

Bundesbank Online Panel – Households (BOP-HH)

Summary document

Deutsche Bundesbank
Research Centre

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The Bundesbank Online Panel – Households (BOP-HH) is a monthly online survey on the economic expectations of individuals in Germany aged 16 and over. This document provides a brief overview of the methodological framework of the survey.

Key features of BOP-HH

Bundesbank Online Panel – Households (BOP-HH)	
Geographical scope	Germany
Target population	Individuals aged 16 and over who use the internet at least once per month
Survey company	forsa Gesellschaft für Sozialforschung und statistische Analysen mbH
Survey mode	CAWI (computer-assisted web interviewing)
Survey language	German
Survey frequency	Monthly Pilot phase: April to June 2019; ¹ ongoing since April 2020
Sampling strategy	Combination of probability and non-probability sampling. Samples are drawn from forsa’s online-panel “forsa.omninet”. Individuals are recruited for “forsa.omninet” via their probability-based telephone recruited sample frame “forsa.omnitel” (includes around 100,000 individuals). Refreshers for the survey waves are drawn via random sampling using quotas based on age, gender, education and region.
Sample size	At least 2,000 interviews per wave; currently about 4,000 interviews per month
Sample composition	Combination of panellists, refreshers and one-off samples

¹ For the methodology and results of the pilot phase, see Beckmann, E. and T. Schmidt (2020), Bundesbank online pilot survey on consumer expectations, Deutsche Bundesbank Technical Paper No 01/2020, November 2020.

Weights	Cross-sectional post-stratification weights, based on the variables age, gender, education and region, are provided in each of the monthly data sets.
Panel design	Rotating panel (stable rotation system as of wave 13): respondents are invited to participate for three consecutive months, followed by a three-month break. In total, a panel cycle comprises 12 waves over two years.
Questionnaire design	Modular design including recurring core questions on economic expectations (such as on the topics of inflation, interest rates, real estate prices and consumption plans) as well as varying questions on specific topics and proposal questions from Bundesbank and external researchers. In addition, questions on respondents' sociodemographic characteristics as well as feedback questions. ²
Interview duration	Average interview duration (for non-interrupted interviews): currently approx. 15 minutes
Fieldwork	Duration of fieldwork: currently approx. two weeks, second half of each month
Access to survey	Call for proposals open to Bundesbank and external researchers; once per year; available on the website Survey on Consumer Expectations Deutsche Bundesbank
Access to data	“Scientific use files (SUFs)” are available for approved research projects. For information on how to apply for the datasets and access restrictions, see Research Data and Service Centre (RDSC): Your research project at the RDSC Deutsche Bundesbank For a selection of aggregated results from the core questions, visit the Bundesbank time series database: Deutsche Bundesbank
Contact	bop-hh@bundesbank.de

² All core questions – variable names starting with the letter C – are listed in the questionnaire on the website [Studie zu Erwartungen von Privatpersonen | Deutsche Bundesbank](#) (German) or [Survey on Consumer Expectations | Deutsche Bundesbank](#) (English).

Methodological framework of the BOP-HH survey

Questionnaire structure

The BOP-HH survey questionnaire comprises various modules. Around 15 core questions are asked on a recurring basis (monthly or quarterly) in order to track the way in which expectations change over time. These core questions have remained broadly unchanged since the survey began in 2019. They relate, amongst other things, to inflation expectations, interest rate expectations, real estate price expectations and consumption plans.

The recurring core questions posed in every wave of the survey are supplemented by questions on specific topics that vary from one wave to the next. Another important part of the questionnaire are questions submitted by Bundesbank and external researchers for research projects; these are known as proposal questions. In the questionnaire, these are asked after the core questions in order to prevent them from influencing respondents' answers to the core questions. This ensures that the core indicators remain comparable over time. The final section of the questionnaire covers respondents' key sociodemographic characteristics that are not already available in the survey institution forsa's master data (forsa.omninet). Together with the questions on sociodemographic characteristics, the core questions make up around 70% of the questionnaire. Feedback questions are also asked in each wave to determine how respondents perceived the length, difficulty and comprehensibility of the questionnaire.

Target population and sample

The BOP-HH is conducted amongst individuals in Germany aged 16 and over who use the internet. To select a sample for each wave, forsa draws on its pool of respondents in forsa.omninet. This is a representative panel of the German online population aged 14 or older that currently comprises more than 100,000 individuals. Recruitment for forsa.omninet takes place exclusively by telephone and thus offline. This means that the panel also includes individuals who use the internet very little (e.g., email services only). The composition of the forsa.omninet panel is regularly checked with respect to key characteristics such as age, gender, education and region. Participants in the forsa.omninet panel are not permitted to select surveys of their own choosing. This complex recruitment process and the ongoing maintenance of the forsa.omninet panel ensure a high level of data quality. In addition, cross-sectional post-stratification weights based on the variables age, gender, education and region, are provided in each of the monthly data sets.

Panel design

The biggest changes compared with the pilot study (April to June 2019) were in the design of the panel. During the first six waves, the panel size varied considerably from survey to survey and did not follow a set pattern. As of wave 7 (July 2020), a rotating panel was introduced. In this approach, respondents only participate in the survey for a certain period of time and are then rotated out of the panel, i.e. they are no longer interviewed. A rotating panel is also used in other surveys on expectations, such as the NY Fed Survey of Consumer Expectations and

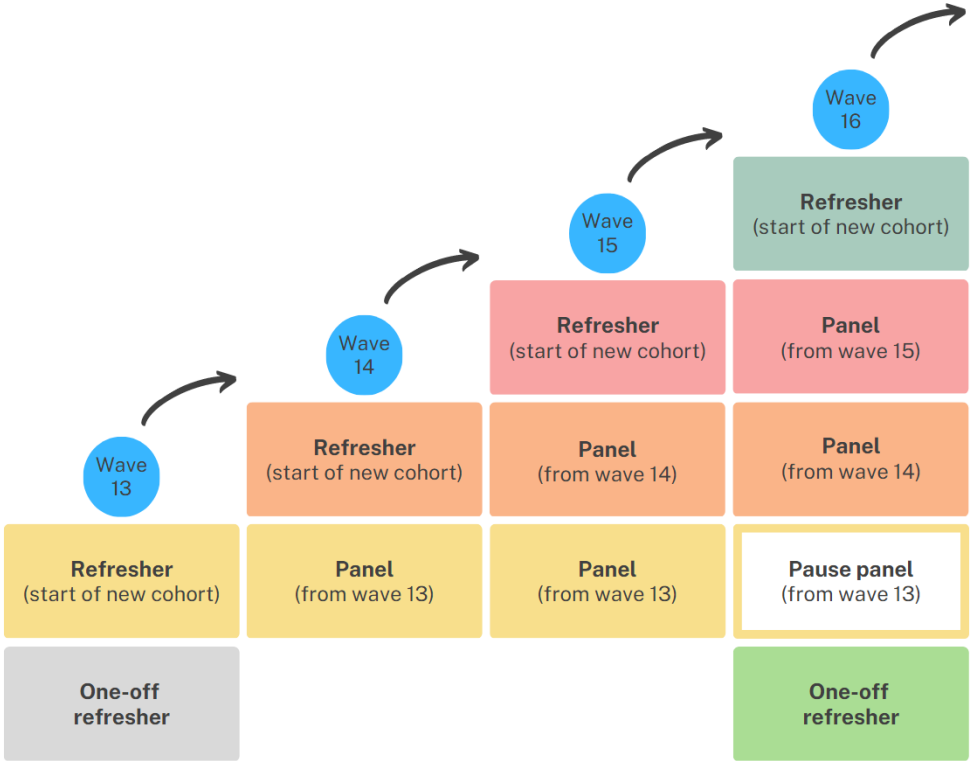
the ECB Consumer Expectations Survey. Respondents who rotate out of the panel are then replaced by new ones.³

Following the rotating panel design of the BOP-HH, respondents are invited to participate in the survey for three consecutive months and then have a three-month break (see the diagram below). The three-month window for each group of panellists is determined when the sample is drawn. The rotating design of the panels follows a schedule of three waves on and three waves off until the panellists have been invited to participate in a total of 12 waves. They then rotate out of the panel. A respondent's break is not deferred if they are unable or unwilling to participate in one or more waves within the three-month time window scheduled for their participation. They also remain in the panel if they miss one or more of the 12 scheduled waves. After they have been rotated out of the panel, respondents take a break from participation in the BOP-HH for at least one year.

Accordingly, each wave consists of individuals who are taking part for the first time (refreshers) and those who have already participated in one or more previous waves (panellists). The full group of panellists is invited to participate again in each wave, provided that they are eligible to do so based on the requirements of the panel concept. Alongside these groups is another group of respondents who are only invited to participate once in order to expand the sample size, particularly in waves with larger numbers of interviews to be conducted; these individuals are known as one-off refreshers. This group is not part of the panel invited to participate again in subsequent waves. However, there is a possibility that individuals who have participated in the survey as one-off refreshers in one wave may be invited to participate as refreshers in later waves (at least three months later).

³ This has multiple advantages. First, it keeps the sample size consistent, as willingness to participate in surveys generally decreases over time. Second, it stabilises the composition of the sample across survey waves (e.g., it guarantees a consistent proportion of respondents who have already participated in other waves). Lastly, it counteracts the learning effects that can arise when respondents are interviewed too frequently on a given topic.

Diagram of the panel concept



Source: Deutsche Bundesbank, Research Centre, BOP-HH team.

Participation incentives, number of interviews and survey procedure

As a participation incentive, respondents receive a small token of appreciation from forsa in the form of bonus points. The bonus points earned through participation can be redeemed for vouchers, or, if desired, donated. Those who participate in BOP-HH surveys on a regular basis are credited with additional bonus points for every survey they complete in the future on top of the regular bonus points. To further increase respondents' willingness to participate, they are informed at the beginning of the survey why their repeated participation is important for monitoring public expectations and the economic situation in Germany. At the end of the survey, participants are shown selected results from a previous survey wave as a further incentive.

The number of interviews completed in each wave is at least 2,000. However, this figure can vary from wave to wave. There are several reasons for this. First, larger waves are planned on a regular basis in order to survey larger samples for individual regions or to conduct more complex treatment experiments, for example. Second, the number of interviews is higher than expected due to respondents' high level of willingness to participate on repeated occasions. All panellists that are eligible to take part based on the rotating panel concept are invited to participate in each wave.

Respondents independently complete the questionnaire online by means of computer-assisted web interviewing (CAWI). Compared with postal surveys using paper questionnaires, this opens up a greater number of possibilities with regard to allocating questions to individual

groups of respondents and filtering specific questions. For example, the full sample can be split into smaller groups, with first refreshers and panellists receiving slightly different versions of the questionnaire that are tailored to them. Furthermore, sample splits are also used in some waves to conduct experiments in which representative sub-samples each receive different information before they are asked certain questions (randomised controlled trials, or RCTs).

The invitations to take part in the survey are sent out by email. In addition to the link to the questionnaire, the invitation contains brief information on the topic of the survey and on the incentives to participate. The average duration of the interview is currently around 15-20 minutes. The fieldwork period is usually 14 days and takes place in the second half of each month.

Access to BOP-HH data

The BOP-HH dataset is made available in various formats by the Bundesbank's Research Data and Service Centre (RDSC). External researchers may use the scientific use files (SUFs) for specific research projects upon request. SUFs are published on a quarterly basis. Any researcher requiring access to BOP-HH data must apply to the RDSC for use of the SUFs. Applicants must submit a standard application form and their CV. The application form can be found on the RDSC website at [Your research project at the RDSC | Deutsche Bundesbank](#).