# AUA Consumer Confidence Survey Methodology

#### Overview

Measuring consumer sentiments is essential for economic forecasting, business decisionmaking, risk assessment, policy evaluation, and overall social well-being. It provides valuable insights into consumer behavior and helps make informed decisions at various levels. In this respect, the AUA Consumer Confidence Index tracks consumer sentiment regarding present and near-term future economic conditions in Armenia. The current note contains a brief outline of the construction of the AUA Consumer Confidence Index.

### The Methodology of the Survey

The survey methodology (questionnaires, sample design, and index construction) integrates best international practices. We follow, among others, the University of Michigan's Consumer Sentiment and the Conference Board's Consumer Confidence surveys. These are two leading US economic indexes used to measure consumer sentiments.

After a pilot test of the sample design, the Paul Avedisian Center for Business Research and Development of AUA started surveying a nationally representative cohort of consumers in Armenia. The program started in 2021Q4 (this date is also the base period for computing the Index). The quarterly reports are published based on phone interviews conducted during the third month of the corresponding quarter. The aggregated responses form a basis for constructing a dynamic Consumer Confidence Index.

## **Survey Questions**

Each quarterly survey contains approximately 20 questions, each tracking different consumer attitudes and expectations. The main questions refer to three areas of consumer sentiment: financial situation, employment conditions, and purchasing patterns. These questions are generally qualitative: the answers are given according to a three-option ordinal scale: "improve," "remain unchanged," and "deteriorate." The Consumer Survey also measures consumers' knowledge of prices/inflation. The respondents are asked how much they think consumer prices have changed during the past three months and how much they expect them to change over the next three months to the nearest decimal. Finally,

several questions aim to identify the respondent according to various characteristics, e.g., age, sex, employment, income status, and education level.

# Sample Design

The quarterly surveys include over 2000 completed questionnaires from a nationally representative survey of consumers. The whole sample consists of subcategories or strata. The stratification is based on gender, age, and geographical region (including urban and rural areas). The aim of the analysis is to keep the sample weights close to the corresponding population values. In this respect, post-survey re-weighting schemes are applied to eliminate possible discrepancies. The respondents chosen in this drawing are then re-interviewed during the next quarter's wave. Thus, the survey uses a rotating panel design in which about 25-30 percent of respondents each quarter are new, and the rest are interviewed for a second time.

## The Structure and Construction of the Consumer Confidence Index

The Consumer Confidence Index is the simple average of two sub-indexes: 1) the Present Situation Index (based on households' assessment of their current financial situation, purchasing behavior, and the country's current economic conditions) and 2) the Future Situation Index (based on consumers' short-term outlook for their future financial situation, buying intentions and labor market conditions). Table 1 below outlines the variables covered in the Consumer Confidence survey.

Present Situation Index	Future Situation Index
Assessment of current economic situation	Expectations for employment conditions in
relative to the past 3 months ("improve,"	the next quarter ("improve," "remain
"remain unchanged," or "deteriorate")	unchanged," and "deteriorate")
Purchase of durable goods relative to the past quarter ("yes" or "no")	Purchase of durable goods in the next quarter ("yes" or "no")
Assessment of current financial situation	Expectations for the financial situation in
relative to the past quarter ("improve,"	the next quarter ("improve," "remain
"remain unchanged," or "deteriorate")	unchanged," or "deteriorate")

Table1. The structure of the Consumer Confidence Index

The balance figures are calculated by weighting the percentage shares of the different responses by 0, 0.5, and 1 (corresponding to "improve," "remain unchanged," or "deteriorate").<sup>1</sup> The figure describes the respondents' average opinion at any given time.<sup>2</sup> Analysis of the balance figures as a time series represents the patterns of change in sentiment over time.

When computing each of the six diffusion indexes, we re-balance the sample responses via post-survey weights to reflect the population more accurately. Post-survey weights are computed by dividing the corresponding population proportions by sample proportions. Also, when calculating various sub-indexes (e.g., diffusion indexes per group of respondents), the post-survey weights are normalized to sum to one. Finally, upon having more data, all sub-indexes (sub balances) will be seasonally adjusted before aggregating into the Consumer Confidence Index. The aim is to eliminate possible seasonal patterns in the respondents' answers.

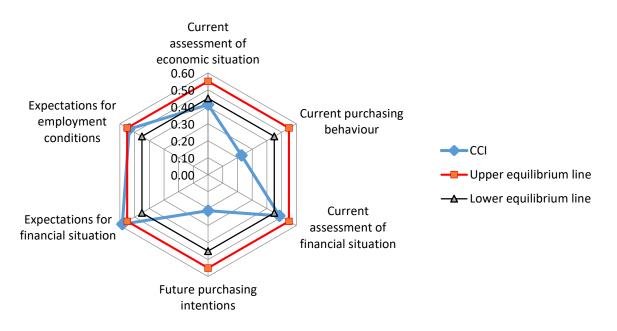


Figure 1. Consumer Confidence Balance Score

Notes: Figure 1 displays the values of the six components of the consumer confidence index and the corresponding stability ranges, represented by the lower and upper equilibrium bounds. Below the lower limit and above the upper limit are the pessimistic and optimistic assessments, respectively.

<sup>&</sup>lt;sup>1</sup> The corresponding values for "yes" or "no" answers are 0 and 1.

<sup>&</sup>lt;sup>2</sup> Figure 1 below shows the Consumer Confidence Balance Score as of the third quarter of 2023.