From traits to rates: How personality shapes inflation expectations.*

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Abstract. Using data from the 2023 Austrian Household Finance and Consumption Survey this paper provides first evidence on the role of personality traits in shaping households' inflation expectations. Extracting and validating the Big Five traits for Austria for the first time, we show personality traits explain substantial variation in inflation expectations, adding 70% to the explained variance accounted for by sociodemographics. For instance, consumers at the 90^{th} percentile of the openness to experience trait report inflation expectations 0.66 percentage points higher than those at the 10^{th} percentile. A large share of Austrian households update expectations adaptively from past experienced inflation rather than anchoring to the ECB's price stability target. Personality traits predict both this anchoring behavior and households' absolute forecast error, highlighting their relevance for Taylor-rule effectiveness. Positive policy signals, education and participation in the financial market mediates these effects. The results have direct implications for monetary policy transmission, macroeconomic modeling, and central bank communication strategies.

Keywords: Inflation expectations, personality traits, Big Five, household surveys, monetary policy
JEL Classification: D84, E31, E52, E58

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Non-Technical Summary

Despite the importance of households' inflation expectations for monetary policy, little is known about how households actually form these expectations and why heterogeneity persists even among individuals who appear similar based on their sociodemographic characteristics. This paper addresses this gap by showing that personality traits account for an additional 70% of the observed heterogeneity in inflation expectations beyond conventional sociodemographic factors.

Our analysis uses the 2023 wave of the Austrian Household Finance and Consumption Survey (HFCS), which combines quantitative inflation expectations with 25 items designed to extract personality traits based on the Big Five framework: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. We are the first to validate these traits for Austria and to examine their role in predicting inflation expectations. Because more than a year has passed since the field phase and because we have access to the precise interview date for each respondent, the data also allow for analysis of individual forecast errors.

All five personality traits are significantly associated with inflation expectations. Respondents at the 90^{th} percentile of the openness to experience trait, for instance, report expectations 0.66 percentage points higher than those at the 10^{th} percentile, a difference exceeding the effect of moving from the first to the fourth income quintile. Quantile regressions confirm that these effects hold at the median.

Additional analysis suggests that a large share of Austrian households update their expectations adaptively from past inflation rather than anchoring it to the ECB's price stability target. Personality traits predict both this anchoring behavior and households' forecast accuracy. Moreover, we find respondents with different personality profiles to react differently to policy signals. For instance, respondents high in openness are the only group showing statistically significant expectation changes and lower forecast errors during periods of positive central bank communication shocks, while neurotic and conscientious respondents show higher errors in such periods. Financial market participation and higher university education are found to moderate these personality effects.

These findings have implications for central bank communication, monetary policy, and macroeconomic modeling. Personality-driven heterogeneity suggests that uniform communication strategies may not be equally effective across the population. Adaptive expectation formation combined with personality-driven variation in anchoring complicates stabilization under a Taylor rule, as the required policy response may depend on how different households form expectations. Finally, the results point to the importance of considering personality traits as a source of household heterogeneity in economic beliefs and preference formation in macroeconomic models beyond sociodemographic characteristics.

1. Introduction

Household inflation expectations play a fundamental role in the transmission of monetary policy and are central to economic theory (see, among others, Coibion et al., 2020). Standard macroeconomic models typically assume these expectations are homogeneous and formed rationally, yet a growing empirical literature documents pronounced heterogeneity in inflation expectations across households (see, among others, Das et al., 2020; D'Acunto et al., 2024). Economists still know remarkably little about how households actually form these expectations and why such heterogeneity persists even among agents who appear similar based on their sociodemographic characteristics (Weber et al., 2022a). Using the Austrian Household Finance and Consumption Survey (HFCS), this paper addresses this gap by demonstrating that personality traits account for an additional 70% of the observed heterogeneity in household inflation expectations beyond conventional sociodemographic factors.

The "Big Five", including openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, thereby represent the most widely used taxonomy of personality traits and have been shown to predict a range of economic outcomes (see Heckman et al., 2019, for a recent summary of the literature). Drawing on the HFCS, this is to our knowledge the first study to extract and validate these five traits for Austria and to examine their role in shaping inflation expectations. We find personality to exert economically non-trivial effects that persist even after controlling for conventional sociodemographic and economic determinants: consumers at the 90^{th} percentile of the openness to experience trait, for instance, report inflation expectations 0.66 percentage points higher than those at the 10^{th} percentile. This difference exceeds the effect of moving from the first to the fourth income quintile in our model. Importantly, these effects remain robust at the median and vary depending on the individuals' baseline inflation expectations.[1]

Further exploiting the survey's unique design, we additionally show personality traits to predict not only the level but also the absolute forecast error of inflation expectations. These effects are particularly pronounced at trait extremes, where specific profiles exhibit expectations more closely aligned with realized inflation. Moreover, expectation anchoring to the ECB's price stability target varies systematically with personality: conscientious and neurotic individuals are significantly more likely to hold anchored expectations, while individuals who are open to experience display lower anchoring probabilities. Notably, the latter type of consumer is the only type to exhibit significant expectation changes and lower forecast errors during periods of positive central bank communication shocks, whereas neurotic and conscientious individuals show higher errors in such periods. Also higher education and financial market participation are found to alter these personality-driven effects.

To test the robustness of our analysis, we conduct several checks using alternative definitions of the dependent variable and treatments of key responses. These include the non-winsorized inflation expectations, a subsample with positive expectations only, and an alternative imputation for "stay about the same" responses. Across all specifications, the estimated effects of the Big Five remain consistent, confirming the stability of our results.

[1] This finding stands in contrast to Brent and Guhan (2011) who show that sociodemographic effects on inflation expectations are reduced at the median compared to the mean.

The findings suggest that personality traits robustly capture how individuals' lifetime experiences shape information processing and decision-making, rather than merely reflecting current sociodemographic status. For instance, consider two seemingly identical individuals: same sex, both single, identical income levels, graduates from the same high school with same qualifications, etc. Despite these objectively similar characteristics, they hold different expectations about future price developments.

We demonstrate that such discrepancies stem from personality traits formed through lifelong experiences rather than from observable socioeconomic characteristics alone. Traits create distinct cognitive pathways for perceiving and interpreting economic information, with implications for monetary policy transmission, macroeconomic modeling, and central bank communication. Understanding how personality shapes expectation formation can inform the design of more effective communication strategies and may require adjustments to policy frameworks that assume homogeneous expectation formation mechanisms.

Related literature Literature on consumers' inflation expectations has identified several determinants shaping beliefs about future prices, including sex, age, education, income, and, wealth, among others. For a detailed overview, see D'Acunto et al. (2024) and D'Acunto and Weber (2024). These studies demonstrate that consumers act on their beliefs in heterogeneous ways that can depart from conventional economic model predictions (Weber et al., 2022a). The findings of our paper align with these established patterns. However, while sociodemographic factors are well-documented, the influence of lifetime experiences—particularly depicted by personality traits—on inflation expectations has received limited attention. Our study addresses this gap by examining how personality shapes expectations.

In that, we contribute to an emerging literature on the role of experiences in macroeconomic expectation formation (see, e.g., Madeira and Zafar, 2015; Kuchler and Zafar, 2019) and particularly inflation expectations (see, e.g., Malmendier and Nagel, 2016; D'Acunto et al., 2023). For instance, Malmendier and Nagel (2016) demonstrate that systematic age differences in expectations partly reflect subjective lifetime experiences in shaping beliefs about the future. They find personal inflation experiences over individuals' lives to strongly predict current inflation expectations. Similarly, D'Acunto et al. (2023) argue that age cohorts' cumulative lifetime exposure to price signals explains the magnitude of observed age differences, cohorts' relative positioning, and their temporal evolution. These findings exemplify a growing body of research on experience-based learning that documents persistent effects of prolonged exposure to specific price stimuli. Our paper advances this literature by demonstrating that personality traits provide a more holistic measure of lifetime experience beyond inflation-specific exposure. The advantage of analyzing personality effects on expectations lies in their unique characteristics: while traits are person-specific and exhibit considerable stability over time, they can continue to develop across the lifespan (Rantanen et al., 2007; Atherton et al., 2021; Ringwald et al., 2025) and remain responsive to significant life experiences and events (Bühler et al., 2024).

Literature on personality psychology has developed well-established methodologies for measuring individual traits (see Heckman et al., 2019), with the Big Five framework capturing personality characteristics at the broadest level of abstraction (Becker et al., 2012). Recent evidence demonstrates that these traits matter for relevant life outcomes, including cognitive skill forma-

tion (Cunha et al., 2010), educational and occupational choices (Todd and Zhang, 2020), and intra-household resource allocation (Fernández, 2025). Moreover, scholars have begun integrating personality into economic decision-making frameworks (Borghans et al., 2008), with Almlund et al. (2011) incorporating personality traits into standard models of production, choice, and information. However, empirical knowledge remains non-existent regarding how personality traits relate to economic concepts and parameters typically modeled to predict behavior (Becker et al., 2012). Our study makes two key contributions to this literature: First, we construct five latent personality variables using Austrian data, applying the same Big Five methodology employed by the German Socio-Economic Panel (SOEP) (Schupp and Gerlitz, 2014). Second, we examine the Big Five in the context of macroeconomic expectations, being one of the first to combine personality traits with empirical macroeconomics and adding to the resurgent interest in survey-based measures of household expectations within theoretical modeling and monetary policy literature.

The theoretical literature establishes household inflation expectations as central to economic decision making, e.g., through the Euler equation describing how perceived real interest rates determine consumption and saving.[2] Furthermore, while canonical representative-agent Dynamic Stochastic General Equilibrium (DSGE) models (see, e.g., Rotemberg and Woodford, 1997; Smets and Wouters, 2007) focus on intertemporal substitution through this very Euler equation, heterogeneous-agent New Keynesian (HANK) models (see, e.g., Kaplan et al., 2018) demonstrate that aggregate dynamics depend critically on how different households respond to shocks through distributional channels—via liquidity constraints, income risk, and varying marginal propensities to consume (MPCs). In this context, our findings suggest that personality traits may be an important predictor of such variation, highlighting their role for economic modeling. Recent work further underlines the relevance of heterogeneity in expectations as a key driver of macroeconomic dynamics. Moll (2025) argues that in heterogeneous-agent settings, the rational-expectations benchmark is conceptually implausible because it requires each agent to correctly forecast equilibrium outcomes that depend on the aggregate behavior of all other agents. This underscores that meaningful variation in expectations is inherent at the individual level and should be accounted for.

This theoretical foundation has generated corresponding policy-oriented research examining how central banks can effectively manage household expectations (see, e.g. Coibion et al., 2018), with recent literature emphasizing that successful monetary policy transmission requires understanding the heterogeneous sources of belief formation across households (Weber et al., 2022a; D'Acunto et al., 2024). Studies demonstrate that traditional market-based measures fail to capture the cross-sectional variation in household beliefs that drives heterogeneous responses (see, e.g., Abildgren and Kuchler, 2021). We advance the understanding of this heterogeneity by identifying personality traits as a systematic source of expectation heterogeneity that has been overlooked in existing research. Critically, this perspective acknowledges that agents do not necessarily form expectations through purely rational processes, making psychological factors essential for understanding both expectation formation and the effectiveness of monetary policy transmission mechanisms.

[2]The consumption Euler equation predicts that higher inflation expectations, by lowering expected real interest rates, increase desired current consumption relative to future consumption, providing central banks a transmission channel to stimulate aggregate demand through expectation management.

The remainder of the paper is organized as follows. Section 2 describes the data from the 5^{th} wave of the Austrian HFCS, including its design, methodology, and the variables used, and provides descriptive statistics. Section 3 presents the empirical strategy, with Section 4 summarizing the corresponding results on the relationship between personality traits and inflation expectations. Section 5 provides robustness checks and Section 6 the additional results. Section 7 discusses the emerging policy implications. Finally, Section 8 concludes.

2. Data

This section introduces the survey and data used in the empirical analysis. Section 2.1 outlines the design and methodological features of the Austrian wave of the HFCS, including the sampling approach, imputation and weighting methods, and the structure of the household- and individual-level variables. Section 2.2 describes the inflation expectation questions, which combine qualitative and quantitative measures to allow for an assessment of level and error of the forecast. Section 2.3 presents the items from the Big Five Inventory (BFI) included in the Austrian questionnaire and discusses their validation and suitability for capturing personality traits. Lastly, Section 2.4 exhibits descriptive statistics demonstrating that our data reproduces key stylized facts from the literature on both inflation expectations and personality trait distributions, establishing the dataset's reliability and external validity.

2.1. Survey design

This paper uses the 2023 wave of the Austrian HFCS. The HFCS is the most comprehensive survey on household balance sheets and consumption behavior in the euro area and beyond, coordinated and reviewed by the European Central Bank (ECB) to ensure the highest quality standards in all steps of data production.[3] In Austria, the HFCS has been conducted every three years since 2010/11.

The target population of the survey comprises all individuals living in Austria, irrespective of nationality or citizenship. The sampling frame consists of all postal addresses of Austrian households, and the survey employs a stratified two-stage cluster design. Strata are defined as NUTS-3 regions further subdivided into eight classes based on municipality size. Enumeration districts serve as the primary sampling units (PSUs), and postal addresses as the secondary sampling units (SSUs). The gross sample includes 689 PSUs and 7,636 SSUs across 192 strata.

Fieldwork for the 2023 wave was conducted between March 2023 and February 2024 by 48 specifically trained interviewers using computer-assisted personal interviewing. Approximately 15% of all interviews are randomly selected for quality-control checks. Data collection is organized into 24 batches throughout the field phase, allowing for prompt monitoring of interviewers and interview outcomes. Around 200 follow-up queries are issued to clarify outliers or inconsistencies, and the questionnaire contained roughly 250 programmed consistency checks to support data quality during the interview.

The average number of missing items per households is 16.7 items. To address item nonresponse, missing values are imputed using multiple imputation by chained equations, generating

[3]Its methodology for Austria is based on that of the Survey of Consumer Finances (SCF), which is considered by many state-of-the-art.

five plausible values for each missing item. The net sample consists of 2,849 completed interviews, corresponding to a response rate of 38%. To correct for unequal response probabilities, household weights are constructed using a two-stage procedure. First, nonresponse adjustments are derived by modeling individual response propensities, forming homogeneous adjustment classes, and applying within-class weight adjustments. Second, these nonresponse-adjusted weights are calibrated through poststratification to align the weighted sample with known population totals. This procedure helps reduce potential nonresponse bias and improves the representativeness of the sample in regards to the target population.

The dataset provides replication weights that approximate the effects of the complex design. This is necessary due to confidentiality restrictions that prevent the release of all design information necessary for valid variance estimation. Replication methods estimate the variance of a population parameter by recalculating the estimator across multiple subsamples (replicates) of the original sample. The variability of these replicate estimates yields an estimate of the parameter's variance.[4]

A key feature of the HFCS is the probability-based sampling design, in which every household in the target population has a known, non-zero probability of selection. This distinguishes it from non-probability sampling approaches, where selection probabilities are unknown and valid design-based statistical inference to population moments is not possible (Bethlehem, 2010; Cornesse et al., 2020). By relying on a probability-based design, the HFCS enables the estimation of population moments and associated standard errors that can be interpreted as representative of the underlying population.

The survey includes two types of variables. First, variables centrally coordinated by the ECB to ensure comparability across participating countries in the Household Finance and Consumption Network (HFCN). Second, additional questions by individual countries that are specific to their national surveys. The Austrian HFCS contains such country-specific modules, which include both qualitative and quantitative measures of inflation expectations as well as a battery of items designed to extract personality traits. These Austria-specific questions make the present analysis possible and are described in detail in the following subsections.

2.2. Inflation expectations

The euro area's centrally coordinated question for inflation expectations is merely a qualitative one. For Austria, however, the first qualitative question is supplemented by a follow-up question that quantifies the initial expectations regarding price development. This design is based on the question structure also present in the Michigan Survey of Consumers, the longest-running survey of consumer expectations. The initial qualitative question for Austria is formulated as follows:

> **Question 1:** What do you think will happen to the general price level over the next 12 months? Will it increase significantly, increase slightly, remain about the same, decrease slightly, or decrease significantly?
>
> **Possible answers:** **(1)** Increase significantly, **(2)** increase slightly, **(3)** remain about the same, **(4)** decrease slightly, **(5)** decrease significantly, **(-1)** don't know, **(-2)** no answer.

[4]Further information can be found in the methodological report provided by the Oesterreichische Nationalbank (OeNB, see Albacete, Nicolás and Peter Lindner, 2025).

Individuals who think the price level will change receive a second quantitative question asking how much the general price level will increase or decrease. A quantitative inflation expectation of zero is assigned to every household that answered "remain about the same". The second question asks respondents to state their expected inflation rate over the next twelve months:

> **Question 2:** By how many percent do you think the general price level will increase or decrease over the next 12 months?
>
> **Possible answers: (1)** The general price level will increase/decrease by XX%, **(-1)** don't know, **(-2)** no answer.

The share of missing responses in the first question amounts to 3%. For the second question, 17.8% of responses are missing because individuals selected "remain about the same" in Question 1, for which a value of zero is assigned. In Question 2 an additional 3% are missing due to non-response in Question 1, and 8.3% are missing directly due to non-responses in that question.

Because more than a year has passed since the field phase and because we have access to the precise interview date for each respondent, we are able to calculate not only expectation levels but also respondent-specific forecast errors by comparing reported expectations to realized inflation outcomes (see Section 6 for further details). This represents a further unique feature of this survey dataset.

2.3. Big Five

Personality traits are measured using the BFI. The fundamental assumption of the Big Five personality theory approach (see Paul T. Costa and Robert R. McCrae, 1985) is that personality differences between individuals, which are expressed through differences in behavior and experience, can be attributed to five central personality dimensions or temperament factors: *neuroticism* (N), *extraversion* (E), *openness to experience* (O), *agreeableness* (A), and *conscientiousness* (C) (Costa and McCrae, 1992). While these Big Five are expressed differently in each individual, they remain culturally stable, at least in Western cultures (McCrae et al., 2005).

Each of the Big Five are divided into six heterogeneous facets. These facets determine habitual interpersonal behavioral orientations and inter-individually varying patterns of attitude, life-experience, and motivation. Neuroticism encompasses anxiety, irritability, depression, social inhibition, impulsiveness and vulnerability. Extraversion is characterized by warmth, sociability, assertiveness, activity, excitement-seeking, and positive emotions. Openness to experience includes fantasy, aesthetics, feelings, actions, ideas and value systems. Agreeableness comprises trust, straightforwardness, altruism, compliance and modesty. Finally, conscientiousness encompasses competence, orderliness, sense of duty, achievement striving, self-discipline and deliberation (see Schupp and Gerlitz, 2014).

The 2023 Austrian HFCS uniquely includes 25 items from the BFI developed by John et al. (1991). The items are self-assessment statements such as *"I am someone who ... is not easily upset,"* which respondents evaluate on a seven-point Likert scale, where one indicates *"does not apply at all"* and seven indicates *"applies completely"*. Each question is categorized to load one specific personality trait, with five items per traits.[5] Individual trait scores are constructed by averaging responses across the five items for each dimension, yielding values ranging from one

[5]The complete item list and factor loadings are presented in Table A.1 of the Appendix.

to seven.

Table 1: Factor loadings and proposed trait assignments for the Big Five inventory.

Item ID	(O)	(A)	(C)	(E)	(N)	Proposed BFI loadings
a	0.12	-0.05	0.05	**0.77**	-0.04	Extraversion (-)
b	0.13	-0.05	0.00	**0.76**	0.03	Extraversion (-)
c	0.40	0.08	0.09	**0.50**	-0.11	Extraversion (+)
d	**0.58**	0.03	0.14	0.31	-0.06	Openness to Experience (+)
e	-0.05	0.37	**0.28**	0.11	-0.14	Conscientiousness (-)
f	-0.03	0.44	**0.26**	0.14	-0.10	Conscientiousness (-)
g	0.36	0.06	0.12	**0.45**	-0.14	Extraversion (+)
h	0.04	0.15	0.10	**0.42**	-0.29	Extraversion (-)
i	**0.70**	0.02	0.08	0.12	-0.10	Openness to Experience (+)
j	**0.76**	-0.00	0.01	0.12	0.00	Openness to Experience (+)
k	**0.60**	0.05	0.01	-0.00	-0.10	Openness to Experience (+)
l	**0.71**	0.02	0.15	0.15	-0.14	Openness to Experience (+)
m	0.12	0.27	**0.78**	0.06	-0.06	Conscientiousness (+)
n	0.12	0.25	**0.83**	0.11	-0.05	Conscientiousness (+)
o	0.15	0.24	**0.73**	0.09	-0.06	Conscientiousness (+)
p	-0.07	-0.03	0.11	-0.06	**0.66**	Neuroticism (+)
q	-0.25	-0.08	-0.21	-0.05	**0.52**	Neuroticism (-)
r	0.02	-0.14	0.05	0.02	**0.67**	Neuroticism (+)
s	-0.05	-0.17	-0.11	-0.20	**0.69**	Neuroticism (+)
t	-0.16	-0.00	-0.16	-0.03	**0.47**	Neuroticism (-)
u	-0.03	**0.68**	0.04	-0.02	-0.06	Agreeableness (-)
v	0.04	**0.72**	0.09	0.14	-0.04	Agreeableness (-)
w	-0.00	**0.68**	0.15	-0.06	-0.06	Agreeableness (-)
x	0.21	**0.43**	0.31	-0.11	-0.05	Agreeableness (+)
y	0.21	**0.38**	0.16	-0.11	-0.13	Agreeableness (+)

Notes: This table reports factor loadings from the Big Five Inventory–SOEP (BFI-SOEP). The theoretically corresponding factor loadings are shown in bold and underlined. (O) = Openness to Experience, (A) = Agreeableness, (C) = Conscientiousness, (E) = Extraversion, and (N) = Neuroticism. Population weights and multiple imputations are taken into account. Items with negative wording are reverse-coded by subtracting the response from eight. Factor extraction is based on the principal factor method with varimax rotation. Item wordings are reported in Table A.1 in the Appendix.

This battery of items was selected and validated by the German Institute for Economic Research (DIW) in the course of the annually conducted SOEP. Factor analysis by Schupp and Gerlitz (2014) demonstrates that the 25 items are highly correlated within each personality trait cluster and weakly correlated with items across other clusters, showing low correlations with items from other traits and therefore confirming both convergent and discriminant validity for the German context.

Although Austria and Germany share substantial cultural and economic similarities, cross-country differences in survey response patterns may exist. Since the validation of this item battery was conducted using German data, we replicate the validation procedure of Schupp and Gerlitz (2014) for our Austrian sample. Following their approach, we perform a factor analysis to verify that the empirical factor loadings align with the BFI structure.

Table 1 presents the factor loadings obtained from our analysis alongside the BFI-proposed loadings. The results demonstrate that the items successfully capture the five personality traits as latent factors. Each factor has at least three items with a loading greater than or equal to 0.50. This magnitude indicates strong main component loadings and clear factorial structure, supporting the factors' reliability and formal validity. Additionally, the relatively low correlations of the items with components other than their target components also speak for the discriminatory power of the items. Our findings closely replicate those of Schupp and Gerlitz

(2014), demonstrating that the five-factor structure of the Big Five is satisfactorily reproduced in the Austrian HFCS data.

Table 2: Reliability statistics for factors derived from the Big Five inventory (BFI-SOEP).

	MIC	VIC	Alpha	Std. Alpha
Extraversion	0.40	0.02	0.70	0.73
Openness to experience	0.50	0.01	0.69	0.72
Conscientiousness	0.46	0.03	0.70	0.72
Neuroticism	0.38	0.01	0.73	0.76
Agreeableness	0.39	0.01	0.71	0.73

Notes: This table reports scale reliability statistics for the Big Five Inventory–SOEP (BFI-SOEP). MIC denotes the mean inter-item correlation, VIC the variance of inter-item correlations, and Alpha and standardized Alpha refer to Cronbach's alpha coefficients. Population weights and multiple imputations are taken into account.

Table 2 presents key summary statistics from the factor analysis. Items with Cronbach's alpha > 0.70 are generally considered to be internally consistent and reliable.[6] Our results meet this criterion: Cronbach's alpha exceeds or approaches 0.70 for all factors, and the standardized Cronbach's alpha values similarly remain above 0.70 across all five personality dimensions. It is important to note, that the alpha coefficient depends to a large extent on the number of items (see Cortina, 1993), and that the conventional critical value was established for instruments that contain many more items. Consequently, our alpha values represent a conservative lower bound for the true reliability of these measures.

2.4. Descriptive statistics

The data on inflation expectations exhibits several key characteristics discussed in the literature. First, when comparing expected and realized inflation, households in our sample systematically overestimate future inflation by an average of 0.73 percentage points—a systemic upward bias also found in Weber et al. (2022a) and D'Acunto et al. (2024), among others.

Second, consumer beliefs about future inflation exhibit considerable dispersion. Household expectations are substantially wider than those observed among professional forecasters, such as in the ECB's Survey of Professional Forecasters (D'Acunto et al., 2024). Figure 1 shows the distribution of respondents' inflation expectation from the 5^{th} to the 95^{th} percentile, thereby illustrating this broad dispersion. The dashed line represents the mean inflation expectation, while the dashed-dotted line shows the average 12-month realized inflation.

Third, the mean of expected inflation consistently exceeds the median, reflecting right-skewness induced by households reporting very high inflation expectations (see Table 3). This captures substantial cross-household disagreement about the same macroeconomic variable.

Forth, as emphasized by Weber et al. (2022a), responses in multiples of five are a common feature of consumer inflation expectations. Such rounding behavior might be interpreted as a signal of uncertainty about the precise level of expected inflation (Binder, 2017). The same pattern is evident in our data, as shown in Figure 1, where clear bunching at five-percentage-point intervals can be observed. Finally, only a small share of households—around 6%—expect

[6] Cronbach's alpha is a measure of internal consistency reliability, defined as a function of the average covariance among items intended to measure the same latent construct. It captures the extent to which observed item responses share a common source of variation, as would be implied by a unidimensional factor model.

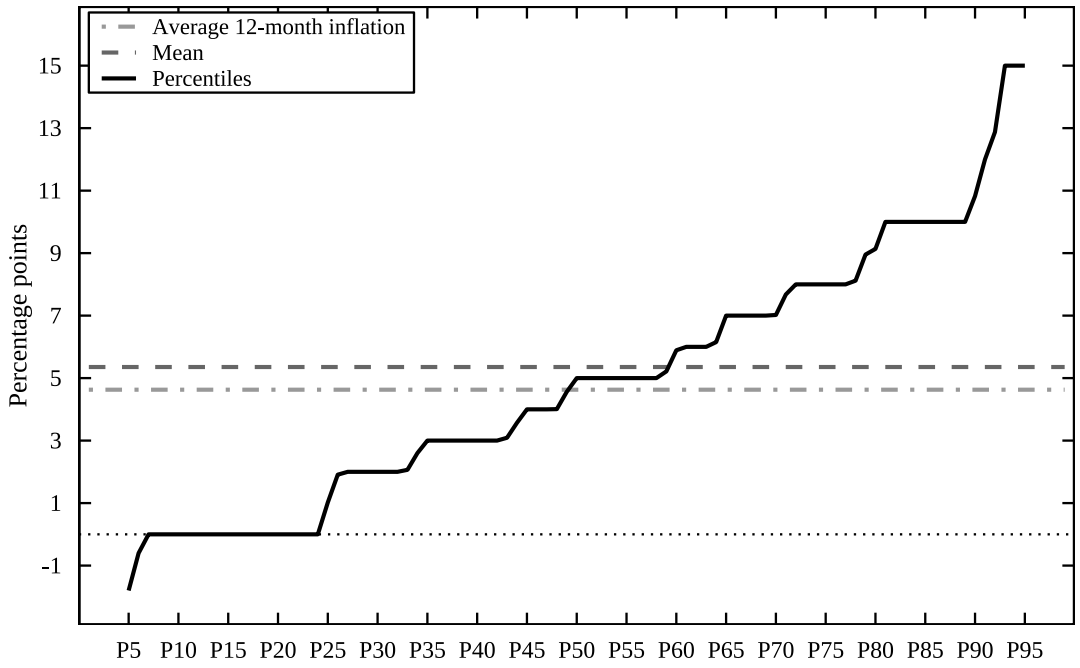

Figure 1: Distribution of inflation expectations. The figure shows the distribution of respondents' expected 12-month inflation. Observations below the 5^{th} percentile and above the 95^{th} percentile are trimmed. Expected 12-month inflation is defined as the average expected inflation from the interview month through the subsequent 12 months. Population weights and multiple imputations are applied.

prices to decline, a pattern also observed in several other countries outside of Austria (see Gorodnichenko and Sergeyev, 2021).

As noted in Section 2.2, approximately 3% of respondents did not answer the qualitative question and 8.3% did not answer the quantitative question regarding their inflation expectations, resulting in 11.3% missing observations in total regarding the quantitative question. To ensure an appropriate and unbiased analysis of the data, the missing values are imputed as mentioned in Section 2. Importantly, as shown in Table 3, imputations have only a marginal impact on the overall distribution of inflation expectations: both the central tendency (mean and median) and the dispersion measures (interquartile range) remain virtually unchanged across imputed and non-imputed samples. Thus, the imputation procedure preserves the underlying data structure and empirical characteristics of respondents' expectations.

Table 3: Summary statistics of 12-month inflation expectations with and without imputation

Imputations	Minimum	Q25	Mean	Median	Q75	Maximum
Yes	-25.445	1.020	5.355	5.000	8.000	99.900
No	-25.000	-0.001	5.386	5.000	7.785	99.900

Notes: Summary statistics of households' expected 12-month inflation. Values are reported percentage changes in the general price level. Population weights are taken into account; imputed and non-imputed statistics are shown separately.

Table 4 summarizes inflation expectations and their forecast biases across demographic groups. Women report higher inflation expectations than men, and households with lower socio-economic status, defined as a combination of education and income, tend to expect higher

inflation than other groups. Inflation expectations also differ across age cohorts, with older respondents reporting systematically higher expectations than younger ones. Overall, these patterns are in line with established empirical evidence on heterogeneity in household inflation expectations (e.g., Bruine De Bruin et al., 2010; D'Acunto et al., 2021b; Das et al., 2020; Di Giacomo and Angelico, 2019; Malmendier and Nagel, 2016; Hajdini et al., 2022; Weber et al., 2022b).

Table 4: Inflation expectations across sociodemographic groups

		Inflation expectations				Bias
Variable	Category	P25	Median	Mean	P75	Mean
Total	Total	1.02	5.00	5.35	8.00	0.73
Sex	Male	1.89	5.00	5.01	8.00	0.40
	Female	0.00	4.96	5.60	8.00	0.96
Age	18–24	0.00	1.96	4.53	7.35	0.36
	25–39	0.00	5.00	5.75	8.00	1.25
	40–59	2.00	4.00	5.13	8.00	0.46
	60+	2.00	5.00	5.45	8.00	0.77
Married	No	0.00	5.00	5.91	8.20	1.30
	Yes	1.99	3.47	4.76	7.55	0.10
Education	Compulsory education or below	0.00	4.65	5.33	8.00	0.55
	Apprenticeship, vocational school	1.99	5.00	5.57	8.00	0.96
	Upper secondary, school-leaving certificate	2.00	4.46	5.04	8.00	0.47
	University, technical college	0.40	5.00	5.56	8.00	0.88
Income quintile	1	0.32	5.14	6.26	9.20	1.54
	2	0.00	5.00	5.63	8.06	0.99
	3	0.20	4.67	5.09	8.00	0.56
	4	2.00	3.30	4.77	7.01	0.19
	5	1.79	4.38	5.02	8.00	0.35
Occupation	Self-employed	2.48	5.00	5.87	8.00	1.43
	(Skilled) blue-collar worker	1.36	4.05	5.13	8.00	0.45
	White-collar worker	0.54	4.04	5.13	8.00	0.58
	Civil Servant	2.00	3.00	4.85	6.60	0.23
	Farmer	0.00	5.00	3.99	7.00	-1.13
	Pensioneer	2.00	5.00	5.63	8.00	0.92
	Unemployed	0.00	5.00	5.83	9.68	1.47
	Other	0.00	2.53	4.57	6.80	-0.07

Notes: This table reports the 25^{th} percentile, median, mean, and 75^{th} percentile of expected 12-month inflation as well as the forecast bias, which is calculated by subtracting the realized inflation from the expected 12-month inflation, by sociodemographic characteristics. Values represent respondents' reported expected percentage changes in the general price level. Population weights and multiple imputations taken into account.

Table 5 reports the distribution of the Big Five personality traits across demographic and socio-economic groups. In general, each trait exhibits substantial variation, with differences between the 10^{th} and 90^{th} percentile ranging from 2 to 3.4 points. This dispersion underscores meaningful heterogeneity in personality across respondents, providing the necessary behavioral variation to examine how individual dispositions shape inflation expectations. More particularly, women exhibit higher levels of neuroticism and agreeableness than men, while differences in the remaining traits are smaller. Extraversion and openness to experience decline with age, whereas agreeableness tends to increase. Individuals with higher education or income levels score higher on extraversion, openness to experience, and conscientiousness, and lower on neuroticism. A similar gradient appears along the income dimension, although we do not find a

Table 5: Distribution of Big Five personality traits across sociodemographic groups

Variable	Category	Extraversion			Openness to experience			Conscientiousness			Neuroticism			Agreeableness		
		P10	Mean	P90	P10	Mean	P90	P10	Mean	P90	P10	Mean	P90	P10	Mean	P90
Total	Total	3.20	4.70	6.20	3.00	4.67	6.40	4.80	6.14	7.0	2.00	3.49	5.00	5.00	6.10	7.00
Sex	Male	3.20	4.72	6.20	3.00	4.61	6.20	4.80	6.14	7.0	1.80	3.30	4.60	4.80	5.98	7.00
	Female	3.20	4.68	6.20	3.00	4.72	6.40	4.84	6.15	7.0	2.16	3.62	5.00	5.20	6.19	7.00
Age	18–24	3.20	4.99	6.40	3.80	5.12	6.60	4.40	5.64	7.0	2.20	3.64	5.20	4.60	5.77	6.80
	25–39	3.40	4.90	6.40	3.40	4.96	6.60	4.60	6.00	7.0	1.60	3.45	5.00	4.80	5.99	7.00
	40–59	3.20	4.80	6.40	3.40	4.81	6.40	5.12	6.27	7.0	2.20	3.56	4.76	5.00	6.11	7.00
	60+	3.00	4.52	6.00	2.80	4.43	6.20	4.80	6.13	7.0	1.80	3.44	5.00	5.00	6.15	7.00
Married	No	3.00	4.64	6.20	2.80	4.72	6.48	4.60	5.97	7.0	1.80	3.46	5.00	4.80	6.03	7.00
	Yes	3.24	4.76	6.20	3.20	4.62	6.20	5.20	6.33	7.0	2.00	3.52	4.80	5.00	6.18	7.00
Education	Compulsory education or below	2.80	4.17	5.80	2.16	3.86	5.40	4.40	5.86	7.0	2.20	3.79	5.40	4.60	6.11	7.00
	Apprenticeship, vocational school	3.20	4.78	6.20	3.00	4.58	6.20	4.80	6.17	7.0	2.00	3.48	4.92	4.80	6.08	7.00
	Upper secondary, school-leaving certificate	3.40	4.82	6.40	3.40	4.92	6.60	5.00	6.23	7.0	2.00	3.47	4.80	5.00	6.10	7.00
	University, technical college	3.24	4.74	6.40	3.64	5.24	6.60	5.00	6.18	7.0	1.80	3.25	4.48	5.20	6.15	7.00
Income quintile	1	2.80	4.30	5.88	2.32	4.27	6.20	4.40	5.77	7.0	2.08	3.69	5.20	4.64	6.02	7.00
	2	3.16	4.67	6.20	3.00	4.69	6.40	4.80	6.08	7.0	1.80	3.43	5.00	4.92	6.10	7.00
	3	3.36	4.78	6.16	3.08	4.63	6.40	4.92	6.17	7.0	1.92	3.45	4.84	4.96	6.07	7.00
	4	3.40	4.86	6.36	3.40	4.78	6.28	5.36	6.40	7.0	2.00	3.47	4.60	5.04	6.17	7.00
	5	3.40	4.87	6.40	3.56	5.00	6.40	5.20	6.31	7.0	2.00	3.41	4.60	5.08	6.14	7.00
Occupation	Self-employed	3.80	5.28	6.80	4.00	5.51	6.80	5.40	6.26	7.0	1.60	3.14	4.32	5.00	5.95	7.00
	(Skilled) blue-collar worker	3.36	4.87	6.40	2.84	4.57	6.08	4.92	6.16	7.0	2.20	3.43	4.80	4.80	5.97	7.00
	White-collar worker	3.40	4.89	6.40	3.56	4.97	6.48	5.04	6.28	7.0	2.00	3.44	4.64	5.04	6.13	7.00
	Civil Servant	3.80	5.03	6.40	3.80	4.95	6.20	5.60	6.58	7.0	2.20	3.37	4.20	5.40	6.24	7.00
	Farmer	3.40	4.63	5.00	4.00	4.87	6.40	5.00	5.72	7.0	3.16	3.76	4.24	5.20	5.85	6.52
	Pensioneer	3.00	4.50	6.00	2.80	4.42	6.20	4.80	6.11	7.0	2.00	3.49	5.00	4.88	6.15	7.00
	Unemployed	2.60	4.31	6.00	2.80	4.53	6.40	4.00	5.40	6.8	2.60	4.07	5.20	4.60	5.76	7.00
	Other	2.80	4.30	5.60	2.60	4.36	6.40	4.32	5.70	7.0	2.60	3.94	5.60	5.00	6.06	7.00

Notes: This table reports the 10^{th} percentile, mean, and 90^{th} percentile of Big Five personality trait scores for the financially knowledgeable persons of the household by sociodemographic characteristics. Higher values indicate greater expression of the respective trait. Population weights and multiple imputations are taken into account.

clear association between income and agreeableness. Occupational differences are also apparent: self-employed respondents display higher extraversion and openness to experience and lower neuroticism relative to employees. Overall, these relationships are in line with established empirical regularities documented in psychology and economics (e.g., Schmitt et al., 2008; Weisberg et al., 2011; Costa et al., 2001; Donnellan and Lucas, 2008; Sutin et al., 2017; Luo et al., 2024; Kemp et al., 2024; Kang et al., 2023).

3. Empirical strategy

This section outlines our empirical strategy. We use generalized linear models and conditional quantile regressions to examine how personality traits relate to inflation expectations.

In the context of complex survey data, conventional ordinary least squares (OLS) estimation is not appropriate, as it is does not account for survey and replication weights. We therefore estimate a generalized linear model (GLM) that is able to incorporate the survey design.

We introduce control variables stepwise into the regression to assess the robustness of the estimated associations between personality traits and inflation expectations (see Eq. 1). The baseline specification regresses inflation expectations—winsorized at the 5^{th} and 95^{th} percentile[7]—on the Big Five traits without additional controls. We then add time and location fixed effects: monthly dummies account for variation in macroeconomic conditions at the time of interview and other shocks, while federal state and urban/rural indicators capture regional differences. Next, we include sociodemographic characteristics which are well-established in the literature: age and its squared term[8], sex[9], education and marital status[10], occupation, and income.

The final specification adds further determinants of inflation expectations for which proxies are available in the HFCS: car ownership (as exposure to fuel prices has been shown to affect expectations)[11], the share of staple foods in household income (as exposure to food prices matters)[12], and participation on the financial market which might proxy for financial literacy[13]. This yields:

$$\pi^{\mathrm{E}}{}_i = \beta_0 + \boldsymbol{\beta}_B^{\top}\mathbf{B}_i + \omega_m + \iota_s + \gamma' X_i^{\text{socio}} + \eta' Z_i^{\text{other}} + \varepsilon_i, \tag{1}$$

where π^{E} represents the inflation expectation[14] of household i, $\mathbf{B}_i = (\text{Extraversion}_i, \text{Openness to experience}_i, \text{Conscientiousness}_i, \text{Neuroticism}_i, \text{Agreeableness}_i)$ denotes the vector of Big Five traits, and β_B the associated coefficients. Monthly time fixed effects are denoted by ω_m, while ι_s cap-

[7] The Michigan Survey of Consumers reports inflation expectations truncated at fixed bounds (e.g., -10% and +50%) to avoid month-specific variation in cutoff values, which would hinder time-series comparability (Curtin, 1996). In our purely cross-sectional setting, this concern does not arise, making winsorization an appropriate choice for mitigating the influence of extreme responses.

[8] Included as in Rumler and Valderrama (2020), and to proxy for effects in Malmendier and Nagel (2016) and Lars Jonung (1981)

[9] See Lars Jonung (1981), D'Acunto et al. (2021a)

[10] See Bruine De Bruin et al. (2010)

[11] See Bruine De Bruin et al. (2011); Coibion and Gorodnichenko (2015)

[12] See Bruine De Bruin et al. (2011); D'Acunto et al. (2021a); Anesti et al. (2025)

[13] See Armantier et al. (2016); Rumler and Valderrama (2020)

[14] The dependent variable is winsorized at the 5^{th} and 95^{th} percentile for all specification unless stated otherwise.

tures location fixed effects such as federal state and urban and rural areas. The vector X_i^{socio} contains the mentioned sociodemographic controls, while Z_i^{other} summarizes the aforementioned further determinants. Finally, ε_i denotes the error term.

To complement the design-based linear regression framework, we estimate conditional quantile regressions following Koenker (2005). Unlike mean regressions, which capture only average effects, quantile regression estimates conditional effects at different points of the outcome distribution. This approach is particularly valuable for inflation expectations, which are highly skewed and display substantial heterogeneity across respondents. It allows us to examine whether the estimated relationships hold not only at the mean but also at other parts of the distribution, such as the median (Brent and Guhan, 2011).

Building on specification in Equation (1), we simplify notation by collecting all covariates and coefficients into vectors. Where X_i consists of the covariates $\mathbf{B}_i$, $\omega_{m(i)}$, $\iota_{s(i)}$,X_i^{socio} and Z_i^{other} while $\beta(\tau)$ consists of $\beta_0(\tau)$, $\boldsymbol{\beta}_B(\tau)$, $\omega_m(\tau)$, $\iota_s(\tau)$, $\gamma(\tau)$ and $\eta(\tau)$.

Formally, the conditional τ-quantile of inflation expectations is modeled as:

$$Q_{\pi^{\text{E}}{}_i}(\tau \mid X_i) = X_i'\beta(\tau), \quad \tau \in \{0.01, 0.05, 0.10, \ldots, 0.95, 0.99\}. \tag{2}$$

The estimator is obtained by solving:

$$\hat{\beta}(\tau) = \arg\min_{\beta} \sum_{i=1}^{n} \rho_\tau\left(\pi^{\text{E}}{}_i - X_i'\beta\right), \tag{3}$$

where the check function is defined as:

$$\rho_\tau(u) = u\left(\tau - \mathbf{1}\{u < 0\}\right). \tag{4}$$

Quantile regression is a robust estimator in the Huber sense (see Huber, 1981), as it possesses a bounded influence function. Consequently, extreme observations in the dependent variable have limited impact on coefficient estimates, and no additional trimming or winsorization is required to ensure robustness. This property allows us to assess the stability of our findings across the entire conditional distribution of inflation expectations.

In contrast, methods such as a Recentered Influence Function (RIF) regression target unconditional quantiles and are primarily designed for distributional decompositions or policy counterfactuals (Firpo et al., 2009). Since our objective is to understand how the Big Five traits correlate with inflation expectations conditional on individual characteristics, rather than to explain shifts in the unconditional distribution, quantile regression provides a more appropriate and interpretable framework.[15]

4. Main results

Table 6 presents the regression estimates from Equation 1 linking Big Five personality traits to inflation expectations. Column (1) reports the baseline specification with personality traits as

[15]Nevertheless, we estimate a RIF regression to demonstrate the robustness of our results across both conditional and unconditional frameworks and to ensure that our findings are not an artifact of conditioning structure (see Appendix E).

the sole regressors. Columns (2) through (4) sequentially add controls as described in Section 3, with column (4) representing our preferred specification.[16]

All five personality traits exhibit statistically significant associations with inflation expectations across all specifications. Notably, openness to experience is the only trait positively associated with inflation expectations, while extraversion, conscientiousness, neuroticism, and agreeableness all display negative coefficients. The sign and significance of these relationships remain stable across specifications, suggesting that the associations are robust to the inclusion of time and location fixed effects, sociodemographic controls, and additional household-level determinants.

Table 6: Regression Results: Big Five personality traits and inflation expectations

	(1)	(2)	(3)	(4)
Extraversion	-0.132***	-0.107**	-0.082*	-0.084**
	(0.041)	(0.042)	(0.043)	(0.040)
Openness to experience	0.196***	0.167***	0.183***	0.195***
	(0.036)	(0.035)	(0.038)	(0.041)
Conscientiousness	-0.294***	-0.244***	-0.174***	-0.174***
	(0.049)	(0.046)	(0.047)	(0.047)
Neuroticism	-0.268***	-0.211***	-0.204***	-0.212***
	(0.044)	(0.046)	(0.044)	(0.045)
Agreeableness	-0.373***	-0.252***	-0.281***	-0.296***
	(0.062)	(0.061)	(0.059)	(0.060)
Time FE	No	Yes	Yes	Yes
Location FE	No	Yes	Yes	Yes
Sociodemographics	No	No	Yes	Yes
Other determinants	No	No	No	Yes
Num.Obs.	2849	2849	2849	2849
AIC	16683.2	16325.3	16277.4	16272.2
Efron R^2	0.016	0.137	0.154	0.155

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable is expected 12-month inflation, winsorized at the 5^{th} and 95^{th} percentiles. Population weights and multiple imputations are taken into account. Standard errors are computed using the first 100 replicate weights. Time and location fixed effects, sociodemographic controls, and additional determinants are included as indicated.

The economic importance of these findings is twofold. First, the results show that personality traits account for a meaningful share of the heterogeneity in household inflation expectations beyond conventional sociodemographic factors. While time and location fixed effects explain roughly 14% of the variation, and sociodemographic characteristics add another 2.3 percentage points, including the Big Five personality traits increases the explained share by an additional 1.6 percentage points. Although the absolute gain is moderate, it represents an increase of nearly 70% relative to the explanatory power of the sociodemographic specification. This indicates that

[16]Regression results with the full list of controls and their corresponding coefficients can be found in Table D.1.

stable psychological characteristics capture an economically relevant dimension of expectation heterogeneity that is not reflected in standard demographic variables.

Second, consider Figure 2 alongside a concrete example. Take two women, both aged 35, married, university-educated, employed as civil servants, in the fourth income quintile, and both owning a car and financial assets. They have identical scores for agreeableness, conscientiousness, neuroticism, and extraversion. The only difference between them is openness to experience: Woman A is at the 10^{th} percentile, while Woman B is at the 90^{th} percentile. Based on the estimates in Table 6, this difference in a single personality trait generates a gap of 0.66 percentage points in their reported inflation expectations, with Woman B reporting systematically higher expected inflation.[17] To contextualize this magnitude, the personality-driven gap exceeds the effect of moving from the first to the fourth income quintile (0.54 percentage points), ceteris paribus. Moreover, this example is empirically relevant as such differences in personality traits are not rare in our sample: 72.5% of respondents exhibit at least one personality trait at or above the 90^{th} percentile, and 34.5% have at least one trait at or below the 10^{th} percentile, demonstrating that the illustrated personality-driven differences represent realistic population variation.

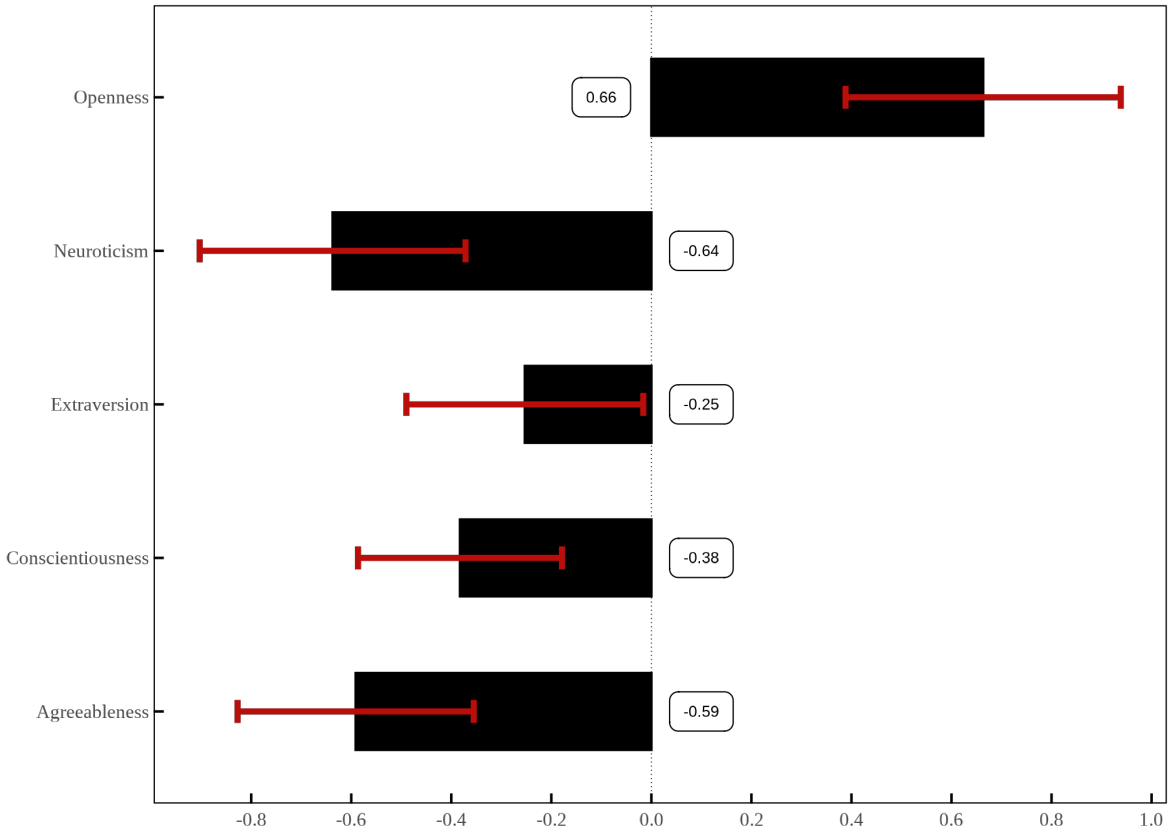

Figure 2: Effect of moving from the 10^{th} to the 90^{th} percentile of Big Five personality traits on inflation expectations. The figure shows the change in expected 12-month inflation (in percentage points) associated with moving from the 10th to the 90th percentile of each Big Five personality trait. Effects are computed based on the regression estimates reported in Table 6 (column 4).

Unlike sociodemographic variables, which are merely able to capture the status quo, per-

[17] Comparable effects emerge for the other personality dimensions: moving from the 10^{th} to the 90^{th} percentile is associated with differences of 0.64 percentage points for neuroticism, 0.59 for agreeableness, 0.38 for conscientiousness, and 0.25 for extraversion.

sonality traits are capable of capturing the trajectory of this status quo. This distinction arises because personality is shaped both by genetics and experiences. From this perspective, personality variables capture pathways through which individuals perceive information, as well as how past experiences have influenced these cognitive pathways

When trying to interpret the individual personality trait coefficients, two considerations are important. First, all five personality traits are necessarily present in every individual and can offset or reinforce one another.[18] Second, we do not observe which of the six facets within each trait predominates. As discussed in Section 2.3, personality traits comprise multiple facets whose individual expressions and directional influences remain unobserved in the data.

Agreeableness exhibits a negative and statistical significant coefficient of -0.296. Among the six facets comprising agreeableness, the trust facet may be the primary driver of this result: highly agreeable individuals extend greater confidence to institutions such as central banks, anchoring their expectations more firmly to official targets.

Openness to experience demonstrates a significantly positive effect (0.195) across all specification. Among the facets comprising openness to experience, fantasy could be a primary driver. This facet's enhanced capacity for counterfactual thinking and scenario construction may lead open individuals to report higher inflation expectations.

Conscientiousness enters negatively and significantly (-0.174), aligning with existing evidence on the relationship between conscientiousness and intertemporal preferences. Daly et al. (2009) document that conscientious individuals exhibit lower temporal discount rates, suggesting greater patience and future orientation. This translates into lower inflation expectations, as patient time preferences reveal confidence in future purchasing power.

The results on neuroticism being significantly negative (-0.212) appear puzzling at first: neuroticism encompasses facets such as anxiety, depression, and vulnerability. Traits one might expect to generate pessimistic assessments and thus elevated inflation expectations. However, one potential explanation might be that neurotic individuals, driven by anxiety about economic outcomes, engage in more thorough information search, exposing them more extensively to professional forecasts and central bank guidance.

Lastly, extraversion exhibits a negative coefficient of -0.084 in our preferred specification. Extraversion comprises facets such as warmth, sociability or positive emotions. Later might explain the negative relationship: individuals with high extraversion tend toward optimism and positive affect, which could translate into more sanguine assessments of economic conditions and lower inflation expectations.

To further investigate the distributional heterogeneity of personality effects and to assess the robustness of our findings, we conduct a quantile regression as specified in Section 3. This approach serves two purposes. First, it examines whether personality effects vary systematically across the expectations distribution, specifically testing if traits exhibit constant effects or if their influence diminishes at the extremes. Second, it addresses an important methodological concern raised by Brent and Guhan (2011), who demonstrate that differences in inflation expectations across sociodemographic variables often disappear when examining the median rather than the mean. Were Big Five effects to disappear at the median, our baseline mean-based estimates would likewise be attributable to outliers rather than systematic personality differences.

[18] In Section 6.4 we explore the effects of personality when only one trait is most pronounced in an individual.

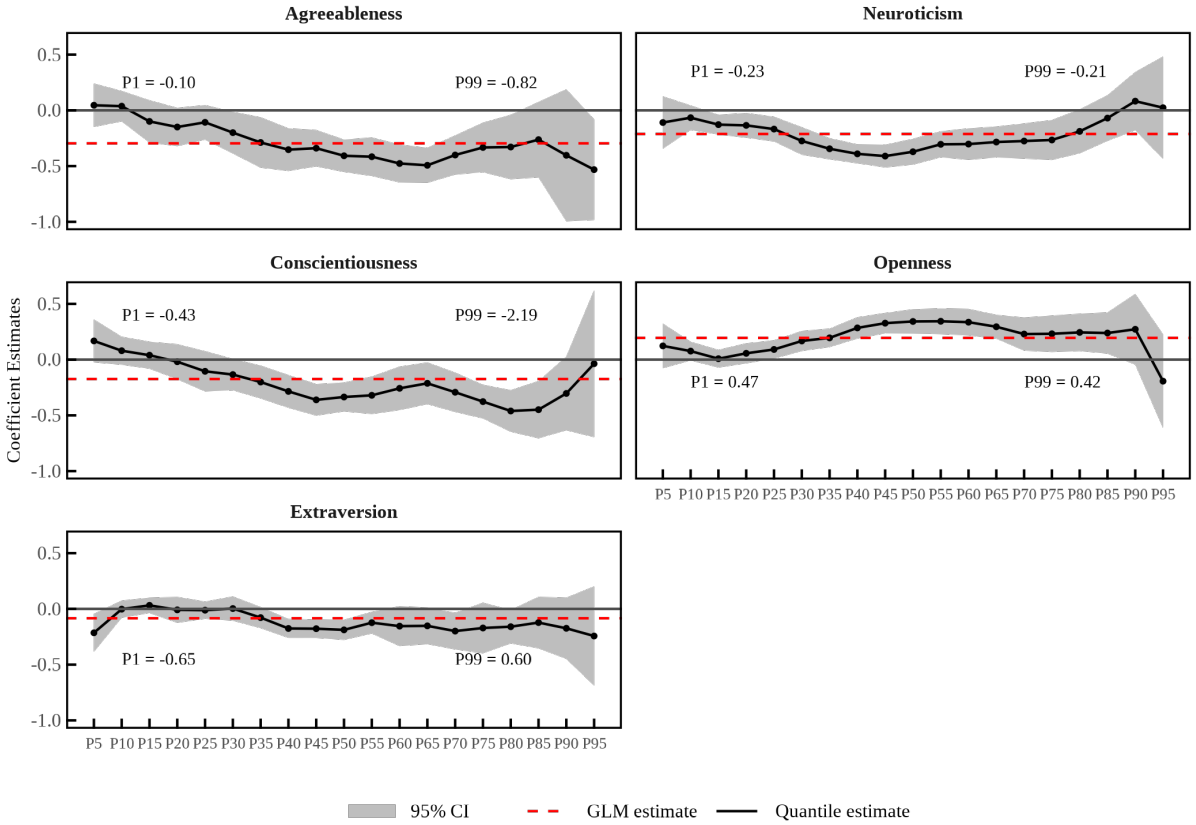

Figure 3: Quantile regression estimates of Big Five personality traits on inflation expectations. The figure plots quantile regression coefficients of Big Five personality traits on expected 12-month inflation across the distribution of inflation expectations. The horizontal axis shows the quantile of the inflation expectation distribution; the vertical axis reports coefficient estimates in percentage points. Solid lines denote point estimates, shaded areas represent 95 percent confidence intervals, and the dashed horizontal line indicates the corresponding GLM estimate from Table 6. The specifications include the same controls as in Table 6 (Column 4). Population weights and multiple imputations are taken into account.

Figure 3 presents the quantile regression coefficients across the distribution of inflation expectation for all five personality traits. In contrast to the findings of Brent and Guhan (2011) for sociodemographic variables, we observe that trait effects remain statistically significant and economically meaningful at the median. This demonstrates that the mean-based estimates reported in Table 6 are not driven by outliers but reflect consistent patterns that hold at the center of the distribution.

Moreover, personality effects are found to vary systematically depending on individuals' baseline inflation expectations. Interestingly, for individuals at the extremes of the distribution (those with very low or very high inflation expectations), several effects visible in the linear regression lose their statistical significance, suggesting that personality plays a limited role in shaping expectations among respondents already holding extreme views about inflation.

5. Robustness

In this section, we conduct several robustness checks to assess the stability of our main findings. Since the validity of the Big Five measures has already been established in Section 3, we specifically focus on alternative specifications of the dependent variable while maintaining the same

set of explanatory variables and controls as in Equation 1. We consider three alternative formulations: (1) non-winsorized inflation expectations, (2) a restricted sample excluding non-positive expectations, and (3) an alternative treatment of "stay about the same" responses. The results for all three specifications are reported in Table 7.[19]

Assessing the influence of outliers Our baseline specification in Section 3 winsorizes inflation expectations at the 5^{th} and 95^{th} percentiles to ensure that the results are not driven by extreme outliers. Column (1) of Table 7 reports results using the non-winsorized dependent variable to assess the sensitivity of our results to these extreme values.

The coefficients for conscientiousness and neuroticism lose statistical significance, suggesting that these relationships are partly influenced by households located in the tails of the inflation expectation distribution. This finding highlights that extreme expectations may be driven by distinct psychological or behavioral mechanisms, such as heightened attention to inflation or stronger emotional responses, being more prevalent among individuals with specific personality profiles.

Conversely, extraversion becomes significant once the full distribution is considered, indicating that the association between extraversion and inflation expectations is more pronounced among households with particularly high or low expected inflation. Conceptually, this pattern aligns with the heterogeneity observed in the quantile regression results (Figure 3), where personality effects vary across the expected inflation distribution. These results underscore that personality influences on expectations are not uniform, but critically depend on where individuals are positioned within the distribution.

Omit negative inflation expectations Negative inflation expectations (implying anticipated deflation) are found to be rare in both the literature and in our data. Studies like Andrade et al. (2023) omit such observations in their baseline specification and include them only in robustness checks. We adopt the reverse approach: while our baseline includes all observations, this robustness check excludes the 158 households with non-positive inflation expectations, accounting for 6.1% of the weighted population. Column (2) of Table 7 shows that the estimated coefficients remain similar in magnitude and significance to those in the baseline model. This stability indicates that our findings are not driven by the small subset of respondents expecting deflation.

Alternative treatment of "stay about the same" responses A substantial fraction of respondents (18.4%) indicate that prices will "stay about the same" over the next twelve months. Our baseline specification assigns these households an inflation expectation of zero. Following Andrade et al. (2023), we examine sensitivity to this treatment replacing the zero imputation by drawing a random value between zero and the realized inflation rate of the month preceding the interview.[20] This approach preserves the direction of expectations (i.e., no expected deflation) while introducing variation consistent with recent inflation experience. The results shown in

[19] Regression results with the full list of controls and their corresponding coefficients can be found in Table D.2.

[20] The preceding month is used because the Austrian statistical office publishes a preliminary estimate of the inflation rate at the beginning of each following month. It is therefore plausible that households were aware of this information at the time of their interview.

Table 7: Robustness of Big Five personality effects to alternative definitions of inflation

	(1)	(2)	(3)
Extraversion	-0.161***	-0.053	-0.184***
	(0.059)	(0.043)	(0.036)
Openness to experience	0.336***	0.207***	0.180***
	(0.057)	(0.044)	(0.034)
Conscientiousness	-0.091	-0.257***	-0.144***
	(0.058)	(0.050)	(0.047)
Neuroticism	-0.122	-0.196***	-0.202***
	(0.084)	(0.046)	(0.050)
Agreeableness	-0.401***	-0.279***	-0.211***
	(0.087)	(0.066)	(0.040)
Time FE	Yes	Yes	Yes
Location FE	Yes	Yes	Yes
Sociodemographics	Yes	Yes	Yes
Other determinants	Yes	Yes	Yes
Num.Obs.	2849	2691	2849
AIC	18487.8	15200.8	15685.2
Efron R^2	0.112	0.155	0.131

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: Each column reports estimates from Equation (1) using a different definition of the dependent variable. Column (1) uses non-winsorized inflation expectations. Column (2) restricts the sample to respondents reporting strictly positive inflation expectations. Column (3) applies an alternative coding of "stay about the same" responses. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Column (3) of Table 7 are highly comparable to the baseline estimates, with extraversion additionally attaining statistical significance. This consistency provides strong evidence that the baseline results are not driven by the specific treatment of "stay about the same" responses.

Taken together, the robustness checks confirm the stability and credibility of our main findings. Across all alternative specifications—using the non-winsorized dependent variable, the restricted sample excluding non-positive expectations, and the alternative treatment of "stay about the same" responses—the estimated effects of the Big Five personality traits remain consistent in sign and significance. These results demonstrate that our findings are not driven by arbitrary modeling choices and are robust to a wide range of reasonable alternative specifications.

6. Additional Results

This section extends our baseline analysis by examining how personality traits relate to forecast errors and the degree of expectation anchoring, providing insights on the mechanisms through which personality can affect monetary policy transmission. Moreover, we look at factors which may alter the found personality effects and extreme personality profiles.

6.1. Forecast error of inflation expectations

As mentioned in Section 2.2, we exploit the time lag of more than one year between the survey's field phase and the present analysis. Since the precise interview date is recorded for each respondent, we can compare reported inflation expectations with subsequently realized inflation outcomes.

This allows us to construct two complementary measures of forecast accuracy. First, we compute the *forecast bias*, defined as the difference between expected and realized inflation, which captures whether individuals systematically over- or underestimate future price changes. Second, we calculate the *absolute forecast error*, the absolute difference between expected and realized inflation, which reflects the magnitude of prediction errors irrespective of direction. Both measures are computed not only for overall CPI inflation but also for its major components—core (excluding food and energy), food, and energy inflation—to assess whether forecast performance varies across domains.

Table 8: Distribution of inflation forecast bias for CPI and its components

	CPI	CPI (Core)	CPI (Food)	CPI (Energy)
Minimum	-31.78	-32.02	-33.65	-33.49
P25	-3.33	-3.95	-3.78	0.71
Mean	0.73	0.08	0.07	5.65
Median	-0.10	-0.83	-0.75	5.47
P75	3.42	2.79	2.65	10.03
Maximum	96.96	95.95	97.30	106.84

Notes: Forecast bias is defined as the difference between expected and realized inflation. The table reports descriptive statistics of this measure for CPI inflation and its major components. Values are expressed in percentage points. Population weights and multiple imputations taken into account.

Table 8 shows notable variation in forecast bias across these categories. While the mean forecast bias for CPI stands at 0.73 and Energy CPI at 5.65, households exhibit near-zero mean bias for Core CPI (0.08) and particularly for Food CPI (0.07). This pattern is consistent with recent evidence on the differential salience of price components. For instance, Campos et al. (2022) document that consumers focus disproportionately on frequently observed prices such as food, and Anesti et al. (2025) find that food prices matter significantly more for inflation expectations than other components across all demographic groups. The high accuracy of food price forecasts, as observed in the HFCS, likely reflects the frequent observation of these prices.

We next investigate whether personality traits predict forecast accuracy. Because realized inflation varies little over the sample period, forecast bias largely represents a location shift of inflation expectations and therefore produces results that are qualitatively nearly identical to the baseline regressions. We therefore focus on absolute forecast errors, which capture the magnitude of deviations between expected and realized inflation irrespective of direction and

provide a direct measure of forecasting accuracy. Table 9 presents regressions in which the absolute forecast error serves as the dependent variable, with lower coefficients indicating more accurate forecasts. The four columns correspond to different inflation measures: (1) CPI, (2) core CPI (excluding food and energy), (3) food CPI, and (4) energy CPI.

Table 9: Effects of personality traits on absolute inflation forecast errors

	(1)	(2)	(3)	(4)
Extraversion	-0.029	-0.015	0.009	-0.050
	(0.025)	(0.021)	(0.024)	(0.044)
Openness to experience	0.097***	0.074***	0.080***	0.110**
	(0.029)	(0.026)	(0.027)	(0.045)
Conscientiousness	-0.112***	-0.072**	-0.113***	-0.024
	(0.028)	(0.027)	(0.030)	(0.044)
Neuroticism	0.009	0.070**	0.046	-0.254***
	(0.033)	(0.031)	(0.031)	(0.050)
Agreeableness	-0.018	0.011	0.045	0.127**
	(0.039)	(0.041)	(0.039)	(0.054)
Time FE	Yes	Yes	Yes	Yes
Location FE	Yes	Yes	Yes	Yes
Sociodemographics	Yes	Yes	Yes	Yes
Other determinants	Yes	Yes	Yes	Yes
Num.Obs.	2849	2849	2849	2849
AIC	13647.2	13390.9	13962.1	16817.5
Efron R^2	0.069	0.056	0.056	0.103

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable is the absolute difference between expected and realized inflation, expressed in percentage points. Columns (1)–(4) correspond to CPI inflation, core CPI (excluding food and energy), food CPI, and energy CPI, respectively. Lower coefficients indicate more accurate inflation forecasts. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Across specifications, openness to experience and conscientiousness emerge as the most consistent predictors of forecast accuracy. Individuals scoring higher on openness to experience exhibit significantly larger absolute forecast errors across all inflation measures. This pattern suggests that higher openness to experience is associated with less accurate inflation expectations, potentially reflecting differences in how individuals process and weigh economic information. In contrast, conscientiousness is negatively associated with absolute forecast errors in most specifications, implying that presumably more disciplined and goal-oriented individuals form more accurate inflation expectations, possibly due to greater attention to economic conditions or better information processing. Neuroticism, agreeableness and extraversion display no systematic relationship with forecast accuracy.

Overall, these findings suggest that individual differences in personality are systematically related to how precisely people predict inflation. Variation in coefficients across inflation components likely reflects differences in consumers' exposure to and familiarity with underlying price

changes. While headline, core, and food inflation are based on prices encountered frequently in everyday consumption, energy prices attracted particular attention among households shortly before our survey's field period and were subject to high volatility (see Figure B.1). This provides a potential explanation why forecast errors in specification (4) exhibit nearly twice the explanatory power compared to the other specifications. Indeed, a small but growing literature documents that consumers are better informed about inflation in countries with a history of high and volatile inflation, such as Argentina, compared to the United States (Cavallo et al., 2017), that agents increase their information acquisition for inflation during periods of rising inflation (Bracha and Tang, 2025), and that most people pay little attention to inflation in the US during low and stable inflation regimes (Pfäuti, 2025). Weber et al. (2025) provide supporting evidence for both households and firms.

6.2. Anchored vs. unanchored expectations

Table 10 augments the baseline specification in Section 4 by including lagged realized inflation as a variable.[21]

Lagged inflation enters with a highly significant positive coefficient of 0.210 in the first specification (1), rising to 0.322 with additional controls (2) and 0.741 in the full specification with further macroeconomic controls (Column 3).[22] The positive association between lagged inflation and current expectations indicates that respondents exhibit adaptive rather than anchored expectations, partially updating their forecasts based on recently observed inflation rather than anchoring firmly to the ECB's 2% target.

Importantly, personality traits retain strong and significant predictive power even after controlling for lagged inflation and macroeconomic conditions. The Efron R^2 rises from 0.005 (lagged inflation only) to 0.148 in the full model, implying that personality explains substantial additional variation beyond adaptive updating alone.

To examine this heterogeneity more explicitly, we estimate a logit model predicting whether respondents' expectations are anchored to the ECB's price stability target. We define anchoring as a binary outcome: expectations falling within a corridor around the 2% target are classified as anchored, while those outside are unanchored.

Table 11 reports the results using two alternative definitions of anchoring. Specification 1 employs a narrow corridor, classifying expectations within one percentage point of the ECB's target ($1\% - 3\%$) as anchored. Under this strict definition, 18.3% of the sample holds anchored expectations. Specification 2 adopts a wider two percentage point corridor ($0\% - 4\%$), classifying 42.2% of the sample as anchored.

In the narrow corridor specification, extraversion, conscientiousness, neuroticism, and agreeableness all significantly increase the probability of holding anchored expectations, while openness to experience reduces it. Under the wider definition, extraversion loses significance, but the negative effect of openness to experience and the positive effects of conscientiousness, neuroticism, and agreeableness remain robust.

[21] Since survey respondents are unlikely to know contemporaneous inflation, we use inflation at t-1

[22] Further macroeconomic controls include the monthly year-over-year growth rate of industrial production (IP) and the World Uncertainty Index (WUI) for Austria. IP captures real economic activity that might influence inflation expectations, while the WUI controls for time-varying economic and policy uncertainty. These controls replace time fixed effects in these specifications.

Table 10: Testing adaptive expectations: Effects of lagged inflation on current inflation

	(1)	(2)	(3)
Inflation_{t-1}	0.210***	0.322***	0.741***
	(0.029)	(0.029)	(0.061)
Extraversion		-0.087**	-0.105**
		(0.040)	(0.040)
Openness to experience		0.193***	0.185***
		(0.041)	(0.042)
Conscientiousness		-0.173***	-0.163***
		(0.049)	(0.049)
Neuroticism		-0.236***	-0.223***
		(0.045)	(0.046)
Agreeableness		-0.290***	-0.273***
		(0.060)	(0.059)
Location FE	No	Yes	Yes
Sociodemographics	No	Yes	Yes
Other determinants	No	Yes	Yes
Macro controls	No	No	Yes
Num.Obs.	2849	2849	2849
AIC	16708.2	16307.8	16292.7
Efron R^2	0.005	0.145	0.148

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable is expected 12-month inflation. Inflation_{t-1} denotes realized inflation in the previous month. Columns (1)-(3) report estimates from increasingly rich specifications: (1) baseline without controls; (2) with location fixed effects, sociodemographic characteristics, and additional determinants; and (3) with the further inclusion of macroeconomic controls (industrial production growth and the World Uncertainty Index for Austria). Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

These patterns align closely with the baseline findings: open individuals, who tend to report higher inflation expectations, are less likely to align with the ECB target, while conscientious and neurotic respondents, who exhibit more disciplined or cautious outlooks, are more likely to hold anchored expectations.

6.3. Moderators of personality trait effects on inflation expectation

Policy signals, financial sophistication, and education may alter the relationship between personality traits and inflation expectations, with effects varying across individuals' personality profiles.

To examine heterogeneity in households' responses to policy signals across personality traits, Table 12 reports results from interacting personality traits with the euro area central bank (CB) information shocks from Jarociński and Karadi (2020).[23] We interact the surprise

[23]The central bank information shock is identified through high-frequency co-movements of interest rates and stock prices around policy announcements: when the ECB signals a more optimistic outlook, both short-term

Table 11: Anchored inflation expectations: Logit regressions using target bands

	(1)	(2)
Extraversion	0.025***	0.007
	(0.003)	(0.004)
Openness to experience	-0.019***	-0.018***
	(0.004)	(0.005)
Conscientiousness	0.042***	0.050***
	(0.005)	(0.006)
Neuroticism	0.044***	0.034***
	(0.004)	(0.004)
Agreeableness	0.024***	0.025***
	(0.005)	(0.005)
Time FE	Yes	Yes
Location FE	Yes	Yes
Sociodemographics	Yes	Yes
Other determinants	Yes	Yes
Num.Obs.	2849	2849
AIC	2135.1	3716.1
Efron R^2	0.191	0.131

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable is an indicator equal to one if an individual's inflation expectation is anchored around the ECB's 2% target. In specification (1), expectations are classified as anchored if they lie within ±1 percentage point of the target (1–3%). In specification (2), expectations are classified as anchored if they lie within ±2 percentage points of the target (0–4%). Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

with each Big Five trait while controlling for their direct effects and the full set of controls from our preferred specification. A one standard deviation positive information shock predicts inflation expectations to raise by 0.54 percentage points (Column 1) and absolute forecast errors to be reduced by 0.88 percentage points (Column 2) on average. The positive effect on inflation expectations aligns with Jarociński and Karadi (2020), who document that positive central bank information shocks raise both output and inflation, by signaling improved economic expectations about the economy. Simultaneously, the reduction in absolute forecast errors reflects the role of central bank communication in reducing information frictions: signals about economic conditions help individuals form more accurate expectations.

The relationship between CB communication and inflation expectations is significantly attenuated for individuals scoring high on openness to experience (−0.106), suggesting that more open individuals process central bank signals differently (when defining signals as a central bank information surprise à la Jarociński and Karadi, 2020). The remaining personality traits show no significant interaction effects. These findings are particularly interesting given the

interest rate futures and stock market index (Euro Stoxx 50) rise, distinguishing information shocks from conventional monetary policy tightening shocks. We standardize the shock series to have mean zero and unit variance, facilitating interpretation. Additionally, we include the monetary policy shock from Jarociński and Karadi (2020) in our set of macro controls to isolate the information channel from conventional policy rate changes.

Table 12: Heterogeneous effects of a central bank information shock on inflation expectations and errors

	(1)	(2)
CB Information shock	0.537*	-0.878***
	(0.303)	(0.192)
CB Information shock:Extraversion	-0.033	-0.018
	(0.028)	(0.021)
CB Information shock:Openness to experience	-0.106***	-0.044**
	(0.028)	(0.022)
CB Information shock:Conscientiousness	0.035	0.067***
	(0.046)	(0.025)
CB Information shock:Neuroticism	-0.036	0.069***
	(0.034)	(0.023)
CB Information shock:Agreeableness	0.001	0.054
	(0.054)	(0.033)
Location FE	Yes	Yes
Sociodemographics	Yes	Yes
Other determinants	Yes	Yes
Macro controls	Yes	Yes
Big Five included/keep sign & significance	Yes	Yes
Num.Obs.	2849	2849
AIC	16290.1	13601.1
Efron R^2	0.151	0.082

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable in (1) is the expected 12-month inflation and (2) the absolute forecast error. CB information shocks are the euro area central bank information shocks from Jarociński and Karadi (2020), standardized to mean zero and unit variance. Coefficients on interaction terms capture differential responses to the shock by personality trait. All specifications include the main effects of personality traits (not shown), location fixed effects, sociodemographic controls, and additional macroeconomic controls. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

results from Table 9 and Table 11: while open individuals have a higher absolute forecast error and are less likely to hold anchored expectations, they are the only group whose expectations respond significantly to central bank communication. Moreover, open individuals are the only group associated to statistically significantly reduce their absolute forecast errors when central bank communication is positive. By contrast, neurotic and conscientious individuals exhibit an increase in forecast errors during periods of positive communication shocks.

Focusing further on the role of financial sophistication and education in moderating personality effects, Figure 4 reveals the following pattern: For openness to experience, both financial market participation and university education attenuate the positive effect (found in Section 4) to near zero, with interaction terms (dark bars) nearly offsetting the main effects (light bars) to bring total effects (red line) close to zero.[24] This suggests that elevated expectations among

[24]The full regression results of Figure 4 can be found in Table D.6.

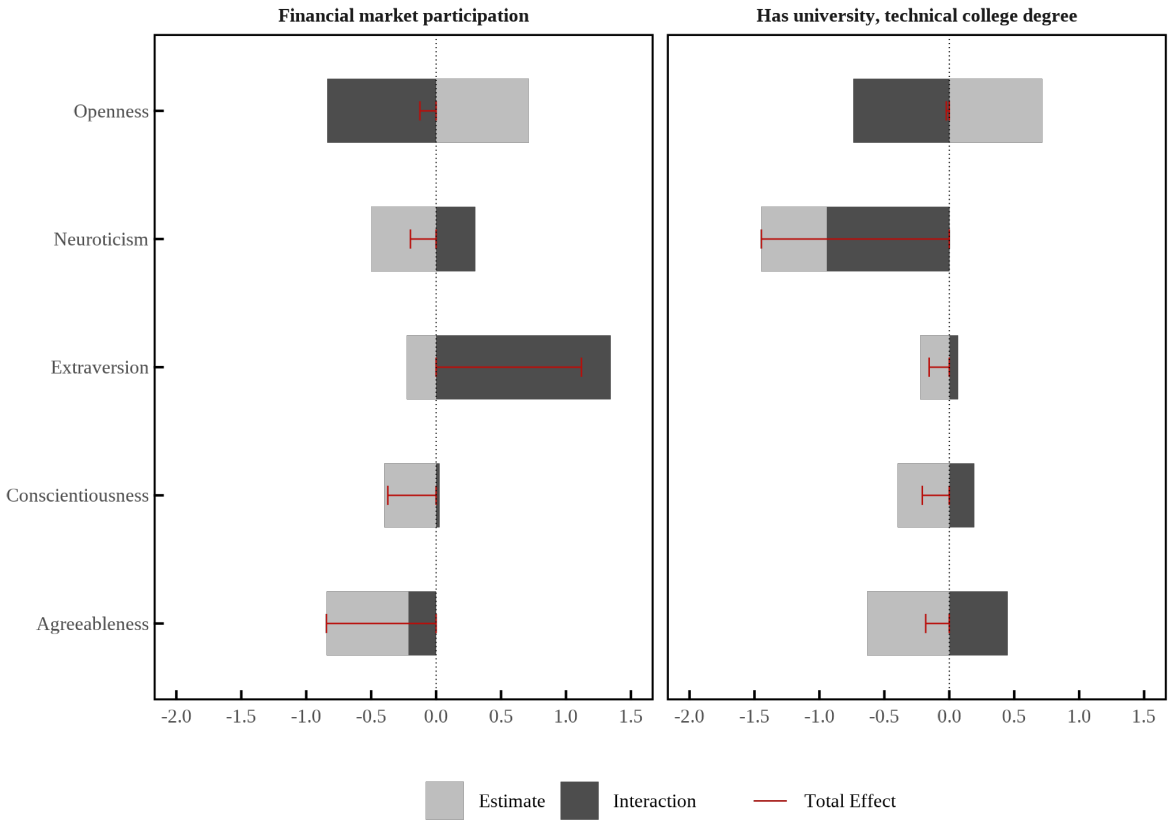

Figure 4: Interaction effects between personality traits and education or financial market participation.

open consumer are concentrated among those without university education or financial market participation.

Our baseline results in Section 4 showed that open individuals systematically hold higher inflation expectations. However, the disappearance of this effect among educated and financially sophisticated households suggests that financial literacy and economic knowledge might counteract personality-driven biases in expectation formation. Education and financial market experience appear to provide frameworks that discipline the expectation formation process.

For extraversion, financial market participation substantially amplifies the positive effect, possibly reflecting greater attention to market-based inflation signals, while university education shows a more moderate interaction pattern. Conscientiousness and neuroticism exhibit differential moderation across the two dimensions: neuroticism shows particularly notable interaction effects with education, while conscientiousness displays stronger moderation through financial market participation. Agreeableness exhibits minimal interaction with either moderator, suggesting its effect operates largely independently of cognitive sophistication. These moderating patterns are consistent with evidence from the literature on education and financial literacy (see, among others, Vella, 2024). Financially educated individuals exhibit attenuated behavioral biases and more disciplined investment and expectation formation processes (see, among others, Mahmood et al., 2024).

6.4. Extreme personalities

Personality traits are by definition continuous, yet their economic relevance may be most pronounced at the tails of the distribution. Extreme levels of a trait often reflect particularly strong behavioral tendencies that plausibly shape how individuals process economic information and form expectations.

Table 13: Shares and average inflation expectations by personality trait classification

	Share (%)	Inflation expectations (%)
No extreme trait	17.9	5.57
Multiple extreme traits	46.0	5.57
Extreme extraversion	6.7	4.16
Extreme openness to experience	4.7	6.15
Extreme conscientiousness	8.5	3.76
Extreme neuroticism	10.5	6.11
Extreme agreeableness	5.7	4.71

Notes: Trait extremes are defined based on whether respondents score above the 90^{th} percentile in any of the Big Five personality traits. No extreme trait refers to individuals who do not score above 90^{th} in any trait. Multiple extreme traits includes individuals who score above 90^{th} in two or more traits. The remaining groups contain respondents who score above 90^{th} in exactly one specific trait. Population weights and multiple imputations taken into account.

To capture these potentially non-linear effects, we categorize individuals into personality groups based on whether they score above the 90^{th} percentile in the Big Five: those with no extreme traits, those with exactly one extreme trait, and those exhibiting multiple extreme traits. This classification allows us to isolate respondents whose personality characteristics are likely to exert the clearest and most behaviorally meaningful influence on inflation expectations.

Table 13 summarizes the distribution of respondents across personality trait extremes and reports their average inflation expectations. Almost half of the sample exhibits two or more extreme traits, whereas only 18% show no extreme trait at all. The remaining groups, those with exactly one trait above the 90^{th} percentile, each make up between 4.7% and 10.5% of the population.

Inflation expectations vary markedly across personality profiles. Individuals classified as highly conscientious exhibit the lowest mean inflation expectations, followed by those high in extraversion and agreeableness. By contrast, respondents high in openness to experience or neuroticism have substantially higher expectations around 6%. Interestingly, both the no extreme trait and multiple extreme traits groups have identical average expectations, suggesting that heterogeneity arises primarily in the groups with a single dominant extreme trait.

Table 14 presents regression estimates assessing whether extreme personality traits are systematically associated with inflation expectations and absolute forecast errors. Individuals with no extreme personality traits serve as the reference group.

Column (1) shows that several extreme personality traits are associated with significantly lower inflation expectations relative to individuals with no extreme traits. In particular, extreme extraversion, conscientiousness, and agreeableness are all linked to substantially lower expected inflation, with effect sizes ranging from -0.7 to -1.5 percentage points. By contrast, extreme openness to experience, neuroticism and having multiple extreme traits are not significantly associated with the level of inflation expectations.

Column (2) reports results for absolute forecast errors. Interestingly, the same traits that

Table 14: Effects of "extreme" personality traits on inflation expectations and forecast errors

	(1)	(2)
Multiple extreme traits	0.014	0.058
	(0.195)	(0.064)
Extreme extraversion	-1.149***	-0.316**
	(0.254)	(0.127)
Extreme openness to experience	0.179	-0.401***
	(0.207)	(0.096)
Extreme conscientiousness	-1.534***	-0.837***
	(0.224)	(0.109)
Extreme neuroticism	-0.026	0.065
	(0.343)	(0.125)
Extreme agreeableness	-0.700***	-0.391***
	(0.211)	(0.111)
Time FE	Yes	Yes
Location FE	Yes	Yes
Sociodemographics	Yes	Yes
Other determinants	Yes	Yes
Num.Obs.	2849	2849
AIC	16260.8	13571.3
Efron R^2	0.154	0.091

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable in (1) is the expected 12-month inflation and (2) the absolute forecast error. The reference category are individuals with no extreme trait. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

are associated with lower inflation expectations (extreme extraversion, conscientiousness, and agreeableness) are also associated with significantly smaller forecast errors. This joint pattern suggests that lower expectations among these groups do not reflect systematic underestimation of inflation but rather more accurate forecasts. In this sense, individuals with extreme conscientiousness or agreeableness appear to anchor their expectations more closely to realized inflation outcomes. By contrast, individuals with extreme openness to experience exhibit significantly lower forecast errors without significantly different inflation expectations, indicating improved accuracy without a systematic directional bias.

These results show that certain personality traits are associated with both lower expected inflation and higher forecast accuracy. One possible interpretation is that individuals high in these traits process inflation-relevant information in a more disciplined or norm-oriented manner, leading them to form expectations that are closer to actual inflation outcomes. Importantly, this finding helps reconcile lower expectations with improved accuracy, rather than interpreting them as pessimistic or biased beliefs.

7. Personality traits, inflation expectations, and monetary policy

The findings in this paper demonstrate that personality traits shape individuals' inflation expectations, absolute forecast errors, and the likelihood that expectations are anchored to the ECB's price stability target. The role of personality might have important implication for several key policy dimensions: central bank communication strategies, financial literacy and education initiatives, implications for Taylor rule effectiveness, and macroeconomic modeling.

Central bank communication strategies Understanding the drivers of household inflation expectations has become increasingly important as central banks have expanded their use of survey-based expectation measures to support monetary policy communication (see among others, Coibion et al., 2018). Consequently, the ECB and other central banks increasingly rely on household survey data (D'Acunto et al., 2024). However, a fundamental puzzle remains: literature lacks a comprehensive understanding of household expectation formation mechanisms and the sources of substantial heterogeneity among agents with similar sociodemographic characteristics (Weber et al., 2022a).

We address this puzzle by identifying personality traits as a key source of expectation heterogeneity. Consequently, uniform central bank communication approaches may be differently effective across population, as households differ in their belief formation depending on personality traits. Central banks aiming to anchor expectations may need to recognize that personality-driven heterogeneity shapes how households interpret and respond to policy signals.

Notably, we find that individuals high in openness to experience exhibit statistically significant changes during periods of central bank communication surprises, yet these same individuals are least likely to hold anchored expectations. Consistently, open individuals exhibit lower absolute forecast errors when central bank communication is positive. In contrast, neurotic and conscientious individuals show higher errors in such periods. Thus, while positive policy signals appear to be effective for open individuals in moving expectations and improving forecast accuracy, the opposite pattern for neurotic and conscientious individuals suggests potential heterogeneity in how different personality types process central bank information. This indicates that one-size-fits-all communication strategies may have limited effectiveness.

Financial literacy and education policy The moderating role of education and financial sophistication represents an important policy tool. While personality traits are mostly stable, our findings suggest that, for instance, the prediction of openness to experience on inflation expectations nearly disappears among educated individuals or those participating in the financial market.

The ECB's and other national banks' emphasis on financial literacy initiatives therefore can not only improve individual financial decision-making but possibly alter how households form macroeconomic expectations. For Austria specifically, incorporating basic economic and financial literacy into mandatory secondary education could have lasting effects on how future cohorts form inflation expectations, reducing personality-driven biases.

Implications for Taylor rule effectiveness Our analysis points towards Austrian individuals exhibiting adaptive rather than anchored expectations. This finding, combined with

personality-driven heterogeneity in the likelihood of anchoring, complicates the stabilization problem facing the ECB. Under the Taylor rule framework, the central bank sets the nominal interest rate according to:

$$i_t = r^* + \pi_t + \alpha(\pi_t - \pi^*) + \beta(y_t - y^*) \tag{5}$$

where i_t denotes the nominal interest rate, r^* the natural real rate, π_t current inflation, π^* the inflation target (2% for the ECB), $y_t - y^*$ the output gap, and the Taylor principle requires $\alpha > 1$ to ensure real interest rates rise with inflation.

The required magnitude of α depends critically on the expectation formation process. If expectations are anchored, inflation shocks remain temporary and the central bank can respond with moderate interest rate increases. Under adaptive expectations, however, individuals extrapolate from current to future inflation, creating feedback loops where current inflation raises expected inflation, which in turn raises actual inflation through wage and price adjustments. This self-reinforcing dynamic requires substantially more aggressive policy responses to break the cycle.

Our findings might introduce additional complexity: the probability of anchoring varies with personality traits. Logit estimates reveal that conscientiousness and neuroticism significantly increase the likelihood that individuals maintain expectations within the ECB's tolerance band, while openness to experience reduces the probability. This heterogeneity would create differential monetary policy transmission across the population. For conscientious and neurotic individuals, expectations may remain relatively anchored, requiring less aggressive policy intervention. For open individuals, however, expectations unanchor more readily, potentially necessitating stronger interest rate responses.

The optimal Taylor rule coefficient α should therefore account for the distribution of expectation formation mechanisms across the population, not merely the average individual. If a substantial share exhibits strongly adaptive expectations due to personality traits, the central bank may need to respond more readily to inflation shocks than aggregate measures indicate, requiring a larger α than conventional Taylor rule calibrations suggest.

Macroeconomic modeling HANK models emphasize the critical role of household heterogeneity in consumption behavior, particularly differences in MPCs or cash-on-hand, which generate aggregate implications for monetary policy transmission (Kaplan et al., 2018). These models typically attribute such heterogeneity to differences in income, wealth, age, and other sociodemographic characteristics. However, recent empirical evidence suggests that observable characteristics explain little of the variation in household-level outcomes. Kaplan and Schulhofer-Wohl (2017) document substantial heterogeneity in household-specific inflation rates, yet find that most of this variation remains uncorrelated with observables. Similarly, using Austrian scanner data, Messner and Rumler (2025) find limited evidence that sociodemographic characteristics, particularly household income, can explain observed differences in individual inflation rates. Kiss and Strasser (2024) confirm these results with German and French scanner data. Our findings suggest that personality traits constitute an important source of this heterogeneity, and therefore help explain why households with similar observable characteristics exhibit different economic preferences and behaviors (see Appendix C for a more detailed analyses).

8. Conclusion

This paper demonstrates that personality traits constitute a significant and economically meaningful source of heterogeneity in individuals inflation expectations beyond conventional sociodemographic determinants. Using the 2023 Austrian HFCS, the Big Five personality dimensions are shown to systematically shape individual inflation expectations, adding 70% to the variance explained by sociodemographics alone. The magnitude of personality driven differences in expectations exceeds that of major sociodemographic shifts such as income or education changes.

Beyond expectation levels, personality traits predict forecast accuracy and anchoring behavior. Individuals high in conscientiousness and agreeableness report lower expectations, smaller absolute forecast errors, and are more likely to hold anchored expectations, while openness to experience shows the opposite pattern.

These findings extend to monetary policy, economic modeling, and central bank communication responses. Personality traits capture how lifetime experiences shape cognitive pathways for processing economic information (a dimension that sociodemographic characteristics alone cannot adequately reflect). Individuals with identical observable characteristics may respond fundamentally differently to the same policy signals depending on their personality profiles, underscoring their relevance for macroeconomic modeling. For instance, respondents high in openness are the only group showing significant expectation changes and lower absolute forecast errors during positive central bank communication shocks, while neurotic and conscientious individuals exhibit higher errors in such periods. Consequently, these patterns might complicate stabilization under a Taylor rule framework, as the required policy response depends on how different groups form expectations. Moreover, effects are found to be particularly pronounced at trait extremes, yet can be moderated by education and financial market participation.

An important caveat in this paper concerns the macroeconomic environment during the survey's field period, which occurred during elevated but declining inflation following the post-pandemic surge. Whether personality effects operate similarly in stable, low-inflation environments remains an open question. While we expect the directional relationships to persist, coefficient magnitudes may differ under alternative inflation regimes. Unfortunately, prior HFCS waves lack both quantitative inflation expectations and Big Five measures, precluding longitudinal analysis.

Future research could extend this framework in several directions. First, examining whether personality traits shape expectations for other macroeconomic variables—such as unemployment or income growth—would establish whether our findings generalize beyond inflation. Second, incorporating personality heterogeneity into models of household consumption could further illuminate how traits affect economic behavior and preferences, as well as responses to different policy shocks. Third, experimental designs could investigate how individuals with different personality profiles respond to central bank communications, particularly distinguishing reactions to positive versus negative signals, deepening our understanding of how personality shapes the perception of economic reality itself and informing more effective monetary policy communication strategies.

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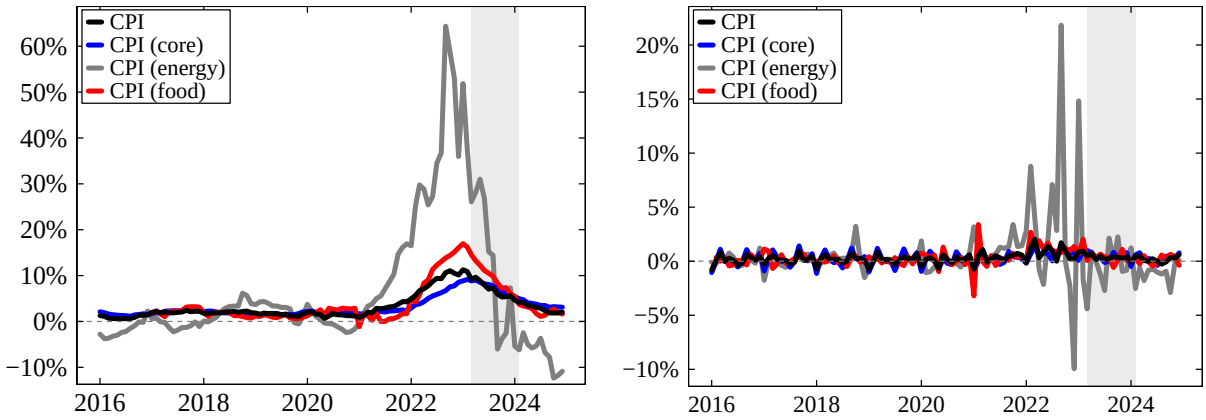
Appendix A Big Five Inventory

Table A.1: Big Five Inventory-SOEP

Item ID	Phrasing (German)	Phrasing (Englisch)	BFI loadings
a	Ich bin ... Zurückhaltend	I am ... reserved	Extraversion (-)
b	Ich bin ... Eher ruhig	I am ... rather quiet	Extraversion (-)
c	Ich bin ... Kommunikativ, gesprächig	I am ... communicative, talkative	Extraversion (+)
d	Ich bin ... Einfallsreich	I am ... imaginative	Openness to experience (+)
e	Ich bin ... Eher unorganisiert	I am ... rather disorganized	Conscientiousness (-)
f	Ich bin ... Eher faul	I am ... rather lazy	Conscientiousness (-)
g	Ich bin jemand der ... Aus sich herausgehend, gesellig ist	I am someone who ... is outgoing and sociable	Extraversion (+)
h	Ich bin jemand der ... Sich manchmal gehemmt fühlt, schüchtern ist	I am someone who ... sometimes feels inhibited, is shy	Extraversion (-)
i	Ich bin jemand der ... Gern reflektiert, mit Ideen spielt	I am someone who ... likes to reflect and play with ideas	Openness to experience (+)
j	Ich bin jemand der ... Eine lebhafte Phantasie, Vorstellung hat	I am someone who ... has a vivid imagination	Openness to experience (+)
k	Ich bin jemand der ... Künstlerische, ästhetische Erfahrungen schätzt	I am someone who ... appreciates artistic and aesthetic experiences	Openness to experience (+)
l	Ich bin jemand der ... Originell ist, neue Ideen einbringt	I am someone who ... is original, brings in new ideas	Openness to experience (+)
m	Ich bin jemand der ... Gründlich arbeitet	I am someone who ... works thoroughly	Conscientiousness (+)
n	Ich bin jemand der ... Aufgaben wirksam und effizient erledigt	I am someone who ... completes tasks effectively and efficiently	Conscientiousness (+)
o	Ich bin jemand der ... Bis zum Ende einer Aufgabe durchhält	I am someone who ... perseveres until a task is finished	Conscientiousness (+)
p	Ich bin jemand der ... Sich oft Sorgen macht	I am someone who ... often worries	Neuroticism (+)
q	Ich bin jemand der ....Entspannt ist, mit Stress gut umgehen kann	I am someone who ... is relaxed, can handle stress well	Neuroticism (-)
r	Ich bin jemand der ... Angespannt sein kann	I am someone who ... can be tense	Neuroticism (+)
s	Ich bin jemand der ... Leicht nervös wird	I am someone who ... gets nervous easily	Neuroticism (+)
t	Ich bin jemand der ... Nicht leicht aus der Ruhe zu bringen ist	I am someone who ... is not easily upset	Neuroticism (-)
u	Ich bin jemand der ... Manchmal etwas grob zu anderen ist	I am someone who ... is sometimes a bit harsh with others	Agreeableness (-)
v	Ich bin jemand der ... Kalt und distanziert ist	I am someone who ... is cold and distant	Agreeableness (-)
w	Ich bin jemand der ... Streit anfängt	I am someone who ... starts arguments	Agreeableness (-)
x	Ich bin jemand der ... Rücksichtsvoll und freundlich mit anderen umgeht	I am someone who ... treats others considerately and kindly	Agreeableness (+)
y	Ich bin jemand der ... Verzeihen kann	I am someone who ... can forgive	Agreeableness (+)

Appendix B Additional figures



(a) Year-over-year growth rates

(b) Month-over-month growth rates

Figure B.1: CPI categories in Austria. Growth rates in percent. Gray area indicates the field period of the 5^{th} wave of the Austrain HFCS. Sources: ECB, Statistik Austria.

Appendix C Additional tables

Table C.1: Selected variables across extreme personality traits

Variable	Metric/Characteristics	Non	Multiple	Extraversion	Openness	Conscientiousness	Neuroticism	Agreeableness
Preferences								
Risk aversion	Mean	3.2967	3.4162	3.7113	3.8381	3.1019	2.8950	2.6486
	Variance	3.3761	4.6803	3.5645	3.7612	1.3241	3.3939	3.2553
Impatience	forgo 20%	0.1440	0.1610	0.1491	0.1972	0.0563	0.1710	0.2049
	forgo 10%	0.2398	0.1320	0.2162	0.1271	0.0413	0.2034	0.0826
	forgo 5%	0.1924	0.2113	0.2961	0.1972	0.6044	0.1293	0.1634
	forgo 2%	0.1029	0.1120	0.1096	0.1079	0.1260	0.0866	0.0865
	do not forgo any part	0.2932	0.3644	0.2180	0.3256	0.1611	0.3771	0.4434
	missing	0.0276	0.0193	0.0111	0.0451	0.0108	0.0326	0.0192
Liquidity								
Liquid assets	Mean	49.4560	39.8004	27.5219	64.2407	33.1259	28.1384	29.1388
	Median	22.3032	15.0230	12.7800	25.2298	19.8736	7.2920	15.0496
Illiquid assets	Mean	338.4719	296.7096	371.9840	432.8255	248.8293	194.4161	234.8766
	Median	173.5068	49.3149	23.5808	195.0358	202.6000	19.5944	23.0982
Cash-on-hand	Mean	114.6717	100.0158	87.2432	138.5834	103.7900	76.1939	79.7390
	Median	77.6224	68.7258	60.1192	90.3060	87.2508	47.6856	58.4256
Credit constrained								
Loan application rejected or not granted in full	No	0.9806	0.9917	0.9899	0.9865	0.9927	0.9778	0.9889
	Yes	0.0194	0.0083	0.0101	0.0135	0.0073	0.0222	0.0111
Income risk								
How will income develop compared to cost of living?	rise more	0.0556	0.0896	0.0304	0.1398	0.0321	0.0605	0.0851
	rise less	0.5736	0.6408	0.6930	0.5571	0.9117	0.6711	0.6098
	same rate	0.3708	0.2695	0.2766	0.3031	0.0563	0.2685	0.3052
Probability of losing employment	Average probability	5.6160	8.4822	9.4234	12.1935	9.3551	16.8820	11.4112
Hand-to-mouth households	Poor HtM	0.2811	0.3508	0.4772	0.2167	0.3760	0.4481	0.3474
	Rich HtM	0.2449	0.2387	0.2216	0.2562	0.3798	0.2175	0.2057
	Non HtM	0.4740	0.4104	0.3012	0.5271	0.2441	0.3343	0.4468
Bequest motive								
Bequest as top saving motive	No	0.9790	0.9909	0.9795	0.9863	1.0000	0.9909	0.9833
	Yes	0.0210	0.0091	0.0205	0.0137	0.0000	0.0091	0.0167
MPC								
		0.4741	0.4824	0.5406	0.5389	0.5126	0.5202	0.5032

Notes: The table reports selected household characteristics by extreme Big Five personality traits. Columns labeled with individual traits refer to households above the 90^{th} percentile of the respective personality trait distribution. The column "Non" refers to households not classified as extreme in any Big Five dimension, while "Multiple" refers to households exhibiting extreme values in more than one trait. Risk aversion is measured using a self-assessment question in which individuals report, on a scale from 1 (risk-averse) to 10 (risk-taking), how willing they are to take risks; the table reports the mean and variance by group. Impatience is measured using a hypothetical intertemporal choice question asking respondents how much (in percent) of a one-time reward equal to one year of household income, received in one year, they would be willing to forgo in order to receive the payment immediately. Reported values correspond to the share of households selecting each forgoing category. Liquid and illiquid assets are constructed following the ECB HFCS definitions and are reported in EUR thousand. Cash-on-hand is defined following (Albacete et al., 2025) and is also expressed in EUR thousand. Mean and median values are reported for asset variables. Credit-constrained households are identified based on a direct survey question indicating whether a household's loan application was rejected or not granted in full; entries report the corresponding shares. Income risk perceptions are based on the question "How will income develop compared to the cost of living?" and show the share of households selecting each response category. The probability of losing employment reports the average self-assessed probability on a scale from 1 to 100. Hand-to-mouth households are classified following (Kaplan et al., 2014) into poor hand-to-mouth, wealthy hand-to-mouth, and non-hand-to-mouth households; the table reports the share of households in each category. The bequest motive is a binary indicator equal to one if the household reports leaving a bequest as its primary saving motive. The marginal propensity to consume (MPC) is measured using a self-reported response to a hypothetical transitory income shock equal to one month of household income and is expressed as a fraction between zero and one. Population weights and multiple imputations taken into account.

Appendix D Full regression results

Table D.1: Regression Results: Big Five personality traits and inflation expectations

	(1)	(2)	(3)	(4)
(Intercept)	9.787***	10.460***	9.478***	9.237***
	(0.475)	(0.450)	(0.577)	(0.506)
Extraversion	-0.132***	-0.107**	-0.082*	-0.084**
	(0.041)	(0.042)	(0.043)	(0.040)
Openness to experience	0.196***	0.167***	0.183***	0.195***
	(0.036)	(0.035)	(0.038)	(0.041)
Conscientiousness	-0.294***	-0.244***	-0.174***	-0.174***
	(0.049)	(0.046)	(0.047)	(0.047)
Neuroticism	-0.268***	-0.211***	-0.204***	-0.212***
	(0.044)	(0.046)	(0.044)	(0.045)
Agreeableness	-0.373***	-0.252***	-0.281***	-0.296***
	(0.062)	(0.061)	(0.059)	(0.060)
Age			0.047***	0.052***
			(0.015)	(0.014)
Age^2			-0.001***	-0.001***
			(0.000)	(0.000)
Female			0.246***	0.225***
			(0.073)	(0.074)
Married			-0.351**	-0.418**
			(0.158)	(0.174)
Compulsory education or below			-0.078	-0.124
			(0.163)	(0.164)
Upper secondary, school-leaving certificate			-0.297**	-0.263**
			(0.115)	(0.117)
University, technical college			-0.079	-0.013
			(0.206)	(0.208)
Self-employed			0.603***	0.639***
			(0.203)	(0.200)
(Skilled) blue-collar worker			0.206	0.208
			(0.147)	(0.148)

Continued on next page

Table D.1: Regression Results: Big Five personality traits and inflation expectations (Continued)

Civil servant			-0.355**	-0.377**
			(0.174)	(0.176)
Farmer			-1.900***	-2.024***
			(0.461)	(0.477)
Pensioner			0.575***	0.591***
			(0.136)	(0.133)
Unemployed			0.427	0.347
			(0.278)	(0.262)
Other			-1.045***	-1.068***
			(0.305)	(0.287)
2. Income quintile			-0.291*	-0.231
			(0.160)	(0.168)
3. Income quintile			-0.440***	-0.338**
			(0.156)	(0.165)
4. Income quintile			-0.598***	-0.468**
			(0.191)	(0.201)
5. Income quintile			-0.490*	-0.279
			(0.280)	(0.294)
Staple food share of income				0.604
				(0.579)
Owns car				0.186
				(0.125)
Financial market participation				-0.428***
				(0.089)
Time FE	No	Yes	Yes	Yes
Location FE	No	Yes	Yes	Yes
Num.Obs.	2849	2849	2849	2849
AIC	16683.2	16325.3	16277.4	16272.2
Efron R^2	0.016	0.137	0.154	0.155

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variable is inflation expectation winsorized at the 5^{th} and 95^{th} percentile. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Table D.2: Regression Robustness

	(1)	(2)	(3)
(Intercept)	9.962***	9.224***	13.571***
	(1.205)	(0.536)	(0.359)
Extraversion	-0.161***	-0.053	-0.184***
	(0.059)	(0.043)	(0.036)
Openness to experience	0.336***	0.207***	0.180***
	(0.057)	(0.044)	(0.034)
Conscientiousness	-0.091	-0.257***	-0.144***
	(0.058)	(0.050)	(0.047)
Neuroticism	-0.122	-0.196***	-0.202***
	(0.084)	(0.046)	(0.050)
Agreeableness	-0.401***	-0.279***	-0.211***
	(0.087)	(0.066)	(0.040)
Age	0.037	0.049***	-0.048***
	(0.028)	(0.013)	(0.014)
Age^2	-0.001**	-0.000***	0.000*
	(0.000)	(0.000)	(0.000)
Female	0.384***	0.116	0.491***
	(0.108)	(0.071)	(0.074)
Married	-0.613***	-0.500**	-0.364**
	(0.221)	(0.193)	(0.169)
Compulsory education or below	-0.028	0.083	0.342**
	(0.216)	(0.180)	(0.165)
Upper secondary, school-leaving certificate	-0.521***	-0.225*	-0.263**
	(0.144)	(0.124)	(0.113)
University, technical college	-0.082	0.010	0.081
	(0.266)	(0.203)	(0.187)
Self-employed	0.709***	0.489**	0.394**
	(0.259)	(0.211)	(0.183)
(Skilled) blue-collar worker	0.164	0.096	-0.025
	(0.222)	(0.181)	(0.140)
Civil servant	-0.103	-0.286*	-0.750***
	(0.224)	(0.154)	(0.188)

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Table D.2: Regression Robustness (Continued)

Farmer	-2.329***	-2.225***	1.015***
	(0.565)	(0.524)	(0.297)
Pensioner	1.113***	0.283**	0.623***
	(0.191)	(0.136)	(0.132)
Unemployed	0.593	0.238	0.269
	(0.426)	(0.233)	(0.274)
Other	-0.675	-0.855***	-0.195
	(0.433)	(0.308)	(0.266)
2. Income quintile	-0.318	-0.186	-0.033
	(0.262)	(0.148)	(0.191)
3. Income quintile	-0.602***	-0.322	-0.100
	(0.210)	(0.213)	(0.131)
4. Income quintile	-0.773***	-0.439**	-0.645***
	(0.281)	(0.202)	(0.209)
5. Income quintile	-0.449	-0.281	-0.387
	(0.383)	(0.311)	(0.301)
Staple food share of income	0.921	0.752	-1.470***
	(0.670)	(0.643)	(0.534)
Owns car	0.125	0.151	0.027
	(0.185)	(0.147)	(0.111)
Owns financial assets	-0.492***	-0.329***	0.040
	(0.110)	(0.086)	(0.081)
Time FE	No	Yes	Yes
Location FE	No	Yes	Yes
Num.Obs.	2849	2691	2849
AIC	18487.8	15200.8	15685.2
Efron R^2	0.112	0.155	0.131

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Table D.3: Regression Results lagged inflation

	(1)	(2)	(3)
(Intercept)	3.499***	7.018***	3.438***
	(0.226)	(0.546)	(0.732)
$Inflation_{t-1}$	0.210***	0.322***	0.741***
	(0.029)	(0.029)	(0.061)
Extraversion		-0.087**	-0.105**
		(0.040)	(0.040)
Openness to experience		0.193***	0.185***
		(0.041)	(0.042)
Conscientiousness		-0.173***	-0.163***
		(0.049)	(0.049)
Neuroticism		-0.236***	-0.223***
		(0.045)	(0.046)
Agreeableness		-0.290***	-0.273***
		(0.060)	(0.059)
Age		0.057***	0.053***
		(0.014)	(0.014)
Age^2		-0.001***	-0.001***
		(0.000)	(0.000)
Female		0.248***	0.225***
		(0.075)	(0.074)
Married		-0.485***	-0.439**
		(0.173)	(0.172)
Compulsory education or below		-0.158	-0.202
		(0.167)	(0.168)
Upper secondary, school-leaving certificate		-0.290**	-0.285**
		(0.115)	(0.114)
University, technical college		-0.089	-0.073
		(0.198)	(0.197)
2. Income quintile		-0.194	-0.235
		(0.168)	(0.169)
3. Income quintile		-0.288*	-0.368**
		(0.161)	(0.165)

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Table D.3: Regression Results lagged inflation (Continued)

4. Income quintile		-0.389*	-0.482**
		(0.202)	(0.204)
5. Income quintile		-0.163	-0.281
		(0.293)	(0.290)
Self-employed		0.668***	0.646***
		(0.200)	(0.203)
(Skilled) blue-collar worker		0.214	0.239
		(0.148)	(0.149)
Civil servant		-0.373**	-0.422**
		(0.182)	(0.180)
Farmer		-1.844***	-1.968***
		(0.471)	(0.468)
Pensioner		0.648***	0.623***
		(0.133)	(0.134)
Unemployed		0.374	0.398
		(0.265)	(0.263)
Other		-0.959***	-1.028***
		(0.279)	(0.280)
Staple food share of income		0.752	0.708
		(0.576)	(0.580)
Owns car		0.231*	0.212*
		(0.125)	(0.125)
Financial market participation		-0.448***	-0.425***
		(0.087)	(0.088)
Trend growth$_{t-1}$			-0.432***
			(0.059)
$UncertaintyIndex_{t-1}$			0.881**
			(0.406)
Location FE	No	Yes	Yes
Num.Obs.	2849	2849	2849
AIC	16708.2	16307.8	16292.7
Efron R^2	0.005	0.145	0.148

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Table D.3: Regression Results lagged inflation (Continued)

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Table D.4: Anchored inflation expectations: Logit regressions using target bands

	(1)	(2)
(Intercept)	-0.689***	-0.037
	(0.044)	(0.069)
Extraversion	0.025***	0.007
	(0.003)	(0.004)
Openness to experience	-0.019***	-0.018***
	(0.004)	(0.005)
Conscientiousness	0.042***	0.050***
	(0.005)	(0.006)
Neuroticism	0.044***	0.034***
	(0.004)	(0.004)
Agreeableness	0.024***	0.025***
	(0.005)	(0.005)
Age	0.006***	-0.004***
	(0.001)	(0.001)
Age^2	-0.000***	0.000
	(0.000)	(0.000)
Female	-0.006	0.025**
	(0.006)	(0.011)
Married	0.063***	0.074***
	(0.018)	(0.022)
Compulsory education or below	-0.071***	-0.048**
	(0.012)	(0.019)
Upper secondary, school-leaving certificate	0.006	0.001
	(0.009)	(0.011)
University, technical college	-0.056***	-0.022
	(0.014)	(0.017)
Self-employed	-0.069***	-0.044**
	(0.020)	(0.020)
(Skilled) blue-collar worker	0.002	0.011
	(0.017)	(0.023)
Civil servant	0.135***	0.073***

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Table D.4: Anchored inflation expectations: Logit regressions using target bands (Continued)

	(0.016)	(0.022)
Farmer	-0.248***	0.020
	(0.024)	(0.061)
Pensioner	-0.002	0.039**
	(0.012)	(0.019)
Unemployed	-0.027	-0.024
	(0.025)	(0.021)
Other	-0.041	0.091**
	(0.028)	(0.036)
2. Income quintile	-0.020*	-0.009
	(0.012)	(0.016)
3. Income quintile	0.027	0.006
	(0.017)	(0.020)
4. Income quintile	0.085***	0.038*
	(0.013)	(0.021)
5. Income quintile	0.050*	0.002
	(0.027)	(0.030)
Staple food share of income	0.202***	0.038
	(0.065)	(0.102)
Owns car	0.017	-0.012
	(0.012)	(0.015)
Financial market participation	-0.059***	-0.002
	(0.009)	(0.011)
Time FE	Yes	Yes
Location FE	Yes	Yes
Num.Obs.	2849	2849
AIC	2135.1	3716.1
Efron R^2	0.191	0.131

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: Specification (1) and (2) have a dummy variable as the dependent variable that categorizes inflation expectation into anchored and unanchored expectations. In specification (1) anchored individuals are defined as having inflation expectations lying around 1 pp. above of below the 2% target of the ECB. In specification (2) anchored individuals are defined as having inflation expectations lying around 2 pp. above of below the 2% target of the ECB. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Table D.5: Regression with the forecast error

	(1)	(2)	(3)	(4)
(Intercept)	5.182***	4.346***	5.152***	13.525***
	(0.571)	(0.565)	(0.594)	(0.790)
Extraversion	-0.081**	-0.079*	-0.089**	-0.140***
	(0.040)	(0.040)	(0.040)	(0.048)
Openness to experience	0.187***	0.190***	0.177***	0.141**
	(0.042)	(0.041)	(0.043)	(0.054)
Conscientiousness	-0.146***	-0.160***	-0.097*	0.099
	(0.050)	(0.050)	(0.051)	(0.068)
Neuroticism	-0.269***	-0.257***	-0.303***	-0.453***
	(0.045)	(0.045)	(0.046)	(0.057)
Agreeableness	-0.263***	-0.277***	-0.213***	-0.031
	(0.060)	(0.060)	(0.059)	(0.070)
Age	0.044***	0.049***	0.025*	-0.051***
	(0.014)	(0.014)	(0.015)	(0.019)
Age^2	-0.001***	-0.001***	-0.000***	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Female	0.245***	0.250***	0.226***	0.169*
	(0.075)	(0.074)	(0.077)	(0.100)
Married	-0.490***	-0.494***	-0.466***	-0.410**
	(0.171)	(0.172)	(0.168)	(0.174)
Compulsory education or below	-0.155	-0.148	-0.191	-0.385*
	(0.169)	(0.168)	(0.172)	(0.208)
Upper secondary, school-leaving certificate	-0.324***	-0.311***	-0.367***	-0.532***
	(0.114)	(0.114)	(0.116)	(0.137)
University, technical college	-0.207	-0.155	-0.371*	-1.003***
	(0.190)	(0.191)	(0.189)	(0.197)
Self-employed	0.758***	0.722***	0.872***	1.291***
	(0.199)	(0.199)	(0.206)	(0.273)
(Skilled) blue-collar worker	0.140	0.168	0.046	-0.240
	(0.145)	(0.145)	(0.147)	(0.170)
Civil servant	-0.360*	-0.358*	-0.398*	-0.410
	(0.191)	(0.187)	(0.209)	(0.305)

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Table D.5: Regression with the forecast error (Continued)

Farmer	-1.929***	-1.878***	-2.167***	-2.954***
	(0.508)	(0.491)	(0.569)	(0.829)
Pensioner	0.701***	0.685***	0.745***	0.994***
	(0.132)	(0.132)	(0.136)	(0.181)
Unemployed	0.559**	0.478*	0.831***	1.880***
	(0.266)	(0.265)	(0.273)	(0.325)
Other	-0.843***	-0.879***	-0.753***	-0.141
	(0.276)	(0.277)	(0.276)	(0.308)
2. Income quintile	-0.122	-0.141	-0.072	0.134
	(0.164)	(0.165)	(0.164)	(0.185)
3. Income quintile	-0.131	-0.186	0.019	0.613***
	(0.148)	(0.151)	(0.145)	(0.167)
4. Income quintile	-0.236	-0.284	-0.117	0.363*
	(0.192)	(0.195)	(0.186)	(0.208)
5. Income quintile	-0.026	-0.068	0.065	0.455*
	(0.278)	(0.282)	(0.268)	(0.261)
Staple food share of income	0.317	0.510	-0.305	-2.779***
	(0.586)	(0.584)	(0.597)	(0.671)
Owns car	0.279**	0.261**	0.332***	0.609***
	(0.124)	(0.124)	(0.124)	(0.138)
Financial market participation	-0.573***	-0.529***	-0.710***	-1.224***
	(0.090)	(0.089)	(0.095)	(0.148)
Time FE	Yes	Yes	Yes	Yes
Location FE	Yes	Yes	Yes	Yes
Num.Obs.	2849	2849	2849	2849
AIC	16393.6	16349.2	16649.7	18558.1
Efron R^2	0.151	0.148	0.158	0.150

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: The dependent variables are the forecast errors calculated relative to (1) CPI, (2) Core CPI, (3) Food CPI, and (4) Energy CPI. Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Table D.6: Regression with interactions

	(1)	(2)
(Intercept)	8.934***	9.293***
	(0.538)	(0.532)
Extraversion	-0.075	-0.169***
	(0.048)	(0.045)
Openness to experience	0.210***	0.235***
	(0.044)	(0.042)
Conscientiousness	-0.182***	-0.179***
	(0.056)	(0.065)
Neuroticism	-0.167***	-0.238***
	(0.050)	(0.050)
Agreeableness	-0.316***	-0.284***
	(0.056)	(0.065)
Has university, technical college degree	0.224	
	(1.654)	
Has university, technical college degree:Extraversion	0.023	
	(0.138)	
Has university, technical college degree:Openness	-0.217*	
	(0.120)	
Has university, technical college degree:Conscientiousness	0.087	
	(0.216)	
Has university, technical college degree:Neuroticism	-0.315***	
	(0.108)	
Has university, technical college degree:Agreeableness	0.225	
	(0.156)	
Financial market participation		-1.104
		(1.378)
Financial market participation:Extraversion		0.448***
		(0.078)
Financial market participation:Openness		-0.247**
		(0.098)
Financial market participation:Conscientiousness		0.013
		(0.149)

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Table D.6: Regression with interactions (Continued)

Financial market participation:Neuroticism		0.101
		(0.115)
Financial market participation:Agreeableness		-0.106
		(0.194)
Age	0.054***	0.056***
	(0.013)	(0.013)
Age^2	-0.001***	-0.001***
	(0.000)	(0.000)
Female	0.238***	0.220***
	(0.073)	(0.072)
Married	-0.364**	-0.426**
	(0.167)	(0.160)
Self-employed	0.596***	0.671***
	(0.207)	(0.214)
(Skilled) blue-collar worker	0.310**	0.267**
	(0.128)	(0.122)
Civil servant	-0.370**	-0.412**
	(0.172)	(0.174)
Farmer	-2.102***	-2.170***
	(0.474)	(0.480)
Pensioner	0.585***	0.621***
	(0.134)	(0.140)
Unemployed	0.347	0.359
	(0.271)	(0.262)
Other	-1.113***	-1.064***
	(0.300)	(0.297)
2. Income quintile	-0.258	-0.211
	(0.183)	(0.183)
3. Income quintile	-0.404**	-0.307*
	(0.153)	(0.155)
4. Income quintile	-0.604***	-0.491***
	(0.182)	(0.177)
5. Income quintile	-0.480*	-0.290

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Table D.6: Regression with interactions (Continued)

	(0.270)	(0.251)
Staple food share of income	0.649	0.609
	(0.583)	(0.586)
Owns car	0.226*	0.184
	(0.125)	(0.123)
Time FE	Yes	Yes
Location FE	Yes	Yes
Num.Obs.	2849	2849
AIC	16273.6	16269.1
Efron R^2	0.155	0.155

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: Population weights and multiple imputations taken into account. Standard errors based on the first 100 replicate weights.

Table D.7: Regression without imputations

	(1)	(2)	(3)	(4)
(Intercept)	9.378***	10.287***	8.237***	8.345***
	(0.964)	(1.051)	(1.345)	(1.541)
Extraversion	-0.157*	-0.134	-0.110	-0.157*
	(0.088)	(0.084)	(0.085)	(0.089)
Openness to experience	0.209***	0.202***	0.211***	0.223***
	(0.079)	(0.075)	(0.079)	(0.083)
Conscientiousness	-0.284**	-0.255**	-0.217*	-0.330***
	(0.117)	(0.111)	(0.114)	(0.123)
Neuroticism	-0.310***	-0.257***	-0.246***	-0.318***
	(0.084)	(0.080)	(0.081)	(0.085)
Agreeableness	-0.291**	-0.195	-0.186	-0.169
	(0.129)	(0.122)	(0.124)	(0.135)
Age			0.086***	0.064*
			(0.033)	(0.035)
Age^2			-0.001***	-0.001**
			(0.000)	(0.000)
Female			0.219	0.258
			(0.183)	(0.193)
Married			-0.351*	-0.109
			(0.200)	(0.239)
Compulsory education or below			-0.047	-0.371
			(0.298)	(0.313)
Upper secondary, school-leaving certificate			-0.385*	-0.218
			(0.212)	(0.223)
University, technical college			-0.184	0.013
			(0.296)	(0.322)
Self-employed			0.574	0.662
			(0.459)	(0.534)
(Skilled) blue-collar worker			0.151	0.217
			(0.324)	(0.335)
Civil servant			-0.336	-0.395
			(0.526)	(0.578)

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Table D.7: Regression without imputations (Continued)

Farmer			-1.918**	-2.549***
			(0.856)	(0.984)
Pensioner			0.692**	0.669**
			(0.314)	(0.330)
Unemployed			0.637	0.611
			(0.551)	(0.597)
Other			-1.198**	-1.111**
			(0.498)	(0.532)
2. Income quintile			-0.083	0.092
			(0.287)	(0.325)
3. Income quintile			-0.038	0.117
			(0.286)	(0.333)
4. Income quintile			-0.721**	-0.436
			(0.297)	(0.354)
5. Income quintile			-0.274	-0.161
			(0.309)	(0.382)
Staple food share of income				0.623
				(0.811)
Owns car				0.261
				(0.258)
Financial market participation				-0.465*
				(0.256)
Time FE	No	Yes	Yes	Yes
Location FE	No	Yes	Yes	Yes
Num.Obs.	2456	2456	2454	2174
R^2	0.015	0.151	0.172	0.170
Adj. R^2	0.013	0.143	0.157	0.152
AIC	14652.8	14326.1	14287.4	12592.6

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Notes: "Population weights are take into account. No imputations are used"

Appendix E Recentered Influence Function Regression

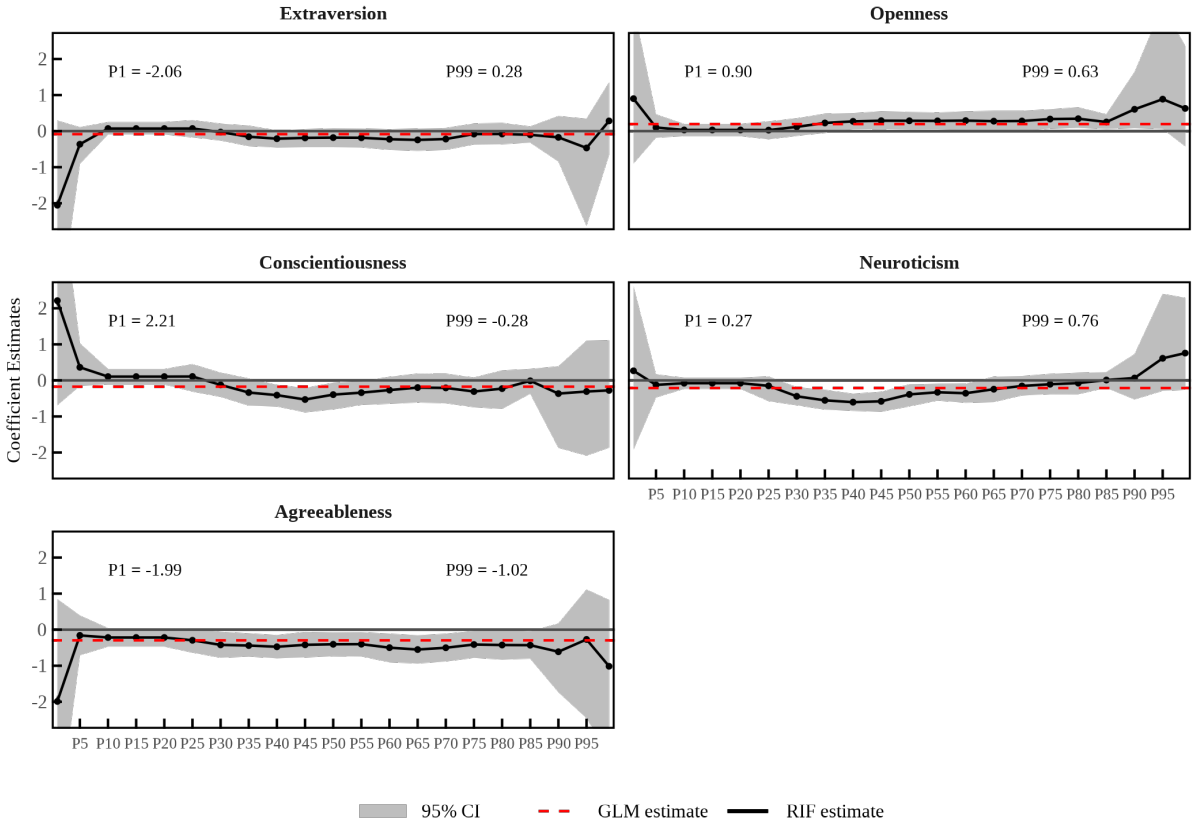

Figure E.1: Recentered Influence Function Regression. This figure shows Recentered Influence Function (RIF) regression estimates of the association between Big Five personality traits and inflation expectations at different points of the unconditional distribution. Each panel corresponds to one personality trait. The solid line plots the estimated coefficient at each percentile of the inflation expectations distribution, while shaded areas indicate 95% confidence intervals. The dashed horizontal line denotes the mean effect from the GLM regression in Table 6 (column 4). The figure is based on RIF regressions following Firpo et al. (2009), which allow covariates to affect different unconditional quantiles of the outcome variable. The RIF approach linearizes distributional statistics—such as quantiles—by replacing the dependent variable with its recentered influence function, enabling estimation via standard regression techniques. Unlike conditional quantile regressions, RIF regressions identify how changes in covariates shift the unconditional distribution of inflation expectations. The specifications include the same controls as in Table 6 (column 4). Population weights and multiple imputations are taken into account.