

# The effects of communicating inflation uncertainty on household expectations\*

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**June 8, 2023**

## **Abstract**

This paper examines the value of direct communication to households about inflation and the uncertainty around inflation statistics. All types of information about inflation are effective at immediately managing inflation expectations, with more relevant information about outlooks being more effective than information about recent inflation and Bank targets. We observe no downside to communicating uncertainty on the level of and uncertainty about expected inflation, and positive effects on the probabilistic inflation expectations being more centered around the communicated ranges. However, communication with uncertainty weakens the link between expected inflation and spending plans, a key channel in the transmission of monetary policy. Longer-lasting effects of communication can be achieved by communicating precise inflation outlooks.

**JEL classifications:** E7, E59, C93, D84

**Keywords:** Expectations management, inflation expectations, consumer spending, survey, central bank communication, uncertainty

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\*We thank Lea Assadourian for excellent research assistance. We are grateful for useful discussions with Michael Ehrmann, Andrew Foerster, Sylvain Leduc, Òscar Jordà, Nicolas Petrosky-Nadeau, Patrick Sabourin, Shu Lin Wee and Nielsen IQ, and seminar participants at the Bank of Canada, Federal Reserve Bank of San Francisco and CEPR Workshop on Central Bank Communication. The views expressed herein are those of the authors and not necessarily those of the Bank of Canada.

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# 1 Introduction

Managing inflation expectations during the pandemic and subsequent surge of inflation has been a crucial task for central banks and policymakers. However, they have faced various uncertainties in effectively communicating with markets and the public. These uncertainties encompass the reliability of their forecasting models, the public's attention and understanding of the information provided, and the potential reactions from both the financial market and the general public to their messages. Central banks have also had to make decisions regarding the inflation statistics to disclose and how to communicate the associated uncertainty. This involves striking a balance between instilling confidence by communicating precise macroeconomic outlooks and being transparent about their own uncertainty regarding the future.

This paper explores the response of households to communication about various inflation statistics and their accompanying uncertainty. We conducted a large representative survey of 5,000 Canadian households in April and May 2020 to gauge their macroeconomic expectations. Through the use of a randomized control trial, we examine the impact of providing survey respondents with different types of information about inflation statistics, with a particular focus on the associated uncertainty surrounding the statistics. Our analysis investigates how these factors influenced consumers' inflation and spending expectations, as well as their subjective uncertainty regarding future inflation. To assess the durability of the information effects, we conducted a follow-up survey in November and December 2020, six months later. The broad representativeness of our survey allows us to identify the beneficiaries of such information and develop effective strategies for communicating uncertainty to different subpopulations.

Participants in the first wave of the survey began by providing numerical responses regarding their expectations for one-year ahead inflation, interest rates, and their personal spending and income growth. They were asked to submit their inflation expectations as both point forecasts and subjective probability distributions, where they assigned probabilities to various inflation ranges. The probabilistic forecasts provided valuable information about the extremes of their inflation expectations and offered a measure of their uncertainty regarding future inflation.

Survey respondents consistently overestimated inflation and were highly misinformed about the Bank's inflation objectives and outlook. On average, prior inflation expectations in

spring 2020 ranged between 7-8% whereas actual inflation at the time of the initial survey was 1.9% and realized inflation one year later was 3.5%. Respondents reported high individual uncertainty about their expected inflation, with mean interquartile range of roughly 6.5 percentage points. The high levels of inflation expectations and uncertainty are in part due to the background uncertainty surrounding the COVID-19 pandemic, which led to a spike in household inflation expectations and uncertainty in both the United States and Canada between Q1 and Q2 2020 (FRBNY's Survey of Consumer Expectations and the Canadian Survey of Consumer Expectations). Expectations were also highly un-anchored due to misinformation. Survey respondents believed that the Bank's inflation target was 6.7% and that the Bank's outlook for one-year-ahead inflation was 6.9% (both were 2%). This lack of knowledge is consistent with [Coibion et al. \[2022b\]](#) who observe that less than 20% of U.S. households know the Fed's inflation target, and 40% believe it is 10% or higher.

Once we obtained participants' initial expectations and knowledge, we proceeded to randomly assign them to one of seven information interventions or a control group. These interventions involved providing participants with various information about inflation. Specifically, participants received details about past inflation, the inflation target set by the Bank of Canada (with or without information about the target band), the Bank's one-year ahead inflation outlook (with or without a 95% confidence interval), and professional forecasters' one-year ahead inflation forecast (with or without a range of outlooks). The control group did not receive any additional information. We then resurveyed all respondents, including the control group, to assess any immediate revisions in their outlooks. Additionally, participants were asked to complete a demographic survey to provide further background information.

Our findings indicate that all of the information interventions immediately anchor average inflation expectations close to the mid-point of the provided information. These interventions not only led to a reduction in inflation expectations towards the provided inflation rate but also decreased the uncertainty surrounding expected inflation and reduced the dispersion in inflation expectations among respondents, consistent with the findings of [Coibion et al. \[2022b\]](#) for U.S. consumers in 2018. Additionally, the information interventions anchored probabilistic inflation expectations by shrinking the tails of respondents' distributions and increasing the probability assigned close to the inflation target control range. The provision of more relevant information regarding future inflation forecasts resulted in larger revisions in point expectations compared to information about past inflation or the Bank's inflation target. This finding aligns with evidence presented by [Mokhtarzadeh and Petersen \[2021\]](#) who observe that inflation projections are more effective in managing inflation expectations than .

We introduce new facts about how people respond to uncertainty around inflation statistics. Contrary to our expectations, communication with uncertainty does not have detrimental effects on inflation expectations - on their level or uncertainty about expected inflation. It does not reduce the potency of communication, and in some cases strengthens it. Information about uncertainty does not weaken the effects of communication or de-anchor inflation expectations. In fact, communicating the Bank of Canada's inflation outlook is significantly more effective at anchoring inflation expectations in the short-term when it includes a confidence interval. Communicating with ranges anchors distributional expectations to the targeted range while reducing the probability respondents assign to the highest and lowest bins of inflation. Additionally, the inclusion of the confidence interval leads to a significant decrease in subjective uncertainty about inflation for individuals with high levels of uncertainty. We exploit regional variation in the severity of COVID-19 cases and deaths to understand how background uncertainty influences the response to communication about inflation. While increased exposure to COVID-19 heightened the level of inflation expectations and uncertainty about inflation, it did not impact the response to the communicated information.

Communicating uncertainty does not affect the credibility of the midpoint of the Bank of Canada's inflation target or inflation outlook. However, including a range around a mean professional forecast does reduce anchoring on the midpoint by 6 percentage points. This could be attributed to the inclusion of a rounded number (2%) in the range, which respondents tend to anchor on. Overall, we find that communicating ranges is especially effective in anchoring the expectations of individuals with prior beliefs outside the range.

Our paper provides new evidence about the role information can play in the relationship between uncertainty about future inflation and the level of inflation expectations. Recent work by [Reiche and Meyler \[2022\]](#) shows that greater uncertainty about inflation as measured by rounding in reported inflation is associated with higher inflation expectations. We also observe a strong positive correlation between individual expectations and uncertainty in respondents' prior expectations based on probabilistic forecasts. Moreover, we show that most of the information treatments break this relationship, with stronger effects on the participants with higher reported uncertainty. Communicating with uncertainty does have a quantitatively meaningful effect on the remaining link.

While communicating information about inflation with uncertainty does not have a downside in terms of its effectiveness on the level of expected inflation or uncertainty about inflation, it

does appear to have some negative consequences for expected spending growth. We observe a significant and sizeable negative link between expected inflation and spending growth when statistics are presented precisely. A one percentage point increase in inflation expectations is linked with 5.3 percentage point decrease in expected spending growth when respondents receive information about the Bank’s inflation outlook, and 2.7 percentage point decrease when they receive information about the mean professional forecaster’s outlook. A negative relationship between expected inflation and spending has been documented in other studies using surveys of consumers such as [Crump et al. \[2022\]](#). [Coibion et al. \[forthcominga\]](#) observe that higher inflation expectations are associated with lower purchases of durables, while [Binder and Brunet \[2022\]](#) find a negative relationship between expected inflation and expected spending on cars. On the other hand, positive links between expected inflation and spending or spending intentions have been found by [Coibion et al. \[2022b\]](#), [Drager and Nghiem \[2020\]](#) and [Drager et al. \[2016\]](#).

Communicating information with uncertainty eliminates the link between expected inflation and spending, a key channel in the transmission of monetary policy. This is a concrete downside to communicating about inflation with uncertainty, as one of the main goals of central bank communication is to manage inflation expectations to steer consumption decisions. Thus, our findings sounds a note of caution for communicating uncertainty about inflation. [Kumar et al. \[2022\]](#) also highlight the negative consequences of providing macroeconomic information with uncertainty on firm’s economic decisions.

There are important longer-term benefits of communicating precisely. Precisely communicated information about the Bank’s outlook continue to have anchoring effects on the level of expected inflation and uncertainty. Communicating professional forecasts with a range is less effective at managing inflation expectations six months later than simply communicating the mean forecast, and this effect is worse among people who are more uncertain about inflation.

At the same time, we observe some positive persistent benefits to communicating with uncertainty. Communicating the Bank’s target and inflation outlook with a range still works to weaken the link between individual uncertainty and inflation expectations. Furthermore, the impact of communicating with uncertainty does not have persistently eliminate the link between expected inflation and spending.

Does it matter *who* uncertainty is communicated to? We observe no differences in inflation expectations across demographics when respondents first receive the information. The

groups that typically have the most unanchored inflation expectations (i.e. young, low-educated, females) do not react adversely to information presented with ranges. However, six months later in the follow-up survey, we find persistent differences between more and less educated participants who received information with uncertainty. The least educated form higher inflation expectations (1 percentage point higher) when presented with imprecise statistics compared to those who received precise information. On the other hand, communication with ranges reduces inflation expectations by roughly 1.2 percentage points for those with more education. These results suggest that additional information about uncertainty is, indeed, more challenging to process and not universally useful in managing expectations. Our results build on [D’Acunto et al. \[2020\]](#) who compare the effectiveness of communicating monetary policy targets and objectives with communication about instruments and conclude that the former is more effective, especially among less sophisticated demographic groups. Likewise, simple, relatable communication can work best to manage expectations [[Bholat et al., 2019](#)].

Our main takeaway is that communicating about inflation with uncertainty can be beneficial for anchoring inflation expectations and uncertainty in the short-term, but can weaken the link between expected inflation and spending. Moreover, communicating with uncertainty reduces retention of information for less educated audiences. Policy makers must be aware of these trade-offs when designing their communication strategies.

## 2 Data and Survey Design

Data collection was conducted through a two-wave survey administered by the survey company Nielsen IQ and was sponsored by the Bank of Canada. Participants were based in Canada and belonged to the Nielsen HomeScanner Panel, a longitudinal panel that tracks household purchases. Among many benefits, this panel had not previously participated in randomized control trials related to monetary policy. Wave 1 included a randomized control trial and was conducted between April 13 and May 7, 2020. Wave 2 follow-up survey was conducted six months later between Nov 23 and Dec 11, 2020.

### 2.1 Design of randomized control trial

The Wave 1 survey consisted of the following four parts.

- Part 1: Elicit priors. Respondents answered questions about their inflation expectations over the next 1 year.

- Part 2: Information intervention. Survey respondents are presented with randomly assigned information.
- Part 3: Elicit posteriors. Respondents answered questions about their inflation expectations over the next 1 year.
- Part 4: Follow up questions. Demographic characteristics, financial literacy, feedback

In Wave 1 survey, participants were asked to provide their 1-year-ahead inflation expectations using both point forecasts and subjective probability distributions. The survey questions were designed in a manner similar to those used in the FRBNY’s Survey of Consumer Expectations [Armantier et al., 2017] and the Canadian Survey of Consumer Expectations [CSCE, 2022]. The specific survey questions can be found in Appendix A.

For the subjective probability distributions, participants were instructed to assign probabilities to different bins representing inflation ranges. These bins included ranges such as less than -12%, -8% to -12%, -4% to -8%, -2% to -4%, 0% to -2%, 0% to 2%, 2% to 4%, 4% to 8%, 8% to 12%, and greater than 12%. Participants were reminded that the total probabilities assigned should add up to 100. If their responses did not add up to 100, they received a notice requesting them to adjust their numbers accordingly.

By utilizing each respondent’s answers to the probability distribution question, we were able to estimate their density functions using parametric estimation techniques based on the methodologies of Engelberg et al. [2009] and Armantier et al. [2017]. From these estimated density functions, we computed two measures of inflation expectations for each respondent: the density mean ( $E_i\pi_{1yr}^{mean}$ ) and the median ( $E_i\pi_{1yr}^{median}$ ). Additionally, we used the interquartile range (the difference between the 75th and 25th percentiles) of the estimated density function as a measure of each individual’s uncertainty about their expected inflation ( $E_i\text{iqr}_{1yr}$ ).

This approach allowed us to capture both the point estimates and the subjective probability distributions of respondents’ inflation expectations, providing a comprehensive view of their expectations and associated uncertainty.

In addition to gathering information on inflation expectations, the survey also included questions about respondents’ expectations for their household nominal spending growth. Furthermore, we collected data on participants’ employment status and various demographic

characteristics such as age, gender, education level, income, and province of residence. Respondents answered questions about how familiar they are with the concept of inflation and how easy it is for them to express inflation as a number.

## 2.2 Design of follow-up survey

Six months after Wave 1 survey, we conducted a follow-up survey, inviting the same targeted group of respondents to participate. The objective of this follow-up survey was to examine the persistence of the information interventions on participants' expectations.

During Wave 2 survey, participants were asked questions about their 1-year-ahead inflation expectations and household spending growth. It is important to note that Wave 2 did not involve any information interventions, and all respondents were presented with the same survey content.

In order to assess the impact of re-sampling on expectations, we introduced a new control group in Wave 2. This control group consisted of households from the same Nielsen Home-Scanner Panel who did not participate in Wave 1. Similar to the other Wave 2 respondents, this control group was asked the same set of questions, including demographic questions.

## 2.3 Treatments

We designed the information treatments to assess the impact of different types of information potentially relevant to forecasting inflation on the formation of consumer expectations. In our treatments, we provide factually accurate and publicly available information from different sources and angles: past inflation over the last 12 months; the Bank of Canada's inflation target; the forecast of inflation for the next year by the Bank of Canada publicly available from the Bank of Canada Monetary Policy Report [[Monetary Policy Report, 2020](#)] and the mean forecast of inflation over the next year by professional forecasters (Consensus Economics). The information provided in the treatments are presented in Table 1.

The following considerations have motivated our selection of sources of information. Information from different sources and different horizons may be viewed differently by the survey respondents when they formulate their inflation forecasts over the next year. For example, forecasts by the Bank or by professional forecasters for inflation over the next year may be viewed by some as more relevant for inflation expectations over the next year than the



inflation target or past inflation. As official mandate of the Bank of Canada, the inflation target may be viewed by some as more reliable source of information than inflation forecasts. Furthermore, people may view forecasts of inflation coming from the Bank of Canada and professional forecasters with different degrees of trust. For some people, past inflation can serve as a good starting point for formulating their inflation forecasts for the future, especially given the ample evidence of backward-looking expectations of inflation. Our objective is to understand which of these types of information has the most impact on the consumers' inflation expectations and their anchoring.

Our randomized control trial was also designed to study the role of communicated uncertainty in the formation of inflation expectations. We vary the degree of uncertainty in our information interventions related to targets and outlooks. Information about the Bank's inflation target, the Bank's inflation forecast, and the forecasts of professional forecasters was presented to survey respondents either as a focal point value or a point within a range. Exogenous variation in communicated uncertainty allows us to evaluate the trade-off between the coordination benefits associated with focal information and the potentially lower credibility from overly-precise targets and outlooks [Mishkin and Westelius, 2008]. An inflation target-control range indicates some flexibility in the targeting approach [Bank of Canada, 2021], and, as such, inherently communicates uncertainty about the inflation outcome.

In our formulation of treatments with uncertainty, our objective was to cover different aspects that can contribute to the dispersion of inflation expectations across respondents and their uncertainty about expected inflation. Additional knowledge about the Bank of Canada's inflation target control range may make people's expectations of inflation less anchored on the target and, therefore, more dispersed. People may also be less certain about their inflation forecast when they are aware that inflation can be within an inflation target control range and not necessarily at the target. Similarly, knowledge about the confidence interval around the Bank's inflation forecasts and knowledge about the range of professional forecasts may make expectations less anchored and more dispersed.

The center points and ranges are comparable across treatments and are of similar order of magnitude. There are some slight differences across treatments, from 1.7% forecast by professional forecasters to 2.0% Bank's target and forecast. The ranges differ across treatments by 0.2-0.4pp. And while the Bank's targeted range and confidence interval around their forecasts were symmetric, the professional forecaster's range was slightly skewed downwards.

We elicit expectations about inflation in two ways - point expectations and expectations about probability distribution for expected inflation - with the goal to assess the impact of information treatments with different degrees of uncertainty on the level of inflation expectations, dispersion of inflation expectations, probability distribution for expected inflation and uncertainty about inflation expectations.

## 2.4 Sample description

Table 2 presents summary statistics on the demographic composition of the sample groups across treatment groups and control group in each wave of the experiment. Between 632 and 638 people participated in each information treatment of Wave 1, of which 66-70% of respondents returned and completed the survey in Wave 2.

The table illustrates that treatments groups are well balanced across key demographic characteristics such as age, gender, education, income and provinces. The mean participant is in early-to-mid 50s, has some college education, and earns an income in the CAD\$40-100K range. Females make up 70% of respondents in each treatment. This is a result of the composition of Nielsen Homescanner panel being based on the shoppers as women are more likely to do household shopping [Frank and Frenette].

## 2.5 Hypotheses

Our hypotheses are formulated in terms of reducing the level of inflation expectations given that consumer inflation expectations are skewed to the right and positively biased.

*Hypothesis 1* All information treatments are predicted to reduce the

- a) level of inflation expectations
- b) dispersion across respondents
- c) uncertainty about inflation
- d) the tails of the probability distribution of inflation towards the center,  
and
- e) increase the probability that inflation will be in the inflation-target-control range

relative to the Control treatment.

*Hypothesis 2.* Information treatments without uncertainty (**BankTarget**, **BankForecast**, **ProfForecast**) are expected to reduce the

- a) level of inflation expectations
- b) dispersion across respondents
- c) uncertainty about inflation
- d) the tails of the probability distribution of inflation towards the center,  
and
- e) increase the probability that inflation will be in the inflation-target-control

more than treatments with uncertainty (**BankTargetRange**, **BankForecastCI**, **ProfForecastRange**).

We formulate our Hypothesis 1 based on the broad evidence of the anchoring effect of information treatments on consumers' inflation expectations in the literature [Coibion et al., 2018, 2022a, forthcominga,f, 2021]. Hypothesis 2 is formulated based on previous survey evidence about the positive relationship between the level of expectations and uncertainty surrounding expectations [Reiche and Meyler, 2022]. In our view, information in the treatments without uncertainty is more salient about the central point - inflation target or inflation forecast - and, therefore, would serve as a more effective focal point for the survey respondents to anchor their attention than information with uncertainty. As a result, the treatments without uncertainty are predicted to have a larger impact on inflation expectations as respondents revise them more closely towards the centrally communicated point.

Treatments with uncertainty - information about inflation target control range, confidence interval and range of professional forecasts - are expected to provide a sense that there is uncertainty about achieving the target, there is uncertainty about Bank's forecast of inflation and there is dispersion of views among professional forecasters. Because of the uncertainty around the central points such as inflation target, Bank's forecast and forecast of professional forecasters these central points may be less salient and less likely to serve as a focal point for respondents. In addition, awareness about the uncertainty around these central points may also make respondents less confident about their inflation forecasts, or, in other words, their uncertainty about expected inflation will decline less than in the treatments without uncertainty. This would have a second-order effect on the level of inflation expectations because of the positive link between level of expected inflation and uncertainty about it.

Treatments without information about uncertainty are expected to shrink the tails of the probability distribution to the center and increase the probability assigned to the inflation control range more than treatments with information about uncertainty because these treatments without uncertainty are expected to move inflation expectations more towards the center points (inflation target, inflation forecasts) and reduce uncertainty about inflation more than treatments with uncertainty. In other words, we expect that treatments without uncertainty are able to anchor inflation expectations better than treatments with communicating the uncertainty.

### 3 Prior expectations about inflation

In this section we summarize inflation expectations prior to the information interventions and discuss how household characteristics are associated with heterogeneity in prior beliefs.

Table 3 presents summary statistics on the one-year-ahead inflation expectations of survey respondents in each of our survey waves by treatment. Several important observations emerge from this table.

- On average, prior inflation expectations are relatively high, ranging between 7-8%, whereas actual inflation at the time was around 1.9%. Household inflation expectations are known to be high relative to actual reported inflation and these observations are in line with those reported in the Canadian Survey of Consumer Expectations around the same time [CSCE, 2022]. A persistent positive bias in inflation expectations has been documented in the literature [Axelrod et al., 2018, Tenreyro, 2019, Schembri, 2020].
- There is considerable disagreement among survey respondents about expected one-year-ahead inflation, with an interquartile range of 7-8pp.
- Participants report high individual uncertainty about their expected inflation, ranging from 5.75pp to 7.23 pp across different treatments.
- There is wide dispersion among participants' uncertainty ranging between 5.76pp to 6.85pp across treatments.
- On average, participants believe that the Bank's inflation target is 6.7% and that the Bank's outlook for one-year ahead inflation is 6.9%.

For reference, we compare one-year-ahead point and probability distribution inflation expectations of our surveyed respondents with one-year-ahead inflation expectations of Canadian

households in the CSCE and US households in FRBNY SCE. We include surveyed expectations immediately before the pandemic (Q1 2020 for CSCE and February 2020 for FRBNY SCE) and in the same month that we conducted the first wave of our survey at the onset of the pandemic (Q2 2020 for CSCE and May 2020 for FRBNY SCE). Figure 1 plots the mean probability placed on each bin of inflation outcomes in each survey. The top panel presents the histogram of point inflation expectations while the bottom presents probability distribution forecast averaged across respondents. Both panels of this figure indicate that our survey respondents' distributions collected in Q2 2020 are to the right of the distributions from FRBNY and CSCE surveyed expectations. This is due to the fact that the Nielsen HomeScanner Panel focuses on household shoppers, which are predominantly female and less-educated members of the households, two groups with well-documented higher inflation expectations [Axelrod et al., 2018, Tenreyro, 2019, Schembri, 2020]. Survey respondents assign, on average, probability of less than 20% to deflationary outcomes in their priors (about 16-17%) and view positive inflation as highly likely, with an average probability of roughly 50% assigned to inflation outcomes above 4%.

We document the heterogeneity in priors about 1-year-ahead inflation expectations across demographic characteristics using the following general econometric strategy:

$$E_i Y_{1yr}^{prior} = a + b_0 Treatment_i + b_1 X_i + error_i \quad (1)$$

where  $E_i Y_{1yr}^{prior}$  is a measure of individual priors about 1-year-ahead inflation expectations by individual  $i$ ,  $Treatment$  is a vector of treatment dummies, and  $X_i$  is a matrix of the following demographic characteristics: age, gender, education, income, married status, presence of children, language of responses (English, French), self-reported knowledge of inflation ( $D^{know\ inflation\ well}=1$  if high self-reported knowledge of inflation,  $=0$  if low knowledge), ease of expressing inflation as a number ( $D^{easy\ to\ express\ inflation}=1$  if very easy,  $=0$  if not easy), and province of residence.

We estimate Equation 1 for several indicators describing respondents' priors about 1-year-ahead inflation expectations  $E_i Y_{1yr}^{prior}$ :

- point 1-year-ahead inflation expectations,  $E_i \pi_{1yr}^{prior}$ ,
- estimated mean expectations based on distribution question about 1-year inflation expectations,  $E_i \pi_{1yr}^{mean,prior}$ ,
- estimated median expectations based on distribution question about 1-year inflation expectations,  $E_i \pi_{1yr}^{median,prior}$ ,

- estimated uncertainty about expected inflation,  $E_i \text{iqr}_{1yr}^{prior}$ ,
- probability assigned to inflation being close to inflation target control range,  $E_i \text{prob}_{1yr}^{target,prior}$ , computed as probability assigned to range between 0 and 4%, and
- probabilities assigned to each range  $r$  in the distributional question about inflation expectations,  $E_i \text{prob}_{1yr}^{r,prior}$ .

The estimation results for differences in priors for 1-year-ahead inflation expectations are presented in Table 4. There are little differences across treatments relative to the Control group in 1-year-ahead inflation expectations, both point expectations,  $E_i \pi_{1yr}$ , as well as mean and median expectations,  $E_i \pi_{1yr}^{mean}$  and  $E_i \pi_{1yr}^{median}$ , uncertainty  $E_i \text{iqr}_{1yr}$ , and the probability participants place on inflation being close to the targeted range,  $E_i \text{prob}_{1yr}^{target}$ . However, we observe that point expectations are higher in BankForecast and ProfForecast than in the Control group by 0.72 and 0.58 pp respectively. We also note that density expectations are higher in BankForecastCI and ProfForecastRange than in the Control group by roughly 0.5 pp. Table B1 presents estimation results for the priors about probability distributions for one-year-ahead inflation expectations. There are no differences across treatments relative to the Control. The exception is in BankForecastCI, where participants assign higher probability to the range that inflation is above 12%. Overall, there does not appear to be large systematic differences in the priors across treatments.

Estimation results in Table 4 indicate that there are notable differences in inflation expectations across demographic groups as has already been documented in literature. Seniors and female participants form significantly higher inflation expectations. Participants with higher levels of education and income form lower inflation expectations and assign higher probability for inflation to be close to the inflation-target control range. Married participants also form higher inflation expectations.

People with higher levels of self-reported knowledge of inflation tend to have higher inflation expectations. However, those who have greater ease in expressing inflation as a number form lower inflation expectations, have lower uncertainty, and assign higher probability to inflation in the target range.

In Table B1, we observe that women assign less probability to the center of the distribution and higher probability to the right tail of the inflation distribution, ranges 8-12% and above 12%. Participants with higher levels of education and income tend to assign less probability to both left and right tails and higher probability to the center of their subjective inflation

distributions.

Seniors place significantly more probability on inflation in the 4-12% ranges and less to the deflation bins. Younger people, by contrast, place more probability on weak deflation and less probability on high inflation. These observations are consistent with evidence on differences in inflation expectations based on experienced inflation [Malmendier and Nagel, 2016].

Those who report that they understand inflation well place significantly higher probability on inflation being above 12% and lower probability to deflation in the -4 to -12% ranges. However, those who find it easy to express inflation as a number tend to assign higher probability for inflation to be close to the inflation-control range (2 to 4%) and less probability to inflation above 8%.

## 4 The effects of communicating about inflation on expectations

We present our findings in three parts. In this section, we show the causal effects of the information interventions on posterior expectations and evaluate the extent to which household characteristics mediate these effects. In Sections 5, 6 and Section 7, we provide a more detailed analysis of the effects of communicating ranges. In Section 8, we evaluate the effects of the information interventions on real spending decisions.

Survey respondents that were presented with inflation information were asked if they were already aware of the information before proceeding with follow-up questions regarding their expectations. A relatively small proportion of respondents, ranging between 8% and 35%, reported being aware of the presented information. Notably, there was significant variation in awareness levels across different information interventions and demographic groups (Figure 3).

Among the demographic groups, males, individuals with higher levels of education, and those with higher income levels more frequently reported being aware of the provided information. However, no consistent pattern of awareness was observed across age groups. Older respondents (aged 55+) displayed relatively higher awareness of past inflation compared with younger groups, which could potentially be attributed to their experiences with

high inflation episodes in the past [Malmendier and Nagel, 2011, Cavallo et al., 2017].

It is worth noting that despite the information being publicly available, the treatment information was novel to the vast majority of respondents. Furthermore, respondents demonstrated greater awareness of past inflation and the Bank’s inflation target compared with awareness of the inflation forecasts of the Bank and professional forecasters. Additionally, they exhibited higher awareness of the Bank’s inflation forecasts compared with forecasts of professional forecasters, suggesting that information from the Bank holds greater prominence and visibility among the Canadian public.

The middle panel of Table 3 provides summary statistics regarding the 1-year-ahead posterior inflation expectations of Wave 1 survey respondents, categorized by treatment. The bottom panel presents summary statistics for the same participants in Wave 2, as well as for a new control group that had not previously been surveyed. There are several important takeaways from this table.

- All information treatments lead to a reduction in 1-year-ahead inflation expectations, aligning them with the communicated information.
- The dispersion in inflation expectations among survey participants is reduced across all treatments. Standard deviations within treatment decline from 12-13pp in the prior expectations to approximately 8-10pp in the posterior expectations.
- The treatments also contribute to a decrease in individual uncertainty regarding expected inflation, with uncertainty levels declining from 6-7pp in the prior expectations to 4.5-5.5pp in the posterior expectations. In comparison, the control group experiences an increase in uncertainty from 6.4pp in the prior expectations to 6.73pp in the posterior expectations.
- The effects of information interventions do not persist over time in most treatments. The levels of 1-year-ahead inflation expectations, the dispersion among participants, and the uncertainty regarding expected inflation among those exposed to information interventions in Wave 1 are similar to those observed in the control group of Wave 1.

Figure 2 displays posterior expected probabilities assigned to different inflation ranges after respondents received information interventions. The figure also shows prior probability forecasts submitted by respondents before receiving any information. The posterior probability forecasts of the control group demonstrate the effects of repeating the same questions without any additional information. All information treatments shrink the tails of probability



distributions and shift them toward the ranges close to the provided information (0 to 4%). The effects are more pronounced when respondents are provided information about forecasts. In contrast, the forecasts of the control group remain largely unchanged.

Next, we use the following general econometric strategy to evaluate the impact of different treatments on participants' revisions of their views about inflation.

$$E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = a + b_0 Treatment_i + b_1 X_i + error_i \quad (2)$$

where  $E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior}$  is a measure describing the revision in 1-year-ahead inflation expectations by individual  $i$ , and the controls are the same as in Equation 1.

We estimate Equation 2 for several indicators describing revisions in respondents' posteriors about 1-year-ahead inflation expectations  $E_i Y_{1yr}^{posterior}$  relative to their priors  $E_i Y_{1yr}^{prior}$  (described in Section 3): point forecasts, mean and median expectations based on distributional questions, uncertainty about expected inflation, probability assigned to expected inflation being in the inflation target control range (0 to 4%), and posterior probabilities assigned to each bin in the distributional question.

Table 5 presents estimation results of Equation 2, examining the effects of the information interventions on the revisions of expectations. Columns (1) and (2) provide estimates of the treatment effects on the revisions of one-year-ahead inflation expectations. Columns (3) to (4) present estimates for the revisions of mean density expectations, columns (5) and (6) - median density expectations, columns (7) and (8) - uncertainty about inflation, columns (9) and (10) - probability of inflation in the range between 0 and t%. The odd-numbered columns presents estimates for revisions in Wave 1, and the even-numbered columns presents estimates for revisions in Wave 2 relative to the priors in Wave 1. Results for probability distribution can be found in Appendix B.

All information treatments have a significant impact on reducing both point and density expectations of one-year-ahead inflation in Wave 1. The effects range from approximately 0.2 percentage points (pp) in the case of PastInflation to 0.8pp in the case of ProfForecastRange. These effects remain statistically significant at the 1% level, even after accounting for demographic characteristics.

It is noteworthy that the information interventions related to the Bank of Canada's inflation

target, both with and without the target range, as well as information about past inflation, exhibit weaker effects on inflation expectations than information about forecasts. On the other hand, treatments involving information about inflation forecasts, from both the Bank of Canada and professional forecasters, demonstrate stronger impacts on inflation expectations. We provide more detailed analysis of these differences in Appendix C.

Participants who reported being aware of the information provided in BankTargetRange, BankForecast, BankForecastCI, and ProfForecastRange displayed significantly smaller revisions in their inflation expectations compared with their uninformed counterparts (Table 6). Additionally, participants with a larger knowledge gap regarding the Bank’s forecast consistently made larger revisions to their one-year-ahead inflation expectations. These findings align with the principles of Bayesian updating [Coibion et al., 2018] suggesting that beliefs adjust more if information presents larger novelty to the individual, although the magnitude of the updating is quite small in our estimations. In fact, the results indicate that for a 1 pp gap in knowledge, participants revised their inflation expectations by only 0.025 pp in BankForecast and 0.059 pp in BankForecastCI.

The effects of the information interventions are short-lived. In Wave 2, six months after the initial treatment, the expectations of most treatment groups do not show significant differences compared with the Control group, which did not receive any information in Wave 1. This lack of persistence in the effects of information treatments is a well-documented phenomenon in the literature [Blinder et al., 2022]. However, it is noteworthy that information specifically related to the Bank’s and professionals’ forecasts, when communicated with precision, leads to persistent revisions in inflation expectations, with adjustments of 0.56 and 0.65 percentage points, respectively.

All information treatments have a positive impact on reducing respondents’ uncertainty regarding their own inflation expectations. Column (7) demonstrates the immediate reduction in uncertainty following the treatment information in Wave 1, ranging from 0.2pp in BankTarget to 0.5pp in ProfForecastRange. While all information treatments effectively reduce inflation uncertainty, information about past inflation and the Bank’s target (range) reduces uncertainty by less than information about inflation forecasts from the Bank of Canada and professional forecasters.

However, we observe that the benefits of this information wear off completely at the aggregate level by Wave 2, except for the persistent impact of BankForecast and ProfForecastRange,

both of which reduce uncertainty by roughly 0.4pp. Additionally, we find that the impact of information treatments also decreases the incidence of rounding, serving as another proxy for subjective uncertainty [Binder, 2017]. Further details can be found in Appendix E.

Lastly, all information treatments lead to increase in the probability respondents assign to the range between 0 and 4% containing provided information. The impact of this probability ranges from 2pp in BankTarget to 6pp in BankForecastCI and ProfForecastRange. This happens as the probabilities assigned to both left and right tails are reduced after information interventions (for more details see Appendix B). However, the impact of information interventions on the probability distribution does not persist six months later (column (10) of Table 5).

Overall, our findings provide strong support for Hypothesis 1 in Wave 1. Information interventions effectively reduce the average level of inflation expectations, shift the subjective probability distribution towards the provided information ranges, and decrease individual uncertainty about inflation. However, the effects of the information interventions largely dissipate over time, with only sparse impacts remaining on the point forecasts, subjective probability distributions and uncertainty.

## 5 Communicating ranges and uncertainty

We experimentally varied the degree of precision of the communicated information in our inflation target and forecast information treatments to gauge the impact of imprecision and uncertainty - broadly speaking, ranges - on expectation formation. In this section, we document how the additional provision of ranges influences the revisions in posterior expectations, central bank credibility, and the link between inflation expectations and uncertainty.

### 5.1 Effects on inflation expectations

We use the following general econometric strategy to evaluate the impact of communicating uncertainty on the revisions in participants' views about inflation:

$$E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = a + b_0 Range_i^T + b_1 X_i + error_i \quad (3)$$

where  $E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior}$  is a measure describing the revision in 1-year-ahead inflation expectations in Wave 1 and Wave 2, as used and described in equation (2) and  $X_i$  is a matrix

of controls as in Equation (1).

We introduced a binary variable,  $Range_i^T$ , which takes the value of 1 for the treatments involving ranges, and 0 otherwise.<sup>1</sup> We conducted separate regressions for each type of information provided - the Bank’s target, the Bank’s forecast, professional forecast - and a pooled analysis of both targets and forecasts (all). We defined  $T$  to represent different types of information presented with and without ranges:  $T = \{All, BankTarget, BankForecast, ProfForecast\}$ . In Table 5, Panel B, we present the results for revisions in 1-year-ahead inflation expectations, while Table B2, Panels A and B, present the results for revisions in probability distribution. The reported coefficients indicate the estimated additional revision attributed to the inclusion of a range around the communicated statistic.

The communication of a range does not diminish the extent to which Wave 1 participants adjust their expectations downward following an information intervention (Column 1). Furthermore, when Bank forecasts are presented with a confidence interval, there is an increase of 2.8 percentage points in the probability Wave 1 participants’ assign to the targeted range of 0-4% (Column 9). Overall, the communication of ranges does not significantly affect respondents’ uncertainty about inflation (column (7) of Panel B in Table 5). When information is presented with ranges, the probability assigned to range of inflation between 0 and 4% is higher by 1.8pp. This impact comes from communicating BankForecast with confidence interval (increase of 2.8pp) and ProfForecast with range (increase of 3.4pp) (Column (9) of Table 5).

The communication of ranges has an impact on respondents probability distribution for expected inflation - by shrinking its right tail and increasing mass in the range between 2% and 4%. When a range is included in the provided information, there is an overall increase of 2.6 percentage points in the probability that respondents assign to inflation range between 2% to 4% (Table B2). Communication of ProfForecastRange increases this probability by 3.7pp (Column (7) in Panel A of Table B2). Simultaneously, the inclusion of a range in the communication prompts respondents to reduce the probability mass they assign to the upper tail of their inflation expectations. Specifically, the inclusion of a range leads to an additional decrease of 2.4pp in the mass assigned to the "above 12%" category, with reductions of 3.1 percentage points in BankTarget and 3.1 percentage points in ProfForecast (Column (10)). Finally, the provision of information regarding ranges does not have a substantial or

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<sup>1</sup>We exclude PastInflation data from our analysis as it did not have complementary information about a range.

consistent impact on the weight assigned to negative inflation.

Does prior uncertainty influence the responsiveness of respondents’ posterior uncertainty to communication with a range? To explore this, we plot the relationship between respondents’ initial uncertainty and their revision in uncertainty, considering the precision of the provided information. We use a fractional polynomial fit to capture this relationship, and the mean estimate is accompanied by 95% confidence intervals. Figure 4 depicts a downward-sloping relationship between initial uncertainty and revisions in uncertainty, suggesting that respondents with greater initial uncertainty revise their inflation expectations downwards more.

To formally address this question, we estimate the following general specification:

$$E_i iqr_{1yr}^{posterior} - E_i iqr_{1yr}^{prior} = a + b_0 E_i iqr_{1yr}^{prior} + b_1 Range_i^T + b_2 Range_i^T \times E_i iqr_{1yr}^{prior} + b_3 X_i + error_i \quad (4)$$

The results for Wave 1 are presented in Table 7 in odd-numbered columns, and the results for Wave 2 - in even-numbered columns. We consistently observe a greater downward revision in uncertainty among respondents who exhibited higher levels of uncertainty regarding their prior one-year ahead inflation expectations. Presenting a range does not have a significant effect on respondents with low levels of uncertainty. In fact, for those with the lowest levels of uncertainty in the BankForecast treatments, presenting a range actually increases their posterior uncertainty by 0.369pp. However, the inclusion of a range leads to a notable reduction in uncertainty for respondents with higher levels of initial uncertainty (coefficient on interaction term of -0.02), particularly when the Bank’s forecast is presented with a confidence interval (coefficient of -0.238). The impact of communicating ranges on people with highest prior uncertainty persists six months later (column 2) driven mostly by communicating BankForecast with confidence interval (coefficient on interaction term of -0.17). However, being exposed to information about BankTarget with range increases uncertainty in Wave 2 among those with higher prior uncertainty (column (4), coefficient of 0.04).

## 5.2 Effects of communicating ranges on central bank credibility

Central banks face a significant trade-off between focusing the public’s limited attention on a specific inflation point statistic and establishing and preserving credibility by communicating the inherent uncertainty in inflation. In this section, we investigate whether the communication of ranges enhances the credibility of the information provided. We examine two dimensions of credibility: credibility in the mid-point of the communicated range and

credibility in the range itself.

Table 8 documents the proportions of participants whose one-year ahead inflation forecast aligns with the (midpoint of the) communicated information, as well as the proportion of participants whose expectations fall within the provided range. To provide a benchmark, we also include the proportion of participants whose expectations fall within the relevant range, even if they did not receive explicit information about the range.

First, it is worth noting that none of the respondents in the PastInflation treatment forecasted the most recent past inflation statistics as their one-year-ahead prior inflation expectation. Additionally, only two out of 637 respondents used the most recent past inflation as their posterior expectation. This suggests that there was limited reliance on recent inflation episodes when forming expectations.

Second, all other information interventions led to an increase in the proportion of respondents who forecasted the precise communicated information, ranging from 8 to 25 percentage points. The PastInflation and ProfForecastRange treatments exhibited the least anchoring, while the BankForecast and BankForecastCI treatments demonstrated the highest level of anchoring.

Third, our findings indicate that a significant majority of participants do not simply *parrot-back* the communicated information when providing their posterior forecast. Instead, they take into account both the communicated information and their prior expectations when revising their inflation expectations.

In order to assess the impact of communicating uncertainty on the credibility of the provided information, we employ a general probit regression model as follows:

$$\mathbb{1}_{i,t}^Y = a + b_0 E_{i,t} Range_i^T + b_1 X_i + \epsilon_{i,t} \quad (5)$$

Here,  $\mathbb{1}_{i,t}^Y$  represents one of two indicator variables. The first indicator,  $\mathbb{1}^{midpoint}_{i,t}$ , takes a value of 1 if the respondent's forecast is equal to the midpoint and 0 otherwise. The second indicator,  $\mathbb{1}_{i,t}^{inrange}$ , is equal to 1 if the respondent's forecast falls within the range of the information intervention, and 0 otherwise. Equation 5 is estimated separately for treatments with and without a range (BankTarget, BankForecast, and ProfForecast), as well as a pooled regression combining all six treatments. The estimation results are presented in Table 9. We

present estimation results for all respondents and for those with priors outside of communicated ranges. Respondents whose prior expectations were outside the informed ranges may be more inclined to revise their expectations in line with the communicated information. Panel A presents results for Wave 1, Panel B - for Wave 2.

Our analysis reveals that the inclusion of ranges has limited impact on the credibility of the communicated midpoint or range. Specifically, when a range is presented alongside information about the Bank’s inflation target or inflation outlook, the credibility of the midpoint remains unaffected. However, presenting a range of outlooks together with the mean professional forecast leads to a significant decrease in the credibility of the midpoint, with a reduction of 5.85 percentage points in the likelihood of forecasting the midpoint accurately.

Regarding the credibility of the range itself, the communication of ranges does not substantially improve its perception overall. Although respondents are, on average, 2.5pp more likely to forecast within the communicated range, this effect is primarily driven by the BankForecast treatments. Notably, respondents are 5 percentage points more likely to forecast within the communicated range when presented the Bank’s outlook with the confidence interval.

Similar patterns emerge when focusing on respondents whose prior expectations fall outside of the communicated ranges. The communication of ranges does not lead to increased anchoring of expectations on the midpoint. In fact, in the case of the ProfForecastRange treatment, it results in a decrease of 4.95 percentage points in the probability of anchoring on the midpoint. However, it does increase the likelihood of respondents’ posterior expectations falling within the communicated range in both the BankTargetRange and BankForecastCI treatments by approximately 5 percentage points (columns 14 and 15). None of the described effect persist six months later in Wave 2 (Panel B of Table 9).

### **5.3 Effects on the link between uncertainty and the level of inflation expectations**

In this section, we examine the relationship between uncertainty and inflation expectations and assess the extent to which information interventions can weaken this relationship.

[Reiche and Meyler \[2022\]](#) identify a positive association between survey respondents’ rounding behavior (a proxy for subjective uncertainty in point forecasts) and the level of their

inflation expectations. To assess the quantitative relevance of the relationship between uncertainty and inflation expectations, we utilize respondents' uncertainty about one-year ahead inflation from the inter-quartile range of their probabilistic expectations. To the best of our knowledge, our study provides the first assessment of this relationship for consumer expectations. We explore the link between rounding and uncertainty measured by IQR of subjective distribution in Appendix E.

More formally, we estimate the following specification for households' prior expectations:

$$E_i\pi_{1yr}^{prior} = a + b_0\text{Treatment}_i + b_1E_i\text{iqr}_{1yr}^{prior} + b_2X_i + \text{error}_i \quad (6)$$

To further evaluate the impact of the information treatments on the link between the level of expected inflation and uncertainty about it, we estimate the following specification on the level of posterior inflation expectations:

$$E_i\pi_{1yr}^{post} = a + b_0\text{Treatment}_i + b_1E_i\text{iqr}_{1yr}^{post} + b_2\text{Treatment}_i \times E_i\text{iqr}_{1yr}^{post} + b_3X_i + \text{error}_i \quad (7)$$

Panel A of Table 10 presents the estimation results for equation (6) in Column (1) and equation (7) in Column (2). The findings reveal a statistically significant positive association between the level of inflation expectations and uncertainty regarding expected inflation, both in the prior and posterior expectations. Specifically, in Column (1) of Table 10, we observe that a 1 percentage point increase in uncertainty corresponds to a 0.39 percentage point increase in inflation expectations. Similarly, in the control group, as shown in Column (2) of Table 10, we find a comparable link of 0.33.

A novel finding from our experiment is that specific information interventions can weaken the relationship between uncertainty and the level of expectations (Column (2) in Table 10). The interaction terms between treatment and posterior uncertainty are negative for all treatments except PastInflation. This implies that information related to inflation targets and inflation outlooks effectively reduce the link between uncertainty and expected inflation, bringing it closer to zero based on the combined impact of the coefficient of 0.332 on uncertainty and the negative coefficient on the interaction terms between treatment and uncertainty (ranging from 0.268 to 0.337 for the priors). These findings also suggest that the influence of treatment information on the level of inflation expectations is particularly pronounced for respondents who initially exhibit higher uncertainty in their inflation forecasts. Specifically, for each additional percentage point in uncertainty, we observe a roughly 0.3 percentage point decrease in inflation expectations after exposure to most of the information



treatments. In other words, participants with higher posterior uncertainty about inflation are more susceptible to the influence of information on their inflation expectations. Very interestingly, this impact continues to persist six months later!

Next, we examine the impact of communicating with range on the link between expected inflation and uncertainty about it using the following framework:

$$E_i\pi_{1yr}^{post} = a + b_0\text{Range}_i^T + b_1E_i\text{iqr}_{1yr}^{post} + b_2\text{Range}_i^T \times E_i\text{iqr}_{1yr}^{post} + b_3X_i + \text{error}_i \quad (8)$$

The estimation results of equation (8) are presented in Panel B of Table 10. We distinguish between the overall effect of communicating a range on the level of expectations and its effect on the link between uncertainty and posterior inflation expectations.

In general, we find that communicating ranges reduces the level of posterior inflation expectations by an average of 0.18 percentage points. However, when we specifically consider the communication of ranges (Column 4), we observe a different pattern - the additional communication of ranges strengthens the link between posterior inflation expectations and uncertainty. This result is driven by communication of a range around the Bank’s target (column 5). This indicates that communicating the Bank’s inflation target precisely has stronger anchoring effects for less confident respondents. The communication of ranges reduces the link between uncertainty and the level of inflation expectations (column (8)), mostly on communicating with ranges about BankTarget and BankForecast. Providing range of professional outlooks strengthens this link, on the other hand (column 11).

Overall, information interventions anchor inflation expectations more effectively among more uncertain respondents both immediately and six months later. But communication with ranges tends to have weaker anchoring effect immediately on more uncertain respondents, and stronger effect in the follow-up survey.

## 6 Demographic differences in response to communicating with uncertainty

Does it matter *who* uncertainty is communicated to? Do specific demographic groups become less confident in their inflation expectations or show a weaker response to information when presented with imprecisely communicated inflation statistics?

We estimate the following equation to assess whether the impact of communicating with a range differs across demographic groups:

$$E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = a + b_0 Range_i + b_1 Range_i \times Demographic_i + b_2 X_i + \epsilon_{i,t} \quad (9)$$

where  $Demographic_i$  is a demographic characteristic of individual  $i$ . We estimate this equation by focusing at interaction with one of demographic characteristics at a time, either gender, age, education or income.  $Y_{i,t}$  is our set of dependent variables described earlier. The estimation results can be found in Appendix D, Tables D1 - D4.<sup>2</sup>

In Wave 1, the effects of communicating ranges on expectations are generally consistent across demographics. One exception is that the least educated respondents' inflation expectations adjust their inflation expectations downward by roughly 1 percentage point less when presented the range of professional forecasts (Table D2, Column (1)).

In Wave 2, the interaction between demographics and precision in communication becomes more significant. Age and education, in particular, play a meaningful role in the persistence of the impact of communicating ranges. Analysis from Tables 4 and B1 reveals that young respondents had initially formed more anchored inflation expectations prior to the information intervention, with a lower mass assigned to the right tail and a higher mass assigned to the targeted range and deflationary outcomes in their probabilistic distributions. Overall, even in Wave 2, young respondents continue to maintain more anchored low inflation expectations, but this is only the case when they are presented with precise inflation statistics (Table D1, Column (2)). Comparatively, across all treatments, young respondents' inflation expectations are, on average, 1.46 percentage points lower than those of prime-aged respondents when precise statistics are provided. However, communicating a range to young respondents offsets this anchoring effect, except for the ProfForecastRange treatment, where there is a persistent positive benefit observed. In this case, young respondents who received both the precise professional forecast and the range were 24.5 percentage points more likely to forecast within the targeted range (Column (10)), but their inflation expectations increased by 3 percentage points (Column 2).

Furthermore, we find long-term persistent benefits to precise communication for respondents with the respondents with the lowest levels of education. These individuals continue to re-

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<sup>2</sup>We have also looked into the differences of impact of information interventions for each treatment by demographic characteristics:  $E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = \alpha + \beta_0 Treatment_i + \beta_1 Treatment_i \times Demographic_i + \beta_2 X_i + \epsilon_{i,t}$ . These results are presented in Appendix D in Tables D1 - D4

vise their Wave 2 inflation expectations downward by an average of 1.3 percentage points when presented with precise inflation statistics (Table D2, Column (2)). This result is primarily driven by the BankForecast and ProfForecast treatments. However, communicating ranges to respondents with the lowest levels of education significantly offsets most of these anchoring effects, especially in the BankTarget and ProfForecast treatments. Additionally, communicating the Bank’s inflation target with a range increases these respondents’ uncertainty about inflation by 1.1 percentage points.

In summary, our analysis of demographic responses to statistical uncertainty suggests that precise communication is valuable for achieving persistent anchoring of expectations among young and people with lower levels of educational attainment. These demographics are more likely to remember inflation information six months later when it is presented in a precise manner.

## **7 Effect of pandemic severity on response to communicating with uncertainty**

We next investigate whether the effects of communicating with uncertainty differ in regions with higher levels of background uncertainty related to the COVID-19 pandemic. Uncertainty related to the pandemic may be relevant as our survey took place in April-May 2020 (Wave 1) and December 2020 (Wave 2). We consider two contrasting perspectives. Firstly, it is possible that communicating uncertainty is seen as more credible among individuals experiencing heightened uncertainty. Secondly, information interventions may have reduced immediate effectiveness and memorability in the presence of greater health uncertainty, suggesting that precise communication could have more long-lasting effects.

There was significant regional variation in the incidence of COVID-19 cases and deaths across different regions in Canada. During weeks 15-19 of 2020 (April-May 2020, Wave 1 of our survey), the number of cases per 100,000 people ranged from 5,516 in B.C. to 10,055 in Alberta, indicating a difference of 4.5 percentage points between the least and most affected regions. Similarly, in terms of death rates, there were 26 deaths in Atlantic Canada and 143 deaths in Quebec per 100,000 people, representing a difference of 0.12 percentage points. This variability in the severity of COVID-19 provides an opportunity to examine whether communicating uncertainty in inflation statistics is more or less effective in regions experiencing heightened uncertainty unrelated to inflation.

Panel A of Table [D10](#) and [D11](#) present the effects of a 1 percentage point increase in COVID-19 cases and COVID-related deaths on inflation expectations, respectively. Regions with higher numbers of COVID-19 cases had significantly higher prior point inflation expectations and greater uncertainty. Specifically, compared with B.C. (lowest rate of cases), the inflation expectations of Albertans were approximately 0.95 percentage points ( $0.212 \times 4.5$  percentage points) higher, and their uncertainty was 0.47 percentage points ( $0.104 \times 4.5$  percentage points) higher. Additionally, Albertans were 3.3 percentage points ( $-0.741 \times 4.5$  percentage points) less likely to forecast within the targeted range.

The impact of COVID-related deaths on prior inflation expectations was inconsistent across regions, but it had a stronger effect on respondents' uncertainty about inflation. The difference in death rates between Atlantic Canada and Quebec resulted in a 0.59 percentage point ( $4.885 \times 0.12$  percentage points) difference in uncertainty.

To assess whether the impact of communicating with a range is affected by the severity of the pandemic, we estimate the following specification:

$$E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = \alpha + b_0 Range_i^T + b_1 Range_i^T \times COVID_i^{province} + b_2 X_i + \epsilon_{i,t} \quad (10)$$

where  $COVID_i^{province}$  represents the rate of COVID cases or the rate of COVID-related deaths in the province of individual  $i$  during the period when the Wave 1 survey took place (weeks 15 to 19 of 2020).  $Y_{i,t}$  denotes the set of dependent variables discussed earlier. The estimation results of Equation (10) are presented in Panel B of Table [D10](#) for COVID rate of cases in percent and in Panel B of Table [D11](#) for COVID-related rate of deaths in percent.

In general, we find that increased regional exposure to COVID-19 did not have a significant impact on revisions in inflation expectations or uncertainty about inflation. The revisions in point inflation expectations in both Wave 1 and Wave 2 were not consistently affected by the level of COVID exposure. Similarly, revisions in uncertainty were mostly unaffected by the number of COVID cases.

However, we do observe a notable effect of COVID exposure on respondents' probability of forecasting within the targeted range. Specifically, we find that communicating professional forecasts with a range is more effective at anchoring Wave 1 inflation expectations within the targeted range for respondents from regions with fewer COVID cases or related deaths.

Column (14) of both tables shows that respondents from these regions assign less weight to the targeted range when presented with a range of outlooks. This suggests that precise communication is more effective when respondents are immediately facing heightened background uncertainty.

In Wave 2, we observe that respondents who received precise Bank or Professional forecasts are more likely to forecast within the targeted range (Column (15)). However, when the uncertainty surrounding the Bank’s forecast is communicated, it offsets the anchoring effect, suggesting that this information is less memorable. Interestingly, COVID exposure during Wave 1 also plays a role in the persistence of information. Respondents from regions with higher COVID cases assigned significantly less probability within the target range (0 to 4%) if they were presented with a precise Bank forecast. However, COVID exposure did not have a significant impact on respondents’ revisions if they were presented with the Bank’s uncertainty around its inflation outlook.

## 8 The role of inflation expectations in spending plans

We have documented that information about inflation can have an immediate impact on inflation expectations. In macroeconomic models, it is widely recognized that inflation expectations play a crucial role in shaping consumption behavior and expected growth in consumption. In our survey, we collect participants’ expectations regarding the growth of nominal household spending (question is included in the Appendix A). In this section, we investigate the relationship between expected inflation and expected spending. Our empirical strategy is based on the approach in Coibion et al. [2022b]. While Coibion et al. [2022b] estimate the effects of information interventions on the level of nominal spending, we estimate impact on the expected real spending growth:

$$E_i RSpending_{1yr}^{post} = a + b_0 E_i \pi_{1yr}^{post} + b_1 E_i \pi_{1yr}^{prior} + b_2 X_i + error_i, \quad (11)$$

where  $E_i RSpending_{1yr}^{prior}$  is the expected real spending growth computed as the difference between expected nominal household spending growth over the next 1 year and expected inflation in 1 year (this approach is used in Crump et al. [2022]).  $E_i \pi_{1yr}^{posterior}$  is computed using an instrumental variable approach as in Coibion et al. [2022a] based on the following equation:

$$E_i\pi_{1yr}^{post} = a + b_0E_iTreatment_i + b_1E_i\pi_{1yr}^{prior} + b_2X_i + error_i, \quad (12)$$

The instrumental variable (IV) approach we employ in our analysis helps mitigate the concern of endogeneity between expected spending and expected inflation. Endogeneity arises from the potential feedback loop between these two variables, as higher expected inflation may prompt participants to adjust their spending behavior, while changes in spending patterns can also be perceived as influencing inflation expectations. It is important to note that our analysis does not aim to estimate an Euler equation, which typically models the intertemporal relationship between consumption growth and expected inflation. Instead, our focus lies in examining the relationship between expected inflation and expected spending while addressing endogeneity concerns using instrumental variables. The estimation results are presented in Table 11 Panel A for Wave 1 and Panel B for Wave 2.

Table 11 provides evidence of a negative link between expected inflation and spending growth, as indicated in Column (1) of Panel A. Specifically, a 1 percentage point increase in expected inflation is associated with a decline of 0.146 percentage points in expected spending growth. This negative relationship aligns with findings from other surveys, such as Crump et al. [2022], which also report a negative link between expected inflation and real expected spending growth. Additionally, studies like Coibion et al. [forthcominga] observe that higher inflation expectations are associated with lower purchases of durables, while Binder and Brunet [2022] find a negative relationship between expected inflation and expected spending on cars.

Our analysis investigates the differential impact of information interventions on the link between inflation expectations and spending plans. To examine this, we estimate Equation (11) separately for the control group and each treatment group. The estimation results are presented in columns (2) to (9) of Panel A for Wave 1 and columns (12) to (20) of Panel B for Wave 2 in Table 11. To further explore the impact of communication with uncertainty, we then extend the estimation by including an interaction term between  $Range_i^T$  and  $E_i\pi_{1yr}^{post}$  in Equation (11). This allows us to assess how the presence or absence of uncertainty in the information intervention affects the relationship between inflation expectations and spending plans. The estimation results incorporating the interaction term are presented in Column (10) and (20) of Table 11.

In the control group, higher expected inflation is linked with lower expected spending growth. The control group decreases its spending by 0.58 percentage points for each percentage point

higher inflation expectations. Communication about past inflation and communication with ranges – BankTargetRange, BankForecastCI, and ProfForecastRange – eliminates this link.

Communication of information about inflation without uncertainty fosters a much stronger link between expected inflation and spending growth compared with communication of inflation with uncertainty. In precisely communicated treatments such as BankTarget, BankForecast, and ProfForecast, the coefficients on inflation expectations are negative and statistically significant, indicating a robust negative relationship between expected inflation and spending growth.

Among the treatments, those that provide information about the Bank’s forecast and professional forecasts are particularly effective in influencing the link between expected inflation and spending. On the other hand, information about the Bank’s target is less effective both in terms of the magnitude of the effect and the level of statistical significance. This suggests that forecasts of inflation are more easily utilized when forming inflation and spending expectations, while the Bank’s target may be less straightforward to incorporate into expectations about real spending growth.

Overall, our findings indicate that communication of inflation information without uncertainty has a stronger impact on shaping the link between expected inflation and spending compared to communication with uncertainty or ranges. The treatments involving the Bank’s forecast and professional forecasts demonstrate the most pronounced effects in this regard.

Our findings, as summarized by the pooled regression in Column (10) of Table 11, suggest that communicating inflation with uncertainty completely offsets the negative link between inflation and spending expectations, a key channel in the transmission of monetary policy, bringing it to zero. This result implies that the inclusion of uncertainty in the communication of inflation information may introduce complexity that consumers find challenging to effectively incorporate their views about inflation into their spending plans. Kumar et al. [2022] highlight the negative consequences of providing macroeconomic information with uncertainty on firm’s economic decisions. In their survey experiment, the authors provide information about *economic growth* with different degrees of uncertainty and find that higher uncertainty leads to lower prices, employment, investment and sales of the firms.

The impact of communicating with uncertainty, however, disappears six months later - Panel B, column (20) of Table 11 - as interaction term is insignificant. The link between expected

spending and inflation is significant in BankTargetRange, BankForecast and BankForecastCI as there is no longer negative impact of communicating with uncertainty on this link. In other words, negative impact of communication with uncertainty wears off in BankTargetRange and BankForecastCI.

We speculate that the cognitive burden associated with information communicated with uncertainty makes it difficult for consumers to use this information when making consumption decisions. The additional cognitive effort required to process and interpret uncertain information may hinder their ability to form a clear expectation of how inflation will impact their future spending. As a result, the link between expected inflation and spending becomes attenuated or even eliminated.

These findings highlight the importance of considering the cognitive load and ease of use of information when designing communication strategies regarding inflation. Simplifying the presentation of inflation information, such as providing clear and concise forecasts without explicit uncertainty measures, may enhance consumers' ability to incorporate the information into their decision-making process effectively. By reducing cognitive burdens, policymakers and communicators can improve the effectiveness of information interventions in shaping consumers' spending expectations.

## 9 Discussion

The recent COVID-19 pandemic and the subsequent surge in inflation present challenges for central banks and policymakers as they strive to manage inflation expectations and ensure economic stability. Adapting communication strategies to effectively address uncertainties and provide timely and relevant information remains a crucial task in maintaining public confidence and supporting informed decision-making.

This paper examines the value of direct communication to households about inflation and the uncertainty around inflation statistics. All types of information about inflation are effective at managing inflation expectations, with more relevant information about outlooks more effective than information about recent inflation and Bank targets. We observe no downside to communicating uncertainty on the level of and uncertainty about expected inflation, and positive effects on the distributional inflation expectations being more centered around the communicated ranges. However, communication with uncertainty weakens the link between



expected inflation and spending plans, a key channel in the transmission of monetary policy. [Kumar et al. \[2022\]](#) also highlight the negative consequences of providing macroeconomic information with uncertainty on firm’s economic decisions.

Our paper contributes to a long-running debate on the role of precision in the design of inflation targets and projections. [Ehrmann \[2021\]](#) provides cross-country evidence that expectations of professional forecasters are sometimes better anchored when central banks communicate explicitly tolerance ranges around their point inflation targets. [Castelnuovo et al. \[2003\]](#) find no discernible differences in the management of long-term expectations using inflation target with or without ranges. However, [Grosse Steffen \[2021\]](#) find better anchoring properties of point targets for longer-term expectations. In laboratory macroeconomies with small shocks, [Cornand and M’baye \[2018\]](#) observe better anchored inflation expectations (at the cost of more unanchored output gap expectations) when targets include a tolerance range. There are no significant differences in expectation formation when shocks are relatively large. When it comes to the design of inflation projections, laboratory evidence shows benefits of communicating outlooks precisely [[Rholes and Petersen, 2021](#), [Petersen and Rholes, 2022](#)].

[Blinder et al. \[2022\]](#) surveys the extensive heterogeneity in monetary policy knowledge across socioeconomic groups and documents the challenges that central banks face when communicating with the general public. A frustrating results is that the effects of information typically fade over time in survey experiments. For example, [Coibion et al. \[2023\]](#) note that people quickly forgot information about the Federal Reserve’s announcement about their recent move to average inflation targeting. We also observe that expectations are not significantly different between our treatment and control groups in most cases during our follow-up survey six months later. The exceptions are precisely communicated inflation outlooks by the Bank of Canada and professional forecasters. This persistent effect of precise information is more pronounced among respondents with lower levels of education, and highlights the value of relevant and easy-to-use information.

An alternative approach to improving retention is to provide more context behind the communication. [Ehrmann et al. \[2023\]](#) show evidence from a recent E.C.B. survey experiment that the positive anchoring effects of central bank communication about inflation targets can persist six months later when it is supplemented with more economic background, such as explanation of how inflation targeting helps to stabilise the economy and contributes to economic growth and employment. Otherwise repeat messaging may be necessary for

the longer-term management of expectations. Repeat messaging not only comes with a pecuniary cost, but also has the consequence of creating desensitization and mis-processing of information. [Lu et al. \[2015\]](#) document an inverted U-shape relationship between repetition and revision in beliefs. Moreover, the demographics whose expectations are most un-anchored (lower income, younger people, females) are also the ones to also report experiencing more information overload, especially when it is obtained over the computer or social media [[Holton and Chyi, 2012](#)].

We conclude by pointing to some fruitful areas for future research. There are many ways to communicate uncertainty, for example with more words indicating risks and uncertainty [[Cieslak et al., 2021](#)], visually with box and dot plots as well as projections with densities. [Bholat et al. \[2019\]](#) show that visuals were more effective at improving comprehension than written summaries of the Bank of England’s Inflation Report. Research exploring how people respond to these different presentation styles will further our understanding of how policymakers can more effectively communicate with the public. Public perceptions of and attitudes towards the central bank can influence the success of monetary policy. In uncertain times, being vague about objectives and outlooks can help to improve credibility and may be a useful strategy [[Stein, 1989](#), [Salle et al., 2019](#), [Jia and Wu, 2022](#)].

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# Figures and tables

Figure 1: Comparison of one-year-ahead inflation expectations in our survey (Nielsen Home-scanner, priors), FRBNY SCE and CSCE

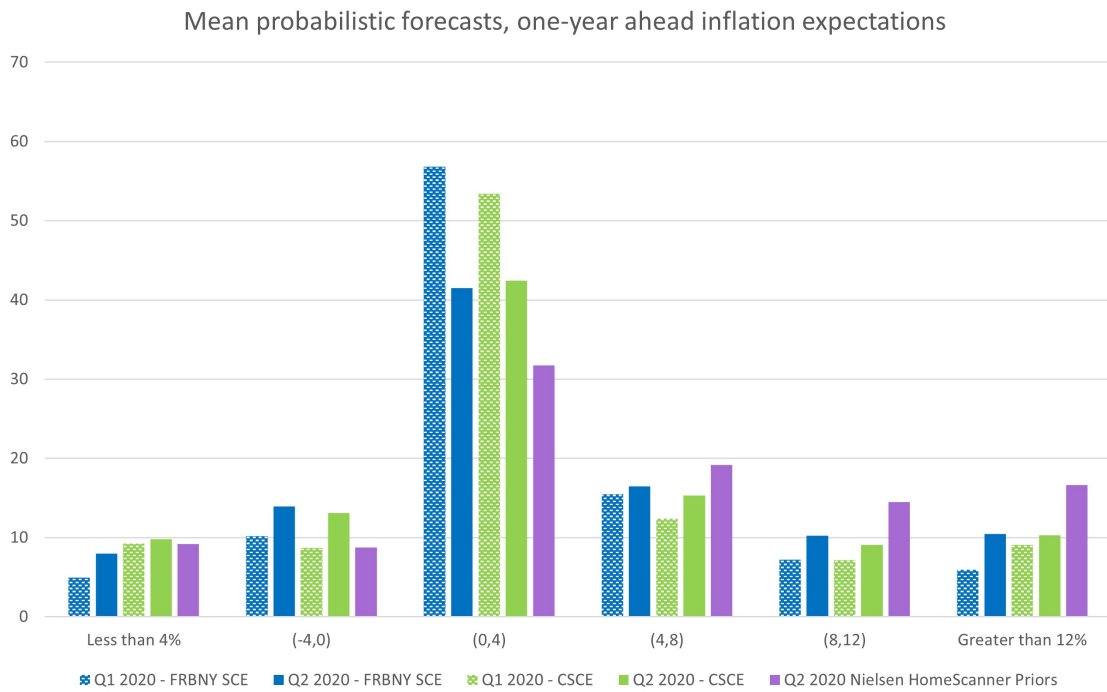
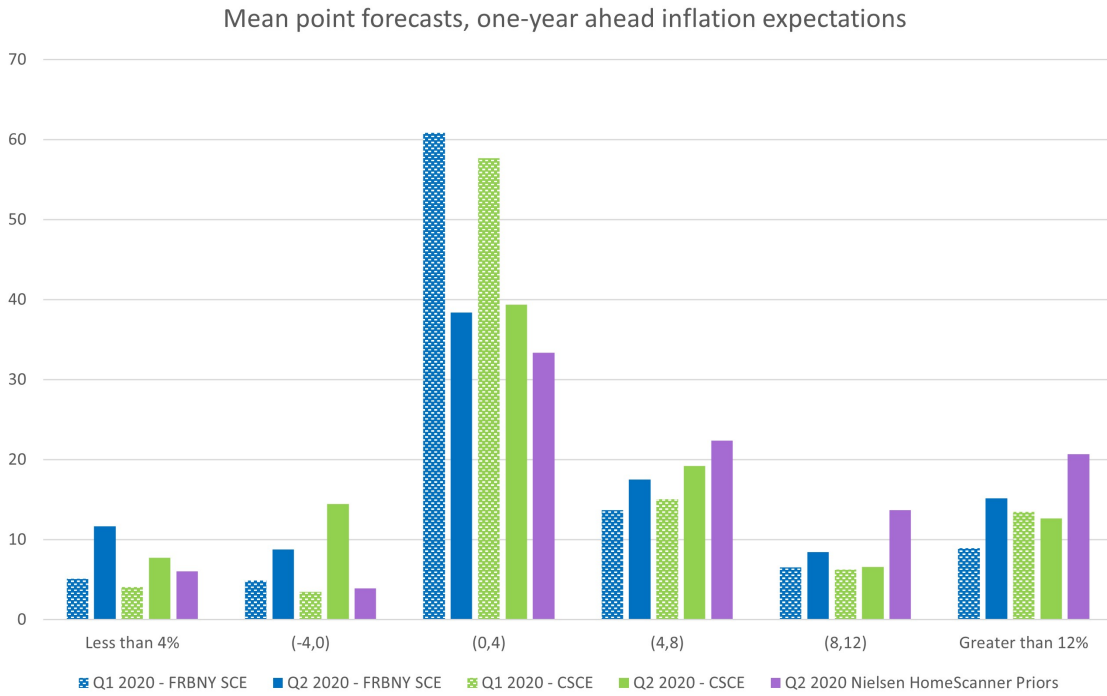


Figure 2: Expected probability distribution for one-year-ahead inflation, posteriors by treatment compared with priors

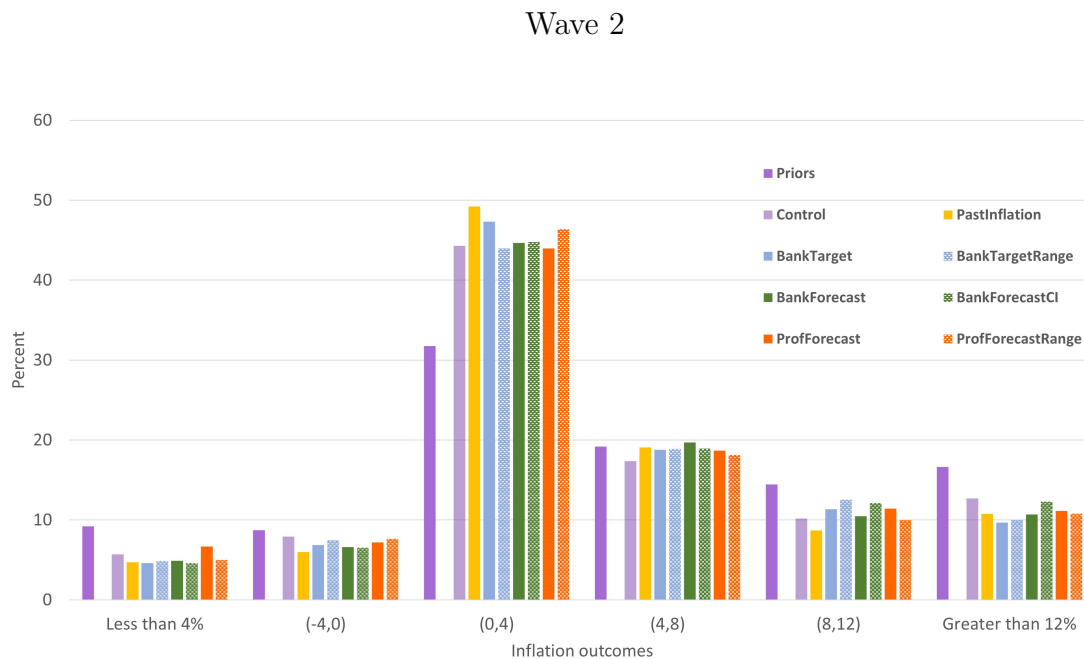
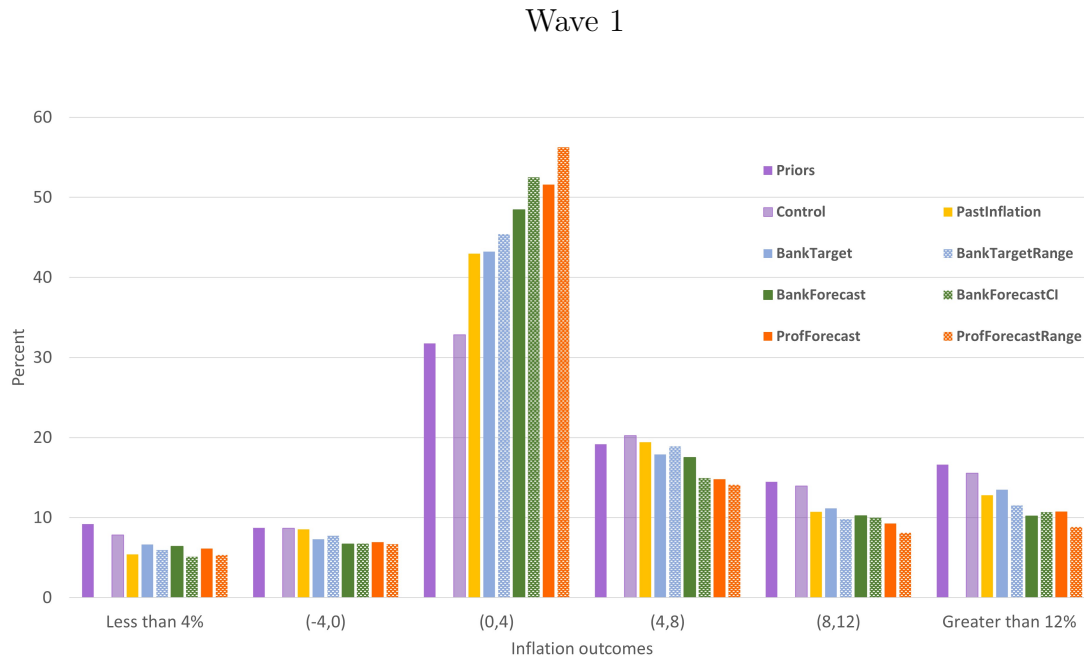




Figure 3: Proportions of participants who reported to be aware of the intervention information

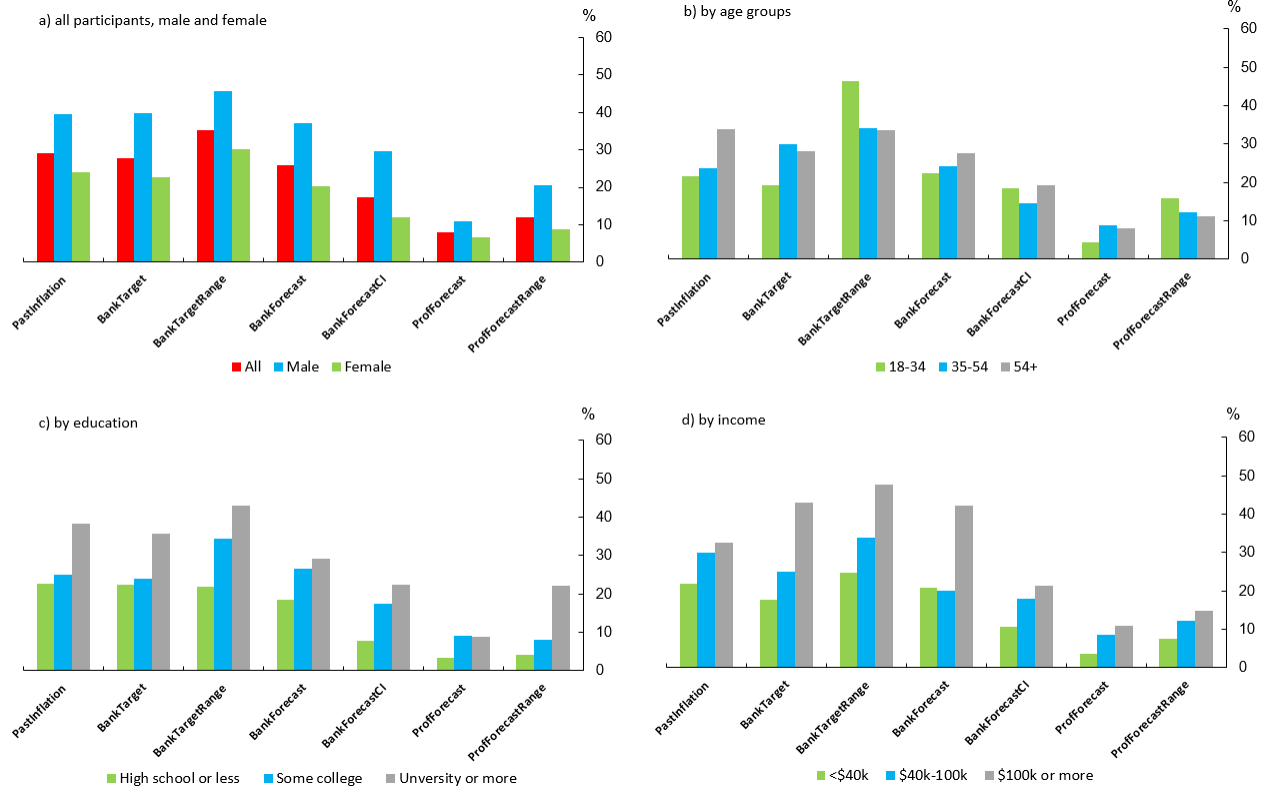


Figure 4: Communication of ranges and uncertainty

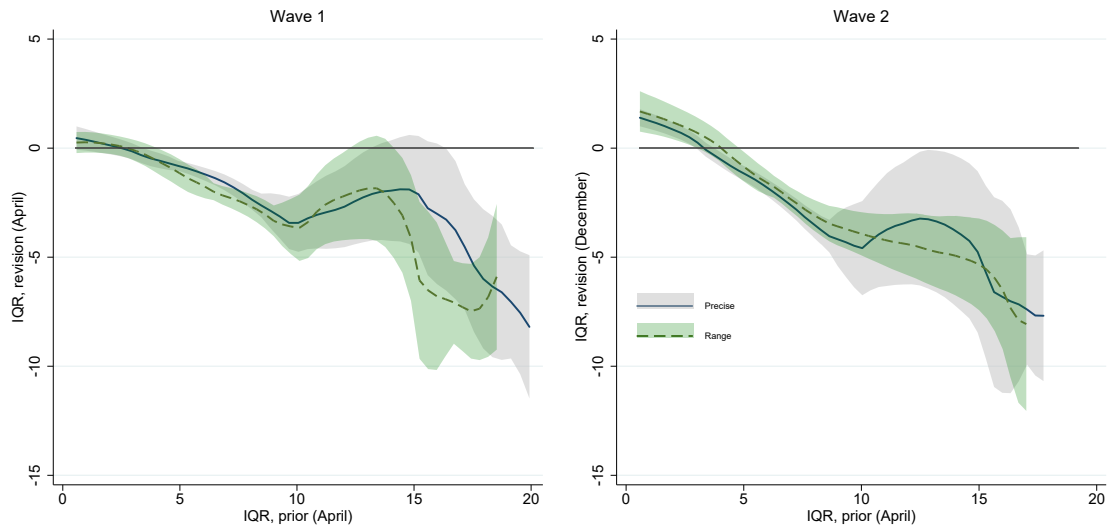


Table 1: Summary of information interventions

Treatment	Summary	Information
T1 – PastInflation	Past inflation over the last 12 months	“On average during the last year, January 2019 to January 2020, yearly inflation in Canada was 1.9%”
T2 – BankTarget	The Bank of Canada’s inflation target	“The Bank of Canada’s inflation target is 2%”
T3 – BankTargetRange	The Bank of Canada’s inflation target with the inflation target control range	“The Bank of Canada’s inflation target is 2% with a range between 1% and 3%”
T4 – BankForecast	The Bank of Canada’s inflation forecast over the next year	“According to the Bank of Canada, inflation is forecasted to be around 2% over the next year”
T5 – BankForecastCI	The Bank of Canada’s inflation forecast with a confidence interval	“According to the Bank of Canada, inflation is forecasted to be around 2% over the next year with a 90% chance of being between 1.4 and 2.6%”
T6 – ProfForecast	The mean professional forecast of inflation over the next year	“According to Canadian professional forecasters, inflation is forecasted to be 1.7% over the next year”
T7 – ProfForecastRange	The mean and range of professional forecast of inflation over the next year	“According to Canadian professional forecasters, inflation is forecasted to be 1.7% over the next year, with forecasts ranging from 1.2% to 2.1%”

Table 2: Summary statistics about demographic composition

	PastInflation	BankTarget	BankTarget Range	BankForecast	BankForecast CI	ProfForecast	ProfForecast Range	Control	Wave 2 only
<b>Age</b>	55.18 (14.14)	54.23 (14.29)	53.54 (14.65)	55.21 (13.82)	53.00 (14.56)	53.83 (14.59)	53.99 (13.60)	55.02 (14.02)	51.48 (14.54)
<b>Female</b>	0.67	0.69	0.67	0.66	0.70	0.69	0.71	0.69	0.67
<b>Education</b>									
High school or less	0.18	0.20	0.17	0.19	0.18	0.19	0.19	0.19	0.18
College	0.50	0.45	0.48	0.45	0.47	0.46	0.48	0.46	0.46
University+	0.32	0.35	0.35	0.36	0.35	0.35	0.33	0.34	0.36
<b>Income</b>									
Less than 40K	0.23	0.25	0.24	0.23	0.23	0.25	0.21	0.24	0.21
40-100K	0.51	0.49	0.49	0.51	0.47	0.51	0.52	0.50	0.50
More than 100K	0.26	0.27	0.27	0.26	0.30	0.24	0.27	0.26	0.28
<b>Province</b>									
Atlantic	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
QC	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ON	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
MB, SK	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
AB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
BC	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Number of respondents</b>									
Wave 1	637	635	635	633	638	635	632	637	–
Wave 2	449	436	433	436	422	428	421	425	1414

Notes: This table presents shares of each group and average age and its standard deviations in parentheses for each treatment.

Table 3: Summary statistics about inflation expectations and uncertainty.

			Past inflation	Bank target	BankTarget with range	BoC forecast	BoC forecast with CI	Prof forecast	Prof forecast with range	Control	Wave 2
<b>Priors, Wave 1</b>	$E_i \pi_{1yr}^{prior}$	Mean	7.20	7.78	7.94	7.83	7.92	8.27	8.09	7.81	
		SD	12.40	13.06	13.82	12.7	12.89	15.10	12.77	13.91	
	$E_i \pi_{1yr}^{mean,prior}$	Mean	5.32	5.56	6.42	5.85	6.21	4.76	5.5	5.03	
		SD	11.17	12.32	15.54	13.19	17.64	11.08	6.50	9.87	
	$E_i \pi_{1yr}^{median,prior}$	Mean	5.16	5.34	5.91	5.50	6.00	4.68	5.31	4.86	
		SD	9.11	9.89	12.39	10.38	15.13	8.75	5.85	7.95	
	$E_i iqr_{1yr}^{prior}$	Mean	5.75	6.57	7.25	7.07	7.23	6.61	6.12	6.44	
		SD	12.18	14.12	17.96	15.09	20.91	12.6	6.79	10.64	
	$E_i \text{Bank target}^{prior}$	Mean	6.78	6.20	6.44	6.78	6.32	7.63	6.54	6.98	
		SD	11.08	8.45	9.53	9.42	8.66	13.06	10.66	11.34	
	$E_i \text{Bank forecast}^{prior}$	Mean	6.7	7.02	6.48	7.03	6.40	7.62	7.15	6.77	
		SD	9.44	9.20	9.18	10.33	7.93	11.89	11.12	8.99	
<b>Posteriors, Wave 1</b>	$E_i \pi_{1yr}^{post}$	Mean	5.58	5.05	4.72	4.53	4.84	4.87	4.05	7.12	
		SD	8.87	8.39	9.11	10.14	9.29	8.42	10.04	12.27	
	$E_i \pi_{1yr}^{mean,post}$	Mean	5.02	5.06	5.02	4.19	4.18	3.06	3.87	5.04	
		SD	11.47	12.64	12.70	9.68	12.45	17.28	9.15	12.78	
	$E_i \pi_{1yr}^{median,post}$	Mean	4.70	4.79	4.7	4.02	3.97	3.05	3.63	4.84	
		SD	8.88	9.81	10.39	7.8	9.71	13.64	7.31	10.17	
	$E_i iqr_{1yr}^{post}$	Mean	5.03	5.53	5.16	5.06	4.75	5.29	5.45	6.73	
		SD	12.94	14.51	14.78	11.24	14.36	19.43	24.72	19.08	
<b>Wave 2</b>	$E_i \pi_{1yr}^{Wave2}$	Mean	6.04	6.13	6.19	5.76	6.00	6.67	6.16	6.19	6.90
		SD	9.90	11.5	9.22	8.33	10.09	10.26	9.57	10.58	11.00
	$E_i \pi_{1yr}^{mean,Wave2}$	Mean	4.10	4.18	4.85	4.86	5.43	4.03	4.06	4.08	5.07
		SD	4.87	4.20	13.74	10.37	14.43	5.48	4.81	6.04	7.30
	$E_i \pi_{1yr}^{median,Wave2}$	Mean	4.04	4.10	4.61	4.54	5.07	3.98	3.93	4.16	4.84
		SD	4.76	4.08	10.84	8.21	11.14	4.90	4.34	5.21	5.98
	$E_i iqr_{1yr}^{Wave2}$	Mean	3.95	3.74	4.37	4.54	5.08	4.27	4.12	4.44	4.90
		SD	5.58	4.60	15.15	12.29	16.07	6.15	5.96	7.02	8.90
	$E_i \text{Bank target}^{Wave2}$	Mean	5.21	5.42	4.91	5.03	5.14	6.12	5.47	5.10	6.15
		SD	9.31	7.93	7.62	6.45	6.91	9.90	9.65	6.66	10.13
	$E_i \text{Bank forecast}^{Wave2}$	Mean	5.47	5.54	5.3	5.27	5.73	5.4	5.52	5.03	6.62
		SD	8.87	7.32	7.96	6.95	8.99	7.56	8.73	5.81	10.16

Notes: This table presents means and standard deviations for each treatment.

Table 4: Estimation results for the priors about 1-year inflation expectations

	$E_i \pi_{1yr}^{prior}$		$E_i \pi_{1yr}^{mean,prior}$		$E_i \pi_{1yr}^{median,prior}$		$E_i iqr_{1yr}^{prior}$		$E_i prob_{1yr}^{target,prior}$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>PastInflation</b>	0.015 (0.34)	0.264 (0.35)	0.23 (0.29)	0.199 (0.28)	0.204 (0.29)	0.213 (0.28)	-0.171 (0.23)	-0.162 (0.24)	1.064 (1.79)	0.41 (1.76)
<b>BankTarget</b>	0.313 (0.34)	0.446 (0.35)	0.257 (0.29)	0.269 (0.28)	0.197 (0.29)	0.249 (0.28)	0.105 (0.23)	0.15 (0.24)	-0.379 (1.79)	-1.048 (1.76)
<b>BankTargetRange</b>	0.057 (0.34)	0.391 (0.35)	0.382 (0.29)	0.433 (0.28)	0.296 (0.29)	0.371 (0.28)	0.107 (0.23)	0.143 (0.24)	-1.799 (1.79)	-2.677 (1.76)
<b>BankForecast</b>	0.716** (0.34)	0.877** (0.35)	0.411 (0.29)	0.411 (0.28)	0.34 (0.29)	0.366 (0.28)	0.343 (0.23)	0.361 (0.24)	-0.637 (1.79)	-1.492 (1.76)
<b>BankForecastCI</b>	0.385 (0.34)	0.641* (0.35)	0.563** (0.29)	0.595** (0.28)	0.534* (0.29)	0.617** (0.28)	0.191 (0.23)	0.194 (0.24)	0.431 (1.79)	-0.426 (1.75)
<b>ProfForecast</b>	0.584* (0.34)	0.620* (0.35)	0.275 (0.29)	0.262 (0.28)	0.253 (0.29)	0.257 (0.28)	0.216 (0.23)	0.248 (0.24)	-1.29 (1.79)	-2.014 (1.76)
<b>ProfForecastRange</b>	0.132 (0.34)	0.279 (0.35)	0.502* (0.29)	0.479* (0.28)	0.461 (0.29)	0.486* (0.28)	0.367 (0.23)	0.362 (0.24)	-0.81 (1.79)	-1.562 (1.76)
young		-0.550* (0.31)		-0.654*** (0.25)		-0.692*** (0.25)		0.188 (0.21)		1.364 (1.55)
seniors		0.417** (0.19)		0.304* (0.16)		0.274* (0.16)		-0.268** (0.13)		-0.046 (0.98)
female		1.740*** (0.19)		1.300*** (0.16)		1.277*** (0.16)		0.543*** (0.13)		-7.651*** (0.98)
some college		-1.270*** (0.24)		-0.139 (0.2)		-0.155 (0.2)		-0.899*** (0.17)		4.673*** (1.23)
university+		-2.014*** (0.27)		-0.570*** (0.22)		-0.648*** (0.22)		-1.115*** (0.18)		9.888*** (1.36)
\$40K- \$100k		-1.366*** (0.23)		-0.729*** (0.19)		-0.818*** (0.19)		-0.562*** (0.16)		5.180*** (1.17)
\$100k+		-1.978*** (0.28)		-1.025*** (0.23)		-1.110*** (0.23)		-0.938*** (0.19)		8.562*** (1.43)
married		0.498** (0.21)		0.168 (0.18)		0.214 (0.18)		0.208 (0.15)		-0.796 (1.09)
children		0.019 (0.24)		-0.316 (0.2)		-0.325 (0.2)		0.208 (0.17)		-0.243 (1.24)
QC		-0.617 (0.48)		-0.847** (0.39)		-0.876** (0.39)		-0.01 (0.33)		0.955 (2.43)
ON		-0.872*** (0.32)		-0.786*** (0.26)		-0.860*** (0.26)		-0.004 (0.22)		0.288 (1.61)
SK and MB		-1.002** (0.39)		-0.632** (0.32)		-0.688** (0.32)		0.246 (0.27)		0.458 (1.99)
AB		0.074 (0.37)		-0.071 (0.31)		-0.158 (0.31)		0.183 (0.26)		-4.316** (1.9)
BC		-0.996*** (0.37)		-0.527* (0.3)		-0.636** (0.31)		-0.475* (0.25)		0.655 (1.88)
DKnow inflation well		0.801*** (0.22)		0.709*** (0.18)		0.730*** (0.18)		-0.247* (0.15)		-0.052 (1.1)
Deasy to express inflation		-0.668*** (0.2)		-0.309* (0.16)		-0.345** (0.17)		-0.559*** (0.14)		1.982* (1.02)
constant	5.164*** (0.24)	6.297*** (0.67)	4.547*** (0.2)	4.689*** (0.55)	4.501*** (0.2)	4.781*** (0.55)	3.964*** (0.17)	5.176*** (0.46)	28.207*** (1.27)	25.706*** (3.39)
N	5082	5030	5079	5031	5079	5031	5079	5031	5088	5040
R <sup>2</sup>	0.00177	0.0637	0.00106	0.0359	0.000913	0.0379	0.00158	0.0389	0.000734	0.0505

Notes: This table presents estimation results for equation (1). Regressions with demographic variables also control for language of the survey (English or French). Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 5: Estimation results for revisions in 1-year expectations

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
<b>Panel A</b>										
PastInflation	-0.241*** (0.08)	-0.178 (0.32)	-0.369*** (0.12)	-0.067 (0.31)	-0.288*** (0.11)	-0.210 (0.31)	-0.269*** (0.08)	-0.221 (0.24)	2.755*** (0.79)	3.414 (2.46)
BankTarget	-0.218*** (0.08)	-0.037 (0.33)	-0.304*** (0.12)	-0.111 (0.32)	-0.202* (0.11)	-0.071 (0.31)	-0.213*** (0.08)	-0.231 (0.24)	2.227*** (0.79)	0.976 (2.47)
BankTargetRange	-0.328*** (0.08)	-0.124 (0.33)	-0.500*** (0.12)	-0.466 (0.32)	-0.430*** (0.11)	-0.503 (0.32)	-0.249*** (0.08)	-0.290 (0.24)	2.885*** (0.79)	1.042 (2.48)
BankForecast	-0.469*** (0.08)	-0.564* (0.33)	-0.529*** (0.12)	-0.488 (0.32)	-0.480*** (0.11)	-0.532* (0.32)	-0.369*** (0.08)	-0.402* (0.24)	3.988*** (0.79)	1.811 (2.47)
BankForecastCI	-0.571*** (0.08)	-0.237 (0.33)	-0.587*** (0.12)	-0.137 (0.32)	-0.488*** (0.11)	-0.248 (0.32)	-0.455*** (0.08)	0.051 (0.24)	6.103*** (0.79)	-1.145 (2.49)
ProfForecast	-0.732*** (0.08)	-0.654** (0.33)	-0.726*** (0.12)	-0.309 (0.32)	-0.716*** (0.11)	-0.438 (0.32)	-0.489*** (0.08)	-0.112 (0.24)	4.637*** (0.79)	2.099 (2.49)
ProfForecastRange	-0.794*** (0.08)	0.023 (0.33)	-0.712*** (0.12)	-0.536* (0.32)	-0.674*** (0.11)	-0.539* (0.32)	-0.477*** (0.08)	-0.464* (0.24)	6.296*** (0.79)	4.023 (2.49)
young	0.080 (0.07)	-0.386 (0.33)	0.092 (0.10)	0.426 (0.32)	-0.012 (0.10)	0.324 (0.32)	-0.025 (0.07)	0.101 (0.25)	-0.002 (0.70)	-6.905*** (2.50)
senior	0.068 (0.04)	-0.496*** (0.18)	0.016 (0.06)	-0.213 (0.18)	-0.017 (0.06)	-0.135 (0.18)	-0.004 (0.14)	-0.209 (0.14)	-0.407 (0.44)	0.250 (1.40)
female	-0.165*** (0.04)	-0.459** (0.18)	-0.199*** (0.06)	-0.184 (0.17)	-0.201*** (0.06)	-0.169 (0.17)	-0.055 (0.04)	-0.307** (0.13)	1.442*** (0.44)	-0.426 (1.36)
some college or uni	0.088 (0.05)	-0.018 (0.22)	0.060 (0.08)	0.043 (0.22)	0.023 (0.08)	0.062 (0.22)	0.063 (0.05)	0.391** (0.17)	0.166 (0.55)	0.426 (1.70)
university or more	0.073 (0.06)	-0.007 (0.25)	0.035 (0.09)	0.086 (0.24)	0.042 (0.08)	0.077 (0.24)	0.032 (0.06)	0.228 (0.18)	0.848 (0.61)	6.317*** (1.89)
\$40K-\$100K	-0.032 (0.05)	0.478** (0.21)	0.031 (0.08)	0.327 (0.21)	0.063 (0.07)	0.243 (0.21)	-0.045 (0.05)	-0.020 (0.16)	1.410*** (0.53)	3.036* (1.62)
\$100K+	-0.024 (0.06)	0.301 (0.26)	0.105 (0.09)	0.141 (0.26)	0.134 (0.09)	0.011 (0.25)	-0.057 (0.06)	0.174 (0.20)	1.559** (0.64)	2.813 (2.00)
Dknow inflation well	0.019 (0.05)	-0.119 (0.21)	-0.013 (0.07)	-0.007 (0.20)	0.003 (0.07)	0.107 (0.20)	0.002 (0.05)	-0.342** (0.16)	-0.094 (0.50)	-0.389 (1.58)
Deasy to express inflation	0.098** (0.04)	0.311 (0.19)	0.203*** (0.07)	-0.010 (0.18)	0.155** (0.06)	-0.008 (0.18)	0.153*** (0.04)	0.228 (0.14)	-0.488 (0.46)	2.158 (1.44)
constant	-0.198 (0.15)	-0.883 (0.63)	0.079 (0.22)	-0.987 (0.61)	-0.112 (0.21)	-0.859 (0.61)	-0.059 (0.15)	-0.684 (0.47)	-0.036 (1.52)	7.684 (4.79)
N	4985	3403	4976	3375	4976	3375	4915	3309	4997	3432
R <sup>2</sup>	0.0448	0.0153	0.0194	0.00780	0.0202	0.00688	0.0194	0.0123	0.0292	0.0164
<b>Panel B</b>										
Range, all	-0.059 (0.06)	0.291 (0.20)	-0.094 (0.08)	-0.089 (0.18)	-0.085 (0.07)	-0.086 (0.18)	-0.040 (0.05)	0.005 (0.14)	1.753*** (0.57)	-0.317 (1.41)
constant	-0.902*** (0.23)	-0.816 (0.71)	-0.448 (0.28)	-0.994 (0.67)	-0.648** (0.27)	-0.976 (0.67)	-0.547*** (0.18)	-0.665 (0.52)	4.373*** (2.09)	9.963** (5.14)
N	3742	2544	3743	2526	3743	2526	3696	2477	3758	2569
R <sup>2</sup>	0.0159	0.0163	0.0105	0.00677	0.0106	0.00472	0.00707	0.00806	0.0190	0.0143
Range, Bank Target	-0.102 (0.08)	-0.021 (0.35)	-0.172 (0.11)	-0.397 (0.32)	-0.194* (0.10)	-0.488 (0.32)	-0.016 (0.07)	-0.039 (0.26)	0.489 (0.61)	0.174 (2.50)
constant	-0.283 (0.28)	0.894 (1.30)	-0.041 (0.40)	0.328 (1.23)	-0.007 (0.37)	0.344 (1.23)	-0.420* (0.24)	-0.307 (0.98)	3.112 (2.25)	1.751 (9.60)
N	1244	867	1241	847	1241	847	1224	832	1246	863
R <sup>2</sup>	0.0152	0.0367	0.0178	0.0310	0.0218	0.0325	0.00873	0.0305	0.0255	0.0293
Range, Bank Forecast	-0.097 (0.13)	0.423 (0.34)	-0.068 (0.14)	0.291 (0.33)	-0.056 (0.13)	0.278 (0.32)	-0.089 (0.09)	0.436 (0.27)	2.848** (1.17)	-3.858 (2.41)
constant	-1.280*** (0.48)	-1.333 (1.23)	-1.209** (0.53)	-2.266* (1.20)	-1.604*** (0.51)	-1.970* (1.17)	-0.549* (0.33)	-1.299 (0.99)	11.428** (4.46)	9.779 (8.83)
N	1258	849	1257	841	1257	841	1243	822	1260	857
r <sup>2</sup>	0.0244	0.0222	0.0222	0.0148	0.0274	0.0143	0.0129	0.0243	0.0290	0.0292
Range, Prof Forecast	0.030 (0.14)	0.646* (0.35)	-0.007 (0.15)	-0.125 (0.32)	0.018 (0.15)	0.008 (0.32)	0.050 (0.11)	-0.299 (0.24)	3.419* (1.86)	1.292 (2.49)
constant	-1.902*** (0.48)	-2.111* (1.19)	-0.263 (0.53)	-1.313 (1.10)	-0.505 (0.52)	-1.578 (1.11)	-0.419 (0.40)	-0.548 (0.84)	2.519 (6.47)	16.427* (8.59)
N	1240	838	1245	838	1245	838	1229	823	1252	849
R <sup>2</sup>	0.0411	0.0320	0.0206	0.0261	0.0179	0.0205	0.0343	0.0161	0.0429	0.0406

Notes: This table presents the estimation results for equation (2) in Panel A and for equation (3) in Panel B. Dependent variable is variable listed at the top of each column relative to its prior. All regressions control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 6: Estimation results for revisions for 1-year expectations

	PastInflation		BankTarget		BankTargetRange		BankForecast		BankForecastCI		ProfForecast		ProfForecastRange	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
$D$ Know PastInflation	0.212**	-0.070												
	(0.10)	(0.11)												
$D$ Know BankTarget			0.066	-0.078										
			(0.08)	(0.10)										
$gap^{target}$			-0.003	-0.005	-0.000	-0.003								
			(0.00)	(0.01)	(0.01)	(0.01)								
$D$ Know BankTargetRange					0.058	-0.358**								
					(0.15)	(0.18)								
$D$ Know BankForecast							0.494**	-0.939***						
							(0.20)	(0.32)						
$gap^{forecast}$							0.008	0.025*	-0.040***	0.059***				
							(0.01)	(0.01)	(0.01)	(0.02)				
$D$ Know BankForecastCI									0.088	-0.570*				
									(0.29)	(0.30)				
$D$ Know ProfForecast											0.051	-0.115		
											(0.37)	(0.38)		
$D$ Know ProfForecastRange													0.442	-0.690*
													(0.35)	(0.38)
young	0.219	0.046	-0.097	0.051	0.094	-0.125	0.227	-0.435	0.028	0.306	-0.475	0.188	0.206	0.369
	(0.15)	(0.17)	(0.11)	(0.14)	(0.23)	(0.27)	(0.33)	(0.54)	(0.34)	(0.35)	(0.35)	(0.36)	(0.40)	(0.43)
senior	0.337***	-0.089	0.040	-0.134	-0.333**	0.039	-0.031	0.225	-0.192	-0.139	-0.008	-0.098	0.194	-0.350
	(0.09)	(0.10)	(0.07)	(0.09)	(0.16)	(0.18)	(0.19)	(0.30)	(0.24)	(0.25)	(0.22)	(0.23)	(0.23)	(0.25)
female	-0.058	0.105	-0.082	-0.011	-0.117	0.227	-0.141	0.509*	-0.344	0.253	-0.379*	0.267	-0.716***	1.004***
	(0.09)	(0.10)	(0.07)	(0.09)	(0.15)	(0.17)	(0.19)	(0.30)	(0.25)	(0.25)	(0.22)	(0.23)	(0.25)	(0.27)
some college	0.012	0.186	0.088	-0.098	0.338*	-0.238	0.448*	-0.907**	0.091	0.177	0.856***	-0.628**	-0.070	0.014
	(0.11)	(0.13)	(0.09)	(0.11)	(0.20)	(0.23)	(0.23)	(0.37)	(0.30)	(0.31)	(0.28)	(0.29)	(0.30)	(0.32)
university	-0.080	0.146	0.261***	-0.070	0.136	-0.402	0.157	-0.415	-0.182	0.098	1.027***	-0.810**	0.100	-0.231
	(0.13)	(0.15)	(0.10)	(0.13)	(0.22)	(0.26)	(0.25)	(0.40)	(0.33)	(0.34)	(0.31)	(0.32)	(0.34)	(0.37)
\$40K-\$100K	-0.007	-0.177	-0.114	0.073	0.336*	-0.182	0.086	-0.017	0.240	0.064	-0.152	0.108	0.230	-0.630*
	(0.11)	(0.12)	(0.09)	(0.11)	(0.19)	(0.22)	(0.22)	(0.36)	(0.29)	(0.30)	(0.26)	(0.27)	(0.30)	(0.33)
\$100k+	-0.021	-0.040	-0.189*	0.100	0.059	-0.029	0.081	0.033	0.165	0.128	0.113	-0.011	0.315	-0.420
	(0.13)	(0.15)	(0.11)	(0.14)	(0.23)	(0.26)	(0.27)	(0.44)	(0.34)	(0.35)	(0.32)	(0.33)	(0.37)	(0.40)
$D$ know inflation well	0.166	-0.222*	0.134*	-0.177*	-0.001	0.113	-0.133	-0.441	-0.194	0.200	-0.083	0.206	-0.166	0.017
	(0.10)	(0.12)	(0.08)	(0.10)	(0.17)	(0.20)	(0.21)	(0.33)	(0.27)	(0.28)	(0.24)	(0.26)	(0.28)	(0.30)
$D$ easy to express inflation	-0.006	-0.074	-0.071	-0.075	0.173	-0.237	0.185	-0.458	0.544**	-0.778***	0.396*	-0.724***	0.003	0.052
	(0.10)	(0.11)	(0.07)	(0.07)	(0.16)	(0.19)	(0.20)	(0.32)	(0.25)	(0.26)	(0.23)	(0.24)	(0.26)	(0.28)
constant	-0.376	0.257	-0.257	0.948***	-0.510	1.679***	-0.916	0.605	-1.551*	1.077	-2.288***	3.522***	-1.682**	2.471***
	(0.30)	(0.34)	(0.23)	(0.30)	(0.51)	(0.60)	(0.63)	(1.02)	(0.83)	(0.86)	(0.67)	(0.70)	(0.75)	(0.81)
$N$	629	629	605	605	605	605	609	609	611	611	619	619	622	622
$R^2$	0.0671	0.0332	0.0417	0.0318	0.0434	0.0540	0.0364	0.0872	0.0485	0.0905	0.0703	0.0623	0.0496	0.0575

Notes: Estimation results for revisions from equation  $E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = a + b_0 D_i^{Know} + b_1 gap^{forecast/target} + b_2 X_i + error_i$  in **odd-numbered** columns. Estimation results for absolute revisions from equation  $|E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior}| = a + b_0 D_i^{Know} + b_1 gap^{forecast/target} + b_2 X_i + error_i$  are presented in **even-numbered** columns. These regressions also control for married status, presence of children, responding in English/French, and province. Results are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 7: Role of prior uncertainty in impact of communicating with ranges.

	T=All		T=BankTarget		T=BankForecast		T=ProfForecast	
	$E_{i,q,r}^{prior}_{1yr}$ (1)	$E_{i,q,r}^{Wave2}_{1yr}$ (2)	$E_{i,q,r}^{post}_{1yr}$ (3)	$E_{i,q,r}^{Wave2}_{1yr}$ (4)	$E_{i,q,r}^{post}_{1yr}$ (5)	$E_{i,q,r}^{Wave2}_{1yr}$ (6)	$E_{i,q,r}^{post}_{1yr}$ (7)	$E_{i,q,r}^{Wave2}_{1yr}$ (8)
$E_{i,q,r}^{prior}_{1yr}$	-0.075*** (0.00)	-0.951*** (0.00)	-0.069*** (0.00)	-0.997*** (0.01)	-0.052*** (0.01)	-0.984*** (0.01)	-0.092*** (0.01)	-0.946*** (0.01)
$Range_i^T$	-0.014 (0.06)	0.036 (0.08)	-0.050 (0.08)	-0.293* (0.15)	0.369*** (0.12)	0.255* (0.15)	0.070 (0.16)	-0.068 (0.18)
$Range_i^T \times E_{i,q,r}^{prior}_{1yr}$	-0.020*** (0.00)	-0.015*** (0.01)	-0.004 (0.01)	0.040*** (0.01)	-0.238*** (0.01)	-0.017** (0.01)	-0.034* (0.02)	-0.010 (0.02)
constant	-0.155 (0.20)	1.877*** (0.27)	-0.259 (0.27)	2.259*** (0.48)	-0.423 (0.38)	1.894*** (0.51)	0.122 (0.43)	1.769*** (0.47)
N	3692	2477	1221	832	1238	822	1227	822
R <sup>2</sup>	0.293	0.982	0.311	0.980	0.555	0.987	0.159	0.921

Notes: This table presents the estimation results of equation 4. Dependent variable is variable listed at the top of each column relative to its prior. These regressions control for all demographic characteristics. Results are from Huber robust regressions to control for outliers and influential observations. Standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 8: Shares of inflation expectations at the mid-point and in the range of treatment information in priors and posteriors

	Past Inflation	Bank Target	Bank TargetRange	Bank Forecast	Bank ForecastCI	Prof Forecast	Prof ForecastRange
midpoint, prior	0	10.4	10.4	10.9	11.6	0	0
midpoint, posterior	0.3	22.7	23.1	35.7	36.8	14.7	8.2
midpoint, Wave 2	0.2	17.4	18.7	15.8	19.7	0	0
midpoint (0.5), prior	10	10.9	10.6	11.5	11.8	11.8	10.1
midpoint (0.5), posterior	18.6	23.3	23.3	36.2	38.2	42.4	41.8
midpoint (0.5), Wave 2	18.5	18.3	18.7	16.1	20.1	19.2	21.9
inrange, prior	NA	25.8	25.2	12.6	13.8	12	10.1
inrange, posterior	NA	41.6	43.5	37.6	41.8	42.7	44.4
inrange, Wave 2	NA	44.7	40.4	19.5	23.2	19.4	21.9

Table 9: Estimation results about credibility of midpoint and range information

PANEL A	$1_{i,t}^{midpoint,post}$				$1_{i,t}^{inrange,post}$			
	T=All (1)	T=BankTarget (2)	T=BankForecast (3)	T=ProfForecast (4)	T=All (5)	T=BankTarget (6)	T=BankForecast (7)	T=ProfForecast (8)
<b>all observations</b>								
$Range_i^T$	-0.0168 (0.0139)	0.00145 (0.0239)	0.0134 (0.0274)	-0.0585*** (0.0172)	0.0255 (0.0162)	0.0183 (0.0283)	0.0464* (0.0279)	0.0177 (0.0285)
Observations	3,771	1,252	1,264	1,255	3,771	1,252	1,264	1,255
Pseudo R <sup>2</sup>	0.0147	0.0176	0.0216	0.0712	0.0170	0.0230	0.0216	0.0257
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
<b>prior outside range</b>								
$Range_i^T$	-0.0119 (0.0139)	0.00813 (0.0231)	0.0187 (0.0278)	-0.0495*** (0.0179)	0.0383** (0.0169)	0.0530* (0.0290)	0.0486* (0.0286)	0.0204 (0.0298)
Observations	3,119	927	1,091	1,101	3,119	927	1,091	1,101
Pseudo R <sup>2</sup>	0.0269	0.0486	0.0327	0.0795	0.0269	0.0562	0.0306	0.0334
PANEL B	$1_{i,t}^{midpoint,Wave2}$				$1_{i,t}^{inrange,Wave2}$			
	T=All (17)	T=BankTarget (18)	T=BankForecast (19)	T=ProfForecast (20)	T=All (21)	T=BankTarget (22)	T=BankForecast (23)	T=ProfForecast (24)
<b>all observations</b>								
$Range_i^T$	0.0176 (0.0128)	0.0138 (0.0262)	0.0395 (0.0263)		0.00583 (0.0179)	-0.0445 (0.0344)	0.0410 (0.0282)	0.0240 (0.0278)
Observations	2,567	865	856		2,567	865	856	846
Pseudo R <sup>2</sup>	0.0127	0.0217	0.0157		0.0246	0.0379	0.0260	0.0538
	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
<b>prior outside range</b>								
$Range_i^T$	0.0197 (0.0120)	0.0215 (0.0261)	0.0396 (0.0253)		0.0177 (0.0179)	-0.0387 (0.0376)	0.0427 (0.0274)	0.0409 (0.0280)
Observations	2,106	633	734		2,106	633	734	739
Pseudo R <sup>2</sup>	0.0143	0.0268	0.0181		0.0237	0.0435	0.0240	0.0615

Notes: This table presents estimated results for equation (5). These regressions control for all demographic characteristics. Standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively. Estimations for  $1_{i,t}^{midpoint}$  for  $T = ProfForecast$  were not performed in Wave 2 because nobody forecast inflation equal to mean professional forecast (Table 8).

Table 10: Estimation results of the link between the level of inflation expectations and uncertainty

PANEL A	$E_i \pi_{1yr}^{prior}$	$E_i \pi_{1yr}^{post}$	$E_i \pi_{1yr}^{Wave2}$	
	(1)	(2)	(3)	
$E_i iqr^{prior}$	0.399*** (0.00549)			
$E_i iqr^{post}$		0.339*** (0.00598)		
$E_i iqr^{Wave2}$			0.251*** (0.0185)	
<b>PastInflation</b>	0.250 (0.316)	-0.464*** (0.157)	0.209 (0.216)	
<b>BankTarget</b>	0.421 (0.317)	0.433*** (0.154)	-0.296 (0.224)	
<b>BankTargetRange</b>	0.315 (0.317)	-0.337** (0.153)	0.217 (0.203)	
<b>BankForecast</b>	0.664** (0.316)	-0.101 (0.155)	0.0646 (0.205)	
<b>BankForecastCI</b>	0.581* (0.316)	-0.259* (0.152)	0.477** (0.204)	
<b>ProfForecast</b>	0.466 (0.317)	-0.317** (0.151)	0.262 (0.218)	
<b>ProfForecastRange</b>	0.140 (0.317)	-0.491*** (0.150)	0.0592 (0.222)	
<b>PastInflation</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.0212* (0.0123)	-0.0730** (0.0292)	
<b>BankTarget</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.311*** (0.00916)	0.223*** (0.0332)	
<b>BankTargetRange</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.0917*** (0.00909)	-0.0368* (0.0203)	
<b>BankForecast</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.274*** (0.0108)	0.0873*** (0.0212)	
<b>BankForecastCI</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.299*** (0.00917)	-0.156*** (0.0201)	
<b>ProfForecast</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.344*** (0.00792)	-0.0813*** (0.0278)	
<b>ProfForecastRange</b> $\times E_i iqr^{post}$ (or $E_i iqr^{Wave2}$ in (3))		-0.340*** (0.00739)	0.0454 (0.0306)	
constant	3.610*** (0.615)	2.524*** (0.280)	3.053*** (0.364)	
N	5,008	4,947	3,386	
R <sup>2</sup>	0.535	0.558	0.461	

PANEL B	$E_i \pi_{1yr}^{post}$				$E_i \pi_{1yr}^{Wave2}$			
	T=All (4)	T=BankTarget (5)	T=BankForecast (6)	T=ProfForecast (7)	T=All (8)	T=BankTarget (9)	T=BankForecast (10)	T=ProfForecast (11)
$E_i iqr^{post}$	0.0400*** (0.00333)	0.0283*** (0.00831)	0.0374*** (0.00649)	-0.00385 (0.00321)				
$E_i iqr^{Wave2}$					0.339*** (0.00944)	0.466*** (0.0306)	0.338*** (0.0116)	0.165*** (0.0220)
$Range_i^T$	-0.189** (0.0763)	-0.329* (0.183)	-0.244** (0.110)	-0.140 (0.0981)	0.254** (0.121)	0.694*** (0.250)	0.474** (0.215)	-0.257 (0.231)
$Range_i^T \times E_i iqr^{post}$	0.00897** (0.00439)	0.0662*** (0.0117)	0.000131 (0.00820)	0.00754 (0.00978)				
$Range_i^T \times E_i iqr^{Wave2}$					-0.126*** (0.0112)	-0.324*** (0.0416)	-0.244*** (0.0147)	0.128*** (0.0331)
constant	2.482*** (0.268)	2.677*** (0.637)	2.738*** (0.396)	2.351*** (0.308)	3.330*** (0.410)	3.541*** (0.769)	3.321*** (0.747)	3.578*** (0.663)
N	3,716	1,231	1,249	1,235	2,530	851	841	837
R <sup>2</sup>	0.133	0.156	0.102	0.062	0.525	0.291	0.559	0.278

Notes: This table presents the estimation results for equation (6) in column (1) and for equation (7) in the rest of columns. These regressions control for all demographic characteristics. Results are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.



Table 11: Estimation results for real spending.

	All	Control	PastInflation	BankTarget	BankTargetRange	BankForecast	BankForecastCI	ProfForecast	ProfForecastRange	Range, all
<b>PANEL A</b> Wave 1	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$E_i \pi_{1yr}^{posterior}$	-0.146*** (0.0294)	-0.588*** (0.0739)	0.00182 (0.0444)	-0.140** (0.0545)	0.180 (0.414)	-5.288*** (0.912)	-0.813 (1.342)	-2.702** (1.210)	3.259 (2.864)	-2.006*** (0.418)
Range, all										-5.681*** (1.856)
Range, all $\times E_i \pi_{1yr}^{posterior}$										2.047*** (0.597)
Constant	1.166 (1.367)	2.177 (4.549)	-2.677 (3.689)	3.092 (3.689)	-8.393* (4.403)	18.31*** (5.737)	6.468 (5.733)	11.05** (4.536)	-7.635 (7.942)	6.934*** (2.033)
N	4,896	597	616	611	617	613	623	609	610	3,683
R <sup>2</sup>	0.035	0.140	0.075	0.054	0.039	0.093	0.031	0.048	0.072	0.030
First-stage F-statistic	10911	636.8	122977	7788.6	119.4	61.23	44.04	27.73	7.055	358.4
<b>PANEL B</b> Wave 2	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
$E_i \pi_{1yr}^{posterior}$	-0.403 (0.299)	-0.00429 (0.319)	-0.178 (0.706)	-0.430 (0.574)	-2.174*** (0.502)	-1.597*** (0.389)	-0.752*** (0.254)	-0.142 (0.217)	0.126 (0.308)	-0.480*** (0.168)
Range, all										1.677 (1.085)
Range, all $\times E_i \pi_{1yr}^{posterior}$										-0.402 (0.252)
Constant	0.953 (1.603)	-2.823 (4.170)	0.405 (4.796)	1.646 (4.511)	4.303 (5.248)	9.709** (3.837)	6.047 (4.538)	-0.548 (4.057)	-4.531 (4.095)	1.514 (1.747)
N	3,347	405	436	424	422	425	411	414	410	2,506
R <sup>2</sup>	0.025	0.038	0.027	0.054	0.080	0.110	0.067	0.079	0.063	0.034
First-stage F-statistic	90.81	179.7	38.31	56.35	70.7	86.43	285	283.6	150.1	987.5

Notes: This table presents the estimation results for equation (11) in terms of revisions. These regressions control for all demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

## A Survey questions

**One-year-ahead inflation expectations** are based on the following questions:

*Part 1.* Over the next 12 months, do you think that there will be inflation or deflation?

(Note: deflation is the opposite of inflation.)

Please choose one.

- Inflation
- Deflation (the opposite of inflation)

*Part 2.* What do you expect the rate of [inflation/deflation] to be over the next 12 months? Please give your best guess.

Please enter a number greater than 0 or equal to 0.

Over the next 12 months, I expect the rate of [inflation/deflation] to be \_\_\_ percent.

**One-year-ahead density inflation expectations** are based on the following question:

Now we would like you to think about the different things that may happen to inflation over the next 12 months. We realize that this question may take a little more effort.

In your view, what would you say is the percent chance that, over the next 12 months...

*(Please note: The numbers need to add up to 100.)*

the rate of inflation will be 12% or higher \_\_\_ percent chance

the rate of inflation will be between 8% and 12% \_\_\_ percent chance

the rate of inflation will be between 4% and 8% \_\_\_ percent chance

the rate of inflation will be between 2% and 4% \_\_\_ percent chance

the rate of inflation will be between 0% and 2% \_\_\_ percent chance

the rate of deflation (opposite of inflation) will be between 0% and 2% \_\_\_ percent chance

the rate of deflation (opposite of inflation) will be between 2% and 4% \_\_\_ percent chance

the rate of deflation (opposite of inflation) will be between 4% and 8% \_\_\_ percent chance

the rate of deflation (opposite of inflation) will be between 8% and 12% \_\_\_ percent chance

the rate of deflation (opposite of inflation) will be 12% or higher \_\_\_ percent chance

TOTAL 100

**Expectations for nominal spending growth** in the next 1 year are based on the following questions:

Now think about your total household spending, including groceries, clothing, personal care, housing (such as rent, mortgage payments, utilities, maintenance, home

improvements), transportation, recreation and entertainment, education, and any large items (such as home appliances, electronics, furniture or car payments).

Over the next 12 months , what do you expect will happen to the total spending of all members of your household (including you)?

*Please choose one.*

Over the next 12 months , I expect my total household spending to

- increase by 0 percent or more
- decrease by 0 percent or more

By about what percent do you expect your total household spending to [increase/decrease]?

*Please give your best guess. Please enter a number greater than 0 or equal to 0.*

Over the next 12 months, I expect my total household spending to [increase/ decrease] by --- percent.

**Information interventions** were presented in the following way.

### **T1- Past inflation**

On average during the last year, January 2019 to January 2020, yearly inflation in Canada was 1.9%. Did you know this?

- Yes
- No

### **T2 - BankTarget**

The Bank of Canada's inflation target is 2%. Did you know this?

- Yes
- No

### **T3 - BankTargetRange**

The Bank of Canada's inflation target is 2% with a range between 1% and 3%. Did you know this?

- Yes
- No

#### **T4 - BankForecast**

According to the Bank of Canada, inflation is forecasted to be around 2% over the next year. Did you know this?

- Yes
- No

#### **T5- BankForecastCI**

According to the Bank of Canada, inflation is forecasted to be around 2% over the next year with a 90% chance of being between 1.4 and 2.6%. Did you know this?

- Yes
- No

#### **T6 - ProfForecast**

According to Canadian professional forecasters, inflation is forecasted to be 1.7% over the next year. Did you know this?

- Yes
- No

#### **T7 - ProfForecastRange**

According to Canadian professional forecasters, inflation is forecasted to be 1.7% over the next year, with forecasts ranging from 1.2% to 2.1%. Did you know this?

- Yes
- No

## **B Probabilistic forecasts of inflation**

In this section we present additional results for probabilistic forecasts. Table [B2](#) presents estimates of treatment effects on the revisions in the probability distributions for one-year-ahead expectations in Wave 1 (Panel A) and Wave 2 (Panel B). Broadly, all the treatments shrink the tails of participants' probability distributions and shift them to the center towards the ranges close to provided information (0 to 4%). The effects are relatively more pronounced in treatments with information about Bank's target and Bank's inflation forecasts than in treatments with past inflation and forecasts by professional forecasters. The largest impacts of information occur in the right tail of the distributions as inflation expectations priors are heavily skewed to the right (Figure [2](#)). These figures illustrate that the

treatment information shifts cumulative distribution functions to the center in Wave 1.

Treatment information reduces the probability assigned to ranges 4 to 8%, 8 to 12% and above 12%. On average, the impact on the right tail ranges from about -3 percentage points in PastInflation to -7 percentage points in ProfForecastRange. All treatments increase the probability assigned to the ranges 0 to 2% and 2 to 4% ranging from 3pp in ProfForecast to 12pp in BankForecastCI for some of these ranges. The combined impact on the range 0 to 4%, containing the inflation target control range, is between 2pp in BankTarget to 6pp in ProfForecastRange (Table B2). Thus, all information treatments are successful in anchoring inflation expectations to the inflation target range. Interestingly, the most effective treatments are those with information about inflation forecasts by the Bank of Canada and professional forecasters, and not information about inflation target!

The information treatments also reduce the probabilities assigned to the deflationary outcomes, although the left tail of the prior distribution is very thin to begin with. The impact of treatments ranges from -2.4pp in PastInflation to 3.4pp in ProfForecastRange in the intervals -12 to -8%, -8 to -4% and -4 to -2%. The lowest interval, below -12%, was not affected by the information treatments.

Some of the impact of the information treatments on the probability distribution persist six months later in Wave 2 (Panel B of Table B2 and Figure 2), although these effects are more sparse and less statistically significant. For instance, PastInflation still reduces participants' probability in range -2% to 0, and BankTarget and BankForecast reduce the probability they assign to -12 to -8%. BankTargetRange reduce the probability assigned to the top range of above 12%. In all cases, the significance level drops to 10 percent or is statistically insignificant.

Table B1: Estimation results for the priors about probability distribution for expected inflation

	below -12%	(-12,-8)	(-8,-4)	(-4,-2)	(-2,0)	(0,2)	(2,4)	(4,8)	(8,12)	Above 12%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>PastInflation</b>	-0.527 (0.49)	-0.482 (0.4)	-0.424 (0.36)	-0.358 (0.43)	0.386 (0.61)	0.593 (1.04)	-0.402 (1.29)	1.536 (1.24)	-1.07 (1.08)	0.503 (1.44)
<b>BankTarget</b>	-0.495 (0.49)	-0.02 (0.41)	0.043 (0.36)	0.235 (0.43)	-0.491 (0.61)	0.414 (1.05)	-0.765 (1.29)	0.109 (1.24)	0.636 (1.08)	0.372 (1.44)
<b>BankTargetRange</b>	-0.572 (0.49)	-0.155 (0.4)	-0.285 (0.36)	0.112 (0.43)	-0.576 (0.61)	-0.181 (1.04)	-1.513 (1.29)	0.671 (1.24)	0.821 (1.08)	1.295 (1.44)
<b>BankForecast</b>	-0.215 (0.49)	0.342 (0.4)	-0.171 (0.36)	-0.634 (0.43)	-0.444 (0.61)	-0.099 (1.04)	-0.926 (1.29)	-0.235 (1.24)	0.975 (1.08)	1.017 (1.43)
<b>BankForecastCI</b>	-0.729 (0.49)	-0.301 (0.4)	-0.403 (0.36)	-0.395 (0.43)	-0.389 (0.6)	0.636 (1.04)	-0.732 (1.28)	-1.262 (1.24)	1.204 (1.08)	2.413* (1.43)
<b>ProfForecast</b>	-0.295 (0.49)	-0.091 (0.4)	0.15 (0.36)	-0.243 (0.43)	-0.668 (0.61)	-0.231 (1.04)	-0.847 (1.29)	0.593 (1.24)	1.261 (1.08)	0.070 (1.44)
<b>ProfForecastRange</b>	-0.558 (0.49)	-0.299 (0.41)	-0.185 (0.36)	0.035 (0.43)	-0.948 (0.61)	0.24 (1.05)	-0.966 (1.29)	0.113 (1.24)	0.727 (1.08)	1.480 (1.44)
young	0.176 (0.44)	0.291 (0.36)	0.601* (0.32)	0.603 (0.38)	1.754*** (0.54)	1.937** (0.92)	-1.297 (1.14)	-2.158** (1.1)	0.359 (0.96)	-2.365* (1.27)
senior	-0.049 (0.28)	-0.332 (0.23)	-0.488** (0.2)	-0.528** (0.24)	-1.031*** (0.34)	-0.791 (0.58)	0.911 (0.72)	1.860*** (0.69)	1.688*** (0.61)	-1.054 (0.80)
female	-0.029 (0.28)	0.15 (0.23)	-0.071 (0.2)	-0.764*** (0.24)	-1.765*** (0.34)	-3.069*** (0.58)	-3.920*** (0.72)	-1.200* (0.69)	3.144*** (0.6)	7.521*** (0.80)
some college	-0.719** (0.35)	-1.256*** (0.28)	-0.502** (0.25)	-0.123 (0.3)	0.04 (0.42)	1.546** (0.73)	3.344*** (0.9)	2.110** (0.87)	0.002 (0.76)	-4.062*** (1.01)
university+	-1.134*** (0.38)	-1.813*** (0.31)	-0.574** (0.28)	-0.074 (0.33)	1.176** (0.47)	3.701*** (0.81)	5.526*** (1)	2.401** (0.96)	-1.901** (0.84)	-6.713*** (1.11)
\$40K-\$100k	-0.377 (0.33)	-0.066 (0.27)	0.027 (0.24)	0.158 (0.29)	0.713* (0.4)	1.927*** (0.7)	2.960*** (0.86)	0.163 (0.83)	-0.919 (0.72)	-4.606*** (0.96)
\$100k+	-0.799** (0.4)	-0.342 (0.33)	-0.018 (0.3)	0.278 (0.35)	0.782 (0.49)	3.596*** (0.85)	4.773*** (1.05)	1.134 (1.01)	-1.583* (0.88)	-7.745*** (1.17)
married	0.26 (0.31)	0.06 (0.25)	0.19 (0.23)	-0.144 (0.27)	-0.262 (0.38)	-0.253 (0.65)	-0.386 (0.8)	-1.159 (0.77)	0.32 (0.67)	1.300 (0.89)
children	0.298 (0.35)	0.519* (0.28)	0.488* (0.26)	0.287 (0.3)	0.187 (0.43)	-0.258 (0.73)	0.167 (0.9)	-0.079 (0.87)	-0.667 (0.76)	-1.083 (1.01)
Dknow inflation well	-0.332 (0.31)	-0.641** (0.25)	-0.930*** (0.23)	-0.331 (0.27)	-0.413 (0.38)	-0.647 (0.65)	0.607 (0.81)	-0.116 (0.78)	1.049 (0.68)	1.965** (0.90)
Deasy to express inflation	-0.354 (0.29)	-0.147 (0.23)	-0.103 (0.21)	-0.23 (0.25)	0.43 (0.35)	0.996 (0.61)	1.401* (0.75)	1.577** (0.72)	-1.870*** (0.63)	-1.625* (0.83)
constant	3.959*** (0.95)	3.913*** (0.78)	3.473*** (0.7)	3.692*** (0.83)	4.603*** (1.17)	10.311*** (2.01)	18.166*** (2.48)	17.681*** (2.39)	12.692*** (2.09)	20.736*** (2.77)
N	5040	5040	5040	5040	5041	5040	5040	5042	5046	5050
R <sup>2</sup>	0.00721	0.0158	0.0117	0.00883	0.0212	0.0255	0.0326	0.0132	0.0200	0.0499

Notes: This table presents the estimation results for equation (1). Regressions with demographic variables also control for province and language. Results are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.



## C Additional treatment results

In this section, we present additional hypotheses and results related to past inflation and the Bank’s inflation target.

*Hypothesis 3* Information about past inflation is expected to have a smaller effect on the

- a) level of inflation expectations
- b) dispersion across respondents
- c) uncertainty about inflation
- d) the tails of the probability distribution of inflation towards the center,
- e) the probability that inflation will be in the inflation-target-control

than information about inflation forecasts (BankForecast, BankForecastCI, ProfForecast, ProfForecastRange) and the Bank of Canada’s target (BankTarget, BankTargetRange).

*Hypothesis 4* Information about the Bank’s inflation target is expected to have a smaller effect on the

- a) level of inflation expectations
- b) dispersion across respondents
- c) uncertainty about inflation
- d) the tails of the probability distribution of inflation towards the center,
- e) the probability that inflation will be in the inflation-target-control

than information about inflation forecasts (BankForecast, BankForecastCI, ProfForecast, ProfForecastRange).

In Hypotheses 3 and 4, we expect that information about past inflation or the Bank’s inflation target are less effective for anchoring inflation expectations because they can be viewed as less relevant for forecasting *future* inflation. Furthermore, participants may not understand the role of Bank’s inflation target in determining inflation outcomes or may not expect that the target will be achieved in one year. Although, given that consumers’ inflation expectations tend to backward-looking, information about past inflation may be perceived as more relatable for respondents [Kryvtsov and Petersen, 2021].

### Impact of communicating past inflation

We predicted that communicating about past inflation would be less effective at anchoring inflation expectations than communicating about future inflation or communicating Bank’s inflation target.

To evaluate Hypothesis 3, we estimate the following general specification to quantify the



impact of communicating information about past versus communicating information about future (forecasts) and versus communicating information about Bank of Canada mandate (Bank inflation target) or both:

$$E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = a + b_0 \text{PastInflation}_i + b_1 X_i + \text{error}_i \quad (\text{C1})$$

where  $E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior}$  is a measure describing the revision in 1-year-ahead inflation expectations in Wave 1 and Wave 2, as described in and (2).

The variable  $\text{PastInflation}_i$  is a dummy variable that takes the value of 1 for information treatment about past inflation, and takes the value of 0 for other treatments. The estimated  $\hat{a}$  represents the baseline comparisons: target (BankTarget and BankTargetRange); forecasts (BankForecast, BankForecastCI, Profforecast and ProfforecastRange) or the rest of treatments combined. The results of estimations of equation (C1) are presented in presented in Table C1 and Table C2.

We find evidence in support of the first part of Hypothesis 3: communication of past inflation is less effective in anchoring inflation expectations towards communicated information than communication of forecasts of the Bank or professional forecasters. Information about past inflation reduces the level of inflation expectations, both point and density expectations, uncertainty about expected inflation less than all other treatments. Furthermore, information about past inflation increases probability assigned to the range close to inflation target control range less than other treatments. Interestingly, though, information about past inflation has positive impact on the probability assigned to inflation close to target range between 2% to 4% in Wave 2 relative to inflation forecasts, Bank target and all other treatments! The information about past inflation might be more salient to the respondents and easier to retain and recall six months later.

Our findings do not support most of the second part of Hypothesis 3: comparison of PastInflation vs BankTarget do not indicate statistically significant difference between these treatments either on the level of point or density inflation expectations, uncertainty about expected inflation. PastInflation has lower impact on probability assigned to expected inflation in the range 2% to 4% in Wave 1 than BankTarget, but has higher impact on this probability in Wave 2. or probability assigned to the target range. And finally, our results show that PastInflation being less effective than all other treatments, which is mostly due to it being less effective than treatments with information about forecasts, given that PastInflation and BankTarget do not result in statistically different outcomes for most of the indicators.

## Impact of communicating the Bank’s inflation target

We predicted that communicating about the Bank’s inflation target would be less effective at anchoring inflation expectations than communicating about inflation forecasts. To eval-

uate Hypothesis 4, we estimate the following general specification to quantify the impact of communicating information about the Bank of Canada inflation target versus inflation forecasts:

$$E_i Y_{1yr}^{posterior} - E_i Y_{1yr}^{prior} = a + b_0 \text{BankTarget}_i + b_1 X_i + \text{error}_i \quad (\text{C2})$$

where  $E_i Y_{1yr}^{posterior}$  is a measure describing posteriors about 1-year-ahead inflation expectations in Wave 1 and Wave 2, as used and described in equation (2).

The variable  $\text{BankTarget}_i$  is a dummy variable that takes the value of 1 for information treatment about the Bank’s target, and takes the value of 0 for other treatments. The estimated  $\hat{a}$  represents the baseline comparisons. The results of estimations of equation (C2) are presented in presented in Table C1 and C2.

Our evidence is consistent with Hypothesis 3: communication about the Bank’s target is less effective in anchoring inflation expectations towards communicated information than communication communication of forecasts of the Bank or professional forecasters. Information about the Bank’s target reduces the level of inflation expectations, both point and density expectations, and uncertainty about expected inflation less than treatments with forecasts. Furthermore, information about the Bank’s target increases probability assigned to the range close to inflation target control range less than information about inflation forecasts.

We also find that  $\text{BankTarget}$  is less effective than all other treatments. This is mostly due to it being less effective than treatments with information about forecasts, given that  $\text{PastInflation}$  and  $\text{BankTarget}$  do not result in statistically different outcomes (Table C1 and in Table C2).

There could be two reasons for finding that the Bank’s target is less effective at anchoring inflation expectations than inflation forecasts. First, it may be difficult for people to translate information about the Bank’s target into inflation forecast as our treatment did not provide any explanation what the Bank’s target means for monetary policy and inflation. [Ehrmann et al., 2023] find that education about the meaning of monetary policy regime is crucial for managing inflation expectations. Second, some respondents may view that the Bank’s target may not be achieved over the next 12 months as ”Canada’s inflation-targeting framework helps to ensure that inflation will return to 2 percent over the *medium term*” [of Canada, 2021], and thus, they have not revised their expectations for inflation over the next 12 months towards the provided information.

Table C1: Estimation results for revisions in 1-year expectations: comparison of treatments

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
BankTarget vs all Forecasts	0.413*** (0.06)	0.261 (0.21)	0.264*** (0.08)	0.074 (0.19)	0.306*** (0.08)	0.141 (0.19)	0.236*** (0.05)	-0.038 (0.15)	-3.926*** (0.65)	-0.614 (1.49)
constant	-1.040*** (0.22)	-0.766 (0.71)	-0.578** (0.28)	-1.055 (0.67)	-0.798*** (0.27)	-1.064 (0.67)	-0.648*** (0.18)	-0.651 (0.52)	7.049*** (2.22)	10.029* (5.14)
N	3742	2544	3743	2526	3743	2526	3696	2477	3758	2569
R <sup>2</sup>	0.0267	0.0160	0.0129	0.00670	0.0142	0.00485	0.0125	0.00813	0.0271	0.0144
BankForecast vs ProfForecast	0.236*** (0.09)	-0.086 (0.24)	0.194* (0.10)	0.142 (0.23)	0.235** (0.10)	0.116 (0.22)	0.103 (0.07)	0.121 (0.17)	-2.531** (1.06)	-2.772 (1.71)
constant	-1.624*** (0.33)	-1.360 (0.86)	-0.790** (0.37)	-1.781** (0.81)	-1.105*** (0.36)	-1.739** (0.80)	-0.552** (0.25)	-0.788 (0.62)	7.985** (3.85)	14.257** (6.13)
N	2498	1687	2502	1679	2502	1679	2472	1645	2512	1706
R <sup>2</sup>	0.0270	0.0121	0.0171	0.00938	0.0160	0.00643	0.0136	0.00941	0.0281	0.0239
BankTarget vs all other	0.301*** (0.06)	0.232 (0.20)	0.186** (0.08)	0.016 (0.19)	0.220*** (0.07)	0.100 (0.19)	0.188*** (0.05)	-0.037 (0.14)	-2.473*** (0.55)	-0.977 (1.45)
constant	-0.830*** (0.19)	-1.302** (0.65)	-0.484* (0.25)	-1.442** (0.62)	-0.714*** (0.24)	-1.416** (0.61)	-0.481*** (0.16)	-0.573 (0.47)	5.393*** (1.79)	10.604** (4.79)
N	4371	2987	4365	2962	4365	2962	4310	2904	4382	3012
R <sup>2</sup>	0.0205	0.0150	0.0114	0.00687	0.0117	0.00584	0.0104	0.00917	0.0160	0.0155
PastInflation vs all Forecasts	0.438*** (0.09)	0.190 (0.26)	0.342*** (0.11)	0.339 (0.25)	0.367*** (0.10)	0.261 (0.25)	0.208*** (0.07)	0.022 (0.19)	-4.329*** (0.92)	1.756 (1.92)
constant	-1.206*** (0.25)	-2.014*** (0.75)	-0.664** (0.31)	-2.152*** (0.72)	-0.984*** (0.30)	-2.036*** (0.71)	-0.397* (0.21)	-0.591 (0.54)	6.487** (2.67)	12.576** (5.55)
N	3127	2130	3124	2115	3124	2115	3086	2072	3136	2149
R <sup>2</sup>	0.0271	0.0126	0.0172	0.0118	0.0166	0.0104	0.0133	0.0109	0.0229	0.0222
PastInflation vs BankTarget	0.025 (0.06)	-0.066 (0.28)	0.011 (0.09)	0.219 (0.27)	0.006 (0.09)	0.078 (0.27)	-0.048 (0.06)	0.044 (0.21)	0.229 (0.57)	2.303 (2.17)
constant	-0.383* (0.21)	-0.909 (1.01)	-0.241 (0.32)	-1.333 (0.98)	-0.382 (0.30)	-1.298 (0.98)	-0.208 (0.20)	-0.417 (0.76)	3.412* (1.98)	4.796 (7.78)
N	1873	1300	1863	1283	1863	1283	1838	1259	1870	1306
R <sup>2</sup>	0.0147	0.0303	0.0166	0.0175	0.0141	0.0179	0.0106	0.0249	0.00989	0.0231
PastInflation vs all other	0.285*** (0.07)	0.080 (0.25)	0.227** (0.10)	0.280 (0.24)	0.239** (0.09)	0.178 (0.24)	0.110* (0.06)	0.018 (0.18)	-1.730** (0.68)	1.873 (1.85)
constant	-0.844*** (0.19)	-1.242* (0.65)	-0.483* (0.25)	-1.488** (0.62)	-0.712*** (0.24)	-1.424** (0.61)	-0.450*** (0.16)	-0.585 (0.47)	4.607*** (1.74)	10.000** (4.78)
N	4371	2987	4365	2962	4365	2962	4310	2904	4382	3012
R <sup>2</sup>	0.0177	0.0145	0.0113	0.00729	0.0111	0.00589	0.00746	0.00912	0.0128	0.0157

Notes: This table presents the estimation results for equations (C1) and (C2). Regressions control for demographic characteristics. Results are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table C2: Estimation results for revisions in probabilities for 1-year expectations: comparison of treatments.

	below -12%	(-12,-8)	(-8,-4)	(-4,-2)	(-2,0)	(0,2)	(2,4)	(4,8)	(8,12)	Above 12%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Panel A: posteriors, Wave 1</b>										
BankTarget vs Forecasts	0.307	-0.050	0.384**	0.360	-0.126	-8.461***	0.895	2.475***	1.446**	2.717***
	(0.25)	(0.21)	(0.19)	(0.28)	(0.36)	(0.87)	(0.93)	(0.77)	(0.63)	(0.73)
N	3758	3758	3758	3758	3759	3759	3758	3758	3760	3761
R <sup>2</sup>	0.00266	0.00562	0.00857	0.00511	0.00782	0.0406	0.0114	0.00687	0.0125	0.0374
BankForecast vs ProfForecast	0.075	-0.293	0.306	0.648**	-0.758*	-10.050***	6.253***	2.947***	1.293*	-0.205
	(0.28)	(0.24)	(0.21)	(0.29)	(0.40)	(1.06)	(1.09)	(0.90)	(0.75)	(0.85)
N	2512	2512	2512	2512	2512	2513	2512	2512	2514	2514
R <sup>2</sup>	0.00456	0.00559	0.00846	0.00839	0.00997	0.0573	0.0243	0.00979	0.0168	0.0413
BankTarget vs Other	0.357	-0.109	0.300*	0.244	-0.142	-7.041***	1.436	2.058***	0.773	2.047***
	(0.24)	(0.20)	(0.18)	(0.27)	(0.35)	(0.82)	(0.89)	(0.75)	(0.61)	(0.69)
N	4382	4382	4382	4382	4383	4383	4382	4382	4385	4386
R <sup>2</sup>	0.00220	0.00440	0.00671	0.00454	0.00538	0.0320	0.0115	0.00523	0.0109	0.0311
Past inflation vs Forecasts	-0.257	0.295	0.409*	0.607*	0.101	-7.126***	-2.769**	2.200**	3.271***	3.417***
	(0.31)	(0.26)	(0.23)	(0.32)	(0.45)	(1.16)	(1.20)	(1.02)	(0.83)	(0.93)
N	3136	3136	3136	3136	3136	3137	3136	3136	3139	3139
R <sup>2</sup>	0.00329	0.00363	0.00725	0.00706	0.00545	0.0329	0.0121	0.00675	0.0178	0.0368
Past inflation vs BankTarget	-0.553	0.319	0.044	0.249	0.222	1.322	-3.756***	-0.416	1.892**	0.812
	(0.36)	(0.28)	(0.27)	(0.44)	(0.53)	(1.01)	(1.27)	(1.11)	(0.86)	(0.98)
N	1870	1870	1870	1870	1871	1870	1870	1870	1871	1872
R <sup>2</sup>	0.00821	0.0141	0.0128	0.00615	0.00524	0.0187	0.0263	0.00809	0.0176	0.0267
Past inflation vs all other	-0.353	0.305	0.288	0.488	0.138	-4.348***	-3.077***	1.337	2.811***	2.562***
	(0.31)	(0.26)	(0.23)	(0.35)	(0.45)	(1.07)	(1.15)	(0.97)	(0.79)	(0.90)
N	4382	4382	4382	4382	4383	4383	4382	4382	4385	4386
R <sup>2</sup>	0.00198	0.00465	0.00642	0.00480	0.00536	0.0195	0.0125	0.00397	0.0135	0.0310
<b>Panel B: posteriors, Wave 2</b>										
BankTarget vs Forecasts	-0.309	-0.262	-0.129	-0.199	-0.143	0.300	-0.505	0.178	1.896*	-1.024
	(0.38)	(0.34)	(0.34)	(0.44)	(0.62)	(1.15)	(1.35)	(1.28)	(1.03)	(1.15)
N	2569	2569	2569	2569	2570	2569	2569	2570	2571	2572
R <sup>2</sup>	0.0124	0.00565	0.00443	0.00543	0.00346	0.0123	0.00703	0.00770	0.00795	0.00985
BankForecast vs ProfForecast	-0.411	-0.408	-0.164	0.358	-1.233*	-1.364	0.087	1.848	0.839	0.088
	(0.42)	(0.40)	(0.40)	(0.48)	(0.71)	(1.32)	(1.57)	(1.46)	(1.20)	(1.35)
N	1706	1706	1706	1706	1706	1706	1706	1707	1707	1707
R <sup>2</sup>	0.0150	0.00672	0.0109	0.00723	0.00524	0.0158	0.00910	0.0125	0.0113	0.0163
BankTarget vs Other	-0.355	-0.285	-0.013	-0.086	0.160	0.130	-1.109	0.582	1.845*	-1.185
	(0.36)	(0.33)	(0.32)	(0.41)	(0.59)	(1.11)	(1.31)	(1.24)	(0.98)	(1.12)
N	3012	3012	3012	3012	3013	3012	3012	3014	3015	3017
R <sup>2</sup>	0.0125	0.00606	0.00311	0.00580	0.00363	0.0123	0.00552	0.00646	0.00602	0.00970
Past inflation vs Forecast	0.160	0.076	-0.600	-0.596	-1.517**	0.526	3.029*	-1.555	0.326	0.608
	(0.46)	(0.44)	(0.43)	(0.51)	(0.77)	(1.44)	(1.74)	(1.62)	(1.29)	(1.51)
N	2149	2149	2149	2149	2149	2149	2149	2151	2151	2152
R <sup>2</sup>	0.0158	0.00648	0.00809	0.00718	0.00556	0.0149	0.00736	0.0106	0.00634	0.0150
Past inflation vs Target	0.550	0.370	-0.470	-0.393	-1.349	0.582	3.247**	-2.049	-1.613	1.736
	(0.56)	(0.47)	(0.45)	(0.61)	(0.87)	(1.63)	(1.91)	(1.84)	(1.39)	(1.61)
N	1306	1306	1306	1306	1307	1306	1306	1307	1308	1310
R <sup>2</sup>	0.0231	0.0210	0.00937	0.0192	0.0142	0.0202	0.0173	0.0132	0.0113	0.0157
Past inflation vs all other	0.291	0.178	-0.553	-0.508	-1.445*	0.552	3.131*	-1.742	-0.339	0.966
	(0.46)	(0.42)	(0.41)	(0.52)	(0.76)	(1.41)	(1.67)	(1.57)	(1.25)	(1.43)
N	3012	3012	3012	3012	3013	3012	3012	3014	3015	3017
R <sup>2</sup>	0.0123	0.00587	0.00371	0.00611	0.00482	0.0124	0.00645	0.00679	0.00487	0.00948

Notes: This table presents the estimation results for equations (C1) and (C2). Regressions control for demographic characteristics. Results are from OLS regressions. Standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

## D Tables

Table D1: Estimation results of the revisions about 1-year expectations: treatments with range by age groups.

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
Range, all	-0.033 (0.10)	0.268 (0.34)	-0.150 (0.13)	-0.323 (0.31)	-0.148 (0.12)	-0.420 (0.31)	-0.019 (0.08)	0.171 (0.24)	2.132** (0.94)	-0.449 (2.42)
young	-0.048 (0.16)	-1.460** (0.58)	-0.210 (0.19)	-0.019 (0.53)	-0.404** (0.19)	-0.239 (0.53)	0.103 (0.12)	0.170 (0.41)	-0.280 (1.45)	-8.295** (4.09)
senior	0.024 (0.10)	-0.883*** (0.31)	-0.025 (0.12)	-0.515* (0.29)	-0.062 (0.89)	-0.531* (0.29)	0.050 (0.08)	-0.091 (0.22)	-0.819 (0.90)	-0.100 (2.21)
Range, all × young	0.306 (0.22)	1.616** (0.80)	0.539** (0.27)	0.586 (0.74)	0.640** (0.26)	0.785 (0.74)	-0.216 (0.17)	-0.368 (0.57)	-0.009 (2.00)	5.663 (5.69)
Range, all × senior	-0.107 (0.13)	-0.151 (0.43)	0.005 (0.17)	0.323 (0.40)	-0.002 (0.16)	0.464 (0.39)	0.010 (0.11)	-0.224 (0.31)	-0.666 (1.24)	-0.473 (3.04)
constant	-0.896*** (0.23)	-0.771 (0.73)	-0.418 (0.29)	-0.897 (0.68)	-0.625** (0.27)	-0.842 (0.68)	-0.521*** (0.18)	-0.695 (0.52)	4.257** (2.14)	9.918* (5.21)
N	3742	2544	3743	2526	3743	2526	3743	2526	3758	2569
R <sup>2</sup>	0.0170	0.0184	0.0118	0.00712	0.0125	0.00546	0.00742	0.00825	0.0192	0.0148
Range, BankTarget	0.087 (0.12)	-1.226** (0.57)	-0.215 (0.17)	-0.983* (0.53)	-0.198 (0.16)	-1.050** (0.53)	-0.140 (0.11)	-0.130 (0.42)	0.754 (0.98)	3.222 (4.15)
young	0.048 (0.18)	-1.916** (0.94)	-0.190 (0.25)	-1.048 (0.89)	-0.224 (0.24)	-0.861 (0.89)	0.009 (0.15)	-0.872 (0.70)	0.479 (1.45)	-5.161 (6.78)
senior	0.089 (0.12)	-2.225*** (0.54)	-0.037 (0.17)	-1.513*** (0.49)	-0.055 (0.16)	-1.450*** (0.49)	-0.065 (0.10)	-0.532 (0.39)	-1.090 (0.95)	3.045 (3.87)
Range, BankTarget × young	-0.029 (0.26)	2.453* (1.30)	0.373 (0.36)	1.440 (1.22)	0.236 (0.34)	1.227 (1.22)	0.187 (0.22)	1.026 (0.97)	-1.786 (2.05)	-2.539 (9.39)
Range, BankTarget × senior	-0.364** (0.28)	1.759** (1.32)	0.012 (0.40)	0.832 (1.25)	-0.040 (0.38)	0.829 (1.25)	0.213 (0.24)	0.035 (0.99)	-0.174 (2.29)	-5.110 (9.73)
constant	-0.377 (0.28)	1.382 (1.32)	-0.008 (0.40)	0.624 (1.25)	-0.011 (0.38)	0.603 (1.25)	-0.323 (0.24)	-0.163 (0.99)	2.981 (2.29)	-0.147 (9.73)
N	1244	857	1241	847	1241	847	1241	847	1246	863
R <sup>2</sup>	0.0200	0.0449	0.0185	0.0338	0.0223	0.0350	0.00918	0.0337	0.0262	0.0310
Range, BankForecast	-0.027 (0.21)	1.251** (0.59)	0.015 (0.23)	0.214 (0.58)	-0.027 (0.22)	0.078 (0.57)	0.068 (0.14)	0.275 (0.48)	3.335* (1.93)	-4.001 (4.28)
young	0.279 (0.36)	-1.942* (1.01)	-0.217 (0.39)	-0.467 (0.99)	-0.235 (0.37)	-0.467 (0.96)	0.237 (0.24)	0.209 (0.81)	-1.386 (3.31)	9.083 (7.32)
senior	-0.049 (0.20)	0.238 (0.52)	0.183 (0.22)	-0.049 (0.51)	-0.040 (0.21)	-0.204 (0.50)	0.075 (0.13)	-0.632 (0.42)	-0.662 (1.82)	-2.001 (3.75)
Range, BankForecast × young	-0.077 (0.46)	0.919 (1.37)	0.391 (0.51)	0.409 (1.34)	0.289 (0.48)	0.202 (1.30)	-0.642** (0.31)	-0.520 (1.09)	1.602 (4.25)	-10.440 (9.89)
Range, BankForecast × senior	-0.109 (0.27)	-1.443* (0.74)	-0.224 (0.30)	0.084 (0.72)	-0.107 (0.28)	0.292 (0.70)	-0.202 (0.19)	0.356 (0.59)	-1.166 (2.52)	1.441 (5.29)
constant	-1.317*** (0.49)	-1.548 (1.24)	-1.220** (0.54)	-2.243* (1.22)	-1.613*** (0.51)	-1.921 (1.18)	-0.571* (0.33)	-1.256 (1.00)	11.279** (4.51)	10.606 (8.91)
N	1258	849	1257	841	1257	841	1257	841	1260	857
R <sup>2</sup>	0.0245	0.0302	0.0234	0.0148	0.0278	0.0146	0.0164	0.0247	0.0296	0.0314
Range, ProfForecast	-0.199 (0.22)	1.003* (0.60)	-0.101 (0.25)	0.074 (0.55)	-0.015 (0.24)	0.012 (0.56)	0.021 (0.18)	0.426 (0.41)	3.052 (3.02)	-3.360 (4.29)
young	-0.452 (0.34)	-1.208 (1.05)	0.005 (0.37)	1.630* (0.94)	-0.361 (0.36)	0.969 (0.96)	-0.120 (0.28)	1.397* (0.71)	2.257 (4.56)	-25.339*** (7.45)
senior	-0.045 (0.21)	-0.618 (0.55)	0.034 (0.24)	0.127 (0.50)	0.117 (0.23)	0.140 (0.51)	0.065 (0.18)	0.788** (0.38)	-2.331 (2.93)	-2.231 (3.98)
Range, ProfForecast × young	0.759 (0.49)	3.001** (1.52)	0.827 (0.53)	-0.088 (1.36)	1.015* (0.52)	0.761 (1.39)	-0.858** (0.40)	-2.208** (1.03)	3.176 (6.53)	24.552** (10.75)
Range, ProfForecast × seniors	0.287 (0.29)	-0.857 (0.75)	0.042 (0.32)	-0.313 (0.68)	-0.087 (0.32)	-0.083 (0.69)	0.169 (0.24)	-0.949* (0.52)	0.113 (3.98)	4.810 (5.35)
constant	-1.778*** (0.48)	-2.096* (1.22)	-0.214 (0.54)	-1.404 (1.12)	-0.493 (0.53)	-1.520 (1.14)	-0.355 (0.40)	-0.786 (0.85)	2.733 (6.60)	19.314** (8.78)
N	1240	838	1245	838	1245	838	1245	838	1252	849
R <sup>2</sup>	0.0431	0.0411	0.0226	0.0263	0.0207	0.0203	0.0437	0.0232	0.0430	0.0476

Notes: This table presents estimation results for equation (9). Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D2: Estimation results of the revisions about 1-year expectations: treatments with range by education groups.

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
Range, all	0.069 (0.15)	1.313*** (0.45)	-0.127 (0.18)	-0.460 (0.42)	-0.153 (0.17)	-0.375 (0.42)	0.027 (0.12)	0.087 (0.32)	0.795 (1.35)	-1.863 (3.21)
some college	0.244** (0.12)	0.592 (0.37)	-0.016 (0.15)	-0.443 (0.35)	-0.033 (0.15)	-0.336 (0.35)	0.101 (0.10)	0.535** (0.27)	0.302 (1.13)	-0.045 (2.68)
university+	0.293** (0.13)	0.643 (0.40)	0.063 (0.16)	-0.019 (0.38)	0.091 (0.16)	-0.008 (0.37)	0.092 (0.10)	0.205 (0.29)	0.489 (1.21)	2.997 (2.89)
Range, all × some college	-0.100 (0.17)	-1.143** (0.53)	0.165 (0.21)	0.841* (0.50)	0.168 (0.21)	0.701 (0.50)	0.013 (0.14)	-0.351 (0.39)	0.372 (1.60)	0.314 (3.83)
Range, all × university+	-0.212 (0.18)	-1.306** (0.56)	-0.117 (0.22)	-0.037 (0.52)	-0.027 (0.21)	-0.089 (0.52)	-0.176 (0.14)	0.210 (0.40)	2.406 (1.67)	4.076 (4.00)
constant	-0.954*** (0.24)	-1.300* (0.73)	-0.449 (0.29)	-0.888 (0.69)	-0.631** (0.28)	-0.906 (0.69)	-0.546*** (0.19)	-0.632 (0.53)	4.959** (2.19)	10.830** (5.30)
N	3742	2544	3743	2526	3743	2526	3743	2526	3758	2569
R <sup>2</sup>	0.0162	0.0189	0.0113	0.00911	0.0111	0.00651	0.00777	0.00945	0.0203	0.0149
Range, BankTarget	-0.268 (0.18)	1.682** (0.79)	0.010 (0.26)	-0.835 (0.74)	-0.255 (0.24)	-0.948 (0.74)	-0.110 (0.16)	1.113* (0.59)	0.839 (1.46)	-6.178 (5.76)
some college	-0.033 (0.15)	0.500 (0.66)	-0.190 (0.21)	-1.167* (0.60)	-0.431** (0.20)	-1.023* (0.60)	0.066 (0.13)	1.561*** (0.48)	0.920 (1.21)	-6.655 (4.75)
university+	0.158 (0.16)	1.533** (0.71)	0.027 (0.22)	0.115 (0.64)	-0.242 (0.21)	0.038 (0.64)	0.082 (0.14)	1.572*** (0.51)	-0.205 (1.29)	-5.851 (5.05)
Range, BankTarget × some college	0.342 (0.21)	-1.337 (0.95)	-0.028 (0.30)	1.559* (0.88)	0.227 (0.29)	1.576* (0.88)	0.182 (0.18)	-1.497** (0.70)	-0.696 (1.73)	5.195 (6.89)
Range, BankTarget × university+	0.026 (0.22)	-2.836*** (0.98)	-0.430 (0.31)	-0.699 (0.91)	-0.126 (0.30)	-0.665 (0.91)	0.036 (0.19)	-1.126 (0.73)	-0.033 (1.79)	11.203 (7.10)
constant	-0.214 (0.29)	0.034 (1.34)	-0.138 (0.41)	0.419 (1.25)	-0.022 (0.39)	0.386 (1.26)	-0.362 (0.25)	-0.693 (1.00)	3.115 (2.36)	4.579 (9.83)
N	1244	857	1241	847	1241	847	1241	847	1246	863
R <sup>2</sup>	0.0190	0.0470	0.0200	0.0439	0.0246	0.0454	0.00870	0.0404	0.0258	0.0327
Range, BankForecast	0.036 (0.30)	0.677 (0.33)	-0.581* (0.77)	0.085 (0.74)	-0.368 (0.31)	0.233 (0.72)	-0.177 (0.20)	0.104 (0.60)	-0.783 (2.68)	0.552 (5.44)
some college	0.488** (0.25)	-0.108 (0.64)	-0.015 (0.27)	-0.250 (0.62)	0.076 (0.26)	-0.330 (0.61)	0.103 (0.17)	0.042 (0.50)	-3.583 (2.24)	1.960 (4.54)
university+	0.227 (0.26)	-0.376 (0.69)	0.057 (0.29)	0.324 (0.67)	0.156 (0.27)	0.092 (0.65)	0.088 (0.18)	-0.227 (0.54)	0.114 (2.37)	4.046 (4.88)
Range, BankTarget × some college	-0.174 (0.35)	-0.339 (0.92)	0.801** (0.39)	0.655 (0.89)	0.503 (0.37)	0.363 (0.86)	0.178 (0.24)	0.204 (0.72)	4.977 (3.18)	-4.818 (6.53)
Range, BankTarget × university+	-0.138 (0.36)	-0.268 (0.96)	0.390 (0.40)	-0.189 (0.92)	-0.189 (0.38)	-0.345 (0.90)	0.010 (0.25)	0.625 (0.75)	3.271 (3.31)	-6.266 (6.81)
constant	-1.340*** (0.50)	-1.447 (1.28)	-0.984* (0.56)	-2.229* (1.24)	-1.465*** (0.53)	-2.019* (1.21)	-0.494 (0.34)	-1.122 (1.00)	13.474*** (4.56)	7.723 (9.10)
N	1258	849	1257	841	1257	841	1257	841	1260	857
R <sup>2</sup>	0.0246	0.0223	0.0257	0.0169	0.0293	0.0158	0.0135	0.0236	0.0310	0.0305
Range, ProfForecast	0.988*** (0.32)	1.892** (0.79)	0.179 (0.36)	-0.500 (0.73)	0.086 (0.36)	-0.407 (0.74)	0.303 (0.26)	-0.581 (0.56)	5.378 (4.36)	1.276 (5.69)
some college	0.935*** (0.27)	1.587** (0.65)	0.193 (0.30)	0.334 (0.61)	0.280 (0.30)	0.466 (0.61)	-0.009 (0.22)	0.291 (0.46)	5.075 (3.70)	5.715 (4.75)
university+	1.063*** (0.29)	0.921 (0.72)	-0.003 (0.33)	-0.380 (0.67)	0.200 (0.32)	-0.149 (0.68)	-0.104 (0.24)	-0.651 (0.51)	4.087 (3.97)	10.552** (5.24)
Range, ProfForecast × some college	-1.188*** (0.38)	-1.913** (0.93)	-0.253 (0.42)	0.284 (0.86)	-0.158 (0.42)	0.323 (0.87)	-0.161 (0.30)	-0.096 (0.65)	-4.613 (5.12)	-3.095 (6.70)
Range, ProfForecast × university+	-1.062*** (0.40)	-0.931 (0.99)	-0.181 (0.44)	0.660 (0.91)	0.012 (0.44)	0.717 (0.93)	-0.466 (0.32)	0.897 (0.70)	0.160 (5.38)	4.015 (7.14)
constant	-2.348*** (0.50)	-2.630** (1.23)	-0.338 (0.55)	-1.069 (1.15)	-0.525 (0.55)	-1.301 (1.16)	-0.476 (0.40)	-0.243 (0.87)	1.418 (6.73)	16.409* (8.96)
N	1240	838	1245	838	1245	838	1245	838	1252	849
R <sup>2</sup>	0.0489	0.0374	0.0207	0.0267	0.0184	0.0210	0.0360	0.0208	0.0443	0.0418

Notes: This table presents estimation results for equation (9). Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D3: Estimation results of the revisions about 1-year expectations: treatments with range by education groups.

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iq_{1yr}^{post}$ (7)	$E_i iq_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
Range, all	-0.313** (0.13)	0.649 (0.40)	-0.105 (0.16)	0.025 (0.37)	-0.208 (0.15)	0.112 (0.37)	0.007 (0.10)	0.113 (0.29)	2.009* (1.19)	-0.340 (2.87)
\$40K-\$100K	-0.214* (0.11)	0.385 (0.35)	-0.044 (0.14)	0.373 (0.33)	-0.066 (0.14)	0.292 (0.33)	-0.053 (0.09)	-0.058 (0.25)	2.693** (1.05)	4.398* (2.52)
\$100K+	-0.076 (0.14)	0.281 (0.42)	0.002 (0.17)	0.230 (0.39)	-0.057 (0.16)	0.006 (0.39)	-0.091 (0.11)	0.025 (0.30)	2.235* (1.24)	0.912 (3.03)
Range, all × \$40K-\$100K	0.386** (0.16)	-0.429 (0.49)	-0.031 (0.19)	-0.209 (0.46)	0.088 (0.19)	-0.359 (0.45)	-0.063 (0.12)	-0.144 (0.35)	-0.443 (1.44)	-1.717 (3.50)
Range, all × \$100K+	0.192 (0.18)	-0.502 (0.56)	0.091 (0.22)	-0.036 (0.52)	0.263 (0.21)	-0.064 (0.52)	-0.033 (0.14)	-0.084 (0.40)	-0.155 (1.62)	3.442 (3.99)
constant	-0.791*** (0.24)	-1.005 (0.73)	-0.436 (0.29)	-1.038 (0.69)	-0.598** (0.28)	-1.053 (0.68)	-0.529*** (0.19)	-0.675 (0.53)	4.290** (1.53)	10.295* (5.27)
N	3742	2544	3743	2526	3743	2526	3743	2526	3758	2569
R <sup>2</sup>	0.0176	0.0169	0.0106	0.00689	0.0113	0.00504	0.00697	0.00801	0.0189	0.0151
Range, BankTarget	-0.471*** (0.15)	0.740 (0.70)	-0.265 (0.22)	0.460 (0.64)	-0.473** (0.21)	0.465 (0.64)	0.075 (0.13)	-0.157 (0.52)	1.794 (1.28)	-4.812 (5.03)
\$40K-\$100K	-0.325** (0.14)	0.201 (0.63)	0.142 (0.20)	0.434 (0.57)	-0.126 (0.19)	0.273 (0.57)	0.164 (0.12)	-0.777* (0.46)	2.095* (1.14)	1.489 (4.51)
\$100K+	-0.300* (0.16)	1.120 (0.75)	0.323 (0.23)	1.042 (0.68)	0.045 (0.22)	0.845 (0.68)	-0.011 (0.14)	0.220 (0.55)	1.367 (1.35)	-9.282* (5.36)
Range, BankTarget × \$40K-\$100K	0.556*** (0.18)	-0.538 (0.86)	0.134 (0.27)	-0.717 (0.79)	0.316 (0.26)	-0.801 (0.79)	-0.162 (0.16)	0.372 (0.63)	-2.341 (1.56)	3.742 (6.17)
Range, BankTarget × \$100K+	0.268 (0.21)	-1.791* (0.97)	0.086 (0.30)	-1.849** (0.89)	0.376 (0.29)	-1.991** (0.89)	-0.029 (0.18)	-0.148 (0.72)	-0.718 (1.75)	12.665* (7.01)
constant	-0.109 (0.28)	0.560 (1.34)	0.002 (0.41)	-0.023 (1.25)	0.092 (0.39)	-0.090 (1.25)	-0.404* (0.24)	-0.156 (1.01)	2.721 (2.36)	3.532 (9.83)
N	1244	857	1241	847	1241	847	1241	847	1246	863
R <sup>2</sup>	0.0235	0.0402	0.0184	0.0359	0.0244	0.0383	0.00831	0.0346	0.0277	0.0331
Range, BankForecast	-0.180 (0.26)	0.941 (0.68)	-0.028 (0.29)	-0.175 (0.67)	-0.007 (0.27)	-0.086 (0.65)	-0.075 (0.18)	0.787 (0.55)	3.580 (2.40)	0.498 (4.90)
\$40K-\$100K	-0.034 (0.23)	0.808 (0.59)	-0.117 (0.26)	0.547 (0.59)	0.049 (0.24)	0.509 (0.57)	-0.040 (0.16)	0.724 (0.48)	4.072* (2.12)	4.486 (4.25)
\$100K+	0.058 (0.27)	0.193 (0.72)	0.034 (0.30)	-0.258 (0.70)	0.117 (0.28)	-0.444 (0.68)	-0.166 (0.19)	0.209 (0.57)	5.154** (2.51)	9.846* (5.13)
Range, BankForecast × \$40K-\$100K	0.122 (0.31)	-0.690 (0.84)	-0.094 (0.35)	0.321 (0.82)	-0.159 (0.33)	0.105 (0.80)	-0.112 (0.22)	-0.458 (0.67)	1.056 (2.93)	-4.372 (6.01)
Range, BankForecast × \$100K+	0.071 (0.35)	-0.581 (0.95)	0.020 (0.39)	1.073 (0.92)	0.102 (0.37)	1.048 (0.90)	0.124 (0.24)	-0.370 (0.75)	-4.298 (3.25)	-8.031 (6.79)
constant	-1.243** (0.49)	-1.599 (1.27)	-1.212** (0.55)	-1.932 (1.24)	-1.585*** (0.51)	-1.655 (1.20)	-0.527 (0.34)	-1.500 (1.01)	10.744** (4.55)	7.549 (9.02)
N	1258	849	1257	841	1257	841	1257	841	1260	857
R <sup>2</sup>	0.0241	0.0239	0.0222	0.0167	0.0278	0.0166	0.0135	0.0240	0.0316	0.0311
Range, ProfForecast	-0.304 (0.29)	0.314 (0.32)	-0.062 (0.32)	-0.126 (0.65)	-0.233 (0.32)	0.080 (0.66)	0.211 (0.24)	-0.135 (0.50)	8.452** (3.97)	1.799 (5.12)
\$40K-\$100K	-0.263 (0.25)	0.057 (0.60)	-0.214 (0.28)	0.136 (0.56)	-0.191 (0.27)	-0.001 (0.57)	-0.176 (0.20)	0.174 (0.43)	7.346** (3.42)	8.014* (4.42)
\$100K+	0.032 (0.29)	-0.525 (0.74)	-0.400 (0.33)	-0.191 (0.69)	-0.404 (0.33)	-0.548 (0.70)	-0.233 (0.24)	-0.119 (0.52)	4.621 (4.09)	3.735 (5.39)
Range, ProfForecast × \$40K-\$100K	0.482 (0.34)	0.160 (0.85)	-0.037 (0.38)	-0.305 (0.79)	0.227 (0.38)	-0.468 (0.80)	-0.215 (0.28)	-0.422 (0.60)	-9.347** (4.76)	-4.502 (6.17)
Range, ProfForecast × \$100K+	0.268 (0.39)	0.914 (0.98)	0.289 (0.44)	0.590 (0.91)	0.484 (0.43)	0.616 (0.92)	-0.148 (0.32)	0.228 (0.69)	-0.151 (5.41)	7.186 (7.15)
constant	-1.728*** (0.49)	-1.948 (1.21)	-0.221 (0.55)	-1.205 (1.13)	-0.393 (0.54)	-1.483 (1.15)	-0.425 (0.40)	-0.503 (0.86)	0.885 (6.77)	17.429** (8.86)
N	1240	838	1245	838	1245	838	1245	838	1252	849
R <sup>2</sup>	0.0425	0.0328	0.0208	0.0278	0.0191	0.0230	0.0354	0.0177	0.0475	0.0461

Notes: This table presents estimation results for equation (9). Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.



Table D4: Estimation results of the revisions about 1-year expectations: treatments with range by education groups.

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
Range, all	-0.030 (0.11)	0.763** (0.34)	-0.043 (0.14)	0.380 (0.32)	-0.104 (0.13)	0.349 (0.31)	0.004 (0.09)	0.090 (0.24)	1.846* (1.02)	-1.292 (2.43)
female	-0.263*** (0.10)	-0.215 (0.30)	-0.323*** (0.12)	0.069 (0.28)	-0.371*** (0.11)	0.064 (0.28)	-0.035 (0.08)	-0.276 (0.21)	2.882*** (0.89)	-0.589 (2.14)
Range, all × female	-0.047 (0.14)	-0.786* (0.42)	-0.081 (0.17)	-0.742* (0.39)	0.030 (0.16)	-0.689* (0.39)	-0.060 (0.11)	-0.121 (0.30)	-0.146 (1.24)	1.468 (2.99)
constant	-0.916*** (0.23)	-1.003 (0.73)	-0.476* (0.29)	-1.203* (0.68)	-0.638** (0.27)	-1.171* (0.68)	-0.530*** (0.18)	-0.673 (0.53)	4.325** (2.13)	10.432** (5.23)
N	3742	2544	3743	2526	3743	2526	3743	2526	3758	2569
R <sup>2</sup>	0.0160	0.0172	0.0107	0.00812	0.0106	0.00589	0.00694	0.00810	0.0190	0.0144
Range, BankTarget	-0.229* (0.13)	0.667 (0.60)	-0.067 (0.19)	0.273 (0.55)	-0.189 (0.18)	0.265 (0.55)	0.001 (0.11)	-0.123 (0.43)	0.761 (1.08)	6.547 (4.30)
female	-0.204* (0.12)	-0.268 (0.54)	-0.175 (0.17)	0.045 (0.49)	-0.274* (0.16)	0.034 (0.49)	0.004 (0.10)	-0.482 (0.39)	1.579* (0.95)	5.044 (3.85)
Range, BankTarget × female	0.206 (0.16)	-1.133 (0.73)	-0.173 (0.23)	-1.064 (0.67)	-0.009 (0.22)	-1.185* (0.68)	-0.015 (0.14)	0.142 (0.53)	-0.420 (1.31)	-9.450* (5.26)
constant	-0.219 (0.28)	0.444 (1.34)	-0.116 (0.41)	-0.059 (1.26)	-0.012 (0.38)	-0.145 (1.26)	-0.376 (0.24)	-0.175 (1.00)	2.980 (2.30)	-2.130 (9.76)
N	1244	857	1241	847	1241	847	1241	847	1246	863
R <sup>2</sup>	0.0155	0.0390	0.0185	0.0344	0.0217	0.0368	0.00746	0.0323	0.0256	0.0343
Range, BankForecast	-0.019 (0.22)	0.614 (0.57)	-0.022 (0.25)	0.632 (0.55)	-0.053 (0.23)	0.618 (0.54)	-0.179 (0.15)	0.298 (0.45)	5.452*** (2.08)	-6.549 (4.09)
female	-0.184 (0.19)	-0.193 (0.50)	-0.307 (0.22)	0.386 (0.49)	-0.289 (0.20)	0.426 (0.47)	-0.090 (0.13)	-0.509 (0.40)	4.182** (1.81)	-0.688 (3.56)
Range, BankForecast × female	-0.131 (0.27)	-0.339 (0.71)	-0.072 (0.30)	-0.566 (0.69)	-0.005 (0.28)	-0.553 (0.67)	0.136 (0.19)	0.248 (0.56)	-3.971 (2.52)	4.243 (5.07)
constant	-1.305*** (0.49)	-1.370 (1.25)	-1.232** (0.54)	-2.372* (1.22)	-1.612*** (0.51)	-2.055* (1.18)	-0.511 (0.33)	-1.299 (0.99)	10.559** (4.55)	10.769 (8.91)
N	1258	849	1257	841	1257	841	1257	841	1260	857
R <sup>2</sup>	0.0245	0.0219	0.0223	0.0155	0.0275	0.0149	0.0130	0.0239	0.0302	0.0300
Range, ProfForecast	0.152 (0.25)	1.293** (0.61)	-0.029 (0.28)	0.296 (0.56)	-0.104 (0.27)	0.291 (0.57)	0.266 (0.20)	0.155 (0.43)	-2.608 (3.39)	-4.665 (4.41)
female	-0.442** (0.21)	-0.036 (0.53)	-0.481** (0.24)	-0.257 (0.49)	-0.584** (0.23)	-0.276 (0.50)	-0.066 (0.17)	0.119 (0.37)	2.930 (2.91)	-5.710 (3.84)
Range, ProfForecast × female	-0.201 (0.30)	-1.024 (0.74)	0.036 (0.33)	-0.642 (0.68)	0.200 (0.33)	-0.428 (0.69)	-0.318 (0.24)	-0.676 (0.52)	9.537** (4.08)	8.919* (5.37)
constant	-1.966*** (0.49)	-2.349* (1.21)	-0.250 (0.54)	-1.554 (1.12)	-0.428 (0.53)	-1.732 (1.14)	-0.467 (0.39)	-0.732 (0.85)	6.423 (6.65)	19.768** (8.81)
N	1240	838	1245	838	1245	838	1245	838	1252	849
R <sup>2</sup>	0.0413	0.0344	0.0205	0.0269	0.0183	0.0208	0.0352	0.0186	0.0470	0.0442

Notes: This table presents estimation results for equation (9). Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D5: Estimation results of the revisions about 1-year expectations: treatments with and without range.

	Range, all		Range, BankTarget		Range, BankForecast		Bank, ProfForecast	
	Range	No range	Range	No range	Range	No range	Range	No range
$E_i \pi_{1yr}^{revisionWave2}$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
young	0.159 (0.54)	-1.485** (0.61)	0.438 (0.90)	-2.291** (1.00)	-1.104 (0.94)	-1.694 (1.19)	1.780 (1.13)	-0.675 (1.09)
senior	-1.174*** (0.30)	-0.742** (0.33)	-0.841 (0.55)	-2.049*** (0.58)	-1.441** (0.57)	0.358 (0.62)	-1.470*** (0.54)	-0.318 (0.58)
female	-1.094*** (0.30)	-0.088 (0.33)	-1.640*** (0.53)	-0.125 (0.58)	-0.724 (0.56)	-0.246 (0.59)	-1.303** (0.56)	0.111 (0.57)
some college	-0.602 (0.38)	0.610 (0.40)	-0.568 (0.70)	0.286 (0.70)	-0.560 (0.67)	0.042 (0.74)	-0.244 (0.69)	1.846*** (0.69)
university +	-0.755* (0.42)	0.724 (0.45)	-1.038 (0.77)	1.267 (0.78)	-0.715 (0.76)	-0.044 (0.82)	-0.280 (0.78)	1.363* (0.78)
\$40K-\$100K	-0.121 (0.37)	0.484 (0.39)	-0.381 (0.65)	0.069 (0.69)	-0.088 (0.66)	1.161* (0.70)	0.244 (0.70)	-0.010 (0.67)
\$100K+	-0.307 (0.44)	0.380 (0.48)	-0.772 (0.80)	0.794 (0.86)	-0.527 (0.77)	0.860 (0.87)	0.539 (0.86)	-0.889 (0.83)
Dknow inflation well	0.014 (0.35)	0.460 (0.37)	-0.048 (0.60)	0.865 (0.66)	0.117 (0.64)	0.803 (0.68)	-0.076 (0.65)	-0.097 (0.61)
Deasy to express inflation	-0.154 (0.32)	0.276 (0.34)	-0.421 (0.57)	-0.370 (0.60)	0.247 (0.58)	-0.072 (0.65)	-0.483 (0.58)	0.918 (0.58)
constant	0.888 (1.04)	-2.382** (1.01)	0.824 (2.04)	-0.212 (1.79)	2.386 (1.89)	-4.750** (1.90)	-0.060 (1.76)	-2.689 (1.68)
N	1256	1288	428	429	416	433	412	426
R <sup>2</sup>	0.0273	0.0210	0.0440	0.0762	0.0405	0.0361	0.0594	0.0461
$E_i iqr_{1yr}^{revisionWave2}$	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
young	-0.193 (0.40)	0.236 (0.43)	0.193 (0.67)	-1.165 (0.75)	-0.433 (0.73)	0.172 (0.87)	-0.949 (0.81)	1.872*** (0.72)
senior	-0.283 (0.23)	-0.105 (0.23)	-0.508 (0.40)	-0.557 (0.42)	-0.233 (0.44)	-0.667 (0.46)	-0.071 (0.40)	0.743* (0.38)
female	-0.407* (0.22)	-0.183 (0.23)	-0.495 (0.39)	-0.124 (0.43)	-0.100 (0.43)	-0.620 (0.43)	-0.556 (0.41)	0.335 (0.38)
some college	0.130 (0.28)	0.429 (0.28)	-0.138 (0.53)	1.775*** (0.51)	0.276 (0.52)	-0.254 (0.55)	0.271 (0.51)	0.155 (0.45)
university+	0.443 (0.31)	0.072 (0.31)	0.166 (0.58)	1.787*** (0.56)	0.665 (0.59)	-0.558 (0.60)	0.333 (0.57)	-0.870* (0.51)
\$40K-\$100K	-0.180 (0.27)	0.036 (0.27)	-0.400 (0.48)	-0.854* (0.50)	0.292 (0.52)	0.831 (0.52)	-0.220 (0.50)	0.360 (0.44)
\$100K	-0.069 (0.33)	0.178 (0.33)	0.016 (0.59)	0.338 (0.62)	-0.244 (0.60)	0.425 (0.65)	0.010 (0.62)	0.012 (0.55)
Dknow inflation well	-0.571** (0.26)	0.210 (0.26)	-0.235 (0.45)	0.325 (0.49)	-0.062 (0.50)	0.348 (0.50)	-1.406*** (0.48)	0.251 (0.40)
Deasy to express inflation	0.179 (0.24)	0.158 (0.24)	-0.270 (0.42)	-0.058 (0.44)	0.427 (0.45)	0.316 (0.48)	0.393 (0.42)	0.359 (0.38)
constant	0.121 (0.77)	-1.518** (0.71)	-1.051 (1.51)	-0.104 (1.36)	0.540 (1.47)	-2.726** (1.37)	0.565 (1.28)	-1.694 (1.14)
N	1234	1243	410	422	413	409	411	412
R <sup>2</sup>	0.0155	0.0101	0.0315	0.0828	0.0371	0.0376	0.0396	0.0559
$E_i prob_{1yr}^{target,revisionWave2}$	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
young	-2.248 (3.91)	-7.794* (4.20)	-6.420 (6.18)	-3.618 (7.24)	-0.593 (6.81)	11.015 (7.54)	0.193 (7.83)	-24.148*** (7.61)
senior	-0.355 (2.20)	-0.125 (2.31)	-1.706 (3.74)	3.601 (4.18)	-1.200 (4.08)	-1.294 (3.92)	3.739 (3.81)	-1.948 (4.14)
female	1.602 (2.19)	-1.419 (2.26)	-2.665 (3.62)	2.835 (4.24)	2.868 (4.04)	-1.181 (3.73)	3.245 (3.91)	-6.550 (4.04)
some college	-0.399 (2.74)	0.701 (2.77)	-2.865 (4.81)	-4.448 (5.09)	-1.808 (4.85)	2.416 (4.67)	0.016 (4.78)	4.866 (4.89)
university+	5.901* (3.05)	4.341 (3.07)	1.723 (5.31)	-1.778 (5.59)	0.895 (5.45)	3.192 (5.13)	10.965** (5.35)	10.596* (5.55)
\$40K-\$100K	2.546 (2.66)	4.861* (2.68)	5.592 (4.41)	3.015 (4.98)	-0.655 (4.80)	4.902 (4.48)	3.474 (4.82)	7.363 (4.73)
\$100K	3.335 (3.22)	1.712 (3.31)	3.263 (5.46)	-7.959 (6.16)	-0.392 (5.56)	11.063** (5.54)	9.606 (5.96)	5.730 (5.87)
Dknow inflation well	-1.616 (2.52)	1.420 (2.54)	3.515 (4.13)	3.076 (4.81)	-8.325* (4.64)	-1.482 (4.30)	0.763 (4.53)	0.646 (4.34)
Deasy to express inflation	6.456*** (2.31)	-0.088 (2.38)	10.179*** (3.93)	-4.076 (4.36)	9.629** (4.18)	5.019 (4.09)	1.112 (4.06)	-2.608 (4.14)
constant	3.742 (7.52)	14.130** (7.04)	-2.446 (14.02)	2.184 (13.42)	4.729 (13.67)	15.240 (11.93)	6.228 (12.15)	26.366** (12.02)
N	1273	1296	429	434	420	437	424	425
R <sup>2</sup>	0.0294	0.0199	0.0756	0.0386	0.0393	0.0541	0.0590	0.0918

Notes: This table presents results for equation (9) estimated separately for different types of treatments. Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D6: Estimation results for the revisions in 1-year expectations by age groups

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i \pi_{1yr}^{iqr,post}$ (7)	$E_i \pi_{1yr}^{iqr,Wave2}$ (8)	$E_i \text{prob}_{1yr}^{target,post}$ (9)	$E_i \text{prob}_{1yr}^{target,Wave2}$ (10)
<b>PastInflation</b>	-0.489*** (0.13)	-0.114 (0.58)	-0.506*** (0.19)	-0.660 (0.56)	-0.304* (0.18)	-0.698 (0.55)	-0.226* (0.12)	0.278 (0.43)	3.386** (1.32)	6.407 (4.38)
<b>BankTarget</b>	-0.277** (0.13)	1.530*** (0.57)	-0.244 (0.19)	0.700 (0.55)	-0.116 (0.18)	0.737 (0.55)	-0.242* (0.12)	0.296 (0.42)	3.166** (1.32)	0.259 (4.32)
<b>BankTargetRange</b>	-0.165 (0.13)	0.318 (0.56)	-0.549*** (0.19)	-0.376 (0.54)	-0.415** (0.18)	-0.402 (0.54)	-0.396*** (0.12)	0.209 (0.41)	4.438*** (1.29)	3.821 (4.21)
<b>BankForecast</b>	-0.430*** (0.13)	-0.386 (0.58)	-0.648*** (0.19)	-0.566 (0.56)	-0.461** (0.18)	-0.469 (0.56)	-0.488*** (0.12)	0.042 (0.43)	5.184*** (1.31)	3.557 (4.36)
<b>BankForecastCI</b>	-0.519*** (0.13)	0.770 (0.59)	-0.606*** (0.19)	-0.223 (0.57)	-0.428** (0.18)	-0.312 (0.56)	-0.407*** (0.12)	0.466 (0.43)	7.104*** (1.32)	0.668 (4.46)
<b>ProfForecast</b>	-0.620*** (0.13)	0.077 (0.59)	-0.797*** (0.19)	-0.670 (0.57)	-0.755*** (0.18)	-0.640 (0.57)	-0.629*** (0.13)	-0.485 (0.43)	6.085*** (1.33)	7.402* (4.47)
<b>ProfForecastRange</b>	-0.959*** (0.13)	1.032* (0.57)	-0.812*** (0.19)	-0.743 (0.54)	-0.749*** (0.18)	-0.809 (0.54)	-0.557*** (0.12)	-0.120 (0.42)	7.413*** (1.28)	3.922 (4.26)
young	0.091 (0.22)	0.580 (0.95)	0.006 (0.31)	1.158 (0.92)	0.045 (0.29)	0.708 (0.91)	-0.052 (0.20)	0.480 (0.70)	1.209 (2.12)	-9.532 (7.14)
senior	0.081 (0.12)	0.423 (0.52)	-0.067 (0.18)	-0.364 (0.50)	-0.008 (0.17)	-0.190 (0.49)	-0.094 (0.12)	0.230 (0.38)	1.020 (1.22)	3.504 (3.89)
<b>PastInflation</b> × young	0.143 (0.30)	-0.528 (1.32)	0.316 (0.43)	-0.241 (1.27)	0.221 (0.41)	0.329 (1.27)	-0.005 (0.28)	-0.272 (0.97)	-0.889 (2.95)	-2.290 (9.93)
<b>PastInflation</b> × senior	0.377** (0.17)	-0.023 (0.71)	0.202 (0.25)	1.025 (0.69)	-0.019 (0.23)	0.790 (0.69)	-0.093 (0.16)	-0.714 (0.53)	-1.007 (1.71)	-4.672 (5.40)
<b>BankTarget</b> × young	0.008 (0.29)	-2.488* (1.30)	-0.324 (0.41)	-2.391* (1.26)	-0.444 (0.39)	-1.831 (1.26)	0.102 (0.27)	-1.113 (0.97)	-0.801 (2.84)	4.981 (9.76)
<b>BankTarget</b> × senior	0.056 (0.17)	-2.337*** (0.71)	-0.047 (0.25)	-1.078 (0.69)	-0.085 (0.24)	-1.129* (0.68)	0.024 (0.16)	-0.724 (0.52)	-1.609 (1.72)	0.528 (5.39)
<b>BankTargetRange</b> × young	-0.032 (0.29)	-0.036 (1.27)	0.218 (0.41)	-0.668 (1.24)	0.049 (0.39)	-0.251 (1.23)	0.253 (0.27)	-0.335 (0.95)	-3.722 (2.85)	2.422 (9.62)
<b>BankTargetRange</b> × senior	-0.369** (0.17)	-0.742 (0.71)	0.053 (0.25)	-0.121 (0.68)	-0.049 (0.23)	-0.176 (0.68)	0.243 (0.16)	-0.772 (0.52)	-2.178 (1.71)	-5.355 (5.36)
<b>BankForecast</b> × young	-0.046 (0.31)	-2.322* (1.37)	-0.175 (0.45)	-1.713 (1.32)	-0.229 (0.42)	-1.202 (1.31)	0.289 (0.29)	-0.104 (1.01)	-2.622 (3.08)	17.058* (10.33)
<b>BankForecast</b> × senior	-0.116 (0.17)	-0.106 (0.71)	0.233 (0.25)	0.284 (0.69)	0.007 (0.23)	0.184 (0.69)	-0.003 (0.16)	-0.689 (0.53)	-1.749 (1.70)	-4.569 (5.39)
<b>BankForecastCI</b> × young	0.113 (0.28)	-1.487 (1.31)	0.141 (0.40)	-1.323 (1.26)	-0.002 (0.38)	-1.035 (1.26)	-0.321 (0.26)	-0.638 (0.97)	-0.666 (2.79)	7.538 (9.91)
<b>BankForecastCI</b> × senior	-0.177 (0.17)	-1.469** (0.73)	-0.001 (0.25)	0.299 (0.70)	-0.135 (0.24)	0.241 (0.69)	-0.032 (0.16)	-0.561 (0.53)	-1.676 (1.72)	-4.129 (5.49)
<b>ProfForecast</b> × young	-0.527* (0.30)	-1.688 (1.37)	0.003 (0.42)	0.356 (1.31)	-0.558 (0.39)	0.002 (1.31)	-0.036 (0.27)	0.692 (1.00)	-0.795 (2.87)	-14.240 (10.31)
<b>ProfForecast</b> × senior	-0.176 (0.17)	-1.034 (0.72)	0.132 (0.25)	0.524 (0.70)	0.149 (0.24)	0.312 (0.69)	0.255 (0.16)	0.517 (0.53)	-2.380 (1.72)	-6.976 (5.48)
<b>ProfForecastRange</b> × young	0.254 (0.30)	0.879 (1.41)	0.543 (0.42)	0.123 (1.35)	0.424 (0.40)	0.817 (1.34)	-0.136 (0.28)	-1.585 (1.03)	-0.073 (2.92)	11.358 (10.57)
<b>ProfForecastRange</b> × senior	0.206 (0.17)	-1.811** (0.71)	0.118 (0.25)	0.332 (0.68)	0.085 (0.23)	0.378 (0.68)	0.178 (0.16)	-0.350 (0.52)	-1.879 (1.70)	-1.170 (5.36)
constant	-0.220 (0.17)	-1.372* (0.71)	0.136 (0.25)	-0.921 (0.69)	-0.128 (0.23)	-0.841 (0.69)	0.025 (0.16)	-0.947* (0.53)	-0.853 (1.69)	6.294 (5.40)
N	4985	3403	4976	3375	4976	3375	4976	3375	4997	3432
R <sup>2</sup>	0.0513	0.0254	0.0210	0.0130	0.0234	0.0112	0.0226	0.0164	0.0308	0.0205

Notes: This table presents results for equation (9) with variable  $Treatment_i$  instead of  $Range_i$ . Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D7: Estimation results for the revisions in 1-year expectations by education groups

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
<b>PastInflation</b>	-0.171 (0.19)	-0.883 (0.74)	-0.501* (0.27)	0.165 (0.72)	-0.509* (0.26)	-0.061 (0.72)	-0.470*** (0.18)	0.504 (0.56)	3.291* (1.96)	-1.796 (5.68)
<b>BankTarget</b>	-0.270 (0.19)	-1.147 (0.73)	-0.243 (0.27)	0.778 (0.71)	0.002 (0.25)	0.695 (0.71)	-0.361** (0.17)	-0.635 (0.55)	1.294 (1.90)	6.278 (5.62)
<b>BankTargetRange</b>	-0.651*** (0.19)	0.208 (0.76)	-0.208 (0.28)	-0.080 (0.76)	-0.257 (0.26)	-0.241 (0.75)	-0.406** (0.18)	0.309 (0.58)	2.760 (1.97)	-0.623 (5.89)
<b>BankForecast</b>	-0.751*** (0.19)	-0.790 (0.74)	-0.486* (0.27)	0.038 (0.72)	-0.640** (0.25)	0.002 (0.72)	-0.466*** (0.17)	0.280 (0.56)	5.463*** (1.90)	-0.565 (5.65)
<b>BankForecastCI</b>	-0.780*** (0.19)	-0.145 (0.75)	-1.001*** (0.27)	0.219 (0.73)	-0.838*** (0.26)	0.295 (0.73)	-0.667*** (0.18)	0.449 (0.56)	4.066** (1.93)	-1.072 (5.76)
<b>ProfForecast</b>	-1.266*** (0.19)	-2.234*** (0.74)	-0.770*** (0.27)	0.215 (0.73)	-0.959*** (0.26)	-0.119 (0.72)	-0.492*** (0.18)	0.938* (0.56)	2.713 (1.94)	-3.708 (5.71)
<b>ProfForecastRange</b>	-0.567*** (0.19)	-0.217 (0.76)	-0.461* (0.27)	-0.567 (0.74)	-0.597** (0.26)	-0.829 (0.74)	-0.274 (0.18)	0.256 (0.57)	3.557* (1.92)	-1.014 (5.78)
some college	0.017 (0.16)	-0.539 (0.64)	0.129 (0.23)	0.464 (0.62)	0.021 (0.22)	0.385 (0.62)	-0.070 (0.15)	0.989** (0.48)	-0.951 (1.62)	-1.392 (4.90)
university+	-0.044 (0.17)	-0.497 (0.67)	-0.033 (0.24)	0.537 (0.65)	-0.105 (0.23)	0.459 (0.64)	0.017 (0.16)	0.876* (0.50)	-0.314 (1.69)	3.359 (5.09)
<b>PastInflation</b> × some college	-0.110 (0.22)	0.687 (0.88)	-0.080 (0.32)	-0.476 (0.86)	0.067 (0.31)	-0.431 (0.85)	0.174 (0.21)	-0.494 (0.66)	0.127 (2.30)	4.095 (6.73)
<b>PastInflation</b> × university+	-0.125 (0.24)	1.089 (0.92)	0.453 (0.34)	-0.026 (0.90)	0.492 (0.32)	0.152 (0.89)	0.324 (0.22)	-1.126 (0.69)	-0.980 (2.42)	10.031 (7.06)
<b>BankTarget</b> × some college	-0.099 (0.22)	0.904 (0.88)	-0.269 (0.32)	-1.729** (0.86)	-0.412 (0.30)	-1.449* (0.85)	0.189 (0.21)	0.381 (0.66)	2.414 (2.26)	-5.128 (6.75)
<b>BankTarget</b> × university+	0.160 (0.23)	1.819** (0.91)	0.148 (0.33)	-0.381 (0.88)	-0.072 (0.32)	-0.348 (0.88)	0.140 (0.22)	0.558 (0.68)	0.255 (2.36)	-8.880 (6.96)
<b>BankTargetRange</b> × some college	0.386* (0.23)	-0.170 (0.90)	-0.327 (0.33)	-0.056 (0.89)	-0.201 (0.31)	0.176 (0.89)	0.285 (0.21)	-0.888 (0.68)	0.936 (2.32)	1.218 (6.93)
<b>BankTargetRange</b> × university+	0.309 (0.24)	-0.623 (0.94)	-0.344 (0.34)	-0.960 (0.92)	-0.209 (0.32)	-0.914 (0.92)	0.058 (0.22)	-0.406 (0.71)	0.045 (2.41)	3.161 (7.19)
<b>BankForecast</b> × some college	0.331 (0.22)	0.431 (0.88)	-0.149 (0.32)	-0.797 (0.86)	0.075 (0.30)	-0.746 (0.86)	0.151 (0.21)	-0.757 (0.66)	-2.058 (2.26)	3.200 (6.73)
<b>BankForecast</b> × university+	0.263 (0.23)	0.121 (0.92)	0.060 (0.33)	-0.414 (0.90)	0.308 (0.31)	-0.508 (0.90)	0.059 (0.22)	-0.802 (0.69)	-0.079 (2.35)	2.309 (7.01)
<b>BankForecastCI</b> × some college	0.222 (0.22)	0.050 (0.90)	0.510 (0.32)	-0.250 (0.87)	0.378 (0.30)	-0.522 (0.87)	0.349* (0.21)	-0.632 (0.67)	2.382 (2.28)	0.652 (6.86)
<b>BankForecastCI</b> × university+	0.200 (0.23)	-0.229 (0.93)	0.437 (0.33)	-0.621 (0.90)	0.422 (0.32)	-0.811 (0.90)	0.115 (0.22)	-0.304 (0.69)	4.101* (2.38)	-1.051 (7.10)
<b>ProfForecast</b> × some college	0.538** (0.22)	2.141** (0.88)	0.080 (0.32)	-0.304 (0.86)	0.277 (0.31)	-0.069 (0.86)	0.087 (0.21)	-0.845 (0.66)	3.616 (2.29)	7.216 (6.78)
<b>ProfForecast</b> × university+	0.620*** (0.23)	1.497 (0.93)	0.022 (0.33)	-1.073 (0.91)	0.280 (0.32)	-0.803 (0.90)	-0.130 (0.22)	-1.714** (0.70)	2.520 (2.39)	7.404 (7.11)
<b>ProfForecastRange</b> × some college	-0.427* (0.22)	0.187 (0.90)	-0.328 (0.32)	0.199 (0.88)	-0.169 (0.30)	0.476 (0.87)	-0.067 (0.21)	-0.829 (0.67)	2.459 (2.27)	3.137 (6.84)
<b>ProfForecastRange</b> × university+	-0.180 (0.24)	0.421 (0.95)	-0.280 (0.33)	-0.175 (0.92)	-0.031 (0.32)	0.175 (0.91)	-0.513** (0.22)	-0.815 (0.71)	7.522*** (2.39)	10.099 (7.16)
constant	-0.131 (0.19)	-0.409 (0.77)	0.078 (0.28)	-1.389* (0.76)	-0.051 (0.26)	-1.210 (0.75)	0.037 (0.18)	-1.116* (0.58)	1.099 (1.97)	9.760 (5.95)
N	4985	3403	4976	3375	4976	3375	4976	3375	4997	3432
R <sup>2</sup>	0.0525	0.0210	0.0236	0.0132	0.0239	0.0122	0.0244	0.0187	0.0404	0.0202

Notes: This table presents results for equation (9) with variable  $Treatment_i$  instead of  $Range_i$ . Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D8: Estimation results for the revisions in 1-year expectations by income groups

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
<b>PastInflation</b>	-0.216 (0.16)	-0.578 (0.65)	-0.422* (0.24)	-0.133 (0.62)	-0.410* (0.23)	-0.358 (0.62)	-0.205 (0.16)	0.036 (0.47)	2.019 (1.71)	1.432 (4.86)
<b>BankTarget</b>	-0.045 (0.16)	-0.235 (0.66)	-0.217 (0.24)	-0.546 (0.63)	0.074 (0.22)	-0.461 (0.63)	-0.211 (0.15)	0.125 (0.48)	1.219 (1.69)	2.812 (4.96)
<b>BankTargetRange</b>	-0.538*** (0.16)	0.392 (0.67)	-0.494** (0.24)	-0.136 (0.64)	-0.427* (0.23)	0.024 (0.63)	-0.174 (0.16)	0.048 (0.49)	3.206* (1.70)	-2.366 (4.97)
<b>BankForecast</b>	-0.426*** (0.16)	-0.357 (0.66)	-0.201 (0.24)	-0.448 (0.63)	-0.319 (0.23)	-0.445 (0.63)	-0.219 (0.16)	-0.545 (0.48)	2.346 (1.70)	-0.518 (4.93)
<b>BankForecastRange</b>	-0.578*** (0.16)	0.370 (0.67)	-0.186 (0.24)	-0.481 (0.64)	-0.214 (0.22)	-0.439 (0.64)	-0.319** (0.15)	0.164 (0.49)	4.037** (1.70)	-0.020 (5.05)
<b>ProfForecast</b>	-0.628*** (0.16)	-0.440 (0.65)	-0.326 (0.24)	-0.008 (0.62)	-0.391* (0.22)	-0.052 (0.62)	-0.301** (0.15)	0.297 (0.48)	2.000 (1.68)	-2.692 (4.89)
<b>ProfForecastRange</b>	-0.966*** (0.17)	0.000 (0.70)	-0.259 (0.25)	-0.187 (0.66)	-0.303 (0.23)	-0.030 (0.66)	-0.188 (0.16)	0.107 (0.51)	3.726** (1.76)	0.371 (5.20)
\$40K-\$100K	-0.028 (0.14)	0.722 (0.57)	0.311 (0.21)	0.552 (0.55)	0.311 (0.19)	0.550 (0.55)	0.085 (0.13)	0.121 (0.42)	-0.445 (1.46)	1.452 (4.31)
\$100K+	0.008 (0.16)	0.251 (0.68)	0.273 (0.24)	-0.252 (0.65)	0.223 (0.22)	-0.312 (0.65)	0.067 (0.15)	0.758 (0.50)	-0.310 (1.70)	-0.814 (5.11)
<b>PastInflation</b> × \$40K-\$100K	-0.015 (0.20)	0.437 (0.80)	-0.067 (0.29)	-0.082 (0.77)	0.003 (0.27)	-0.007 (0.76)	-0.167 (0.19)	-0.041 (0.58)	1.005 (2.07)	0.246 (5.98)
<b>PastInflation</b> × \$100K+	-0.083 (0.22)	0.660 (0.93)	0.303 (0.33)	0.479 (0.89)	0.418 (0.31)	0.657 (0.88)	0.055 (0.22)	-0.723 (0.68)	1.979 (2.36)	7.919 (6.95)
<b>BankTarget</b> × \$40K-\$100K	-0.251 (0.20)	-0.228 (0.81)	-0.179 (0.29)	0.037 (0.78)	-0.441 (0.27)	-0.021 (0.77)	0.067 (0.19)	-0.624 (0.59)	2.052 (2.06)	0.196 (6.08)
<b>BankTarget</b> × \$100K+	-0.187 (0.22)	1.090 (0.93)	-0.015 (0.33)	1.613* (0.89)	-0.213 (0.31)	1.538* (0.89)	-0.091 (0.21)	-0.293 (0.68)	0.963 (2.34)	-8.480 (6.99)
<b>BankTargetRange</b> × \$40K-\$100K	0.348* (0.20)	-0.738 (0.81)	-0.074 (0.29)	-0.542 (0.78)	-0.125 (0.27)	-0.786 (0.78)	-0.083 (0.19)	-0.428 (0.60)	-0.181 (2.07)	4.122 (6.09)
<b>BankTargetRange</b> × \$100K+	0.076 (0.22)	-0.524 (0.94)	0.066 (0.33)	-0.102 (0.90)	0.171 (0.31)	-0.344 (0.90)	-0.102 (0.21)	-0.439 (0.69)	0.250 (2.35)	5.342 (7.04)
<b>BankForecast</b> × \$40K-\$100K	-0.009 (0.20)	-0.198 (0.80)	-0.466 (0.29)	-0.020 (0.78)	-0.250 (0.27)	-0.061 (0.77)	-0.161 (0.19)	0.525 (0.59)	2.435 (2.06)	1.190 (6.03)
<b>BankForecast</b> × \$100K+	-0.167 (0.22)	-0.415 (0.94)	-0.357 (0.33)	-0.069 (0.91)	-0.148 (0.31)	-0.203 (0.90)	-0.250 (0.21)	-0.471 (0.69)	3.354 (2.35)	6.978 (7.04)
<b>BankForecastCI</b> × \$40K-\$100K	-0.055 (0.20)	-0.776 (0.82)	-0.610** (0.29)	0.231 (0.79)	-0.488* (0.27)	-0.021 (0.78)	-0.221 (0.19)	0.148 (0.60)	5.153** (2.08)	-2.495 (6.19)
<b>BankForecastCI</b> × \$100K+	0.074 (0.22)	-0.737 (0.94)	-0.352 (0.32)	0.868 (0.90)	-0.144 (0.31)	0.756 (0.89)	-0.112 (0.68)	-0.699 (0.59)	1.240 (2.31)	0.470 (7.02)
<b>ProfForecast</b> × \$40K-\$100K	-0.204 (0.19)	-0.277 (0.80)	-0.463 (0.29)	-0.522 (0.77)	-0.366 (0.27)	-0.593 (0.76)	-0.313* (0.59)	-0.228 (0.59)	4.803** (2.05)	7.401 (6.01)
<b>ProfForecast</b> × \$100K+	-0.037 (0.22)	-0.312 (0.94)	-0.683** (0.33)	-0.140 (0.91)	-0.571* (0.31)	-0.328 (0.90)	-0.105 (0.21)	-1.156* (0.69)	3.770 (2.36)	5.268 (7.09)
<b>ProfForecastRange</b> × \$40K-\$100K	0.213 (0.20)	-0.259 (0.84)	-0.581** (0.30)	-0.858 (0.80)	-0.475* (0.28)	-1.075 (0.79)	-0.286 (0.19)	-0.544 (0.61)	2.678 (2.11)	2.074 (6.25)
<b>ProfForecastRange</b> × \$100K+	0.157 (0.23)	0.513 (0.96)	-0.549 (0.33)	0.399 (0.92)	-0.459 (0.32)	0.239 (0.91)	-0.460** (0.22)	-1.022 (0.70)	7.139*** (2.38)	10.995 (7.17)
constant	-0.205 (0.18)	-0.996 (0.75)	-0.124 (0.27)	-0.988 (0.72)	-0.293 (0.25)	-0.941 (0.72)	-0.151 (0.17)	-0.844 (0.55)	1.861 (1.89)	9.708* (5.63)
N	4985	3403	4976	3375	4976	3375	4976	3375	4997	3432
R <sup>2</sup>	0.0486	0.0181	0.0228	0.0110	0.0238	0.0107	0.0218	0.0160	0.0394	0.0214

Notes: This table presents results for equation (9) with variable  $Treatment_i$  instead of  $Range_i$ . Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D9: Estimation results for the revisions in 1-year expectations by gender

	$E_i \pi_{1yr}^{post}$ (1)	$E_i \pi_{1yr}^{Wave2}$ (2)	$E_i \pi_{1yr}^{mean,post}$ (3)	$E_i \pi_{1yr}^{mean,Wave2}$ (4)	$E_i \pi_{1yr}^{median,post}$ (5)	$E_i \pi_{1yr}^{median,Wave2}$ (6)	$E_i iqr_{1yr}^{post}$ (7)	$E_i iqr_{1yr}^{Wave2}$ (8)	$E_i prob_{1yr}^{target,post}$ (9)	$E_i prob_{1yr}^{target,Wave2}$ (10)
<b>PastInflation</b>	-0.115 (0.14)	-0.141 (0.55)	-0.369* (0.20)	0.345 (0.53)	-0.349* (0.19)	0.426 (0.53)	-0.235* (0.13)	-0.425 (0.40)	4.028*** (1.46)	11.725*** (4.13)
<b>BankTarget</b>	-0.102 (0.15)	-0.195 (0.56)	-0.171 (0.21)	0.062 (0.54)	-0.093 (0.20)	0.255 (0.54)	-0.280** (0.14)	-0.272 (0.41)	1.454 (1.48)	1.091 (4.24)
<b>BankTargetRange</b>	-0.335** (0.14)	0.329 (0.55)	-0.257 (0.20)	0.223 (0.53)	-0.288 (0.19)	0.396 (0.53)	-0.270** (0.13)	-0.376 (0.40)	2.388 (1.45)	6.754 (4.17)
<b>BankForecast</b>	-0.444*** (0.14)	-0.677 (0.54)	-0.361* (0.20)	-0.471 (0.52)	-0.386** (0.19)	-0.424 (0.52)	-0.367*** (0.13)	-0.371 (0.40)	2.995** (1.45)	5.299 (4.06)
<b>BankForecastCI</b>	-0.485*** (0.15)	-0.219 (0.57)	-0.305 (0.21)	0.206 (0.54)	-0.354* (0.20)	0.202 (0.54)	-0.555*** (0.14)	-0.083 (0.41)	7.462*** (1.48)	-0.413 (4.25)
<b>ProfForecast</b>	-0.631*** (0.15)	-0.781 (0.56)	-0.420** (0.21)	-0.042 (0.54)	-0.403** (0.20)	0.048 (0.54)	-0.515*** (0.14)	-0.489 (0.41)	4.847*** (1.47)	8.812** (4.22)
<b>ProfForecastRange</b>	-0.500*** (0.15)	0.454 (0.58)	-0.494** (0.21)	0.279 (0.56)	-0.569*** (0.20)	0.307 (0.55)	-0.414*** (0.14)	-0.382 (0.42)	5.058*** (1.50)	4.414 (4.33)
female	-0.004 (0.13)	-0.362 (0.49)	0.039 (0.18)	0.364 (0.47)	-0.052 (0.17)	0.592 (0.47)	-0.074 (0.12)	-0.501 (0.36)	0.992 (1.27)	4.747 (3.70)
<b>PastInflation</b> × female	-0.246 (0.18)	-0.063 (0.68)	0.020 (0.25)	-0.666 (0.66)	0.109 (0.24)	-1.028 (0.65)	-0.059 (0.16)	0.425 (0.50)	-1.627 (1.77)	-12.826** (5.15)
<b>BankTarget</b> × female	-0.236 (0.18)	0.237 (0.70)	-0.192 (0.25)	-0.289 (0.67)	-0.168 (0.24)	-0.535 (0.66)	0.094 (0.16)	0.104 (0.51)	1.462 (1.79)	-0.424 (5.22)
<b>BankTargetRange</b> × female	-0.002 (0.18)	-0.783 (0.69)	-0.370 (0.25)	-1.123* (0.66)	-0.223 (0.24)	-1.472** (0.66)	0.035 (0.16)	0.187 (0.50)	1.212 (1.77)	-8.876* (5.18)
<b>BankForecast</b> × female	-0.094 (0.18)	0.220 (0.68)	-0.244 (0.25)	0.008 (0.66)	-0.145 (0.23)	-0.141 (0.65)	-0.010 (0.16)	-0.071 (0.50)	2.169 (1.76)	-5.551 (5.11)
<b>BankForecastCI</b> × female	-0.194 (0.18)	-0.039 (0.70)	-0.421* (0.25)	-0.556 (0.67)	-0.208 (0.24)	-0.728 (0.67)	0.146 (0.16)	0.234 (0.51)	-1.333 (1.78)	-1.377 (5.25)
<b>ProfForecast</b> × female	-0.241 (0.18)	0.214 (0.69)	-0.463* (0.25)	-0.433 (0.67)	-0.500** (0.24)	-0.783 (0.66)	0.031 (0.16)	0.462 (0.51)	0.462 (1.78)	-10.304** (5.22)
<b>ProfForecastRange</b> × female	-0.538*** (0.18)	-0.666 (0.71)	-0.325 (0.25)	-1.259* (0.68)	-0.164 (0.24)	-1.319* (0.68)	-0.088 (0.17)	-0.062 (0.51)	3.091* (1.80)	-0.951 (5.30)
constant	-0.343* (0.18)	-0.938 (0.69)	-0.067 (0.25)	-1.309* (0.67)	-0.197 (0.24)	-1.325** (0.67)	-0.018 (0.16)	-0.565 (0.51)	0.528 (1.79)	4.000 (5.25)
N	4985	3403	4976	3375	4976	3375	4976	3375	4997	3432
R <sup>2</sup>	0.0495	0.0162	0.0218	0.00990	0.0229	0.00958	0.0194	0.0134	0.0350	0.0202

Notes: This table presents results for equation (9) with variable  $Treatment_i$  instead of  $Range_i$ . Dependent variable is variable listed at the top of each column relative to its prior. These regressions also control for demographic characteristics. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D10: Estimation results of the posteriors about 1-year expectations: treatments with range and severity of pandemic (rate of cases).

PANEL A										
	$E_i \pi_{1yr}^{prior}$ (1)	$E_i \pi_{1yr}^{mean,prior}$ (2)	$E_i \pi_{1yr}^{median,prior}$ (3)	$E_i iqr_{1yr}^{prior}$ (4)	$E_i prob_{1yr}^{target,prior}$ (5)					
Rate of cases	0.212*** (0.06)	0.118** (0.05)	0.128*** (0.05)	0.104** (0.04)	-0.741** (0.30)					
constant	4.025*** (0.70)	3.042*** (0.57)	2.993*** (0.58)	4.455*** (0.48)	32.664*** (3.56)					
N	5045	5046	5046	5003	5055					
R <sup>2</sup>	0.0602	0.0326	0.0345	0.0380	0.0483					
PANEL B										
	$E_i \pi_{1yr}^{post}$ (6)	$E_i \pi_{1yr}^{Wave2}$ (7)	$E_i \pi_{1yr}^{mean,post}$ (8)	$E_i \pi_{1yr}^{mean,Wave2}$ (9)	$E_i \pi_{1yr}^{median,post}$ (10)	$E_i \pi_{1yr}^{median,Wave2}$ (11)	$E_i iqr_{1yr}^{post}$ (12)	$E_i iqr_{1yr}^{Wave2}$ (13)	$E_i prob_{1yr}^{target,post}$ (14)	$E_i prob_{1yr}^{target,Wave2}$ (15)
Range, all	-0.288 (0.31)	-0.257 (0.99)	-0.634* (0.38)	0.040 (0.92)	-0.621* (0.37)	0.468 (0.92)	0.129 (0.25)	0.085 (0.71)	2.576 (2.87)	-15.254** (7.08)
Rate of cases	-0.046 (0.04)	-0.150 (0.13)	-0.058 (0.05)	-0.077 (0.12)	-0.094* (0.03)	-0.041 (0.12)	-0.018 (0.03)	-0.005 (0.10)	0.678* (0.38)	-1.633* (0.94)
Range, all × Rate of cases	0.029 (0.04)	0.070 (0.12)	0.069 (0.05)	-0.016 (0.11)	0.069 (0.05)	-0.070 (0.11)	-0.022 (0.03)	-0.010 (0.09)	-0.105 (0.36)	1.892** (0.88)
constant	-0.493 (0.38)	0.507 (1.19)	0.053 (0.46)	-0.280 (1.11)	0.174 (0.45)	-0.556 (1.11)	-0.366 (0.30)	-0.616 (0.86)	-1.768 (3.47)	23.540*** (8.52)
N	3742	2544	3743	2526	3743	2526	3696	2477	3758	2569
R <sup>2</sup>	0.0161	0.0163	0.0111	0.00677	0.0112	0.00488	0.00731	0.00807	0.0190	0.0165
Range, Banktarget	-0.487 (0.38)	0.365 (1.74)	-0.476 (0.54)	-0.364 (1.60)	-0.421 (0.51)	0.341 (1.60)	0.543* (0.32)	1.905 (1.29)	2.308 (3.06)	-12.438 (12.52)
Rate of cases	-0.065 (0.05)	-0.243 (0.24)	-0.128* (0.07)	-0.511** (0.22)	-0.142** (0.07)	-0.453** (0.22)	0.023 (0.04)	0.202 (0.18)	0.306 (0.41)	1.086 (1.74)
Range, Banktarget × Rate of cases	0.049 (0.05)	-0.050 (0.22)	0.039 (0.07)	-0.004 (0.20)	0.029 (0.06)	-0.105 (0.20)	-0.072* (0.04)	-0.247 (0.16)	-0.235 (0.38)	1.648 (1.57)
constant	0.282 (0.46)	3.166 (2.14)	1.100* (0.65)	5.014** (1.97)	1.274** (0.62)	4.570** (1.97)	-0.559 (0.39)	-2.045 (1.58)	0.552 (3.69)	-10.082 (15.36)
N	1244	857	1241	847	1241	847	1224	832	1246	863
R <sup>2</sup>	0.0158	0.0367	0.0180	0.0310	0.0220	0.0327	0.0116	0.0347	0.0257	0.0311
Range, BankForecast	0.338 (0.63)	-1.019 (1.73)	-1.044 (0.70)	-0.370 (1.67)	-0.908 (0.67)	-0.333 (1.61)	-0.202 (0.43)	0.591 (1.37)	-1.070 (5.88)	-30.543** (12.23)
Rate of cases	-0.042 (0.08)	-0.232 (0.22)	-0.105 (0.09)	-0.062 (0.22)	-0.176** (0.09)	-0.043 (0.21)	-0.008 (0.06)	-0.072 (0.18)	0.799 (0.78)	-3.096* (1.58)
Range, BankForecast × Rate of cases	-0.056 (0.08)	0.182 (0.21)	0.125 (0.09)	0.082 (0.21)	0.109 (0.08)	0.077 (0.20)	0.015 (0.05)	-0.020 (0.17)	0.507 (0.73)	3.408** (1.52)
constant	-0.869 (0.78)	0.750 (2.06)	-0.361 (0.87)	-1.745 (1.99)	-0.090 (0.82)	-1.610 (1.93)	-0.481 (0.54)	-0.630 (1.63)	3.760 (7.29)	36.989** (14.55)
N	1258	849	1257	841	1257	841	1243	822	1260	857
R <sup>2</sup>	0.0244	0.0226	0.0245	0.0147	0.0291	0.0143	0.0128	0.0243	0.0290	0.0357
Range, ProfForecast	-0.602 (0.68)	0.713 (1.74)	-0.242 (0.76)	1.933 (1.59)	-0.572 (0.75)	2.665 (1.62)	-0.578 (0.56)	-1.684 (1.21)	23.950** (9.31)	-1.824 (12.54)
Rate of cases	-0.024 (0.09)	0.072 (0.23)	0.158 (0.10)	0.415** (0.21)	0.116 (0.10)	0.443** (0.21)	-0.112 (0.07)	-0.102 (0.16)	0.834 (1.23)	-2.535 (1.65)
Range, ProfForecast × Rate of cases	0.080 (0.08)	-0.008 (0.21)	0.030 (0.09)	-0.259 (0.20)	0.075 (0.09)	-0.335* (0.20)	0.081 (0.07)	0.176 (0.15)	-2.598** (1.15)	0.387 (1.54)
constant	-1.745** (0.81)	-2.766 (2.06)	-1.725* (0.90)	-4.910*** (1.90)	-1.588* (0.89)	-5.380*** (1.93)	0.567 (0.66)	0.234 (1.45)	-3.693 (11.03)	39.375*** (14.95)
N	1240	838	1245	838	1245	838	1229	823	1252	849
R <sup>2</sup>	0.0414	0.0320	0.0208	0.0289	0.0183	0.0248	0.0356	0.0177	0.0475	0.0407

Notes: This table presents estimation results for equation  $Y_{i,t} = a + b_0 \text{Rate of cases} + b_1 X_i + \epsilon_{i,t}$  in panel A and equation (10) in Panel B. Dependent variable is variable listed at the top of each column relative to its prior. These regressions control for demographic characteristics in even numbered columns. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table D11: Estimation results of the posteriors about 1-year expectations: treatments with range and severity of pandemic (rate of deaths).

PANEL A										
	$E_i \pi_{1yr}^{prior}$ (1)	$E_i \pi_{1yr}^{mean,prior}$ (2)	$E_i \pi_{1yr}^{median,prior}$ (3)	$E_i iqr_{1yr}^{prior}$ (4)	$E_i prob_{1yr}^{target,prior}$ (5)					
Rate of deaths	0.153 (2.67)	-2.980 (2.20)	-2.815 (2.21)	4.885*** (1.85)	-7.982 (13.67)					
constant	5.983*** (0.56)	4.567*** (0.46)	4.596*** (0.47)	4.770*** (0.39)	26.760*** (2.88)					
N	5045	5046	5046	5003	5055					
R <sup>2</sup>	0.0577	0.0317	0.0334	0.0381	0.0471					
PANEL B										
	$E_i \pi_{1yr}^{post}$ (6)	$E_i \pi_{1yr}^{Wave2}$ (7)	$E_i \pi_{1yr}^{mean,post}$ (8)	$E_i \pi_{1yr}^{mean,Wave2}$ (9)	$E_i \pi_{1yr}^{median,post}$ (10)	$E_i \pi_{1yr}^{median,Wave2}$ (11)	$E_i iqr_{1yr}^{post}$ (12)	$E_i iqr_{1yr}^{Wave2}$ (13)	$E_i prob_{1yr}^{target,post}$ (14)	$E_i prob_{1yr}^{target,Wave2}$ (15)
Range, all	0.022 (0.13)	0.428 (0.40)	-0.138 (0.16)	-0.073 (0.38)	-0.182 (0.15)	0.005 (0.37)	-0.051 (0.10)	0.074 (0.29)	2.246* (1.16)	-0.981 (2.90)
Rate of deaths	-4.937 (6.44)	-19.337 (20.45)	-4.600 (7.89)	-14.402 (19.10)	-11.221 (7.60)	-12.131 (18.98)	-5.039 (5.09)	-1.237 (14.74)	110.685* (58.55)	-124.665 (146.67)
Range, all × Rate of deaths	-1.098 (1.53)	-1.850 (4.80)	0.614 (1.87)	-0.224 (4.48)	1.333 (1.81)	-1.230 (4.45)	0.142 (1.21)	-0.928 (3.46)	-6.951 (13.93)	9.017 (34.39)
constant	-0.800*** (0.25)	-0.339 (0.77)	-0.311 (0.30)	-0.621 (0.72)	-0.322 (0.29)	-0.679 (0.71)	-0.411** (0.20)	-0.651 (0.55)	1.286 (2.25)	13.325** (5.50)
N	3742	2544	3743	2526	3743	2526	3696	2477	3758	2569
R <sup>2</sup>	0.0161	0.0164	0.0106	0.00677	0.0109	0.00476	0.00704	0.00808	0.0190	0.0144
Range, BankTarget	-0.044 (0.16)	0.343 (0.72)	-0.299 (0.22)	-0.583 (0.66)	-0.351* (0.21)	-0.358 (0.66)	0.154 (0.13)	0.627 (0.53)	0.556 (1.25)	-2.318 (5.16)
Rate of deaths	-7.142 (7.87)	-44.206 (37.36)	-19.923* (11.31)	-89.389** (34.70)	-23.632** (10.74)	-85.256** (34.74)	-0.886 (6.77)	21.701 (27.79)	31.991 (63.94)	302.169 (270.04)
Range, BankTarget × Rate of deaths	-0.781 (1.85)	-4.740 (8.62)	1.730 (2.65)	2.466 (7.91)	2.067 (2.52)	-1.747 (7.92)	-2.331 (1.59)	-8.934 (6.35)	-0.895 (14.96)	35.349 (61.67)
constant	-0.117 (0.30)	1.961 (1.39)	0.519 (0.43)	2.716** (1.29)	0.656 (0.40)	2.540** (1.29)	-0.453* (0.25)	-1.077 (1.03)	2.260 (2.41)	-5.849 (10.04)
N	1244	857	1241	847	1241	847	1224	832	1246	863
R <sup>2</sup>	0.0154	0.0374	0.0184	0.0310	0.0227	0.0326	0.0105	0.0339	0.0256	0.0300
Range, BankForecast	0.004 (0.25)	0.405 (0.69)	-0.180 (0.28)	0.444 (0.68)	-0.178 (0.27)	0.302 (0.66)	-0.286 (0.18)	0.503 (0.56)	4.287* (2.35)	-6.723 (4.98)
Rate of deaths	-10.718 (12.74)	-28.353 (34.33)	-8.267 (14.18)	-4.378 (33.85)	-22.576* (13.46)	-1.775 (32.83)	-1.391 (8.89)	-13.755 (27.69)	191.645 (117.60)	-308.334 (248.66)
Range, Bankforecast × Rate of deaths	-1.412 (3.07)	0.238 (8.24)	1.571 (3.41)	-2.070 (8.08)	1.684 (3.24)	-0.349 (7.84)	2.730 (2.14)	-0.889 (6.65)	-21.177 (28.36)	40.201 (59.34)
constant	-1.025** (0.52)	-0.581 (1.32)	-0.970* (0.57)	-2.186* (1.29)	-0.997* (0.54)	-1.929 (1.25)	-0.451 (0.36)	-0.962 (1.06)	6.010 (4.74)	18.502* (9.45)
N	1258	849	1257	841	1257	841	1243	822	1260	857
R <sup>2</sup>	0.0242	0.0222	0.0224	0.0149	0.0279	0.0143	0.0139	0.0244	0.0297	0.0301
Range, ProfForecast	-0.055 (0.28)	0.671 (0.70)	0.045 (0.31)	0.128 (0.64)	-0.124 (0.30)	0.366 (0.65)	-0.070 (0.23)	-0.557 (0.49)	8.733** (3.73)	4.179 (5.04)
Rate of deaths	2.137 (13.84)	11.985 (35.39)	29.995** (15.27)	49.513 (32.10)	24.948* (15.08)	48.474 (32.63)	-13.265 (11.26)	-3.366 (24.65)	-21.924 (186.35)	-360.464 (252.79)
Range, ProfForecast × Rate of deaths	1.151 (3.28)	-0.373 (8.23)	-3.454 (3.62)	-3.454 (7.55)	1.984 (3.58)	-4.841 (7.67)	1.671 (2.67)	3.501 (5.77)	-72.955* (44.31)	-38.731 (59.33)
constant	-1.952*** (0.52)	-2.426* (1.30)	-1.069* (0.57)	-2.659** (1.20)	-1.099* (0.56)	-2.924** (1.22)	-0.016 (0.42)	-0.366 (0.92)	1.139 (6.98)	25.565*** (9.42)
N	1240	838	1245	838	1245	838	1229	823	1252	849
R <sup>2</sup>	0.0413	0.0320	0.0205	0.0264	0.0182	0.0212	0.0348	0.0167	0.0456	0.0414

Notes: This table presents estimation results for equation  $Y_i^{prior} = a + b_0 \text{Rate of deaths} + b_1 X_i + \epsilon_{i,t}$  in panel A and equation (10) in Panel B. Dependent variable is variable listed at the top of each column relative to its prior. These regressions control for demographic characteristics in even numbered columns. Result are from Huber robust regressions to control for outliers and influential observations. Robust standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.



## E Rounding and uncertainty

A standard approach to measure uncertainty is to use interquartile range of the subjective probability distribution as a measure of uncertainty of respondents about their inflation expectations [Armantier et al., 2017]. [Binder, 2017] uses respondents’ tendency to round when reporting their inflation expectations as a proxy for their uncertainty about expected inflation, in the absence of better measures such as interquartile of subjective probability distribution used in the literature [Armantier et al., 2017]. Besides uncertainty, other factors can contribute to the rounding, such as cognitive overload of the forecasting task and background knowledge. We explore the link between rounding and uncertainty and impact of information treatments on it. Our findings indicate weak link between these two concepts in our data.

To evaluate the link between rounding and uncertainty, we estimate the following probit regression:

$$\mathbb{1}_{i,t}^{Rounding} = \beta_0 + \beta_1 E_{i,t} iqr + \beta_2 X_i + \epsilon_{i,t} \quad (E1)$$

where  $\mathbb{1}_{i,t}^{Rounding}$  is an indicator variable equal to 1 if the respondent rounds their inflation expectations and 0 if respondent does not round.

A respondent is defined as rounding their forecast if their forecast is a multiple of 5 following [Binder, 2017]. We find that 42% of participants round their prior inflation expectation. The mean IQR of those who round is 8.5 percentage points while those who do not round have a mean IQR of 4.5 percentage points. This difference is statistically significant at the 0.1% level (one- and two-sided t-tests, N=5079). However, after controlling for demographic characteristics, the quantitative importance of respondents’ IQR in explaining their likelihood of rounding is quantitatively small. The probability of rounding increases by 0.004 p.p. if uncertainty increases by 1 p.p. (Column (1) of Table E1). Rather, other respondent characteristics play a larger quantitative role in driving the probability of rounding. Females, those with the lowest education and lowest income are more likely to round their inflation forecasts. These groups also tend to form higher inflation expectations in our survey (Table 2) and in the literature. Overall, our baseline specification can only explain 0.07 of the variation in rounding. Introducing treatment controls in Column (2) does not meaningfully improve the fit.

In the posterior, 78% of those in the control group who rounded their prior inflation expectations continued to so in their posterior forecast. By contrast, of those in the treated groups, between 38 and 63% of those who rounded their priors also rounded their posteriors. In other words, the incidence of rounding decreased more when participants received inflation statistics. Among those who did not round in their prior, a very small share rounded their posterior, ranging from 5 to 10%. This suggests a small share of participants might experience survey fatigue.

All the information interventions have a sizeable and significant negative effect on the probability of rounding. The effects are largest in BankForecastCI, ProfForecast, and ProfForecastRange. Moreover, we find that the link between rounding and uncertainty becomes insignificant when respondents are resurveyed (Control group). However, following some information interventions, this link remains positive (PastInflation, BankTarget, BankForecast).

Communicating inflation intervention with a range eliminates the link between rounding and uncertainty (Table E2) mostly from communicating the Bank's inflation target with a range. This suggests that the main impact of information about the Bank and professional forecasts, with or without range, comes from communicating the mid-point. This is notable because both BankForecast and ProfForecast treatments provide unrounded statistics (values with decimal point *below* 5%) in the point forecast and/or in the range. In Wave 2, the link between rounding and uncertainty is positive although quantitatively small, and some treatments eliminate it - BankTarget, BankTargetRange, and BankForecastCI (Table E3).

Table E1: Estimation results for rounding

	round <sup>prior</sup> (1)	round <sup>prior</sup> (2)	round <sup>post</sup> (3)	round <sup>post</sup> (4)
$E_{iqr}^{prior}_{1yr}$	0.014*** (0.00)	0.067*** (0.01)		
<b>PastInflation</b>		0.023 (0.10)	-0.339*** (0.07)	-0.392*** (0.08)
<b>BankTarget</b>		0.007 (0.10)	-0.227*** (0.07)	-0.371*** (0.08)
<b>BankTargetRange</b>		0.284*** (0.10)	-0.302*** (0.07)	-0.325*** (0.08)
<b>BankForecast</b>		0.324*** (0.10)	-0.373*** (0.07)	-0.432*** (0.08)
<b>BankForecastCI</b>		0.497*** (0.09)	-0.536*** (0.07)	-0.573*** (0.08)
<b>ProfForecast</b>		0.424*** (0.09)	-0.540*** (0.07)	-0.540*** (0.08)
<b>ProfForecastRange</b>		0.061 (0.10)	-0.654*** (0.08)	-0.653*** (0.08)
<b>PastInflation</b> $\times E_{iqr}^{prior}_{1yr}$		-0.007 (0.01)		
<b>BankTarget</b> $\times E_{iqr}^{prior}_{1yr}$		0.014 (0.01)		
<b>BankTargetRange</b> $\times E_{iqr}^{prior}_{1yr}$		-0.032** (0.01)		
<b>BankForecast</b> $\times E_{iqr}^{prior}_{1yr}$		-0.040*** (0.01)		
<b>BankForecastCI</b> $\times E_{iqr}^{prior}_{1yr}$		-0.066*** (0.01)		
<b>ProfForecast</b> $\times E_{iqr}^{prior}_{1yr}$		-0.060*** (0.01)		
<b>ProfForecastRange</b> $\times E_{iqr}^{prior}_{1yr}$		-0.002 (0.01)		
$E_{iqr}^{post}_{1yr}$			0.005*** (0.00)	0.002 (0.00)
<b>PastInflation</b> $\times E_{iqr}^{post}_{1yr}$				0.009* (0.00)
<b>BankTarget</b> $\times E_{iqr}^{post}_{1yr}$				0.027*** (0.01)
<b>BankTargetRange</b> $\times E_{iqr}^{post}_{1yr}$				0.003 (0.00)
<b>BankForecast</b> $\times E_{iqr}^{post}_{1yr}$				0.010** (0.00)
<b>BankForecastCI</b> $\times E_{iqr}^{post}_{1yr}$				0.006 (0.00)
<b>ProfForecast</b> $\times E_{iqr}^{post}_{1yr}$				-0.000 (0.00)
<b>ProfForecastRange</b> $\times E_{iqr}^{post}_{1yr}$				-0.000 (0.00)
young (18-34)	-0.038 (0.06)	-0.060 (0.07)	-0.060 (0.07)	-0.058 (0.07)
senior ( 55+ )	0.023 (0.04)	0.030 (0.04)	0.172*** (0.04)	0.174*** (0.04)
female	0.389*** (0.04)	0.384*** (0.04)	0.170*** (0.04)	0.167*** (0.04)
low education	-0.103** (0.05)	-0.076 (0.05)	-0.096* (0.05)	-0.088* (0.05)
high education	-0.305*** (0.06)	-0.259*** (0.06)	-0.170*** (0.06)	-0.163*** (0.06)
low income	-0.209*** (0.05)	-0.213*** (0.05)	-0.147*** (0.05)	-0.144*** (0.05)
high income	-0.320*** (0.06)	-0.284*** (0.06)	-0.253*** (0.06)	-0.238*** (0.06)
Dknow inflation well	0.092** (0.05)	0.098** (0.05)	0.043 (0.05)	0.038 (0.05)
Deasy to express inflation	-0.115*** (0.04)	-0.108** (0.04)	0.100** (0.04)	0.103** (0.04)
Constant	0.007 (0.13)	-0.350** (0.15)	-0.110 (0.14)	-0.091 (0.15)
Observations	5046	5046	4991	4991

Notes: This table presents the estimation results for equation (E1). These regressions also control for other demographic characteristics. Standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table E2: Estimation results for rounding

	round <sup>post</sup> R=All (1)	round <sup>post</sup> T=BankTarget (2)	round <sup>post</sup> T=BankForecast (3)	round <sup>post</sup> T=ProfForecast (4)
$E_{iqr}^{post}_{1yr}$	0.013*** (0.00)	0.029*** (0.01)	0.013*** (0.00)	0.002 (0.00)
$Range_i^T$	-0.038 (0.05)	0.047 (0.08)	-0.136* (0.08)	-0.133 (0.08)
$Range_i^T \times E_{iqr}^{post}_{1yr}$	-0.011*** (0.00)	-0.024*** (0.01)	-0.005 (0.01)	0.000 (0.00)
young	-0.080 (0.09)	-0.034 (0.13)	-0.095 (0.14)	-0.228 (0.15)
seniors	0.183*** (0.05)	0.331*** (0.08)	0.106 (0.09)	0.105 (0.09)
female	0.086 (0.05)	0.192** (0.08)	-0.002 (0.09)	0.175* (0.09)
some college	-0.111* (0.07)	-0.068 (0.10)	-0.136 (0.10)	-0.044 (0.11)
university+	-0.162** (0.07)	-0.147 (0.12)	-0.058 (0.12)	-0.233* (0.12)
\$40K-\$100K	-0.127** (0.06)	-0.112 (0.10)	-0.209** (0.10)	-0.063 (0.11)
\$100k	-0.248*** (0.08)	-0.220* (0.12)	-0.330*** (0.12)	-0.148 (0.13)
D <sub>know inflation well</sub>	-0.018 (0.06)	-0.046 (0.09)	-0.088 (0.10)	0.226** (0.10)
D <sub>easy to express inflation</sub>	0.155*** (0.06)	0.144* (0.09)	0.157* (0.09)	0.169* (0.09)
constant	-0.486*** (0.18)	-0.787*** (0.28)	-0.109 (0.30)	-0.683** (0.27)
<i>N</i>	3128	1243	1258	1249

Notes: This table presents the estimation results for equation (E1). These regressions also control for other demographic characteristics. Standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.

Table E3: Estimation results for rounding

	round <sup>Wave2</sup> (1)	round <sup>Wave2</sup> (2)	round <sup>Wave2</sup> (3)	round <sup>Wave2</sup> (4)	round <sup>Wave2</sup> (5)	round <sup>Wave2</sup> (6)
$E_{iqr}^{Wave2}$	0.020*** (0.00)	0.079*** (0.01)	0.031*** (0.01)	0.091*** (0.02)	0.063*** (0.01)	0.059*** (0.01)
PastInflation	-0.207** (0.09)	-0.122 (0.12)				
BankTarget	-0.040 (0.09)	-0.054 (0.12)				
BankTargetRange	-0.046 (0.09)	0.293*** (0.11)				
BankForecast	0.044 (0.09)	0.117 (0.12)				
BankForecastCI	-0.087 (0.09)	0.190* (0.11)				
ProfForecast	-0.078 (0.09)	-0.007 (0.12)				
ProfForecastRange	-0.066 (0.09)	0.033 (0.12)				
PastInflation $\times E_{iqr}^{Wave2}$		-0.021 (0.02)				
BankTarget $\times E_{iqr}^{Wave2}$		0.011 (0.02)				
BankTargetRange $\times E_{iqr}^{Wave2}$		-0.078*** (0.01)				
BankForecast $\times E_{iqr}^{Wave2}$		-0.015 (0.02)				
BankForecastCI $\times E_{iqr}^{Wave2}$		-0.066*** (0.02)				
ProfForecastRange $\times E_{iqr}^{Wave2}$		-0.018 (0.02)				
ProfForecastRange $\times E_{iqr}^{Wave2}$		-0.024 (0.02)				
Range, all			0.076 (0.06)			
Range, all $\times E_{iqr}^{Wave2}$			-0.025*** (0.01)			
Range, BankTarget				0.352*** (0.11)		
Range, BankTarget $\times E_{iqr}^{Wave2}$				-0.091*** (0.02)		
Range, BankForecast					0.072 (0.11)	
Range, BankForecast $\times E_{iqr}^{Wave2}$					-0.051*** (0.01)	
Range, ProfForecast						0.043 (0.12)
Range, ProfForecast $\times E_{iqr}^{Wave2}$						-0.005 (0.02)
young	0.081 (0.09)	0.081 (0.09)	-0.153 (0.12)	-0.042 (0.18)	-0.243 (0.19)	0.236 (0.20)
senior	-0.033 (0.05)	-0.006 (0.05)	-0.085 (0.06)	-0.063 (0.10)	-0.050 (0.10)	-0.037 (0.11)
female	0.382*** (0.05)	0.372*** (0.05)	0.335*** (0.06)	0.218** (0.10)	0.446*** (0.10)	0.479*** (0.11)
low education	-0.177*** (0.06)	-0.146** (0.06)	-0.120 (0.08)	-0.158 (0.12)	-0.025 (0.12)	-0.105 (0.13)
high education	-0.430*** (0.07)	-0.374*** (0.07)	-0.326*** (0.09)	-0.248* (0.14)	-0.152 (0.14)	-0.509*** (0.14)
low income	-0.158*** (0.06)	-0.124** (0.06)	-0.231*** (0.08)	-0.260** (0.12)	-0.214* (0.12)	-0.164 (0.12)
high income	-0.318*** (0.07)	-0.275*** (0.07)	-0.456*** (0.09)	-0.489*** (0.15)	-0.459*** (0.15)	-0.252 (0.16)
Dknow inflation well	0.023 (0.06)	0.049 (0.06)	0.024 (0.07)	0.012 (0.11)	0.066 (0.12)	0.032 (0.12)
Deasy to express inflation	-0.070 (0.05)	-0.083 (0.05)	-0.111* (0.07)	-0.156 (0.11)	-0.066 (0.11)	-0.003 (0.11)
constant	-0.132 (0.17)	-0.427** (0.19)	-0.237 (0.21)	-0.072 (0.35)	-0.567* (0.34)	-0.553* (0.33)
N	3401	3401	2116	854	845	843

Notes: This table presents the estimation results for equation (E1). These regressions also control for other demographic characteristics. Standard errors are reported in parentheses. \*\*\*, \*\*, and \* represent statistical significance at the 1%, 5%, and 10% levels, respectively.