

ON INFLATION PERCEPTIONS AND EXPECTATIONS FOR GREEK AND EURO AREA CONSUMERS: EVIDENCE FROM THE CONSUMER EXPECTATIONS SURVEY

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ABSTRACT

This paper empirically investigates how inflation perceptions and inflation expectations are shaped for Greek and euro area consumers, using data from the Consumer Expectations Survey (CES). We document that median inflation perceptions as well as short-term, medium-term and long-term inflation expectations over time are higher in Greece than in the euro area. In favour of the supply-side narrative of inflation expectations, we find that consumers' inflation expectations are negatively correlated with their expectations for economic growth, while they are positively correlated with their expectations for the unemployment rate in Greece and the euro area. We also show that inflation perceptions are strongly and positively associated with inflation expectations, yet the magnitude of this association declines as the inflation forecast horizon lengthens. Finally, the results also indicate that the impact of socioeconomic variables on inflation expectations varies between Greek and euro area consumers and is heterogeneous across different forecast horizons.

Keywords: inflation expectations; inflation perceptions; consumer expectations survey

JEL classification: D12; D84; E31; E52; E58

DOI link: <https://doi.org/10.52903/econbull20266304>

ΟΙ ΑΝΤΙΛΗΨΕΙΣ ΚΑΙ ΟΙ ΠΡΟΣΔΟΚΙΕΣ ΤΩΝ ΚΑΤΑΝΑΛΩΤΩΝ ΓΙΑ ΤΟΝ ΠΛΗΘΩΡΙΣΜΟ ΣΤΗΝ ΕΛΛΑΔΑ ΚΑΙ ΣΤΗ ΖΩΝΗ ΤΟΥ ΕΥΡΩ: ΕΥΡΗΜΑΤΑ ΑΠΟ ΤΗΝ ΕΡΕΥΝΑ ΠΡΟΣΔΟΚΙΩΝ ΤΩΝ ΚΑΤΑΝΑΛΩΤΩΝ (CES)

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ΠΕΡΙΛΗΨΗ

Η μελέτη διερευνά εμπειρικά πώς διαμορφώνονται οι προσδοκίες των καταναλωτών για τον πληθωρισμό στην Ελλάδα και στη ζώνη του ευρώ, χρησιμοποιώντας δεδομένα από την Έρευνα Προσδοκιών των Καταναλωτών (CES). Η περιγραφική ανάλυση καταδεικνύει ότι οι διάμεσες αντιλήψεις για τον πληθωρισμό, καθώς και οι διάμεσες βραχυπρόθεσμες, μεσοπρόθεσμες και μακροπρόθεσμες προσδοκίες για τον πληθωρισμό διαχρονικά είναι υψηλότερες στην Ελλάδα από ό,τι στη ζώνη του ευρώ. Διαπιστώνεται επίσης ότι οι προσδοκίες των καταναλωτών για τον πληθωρισμό εμφανίζουν αρνητική συσχέτιση με τις προσδοκίες τους για τον ρυθμό οικονομικής ανάπτυξης, ενώ παρουσιάζουν θετική συσχέτιση με τις προσδοκίες τους για την ανεργία στην Ελλάδα και στη ζώνη του ευρώ. Αυτό συνάδει με την υπόθεση ότι οι καταναλωτές συνδέουν τις προσδοκίες τους για τον πληθωρισμό με παράγοντες από την πλευρά της προσφοράς. Τα αποτελέσματα δείχνουν ότι οι αντιλήψεις για τον πληθωρισμό συσχετίζονται θετικά και στατιστικά σημαντικά με τις πληθωριστικές προσδοκίες, ωστόσο το μέγεθος αυτής της συσχέτισης μειώνεται όσο ο χρονικός ορίζοντας πρόβλεψης του πληθωρισμού επιμηκύνεται. Τέλος, τα αποτελέσματα καταδεικνύουν ότι η επίδραση των κοινωνικοοικονομικών μεταβλητών στις πληθωριστικές προσδοκίες διαφέρει μεταξύ των καταναλωτών στην Ελλάδα και στη ζώνη του ευρώ και παρουσιάζει ετερογένεια ανάλογα με τον χρονικό ορίζοντα πρόβλεψης.

ΜΗ ΤΕΧΝΙΚΗ ΣΥΝΟΨΗ

Η μελέτη διερευνά εμπειρικά πώς διαμορφώνονται οι προσδοκίες των καταναλωτών για τον πληθωρισμό στην Ελλάδα και στη ζώνη του ευρώ, χρησιμοποιώντας δεδομένα από την Έρευνα Προσδοκιών των Καταναλωτών (Consumer Expectations Survey – CES) που διεξάγει η ΕΚΤ. Η CES είναι μια μηνιαία διαδικτυακή έρευνα στην οποία συμμετέχουν περίπου 19.000 ενήλικοι καταναλωτές από 11 χώρες της ζώνης του ευρώ, ανάμεσα στις οποίες και η Ελλάδα. Οι πληροφορίες που συλλέγει περιλαμβάνουν, μεταξύ άλλων, μηνιαία δεδομένα σχετικά με τις αντιλήψεις των καταναλωτών για τον πληθωρισμό σήμερα σε σχέση με τους προηγούμενους δώδεκα μήνες, καθώς και τις προσδοκίες τους για τον πληθωρισμό τους επόμενους δώδεκα μήνες και σε ορίζοντα τριών και πέντε ετών.

Η περιγραφική ανάλυση καταδεικνύει ότι τόσο οι διάμεσες αντιλήψεις όσο και οι διάμεσες βραχυπρόθεσμες, μεσοπρόθεσμες και μακροπρόθεσμες προσδοκίες των καταναλωτών στην Ελλάδα είναι υψηλότερες από ό,τι στη ζώνη του ευρώ. Το εύρημα αυτό, ωστόσο, δεν περιορίζεται στην Ελλάδα, αλλά παρατηρείται και σε άλλες χώρες της ζώνης του ευρώ, όπως για παράδειγμα στην Πορτογαλία. Διαπιστώνεται επίσης ότι στην Ελλάδα και στη ζώνη του ευρώ οι προσδοκίες των καταναλωτών για τον πληθωρισμό εμφανίζουν αρνητική συσχέτιση με τις προσδοκίες τους για τον ρυθμό οικονομικής ανάπτυξης, ενώ παρουσιάζουν θετική συσχέτιση με τις προσδοκίες τους για την ανεργία στην Ελλάδα και στη ζώνη του ευρώ. Αυτό συνάδει με την υπόθεση ότι οι καταναλωτές συνδέουν τις προσδοκίες τους για τον πληθωρισμό με παράγοντες από την πλευρά της προσφοράς, δηλαδή οι υψηλότερες πληθωριστικές προσδοκίες συνδέονται με απαισιόδοξες προοπτικές για την οικονομία.

Τα αποτελέσματα από το εμπειρικό υπόδειγμα δείχνουν ότι οι αντιλήψεις για τον πληθωρισμό επηρεάζουν θετικά τις πληθωριστικές προσδοκίες των καταναλωτών για τους επόμενους δώδεκα μήνες, τα επόμενα τρία και τα επόμενα πέντε χρόνια στην Ελλάδα και στη ζώνη του ευρώ. Το μέγεθος της θετικής αυτής επίδρασης μειώνεται όταν ο χρονικός ορίζοντας πρόβλεψης του πληθωρισμού αυξάνεται. Αυτό συνάδει και με το γεγονός ότι και οι διάμεσες προσδοκίες των καταναλωτών μειώνονται στην Ελλάδα και στη ζώνη του ευρώ όταν ο χρονικός ορίζοντας πρόβλεψης αυξάνεται από δώδεκα μήνες σε τρία και σε πέντε χρόνια.

Επιπλέον, τα αποτελέσματα καταδεικνύουν επίσης ότι υπάρχει ετερογένεια στην επίδραση των κοινωνικοοικονομικών μεταβλητών στις πληθωριστικές προσδοκίες ανάλογα με τον χρονικό ορίζοντα πρόβλεψης. Για την Ελλάδα, ο χρηματοοικονομικός αλφαριθμητισμός και η εκπαίδευση δεν συσχετίζονται με τις βραχυπρόθεσμες πληθωριστικές προσδοκίες. Αντιθέτως, οι μεσοπρόθεσμες και μακροπρόθεσμες προσδοκίες για τον πληθωρισμό αυξάνονται όταν τα επίπεδα χρηματοοικονομικού αλφαριθμητισμού και εκπαίδευσης είναι χαμηλά. Επίσης, σε αντίθεση με τη ζώνη του ευρώ, η ύπαρξη συντρόφου εμφανίζει ισχυρή θετική συσχέτιση με τις πληθωριστικές προσδοκίες στην Ελλάδα. Επιπρόσθετα, οι περιορισμοί ρευστότητας, η δυσχερής χρηματοοικονομική κατάσταση και η δυσκολία πρόσβασης σε τραπεζική χρηματοδότηση έχουν μεγαλύτερη θετική επίδραση στις πληθωριστικές προσδοκίες για τους καταναλωτές στην Ελλάδα από ό,τι στη ζώνη του ευρώ.

Συμπερασματικά, η μελέτη εμβαθύνει την κατανόησή μας για το πώς οι καταναλωτές στην Ελλάδα και στη ζώνη του ευρώ διαμορφώνουν τις προσδοκίες τους για τον πληθωρισμό. Επιπλέον, επισημαίνει ότι η επίδραση των αντιλήψεων για τον πληθωρισμό στις προσδοκίες για τον πληθωρισμό διαφοροποιείται ανάλογα με τον χρονικό ορίζοντα της πρόβλεψης. Επίσης, αναδεικνύει την ετερογένεια των προσδοκιών για τον πληθωρισμό σε ομάδες καταναλωτών με συγκεκριμένα κοινωνικοοικονομικά χαρακτηριστικά. Η κατανόηση του μηχανισμού διαμόρ-

φωσης των προσδοκιών των καταναλωτών για τον πληθωρισμό συμβάλλει σημαντικά στον σχεδιασμό μιας αποτελεσματικής νομισματικής πολιτικής και στη βελτίωση της επικοινωνίας των κεντρικών τραπεζών.

ON INFLATION PERCEPTIONS AND EXPECTATIONS FOR GREEK AND EURO AREA CONSUMERS: EVIDENCE FROM THE CONSUMER EXPECTATIONS SURVEY*

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I. INTRODUCTION

For central banks, inflation expectations have become a key tool in conducting monetary policy. In the euro area, the ECB has often relied on stable inflation expectations to assess policy choices. As Christine Lagarde (ECB 2026) said: “Inflation has been at around our two per cent target, longer-term inflation expectations are well anchored, and the economy has shown resilience over recent quarters”. The ECB, among other central banks, has invested in setting up and fielding surveys that collect direct measures of expectations of households and firms as a source of information to help improve monetary policy and central bank communication (see D’Acunto and Weber 2024).

To this end, the ECB launched the Consumer Expectations Survey (CES) in April 2020 to measure expectations and household behaviour in a timely and consistent manner across the euro area countries. The survey’s country coverage has been expanded by adding to the six original countries, i.e. Belgium, Germany, Spain, France, Italy and the Netherlands, an additional set of five countries in April 2022, i.e. Austria, Finland, Ireland, Greece and Portugal. Therefore, since April 2022, the CES collects, at a monthly frequency, Greek data on consumer perceptions about past inflation as well as expectations about future inflation over the next twelve months and between two and three years ahead.

At the same time, academic research has been making progress in enhancing our understanding of how consumers form their beliefs about future inflation and how these beliefs feed into their economic decisions, thus becoming crucial for the design of monetary policy. In particular, prior research has shown that inflation expectations matter for their consumption decisions (see Bachmann et al. 2015; Duca-Radu et al. 2021; and D’Acunto et al. 2022).

This paper, using CES data, provides useful insights into: a) how Greek consumers form their perceptions and their short-, medium- and long-term expectations about inflation and b) whether and to what extent inflation perceptions and expectations in Greece differ from those in the euro area. It contributes and relates to the literature in several important ways. First, it documents the evolution of consumers’ inflation perceptions and expectations in Greece over time. Second, it shows how perceptions and expectations about inflation correlate with macroeconomic indicators, namely the expected economic growth rate and the unemployment rate. This is in line with the “supply-side narrative” documented in the study of Coibion et al. (2023), whereby higher inflation expectations are associated with bad news and a more pessimistic outlook for the economy.

Third, we document how Greek consumers’ inflation perceptions impact their expectations about inflation extending the relevant literature (see, among others, Dräger 2015; Cavallo et al. 2017; Arioli et al. 2017; Stanisławska et al. 2021; D’Acunto et al. 2021; as well as Stanisławska and Paloviita 2024). Fourth, we provide evidence on the heterogeneity of inflation expectations in Greece across socioeconomic groups, which adds to previous studies (see Arioli et al. 2017; Del Giovane et al. 2009; and Weber et al. 2022, among others).

The remainder of the paper is structured as follows: Section 2 describes the data and outlines the empirical methodology. Section 3 illustrates the evolution of inflation perceptions and expectations over time and how inflation expectations are correlated with macroeconomic indicators. Section 4 presents the results and Section 5 concludes.

* The views expressed in this article are of the author and do not necessarily reflect those of the Bank of Greece. The author is responsible for any errors or omissions.

2 DATA AND EMPIRICAL DESIGN

We use the CES dataset from April 2022 to December 2025, which covers eleven euro area countries (EA11) including Greece. The CES is a monthly online survey of around 19,000 adult consumers, which features a panel component that ensures monitoring of the same respondents over time.¹ Among other expectation measures, the CES collects at a monthly frequency data on consumer perceptions about past inflation as well as expectations about future inflation over the next twelve months, between two and three years ahead and five years ahead. In that way, the CES captures effectively the cross-section and time-series variation of households' inflation expectations. It also collects a wide range of socioeconomic characteristics, such as age, gender, education, financial literacy, household size, income, etc. The wealth of information collected by the CES enables us to explore the heterogeneity in consumer inflation expectations across specific demographic and socioeconomic groups.

Our empirical model is of the following form:

$$E(Inflation_{i,t+12}) = \beta_0 + \beta_1 Perceived\ Inflation_{i,t} + \beta_2 X_{i,t} + Y_t + I_i + \epsilon_{i,t} \quad (1)$$

where $E(Inflation_{i,t+12})$ is the dependent variable and represents short-term inflation expectations, i.e. inflation expectations over the next twelve months.

With respect to the independent variables of the model, *Perceived Inflation* reflects the subjective consumers' perceptions of how prices have changed over the past twelve months compared to today, capturing their realised inflation experiences at the individual level. A vector X of sociodemographic variables is also included and consists of age, gender, partner status, education, household size, low level of financial literacy (LFL), unemployment status, income quintiles, homeownership status, mortgage holder status, liquidity constraints, hard financial situation and hard credit access.

Financial literacy is measured in the CES according to a standardised set of questions developed by Lusardi and Mitchell (2011). The CES asks three multiple-choice questions to help us assess consumers' understanding of a) interest rate compounding, b) nominal vs real values and c) portfolio risk diversification. We categorise the respondents with lower scores as those with a low level of financial literacy.

Respondents that face liquidity constraints are identified among those who report that – when thinking about their available financial resources, including access to credit, savings, loans from relatives or friends, etc. – they would not have sufficient financial resources to pay for an unexpected payment equal to one month of their household income. Consumers that are subject to a hard financial situation are those who responded that their household is much or somewhat worse off compared to twelve months ago. Finally, consumers that find it hard to access credit are those who reported that it is much or somewhat harder to obtain credit or loans compared to twelve months ago.

Y_t denotes the wave dummies to account for time effects and I_i denotes country dummies to account for country effects for the pooled EA11 dataset.

Equation (1) is rewritten as the following two equations, when the outcome variable is inflation expectations three years ahead and inflation expectations five years ahead, respectively.

$$E(Inflation_{i,t+3y}) = \beta_0 + \beta_1 Perceived\ Inflation_{i,t} + \beta_2 X_{i,t} + Y_t + I_i + \epsilon_{i,t} \quad (2)$$

and

$$E(Inflation_{i,t+5y}) = \beta_0 + \beta_1 Perceived\ Inflation_{i,t} + \beta_2 X_{i,t} + Y_t + I_i + \epsilon_{i,t} \quad (3)$$

We also enhance the empirical specification described in equations (1), (2) and (3) to account for individual fixed effects (FE).

¹ For a detailed description of CES, see Bańkowska et al. (2021) and Georgarakos and Kenny (2022).

3 INFLATION PERCEPTIONS AND EXPECTATIONS OVER TIME AND THE SUPPLY-SIDE NARRATIVE

The left panel of Chart 1 illustrates the evolution of inflation, based on the Harmonised Index of Consumer Prices (HICP), in Greece and the euro area during the period between April 2022 and December 2025. There was a sharp increase in inflation in 2022, owing to disruptions in global supply chains caused by the pandemic, as well as inflationary pressures in the energy sector, which were intensified by the war in Ukraine. In Greece, the HICP inflation rate rose from 9.1% in April 2022 to 12.1% in September 2022, reaching its peak value, while, in the euro area, it increased from 7.5% in April 2022 to its highest point of 10.6% in October 2022.

Subsequently, as a result of the ECB's monetary policy, inflation in the euro area declined significantly, from 10.6% to 1.7% in September 2024, its lowest level during the period under review, and reached the inflation target of 2% in December 2025. In Greece, the HICP decreased from 12.1% in September 2022 to 2.9% in December 2025. Also, note that inflation in Greece rose from 2.5% in June 2024 to 3.2% in August 2024, mainly due to increases in energy and services prices.

The left panel of Chart 1 also shows that median inflation perceptions in Greece are higher than those in the euro area based on CES data.² Moreover, other euro area countries, such as Portugal, also exhibit higher inflation perceptions than the euro area as a whole. While median perceptions about inflation for Greek consumers remained at high levels until April 2024 – reaching a maximum of 25% in February 2023 – they have been declining at a steady pace, falling to 10.1% in December 2025. Median inflation perceptions for euro area consumers follow a similar pattern. While they sustained high levels of 10% until March 2023, they started to decline gradually, resulting in a rate of 3.2% in December 2025.

We also observe that inflation perceptions are systematically higher than the actual inflation

rate throughout the entire period for Greece and for the euro area since October 2022. Compared to the euro area, the overestimation of perceived inflation in Greece is both stronger and more persistent, indicating that Greek consumers overreact more to news about inflation than their euro area counterparts. This pattern is also observed in other euro area countries, such as Portugal (see Chart 1, left panel).

The overestimation bias in consumers' inflation perceptions is well documented in several studies (see Arioli et al. 2017; Abildgren and Kuchler 2021; as well as Reiche and Meyler 2022, among others). These studies highlight the fact that part of this bias may reflect that the respondents may have another price concept in mind, such as food prices, rather than consumer prices in general when interviewed about their perceptions about inflation.

The right panel of Chart 1 (left axis) depicts the median inflation expectations over the next twelve months for Greece and the euro area. We observe that the trend in inflation expectations mirrors that of inflation perceptions. However, consumers' inflation expectations are noticeably lower than their perceptions. Furthermore, as with perceptions, consumer inflation expectations in Greece and Portugal are higher than those in the euro area. Short-term inflation expectations in Greece and the euro area reached their peak levels – 14.6% and 5.8%, respectively – at the same time as the HICP also peaked in Greece and in the euro area, i.e. in September and October 2022, respectively. Since then, median inflation expectations declined in Greece and in the euro area reaching 7.7% and 2.8%, respectively, in December 2025. This significant decline in consumer inflation expectations is primarily the outcome of the ECB's restrictive monetary policy, characterised by the implementation of ten consecutive substantial interest rate increases between July 2022 and September 2023.

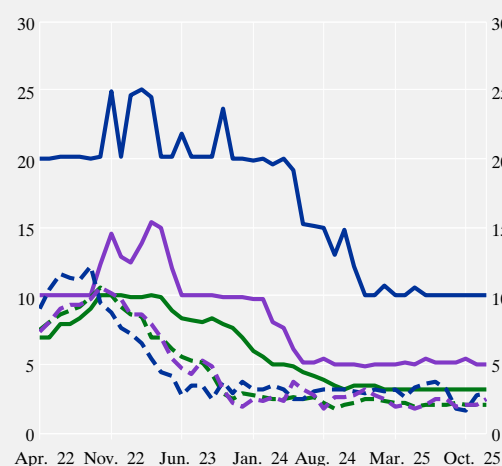
² This is also in line with the EU-Harmonised Consumer Expectations Survey.

Chart 1 Inflation perceptions and inflation expectations

(percentage changes)

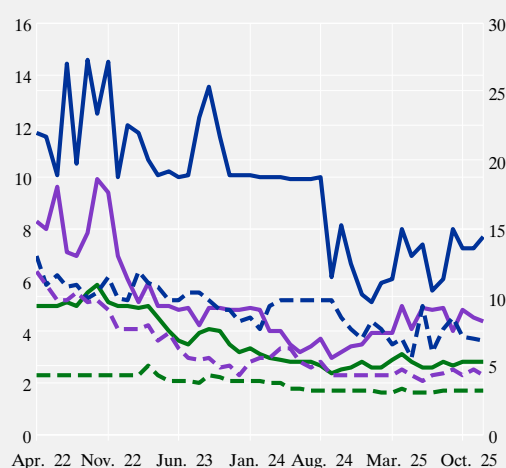
Median inflation perceptions and HICP: Greece, Portugal, EA11

— Perceived inflation EA11
— Perceived inflation EL
— Perceived inflation PT
— HICP EA
— HICP EL
— HICP PT



Median inflation expectations over the next 12 months. Inflation uncertainty: Greece, Portugal, EA11

— Inflation exp. 1y EA11
— Inflation exp. 1y EL
— Inflation exp. 1y PT
— Median inflation uncertainty EA11
— Median inflation uncertainty EL
— Median inflation uncertainty PT



Source: Consumer Expectations Survey (CES).

Notes: Weighted data. Consumers' inflation perceptions and expectations are winsorised at the most extreme two percentiles to deal with outliers. Inflation uncertainty (right-hand side axis) is based on the respondent-specific probability distributions derived from the probabilistic bin question on inflation expectations. Note that the number of underlying bins increased from eight to a total of ten as of July 2022. The implied inflation uncertainty is computed as the interquartile range between the 75th and the 25th percentile of the respondent-specific subjective distribution. CES data span the period from April 2022 to December 2025.

The probabilistic question on inflation expectations over the next twelve months in the CES enables the elicitation of a subjective probability distribution of inflation expectations (over the next 12 months) that is consumer-specific. In particular, respondents are asked to allocate 100 points across specific intervals of changes in prices (bins) to indicate the likelihood of future inflation. Therefore, inflation uncertainty can be measured as the interquartile range from the respondent-specific subjective distribution and is shown in the right panel of Chart 1 (right axis). Not surprisingly, we notice that inflation uncertainty increases when inflation expectations are high and decreases as inflation expectations decline sub-

stantially. Inflation uncertainty decreases for Greek consumers from 6.9% in April 2022 to 3.6% in December 2025 and from 2.3% to 1.7% for euro area consumers over the same period.

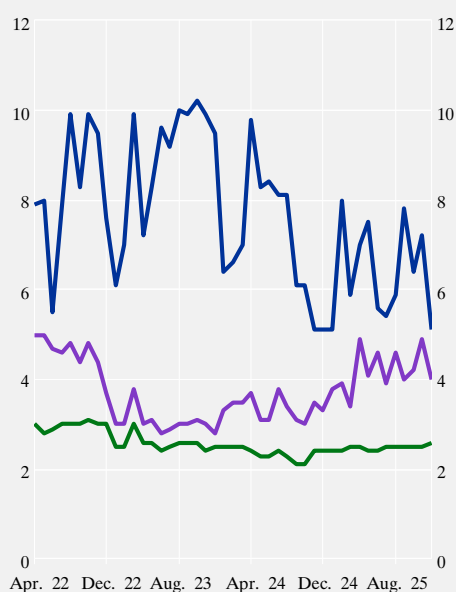
Medium-term consumer inflation expectations in Greece and the euro area are considerably lower than short-term expectations. In particular, as with one year ahead expectations, three years ahead inflation expectations are higher and exhibit greater volatility in Greece and Portugal compared to the euro area (see Chart 2, left panel). Medium term inflation expectations in Greece reached their maximum level of 10.2% in October 2023, but subsequently declined significantly to 5.1% in December

Chart 2 Inflation expectations three and five years ahead

(percentage changes)

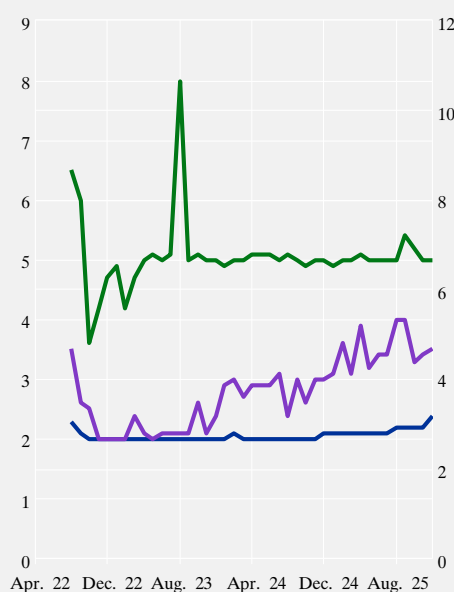
Median inflation expectations 3 years ahead in Greece, Portugal and EA11

— Inflation exp. 3y EA11
— Inflation exp. 3y EL
— Inflation exp. 3y PT



Median inflation expectations 5 years ahead in Greece, Portugal and EA11

— Inflation exp. 5y EA11
— Inflation exp. 5y EL
— Inflation exp. 5y PT



Source: Consumer Expectations Survey (CES).

Notes: Weighted data. Consumers' inflation expectations three and five years ahead are winsorised at the most extreme two percentiles to deal with outliers. CES data for inflation expectations three years ahead span the period from April 2022 to December 2025. CES data for five years ahead inflation expectations span the period from August 2022 to December 2025.

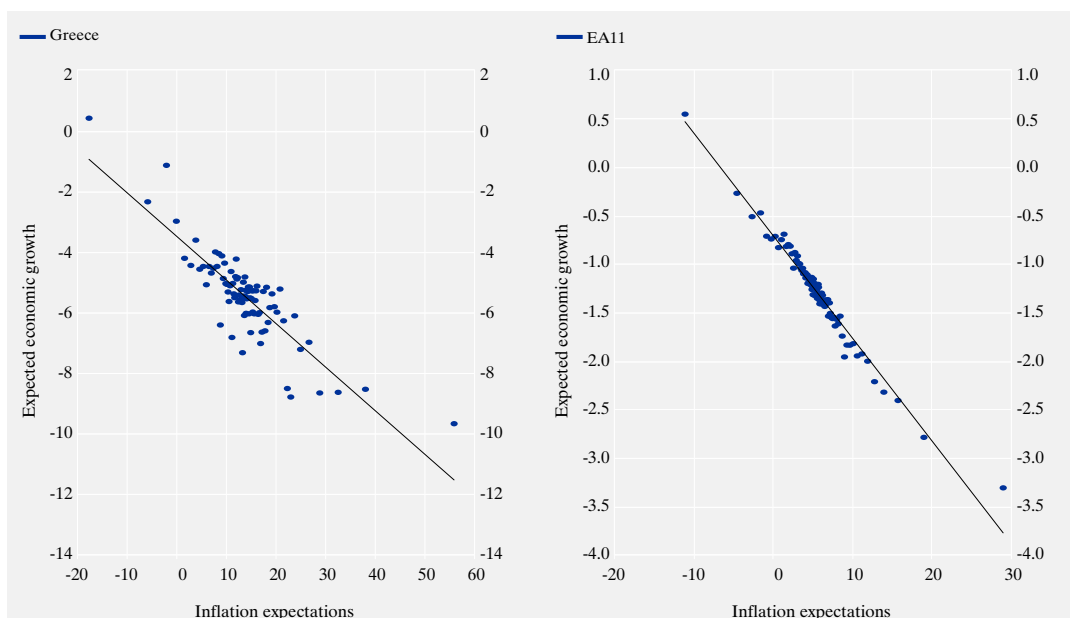
2025. On the other hand, three years ahead inflation expectations in the euro area peaked at 3.1% in October 2022 but, since then, they declined, standing at 2.6% in December 2025.

Long-term inflation expectations for Greek and euro area consumers remain relatively stable over extended periods of time without undergoing substantial variations (see Chart 2, left panel). Median five years ahead inflation expectations in Greece remained broadly unchanged at 5% for two years, from September 2023 to August 2025. They increased a bit since then, reverting back to 5% in December 2025. Likewise, median five years ahead inflation expectations in the euro area remained broadly unchanged at 2.1% for approximately

three years, from September 2022 to July 2025, and then they increased to 2.4% in December 2025. On the other hand, long-term inflation expectations in Portugal exhibit greater volatility.

Chart 3 illustrates a clear negative association between consumers' expectations of economic growth and inflation for both Greece and the euro area. This association appears consistent with a “supply-side narrative”, where higher inflation expectations are mainly associated with a pessimistic economic outlook and lower expectations about economic growth, and is documented in Coibion et al. (2023). Further, Chart 4 shows a clear positive association between inflation expectations and expecta-

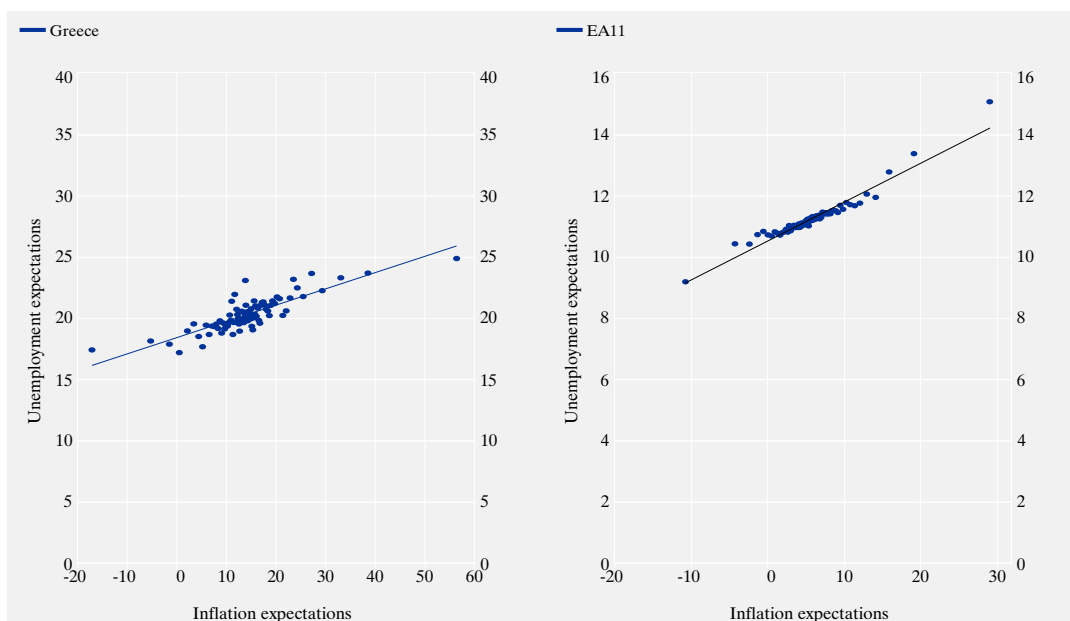
Chart 3 Association between inflation expectations and expected economic growth



Source: Consumer Expectations Survey (CES).

Notes: The chart plots inflation expectations over the next twelve months and economic growth rate expectations over the next twelve months for Greece and EA11. Both series are winsorised at the most extreme two percentiles to deal with outliers. The linear fit considers wave and individual specific fixed effects. CES data span the period from April 2022 to December 2025.

Chart 4 Association between inflation expectations and expected unemployment rate



Source: Consumer Expectations Survey (CES).

Notes: The chart plots expectations about inflation and the unemployment rate over the next twelve months for Greece and EA11. Both series are winsorised at the most extreme two percentiles to deal with outliers. The linear fit considers wave and individual specific fixed effects. CES data span the period from April 2022 to December 2025.

tions about the unemployment rate for both Greece and the euro area, providing additional evidence on the supply-side narrative that high consumers' inflation expectations are correlated with negative economic sentiment.

4 EMPIRICAL RESULTS

We present the results from a linear regression model of short-term inflation expectations described in equation (1). Table 1 shows that inflation expectations over the next twelve months are positively and strongly associated with inflation perceptions in Greece and the euro area, although the effect is relatively higher for Greek consumers. The effect of some socioeconomic variables on inflation expectations is heterogeneous in Greece compared to the euro area. In addition, while women and consumers with a low level of financial literacy have higher inflation expectations in the euro area, gender and financial literacy do not impact inflation expectations in Greece. Consumers' inflation expectations increase with age in Greece and the euro area. Nevertheless, while the effect is not significant at 5% for the two age groups in Greece, the effect is positive only for the last age category for euro area consumers, i.e. consumers aged 55 and above. We observe that income is negatively related to inflation expectations for both Greece and euro area consumers. However, for Greece the effect is negative in one of the highest income groups (quintile 4), whereas for the euro area the effect is positive in the lowest income group (quintiles 1 and 2). Previous studies have also shown that age, gender and income are correlated with inflation expectations (see Arioli et al. 2017; Ehrmann et al. 2017; and Abildgren and Kuchler 2021, among others). Partnership status is positively and strongly associated with inflation expectations in Greece. However, there is no significant impact of partnership status on inflation expectations in the euro area. Holding a mortgage is negatively associated with short-term inflation expectations for euro area consumers, but this effect is absent for Greek con-

Table 1 Regression model of short-term inflation expectations I

	<i>E(Inflation_{i,t+12})</i>	
	Greece	EA11
Perceived inflation	0.5805*** (0.0496)	0.4954*** (0.0109)
Women	-1.0609 (0.6646)	0.1566*** (0.0558)
Age: 35-54	0.7778* (0.4659)	-0.0660 (0.2191)
Age: 55+	1.1146* (0.5749)	0.6813*** (0.2480)
High education level	-1.1619 (0.7623)	-0.0506 (0.0465)
Household size	-0.3986* (0.2387)	0.0596*** (0.0213)
LFL	0.6131 (0.6119)	0.1926*** (0.0428)
Unemployed	0.9255 (0.8254)	-0.0244 (0.1024)
Partner	1.9426*** (0.5829)	-0.0486 (0.0552)
Home ownership	-1.5084* (0.8129)	-0.0286 (0.0667)
Home mortgage	0.0986 (0.3970)	-0.2825*** (0.0500)
Income – Q1	0.7228 (0.8152)	0.2507*** (0.0794)
Income – Q2	0.9221* (0.5341)	0.2184*** (0.0615)
Income – Q3	0.2648 (0.4834)	0.0837 (0.0564)
Income – Q4	-1.1372** (0.5677)	-0.0243 (0.0510)
Liquidity constraints	0.8250** (0.3453)	0.4764*** (0.0451)
Hard financial situation	1.2546*** (0.2325)	0.5588*** (0.0443)
Hard credit access	1.8244*** (0.3019)	0.6251*** (0.0355)
Country FE	NO	YES
Wave FE	YES	YES
Observations	47,185	918,908
R-squared	0.5369	0.4851

Notes: We use a linear regression model of inflation expectations over the next twelve months. Survey weights are used. Wave fixed effects are included but not reported. For the EA11 dataset, country fixed effects are also included. The sample includes robust standard errors in parenthesis. The symbols ***, ** and * denote statistical significance at 1%, 5% and 10%, respectively. CES data span the period from April 2022 to December 2025.

sumers. While household size is not related to inflation expectations for Greek consumers at the 5 percent confidence level, its effect is positive for euro area consumers. In addition, edu-

Table 2 Regression model of short-term inflation expectations II

	<i>E(Inflation_{t,t+12})</i>	
	Greece	EA11
Perceived inflation	0.4036*** (0.0158)	0.3702*** (0.0037)
Income – Q1	2.8093* (1.6564)	0.4835** (0.1969)
Income – Q2	2.7694* (1.5861)	0.4874*** (0.1575)
Income – Q3	0.7223 (0.8300)	0.2925*** (0.1092)
Income – Q4	0.3918 (0.6381)	0.2681*** (0.0706)
Liquidity constraints	0.0824 (0.2795)	-0.0798** (0.0378)
Hard financial situation	0.5707*** (0.1969)	0.3417*** (0.0250)
Hard credit access	0.2786 (0.1758)	0.1850*** (0.0247)
Country FE	NO	YES
Wave FE	YES	YES
Individual FE	YES	YES
Observations	41,775	872,844
R-squared	0.7870	0.71541

Notes: We use a linear regression model of inflation expectations over the next twelve months accounting for individual fixed effects. Survey weights are used. Wave fixed effects are included but not reported. For the EA11 dataset, country fixed effects are also included. The sample includes robust standard errors in parenthesis. The symbols ***, ** and * denote statistical significance at 1%, 5% and 10%, respectively. CES data span the period from April 2022 to December 2025.

cation, home ownership and unemployment are not associated with inflation expectations for both Greece and euro area countries.

Interestingly, liquidity constraints, hard financial situation and hard credit access are positively associated with short-term inflation expectations, albeit the impact is stronger for Greek compared to euro area consumers. In particular, the estimated coefficients of liquidity constraints and hard financial situation are twice as high for Greece, while the impact of hard credit access is three times higher.

In Table 2 we present the results from a linear regression model of short-term inflation expectations using the same empirical specification as in equation (1) but this time we also account

for individual fixed effects. Controlling for individual fixed effects, the impact of inflation perceptions on inflation expectations over the next twelve months is similar for Greece and the euro area with the estimated coefficient of 0.4 for perceived inflation. The inference on the impact of the remaining variables is qualitatively the same, with the exception of liquidity constraints and hard credit access. Liquidity constraints are not associated with inflation expectations for Greek consumers and euro area consumers (at 5 percent confidence level). Unlike the euro area, hard credit access is not related to inflation expectations over the next twelve months in Greece.

We present the results from a linear regression model of medium-term inflation expectations described in equation (2). Table 3 shows that the perceived inflation also has a positive and strong effect on medium-term inflation expectations for both Greece and the euro area. A one-percentage-point increase in inflation perceptions raises three-year-ahead inflation expectations by 0.5 percentage points on average for Greek consumers, compared to 0.4 percentage points for euro area consumers.

In line with the findings for inflation expectations over the next twelve months, the qualitative impact of age, gender, partnership status and mortgage holder status on three-year-ahead inflation expectations is the same for Greek and euro area consumers. Low financial literacy is positively associated with medium-term inflation expectations in both Greece and the euro area. However, the estimated coefficient for Greek consumers is six times larger than that for euro area consumers. Unlike in the euro area, where education has a muted effect, a high level of education significantly reduces inflation expectations three years ahead in Greece. Medium-term inflation expectations increase with income in the euro area, but this association does not apply to Greek consumers. Finally, the positive effect of liquidity constraints, hard financial situation and hard credit access on inflation expectations three years ahead is stronger for Greek consumers

Table 3 Regression model of medium-term inflation expectations I

	<i>E(Inflation_{i,t+3y})</i>	
	Greece	EA11
Perceived inflation	0.5142*** (0.0631)	0.3765*** (0.0146)
Women	-0.8315 (0.8691)	0.1573** (0.0761)
Age: 35-54	1.0458* (0.6173)	0.3696*** (0.0654)
Age: 55+	1.3493* (0.8190)	0.5480*** (0.0729)
High education level	-2.5077** (1.0210)	-0.0779 (0.0616)
Household size	-0.4864 (0.3352)	0.0693** (0.0290)
LFL	1.8142** (0.7499)	0.3821*** (0.0536)
Unemployed	0.7357 (1.0154)	0.1941 (0.1362)
Partner	2.2890*** (0.7961)	0.0164 (0.0759)
Home ownership	-1.6453 (1.0980)	-0.0917 (0.0960)
Home mortgage	-0.4864 (0.5597)	-0.2602*** (0.0646)
Income – Q1	1.7333 (1.0851)	0.4241*** (0.1092)
Income – Q2	1.1735 (0.7842)	0.3001*** (0.0801)
Income – Q3	1.0098 (0.7114)	0.0735 (0.0713)
Income – Q4	-0.7536 (0.7057)	-0.0261 (0.0653)
Liquidity constraints	0.9431** (0.4199)	0.4257*** (0.0608)
Hard financial situation	0.8871*** (0.3012)	0.6681*** (0.0589)
Hard credit access	2.8270*** (0.3890)	0.7434*** (0.0485)
Country FE	NO	YES
Wave FE	YES	YES
Observations	47,185	918,908
R-squared	0.3717	0.2923

We use a linear regression model of inflation expectations three years ahead. Survey weights are used. Wave fixed effects are included but not reported. For the EA11 dataset, country fixed effects are also included. The sample includes robust standard errors in parenthesis. The symbols ***, ** and * denote statistical significance at 1%, 5% and 10%, respectively. CES data span the period from April 2022 to December 2025.

compared to their euro area counterparts.

In Table 4 we augment the empirical specification described in equation (2) to account for

Table 4 Regression model of medium-term inflation expectations II

	<i>E(Inflation_{i,t+3y})</i>	
	Greece	EA11
Perceived inflation	0.2877*** (0.0136)	0.2200*** (0.0036)
Income – Q1	-0.2311 (1.6330)	0.2282 (0.1956)
Income – Q2	-0.1591 (1.5006)	0.3634** (0.1570)
Income – Q3	-0.9664 (0.9612)	0.2276** (0.1131)
Income – Q4	-0.1679 (0.6819)	0.2445*** (0.0742)
Liquidity constraints	0.4892* (0.2858)	-0.0095 (0.0388)
Hard financial situation	0.4657** (0.2187)	0.1797*** (0.0328)
Hard credit access	0.0281 (0.1983)	0.1291*** (0.0333)
Country FE	NO	YES
Wave FE	YES	YES
Individual FE	YES	YES
Observations	41,775	872,845
R-squared	0.7526	0.6637

Notes: We use a linear regression model of inflation expectations three years ahead accounting for individual fixed effects. Survey weights are used. Wave fixed effects are included but not reported. For the EA11 dataset, country fixed effects are also included. The sample includes robust standard errors in parenthesis. The symbols ***, ** and * denote statistical significance at 1%, 5% and 10%, respectively. CES data span the period from April 2022 to December 2025.

individual fixed effects. Compared to the results presented in Table 3, the qualitative effect of inflation perceptions on medium-term inflation expectations is identical for Greece and the euro area, though the magnitude of the estimated coefficient is smaller in both cases. All the remaining variables enter the same sign as those reported in Table 2.

Table 5 displays the results from a linear regression model of long-term inflation expectations for Greece and the euro area. Our results show that, for both Greek and euro area consumers, perceptions about current inflation compared to the past twelve months still affect five-year-ahead inflation expectations, though the estimated coefficients are smaller in mag-

Table 5 Regression model of long-term inflation expectations I

	<i>E(Inflation_{i,t+5y})</i>	
	Greece	EA11
Perceived inflation	0.4444*** (0.0800)	0.3012*** (0.0179)
Women	-1.5637 (1.0670)	0.0756 (0.0909)
Age: 35-54	1.2466* (0.6922)	-0.4249*** (0.0708)
Age: 55+	1.5272* (0.8323)	0.5069*** (0.0778)
High education level	-2.7747** (1.2090)	-0.0923 (0.0685)
Household size	-0.6149* (0.3391)	0.0663** (0.0313)
LFL	1.8326*** (0.6959)	0.3275*** (0.0538)
Unemployed	-0.0713 (0.9591)	0.1282 (0.1474)
Partner	2.5399*** (0.8824)	-0.0292 (0.0851)
Home ownership	-1.9196 (1.3161)	-0.1784 (0.1147)
Home mortgage	-0.5974 (0.5586)	-0.2732*** (0.0684)
Income – Q1	1.2455 (1.0087)	0.3828*** (0.1169)
Income – Q2	1.5036* (0.8305)	0.2894*** (0.0862)
Income – Q3	1.0830 (0.8092)	0.0382 (0.0735)
Income – Q4	-0.7361 (0.6770)	-0.0605 (0.0657)
Liquidity constraints	0.3478 (0.4412)	0.2795*** (0.0639)
Hard financial situation	0.7588** (0.3137)	0.5338*** (0.0703)
Hard credit access	2.6200*** (0.4239)	0.6204*** (0.0543)
Country FE	NO	YES
Wave FE	YES	YES
Observations	42,723	839,426
R-squared	0.3058	0.2132

Notes: We use a linear regression model of inflation expectations five years ahead. Survey weights are used. Wave fixed effects are included but not reported. For the EA11 dataset, country fixed effects are also included. The sample includes robust standard errors in parenthesis. The symbols ***, ** and * denote statistical significance at 1%, 5% and 10%, respectively. CES data span the period from August 2022 to December 2025.

nitude than those for medium-term expectations (i.e. 0.4 and 0.3, respectively). In addition, as with medium-term inflation expectations, education, partnership status and

Table 6 Regression model of long-term inflation expectations II

	<i>E(Inflation_{i,t+5y})</i>	
	Greece	EA11
Perceived inflation	0.1881*** (0.0141)	0.1533*** (0.0034)
Income – Q1	0.8948 (1.5006)	0.1755 (0.1980)
Income – Q2	0.7495 (1.1351)	0.2212** (0.1527)
Income – Q3	-0.1285 (0.8582)	0.1896* (0.1125)
Income – Q4	0.8736* (0.4600)	0.2487*** (0.0722)
Liquidity constraints	0.1034 (0.3902)	-0.0711* (0.0427)
Hard financial situation	0.1674 (0.2426)	0.1289*** (0.0326)
Hard credit access	0.1893 (0.2161)	0.1384*** (0.0326)
Country FE	NO	YES
Wave FE	YES	YES
Individual FE	YES	YES
Observations	37,490	795,084
R-squared	0.7419	0.6442

Notes: We use a linear regression model of inflation expectations five years ahead accounting for individual fixed effects. Survey weights are used. Wave fixed effects are included but not reported. For the EA11 dataset, country fixed effects are also included. The sample includes robust standard errors in parenthesis. The symbols ***, ** and * denote statistical significance at 1%, 5% and 10%, respectively. CES data span the period from August 2022 to December 2025.

financial literacy are strongly associated with long-term inflation expectations in Greece. While hard financial situation and hard credit access impact long-term inflation expectations, the effect of liquidity constraints is not statistically significant for Greek consumers. Finally, among euro area consumers, the influence of socioeconomic variables on long-term inflation expectations closely mirrors that observed for medium-term inflation expectations, as reported in Table 3.

According to Table 6, when accounting for individual fixed effects, the effect of perceived inflation on inflation expectations five years ahead for both Greece and the euro area is lower and similar, with the estimated coefficient of inflation perceptions standing at

approximately 0.2. Moreover, we find that long-term inflation expectations in Greece are driven exclusively by inflation perceptions, as no other variables appear to exert any significant influence on them. For euro area consumers, income, hard financial situation and hard credit access are associated with inflation expectations five years ahead.

5 CONCLUDING REMARKS

This paper, using the CES data, empirically investigates how inflation perceptions and inflation expectations are shaped for Greek and euro area consumers. Descriptive evidence shows that inflation perceptions and expectations closely track the movements in the official inflation rate, as measured by the Harmonised Index of Consumer Prices (HICP). In addition, we document that median inflation perceptions as well as short-term, medium-term and long-term inflation expectations over time are higher in Greece than in the euro area. Moreover, inflation uncertainty tends to increase when inflation expectations are elevated, though it remains relatively stable over time and is not subject to large fluctuations.

We also provide support for the supply-side narrative documented in Coibion et al. (2023), which posits that consumers generally tend not to associate higher inflation with stronger demand and higher economic growth, but instead higher inflation expectations are associated with bad news and a more pessimistic outlook for the economy. In particular, we find that consumers' inflation expectations for the next twelve months are negatively correlated with their expectations for economic growth over the same period, while they are positively correlated with their expectations for the unemployment rate in both Greece and the euro area.

The results show that inflation perceptions have a positive impact on inflation expectations over the next months, as well as three years and five years ahead for Greece and the euro area. As the forecast horizon increases,

the effect of inflation perceptions is lower, providing evidence of the downward sloping of the term structure of inflation expectations. This is further supported by the fact that median inflation expectations decrease when the forecast horizon lengthens from twelve months to three and five years ahead. These findings provide a positive indication of the anchoring of inflation expectations, as consumers expect inflation to decline over time.

The results also indicate that the impact of socioeconomic variables on inflation expectations is heterogeneous across different forecast horizons. For Greek consumers, financial literacy and education are not associated with short-term inflation expectations. However, medium and long-term inflation expectations increase with a low level of financial literacy and education. Unlike the euro area, partnership status is strongly and positively related to inflation expectations in Greece.

In addition, the positive impact of liquidity constraints, hard financial situation and hard credit access on inflation expectations is more pronounced for Greek consumers than for their euro area counterparts. Notably, the magnitude of the estimated coefficients of these variables diminishes once we control for individual fixed effects.

Overall, this study provides useful insights on how Greek consumers form their inflation expectations across different forecast horizons, using data from the CES. The CES is particularly well-suited for this purpose, as it collects novel and timely information on consumers' inflation perceptions, as well as their short-, medium- and long-term inflation expectations. In addition, the granularity of the data allows us to examine heterogeneity in expectations formation across different socioeconomic groups of consumers. Furthermore, it complements measures of inflation expectations derived from financial markets, deepening our understanding on the formation of inflation expectations, which has major implications for monetary policy and central bank communication.

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