including agricultural production co-operatives and agricultural association co-operatives),

- members of Volunteer Labour Units,
- persons employed on the basis of order-agreement and on a contract of specified work,
- persons performing outwork,
- trainees with whom the employer has concluded a contract for vocational training with an establishment, if they are getting paid,
- students of higher schools on holiday or the diploma apprenticeship, if they are getting paid,
- teachers in the so-called inactive condition, e.g. those on sick leave,
- convicted persons (prisoners) working on the basis of collective employment contracts,
- clergy performing pastoral duties,
- persons working on the basis of an oral contract, i.e. working "illegally",
- persons working abroad for a foreign employer,
- foreigners employed by workplaces or natural persons,
- persons on maternity leave,
- persons on unpaid and childcare leaves lasting up to 3 months (provided that they worked as an employed person before the leave).

Paid employees **do not include**:

- persons who are on parental leave, including women who receive maternity allowance for another child at the same time, if these people do not perform any work during this time,
- persons who take unpaid leaves for more than three months, if these people do not perform any work during this time,
- persons receiving a rehabilitation benefit,
- agents (in all agency systems) and contributing family members,
- members of agricultural production co-operatives (including members of agricultural production cooperatives and agricultural association co-operatives.

**Employees in blue-collar positions (Manual workers)** are employees in positions where the following are performed:

- activities (operations) that make up the technological process of producing products or providing services (direct production workers),
- auxiliary works and service to the extent necessary for the smooth running of production processes (indirect production workers),
- servicing type activities, which include processes in the sphere of circulation: transport, communication, trade and others, as well as in the area of social services (employees working in similar blue-collar positions).

**Employees in white-collar positions (Non-manual workers)** are workers employed in positions that are not defined as blue-collar workers (manual workers), regardless of their learned profession. These are the positions:

- managerial,
- specialized,
- independent or executive, not having a managerial character, but requiring specialist preparation for the profession at a higher or secondary professional level, or a high level of creative and artistic skills,
- where auxiliary (manipulative), office and economic activities are performed, supporting the activities carried out in the above-mentioned positions.

**The user of an agricultural holding** means a natural person who uses the land, regardless of whether he is the owner, or leaseholder, or uses the land in any other respect. The user of the agricultural holding is generally the person in charge of the agricultural holding, i.e. the person making decisions directly related to production processes and supervising their execution (the manager may also be the spouse of the user, another member of the household, as well as a person employed by the user under an employment contract).

#### Users of agricultural holdings should be understood as users of agricultural holdings in individual use.

**To users of agricultural holdings do not count** members of agricultural production co-operatives (including agricultural production cooperatives and agricultural association co-operatives) and shareholders of civil and general partnerships using the agricultural holding.

There can be only one user of the agricultural holding in one household. Other members of the household working in the agricultural holding should be classified as persons helping in using the agricultural holding - if they do not receive contractual (predetermined) remuneration or as employed persons - if they receive contractual remuneration for their work.

**Person helping in using an agricultural holding** is a person who is a member of a given household who constantly and without any contractual (predetermined) remuneration helps the agricultural holding user to run the agricultural holding. The fact that the helping family member does not receive the contractual remuneration, indicates that person and the user of the agricultural holding are jointly maintaining themselves.

#### The following are not considered as persons helping in using of the agricultural holding:

- persons helping in using of the agricultural holding who are members of another household,
- persons who are members of a given household, receiving contractual remuneration for work in the agricultural holding.

#### Self-employed persons include:

- persons running their own business activity (manufacturing, service or trade) excluding the use of an individual farm in agriculture (natural person conducting economic activity), including unregistered activity,
- partners of companies without legal personality, including civil and unlimited partnerships,
- agents (in all agency systems),
- co-owners of civil and unlimited partnerships using the agricultural holding,
- members of agricultural production co-operatives, i.e. agricultural production co-operatives, cooperatives formed on their basis with a different production profile, for which there is a co-operative law, and agricultural association co-operatives,
- freelancers (e.g. doctor, dentist, veterinarian, dental technician, midwife and nurse with private practice, lawyer, translator, private tutoring teacher), including authors and artists.

The creator is considered a person who creates works of i.e. in the field of interior design, landscape architecture, urban planning, fiction, fine arts, music, photography, audiovisual production, choreography, artistic violin making and folk art, subject to copyright.

The artist is considered a person who carries out artistic activities in the field of acting and stage art, theater and stage directing, dance and circus art, also in the field of conducting, vocal, instrumental, costume design, stage design, in the field of audiovisual production, as well as directors, screenwriters, sound operators, editors, stuntmen.

#### Self-employed persons do not include:

- persons conducting economic activity in the form of companies with legal personality, mainly jointstock companies and limited liability companies. These persons must be registered as subsistence of property - if their source of income is income from shares in the company or as employees - if they hold a position in the company, e.g. president, director,
- persons who have shares in companies without legal personality, including civil and unlimited partnerships, and in self-employed economic activity conducted by a natural person (relative, friend), if they do not run or participate in the management of these companies. These persons must be registered as subsistence of property,
- people employed by agents (these are employed persons),
- employed persons in agricultural production co-operatives,
- people performing outwork (these are employed persons),
- clergy with pastoral duties (these are employed persons).

**Self-employed person - an employer** is a person running their own business outside an individual farm, as well as a freelance person who employs at least one employee.

**The person assisting in self-employment** is considered member of a given household who continuously and without contractual remuneration helps a person recognized as being self-employed in running an own business. The fact that the assisting family member does not receive contractual remuneration indicates that person and the person considered to be self-employed are jointly maintaining themselves.

#### The following are not considered assisting in self-employment:

- people assisting in running a business conducted by the surveyed household, who are members of another household,
- persons who are members of a given household, receiving contractual remuneration for participation in running a business.

## 5. Organization and management of the survey

Household condition surveys is conducted by statistical offices throughout the country. The work related to the preparation and conduct of the survey and the implementation on a national scale using the CATI method is managed by the Centre for Living Conditions and Survey Research at the Statistical Office in Łódź. CAPI and CATI applications are created and managed by the Statistical Computing Centre, branch in Radom. The server application for collecting and processing the collected data is created and managed by the IT Department of the Statistical Office in Łódź. The survey is conducted by interviewers and tele interviewers in randomly selected statistical areas (combined areas), called primary sampling unit (PSU). In each primary sampling unit, the survey is carried out in four randomly selected dwellings. The implementation of the CAPI method takes place in the appointed survey periods. The survey periods are updated annually and forwarded to the Statistical Offices in the form of an annex to the instructions. The CATI survey is carried out in the first three days of the survey period for a given month.

Households condition survey is conducted using two methods; CAPI - by field interviewers in voivodships and CATI - by tele interviewers at the Statistical Office in Łódź. The first interview with the respondent is always conducted using the CAPI method, the second - CAPI or CATI - according to the respondent's decision. If the CATI interview cannot be carried out (due to, for example, lack of telephone contact, refusal to answer by telephone), the randomly selected dwelling is transferred again to the CAPI method for implementation by the field interviewer.

All households living in the randomly selected dwelling are subjects to the survey. A questionnaire interview should be conducted for each of these households.

The day, month and time of every attempt by the interviewer to establish contact with the household should be provided.

The interviewer should try to contact the household from a randomly selected apartment at least three times .

At each visit, it should be noted how the attempt to conduct the interview (making contact) ended.

The reasons for the lack of response, i.e. not taking the survey, can be divided into the following categories:

- **lack of a randomly selected dwelling permanent change** the interview cannot be conducted due to the out-of-date list of the randomly selected dwellings, i.e. there is no building at the selected address or the building is not intended for residential purposes (e.g. parking lot, service pavilion) or the dwelling has been incorporated into another dwelling.
- **lack of a randomly selected dwelling temporary change** the dwelling (house) has been converted into a non-residential facility (shop, production and service facility, office, doctor's office, kindergarten, nursery, etc.).
- **uninhabited dwelling temporary change** no household lives in the dwelling, but the existing building is in condition that allows a new household may live there in the future (e.g. an empty dwelling for rent).
- **long-term absence of residents / households (over 12 months)** all household members are away from their place of residence during the survey is conducted.
- **no access to the household** refers to a situation where the dwelling is guarded in a way that prevents contact with residents (e.g. security).
- **no possibility of contact with residents / household** refers to a situation where, despite repeated visits, the interviewer did not manage to contact the inhabitants of the randomly selected dwelling.
- no possibility of establishing contact with residents / households due to old age, illness, alcoholism temporary change (e.g. a one-person household compound by a deaf person).
- no possibility of establishing contact with residents / household due to a language barrier temporary change
- **short-term absence of residents / households (up to 12 months)** all household members are away from their place of residence during the survey (e.g. on vacation trip).
- other
- **lack of surveyed household** applies only to households surveyed for the second time: during the first survey the household was inhabited, but household members moved out or the respondent died.

• **refusal to participate in the survey expressed by the entire household** - the household does not consent to participate in the survey (also the interview was interrupted).

The work of the interviewer in statistical offices is supervised by a coordinator who reports to the head of the Department.

The tasks of voivodship coordinators include:

- substantive supervision over the implementation of the survey in the field (preparation and training of people responsible for the implementation of the survey in branches and interviewers),
- assigning interviewers (using the survey management application) the addresses of the dwellings where the survey is to be carried out,
- providing interviewers with information about dwellings for which the survey channel has changed from CATI to CAPI,
- control and approval of the completeness and correctness of the data set after the completed survey period.

The interviewers' tasks include:

- participation in trainings on the implementation of the households condition survey,
- conducting interviews on mobile devices using the CAPI application,
- informing respondents that the survey will be repeated in three months,
- asking the interviewee for his telephone number and consent to conduct the survey during the next observation using the telephone interview method (CATI),
- noting the most appropriate time of the day given by the respondent for the telephone interview,
- data transfer from mobile devices to the server application,
- synchronization during the survey in order to:
  - download addresses assigned for execution,
    - send collected data from mobile devices to the SPDS server application,
    - update the list of assigned addresses (addresses that, despite the respondent's earlier declaration, cannot be conducted in CATI, will be again available for implementation in the CAPI channel).

The tasks of tele interviewers include:

- participation in trainings on the implementation of the household condition survey,
- telephone contact and interview with respondents who agreed to conduct a second interview using the CATI method,
- giving households an appropriate status that allows them to be transferred for implementation using the CAPI method or transfer of data to the server.

To the families selected for the survey a letter from the President of the Central Statistical Office and a folder presenting selected results from the survey of the condition of households are send. The letter contains basic information about the study, refers to the legal grounds and provides a guarantee of confidentiality of the collected information.

## 6. Presentation of the survey results

The results of the households condition survey are presented in the following publications of official statistics and databases:

- **Signal information "Consumer tendency",** which is published every month in accordance with the publication schedule. The information is available only in electronic form on the website of the Statistics Poland <u>www.stat.gov.pl</u>.
- **Statistical Bulletin**, which is published every month in electronic form on the website of the Statistics Poland <u>www.stat.gov.pl</u>.
- Knowledge Database Living Conditions, which is available at <a href="http://swaid.stat.gov.pl/EN/SitePagesDBW/WarunkiZyciaLudnosci.aspx">http://swaid.stat.gov.pl/EN/SitePagesDBW/WarunkiZyciaLudnosci.aspx</a>. It contains three thematic blocks concerning indicators of the consumer tendency (monthly, quarterly and annual data).
- **Results tables in electronic form** are made available monthly to the following institutions:
  - National Bank of Poland (Indicators of the consumer tendency by months, Consumer opinions on the economic and financial situation (percentages of responses) by months, Collection of individual data),
  - The Chancellery of the Prime Minister (Consumer tendency indicators by months, Consumer opinions on the economic and financial situation (response percentages) by months, Collection of individual data).

## 7. Assessment of the survey quality

After the interviewers have completed the field work, a logical and counting check of the correctness of the collections is carried out. This control takes place in two stages - first at the voivodship level, and then - nationwide.

At the voivodship level, during the inspection, inspectors and content coordinators explain the ambiguities or errors in data registration together with the interviewers directly carrying out the survey in the household where the problem was identified.

Then, in the Statistical Office in Łódź, the correctness and completeness of the collections are checked at the national level.

A significant problem that arises in the course of conducting the survey of the condition of households are various types of difficulties in obtaining all information. These difficulties may be related to the household as well as directly to the respondent.

The reasons for non-response, i.e. failure to undertake the study, listed in Chapter 5 - Organization and management of the survey, can be divided into objective and subjective ones.

Objective reasons refer to random accidents that make an interview impossible to conduct in the household. These are:

- inability to contact due to illness, old age or alcoholism,
- no possibility of contact with residents (the interviewer did not find anyone at home),
- lack of the surveyed household (disintegration of the household or change of the place of residence).

Subjective reasons should be understood as a situation in which a randomly selected person could participate in the research, but refuses to participate in it. The most common reason for refusal is reluctance to statistical researches or lack of time.

Lack of response may also be caused by errors in the frame, or more precisely, its insufficient update. The frame (sampling) error occurs when the dwelling selected for the survey is uninhabited, has been liquidated (demolished) or turned into a non-residential facility. The more missing answers, the smaller the number of households surveyed.

The most common reason for not conducting a survey is the "refusal" to participate in its implementation.

In 2020, out of all households not participating in the survey, about 35% of households indicated "refusal" as the reason.

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