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Abstract

This paper examines the impact of the Bank of Japan's monetary policy announcements from April 2023 to March 2025 on household expectations using two identification strategies: high-frequency identification and information provision experiments. The findings are as follows. First, we find no significant difference in household expectations in the two days immediately before and after all 16 announcements. In contrast, when information about changes in monetary policy is provided randomly, households do revise their expectations. These expectation revisions are consistent with the rational inattention model. Second, in response to the provision of information on monetary *tightening*, households generally lower their inflation expectations but *raise* their expectations for real GDP growth. Several possible mechanisms behind these responses are discussed.

Keywords: Monetary policy announcements, household expectations, rational inattention model, high frequency identification, information provision experiment
JEL: E43, E52, E58, D83, D84

1. Introduction

There is a growing body of literature showing that expectations, particularly inflation expectations, influence household spending behavior (e.g., Burke and Ozdagli 2023, Coibion et al. 2023a). This indicates that if the central bank can successfully revise household expectations in the desired direction through monetary policy announcements, it can stimulate household spending and, ultimately, GDP (Blinder et al. 2024). However, a country like Japan, where low inflation has persisted for a long time,[1] people tend to be inattentive to monetary policy, and as a result, central bank communication may not operate effectively (Weber et al. 2025, Coibion et al. 2020, Cavallo, Cruces, and Perez-Truglia 2017).

Against this background, this paper examines whether and how monetary policy announcements can affect Japanese household expectations based on two identification strategies. First, we apply a high-frequency identification strategy to the Bank of Japan (BOJ)'s 16 monetary policy announcements between April 2023 and March 2025. The idea behind this approach is that if a change in household expectations is observed in a sufficiently narrow time window around an announcement, it is likely caused by the announcement (Lamla and Vinogradov 2019). We conduct surveys on household inflation and interest rate expectations two days before and after each announcement to investigate its impact. As expected, even though our sample period includes the historical major announcement of the end of unconventional monetary policy in March 2024, we find no significant shifts in household expectations in any of the 16 announcements.

There are several possible explanations for the lack of response of household expectations to monetary policy announcements. The first is that households recognized and understood the announcement, but decided not to respond. In this case, monetary policy announcements are apparently not important for household decision-making, and it is therefore difficult to influence household expectations through central bank communication. Another possibility is that, even though the announcement was important for households, they did not pay sufficient attention to it. This is consistent with the rational inattention model, which predicts that households select the information they need because their information processing capacity is limited or because acquiring information is costly (Mackowiak, Matejka, and Wiederholt 2023). In this case, by carefully crafting its communication on monetary policy, the central bank may be able to influence household expectations.

To examine why household expectations did not change before and after announcements, we next provided randomly and newly selected respondents with information about the announced monetary policy and examined how their expectations were influenced. We focused on three monetary tightening announcements made in March and July 2024 and January 2025 and conducted information provision experiments immediately after each announcement (see Table A1 for the schedule and details of announcement for each monetary policy meeting). In a situation where people are not sufficiently

[1] The average inflation rate in Japan based on the Consumer Price Index was -0.25% in the 2000s, 0.47% in the 2010s, and 1.75% from January 2020 to March 2025.

attentive to monetary policy, the response to the provision of information is expected to be significant.

As expected, unlike the high-frequency identification strategy, the provision of information on monetary tightening significantly revised household expectations. We find that it *lowered* household inflation expectations and *raised* their expectations for real GDP growth. In Section 5, we will discuss possible mechanisms behind these expectation revisions, based on the results of our additional experiment.

This paper provides new evidence for the literature analyzing the impact of announcements on expectations using high-frequency identification strategy. The seminal paper is Lamla and Vinogradov (2019), which elicits household expectations in the two days before and after 12 FOMC press conferences and finds that the announcements have no discernible impact on inflation and interest rate expectations. Subsequently, similar papers have appeared that focus on different countries and different monetary policy announcements (Binder, Campbell, and Ryngaert 2024, Coibion et al. 2023b, De Fiore, Lombardi, and Schuffels 2021, Lewis, Makridis, and Mertens 2020). There are also studies that have used high frequency identification strategy to analyze the impact of macroeconomic data releases (Binder, Campbell, and Ryngaert 2024, York 2023, and Binder 2021), the announcement of recessions (Eggers, Ellison, and Lee 2021), and political shocks (Drager, Grundler, and Potrafke 2025) on household expectations.

This paper also provides complementary evidence to the literature on information provision experiments, which has been growing rapidly in recent years. While many experiments provide information on past inflation rates or inflation forecasts by experts or central banks, there are also studies that provide information on actual monetary policies implemented, as in the current paper (e.g., Knotek II et al. 2024, Ueda 2024, Coibion et al. 2023b, Coibion, Gorodnichenko, and Weber 2022a, 2022b). They generally report the treatment effects of providing information on household expectations, albeit with mixed evidence on the persistence of the effects. For a comprehensive survey of information provision experiments, see Haaland, Roth, and Wohlfart (2023).

Finally, this paper also contributes to the literature on household subjective models. In recent years, several studies have revealed that the subjective economic models that households have in their minds differ from the standard models described in economics textbooks. Andre et al. (2022) report that, in response to a hypothetical interest rate hike shock, households tend to expect inflation to *rise*. Many studies have also shown that households tend to associate high inflation with economic downturns (Kamdar 2024, 2019, and Candia, Coibion, and Gorodnichenko 2023). In Section 5, we investigate not only the household responses to hypothetical interest rate hikes, but also the reasons for these responses.

The structure of this paper is as follows. Section 2 describes the data used. Section 3 reports the results of the analysis based on the high-frequency identification strategy. Section 4 summarizes the details of the information provision experiments and the estimation results. Section 5 discusses what

mechanisms could be behind the results obtained, based on the results of an additional experiment. Finally, Section 6 concludes.

2. Data

The BOJ holds eight monetary policy meetings each year, and the Governor holds a press conference after each meeting. In this study, we use data from April 2023 onwards, when Kazuo Ueda was appointed as the new Governor of the BOJ. There were 16 policy meetings held over our sample period, and in particular, the eighth meeting saw the announcement of major changes in monetary policy, including the end of the negative interest rate policy (NIP) and the abolition of the yield curve control (YCC).

In accordance with Lamla and Vinogradov (2019), the survey was conducted two days before and after each press conference. In each survey, 750 people were asked three questions (degree of news exposure, inflation expectations, and interest rate expectations). See Appendix B for details of the survey questionnaire. The data was collected using Freeasy, an Internet survey platform provided by Japanese research firm iBRIDGE Corporation. The sample is limited to aged 20–69 and is randomly selected based on the sex and age distribution in Japan.

Since we did not give any specific instructions to the research company regarding the data structure, 20% to 40% of respondents answered both surveys, before and after the announcement (panel sample), while the remainder answered only one of them (repeated cross-sectional sample). As there were no major differences (at least qualitatively) in the analysis of each panel and repeated cross-sectional sample, in the following analysis we will not distinguish them.

Table 1 compares the respondents' characteristics before and after the 16 press conferences. For all characteristics, the two groups are comparable. In other words, if household expectations differ before and after the press conference, it cannot be explained by differences in characteristics.

3. High frequency identification strategy

Figure 1 shows the fraction of people who answered “yes” to the question “Over the past week, have you seen or heard any news about the BOJ's monetary policy?” for each press conference, immediately before and after the event. Two findings are revealed from the figure. First, in all press conferences, the proportion of people who said they saw or heard news after the press conference is higher than before it. The average increase in news exposure at all press conferences is 21 percentage points (see Table A2 for the results of the regression analysis). Second, the difference before and after is more pronounced in the cases where a change in monetary policy was announced (at the wave 3, 5, 8, 11, and 15). This is a predictable result, as the media generally report on changes in monetary policy more than they do when it is maintained.

In summary, we find that households are more exposed to news about monetary policy, immediately

after a press conference, especially when a change in monetary policy is announced. Did this affect household expectations?

To examine it, we estimate the following equation for *each* press conference.

$$Y_i = \beta_0 + \beta_1 After_i + \beta_2 X_i + \epsilon_i, \quad (1)$$

where i represents the household index, Y_i is the outcome variable (inflation expectations or interest rate expectations), $After_i$ is a dummy variable that takes the value one if it is immediately after the press conference and zero if it is just before, X_i is a vector of control variables, and ϵ_i is an error term. The vector of control variables includes age, male dummy, marital status dummy, logarithm of household income, homeowner dummy, child dummy, occupation dummies, prefecture dummies, and industry dummies. Since $After_i$ and X_i are virtually uncorrelated, estimation results are largely unaffected whether X_i is controlled for, but in this paper, estimation is performed with control variables.

Figure 2 illustrates the estimated value of β_1 in equation (1) for each press conference, along with the 95% confidence interval. In Figure 2(a), where the outcome variable is inflation expectations, there is no significant difference in inflation expectations before and after all the press conferences. It is noteworthy that even the historic announcement of the end of unconventional monetary policy at wave 8 fails to have a significant impact on inflation expectations. When we pool data from all 16 waves and control for the wave fixed effects, inflation expectations are 0.14 percentage points lower immediately after the announcement than they are immediately before (see Table A3). This is statistically significant at the 5% level, but given that the average of the prior inflation expectations is 4.46%, the magnitude is limited.

Figure 2(b) shows the estimation results when the outcome variable is the interest rate expectations. As with inflation expectations, we do not obtain evidence that the interest rate expectations changed before and after the press conference (see Table A4 for the results of the regression analysis).

Overall, the high-frequency identification strategy reveals that monetary policy announcements have no significant impact on household expectations, as in Lamla and Vinogradov (2019). This result seems inconsistent with Figure 1, which shows that households' exposure to news about monetary policy increases after announcements. One explanation is that many households heard and understood news about monetary policy, but did not find it to be sufficient to cause them to revise their expectations. In this case, contrary to the findings of Coibion et al. (2015), the degree of information rigidity is weak for many households, and the information set of households is sufficiently revised before and after each announcement. If so, it may be difficult to influence household expectations through central bank communications.

Another explanation is that they heard or saw the news about monetary policy but did not pay

sufficient attention to it. This is consistent with the rational inattention model (Mackowiak, Matejka, and Wiederholt 2023), whereby households with limited information processing capabilities become rationally inattentive to news when the cost of acquiring information is high. In this case, improvements in the way monetary policy announcements are delivered could influence household expectations (Haldane, Macaulay, and McMahon 2020, Haldane and McMahon 2018). To explore why monetary policy announcements failed to affect household expectations, the next section conducts information provision experiments in which randomly selected respondents are provided with information on actual monetary policy changes. If they do not respond to the information provided, then the information is not useful to them in the first place, making the first explanation more likely. On the other hand, if they do respond to the information provided, it suggests that the cost of acquiring information was a bottleneck, making the second explanation more likely.[2]

Anticipation of monetary policy

Before proceeding to the next section, it is worth considering the possibility that households did not respond to the monetary policy announcements because they had anticipated the content of the announcements in advance. To examine this hypothesis, we conducted new surveys (N=300 for each) one week before the monetary policy meetings in December 2024 (wave 14) and January 2025 (wave 15). We asked households the following three questions: "Do you know when the next monetary policy meeting will be held?", "What is the current policy rate set by the BOJ?", and "What kind of announcement do you expect to be made at the next monetary policy meeting?"

The results are summarized in Table 2. Only 7–9% of respondents correctly identified the month of the next policy meeting. As for the policy rate, only 2–4% of respondents answered the correct answer of 0.25%. In addition, only around 10% of respondents made any kind of prediction regarding the announcement at the next policy meeting. Therefore, although Table 2 shows the results for two specific monetary policy meetings, it is likely that most households have no particular expectations about the announcement at the next meeting.[3]

4. Information provision experiments

In this section, we focus on three events (wave 8, 11, and 15) that had particularly large monetary policy changes within our sample period. The first event is the end of unconventional monetary policy announced in March 2023 (wave 8). At this meeting, Governor Ueda decided to end the negative interest rate policy as well as the yield curve control and the purchase of exchange-traded funds (ETFs)

[2] The lack of revision in household expectations may stem from low financial literacy and low trust in the central bank. However, as shown in Section 4, household expectations are influenced simply by the provision of information on actual policy changes *without detailed explanations*. Therefore, we consider this explanation unlikely.

[3] When estimating Equation (1) using a sample restricted to respondents working in financial institutions (attentive sample), the response to inflation expectations was smaller than that of the non-attentive sample. This suggests that the attentive sample may have anticipated the monetary policy announcement to some extent.

and real estate investment trusts (REITs). The second event is the interest rate hike announced in July 2024 (wave 11), where the policy rate was raised from about 0-0.1% to about 0.25%. At the third event, on January 24, 2025 (wave15), the policy rate was raised further to around 0.5%. After each announcement, we conducted an experiment in which we provided randomly selected households with information about changes in monetary policy. In these experiments, in addition to inflation expectations and interest rate expectations, real GDP growth expectations were additionally elicited as an outcome variable.

In each experiment, as in Section 3, we obtained samples from the respondent pool of Freeasy with ages and sexes matching the distribution of the Census, and first elicited three prior expectations (inflation, interest rate, and real GDP growth). The samples were then randomly divided into a treatment group and a control group.[4] The treatment group was provided with information on the monetary policy changes announced in each wave. See Appendix B for the exact wording of the information provided. In contrast, no information was provided to the control group. We then re-elicited the three expectations (the posterior expectations) using the exact wording. The descriptive statistics of samples in each experiment are summarized in Table A5.

To identify the effect of information provision, we first estimate the following equation:

$$\Delta Y_i = \gamma_0 + \gamma_1 Treat_i + \gamma_2 X_i + \epsilon_i, \tag{2}$$

where $\Delta Y_i = Y_{i,post} - Y_{i,pre}$, $Y_{i,post}$ and $Y_{i,pre}$ are the posterior and prior expectations of the outcome variable, $Treat_i$ is a dummy variable that takes one for the treatment group and zero for the control group, X_i is a vector of control variables, and ϵ_i is an error term. X_i contains the same control variables as equation (1). In this specification, γ_1 represents the impact of the information provision on the revision of expectations.

Table 3 shows the estimation results. In columns (1) to (3), inflation expectations fall by 0.63 to 0.88 percentage points in all three waves in response to the information provision. Since monetary tightening was announced in all three waves, it should be theoretically expected that aggregate demand will be suppressed, resulting in a decline in the inflation rate. Therefore, the estimation results are consistent with the theoretical prediction, but we will explore the underlying mechanisms in more detail in Section 5.

In columns (4) to (6), the information provision lowers interest rate expectations. It is puzzling that interest rate expectations *decline* despite the provision of information about monetary *tightening*.

[4] In the wave 8 experiment only, we set up two treatment groups. Treatment group 1 was provided with information on the end of the negative interest rate policy, while treatment group 2 was provided with information on the end of YCC and the end of ETF and J-REIT purchases. However, since we found no significant difference between the two groups at least in terms of the impact on inflation expectations, we combined the two treatment groups into one for the sake of simplicity.

One possible explanation is that, with average prior interest rate expectations at around 1.25%, households may have perceived their own interest rate expectations to be too high when they heard about the rate hike to 0.25 or 0.5%. Another possible explanation is that households have the good-bad heuristic described by Andre et al. (2022) and may have viewed the series of monetary tightening policies as good events. In this case, they would expect all macroeconomic variables to move in a favorable direction for them. Since our interest rate expectations are related to borrowing rates, they expect interest rates to fall. In any case, the impact of the information provision on interest rate expectations is limited and almost insignificant. One explanation for the lack of response in interest rate expectations is that the interest rates used in this paper were mortgage rates, which are irrelevant to many people.

Finally, columns (7) to (9) show the impact of the information provision on expected real GDP growth. Interestingly, the provision of information about the end of unconventional monetary policy *raises* expected real GDP growth by 0.29 percentage points, with a significance level of 5%. Given that the average prior expectation is 0.98%, the impact is substantial. Section 5 discusses why monetary tightening made households more optimistic about the economy.

More flexible estimation equation

Equation (2) is the most straightforward estimation equation for identifying the treatment effect of information provision. However, as pointed out by Coibion, Gorodnichenko, and Weber. (2022a), it is not sufficiently flexible. For example, the provision of information on monetary tightening may make some households optimistic about the economy, while others may become pessimistic, as predicted by standard theory. In the case of such heterogeneity in responses, positive and negative revisions may offset each other, making the average response appear to be negligible. To address this problem, we estimate the following equation, as proposed by Coibion, Gorodnichenko, and Weber. (2022a).

$$Y_{i,post} = \delta_0 + \delta_1 Y_{i,pre} + \delta_2 Treat_i Y_{i,pre} + \delta_3 Treat_i + \delta_4 X_i + u_i. \quad (3)$$

The advantage of Equation (3) is that it allows us to separate the effects of information provision into the level effect and the slope effect. If information provision affects posterior expectations regardless of prior expectations, it is captured as the level effect in δ_3. On the other hand, if it affects posterior expectations in a way that is dependent on prior expectations, it appears as the slope effect in δ_2. Since it is not possible to know in advance how information provision influences expectations, it is important to make estimates in a way that imposes as few restrictions as possible.

The estimation results are summarized in Table 4 and illustratively shown in Figures A1. In columns (1) to (3) of Table 4, the information provision causes inflation expectations to shift downward regardless of prior expectations. Only in the case of wave 11, the coefficient of the cross term is large

at -0.12, and the p-value is 0.115. This is shown in the chart in the first column and second row of Figure A1, which shows that respondents with high prior inflation expectations significantly lower their expectations in response to the information provision. In columns (4) to (6), it is again apparent that the information provision pushes down interest rate expectations. In column (5), regardless of prior expectations, interest rate expectations fall by 0.16 percentage points, but the impact is relatively small. Finally, as shown in columns (7) to (9), for waves 8 and 11, information provision causes expected real GDP growth to rise by 0.29 to 0.33 percentage points, regardless of people's prior expectations. Again, considering that the average prior expectations range from 0.69 to 0.98%, the impact is substantial.

In summary, the estimation results based on equations (3) and (4) do not differ substantially, and our main findings can be summarized as follows. First, the provision of information on monetary tightening lowers households' inflation expectations. Second, it makes households' economic outlook more optimistic, at least when the end of unconventional monetary policy was announced (wave 8). The finding that GDP growth expectations and inflation expectations are negatively correlated is consistent with the results of recent studies on households' subjective models (Candia, Coibion, and Gorodnichenko 2020, Kamdar and Ray 2024, Kamdar 2019, Kirpson and Staehr 2024). In Section 5, we will discuss the possible mechanisms behind these findings.

Follow-up survey

The above results indicate that the provision of information on monetary policy could change household expectations. That being the case, the next important question is whether the treatment effects observed above are persistent. To answer this question, we conducted a follow-up survey of the same respondents *two weeks* after each experiment conducted in wave 8, 11, and 15. In this survey, we elicit the same three expectations using the same wording as in the main survey. Note that no information is provided to any of the groups at this stage.

Tables A6 and A7 show the estimation results based on equations (3) and (4), respectively. They indicate that the impact of the information provision virtually disappears in the follow-up survey. The only exception is the interest rate expectations in wave 15. Based on equation (3), for example, the impact of the information provision is persistent, and the estimated value in the follow-up survey is -0.17 percentage points, which is statistically significant. However, considering that the average prior expectation is 1.27%, the impact is again limited.

In summary, the treatment effects disappeared in most cases even only two weeks after the main surveys. Japan has experienced prolonged low inflation, low interest rates, and low growth. As a result of this situation becoming established as the social norm, it may be difficult to change these expectations in a persistent manner.

5. Possible mechanisms behind the expectation revisions

While the experiments described above can inform us of the causal effects of information provision, they do not necessarily reveal the mechanisms behind them. To clarify them to the extent possible, we conducted the following additional experiment. The experiment was performed in February 2024 (between waves 7 and 8), i.e. one month before the end of the unconventional monetary policy. In this experiment, the respondents were randomly divided into two groups, with the treatment group given a hypothetical interest rate hike scenario and the control group given a hypothetical scenario of maintaining zero interest rates. They were then asked whether this would be positive or negative for household consumption, along with the reasons for their answers.[5] The scenarios presented are as follows.

Treatment group (interest rate hike)

Please imagine that the BOJ has raised interest rates considering the current economic situation. Is this a positive or negative factor for your household consumption?

Control group (status quo)

Please imagine that the BOJ has decided to maintain its current policy of zero interest rates considering the current economic situation. Is this a positive or negative factor for your household consumption?

If both factors are present, we instruct them to choose the factor with the greater impact. There are six qualitative answer options: “fairly positive,” “slightly positive,” “neither positive nor negative,” “slightly negative,” “fairly negative,” and “I don’t know/I don’t want to answer.” Subsequently, we asked those respondents who answered “fairly/slightly positive” or “fairly/slightly negative” to select the reasons that applied to them from the options provided. See Appendix B for details of the questionnaire and Table A8 for the descriptive statistics of the sample used.

Since the response of household consumption is qualitatively ordered, we perform the ordered probit estimation. The key explanatory variable is a treatment dummy that takes the value of one if the respondent is assigned to the treatment group, and zero if assigned to the control group. The explanatory variables include all of the respondent characteristics used in equation (1).

Figure 3 shows the estimation results of the marginal effects of treatment on household consumption using ordered probit, along with a 95% confidence interval. Compared to the scenario of maintaining zero interest rates, the probability of households responding that an interest rate hike scenario would

[5] To maintain consistency with the experiments conducted in Section 4, the outcome variable should be GDP growth expectations rather than consumption expectations. The reason for this is that this additional experiment was originally conducted for a different research project. However, given that a positive correlation between these two variables is expected, we decided to include it in Section 5 as an experiment that complements the analyses conducted in Section 4.

be “fairly negative” or “slightly negative” for household consumption decreases by 6.4 percentage points and 2.9 percentage points, respectively. On the other hand, the probability of answering “fairly positive” or “slightly positive” increases by 2.8 percentage points and 4.7 percentage points respectively. All of these estimation results are statistically significant at the 1% significance level. Thus, it appears that the average Japanese household expects that an interest rate hike would be positive for their household consumption.[6] This is consistent with the results of Section 4, which found that the provision of information on monetary tightening made households more optimistic about the economic outlook.[7]

To delve deeper into the mechanisms behind the household responses, we also asked respondents directly about their reasons for answers. The answer choices were displayed in random order, and respondents were instructed to select all that apply. Figure 4(a) shows the reasons given by respondents in the treatment group who answered that the impact on household consumption was “fairly positive” or “slightly positive” (N=221).

The primary reason for the positive effect of interest rates hike is the expected increase in interest income, with about 67% of respondents citing this as the reason. The second and third most common answers were close, with “Expected appreciation of the yen (30.5%)” and “Inflation is expected to be controlled (28.5%).” Households may have thought that the interest rate hike would lead to a stronger yen, which would cause import prices to fall and curb inflation. These results are also consistent with the estimation results in Section 4, which found that inflation expectations declined in response to the provision of information on monetary tightening. Furthermore, about a quarter of households chose “A sign that the economy is improving (25.2%)” as the reason. This is interesting and suggests the possibility that an interest rate hike could have a positive information effect, which is consistent with Morita, Matsumoto, and Ono (2024) and Tanahara, Tango, and Nakazono (2023), who pointed out the importance of the information effect of monetary policy in Japan.

Figure 4(b) shows the reasons given by respondents in the control group who answered that the impact on household consumption was “fairly negative” or “slightly negative” (N=333). The most selected answer was “It would not provide interest income (61.5%),” suggesting again the importance of the cash flow effect of lenders. This is followed by “A sign of a bad economy (31.4%)” and “It could cause the economy to slow down (31.4%)”, which implies that continuing with the monetary easing policy for a long period of time could send a negative signal to households (the negative information effects). Finally, about 27% of respondents also chose the answer that the continuation of

[6] As additional evidence, according to the results of a survey conducted by NHK, Japan's public broadcaster, more than half of the population respond that they “highly appreciate” or “somewhat appreciate” the end of the negative interest rate policy and the interest rate hike to 0.25% (see Table A9).

[7] Figure A2 summarizes the results of applying the aforementioned ordered probit estimation to different asset positions. The middle panel shows the estimation results for respondents holding deposits of ¥10 million or more, while the right panel shows the results for variable-rate loan holders. As expected, high depositors tend to favor an interest rate hike, while variable-rate loan holders dislike it

the zero-interest rate policy would lead to inflation. This is again consistent with the finding in Section 4 that the provision of information on monetary tightening leads to a decline in inflation expectations. The interpretation of this finding is discussed below.

The results of this section can be summarized as follows. First, the average household perceives that an interest rate hike is positive for household consumption. Second, the primary driving force in this perception is the expected increase in interest income due to the hike. In addition, lowered inflation expectations and positive information effects also play a role, albeit minor, in explaining the positive effects of the rate hike policy. These results show how households perceive the impact of monetary tightening on household consumption rather than on GDP, and therefore need to be viewed with caution. However, given that household consumption accounts for more than half of Japan's GDP (about 53% in 2023 fiscal year), we believe that these results provide some useful insights for interpreting the results of the experiment in Section 4. That is, it suggests that households expected monetary tightening to increase interest income, which would stimulate household consumption and lead to an economic upturn.

In this respect, it is a puzzle that the provision of information on monetary tightening causes a decline in household inflation expectations. This is because an optimistic economic outlook generally expands aggregate demand, and as a result inflation should accelerate. One possibility is the good-bad heuristic, which states that households only consider two options for all macroeconomic variables: either they are all good or they are all bad for them (Andre et al. 2022). Given that many households dislike inflation (Afrouzi et al. 2024, Stantcheva 2024), this hypothesis suggests that households expect inflation to decline during economic recoveries.

Another possibility is an explanation that focuses on the supply side. That is, the monetary tightening led people to expect a stronger yen and a fall in imported energy prices, which in turn brightened their economic outlook and lowered inflation expectations. As shown in Figure 4(a), 30.5% of households give responses consistent with this hypothesis. However, these explanations are merely speculation and require further investigation.

6. Conclusions

In this paper, we examined the impact of the BOJ's monetary policy announcements on household expectations using two approaches: a high-frequency identification strategy and information provision experiments. According to the high-frequency identification strategy that focuses on the two days before and after the announcements of monetary policy, we found no evidence that they changed household expectations. To investigate the cause of this, we then conducted experiments to provide information on actual monetary policy announcements, and we found that households generally lower their inflation expectations and raise their expected real GDP growth in response to the information on monetary tightening.

The results of an additional experiment that provided a hypothetical interest rate hike scenario suggest that the possible reasons for households becoming more optimistic about the economy are an expected increase in interest income, curbed inflation expectations, and positive information effects. On the other hand, the factors behind the lowered inflation expectations due to the provision of information are less clear and require further examination.

The current analysis provides important insights into monetary policy communication. We found that household expectations do not change simply when monetary policy announcements are made, but that they do change when such information is provided. This is consistent with the rational inattention model and indicates that there is room for improvement in monetary policy communication. By utilizing social media and other means to reduce the cost of gathering information on monetary policy, and by striving to provide explanations that are easier to understand and more relevant to everyday life, the BOJ's monetary policy announcements may be more effective in reaching general households and guiding their expectations in a desirable direction. (Masciandaro, Peia, and Romelli 2024, Haldane, Macaulay, and McMahon 2020, Haldane and McMahon 2018).

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References

Afrouzi, H., Dietrich, A., Myrseth, K., Priftis, R., and Schoenle, R. (2024) "Inflation preferences," *NBER Working Paper* 32379.

Andre, P., Pizzinelli, C., Roth, C., and Wohlfart, J. (2022) "Subjective models of the macroeconomy: Evidence from experts and representative samples," *The Review of Economic Studies*, Vol. 89, Issue 6, pp. 2958–2991.

Binder, C. C. (2021) "Household expectations and the release of macroeconomic statistics," *Economics Letters*, Vol. 207, 110041.

Binder, C. C., Campbell, R. J., and Ryngaert, M. J. (2024) "Consumer inflation expectations: Daily dynamics," *Journal of Monetary Economics*. Vol. 145, 103613.

Blinder, S. A., Ehrmann, M., De Haan, J., Jansen, D. (2025) "Central bank communication with the general public: Promise or false hope?" *Journal of Economic Literature*, Vol. 62, Issue 2, pp 425–457.

Burke, A. M., and Ozdagli, A. (2023) "Household inflation expectations and consumer spending: Evidence from panel data," *The Review of Economics and Statistics*, Vol. 105, Issue 4, pp. 948–961.

Candia, B., Coibion, O., and Gorodnichenko, Y. (2023) "The macroeconomic expectations of firms," In R. Bachmann, G. Topa and W. Klaauw (Ed.) *Handbook of Economic Expectations* (pp. 321–353). Academic Press.

Candia, B., Coibion, O., and Gorodnichenko, Y. (2020) "Communication and the beliefs of economic agents," *NBER Working Paper Series*, No. 27800.

Cavallo, A., Cruces, G., and Perez-Truglia, R. (2017) "Inflation expectations, learning, and supermarket prices: Evidence from survey experiments," *American Economic Journal: Macroeconomics*, Vol. 9, Issue 3, pp. 1–35.

Coibion, O., and Gorodnichenko, Y. (2015) "Information rigidity and the expectations formation process: A simple framework and new facts," *American Economic Review*, Vol. 105, Issue 8, pp. 2644–2678.

Coibion, O., Georgarakos, D., Gorodnichenko, Y., and van Rooij, M. (2023a) "How does consumption respond to news about inflation? Field evidence from a randomized control trial," *American Economic Journal: Macroeconomics*, Vol. 15, No. 3, pp. 109–152.

Coibion, O., Gorodnichenko, Y., Knotek II, S. E., and Schoenle, R. (2023b) "Average inflation targeting and household expectations," *Journal of Political Economy: Macroeconomics*, Vol. 1, No. 2, pp. 403–446.

Coibion, O., Gorodnichenko, Y., Kumar, S., and Pedemonte, M. (2020) "Inflation expectations as a policy tool?" *Journal of International Economics*, Vol. 124, 103297.

Coibion, O., Gorodnichenko, Y., and Weber, M. (2022a) "Monetary policy communications and their effects on household inflation expectations" *Journal of Political Economy*, Vol. 130, No. 6, pp.

1537–1584.

Coibion, O., Gorodnichenko, Y., and Weber, M. (2022b) "Does policy communication during COVID work?" *International Journal of Central Banking*, Vol. 18, No. 1, pp. 3–39.

De Fiore, F., Lombardi, M., and Schuffels, J. (2021) "Are households indifferent to monetary policy announcements?" *BIS Working Papers*, No. 956.

Drager, L., Grundler, K., and Potrafke, N. (2025) "Political shocks and inflation expectations: Evidence from the 2022 Russian invasion of Ukraine," *Journal of International Economics*, Vol. 153, 104029.

Eggers, C. A., Ellison, M., and Lee, S. S. (2021) "The economic impact of recession announcements," *Journal of Monetary Economics*, Vol. 120, pp. 40–52.

Haaland, I., Roth, C., and Wohlfart, J. (2023) "Designing information provision experiments," *Journal of Economic Literature*, Vol. 61, No. 1, pp. 3–40.

Haldane, A., Macaulay, A., and McMahon, M. (2020) "The 3 E's of central bank communication with the public," *Bank of England Staff Working Paper*, No. 847.

Haldane, A., and McMahon, M. (2018) "Central bank communications and the general public," *American Economic Association Papers and Proceedings*, Vol. 108, pp. 578–583.

Kamdar, R. (2019) "The inattentive consumer: Sentiment and expectations," *Mimeo*.

Kamdar, R., and Ray, W. (2024) "Attention-driven sentiment and the business cycle," *Mimeo*.

Kirpson, G., and Staehr, K. (2024) "Do individuals expect the Phillips curve? Evidence from the European Consumer Expectations Survey," *Economics Letters*, Vol. 234, 111430.

Knotek II, S. E., Mitchell, J., Pedemonte, O. M., and Shiroff, T. (2024) "The effects of interest rate increases on consumers' inflation expectations: The roles of informedness and compliance," *Federal Reserve of Cleveland Working Paper Series*, No. 24-01.

Lamla, J. M., and Vinogradov, V. D. (2019) "Central bank announcements: Big news for little people?" *Journal of Monetary Economics*, Vol. 108, pp. 21–38.

Lewis, J. D., Makridis, C., and Mertens, K. (2020) "Do monetary policy announcements shift household expectations?" *Federal Reserve Bank of New York Staff Report*, No. 897.

Mackowiak, B., Matejka, F., and Wiederholt, M. (2023) "Rational inattention: A review," *Journal of Economic Literature*, Vol. 61, No. 1, pp. 226–273.

Masciandaro, D., Peia, O., and Romelli, D. (2024) "Central bank communication and social media: From silience to Twitter," *Journal of Economic Survey*, Vol. 38, pp. 365–388.

Morita, H., Matsumoto, R., and Ono, T. (2024) "Central bank information effects in Japan: The role of uncertainty channel," *Empirical Economics*, Vol. 68, pp. 855–877.

Stantcheva, S. (2024) "Why do we dislike inflation?" *Brookings Papers on Economic Activity*, Spring issue.

Tanahara, Y., Tango, K., and Nakazono, Y. (2023) "Information effects of monetary policy," *Journal*

of the Japanese and International Economies, Vol. 70, 101276.

Ueda, K. (2024) "Inflation expectations and spending: Evidence from an experiment and bank transaction data in Japan," *CIGS Working Paper Series* No. 24-021E.

Weber, M., Candia, B., Afrouzi, H., Ropele, T., Lluberas, R., Frache, S., Meyer, B., Kumar, S., Gorodnichenko, Y., Georgarakos, D., Coibion, O., Kenny, G., and Ponce, J. (2025) "Tell me something I don't already know: Learning in low- and high-inflation settings," *Econometrica*, Vol. 93, Issue 1, pp. 229–264.

York, J. (2023) "Do household inflation expectations respond to macroeconomic data releases?" *Mimeo*.

Table 1: Descriptive statistics

Pooled sample	Before	After	Difference (After − Before)	N
Demographics				
Age (20-69)	49.0	49.2	0.21	18240
Male (0-1)	0.52	0.52	0.01	18240
Marriage (0-1)	0.50	0.50	0.00	18240
Household income (10,000 yen)	569	570	1.33	18240
Homeowner (0-1)	0.69	0.69	0.00	18240
Child (0-1)	0.42	0.42	0.00	18240
No-job (0-1)	0.15	0.15	0.00	18240
Key variables				
News exposure (0-1)	0.36	0.58	0.21 ***	16825
Expected inflation rates (%)	4.49	4.36	-0.13 **	14343
Expected interest rates (%)	1.26	1.25	-0.01	10463

Notes: The "Before" and "After" columns show the mean of the variables surveyed immediately before and after the BOJ governor's press conference. The news exposure dummy takes a value of one if respondents answered yes to the question "Over the past week, have you seen or heard any news about the BOJ's monetary policy?" and zero if they answered no. The "Difference" column shows the results of the test for the difference between the means before and after the press conference. ***, **, * indicate statistical significance level at 1%, 5%, and 10%, respectively. The last column shows the number of respondents. The sample is a pool of all 16 press conferences. Respondents who answered in 10 seconds or less are excluded to ensure the quality of responses. For a balance check for each press conference, see Table A1.

Table 2: Degree of anticipation for monetary policy announcements

			Next meeting		Policy rate		Policy anticipation	
			Incorrect	Correct	Incorrect	Correct	No	Yes
December 2024	(wave 14)	N	246	24	259	11	240	30
		(%)	91%	9%	96%	4%	89%	11%
January 2025	(wave 15)	N	250	20	264	6	246	24
		(%)	93%	7%	98%	2%	91%	9%

Notes: The surveys were conducted in December 2024 (wave 14) and January 2025 (wave 15), one week before the monetary policy meetings. "Next meeting" indicates whether the answer to "Do you know when the next monetary policy meeting will be held?" is correct or not. "Policy rate" indicates whether the answer to "Do you know what percentage the BOJ is currently setting its policy interest rate at?" is correct or not. "Policy anticipation" indicates whether the respondent made any predictions about "What decisions or announcements do you expect to be made at the next monetary policy meeting?" Respondents who answered in 10 seconds or less are excluded to ensure the quality of responses. See Appendix B for details of the survey.

Table 3: Regression results based on equation (2)

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ΔE[π]			ΔE[i]			ΔE[GDP]		
	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)
Treatment	-0.63***	-0.71***	-0.88***	-0.03	-0.04	-0.10*	0.29**	0.28	-0.26
	(0.14)	(0.20)	(0.23)	(0.04)	(0.05)	(0.06)	(0.13)	(0.23)	(0.23)
Prior mean (outcome)	5.52	4.77	6.17	1.25	1.26	1.27	0.98	0.69	1.10
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of respondents	1861	770	817	1319	731	754	1613	749	769

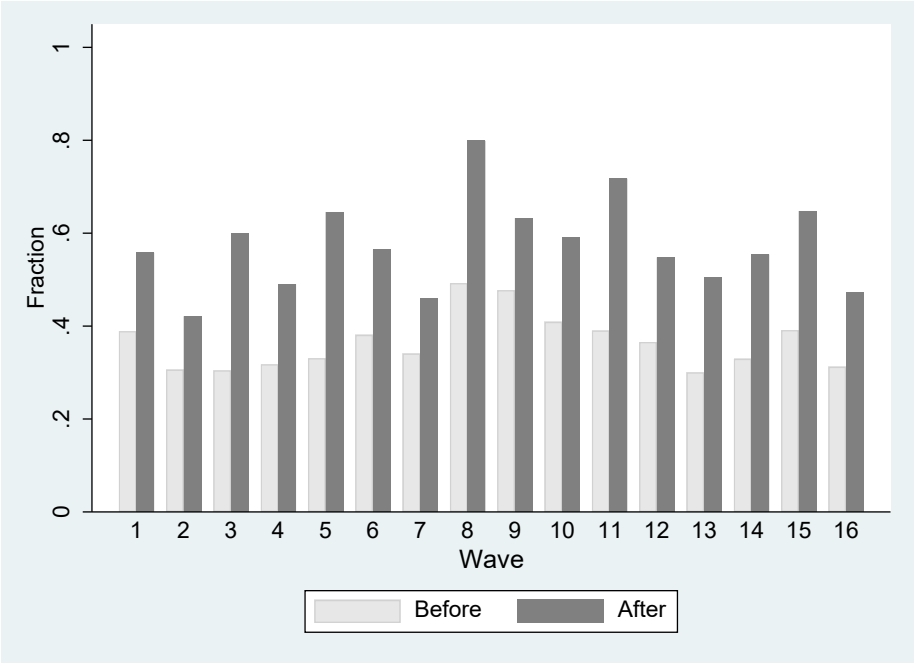
Notes: The table summarizes the estimation results based on Equation (2). The outcome variables are prior expectations subtracted from posterior expectations. Treatment is a dummy variable that takes a value of one if the respondent is assigned to the treatment group and zero otherwise. The estimation is performed on a wave-by-wave basis. The information provided in each wave is as follows. Wave 8: End of unconventional monetary policy (UMP); Wave 11: Interest rate hike to around 0.25%; Wave 15: Interest rate hike to around 0.5%. Prior mean (outcome) represents the average value of the prior expectation calculated using both groups. Respondents who answered within 15 seconds were excluded to ensure the quality of responses. The numbers in parentheses are robust standard errors. ***, **, * indicate statistical significance level at 1%, 5%, and 10%, respectively.

Table 4: Regression results based on equation (3)

Outcome: Posterior	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	E[π]			E[i]			E[GDP]		
	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)
Prior	0.66***	0.68***	0.54***	0.69***	0.63***	0.64***	0.69***	0.56***	0.60***
	(0.04)	(0.05)	(0.06)	(0.04)	(0.05)	(0.05)	(0.06)	(0.06)	(0.07)
Treatment×Prior	-0.01	-0.12	0.04	0.00	0.11	-0.14**	-0.04	-0.11	-0.08
	(0.05)	(0.08)	(0.08)	(0.05)	(0.07)	(0.07)	(0.07)	(0.11)	(0.09)
Treatment	-0.52*	-0.25	-0.91*	-0.03	-0.16*	0.12	0.29**	0.33*	-0.10
	(0.27)	(0.36)	(0.50)	(0.07)	(0.09)	(0.10)	(0.14)	(0.20)	(0.20)
Prior mean (outcome)	5.52	4.77	6.17	1.25	1.26	1.27	0.98	0.69	1.10
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of respondents	1861	770	817	1336	731	754	1613	749	769

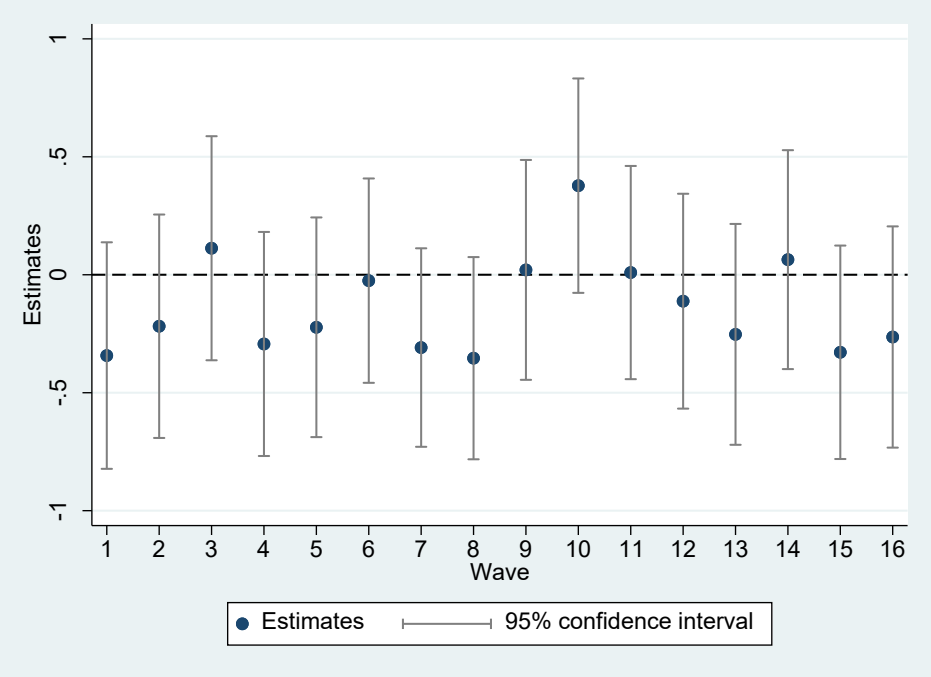
Notes: The table summarizes the estimation results based on Equation (3). The estimation results are also shown graphically in Figures A1 to A3. See also the notes for Table 3.

Figure 1: Exposure to news about the BOJ's monetary policy



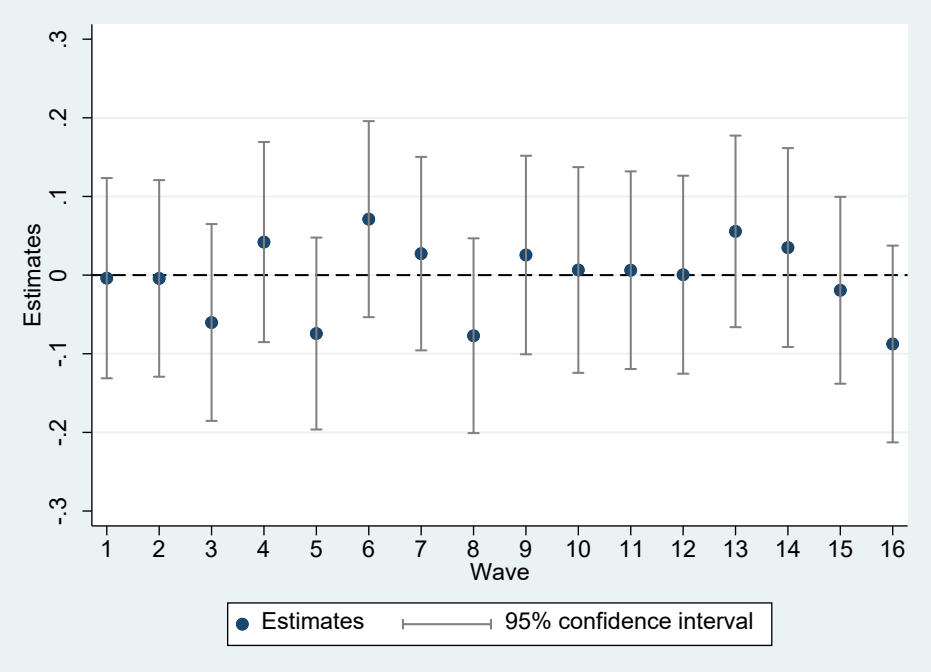
Notes: The figure shows the fraction of people who answered yes to the question "Over the past week, have you seen or heard any news about the BOJ's monetary policy?" for each press conference, immediately before and after the event. Respondents who answered within 10 seconds are excluded to ensure the quality of responses.

Figure 2(a): Impact of announcement on inflation expectations



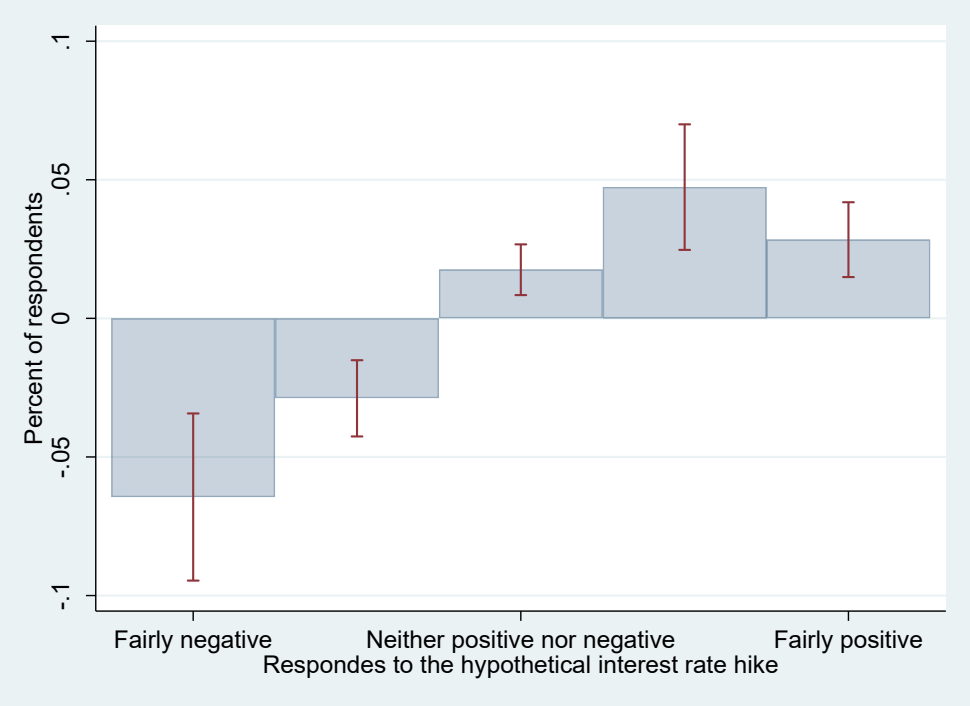
Notes: The figure shows the results of estimating Equation (1) for each wave, together with the 95% confidence interval. The outcome variable is inflation expectations.

Figure 2(b): Impact of announcement on interest rate expectations



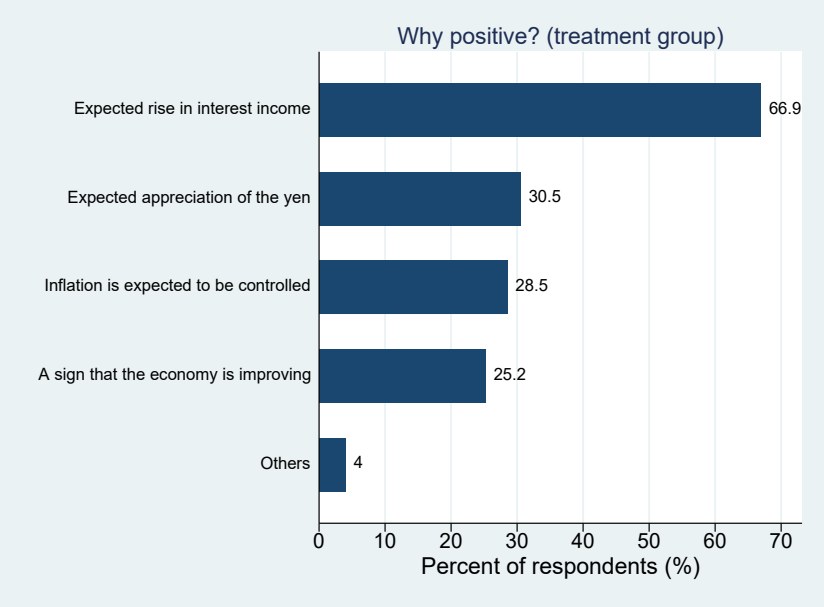
Notes: The outcome variable is interest rate expectations. See also the notes for Figure 2(a).

Figure 3: Ordered Probit estimation results



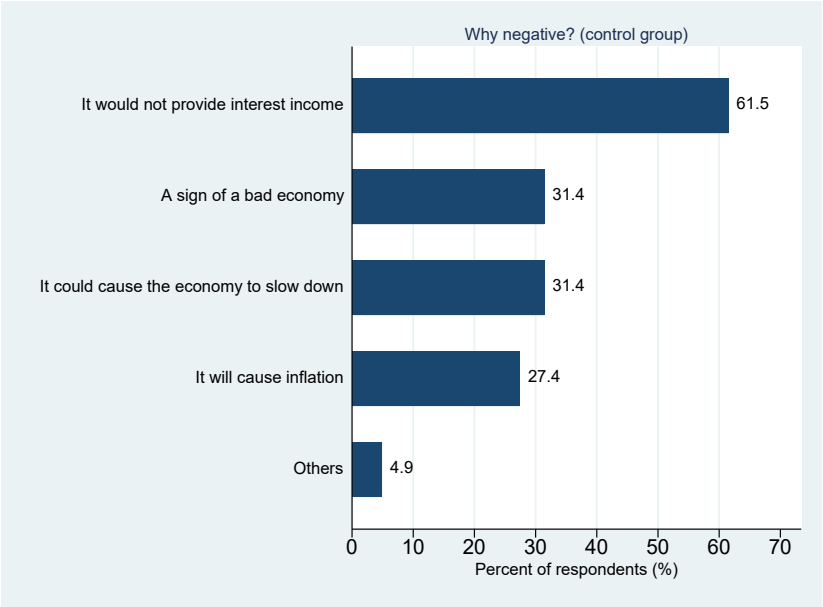
Notes: The figure shows the estimation results of the marginal effects of treatment on household consumption using ordered probit, along with a 95% confidence interval. The dependent variable represents the impact of the given monetary policy scenario on household consumption, and can take on five values: "fairly negative," "slightly negative," "neither positive nor negative," "slightly positive," and "fairly positive." The key variable is a treatment dummy variable that takes a value of one if the respondent is assigned to the treatment group and zero otherwise. The estimation equation also contains the same control variables as in equation (1). Respondents who answered within 10 seconds are excluded to ensure the quality of responses.

Figure 4(a): Reasons for answers in the treatment group



Notes: The panel shows the results of asking the sample in the treatment group who answered that the impact on household consumption was "fairly positive" or "slightly positive" to give their reasons. The options were displayed in random order, and respondents were instructed to select all that apply. Respondents who answered in 10 seconds or less are excluded to ensure the quality of responses. See Appendix B for details of the survey questionnaire.

Figure 4(b): Reasons for answers in the control group



Notes: The above panel shows the results of asking the sample in the control group who answered that the impact on household consumption was "fairly positive" or "slightly positive" to give their reasons. The options were displayed in random order, and respondents were instructed to select all that apply. Respondents who answered in 10 seconds or less are excluded to ensure the quality of responses. See Appendix B for details of the survey questionnaire.

Appendix A: Additional Tables and Figures

Table A1: Schedule of monetary policy announcements

Wave	Press conference date	Changes in monetary policy	RCT
1	April 28, 2023		
2	June 16, 2023		
3	July 28, 2023	Increasing the flexibility in the YCC	
4	September 22, 2023		
5	October 31, 2023	Further increasing the flexibility in the YCC	
6	December 19, 2023		
7	January 23, 2024		
8	March 19, 2024	Ending the NIP, YCC, and purchases of ETFs, J-REITs	✓
9	April 26, 2024		
10	June 16, 2024		
11	July 31, 2024	Raising the policy rate to around 0.25%	✓
12	September 20, 2024		
13	October 31, 2024		
14	December 19, 2024		
15	January 24, 2025	Raising the policy rate to around 0.5%	✓
16	March 19, 2025		

Notes: In wave 3, the BOJ raised the upper limit on long-term interest rates to 1%. In wave5, the BOJ allowed long-term interest rates to exceed 1%. In wave 8, the BOJ ended its negative interest rate policy (NIP). It also terminated the conduct of the yield curve control (YCC) and purchases of exchange traded funds (ETFs) and Japanese real estate investment trusts (J-REITs). In wave 11, the BOJ raised its policy interest rate from around zero to around 0.25%. Finally, in wave 15, the BOJ raised its policy interest rate from around 0.25% to around 0.5%. The waves with no changes in monetary policy are left blank. The waves in which we conducted information intervention experiments are indicated with a check mark in the last RCT (randomized controlled trial) column.

Table A2: Impact of announcement on exposure to news

Outcome: News									
Wave	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Policy changed?			✓		✓			✓	
After	0.18***	0.12***	0.28***	0.17***	0.29***	0.16***	0.11***	0.31***	
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	
Number of respondents	1129	1091	1092	1102	1063	1050	1022	1097	
Wave	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	Pooled
Policy changed?			✓				✓		
After	0.16***	0.18***	0.33***	0.18***	0.21***	0.23***	0.25***	0.16***	0.21***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.01)
Wave fixed effects									✓
Number of respondents	1047	1046	1013	1003	1010	999	1042	1019	16825

Notes: The table shows the results of estimating Equation (1) for each wave. The outcome variable is a news dummy variable that takes a value of one if respondents heard or read news about the BOJ's monetary policy over the past week, and zero otherwise. Control variables are included in all columns. The last column shows the estimation result for all waves pooled together, with additional control for wave fixed effects. The numbers in parentheses are robust standard errors. ***, **, * indicate statistical significance level at 1%, 5%, and 10%, respectively.

Table A3: Impact of announcement on inflation expectations

Outcome: E[π]									
Wave	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Policy changed?			✓		✓			✓	
After	-0.34	-0.22	0.11	-0.29	-0.22	-0.02	-0.31	-0.35	
	(0.24)	(0.24)	(0.24)	(0.24)	(0.24)	(0.22)	(0.21)	(0.22)	
Number of respondents	952	909	933	901	905	916	892	916	
Wave	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	Pooled
Policy changed?			✓				✓		
After	0.02	0.38	0.01	-0.11	-0.25	0.06	-0.33	-0.26	-0.14**
	(0.24)	(0.23)	(0.23)	(0.23)	(0.24)	(0.24)	(0.23)	(0.24)	(0.06)
Wave fixed effects									✓
Number of respondents	880	916	880	858	861	862	890	872	14343

Notes: The outcome variable in this table is inflation expectations. See also the notes for Table A2.

Table A4: Impact of announcement on interest rate expectations

Outcome: E[i]									
Wave	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Policy changed?			✓		✓			✓	
After	-0.00	-0.00	-0.06	0.04	-0.07	0.07	0.03	-0.08	
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	
Number of respondents	657	659	661	629	644	663	644	695	
Wave	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	Pooled
Policy changed?			✓				✓		
After	0.03	0.01	0.01	0.00	0.06	0.04	-0.02	-0.09	-0.01
	(0.06)	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.02)
Wave fixed effects									✓
Number of respondents	653	658	637	638	648	629	690	658	10463

Notes: The outcome variable in this table is interest rate expectations. See also the notes for Table A2.

Table A5(a): Descriptive statistics for the information provision experiment at wave 8

Wave 8	Treatment	Control	Difference (Treat − Control)
Demographics			
Age (20-69)	50.3	51.6	-1.3 **
Male (0-1)	0.56	0.57	-0.01
Marriage (0-1)	0.56	0.56	0.01
Household income (10,000 yen)	575	589	-13.9
Homeowner (0-1)	0.69	0.67	0.01
Child (0-1)	0.47	0.47	0.00
No-job (0-1)	0.12	0.11	0.01
Number of respondents	1251	610	

Notes: See notes for Table 1.

Table A5(b): Descriptive statistics for the information provision experiment at wave 11

Wave 11	Treatment	Control	Difference (Treat − Control)
Demographics			
Age (20-69)	49.6	51.1	-1.5
Male (0-1)	0.55	0.53	0.02
Marriage (0-1)	0.55	0.58	-0.03
Household income (10,000 yen)	626	625	0.7
Homeowner (0-1)	0.69	0.73	-0.04
Child (0-1)	0.43	0.47	-0.04
No-job (0-1)	0.13	0.12	0.01
Number of respondents	396	374	

Notes: See notes for Table 1.

Table A5(c): Descriptive statistics for the information provision experiment at wave 15

Wave 15	Treatment	Control	Difference (Treat − Control)
Demographics			
Age (20-69)	50.2	50.6	-0.4
Male (0-1)	0.54	0.57	-0.04
Marriage (0-1)	0.65	0.67	-0.01
Household income (10,000 yen)	670	676	-5.7
Homeowner (0-1)	0.73	0.71	0.02
Child (0-1)	0.58	0.59	-0.01
No-job (0-1)	0.11	0.07	0.03
Number of respondents	416	401	

Notes: See notes for Table 1.

Table A6: Estimation results based on equation (2) (follow-up survey)

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ΔE[π]			ΔE[i]			ΔE[GDP]		
	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)
Treatment	-0.09	-0.21	0.05	0.05	0.03	-0.17***	0.20	0.13	-0.25
	(0.17)	(0.21)	(0.25)	(0.05)	(0.06)	(0.06)	(0.18)	(0.30)	(0.26)
Prior mean (outcome)	4.89	4.34	6.13	1.24	1.36	1.27	0.93	1.02	1.06
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of respondents	1548	543	650	1027	501	588	1275	522	622

Notes: This table shows the results of a follow-up survey conducted two weeks after each experiment. No information is provided to any of the groups in this survey. See also notes for Table 3.

Table A7: Estimation results based on equation (3) (follow-up survey)

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	E[π]			E[i]			E[GDP]		
	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)	Wave 8 (UMP)	Wave 11 (0.25%)	Wave 15 (0.5%)
Prior	0.59***	0.68***	0.53***	0.61***	0.68***	0.67***	0.47***	0.53***	0.47***
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.05)	(0.07)	(0.07)	(0.07)
Treatment×Prior	0.06	0.03	-0.06	0.02	-0.03	-0.21***	0.10	-0.14	-0.01
	(0.05)	(0.08)	(0.09)	(0.06)	(0.08)	(0.07)	(0.09)	(0.13)	(0.09)
Treatment	-0.43	-0.28	0.61	0.00	0.06	0.16*	0.01	0.40	-0.15
	(0.31)	(0.36)	(0.54)	(0.08)	(0.12)	(0.09)	(0.18)	(0.27)	(0.21)
Prior mean (outcome)	4.89	4.34	6.13	1.24	1.36	1.27	0.93	1.02	1.06
Control variables	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of respondents	1548	543	650	1027	501	588	1275	522	622

Notes: This table shows the results of a follow-up survey conducted two weeks after each experiment. No information is provided to any of the groups in this survey. See also notes for Table 4.

Table A8: Descriptive statistics for the hypothetical interest rate hike experiment

	Treatment	Control	Difference (Treat − Control)
Respondent characteristics elicited before treatment			
Age (20-69)	50.1	51.4	-1.29
Male (0-1)	0.55	0.57	-0.02
Marriage (0-1)	0.54	0.58	-0.04
Household income (10,000 yen)	567	602	-34.52
Homeowner (0-1)	0.68	0.70	-0.03
Child (0-1)	0.46	0.50	-0.04
No-job (0-1)	0.14	0.14	0.00
Deposit (10,000 yen)	1428	1595	-167.26
Adjustable-rate loan holder (0-1)	0.13	0.15	-0.02
Consumption responses elicited after treatment			
Fairly positive	0.06	0.06	0.01
Slightly positive	0.23	0.14	0.09 ***
Neither positive nor negative	0.32	0.32	0.00
Slightly negative	0.22	0.25	-0.03
Fairly negative	0.16	0.22	-0.07 ***
Number of respondents	510	474	

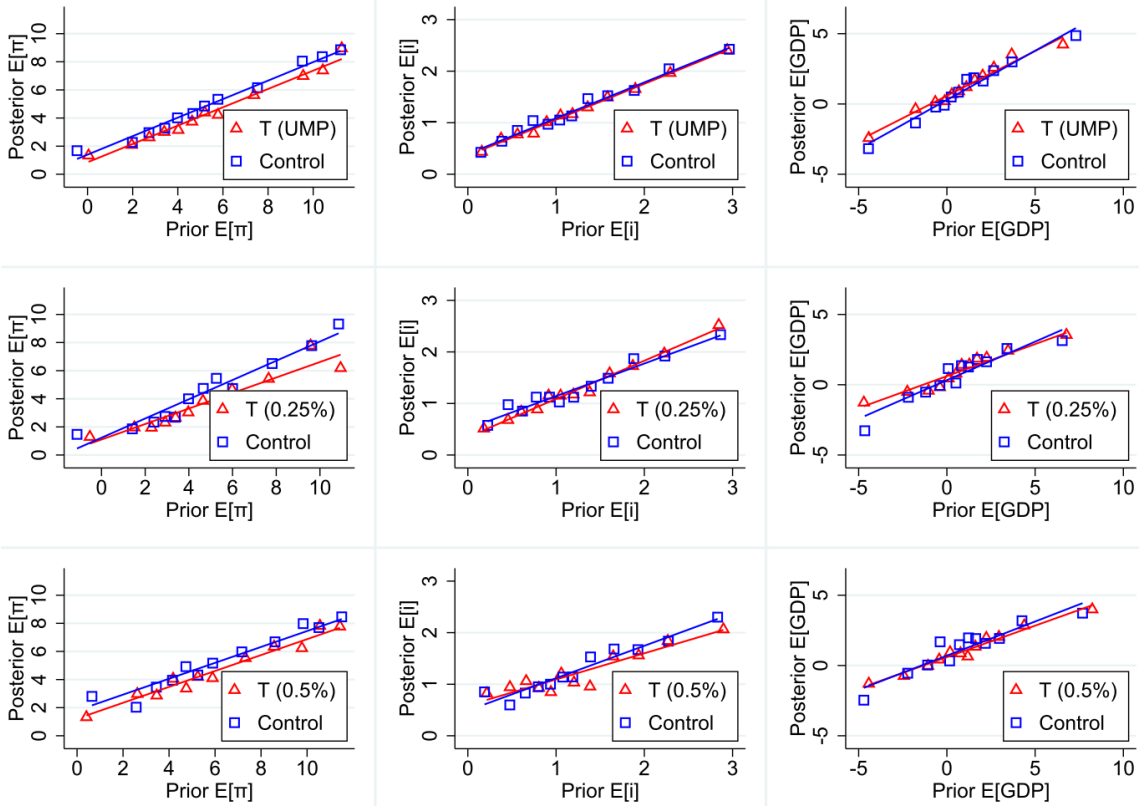
Notes: The deposit refers to the household savings (*yochokin*) and excludes other assets such as stocks, bonds, mutual funds, housing assets, and gold. The consumption response represents the answers to the question "Would this have a positive or negative effect on your household consumption?" after being given a hypothetical monetary policy scenario. The treatment group was given the scenario "Imagine that the BOJ raises the interest rate in light of the current economic situation," whereas the control group was given the scenario "Imagine that the BOJ maintains its current zero interest rate policy in light of the current economic situation." Respondents who answered in 10 seconds or less are excluded to ensure the quality of responses. ***, **, * indicate statistical significance level at 1%, 5%, and 10%, respectively.

Table A9: NHK survey results

(Survey month)	(1) End of NIP (April, 2024)	(2) Rate hike to 0.25% (August, 2024)
Highly appreciate	11.2%	10.9%
Somewhat appreciate	49.1%	43.0%
Do not appreciate very much	21.7%	24.2%
Do not appreciate at all	6.5%	8.4%
Don't know, or no answer	11.5%	13.5%
Number of respondents	1,204	1,199

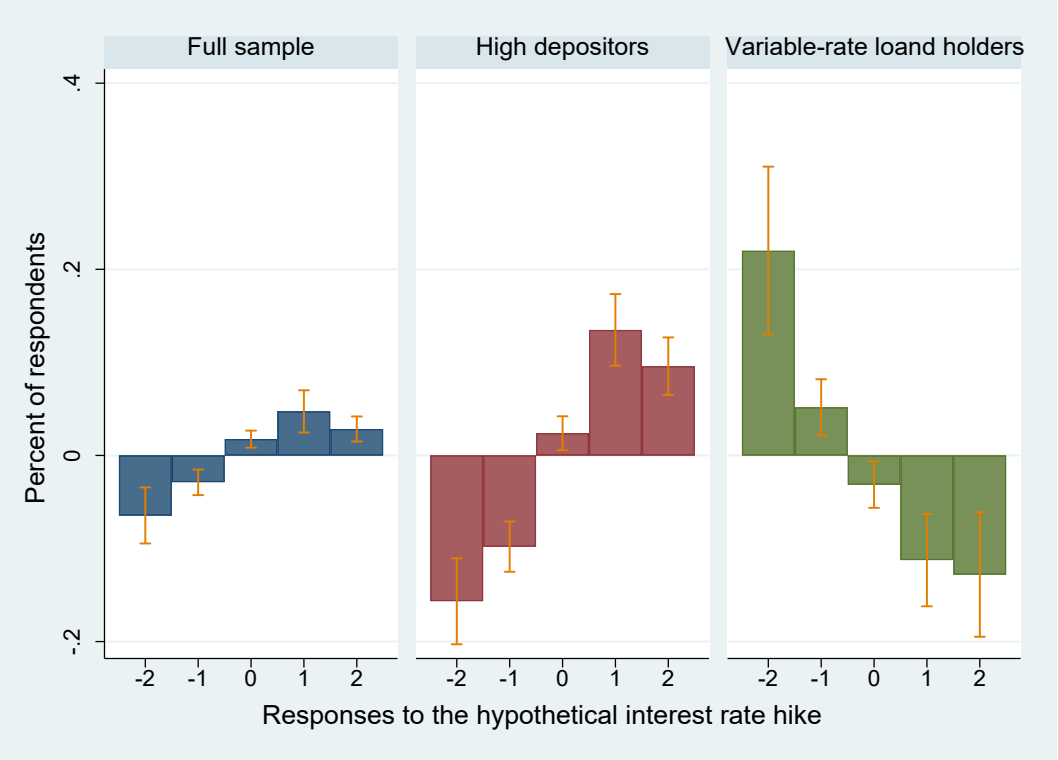
Notes: This table shows the results of telephone opinion polls conducted by NHK, Japan's public broadcaster, in April and August 2024. Column (1) shows the responses to the question, "The BOJ ended its negative interest rate policy (NIP) in March and raised interest rates for the first time in 17 years. Do you appreciate this decision?" Column (2) shows the responses to the question, "Following the end of its negative interest rate policy in March, the BOJ decided to raise the policy interest rate by approximately 0.25%. Do you appreciate this decision?"

Figure A1: Binned scatterplots based on equation (3)



Notes: This figure is a graphical representation of the estimation results based on equation (3). The first row shows the results for wave 8 (end of unconventional monetary policy), the second row shows the results for wave 11 (interest rate hike to 0.25%), and the third row shows the results for wave 15 (interest rate hike to 0.5%). On the other hand, the outcome variables are inflation expectations in the first column, interest rate expectations in the second column, and GDP growth expectations in the third column. Each figure shows a bin scatter plot for each group with a fitted line.

Figure A2: Responses to the hypothetical interest rate hike by asset position



Notes: High depositors are respondents who hold savings deposits of 10 million yen or more. The numbers on the x-axis represent the following: 2=fairly positive; 1=somewhat positive; 0=neither positive nor negative; -1=somewhat negative; and -2=fairly negative. See also the notes for Figure 3.

Appendix B: Questionnaire

B1. High frequency identification (before and after each press conference)

Q1(News dummy): Over the past week, have you seen or heard any news about the Bank of Japan's monetary policy?

- ☐ Yes
- ☐ No
- ☐ I don't know

Q2 (E[π]): Over the next year, by approximately how much do you think prices in Japan will change?

- ☐ Increase by 11% or more
- ☐ Increase by 10%
- ☐ Increase by 9%
- ☐ Increase by 8%
- ☐ Increase by 7%
- ☐ Increase by 6%
- ☐ Increase by 5%
- ☐ Increase by 4%
- ☐ Increase by 3%
- ☐ Increase by 2%
- ☐ Increase by 1%
- ☐ Remain unchanged
- ☐ Decrease by 1%
- ☐ Decrease by 2%
- ☐ Decrease by 3%
- ☐ Decrease by 4%
- ☐ Decrease by 5%
- ☐ Decrease by 6% or more
- ☐ I don't know

Q3 (E[i]): One year from now, if the average Japanese person takes out a mortgage with an adjustable interest rate, what percentage do you think the interest rate will be?

- ☐ 0.1%
- ☐ 0.2%
- ☐ 0.3%

  … (0.1% increments)

- ☐ 2.9%

☐ 3.0%
☐ 3.1% or more
☐ I don’t know

B2 Survey on the degree of anticipation for monetary policy

Surveys were conducted in December 2024 (wave 13) and January 2025 (wave 14), one week before the monetary policy meeting. Each survey consists of the following three questions.

Q1: The Bank of Japan decides and announces its monetary policy at monetary policy meetings. Do you know when the next monetary policy meeting will be held?
*Please answer as it is, without looking it up on the internet, etc.

☐ I don't know / I'm not interested.
☐ January
☐ February
☐ March
☐ April
☐ May
☐ June
☐ July
☐ August
☐ September
☐ October
☐ November
☐ December

Q2: Do you know what percentage the Bank of Japan is currently setting its policy interest rate at?
*If you don't know, please leave the box blank and proceed to the next question.
*Please answer as it is, without looking it up on the internet, etc.
*The policy interest rate refers to the overnight call rate, which the Bank of Japan sets as its target.

Answers: %

Q3: What decisions or announcements do you expect to be made at the next monetary policy meeting? If you “do not have any expectations” or “are not interested”, please leave the answer blank.

Answers:

B3. Information provision experiments

(Three outcome variables)

Q1 (E[π]): Over the next year, by approximately how much do you think prices in Japan will change?

- ☐ Increase by 11% or more
- ☐ Increase by 10%
- ☐ Increase by 9%
- ☐ Increase by 8%
- ☐ Increase by 7%
- ☐ Increase by 6%
- ☐ Increase by 5%
- ☐ Increase by 4%
- ☐ Increase by 3%
- ☐ Increase by 2%
- ☐ Increase by 1%
- ☐ Remain unchanged
- ☐ Decrease by 1%
- ☐ Decrease by 2%
- ☐ Decrease by 3%
- ☐ Decrease by 4%
- ☐ Decrease by 5%
- ☐ Decrease by 6% or more
- ☐ I don't know

Q2 (E[i]): One year from now, if the average Japanese person takes out a mortgage with an adjustable interest rate, what percentage do you think the interest rate will be?

- ☐ 0.1%
- ☐ 0.2%
- ☐ 0.3%

  … (0.1% increments)

- ☐ 2.9%
- ☐ 3.0%
- ☐ 3.1% or more
- ☐ I don't know

Q3 (E[GDP]): Over the next year, by how much do you think Japan's real GDP will change?
Notes) Real GDP in 2023 grew by 1.5% compared to the previous year.

- ☐ Increase by 11% or more
- ☐ Increase by 10%
- ☐ Increase by 9%
- ☐ Increase by 8%
- ☐ Increase by 7%
- ☐ Increase by 6%
- ☐ Increase by 5%
- ☐ Increase by 4%
- ☐ Increase by 3%
- ☐ Increase by 2%
- ☐ Increase by 1%
- ☐ Remain unchanged
- ☐ Decrease by 1%
- ☐ Decrease by 2%
- ☐ Decrease by 3%
- ☐ Decrease by 4%
- ☐ Decrease by 5%
- ☐ Decrease by 6% or more
- ☐ I don’t know

The above questions Q1 to Q3 are asked twice using the same wording. Between the two surveys, the randomly selected treatment group is provided with the following information.

(Wave 8 experiment, April 10–14, 2024)

Treatment group 1

The Bank of Japan decided last month to lift its negative interest rate policy for the first time in 17 years and raise its policy interest rate to around 0-0.1%. With this in mind, I'd like to ask you again.

Treatment group 2

The Bank of Japan decided last month to end the yield curve control (YCC) policy, which it had been implementing since 2016, as well as its purchases of exchange-traded funds (ETFs) and real estate investment trusts (REITs), which it had been implementing since 2010. With this in mind, I'd like to ask you again.

Control group

No information provided.

(Wave 11 experiment, August 13–16, 2024)

Treatment group

At the end of last month, the Bank of Japan decided to raise its policy interest rate to around 0.25%. With this in mind, I'd like to ask you again.

Control group

No information provided.

(Wave 15 experiment, February 4–9, 2025)

Treatment group

At the end of last month, the Bank of Japan decided to raise its policy interest rate to around 0.5%. With this in mind, I'd like to ask you again.

Control group

No information provided.

(Follow-up survey)

A follow-up survey is conducted two weeks after each wave of experiments. The same three outcome variables (Q1−Q3) are elicited, and this time there is no information provision in any of the groups.

B4. Survey on the impact of a hypothetical interest rate hike on household consumption (Preliminary survey conducted on February 17–21, 2024)

Q1: How much savings does your household have?
*Please answer this question excluding other assets (stocks, bonds, investment trusts, housing assets, gold, etc.).

- ☐ Less than 2.5 million yen
- ☐ 2.5 to 5 million yen
- ☐ 5 to 7.5 million yen
- ☐ 7.5 to 10 million yen
- ☐ 10 to 12.5 million yen
- ☐ 12.5 to 15 million yen
- ☐ 15 to 17.5 million yen

☐ 17.5 to 20 million yen
☐ 20 to 25 million yen
☐ 25 to 30 million yen
☐ 30 to 35 million yen
☐ 35 to 40 million yen
☐ 40 to 45 million yen
☐ 45 to 50 million yen
☐ 50 to 100 million yen
☐ 100 million yen or more
☐ I don't know/I don't want to answer

Q2: Does your household currently have any debts?
*Debt includes all types of debt, such as housing loans and car loans.

☐ I have no debt
☐ I have debt with adjustable interest rates
☐ I have debt with fixed interest rates
☐ I don't know / I don't want to answer

***** Treatment group *****

Q3: Please imagine that the Bank of Japan has raised interest rates in light of the current economic situation. Is this a positive or negative factor for your household consumption?
*If it is both, please answer the total impact.

☐ It's fairly positive
☐ It's slightly positive
☐ It's neither positive nor negative
☐ It's slightly negative
☐ It's fairly negative
☐ I don't know / I don't want to answer

(for those who answered “fairly positive” or “slightly positive” in Q3)

Q4a: We would like to ask those who answered “positive”. Why is it positive for your household consumption? (Please select all that apply.)

* “Others” and “I don’t know / I don’t want to answer” are always displayed in the bottom two rows, and the top four options are displayed in random order.

☐ Expected rise in interest income
☐ A sign that the economy is improving

☐ Inflation is expected to be controlled
☐ Expected appreciation of the yen
☐ Others
☐ I don't know / I don't want to answer

(for those who answered "fairly negative" or "slightly negative" in Q3)

Q4b: We would like to ask those who answered "negative". Why is it negative for your household consumption? (Please select all that apply.)

* "Others" and "I don't know / I don't want to answer" are always displayed in the bottom two rows, and the top five options are displayed in random order.

☐ The economy could weaken
☐ Loan repayments would increase
☐ It will cause inflation
☐ The fiscal situation will worsen
☐ Expected appreciation of the yen
☐ Others
☐ I don't know / I don't want to answer

***** Control group *****

Q3: Please imagine that the Bank of Japan has decided to maintain its current policy of zero interest rates in light of the current economic situation. Is this a positive or negative factor for your household consumption?
*If it is both, please answer the total impact.

☐ It's fairly positive
☐ It's slightly positive
☐ It's neither positive nor negative
☐ It's slightly negative
☐ It's fairly negative
☐ I don't know / I don't want to answer

(for those who answered "fairly positive" or "slightly positive" in Q3)

Q4a: We would like to ask those who answered "positive". Why is it positive for your household consumption? (Please select all that apply.)

* "Others" and "I don't know / I don't want to answer" are always displayed in the bottom two rows, and the top five options are displayed in random order.

☐ Loan repayments are reused

- ☐ Expected stimulative effect on the economy
- ☐ Inflation is expected to be controlled
- ☐ Cost of new borrowing is lower
- ☐ Beneficial to the fiscal situation
- ☐ Others
- ☐ I don't know / I don't want to answer

(for those who answered "fairly negative" or "slightly negative" in Q3)

Q4b: We would like to ask those who answered "negative". Why is it negative for your household consumption? (Please select all that apply.)

* "Others" and "I don't know / I don't want to answer" are always displayed in the bottom two rows, and the top four options are displayed in random order.

- ☐ It would not provide interest income
- ☐ A sign of a bad economy
- ☐ It could cause the economy to slow down
- ☐ It will cause inflation
- ☐ Others
- ☐ I don't know / I don't want to answer