BANCA D'ITALIA

EUROSISTEMA

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NAVIGATING REGIMES:
DOES KNOWLEDGE OF CURRENT INFLATION MATTER FOR HOUSEHOLDS?

by Marco Flaccadoro*, Concetta Rondinelli* and Stefania Villa*

Abstract

This study analyses how household inflation and consumption expectations vary in response to information about inflation at different stages of its cycle. The analysis is based on a survey of Italian households, within which a randomly selected subset is provided with recent inflation data. Households who are given the information when inflation is rising also raise their inflation expectations, showing they had not taken on board its recent increase. Conversely, households who are informed when inflation is declining reduce their inflation expectations, whereas the other households remain anchored to previous high levels. Exposure to inflation data also exerts significant influence on consumption expectations. Knowledge of previous high levels discourages spending, while awareness of low inflation encourages it, particularly among less affluent households. These results are consistent with interpretations by households of inflation dynamics through a supply-side lens, especially when they are driven by energy prices.

JEL Classification: D14, D15, E21.

Keywords: household consumption, inflation expectations, information treatment.

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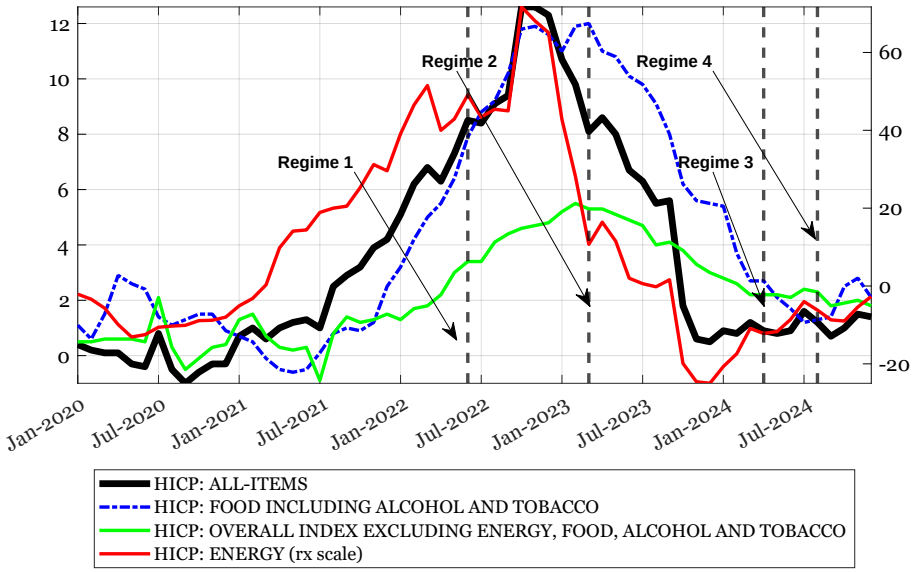
1 Introduction[1]

The surge in energy prices, supply chain disruptions and heightened demand following the Covid-19 pandemic, further exacerbated by the economic fallout of the war in Ukraine, led to a rapid increase in inflation between 2021 and 2022. After a long period of stability, the sudden rise in energy and food prices quickly pushed inflation to historically high and unprecedented levels. These exceptional times led to a surge of inflation expectation of all agents, professional forecasters, firms and households.

These developments, which were common to advanced economies and also interested Italy (Figure 1), led central banks to tighten monetary policy. A series of interest rate hikes became necessary to contain second-round effects on wages and inflation expectations and to bring inflation back to target levels.

Figure 1: **Italian HICP inflation dynamics**



Source: Eurostat and authors' elaborations.

In this paper we implement a survey-based randomized information treatment and explore whether households' expectations react to the information treatment about realized inflation at different stages of the inflation cycle. More precisely, we study how expectations related not only to inflation (as in Coibion et al., 2023; Huber et al., 2023; Georgarakos et al., 2024) but also to consumption respond

[1]The views expressed herein do not reflect those of the Bank of Italy. We would like to thank for their useful comments and suggestions Rudiger Bachmann, Marco Bottone, Domenico Depalo, Dimitris Georgarakos, Andrea Neri, Stefano Neri, Tiziano Ropele, Alfonso Rosolia, Fabrizio Venditti, Dmitri Vinogradov, Michael Weber, Giordano Zevi, Roberta Zizza, Francesco Zollino, and seminar participants at the 3^{rd} Macro-Monetary workshop Bank of Italy - EIEF and at the 23^{rd} Brucchi-Luchino workshop.

to the treatment about inflation in four different inflation regimes. We take Italy as a case study and use the four waves of the novel Conjunctural Survey on Italian households (CSIH) carried out by the Bank of Italy between the summer of 2022 and 2024 to exogenously define the inflation Regimes. This is quite remarkable as, differently from Cavallo et al. (2017) who made a comparison between US and Argentinian consumers to proxy low and high inflation regimes, the same survey has been conducted in a variety of inflationary environments. We define "*Regime 1*" the survey carried out in the summer of 2022, during the inflation spike; "*Regime 2*" in the summer of 2023, in a disinflation period; "*Regime 3*" and "*Regime 4*" at the beginning and in the middle of 2024, under a stable and low inflationary framework (Figure 1).[2] More importantly, the HICP inflation level presented in "*Regime 1*" and "*Regime 2*" was identical (6.3%), while in "*Regime 3*" and "*Regime 4*", it was 0.9% and 1.6%, respectively. Therefore, comparing the results from the first two waves isolates the effect of an increasing versus decreasing inflation trajectory.

We find that information frictions are widespread: many households do not make full use of publicly available data in forming their expectations. Households tend to have an information set that lags behind actual inflation data, so that the new information they receive - based on realized inflation in the month prior to the interview - surprises them on the upside when prices are rising and on the downside when prices are falling. More precisely, when inflation is on an upward path, the provision of the information treatment induces households to report higher inflation expectations than they would have done in the absence of the information. This is because they have not yet fully priced in the inflationary peaks after a long period of price stability. Conversely, when inflation is on a declining path, households receiving the treatment have lower inflation expectations than those not receiving the treatment, who are still thinking about the highest level of HICP inflation at the end of 2022.

Our results show also that exposure to recent inflation data has a significant impact on households' consumption expectations, with the effects varying across survey waves. When households are provided with information of high inflation in the first two waves, this increases the probability of expecting a reduction in consumption, while low inflation data reduces this probability. Least well-off households tend to be more responsive to inflation information in their consumption behavior. These findings are consistent with households' tendency to interpret inflation from a supply-side perspective (Kamdar, 2019; Andre et al., 2022; Coibion et al., 2023; Kamdar and Ray, 2024), especially in the context of energy-driven inflation trends in the euro area.

We contribute to three main strands of literature. First, our paper is related to a subset of the literature that employs survey experiments to investigate household expectations. Several papers

[2]Throughout the paper, the 4 regimes are exogenous and defined on the basis of the first 4 editions of the CSIH. The words *Regime*, wave, edition will be used interchangeably.

have examined how individuals react to information about official inflation statistics by adjusting their reported inflation expectations (see, for example, Armantier et al., 2016; Coibion et al., 2023; Huber et al., 2023; Georgarakos et al., 2024). Most of these papers provide experimental evidence that individuals act on their inflation expectations in making consumption and financial decisions.[3] To study whether inflation expectations causally affect households' decision, this literature uses an information treatment that could generate an exogenous variation in inflation expectations between treated and control groups; only incidentally – as a first stage of their instrumental variable regression – they say how inflation expectations react to the provision of an information treatment. We add to this literature by looking at how the exogenously provided publicly available information affects not only inflation expectations but also consumption plans, in the same vein as Rosolia (2024), who performs a similar exercise for firms and assesses whether not only firms' inflation expectations but also price changes and labor demand respond to the information treatment of past inflation. In addition, we conduct several randomized control trials (RCTs) using the same survey of Italian households to show that households' responses in terms of inflation expectations and consumption plans depend on the prevailing inflation environment. Similarly, Candia (2024) conducted a series of RCTs using surveys of US households from 2018 to 2023 - a period of both low and high inflation - in which random subsets of individuals receive information about recent inflation, the Fed's inflation target, and the FOMC's inflation forecast. These treatments can serve as a powerful tool to generate exogenous variation in inflation expectations and are used to estimate the causal effect of inflation expectations on consumption without directly examining the effect of the signal on consumption in different inflation regimes. In order to account for different inflation regimes, Cavallo et al. (2017) and Weber et al. (2025) instead had to rely on different countries.

Second, our paper is related to the large literature that focuses on how households interpret the relationships between inflation and real activity. A number of papers (e.g., Candia et al., 2020; Andre et al., 2022; Ferreira and Pica, 2024; and Kamdar and Ray, 2024) document that households perceive the co-movement of inflation and unemployment differently from experts and professional forecasters. Specifically, while professionals associate low inflation with high unemployment, consistent with a demand-side view of the economy, households link low inflation to falling unemployment. In addition, Shiller (1997) and, more recently, Stantcheva (2024) have shown, using both observational and experimental data, that inflation is broadly considered a negative phenomenon associated with higher unemployment and weaker economic activity. According to their analyses, people tend to dislike inflation primarily due to its perceived impact on purchasing power and the complexity it introduces into decision-making. We contribute to this literature by establishing a survey-based evidence of

[3]For firms, the effect of an exogenous change in firms' inflation expectations on different economic outcomes has been studied in Rosolia (2024); Savignac et al. (2024); Coibion et al. (2019); Ropele et al. (2024).

households' supply-side view of the economy, whereby providing households with information of high inflation rates increases the probability of reducing expected consumption.

Third, this paper contributes to the literature documenting the unequal consequences of inflation across households. In particular, inflation spikes do not affect households consumption equally, as rising energy and food prices disproportionately affects the most vulnerable ones, whose consumption basket displays an higher share of those goods (e.g. food, utilities), deepening inflation inequality and raising concerns for policymakers (Kaplan and Schulhofer-Wohl, 2017; Corsello and Riggi, 2022; Curci et al., 2025). In addition, recent analyses have shown that inflation has heterogeneous impacts on households' wealth – redistributing real wealth from lenders to borrowers–, and income, as wages are typically stickier than asset-related profits (Infante et al., 2023; and Ferreira et al., 2023). We contribute to this literature by showing that households with negative savings or wealth below or equal to the median react more strongly to the information, expecting to decrease (increase) more their consumption in response to a high (low) inflation data.

The rest of the paper is organized as follows. Section 2 illustrates the specific questions included in the waves of the CSIH and it discusses the main statistics. Section 3 presents the econometric setup. Section 4 reports the main results of the effect of the treatment in the four regimes, while Section 5 briefly concludes and provides some policy implications.

2 Data under different regimes

Between June 2022 and September 2024 the Bank of Italy conducted four waves of the Conjunctural Survey of Italian Households (CSIH). The four waves of the CSIH correspond to the four regimes described. The number of interviewed households was around 1,700 in the first wave, 1,900 in the second and fourth wave and reached around 2,500 in the third edition. These households represent a subset of those participating in the Survey on Household Income and Wealth (SHIW) in 2020 and in 2022 (Bank of Italy, 2022, 2024). The CSIH questionnaire includes: qualitative questions such as making ends meet, consumption expectations; and quantitative questions such as age, number of components and inflation expectations. The main variables and questions are described in detail in Appendix A.

Each edition of the survey contains two different questions on inflation expectations for the next twelve months, depending on whether the latest HICP inflation rate is known to the household at the time of the interview or not. Each question is asked to approximately half of the sample, based on a random selection. A first group of respondents (labelled "treated group") receives the latest available data on HICP inflation and provides point estimates for their inflation expectations. The second group of respondents (referred to as the "non-treated group" or "control group") is not informed of

the latest value of the HICP inflation rate. The survey design could generate an exogenous variation in inflation expectations between the treated and control groups, which we exploit in the empirical analysis in Section 4. The data cleaning process involved removing observations with extremely negative or positive values of inflation expectations that were clear outliers.[4]

Figure 2 shows the distribution of inflation expectations between treated and non-treated households over the four waves. Some notable results emerge. First, mean inflation expectations for the control group are always higher than those of the treated – as shown in Tables A.1-A.4 – in all waves except *Regime 1*, which was preceded by a long period of low and stable inflation. In particular, in *Regime 1*, the average inflation expectation of treated households is 5.7% versus 5.0% for non-treated households; in *Regime 2*, the average for treated households is 7.3% versus 10.2% for the non-treated; in *Regime 3*, it is 3.1% for the treated and 6.1% for the others; finally, in *Regime 4*, treated households expect an inflation rate of 2.2% against 7.4% for the non-treated. We formally test the difference in inflation expectations across the two groups: it is statistically significant at the 1% level in all regimes (Tables A.1-A.4).[5] Second, the distribution for treated households is less dispersed than that for not treated in any regime. The provision of information allows households to provide more accurate expectations. Third, the high inflation episode exerts long-lasting effects on non-treated. Indeed, the right tail of the distribution is extremely long in Regimes 2-4, after the high-inflation episode.

Households are asked whether they expect to decrease, maintain constant or increase their consumption for the following twelve (alternatively, six) months, as explained in the Appendix A. Due to the heterogeneous questions about expected consumption plans across the four waves of the CSIH,[6] we collect information pertaining to total consumption expectations (nominal or real), consumption plans related to specific items (e.g. food) or both.

[4]The final sample consists of 1,684, 1,699, 2,293, 1,422 households in the four *Regimes*, respectively.

[5]In *Regime 1* non-treated households are provided with brackets, while treated ones have to declare a point estimate. This might raise concerns as to whether the differences between the two groups are only due to the information treatment. For treated households, the minimum inflation forecast for the next 12 months is 1% and the maximum is 8%: in principle, this group, which responds with a point estimate, can potentially provide extremely low (even negative) and high forecasts. In addition, both groups were interviewed in the SHIW in 2021 and answered the same question: "*In the average of 2020, consumer inflation, measured by the year-on-year rate of change of the Harmonized Index of Consumer Prices (HICP), was equal to -0.1 per cent in Italy. What do you expect to be the average inflation in Italy in next 12 months (distribute 100 points)? Distribute 100 points among the following alternatives: give a high score to those considered most likely and a low to less likely. [more than 2%]/[between 1 and 2%]/[between 0 and 1%]/[between -1% and 0]/[less than -1%].*" The median inflation forecast is 0.9% for treated households and 0.7 for non-treated households in the SHIW: the mean is 1.0% for both groups and differences are not statistically different from zero. These evidences together seem to suggest that it is the provision of the information of realized HICP that induces a variation in households responses and not the point or bracket estimate.

[6]The heterogeneity concerns not only expected quantity purchase versus expected spending, but also the various expenditures categories, ranging from total consumption to durable goods, bills, tourism and recreation, etc., as detailed explained in Appendix A.

In each survey wave, we also collect data on the demographic, educational and employment characteristics of households, their savings position (positive, negative or zero savings) and their self-reported ability to meet their monthly expenses. We also know for each household its position on the wealth distribution, taken from the most recent wave of the SHIW. The wealth position is used to disentangle the response of the consumption plans among the most economically-fragile households to the information provision.

3 The econometric setup

The empirical analysis assesses how the provision of a publicly known information about recent inflation data affects both (i) households' inflation expectations and (ii) consumption plans. We take advantage of the Randomized Control Trial (RTC) setup, in which household i is randomly selected to receive the information about past realised HICP inflation. This makes the information provision a truly exogenous variable. We conduct our analysis separately for each survey, resorting to a linear estimation and estimating two separate sets of regressions:

$$\pi_i^e = \alpha^\pi + \beta^\pi I_i + \Gamma^\pi X_i + \varepsilon_i^\pi, \tag{1}$$

$$C_i^e = \alpha^c + \beta^c I_i + \Gamma^c X_i + \varepsilon_i^c, \tag{2}$$

where I_i is a dummy variable equal to 1 if household i has been selected to receive the information about past inflation level; and 0, otherwise. We consider two outcomes of interest, namely expected inflation π_i^e and consumption plans C_i^e: the estimation of equation (1) has been widely discussed in the literature of households (see, e.g., Armantier et al., 2016; Coibion et al., 2023; Huber et al., 2023; Georgarakos et al., 2024) and firms (for example, Ropele et al., 2024; Rosolia, 2024); while the estimation of equation (2) is a novelty. C_i^e is a dummy variable that is equal to 1 if household i expects to reduce its consumption in the following 12 (alternatively, 6) months; and 0, otherwise. In some waves, households were asked about nominal and/or real expenditure, either in total or for different sub-categories (durables, non-durables, services, etc.; see Appendix A). A positive β^π is consistent with the treatment raising households' inflation expectations; conversely, a positive β^c tells the econometrician that providing households with information about recent inflation dynamics increases the probability that households will reduce their consumption plans. Moreover, X_i is a vector of households' characteristics, which includes a quadratic polynomial in the respondent's age, which captures the life-cycle profile of consumption, and dummy variables for the educational attainment, occupational status and self-reported difficulty in making ends meet of the respondent. The latter two variables are used to proxy a fundamentals ingredients of a consumption equation,

i.e. income and wealth, respectively.

To disentangle the response of the consumption plans to the information provision among the most economically-fragile households, and thus to account for possible non-linear effects along their distribution, we interact the information on recent inflation dynamics with households' savings status and position in the wealth distribution. We estimate the following set of regression separately for each wave of the survey:

$$C_i^e = \alpha^s + \omega^s \underbrace{negative\ savings_i \times I_i}_{interaction} + \beta^s I_i + \Gamma^s X_i + \varepsilon_i^s, \tag{3}$$

$$C_i^e = \alpha^w + \omega^w \underbrace{wealth_i \times I_i}_{interaction} + \beta^w I_i + \Gamma^w X_i + \varepsilon_i^w, \tag{4}$$

where *negative savings* is a dummy variable that takes the value 1 if household i has a negative savings position and 0 otherwise. In addition, *wealth* is a dummy variable that takes the value 1 if the wealth of household i is below or equal to the median of the wealth distribution. The response of the most economically vulnerable households to the provision of information about inflation can be found by combining the overall treatment effect β with that resulting from the interaction ω.

4 The effect of inflation treatment

This section presents the empirical results of our analysis. We take advantage of the four survey waves in the period from July 2022 to August 2024, which fully cover the recent rise and fall in inflation in Italy. By estimating survey-specific models, we allow for possible changes in the relationships between the variables of interest over time.[7] In Section 4.1 we examine how households' inflation expectations react when exposed to potentially new information about inflation. By comparing the distribution of inflation expectations across treatment groups, we explore the extent to which households are unaware of recent inflation developments. Next, in Section 4.2 we investigate the effects of the provision of inflation information on households' consumption expectations. The analysis is complemented by results from alternative regressions in which the inflation information treatment is interacted with households' saving and wealth positions.

[7] Unfortunately, the panel component of households is too small from wave one to wave four to allow for reliable estimates.

4.1 The effect of the inflation treatment on household inflation expectations

The impact of exposure to inflation information on household inflation expectations may be particularly noteworthy because the experiments were conducted in different inflation environments, including periods of inflation spikes, disinflationary dynamics, and stable inflation, as well as periods in which headline inflation fluctuated above and below the ECB's 2% target. We begin this section by briefly rationalizing our experimental setup through the lens of a Bayesian learning model (Bartiloro et al., 2019; Fuster and Zafar, 2023; Rosolia, 2024) and then comment on our results with respect to the inflation *Regimes* in which the surveys were conducted.

According to the typical Bayesian learning model, households define their *posterior* expectations about inflation $\pi^e_{i,post}$ by combining all available information, namely their *prior* knowledge about the inflation process, which leads them to form their prior expectations $\pi^e_{i,prior}$, and any *signal* they receive about recent inflation dynamics. In particular, assuming a normal distribution as in Cavallo et al. (2017), we can define the agent's posterior inflation distribution as the weighted average of an individual's prior, with weight $1-\omega$, and the signal (or "information") received, with weight ω:

$$\pi^e_{i,post} = (1-\omega) \times \pi^e_{i,prior} + \omega \times signal, \tag{5}$$

where ω is the relative precision of the signal. According to equation (5), households revise their current assessment in the direction of the signal if the signal does not match their prior. The ideal framework for assessing how information is used to update one's prior requires the collection of expectations from the same respondent both before and after the receipt of information. However, since in the CSIH surveys the latest official inflation rate is randomly provided to respondents, we assume that the expectations elicited from informed and uninformed agents serve as valid estimates of the posterior and prior expectations, respectively, for the same population. Therefore, the statistics computed from these two samples can be combined to analyze the learning patterns of Italian households with respect to their inflation expectations.

As shown in the Figure 1, our surveys were conducted in different inflation regimes. The first wave was conducted in June 2022, when inflation was on a steeply rising path. In this regime, the provision of the information treatment - the latest available data for HICP inflation referred to April 2022 and was 6.3% - led households to report an inflation expectation that was 0.6% percentage points higher than they would have reported in the absence of the information (Table, 1, column 1). This is consistent with the fact that Italian households have not fully factored the recent inflationary increases into their expectations and therefore revise their expectations upwards when they receive information related to the latest data.

Interestingly, in *Regime 2*, the survey was conducted in March 2023, when the latest data on HICP inflation was at the same level of *Regime 1* (6.3%), but inflation was on a declining path, having peaked at the end of 2022. Households revise their inflation expectations downwards after receiving the treatment, in an environment characterized by a sharp decline in average inflation. In such an environment, knowledge of recent inflation data is associated with lower inflation expectations, by about 2 percentage points, relative to non-treated households (Table 5, column 1). This is not surprising and is consistent with the fact that Italian households have frictions in incorporating the most recent information in forming their expectations, leading to a lag in their adjustments relative to inflation data.

Given the rapidly changing macroeconomic conditions, the evidence for to the third wave of the survey (*Regime 3* - March 2024) was obtained in a low and stable inflationary environment, at the end of the disinflation cycle. In this case, the response to the provision of information – latest available data for HICP inflation was 0.9% – was negative and significant, around 3 percentage points (Table 8, first column). Similar results are obtained in the survey conducted in August 2024, in an inflationary environment characterized by low, albeit volatile, inflation (*Regime 4*). After receiving the average inflation information treatment, i.e. HICP inflation in July 2024 was 1.6%, households revise their inflation expectations downwards by about 4 percentage points (Table 11, column 1). Both results reinforce the evidence that information frictions are widespread and that many households do not make full use of all available information in forming their expectations. Indeed, in both cases, Italian households do not seem to be fully aware of the latest inflation data and react with a downward revision of their expectations after receiving the treatment.

Overall, we find that the information treatment affects household inflation expectations in all waves, with a precisely measured and statistically significant point estimate, which varies in both sign and magnitude across waves. This is consistent with existing evidence that households revise their expectations when presented with publicly available and easily accessible information. Our evidence shows that policies based on reaching households more effectively with information about inflation are likely to exert a first order effects on the households' inflation expectations.

4.2 The effect of the inflation treatment on household consumption expectations

As pointed out in Section 3, estimating the effect of exposure to recent inflation data on economic outcomes other than inflation is quite novel compared to the existing literature.[8] The heterogeneous questions on expected consumption plans across the four waves of the CSIH make our study

[8]For a similar analysis for firms within a RCT design, see Rosolia (2024).

particularly interesting, as our results refer not only to overall consumption expectations, but also to consumption plans related to specific items (e.g., food) or both, in nominal and real terms (see Appendix A).

Table 1 reports the results for *Regime 1*, in which the information treatment provided to households is considerably high, 6.3% (i.e. the inflation level in April 2022). After receiving the information, households revise their consumption plans downwards by increasing the probability of reducing both food and utilities consumption. Perhaps interestingly, the probability of reducing future consumption across all categories (i.e. food, durables, utilities and transport) increases significantly when considering households with negative savings (Table 3) and those expecting a constant or lower nominal income in the following 12 months (Table 2).[9]

In *Regime 2*, treated households receive the same signal as in *Regime 1*, 6.3% realized HICP inflation in July 2023. As in *Regime 1*, households respond by increasing the probability of reducing consumption plans for non-durables, durables and utilities (Table 5). These effects are stronger for the most economically fragile or poorer households, i.e. those with either negative savings or wealth below or equal to the median (Table 6 and 7). The results for the first two waves are consistent with a dichotomy (i.e. "good" or "bad) in households' views of economic news (Andre et al., 2022), in which a high inflation figure can be interpreted as bad news about the state of the economy and thus lead households to revise their consumption plans downwards.

The last two waves of the CSIH survey, relating to *Regime 3* and *Regime 4*, are conducted in a low inflation environment where the signal communicated to households is low, namely 0.9% (inflation data for January 2024) and 1.6% (inflation data for July 2024). It is therefore interesting to examine household reactions to the exposure to a low inflation signal, which may be associated with improving economic conditions. Our results show that the information treatment reduces the probability of reducing consumption plans in both regimes, as shown in Table 8 and Table 11. Moreover, the magnitude of the response is stronger for those who either report negative savings (Table 9 and Table 12) or whose wealth is below or equal to the median (Table 10 and Table 13).

Overall, we find that exposure to recent inflation data appears to have a significant effect on household consumption expectations; the sign and the magnitude of the responses change across the survey waves. Providing households with a high inflation data (i.e. well above the 2% target of the ECB) increases the probability of the households to reduce their expected consumption; on the contrary, the communication of a low inflation figure induces the households to reduce this probability. Well-off households tend to be more responsive to inflation news in their consumption behavior. When inflation is high, these households are more likely to cut back on spending, possibly

[9]Similar results, with the expected sign tough not significant, are found for households with wealth below or equal to the median (Table 4).

due to concerns about eroding purchasing power, uncertainty about future price increases; conversely, when inflation is low, they are less inclined to reduce consumption, as stable or declining prices may enhance their real income and financial security, encouraging their spending. These results are not surprising given that households tend to use a supply-side reasoning when explaining their views on the economy (Kamdar and Ray, 2024), especially in the context of the recent inflation spikes in euro area countries, which have been largely driven by rising energy prices (Lane, 2024). In fact, households plausibly associate a high (low) inflation levels with a bad (good) state of the economy.

5 Conclusions

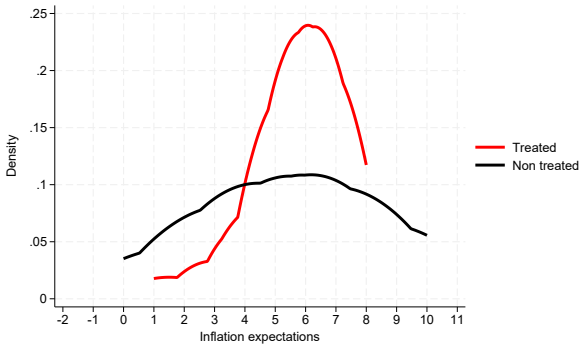
In this paper we use different waves of the Conjunctural Survey on Italian households carried out by the Bank of Italy between the summer of 2022 and 2024 to investigate how households' inflation and consumption expectations respond to the randomly assigned past inflation information treatment at different stages of the inflation cycle.

We show that information frictions are widespread, as many households do not make full use of publicly available information on inflation in forming their expectations, either when inflation is high or low. When inflation is rising, the provision of information increases inflation expectations, as households have not yet priced in recent peaks. Conversely, when inflation is falling, informed households expect lower inflation while others focus on past peaks. Exposure to inflation data also affects consumption expectations, as receiving information about past inflation levels discourages consumption when the signal is high, while it encourages spending when inflation data is low. This is consistent with households' supply-side interpretation. In the context of the energy-related inflation shocks that led to the rise in inflation between 2021 and 2022, and which particularly affected the consumption basket of the least well-off households, less affluent households are more likely to reduce consumption when inflation is high and less likely to do so when inflation is low.

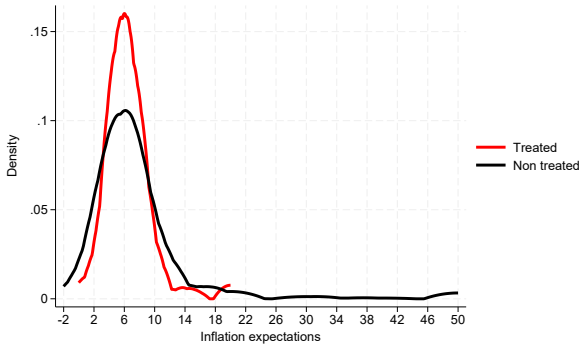
From a policy perspective, this analysis confirms that the average consumption decisions of households exposed to inflation data are different to those of households that did not receive the information. Consequently, policies aimed at improving households' access to inflation information are likely to have a first-order impact on aggregate consumption plans. This also implies that central banks' communication policy, providing households with the latest inflation figure might be counterproductive, in case high inflation figures are conveyed. Central banks should therefore continue to focus on their primary objective – maintaining low and stable inflation – anchoring inflation expectations in the right direction.

Figure 2: Inflation expectations

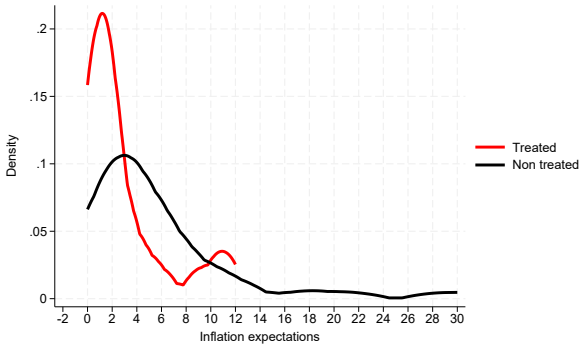
(a) Regime 1



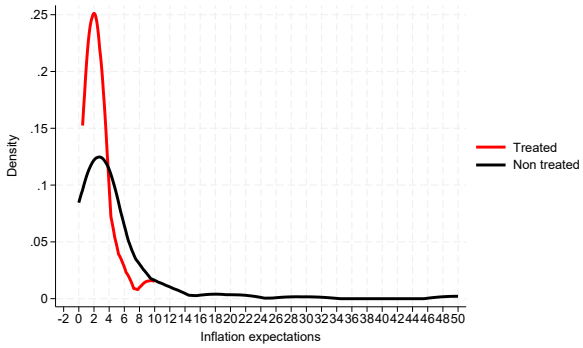
(b) Regime 2



(c) Regime 3



(d) Regime 4



Source: Authors'calculations.
Notes: Kernel distribution (Epanechnikov) of inflation expectations for households.

Table 1: **The effect of receiving information about inflation on different outcomes– regime 1 - 2022**

VARIABLES	(1) inflation expectations	(2) food	(3) durables	(4) utilities	(5) transport
treated	0.645***	0.035**	0.007	0.036**	0.016
	(0.117)	(0.017)	(0.022)	(0.017)	(0.017)
without difficulty	-0.675***	-0.109***	-0.083***	-0.061***	-0.120***
	(0.126)	(0.018)	(0.024)	(0.019)	(0.019)
controls	X	X	X	X	X
Observations	1,684	1,684	1,684	1,684	1,684
R-squared	0.071	0.111	0.021	0.031	0.050
mean	5.406	0.157	0.297	0.148	0.150

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is expected inflation and a dummy variable equal to one for households expecting a decrease in their consumption in the following 6 months. Controls refer to household demographic, education and employment characteristics.

Table 2: **The effect of receiving information about inflation on different outcomes for households expecting constant or lower nominal income in 12 months – regime 1- 2022**

VARIABLES	(1) food	(2) durables	(3) utilities	(4) transport
treated	0.083**	0.035	0.034	0.104***
	(0.038)	(0.053)	(0.041)	(0.040)
without difficulty	-0.204***	-0.111**	-0.104**	-0.143***
	(0.039)	(0.056)	(0.043)	(0.041)
controls	X	X	X	X
Observations	311	311	311	311
R-squared	0.146	0.063	0.084	0.101
mean	0.137	0.302	0.149	0.141

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable equal to one for households expecting a decrease in their consumption in the following 6 months. Controls refer to household demographic, education and employment characteristics.

Table 3: **The effect of receiving information about inflation on different outcomes (interaction with negative savings) – regime 1 - 2022**

VARIABLES	(1) food	(2) durables	(3) utilities	(4) transport
negative savings x treated	0.145***	0.195***	0.167***	0.152***
	(0.046)	(0.061)	(0.047)	(0.047)
treated	0.012	-0.024	0.008	-0.008
	(0.019)	(0.025)	(0.019)	(0.019)
negative savings	-0.028	-0.065	-0.077**	-0.032
	(0.034)	(0.045)	(0.035)	(0.035)
controls	X	X	X	X
Observations	1,684	1,684	1,684	1,684
R-squared	0.118	0.027	0.038	0.058
mean	0.157	0.297	0.148	0.150

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable equal to one for households expecting a decrease in their consumption in the following 6 months. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *negative savings* is equal to 1 if the household reports negative savings; and 0, otherwise.

Table 4: **The effect of receiving information about inflation on different outcomes (interaction with wealth) – regime 1 - 2022**

VARIABLES	(1) food	(2) durables	(3) utilities	(4) transport
wealth x treated	0.044	0.021	0.038	0.039
	(0.034)	(0.045)	(0.035)	(0.035)
treated	0.007	-0.005	0.013	-0.008
	(0.025)	(0.033)	(0.026)	(0.026)
wealth	0.041	-0.008	0.010	0.026
	(0.026)	(0.035)	(0.027)	(0.027)
controls	X	X	X	X
Observations	1,684	1,684	1,684	1,684
R-squared	0.118	0.021	0.033	0.054
mean	0.157	0.297	0.148	0.150

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable equal to one for households expecting a decrease in their consumption in the following 6 months. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *wealth* is equal to 1 if the household's wealth is below, or equal to, the median of the wealth distribution taken from the SHIW 2020; and 0, otherwise.

Table 5: **The effect of receiving information about inflation on different outcomes – regime 2 - 2023**

VARIABLES	(1) Inflation expectations	(2) expenditure	(3) non-durables	(4) durables	(5) utilities	(6) services
treated	-3.019***	0.005	0.072***	0.086***	0.037***	0.020
	(0.395)	(0.012)	(0.018)	(0.021)	(0.014)	(0.022)
without difficulty	-1.476***	0.013	-0.157***	-0.120***	-0.054***	-0.257***
	(0.445)	(0.013)	(0.020)	(0.023)	(0.016)	(0.025)
controls	X	X	X	X	X	X
Observations	1,699	1,699	1,699	1,699	1,699	1,699
R-squared	0.149	0.019	0.058	0.054	0.039	0.090
mean	8.613	0.0632	0.158	0.249	0.0937	0.321

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is expected inflation; a dummy variable "expenditure" equal to 1 for households expecting a decrease their nominal expenditure in the following 12 months, and 0 otherwise; and a a series of dummy variables equal to 1 for households expecting a decrease their consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics.

Table 6: **The effect of receiving information about inflation on different outcomes (interaction with negative savings in the period Jan. 2023 - June 2023) – regime 2 - 2023**

VARIABLES	(1) expenditure	(2) non-durables	(3) durables	(4) utilities	(5) services
neg. savings x treated	-0.090***	0.041	0.221***	0.019	0.092
	(0.034)	(0.050)	(0.059)	(0.041)	(0.063)
treated	0.015	0.053***	0.039*	0.027*	-0.006
	(0.013)	(0.019)	(0.022)	(0.015)	(0.024)
neg. savings	0.091***	0.110***	0.028	0.070**	0.073
	(0.028)	(0.041)	(0.049)	(0.033)	(0.052)
controls	X	X	X	X	X
Observations	1,699	1,699	1,699	1,699	1,699
R-squared	0.025	0.077	0.083	0.049	0.102
mean	0.0632	0.158	0.249	0.0937	0.321

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable "expenditure" equal to 1 for households expecting a decrease their nominal expenditure in the following 12 months, and 0 otherwise; and a a series of dummy variables equal to 1 for households expecting a decrease their consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *negative savings* is equal to 1 if the household reports negative savings between January and June 2023; and 0, otherwise.

Table 7: **The effect of receiving information about inflation on different outcomes (interaction with wealth) – regime 2 - 2023**

VARIABLES	(1) expenditure	(2) non-durables	(3) durables	(4) utilities	(5) services
wealth x treated	0.023	0.102***	0.009	0.100***	0.027
	(0.024)	(0.035)	(0.042)	(0.028)	(0.044)
treated	-0.006	0.022	0.082***	-0.012	0.006
	(0.017)	(0.025)	(0.029)	(0.020)	(0.031)
wealth	-0.021	-0.060**	-0.027	-0.063***	-0.007
	(0.018)	(0.027)	(0.032)	(0.022)	(0.034)
controls	X	X	X	X	X
Observations	1,699	1,699	1,699	1,699	1,699
R-squared	0.020	0.063	0.055	0.046	0.091
mean	0.0632	0.158	0.249	0.0937	0.321

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable "expenditure" equal to 1 for households expecting a decrease their nominal expenditure in the following 12 months, and 0 otherwise; and a a series of dummy variables equal to 1 for households expecting a decrease their consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *wealth* is equal to 1 if the household's wealth is below, or equal to, the median of the wealth distribution taken from the SHIW 2022;; and 0, otherwise.

Table 8: **The effect of receiving information about inflation on different outcomes – regime 3 - 2024**

VARIABLES	(1) inflation expectations	(2) nominal income	(3) total consumption
treated	-3.127***	0.003	-0.048***
	(0.243)	(0.016)	(0.016)
without difficulty	-1.594***	-0.142***	-0.128***
	(0.268)	(0.017)	(0.017)
controls	X	X	X
Observations	2,293	2,153	2,293
R-squared	0.116	0.095	0.070
mean	4.636	0.182	0.184

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is expected inflation; a dummy variable "income" equal to 1 for households expecting a decrease their nominal income in the year of the survey, and 0 otherwise; and a dummy variables equal to 1 for households expecting a decrease their consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics.

Table 9: **The effect of receiving information about inflation on different outcomes (interaction with negative savings in 2023) – regime 3 - 2024**

VARIABLES	(1) nominal income	(2) total consumption
negative savings x treated	-0.118**	-0.149***
	(0.046)	(0.045)
treated	0.018	-0.032*
	(0.017)	(0.017)
negative savings	0.121***	0.207***
	(0.035)	(0.034)
controls	X	X
Observations	2,153	2,293
R-squared	0.100	0.086
mean	0.182	0.184

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable "income" equal to 1 for households expecting a decrease their nominal income in the year of the survey, and 0 otherwise; and a dummy variables equal to 1 for households expecting a decrease their consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *negative savings* is equal to 1 if the household reports negative savings in 2023; and 0, otherwise.

Table 10: **The effect of receiving information about inflation on different outcomes (interaction with wealth) – regime 3 - 2024**

	(1)	(2)
VARIABLES	nominal income	total consumption
wealth x treated	-0.144***	-0.018
	(0.032)	(0.032)
treated	0.072***	-0.037*
	(0.022)	(0.022)
wealth	0.072***	0.049**
	(0.024)	(0.024)
controls	X	X
Observations	2,153	2,293
R-squared	0.104	0.072
mean	0.182	0.184

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable "income" equal to 1 for households expecting a decrease their nominal income in the year of the survey, and 0 otherwise; and a dummy variables equal to 1 for households expecting a decrease their consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *wealth* is equal to 1 if the household's wealth is below, or equal to, the median of the wealth distribution taken from the SHIW 2022; and 0, otherwise.

Table 11: **The effect of receiving information about inflation on different outcomes – regime 4 - 2024**

VARIABLES	(1) inflation expectations	(2) total expenditure	(3) total consumption	(4) durables	(5) non-durabl	(6) recreat. services	(7) other services
treated	-4.253***	0.024	-0.020	-0.018	-0.018	-0.024	-0.006
	(0.440)	(0.028)	(0.034)	(0.024)	(0.017)	(0.023)	(0.016)
without difficulty	-2.578***	-0.124***	-0.063*	-0.101***	-0.058***	-0.245***	-0.068***
	(0.489)	(0.031)	(0.038)	(0.027)	(0.019)	(0.026)	(0.018)
controls	X	X	X	X	X	X	X
Observations	1,422	695	695	1,422	1,422	1,422	1,422
R-squared	0.136	0.085	0.060	0.036	0.068	0.134	0.084
mean	5.032	0.164	0.284	0.301	0.119	0.310	0.108

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is expected inflation; a dummy variables equal to 1 for households expecting a decrease their nominal their expenditure or consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics.

Table 12: **The effect of receiving information about inflation on different outcomes (interaction with negative savings in 2024) – regime 4 - 2024**

VARIABLES	(1) total expenditure	(2) total consumption	(3) durables	(4) non-durabl	(5) recreat. services	(6) other services
neg. savings x treated	-0.085	-0.065	-0.240***	-0.023	-0.281***	-0.068
	(0.079)	(0.098)	(0.075)	(0.052)	(0.071)	(0.049)
treated	0.052*	0.017	0.016	-0.015	0.011	0.008
	(0.030)	(0.037)	(0.026)	(0.018)	(0.025)	(0.017)
neg. savings	-0.099*	-0.225***	0.023	0.007	0.138**	-0.093**
	(0.059)	(0.073)	(0.057)	(0.040)	(0.055)	(0.037)
controls	X	X	X	X	X	X
Observations	695	695	1,422	1,422	1,422	1,422
R-squared	0.103	0.096	0.049	0.069	0.143	0.102
mean	0.164	0.284	0.301	0.119	0.310	0.108

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable equal to 1 for households expecting a decrease their nominal their expenditure or consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *negative savings* is equal to 1 if the household reports negative savings in 2024; and 0, otherwise.

Table 13: **The effect of receiving information about inflation on different outcomes (interaction with wealth) – regime 4 - 2024**

VARIABLES	(1) total expenditure	(2) total consumption	(3) durables	(4) non-durables	(5) recreat. services	(6) other services
wealth x treated	-0.129**	-0.212***	-0.168***	-0.060*	-0.274***	-0.044
	(0.055)	(0.068)	(0.049)	(0.034)	(0.046)	(0.032)
treated	0.089**	0.087*	0.065*	0.011	0.111***	0.015
	(0.039)	(0.048)	(0.034)	(0.024)	(0.032)	(0.022)
treated	0.121***	0.032	0.105***	0.113***	0.199***	0.081***
	(0.041)	(0.051)	(0.037)	(0.025)	(0.035)	(0.024)
controls	X	X	X	X	X	X
Observations	695	695	1,422	1,422	1,422	1,422
R-squared	0.097	0.077	0.045	0.083	0.158	0.092
mean	0.164	0.284	0.301	0.119	0.310	0.108

Notes: Linear models. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The dependent variable in columns is a dummy variable equal to 1 for households expecting a decrease their nominal their expenditure or consumption in the following 12 months, and 0 otherwise. Controls refer to household demographic, education and employment characteristics, as well as to a dummy "without difficulty", which is equal to 1 in case the household has not difficulty in making their monthly expenses, and 0 otherwise. The dummy variable *wealth* is equal to 1 if the household's wealth is below, or equal to, the median of the wealth distribution taken from the SHIW 2022; and 0, otherwise.

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Appendix

A The Bank of Italy's Survey Data

Since the Summer of 2022 the Bank of Italy conducted a new Conjunctural Survey of Italian Households (CSIH) designed to gather timely variation on income and wealth and to collect conjunctural information on households' economic behaviour when the Survey on Household Income and Wealth (SHIW) is not conducted.

The SHIW is a face-to-face biennial survey conducted by the Bank of Italy since the 1960s to study the socio-demographic and economic conditions of Italian households. The core information collected is household members characteristics, their income sources (from employment, pensions, transfers, etc.) and household wealth (financial and real assets, liabilities). The survey represents the population of official residents in Italy, excluding people living in institutions (convents, hospitals, prisons, etc.). Differently from the SHIW, the CSIH is implemented through a CAWI (Computer Assisted Web Interview) mode and the questionnaire is mainly characterized by qualitative questions aimed at capturing the economic condition and consumption and saving preferences during the business cycle.

The first wave of the Conjunctural Survey of Italian Households - Regime 1 - was conducted between May and July, 2022; the sample consisted of 1,687 Italian Households that participated in the Survey on Household Income and Wealth (SHIW) in 2021 (Bank of Italy, 2022). The waves of Regime 2, 3 and 4, conducted respectively in August-September of 2023, March-April of 2024, and August-September 2024 targeted the respondents of SHIW 2022 (Bank of Italy, 2024) and have a sample size of 1,924, 2,513 and 1,914 households, respectively. The targeted sample in each wave of CSIH is drawn from the households who have participated to the most recent SHIW wave. The advantage of interviewing the same households in the two surveys is that to exploit quantitative information on income and wealth (and related distribution), we can link the CSIH data with the SHIW 2022 at the individual level.

Survey weights, which adjust for potential composition bias and make the sample representative of the Italian households, are used throughout the analysis. The system of sample weights of CSIH was calibrated to the information provided by the National Institute of statistics (Istat) on: gender, age group, geographical area (North, Center, South and Islands), degree of education and employment status (employee, self-employed, retired, unemployed, other) of the Italian population aged 18 and over.

A.1 Construction of the relevant variables

A.1.1 CSIH - REGIME 1 (May-June 2022)

Expected inflation For treated households "Last April, inflation measured by the 12-month change in the harmonized index of consumer prices was 6.3% in Italy. What do you think HICP inflation will be in 12 months in Italy (i.e. in June 2023 compared to June 2022)?". For non-treated households "What do you think the consumer

price inflation rate measured by the 12-month change in the harmonized index of consumer prices will be in 12 months in Italy (i.e. in June 2023 compared to June 2022)?" Possible answers: (a) negative; (b) between 0 and 1%; (c) between 1.1 and 2%; (d) between 2.1 and 4%; (e) between 4.1 and 6%; (f) between 6.1 and 8%; (g) between 8.1 and 10%; (h) above 10%.

Expected consumption Over the next 6 months, how do you expect your family' consumption to vary in the following spending categories compared to a normal year?

	(i)	(ii)	(iii)	(iv)	(v)
1. Food and other essential goods					
2. Durable goods (such as vehicles and appliances)					
3. Bills (water, electricity and gas)					
4. Transports (such as fuel)					

Possible answers are (i) much lower, (ii) a little lower, (iii) the same, (iv) a little higher, (v) much higher.

Assessment of past saving in 2021 Think about all sources of income in your household (income from work, rents, capital income, etc.) Could you tell me whether during 2021 your household: (i) spent less than the entire income and succeed in saving; ii) spent the entire income and did not manage to save anything; iii) spent more than the entire income, drawing on savings or borrowing.

Capacity to meet monthly expenses in 2022 Is your household's income sufficient to see you through to the end of the month? With: great difficulty, difficulty, some difficulty, easily enough, easily, very easily

Expected income if employee How do you expect your household annual gross income to change in 12 months if you are employee, assuming that you work the same number of hours with the same job position? Possible answers: (a) increase by more than 4%; (b) increase between 2 and 4%; (c) increase less than 2%; (d) the same; (e) decrease by less than 2%; (f) decrease between 2 and 4%; (g) decrease by more than 4%.

Uncertainty (i) (If "Employee" or "Self-employed") What is the probability that you will keep your job over the next 12 months? (Answer between a minimum of "0" if you are sure you are not working and a maximum of "100" if you are sure you are working.) (ii) (if "Unemployed") What is the probability that you will find a (new) job over the next 12 months? (Answer between a minimum of "0" if you are sure you are not working and a maximum of "100" if you are sure you are working.). The dummy variable is equal to one if the self-reported probability of (i) losing the job

is higher than 50% for employed household members and (ii) finding a job is lower than 50% for unemployed individuals; 0 otherwise.

A.1.2 CSIH - REGIME 2 (August-September 2023)

Expected inflation For treated households "Last July, inflation measured by the 12-month change in the harmonized index of consumer prices was 6.3% in Italy. What do you think HICP inflation will be in 12 months in Italy (i.e. in July 2024 compared to July 2023)?". For non-treated households "What do you think the consumer price inflation rate measured by the 12-month change in the harmonized index of consumer prices will be in 12 months in Italy (i.e. in in July 2024 compared to July 2023)?".

Expected spending Over the next 12 months, how do you expect your household's total consumer spending in euro to change compared to the last 12 months? Will decrease, stay the same, increase.

Expected consumption Think now only of the quantities purchased (and not of expenditure in euros), how do you expect your household's consumption in the following categories to vary over the next 12 months compared to the last 12 months?

	(i)	(ii)	(iii)
1. Non-durable goods (food, clothing, footwear, etc.)			
2. Durable goods (cars, other means of transport, household appliances, etc.)			
3. Bills (water, electricity and gas)			
4. Tourist and recreational services (hotels, restaurants, travel, etc.)			

Possible answers are (i) will decrease, (ii) will stay the same, (iii) will increase.

Capacity to meet monthly expenses in 2023 Is your household's income sufficient to see you through to the end of the month? With: great difficulty, difficulty, some difficulty, easily enough, easily, very easily

Assessment of past saving in 2023 Please consider all sources of income for your household that you have told me about during this interview (employment income, rent, income from capital, etc.). Could you tell me whether from January 2023 to July 2023 your household: i) spent less than the entire income and succeed in saving; ii) spent the entire income and did not manage to save anything; iii) spent more than the entire income, drawing on savings or borrowing.

A.1.3 CSIH - REGIME 3 (March-April 2024)

Expected inflation For treated households "Last January, inflation measured by the 12-month change in the harmonized index of consumer prices was 0.9% in Italy.

What do you think HICP inflation will be in 12 months in Italy?". For non-treated households "What do you think the consumer price inflation rate measured by the 12-month change in the harmonized index of consumer prices will be in 12 months in Italy?".

Expected spending Think now only of the quantities purchased (and not of expenditure in euros), over the next 12 months, how do you expect your household's total consumer spending in euro to change compared to the last 12 months? Will decrease, stay the same, increase.

Expected income Think about the total income of your household in 2024 after taxes and contributions. Would you say it will be higher, lower or in line with the annual income you received in 2023? Possible answers are: (i) higher, (ii) in line, (iii) increase, (iv) don't know.

Capacity to meet monthly expenses in 2024 Is your household's income sufficient to see you through to the end of the month? With: great difficulty, difficulty, some difficulty, easily enough, easily, very easily

Assessment of past saving in 2023 Please consider all sources of income for your household that you have told me about during this interview (employment income, rent, income from capital, etc.). Could you tell me whether during 2023 your household: i) spent less than the entire income and succeed in saving; ii) spent the entire income and did not manage to save anything; iii) spent more than the entire income, drawing on savings or borrowing.

A.1.4 CSIH - REGIME 4 (August-September 2024)

Expected inflation: PRIOR "What do you think the consumer price inflation rate measured by the 12-month change in the harmonized index of consumer prices will be in 12 months in Italy?".

Expected inflation: POSTERIOR For treated households "In a previous question you said that over the next 12 months the inflation rate measured by the 12-month change in the harmonized index of consumer prices will be X,X%. We would now like to ask your opinion again. In July 2024, inflation rate was 1.6% in Italy. What do you think inflation rate will be in 12 months in Italy?". For non-treated households "In a previous question you said that over the next 12 months the inflation rate measured by the 12-month change in the harmonized index of consumer prices will be X,X%. We would now like to ask your opinion again. What do you think the inflation rate measured will be in 12 months in Italy?".

Expected spending How do you expect your total consumer spending in euro to change compared to the last 12 months? Will decrease, stay the same, increase.

Expected consumption Think now only of the quantities purchased (and not of expenditure in euros), how do you expect your household's consumption in the following categories to change over the next 12 months compared to the last 12 months?

	(i)	(ii)	(iii)
1. Non-durable goods (food, clothing, footwear, etc.)			
2. Durable goods (cars, other means of transport, household appliances, etc.)			
3. Tourism and recreation (hotels, restaurants, travels, etc.)			
4. Other services (insurance, personal services, etc.)			

Possible answers are (i) will decrease, (ii) will stay the same, (iii) will increase.

Expected income How do you expect the total income of your household to increase in the next 12 months? Possible answers are: (i) Less than prices, (ii) equal to prices, (iii) more than prices, (iv) don't know.

Capacity to meet monthly expenses in 2024 Is your household's income sufficient to see you through to the end of the month? With: great difficulty, difficulty, some difficulty, easily enough, easily, very easily

Assessment of saving in 2024 Please consider all sources of income for your household (employment income, rent, income from capital, etc.), you expect your family to have at the end of 2024: i) spent less than the entire income and succeed in saving; ii) spent the entire income, without managing to save anything; iii) spent more than the entire income, drawing on savings or borrowing.

A.2 Additional tables

	Total		Treated		Non treated		H0: $\theta_1 = \theta_0$
Variable	**Mean (θ)**	**Std. Dev. (σ)**	**Mean (θ_1)**	**Std. Dev. (σ_1)**	**Mean (θ_0)**	**Std. Dev.(σ_0)**	**p-value**
inflation expectations (p.p.)	5.406	2.441	5.726	1.658	5.033	3.074	0.00
food (%)	0.157	0.364	0.173	0.378	0.138	0.345	0.05
durables (%)	0.297	0.457	0.308	0.462	0.285	0.451	0.28
utilities (%)	0.148	0.355	0.169	0.375	0.122	0.328	0.00
transport (%)	0.15	0.358	0.164	0.37	0.135	0.342	0.09
age (years)	60.301	16.019	58.856	16.342	61.987	15.473	
men (%)	0.624	0.484	0.649	0.478	0.596	0.491	
women (%)	0.376	0.484	0.351	0.478	0.404	0.491	
up to middle school (%)	0.476	0.5	0.451	0.498	0.505	0.5	
high school (%)	0.343	0.475	0.357	0.479	0.326	0.469	
higher education: college and beyond (%)	0.181	0.385	0.192	0.394	0.169	0.375	
employee (%)	0.366	0.482	0.396	0.489	0.33	0.471	
self-employed (%)	0.112	0.316	0.108	0.311	0.117	0.321	
retired (%)	0.417	0.493	0.394	0.489	0.444	0.497	
unemployed (%)	0.048	0.214	0.057	0.232	0.038	0.19	
other occupational status (%)	0.057	0.232	0.045	0.207	0.072	0.258	
with difficulty (%)	0.574	0.495	0.605	0.489	0.538	0.499	
without difficulty (%)	0.426	0.495	0.395	0.489	0.462	0.499	
N	1,684		882		882		

Table A.1: Summary statistics: total, treated and non treated.

	Total		Treated		Non treated		H0: $\theta_1 = \theta_0$
Variable	**Mean (θ)**	**Std. Dev. (σ)**	**Mean (θ_1)**	**Std. Dev. (σ_1)**	**Mean (θ_0)**	**Std. Dev.(σ_0)**	**p-value**
exp. inflation (p.p)	8.613	8.662	7.255	3.828	10.164	11.811	0.00
expenditure (%)	0.063	0.243	0.065	0.247	0.061	0.239	0.72
non-durables (%)	0.158	0.365	0.193	0.395	0.118	0.323	0.00
durables (%)	0.249	0.433	0.286	0.452	0.207	0.406	0.00
utilities (%)	0.094	0.291	0.111	0.315	0.074	0.261	0.00
services (%)	0.321	0.467	0.337	0.473	0.304	0.46	0.15
age (years)	58.245	15.996	59.03	16.011	57.349	15.941	
men (%)	0.569	0.495	0.574	0.495	0.563	0.496	
women (%)	0.431	0.495	0.426	0.495	0.437	0.496	
up to middle school (%)	0.357	0.479	0.371	0.483	0.341	0.474	
high school (%)	0.474	0.499	0.492	0.5	0.452	0.498	
higher education: college and beyond (%)	0.169	0.375	0.137	0.344	0.206	0.405	
employee (%)	0.403	0.491	0.367	0.482	0.444	0.497	
self-employed (%)	0.11	0.313	0.097	0.297	0.124	0.33	
retired (%)	0.38	0.485	0.399	0.49	0.358	0.48	
unemployed (%)	0.07	0.256	0.1	0.3	0.037	0.189	
other occupational status (%)	0.037	0.188	0.038	0.19	0.036	0.186	
with difficulty (%)	0.644	0.479	0.657	0.475	0.628	0.484	
without difficulty (%)	0.356	0.479	0.343	0.475	0.372	0.484	
N	1,699		881		818		

Table A.2: Summary statistics: total, treated and non treated.

	Total		Treated		Non treated		H0: $\theta_1 = \theta_0$
Variable	**Mean (θ)**	**Std. Dev. (σ)**	**Mean (θ_1)**	**Std. Dev. (σ_1)**	**Mean (θ_0)**	**Std. Dev.(σ_0)**	**p-value**
inflation expectation	4.636	6.123	3.119	3.693	6.093	7.49	0.00
nominal income	0.182	0.386	0.192	0.394	0.174	0.379	0.28
total consumption	0.184	0.387	0.166	0.373	0.201	0.401	0.03
age	58.437	16.095	58.354	15.363	58.517	16.774	
men	0.409	0.492	0.384	0.487	0.433	0.496	
women	0.591	0.492	0.616	0.487	0.567	0.496	
up to middle school	0.363	0.481	0.337	0.473	0.387	0.487	
high school	0.466	0.499	0.515	0.5	0.419	0.494	
higher education: college and beyond	0.171	0.377	0.148	0.355	0.194	0.396	
employee	0.392	0.488	0.389	0.488	0.396	0.489	
self-employed	0.114	0.317	0.121	0.326	0.107	0.309	
retired	0.382	0.486	0.371	0.483	0.393	0.489	
unemployed	0.068	0.252	0.069	0.254	0.067	0.25	
other occupational status	0.044	0.205	0.05	0.219	0.038	0.191	
with difficulty	0.572	0.495	0.596	0.491	0.549	0.498	
without difficulty	0.428	0.495	0.404	0.491	0.451	0.498	
N	2293		1145		1148		

Table A.3: Summary statistics: total, treated and non treated.

	Total		Treated		Non treated		H0: $\theta_1 = \theta_0$
Variable	**Mean (θ)**	**Std. Dev. (σ)**	**Mean (θ_1)**	**Std. Dev. (σ_1)**	**Mean (θ_0)**	**Std. Dev.(σ_0)**	**p-value**
inflation expectations	5.032	8.82	2.684	2.239	7.375	11.812	0.00
total expenditure	0.164	0.371	0.165	0.371	0.164	0.371	0.02
total consumption	0.284	0.451	0.264	0.441	0.302	0.46	0.25
durables	0.301	0.459	0.29	0.454	0.312	0.464	0.37
non-durables	0.119	0.324	0.103	0.304	0.135	0.342	0.06
recreat. services	0.31	0.463	0.289	0.454	0.331	0.471	0.08
other services	0.108	0.31	0.098	0.298	0.117	0.322	0.25
age	58.197	15.864	58.598	15.909	57.798	15.821	
men	0.37	0.483	0.34	0.474	0.401	0.491	
women	0.63	0.483	0.66	0.474	0.599	0.491	
up to middle school	0.343	0.475	0.382	0.486	0.304	0.46	
high school	0.462	0.499	0.406	0.491	0.518	0.5	
higher education: college and beyond	0.195	0.396	0.212	0.409	0.178	0.383	
employee	0.418	0.493	0.388	0.488	0.447	0.498	
self-employed	0.105	0.307	0.114	0.318	0.096	0.295	
retired	0.374	0.484	0.395	0.489	0.353	0.478	
unemployed	0.055	0.229	0.053	0.224	0.058	0.234	
other occupational status	0.048	0.213	0.049	0.217	0.046	0.209	
with difficulty	0.567	0.496	0.543	0.498	0.591	0.492	
without difficulty	0.433	0.496	0.457	0.498	0.409	0.492	
N	1,422		713		709		

Table A.4: Summary statistics: total, treated and non treated.